

## HIGHLIGHTS

### Browns Range Heavy Rare Earths Project

- Major resource upgrade announced on 15 October 2013, with current resources now of 28,084 tonnes contained TREO - a 165% increase to previous resource position.
- Further resource upgrade planned for March 2014, following outstanding drill results from Wolverine which confirmed extensions to mineralisation at depth and to the west of current resource models.
- Wolverine assays released during the quarter return some of the highest grade results, including the best intersection to date of **37m @ 2.91%TREO**
- Increase in the global exploration target for the Browns Range Project to between 10,000 and 20,000t<sup>1</sup> contained TREO in addition to the current resource base of 28,084 tonnes.
- Beneficiation pilot plant testing commences in early January to test two flow sheet options and to produce mineral concentrate for the hydrometallurgical pilot plant testing planned for March 2014.
- Browns Range Pre-Feasibility Study is well progressed and will include the upgrade in resources planned for March.
- Work continuing on environmental approvals and land access, with programs progressing on schedule.
- Outstanding rock chip samples from new Boulder Ridge prospect – results above 12% TREO, and 99% HREO.

### Corporate

- \$6m received in December from Research and Development rebate for year ended 30 June 2013. Follows additional \$1.52m received in early October from year ended 30 June 2012.
- PCF Capital engaged for Browns Range HRE production financing strategy.
- Conglin Yue appointed to position of Executive Chairman, with Kevin Schultz appointed as Deputy Chairman.

<sup>1</sup> The potential quantity of contained TREO targeted at the project is based on existing drill results from 2011, 2012 and 2013, but is still conceptual in nature. Drilling at Wolverine (as detailed in ASX announcement 1 October 2013, and in this announcement), completed since the current Mineral Resource estimate, indicates mineralisation extends beyond the current resource outline. It is uncertain if further exploration will result in an increase in the Mineral Resource at this deposit.

### ASX CODE: NTU

**Northern Minerals Limited**  
ABN 61 119 966 353

#### Directors:

Conglin Yue - *Executive Chairman* \*  
Kevin Schultz - *Deputy Chairman*  
George Bauk - *Managing Director / CEO*  
Adrian Griffin - *Non-exec Director*  
Colin McCavana - *Non-exec Director*  
Yanchun Wang - *Non-exec Director* \*  
Bin Cai - *Alternate Director* \*

#### Management:

Robin Wilson - *Exploration Manager*  
Robert Sills - *Marketing Manager*  
Robin Jones - *Project Manager*  
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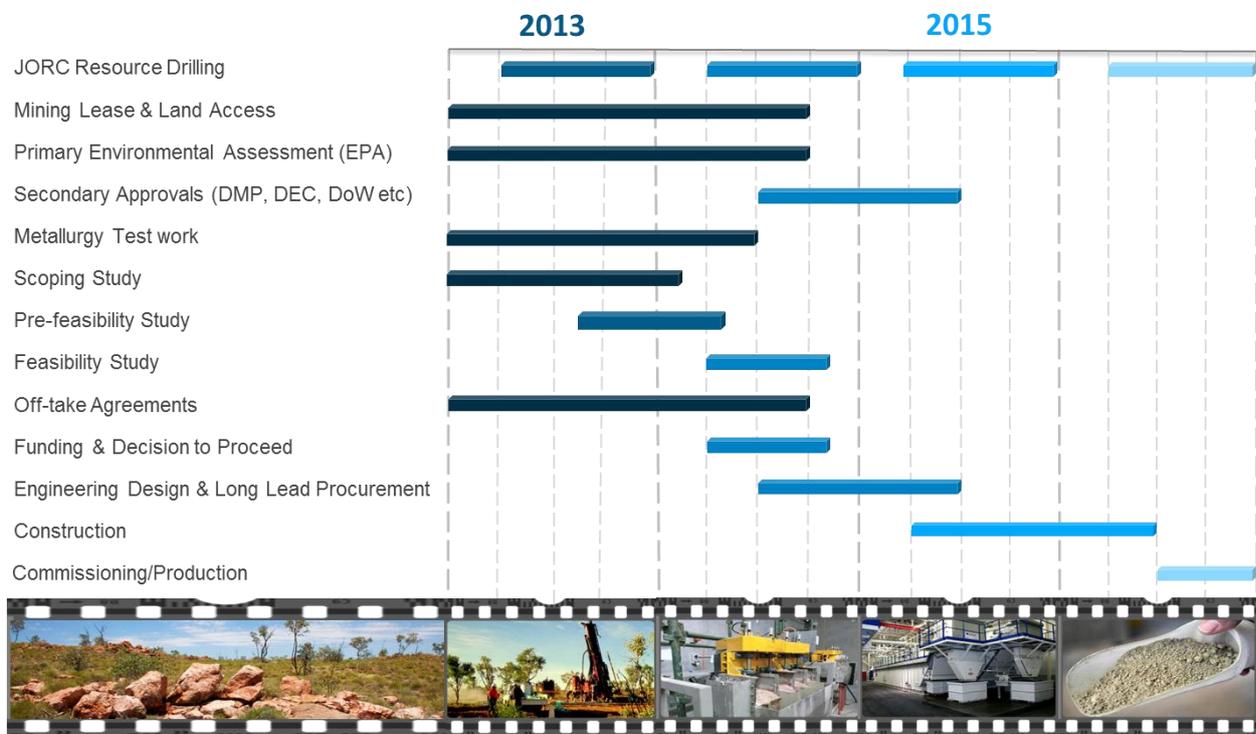
## EXECUTIVE SUMMARY

A key focus of the December quarter was the ongoing exploration and resource expansion program at Browns Range. In October, the Company announced a major upgrade in the JORC compliant resource estimate for the Browns Range Project, following the successful drilling programs undertaken throughout the year. The resource features a dominance of the high value dysprosium and yttrium elements, reinforcing the strong competitive advantage of the Browns Range project. The upgrade provides a significant resource for a start-up mining operation, and further de-risks the project as the Company aims for production in 2016.

The drilling program during the quarter completed what has been a defining exploration program for Northern Minerals during 2013. The Company completed more than 46,000 meters of drilling in the calendar year, delivering the upgrade in resources, and identifying significant further scope to build the mineral inventory. A further upgrade is now planned for March 2014, with an exploration target of an additional 10,000 – 20,000t contained TREO<sup>1</sup>.

Work has ramped up on a number of work programs as part of the Browns Range Pre-Feasibility Study (PFS). Following the commencement of the PFS and the significant expansion in the project development team in the previous quarter, the operational focus for the first half of 2014 will be on completing the PFS and shifting to the Feasibility Study phase, as well as advancing land access requirements and environmental approvals. Activities for the Scoping Study have been completed and it is under internal review. Testing continues on the beneficiation and hydrometallurgical circuits, with large scale beneficiation pilot plant testing commencing in January. Environmental and licensing work is also progressing on schedule.

During the quarter, the Company received approximately \$7.5 million from research and development rebates, including \$6 million from the 2013 financial year, and an additional \$1.5m from the previous period.



Summary Timeline to Production



## Browns Range Heavy Rare Earths Project

### SUBSTANTIAL INCREASE IN JORC COMPLIANT RESOURCE ESTIMATE

The December quarter included a number of key achievements in the Company's resource expansion strategy, with a major upgrade in JORC compliant resource estimate for the Browns Range project, and additional drilling success supporting further upgrades proposed for early 2014. The results capped off what was an outstanding drilling campaign across Browns Range during the year, which included more than 46,000 meters of exploration drilling, and 15,000 assayed samples during the 2013 calendar year.

In October, following a 24,000m drilling program completed between April and July, the Company announced a substantial increase in the JORC compliant Mineral Resource estimate at Browns Range. The upgrade represented a 165% increase in metal tonnes (of 17,584 tonnes TREO) from the initial Mineral Resource estimate announced for Browns Range in December 2012 (10,500 tonnes TREO).

The increase took the estimated Mineral Resource at Browns Range to 4.13Mt @ 0.68% TREO comprising 28,084 tonnes contained TREO (using a cut-off grade of 0.15% TREO). At the Wolverine deposit the total Mineral Resource is now estimated at 2.14 million tonnes at 0.86% TREO comprising 18,404t TREO (see announcement to ASX on 15 October 2013).

### Browns Range Project – Global JORC compliant Mineral Resource Estimate as at 15 October 2013

| Deposit            | Category           | Mt   | TREO % | Dy <sub>2</sub> O <sub>3</sub> Kg/t | Y <sub>2</sub> O <sub>3</sub> Kg/t | HREO % | TREO Tonnes |
|--------------------|--------------------|------|--------|-------------------------------------|------------------------------------|--------|-------------|
| Wolverine          | Indicated          | 1.57 | 0.87   | 0.77                                | 5.08                               | 90     | 13,659      |
|                    | Inferred           | 0.57 | 0.82   | 0.72                                | 4.66                               | 88     | 4,674       |
|                    | Total <sup>2</sup> | 2.14 | 0.86   | 0.76                                | 4.97                               | 89     | 18,404      |
| Gambit West        | Indicated          | 0.11 | 1.42   | 1.24                                | 8.07                               | 89     | 1,562       |
|                    | Inferred           | 0.25 | 1.11   | 0.98                                | 6.64                               | 85     | 2,775       |
|                    | Total <sup>2</sup> | 0.36 | 1.2    | 1.06                                | 7.08                               | 88     | 4,320       |
| Gambit             | Indicated          | 0.05 | 0.94   | 0.87                                | 6.00                               | 97     | 470         |
|                    | Inferred           | 0.06 | 1.11   | 1.01                                | 7.29                               | 95     | 666         |
|                    | Total <sup>2</sup> | 0.11 | 1.03   | 0.95                                | 6.68                               | 96     | 1,133       |
| Area 5             | Indicated          | 0.80 | 0.3    | 0.20                                | 1.27                               | 68     | 2,400       |
|                    | Inferred           | 0.72 | 0.27   | 0.19                                | 1.19                               | 71     | 1,944       |
|                    | Total <sup>1</sup> | 1.52 | 0.28   | 0.20                                | 1.23                               | 70     | 4,256       |
| Total <sup>1</sup> | Indicated          | 2.53 | 0.72   | 0.62                                | 4.03                               | 83     | 18,216      |
|                    | Inferred           | 1.60 | 0.63   | 0.53                                | 3.49                               | 80     | 10,080      |
|                    | Total <sup>2</sup> | 4.13 | 0.68   | 0.58                                | 3.82                               | 82     | 28,084      |

<sup>2</sup> - Rounding may cause some computational discrepancies (TREO (metal) tonnes estimated from Mt x TREO%)

TREO = Total Rare Earth Oxides – La<sub>2</sub>O<sub>3</sub>, CeO<sub>2</sub>, Pr<sub>6</sub>O<sub>11</sub>, Nd<sub>2</sub>O<sub>3</sub>, Sm<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Tb<sub>4</sub>O<sub>7</sub>, Dy<sub>2</sub>O<sub>3</sub>, Ho<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>

HREO = Heavy Rare Earth Oxides – Total of Sm<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Tb<sub>4</sub>O<sub>7</sub>, Dy<sub>2</sub>O<sub>3</sub>, Ho<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>

The independent Mineral Resource estimate was completed by AMC Consultants Pty Ltd, and is classified and reported according to the guidelines of the 2012 JORC Code. It included a 75% increase in metal tonnes (of 7,904 tonnes TREO) at the Wolverine deposit, as well as maiden resources at the Gambit West, Gambit and Area 5 deposits. Significantly, 65% of the Total Mineral Resource is classified as Indicated, with the remainder in the Inferred category.



Once again, a key feature of the Browns Range resource is the dominance of the high value dysprosium and yttrium elements with average grades of 0.58kg/t and 3.82kg/t respectively within the Total (Indicated and Inferred) Resource. The Heavy Rare Earths (HRE) percentage of the Total Rare Earths is 82% (Indicated and Inferred Resource). The dominance of xenotime mineralisation and HRE is a major competitive advantage for Browns Range.

#### ADDITIONAL RESOURCE UPGRADE PLANNED

Northern Minerals also completed an additional drilling program across Wolverine during the second half of 2013. The program targeted extensions to mineralisation to the west and at depth, outside the current JORC resource outline. The program delivered some outstanding results, exceeded the Company's expectations, and featured some of the best intersections received at Wolverine. Following the success of the 4,000 metre program, Northern Minerals is now planning a further upgrade of the JORC compliant mineral resource in March 2014.

The assay results from Wolverine confirmed extensions of high grade HRE mineralisation both along strike and down to 500 meters vertical depth. The results include high grade and wide intersections, with the best single drill hole intersection recorded to date at the Wolverine prospect, with 37m @ 2.91% TREO. The results significantly increased the level of confidence in delivering a further upgrade of resources.

Significant intercepts include:

| Hole ID    | From (m) | To (m) | Interval (m) | TREO % | TREO (kg/t) | Dy <sub>2</sub> O <sub>3</sub> (kg/t) | Y <sub>2</sub> O <sub>3</sub> (kg/t) |
|------------|----------|--------|--------------|--------|-------------|---------------------------------------|--------------------------------------|
| BRWT0272   | 332      | 346    | 14           | 2.14   | 21.4        | 1.92                                  | 13.8                                 |
| BRWT0273   | 350      | 387    | 37           | 2.91   | 29.1        | 2.54                                  | 17.95                                |
| BRWT0274   | 266      | 28     | 20           | 0.77   | 7.7         | 0.62                                  | 4.19                                 |
| BRWT0275   | 304.1    | 337    | 32.9         | 2.11   | 21.1        | 1.78                                  | 12.1                                 |
| BRWT0276   | 349      | 385    | 36           | 2.12   | 21.2        | 1.82                                  | 12.59                                |
| BRWT0277   | 398      | 404    | 6            | 0.64   | 6.4         | 0.56                                  | 3.87                                 |
| BRWT0324   | 358      | 377    | 19           | 3.8    | 38          | 3.34                                  | 23.22                                |
|            | 383.7    | 425    | 41.3         | 1.06   | 10.6        | 0.93                                  | 6.19                                 |
| BRWT0325   | 403      | 407    | 4            | 2.5    | 25          | 2.05                                  | 14.45                                |
|            | 423      | 449    | 26           | 2.58   | 25.8        | 2.25                                  | 14.98                                |
| BRWT0326   | 279      | 296.9  | 17.9         | 1.47   | 14.7        | 1.26                                  | 8.69                                 |
| BRWT0327   | 457      | 489    | 32           | 1.34   | 13.4        | 1.19                                  | 8.07                                 |
| BRWT0328   | 303      | 318    | 15           | 1.71   | 17.1        | 1.57                                  | 9.96                                 |
| BRWT0332   | 496      | 504    | 8            | 2.46   | 24.6        | 2.15                                  | 14.44                                |
| BRWT0332W5 | 482.5    | 511.1  | 28.6         | 4.06   | 40.6        | 3.85                                  | 25.58                                |
| BRWT0332W1 | 472      | 485    | 13           | 2.23   | 22.3        | 1.82                                  | 13.51                                |
| BRWT0332W2 | 506      | 520.2  | 14.24        | 1.19   | 11.9        | 0.98                                  | 6.79                                 |
| BRWT0346   | 568      | 578    | 10           | 2.19   | 21.9        | 2.06                                  | 13.3                                 |
| BRWT0347*  | 298      | 326    | 28           | 1.6    | 16.0        | 1.38                                  | 9.62                                 |
| BRWT0261*  | 145      | 175    | 30           | 0.94   | 9.4         | 0.87                                  | 5.48                                 |

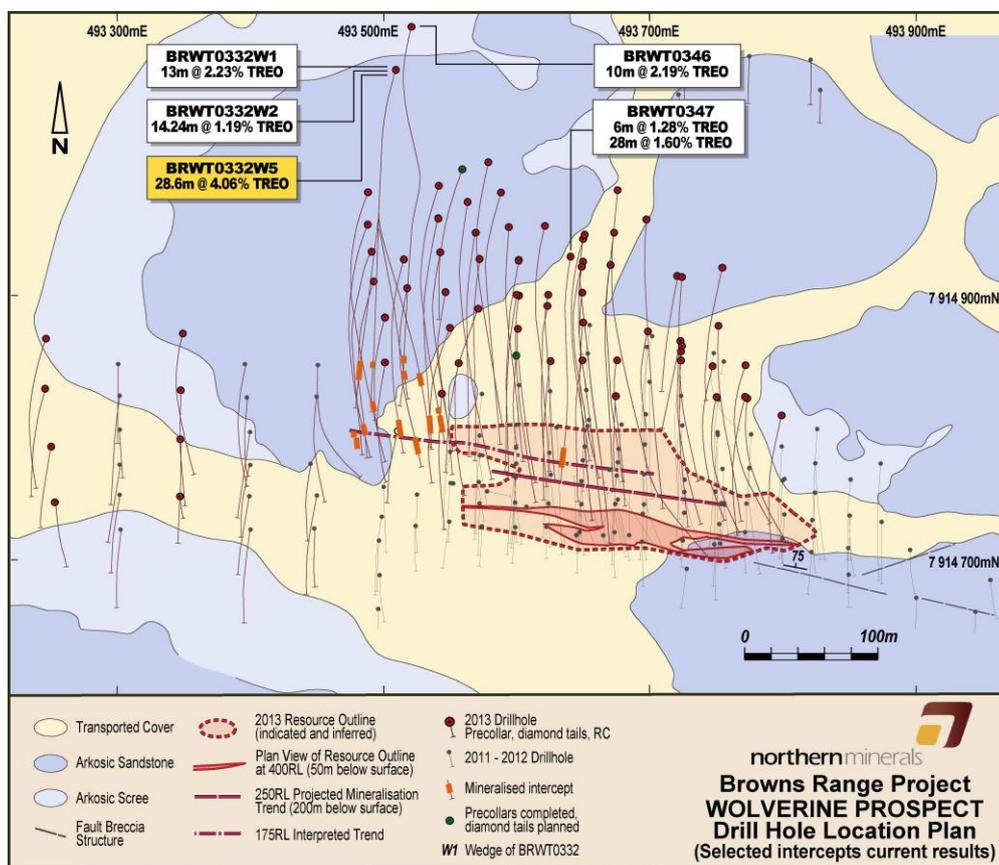
Mineralised intervals are down hole widths >2m @ 0.15% TREO, or 1m >0.30% TREO, not true widths. Intersections calculated using a 0.15% TREO cut-off and a maximum of 2m continuous internal dilution (cumulative dilution of intersection may be > 2m). No top cut has been applied. Samples were submitted to Genalysis Laboratory for REE analysis using a FP6/OM Sodium Peroxide Fusion Digest and ICP-MS. All significant intersections from the recent assay results and drill hole collar details are listed in the annexure below.  
TREO = Total Rare Earth Oxides - Total of La<sub>2</sub>O<sub>3</sub>, CeO<sub>2</sub>, Pr<sub>6</sub>O<sub>11</sub>, Nd<sub>2</sub>O<sub>3</sub>, Sm<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Tb<sub>4</sub>O<sub>7</sub>, Dy<sub>2</sub>O<sub>3</sub>, Ho<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>.



The Wolverine westerly plunging depth extension to mineralisation was tested by a total of 20 diamond drill holes. Three of these drill holes were wedge holes from a single parent drill hole (BRWT0332). All other holes were drilled with RC precollars of downhole depths between 119m and 239m.

The Company commenced the diamond drilling campaign at Wolverine in late August, with the resource extension drilling completed in late October. An RC drilling program was also completed in October to the west of the Wolverine deposit. The RC drilling program followed previous drilling in 2012 which had identified a near surface, lower-grade (<200m vertical depth) target area to the immediate west of the Wolverine deposit. Results from the RC drilling program were reported in the ASX announcement of 13 November, except for drillholes BRWR0330 and 333. Assay results have now been received for these two drill holes with BRWT0330 returning 5m @ 0.40% TREO while BRWT0333 returned no significant intersections.

**Wolverine Prospect – Drill hole location plan with last batch of results  
(Announced December 12 2013)**



**NEW GLOBAL RESOURCE TARGET**

In addition to the drilling at Wolverine, Northern Minerals has also been evaluating existing drilling data for economic mineralisation from other prospects such as Area 5 North and Banshee, with the potential to include maiden mineral resources at one or more of these prospects in the next resource update in March. As a result, additional RC drilling was completed for the Area 5 North prospect in November, to further outline the extent of mineralisation and to ensure any potential mineral resource is JORC compliant. It is uncertain if further exploration will result in the definition of a Mineral Resource at these prospects.

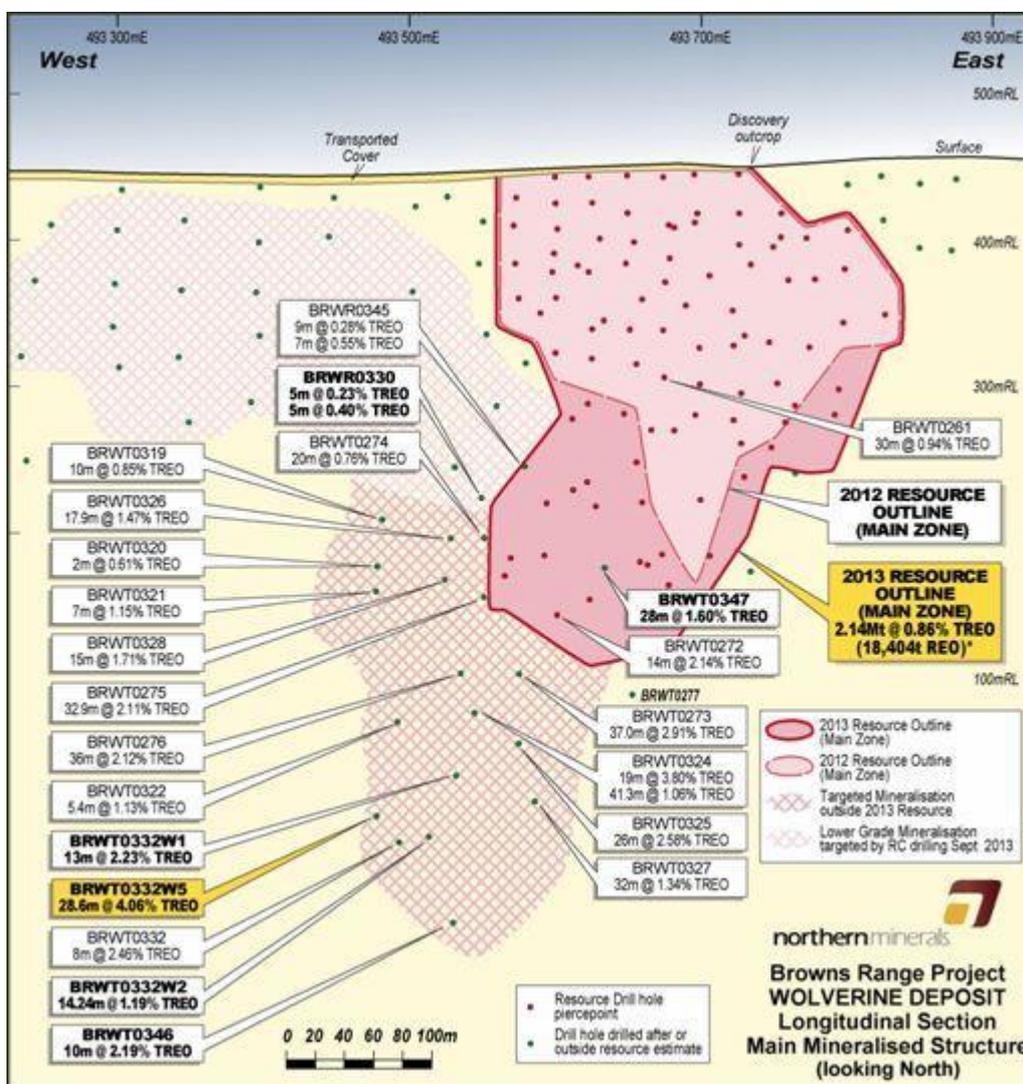


The combination of the better than expected results at Wolverine, and the potential to move some of the other prospects up the pipeline and into a mineral resource category, has given the Company the confidence to increase the targeted range for the next resource upgrade an additional 10,000 – 20,000t contained TREO. This target is additional to the current global JORC Compliant Resource of 28,084t contained TREO as detailed in the ASX announcement of 15 October 2013.

The potential quantity of contained TREO targeted at the project is based on existing drill results from 2011, 2012 and 2013, but is still conceptual in nature. Drilling at Wolverine (as detailed in ASX announcement 1 October 2013, and in this announcement), completed since the current Mineral Resource estimate, indicates mineralisation extends beyond the current resource outline. It is uncertain if further exploration will result in an increase in the Mineral Resource at this deposit.

Northern Minerals completed an infill drilling program at Wolverine and Gambit West which was focused on converting Inferred resources into the Indicated resource category. This program finished in November 2013 and results will be included in the updated JORC compliant resource estimate due in March 2014.

Figure 1 – Wolverine Prospect Long section (looking north)



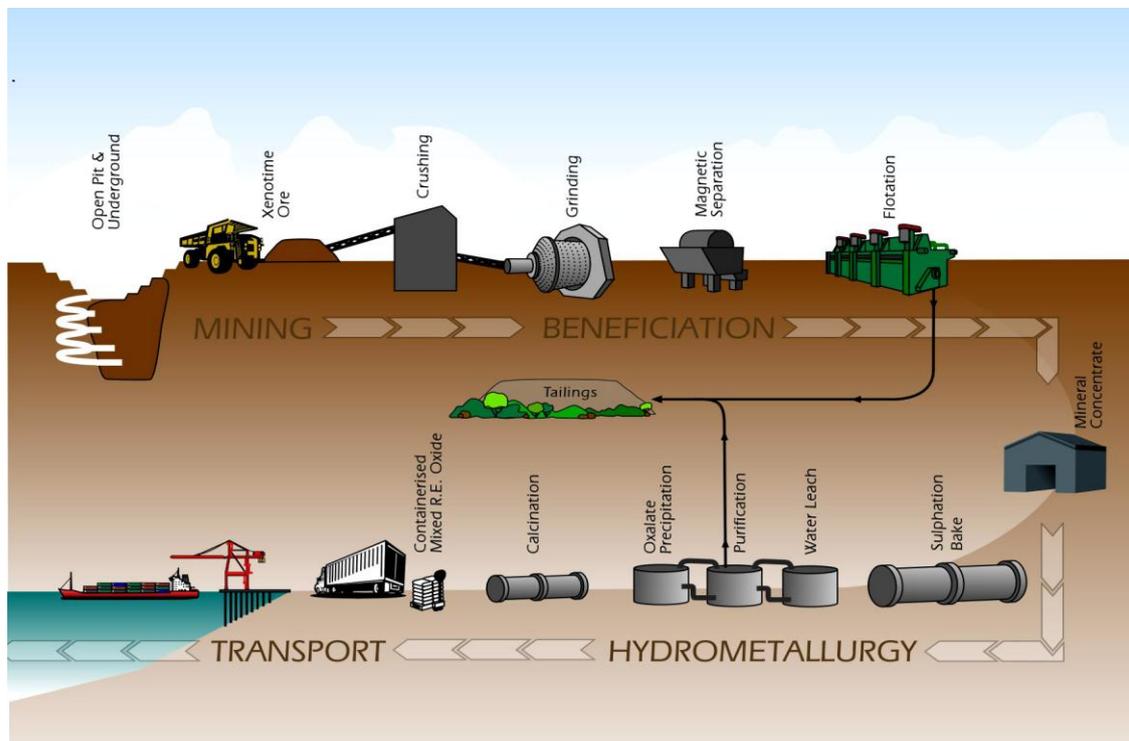


\* The potential quantity of TREO targeted at the Wolverine, Area 5 North and Banshee prospects is based on existing drill results from 2011, 2012 and 2013, but is still conceptual in nature. Additional drilling at Wolverine (detailed in ASX announcement 1 October 2013), completed since the current Mineral Resource estimate, indicates mineralisation extends beyond the current resource outline. It is uncertain if further exploration will result in an increase in the Mineral Resource at these two deposits.

**Browns Range Pipeline of Projects**

**METALLURGICAL TEST WORK AND FLOWSHEET DEVELOPMENT**

There has been considerable work completed on the development and optimisation of the Browns Range flowsheet. Results to date continue to reinforce the benefits of the HRE rich xenotime mineralisation at Browns Range, which in combination with the mainly silica host rock, provides a relatively simple conventional unit processing path to a high value end product.



**Browns Range Project – Proposed Mining and Processing Flowsheet**



The Company continues to test the two preferred beneficiation routes:

- 1) Whole of ore flotation,
- 2) Combination of wet high gradient magnetic separation (WHGMS) followed by flotation cleaning.

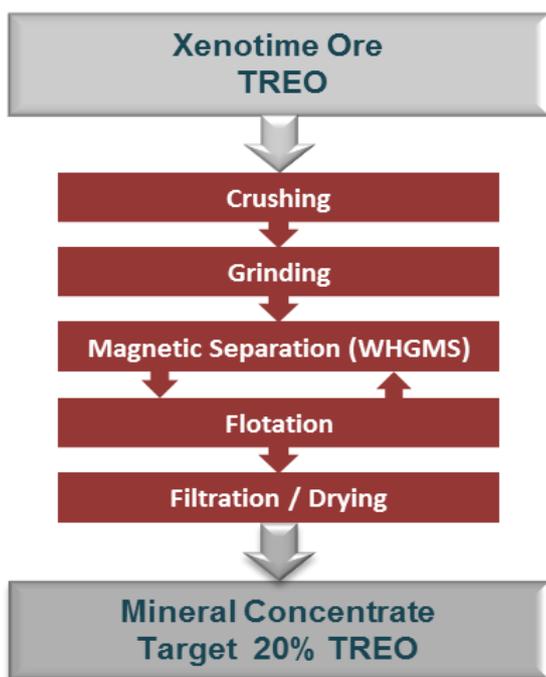
Over the past two quarters the Company has continued to make improvements in the recovery at target grade for both routes, and completed two successful mini pilot runs. In early January 2014, the Company commenced a large scale pilot operation on the 92 tonne bulk sample collected from Browns Range last quarter. The aim is to test the two flow sheet options, further characterise the Browns Range mineralisation and to produce mineral concentrate for the hydrometallurgical pilot plant testing planned for March 2014. The recovery and mineral concentrate grade for each process route will be included in the Pre-Feasibility Study to determine the most efficient and cost effective process for the beneficiation stage.

The beneficiation pilot plant is expected to operate over a period of three weeks and will be run at rates of up to 300kg/hr. The sample includes shallow trench samples from the Wolverine deposit, as well as deeper core samples (to 50m below surface) from the Wolverine and Gambit West deposits. The pilot process is expected to generate approximately 2,500 kg of mineral concentrate containing 20% TREO, which will then be sent to ANSTO for hydrometallurgical pilot plant testing.

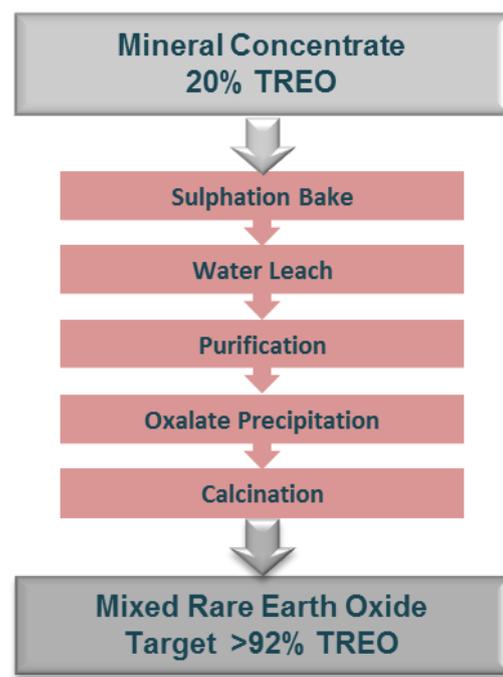
The Company continues to advance the next stage of the hydrometallurgical test work program with the successful operation of a bench scale semi-continuous run of the proposed flowsheet in the second half of 2013. The bench scale test work achieved a full simulation of the integrated semi-continuous system, with efficient recovery of rare earths as oxalates achieving an oxalate grade of 45.3% TREO. Calcination of the oxalates will produce a mixed RE oxide of >90% TREO.

Following the success of this bench scale semi-continuous test work program, the Company has been undertaking further optimisation test work on the process at ANSTO, in particular the sulphation bake/water leach step and the purification steps, in preparation for the larger scale pilot plant planned for March 2014. This pilot plant will produce a high purity mixed rare earth oxide which can ultimately be sent to potential end users.

**Beneficiation Flow Sheet**



**Hydrometallurgical Flow Sheet**



## GEOTECHNICAL ASSESSMENT

The Company previously engaged AMC Consultants to undertake a pit slope geotechnical assessment of the proposed Wolverine pit. To complete this assessment, nine diamond core holes have been drilled and logged, with geotechnical tests completed on samples of waste rock selected from this drilling. A preliminary assessment indicates the pit slope angles used in the previous scoping level mining studies at Wolverine could be steeper, which would result in a reduced strip ratio and lower mining cost.

## LICENSING AND APPROVALS

### Western Australian State Approvals

A regulator site visit to Browns Range took place in late October 2013. Representatives of the Office of the EPA (OEPA), the Department of Water (DoW), the Department of Environmental Regulation (DER) and the Department of Mines and Petroleum (DMP) participated in the site visit. Following on from the site visit, Northern Minerals has had further meetings with OEPA and has presented a briefing on the radiological aspects of the project to the DMP, the OEPA and the Radiological Council. Northern Minerals has also conducted some additional field surveys for protected mammals, which was completed in December 2013 and is also providing the OEPA with some additional data analysis of floristic information arising from field surveys conducted in May 2013 and May 2012.

Technical studies on surface hydrology, groundwater, air quality, mine waste geochemistry and physical characteristics are well advanced. Preparation of the "API" (Assess on Proponent Information) environmental impact assessment report is underway, with a view to submitting a draft API to the OEPA in the first half of 2014. It is envisaged that applications for other approvals required from the DMP, the DER and the DoW will be lodged later in 2014.

### Commonwealth Department of Environment (DoE)

Studies of terrestrial fauna protected under Commonwealth legislation are well advanced and should be completed by in the first quarter 2014. Studies of the radiological properties of the proposed Browns Range Project tailings are also in progress. The timing of the submission of the environmental referral to the Commonwealth Department of Environment is planned to proceed in parallel with the State approvals process.

## STAKEHOLDER ENGAGEMENT

The timing of the second round of community forums was been postponed from November 2013 to early 2014 to coincide with the finalisation of the API environmental impact assessment report. Given the postponement of the forums, a stakeholder update trip was undertaken in late November which included a community BBQ in Ringer Soak, meetings with the Shire of Halls Creek and Wyndham East Kimberley, and relevant government departments.

Project overview briefings were held with several Members of State Parliament including the Shadow Minister for Mines and Petroleum. Discussions continue with relevant State and Local Government stakeholders in regards to Ringer Soak, housing in Halls Creek, State Government royalties, local infrastructure and initiatives for economic development in the East Kimberley region.

A number of local employees from the Browns Range Project visited Perth from 25 to 29 November 2013 in which they undertook training, visited Parliament House and were given a comprehensive overview of the Company and the Browns Range Project. Northern Minerals also provided sponsorship to the Halls Creek Christmas Event and a donation of sports equipment to the Birlirr Ngawiyiwu Catholic School in Ringer Soak.

## SCOPING AND PRE-FEASIBILITY STUDIES

Work on the Browns Range Scoping Study and the inclusion of the October 2013 resource upgrade is now largely complete. Internal reviews are currently continuing, but the positive outcomes from the scoping study activities have strongly supported the Company moving ahead with the Pre-Feasibility Study (PFS).



Work on the Browns Range PFS commenced in the previous quarter. The PFS will be based primarily on the current flow sheet and will focus on exploring and developing opportunities highlighted through the Scoping Study whilst further de-risking the Project. The PFS is also proposed to include the additional resource upgrade planned for the first quarter of 2014, with the study then expected to be completed by the first half of 2014.

A number of consultants have been engaged to undertake a series of work programs on the PFS, with key engagements including:

DRA Pacific: on the beneficiation process plant, and the engineering and site services requirements (e.g. power supply, site buildings, workshops, water reticulation).

Hatch: on the hydrometallurgical process plant.

## Boulder Ridge– Exploration

In October, Northern Minerals released the first results from a reconnaissance rock chip sampling program at the Boulder Ridge Project (*results were included in the September quarterly*). The results included some outstanding, high-grade assay results of greater than 12% Total Rare Earth Oxide (TREO). They also featured a dominance of Heavy Rare Earths, with up to 99% of the TREO being high value HRE. Of the 19 samples collected from the prospect, 17 had a TREO grade above 1% including up to 1.15% dysprosium oxide, with xenotime mineralisation observed in several places.

By comparison, in 2010, Northern Minerals collected the first rock chips from the Wolverine deposit which returned up to 7.95% TREO. Since then, it has progressed into one of the highest grade HRE resources in the world. A follow-up soil sampling program is being planned at Boulder Ridge to refine targets for a first pass drilling program in 2014.

Boulder Ridge is located on a 100% NTU owned tenement (EL29594) in the Tanami region of the Northern Territory, about 100km south east of Northern Minerals' Browns Range HRE project. It is part of a 4,842km<sup>2</sup> tenement package granted last year. The package includes most of the eastern section of the Browns Range Dome, and extends southward toward the Tanami Gold mine.

Historical exploration activity at Boulder Ridge from the 1970s and 1980s had identified high grades of TREO from rock chip samples. The samples also indicated xenotime mineralisation within quartz veins hosted by silicified and brecciated sandstone.

## REE Market Update

### Marketing Opportunities

As confidence continues to grow in the Browns Range Project, so do the marketing opportunities for Northern Minerals and the Browns Range end products. In addition to the current MoU partner, Sumitomo Corporation, Northern Minerals continues to develop interest and opportunities with other global industry participants which have a vested interest in the development of additional supplies of heavy rare earths – dysprosium in particular - to feed demand for critical applications such as energy efficiency and power drive applications.



During October, Company representatives visited Japan and MoU partner Sumitomo, as well as meeting Australian trade officials in Tokyo. In November, the Company also attended and presented at the Roskill Metal Events International Rare Earths Conference in Hong Kong, providing an opportunity to meet with a wide range of industry representatives. During the meetings preliminary arrangements were made for potential customers to view the bulk beneficiation pilot testwork scheduled now being conducted at SGS in Perth. A key message from the conference was the ongoing demand for dysprosium, amongst other heavy rare earths. A presentation from the Japanese National Institute of Advanced Industrial Science and Technology (AIST) noted that Northern Minerals' Browns Range Project was an excellent project in terms of its xenotime mineralisation facilitating the recovery of much needed dysprosium.

Product specifications are a key subject of discussion as Northern Minerals approaches the point of producing bulk heavy rare earth concentrate for analysis by potential strategic off-take partners. Marketing activity is planned to be ramped up in the first half of 2014 as further results and developments are expected regarding the Browns Range resource and processing testwork, which will lead to further engagement and the potential formalisation of agreements with strategic off-take partners.

### Rare Earths Industry News

During the quarter it was reported that the World Trade Organisation (WTO) was planning to send the much anticipated confidential draft report to China and the claimants (Japan, USA, EU) regarding findings relating to the rare earths export restrictions imposed by China. Time is allowed for feedback prior to the WTO's final decision.

The European Union, Japan's Ministry of Economy, Trade and Industry, and the Obama Administration challenged China's rare earth export restrictions at the height of the disparity between actual exports and the export quotas in 2010. The EU Trade Commissioner Karel De Gucht at the time stated that Chinese actions were "... hurting our producers and consumers in the EU and across the world, including manufacturers of pioneering high-tech and green business applications."

China has argued that its export restrictions on rare earths are needed to protect its environment. While China had made rare earth supplies available to manufacturers in China, western and Japanese companies have developed factories in China to ensure that they can continue to have access to rare earths. Regardless of the WTO decision the supply shortfall for heavy rare earths will remain, increasing the degree of interest being shown in the development of the Browns Range Project.

### China to increase rare earth purchases

During the reporting period there was further confirmation that China will recommence REE stockpiling in the near future. China Mining.org has reported that China is likely to purchase billions of yuan of rare-earth minerals in late 2013 to bolster its strategic reserves. It is expected that the plan will involve about 10,000 metric tons of rare earths. Purchase prices are expected to be slightly above market levels, as was the case last year. The stockpile scheme only applies to heavy rare earths, and is used to ensure the sustainable development of high-tech industries.

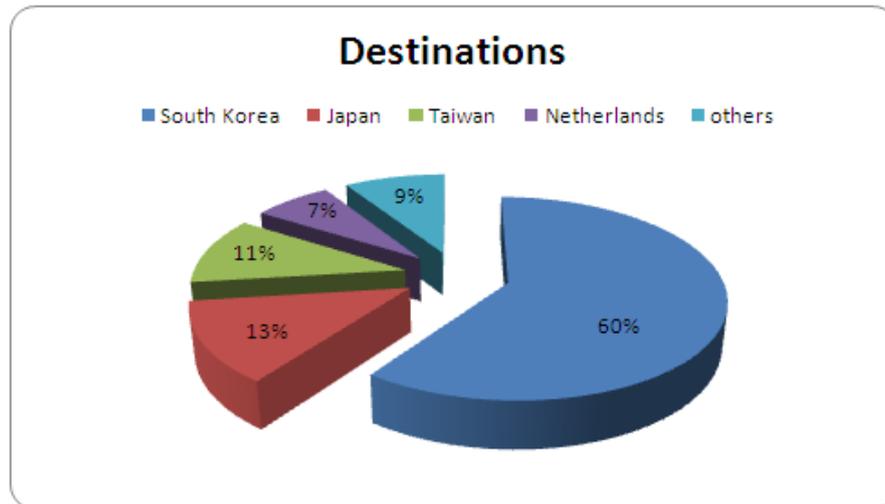
During the quarter REE prices generally remained stable, with producers holding fast on prices in anticipation of the Chinese recommencing stockpiling.

### Dysprosium Restocking Underway

There have been recent reports that major companies are buying dysprosium oxide in the China domestic market. In the first nine months of 2013, China's exports of dysprosium oxide decreased by 79.55% to 2,569 kgs compared with the same period of 2012, according to official customs data. Prices averaged \$736/kg, down 63.94% against the same period in 2012. Revenues totalled \$1,891,747, down 92.62% from the same months of 2012. China's main export destinations in the first nine months of 2013 were as follows:



| Destination | Kgs   | Y-o-Y change | Value US\$  | Y-o-Y change |
|-------------|-------|--------------|-------------|--------------|
| South Korea | 1,540 | +96.68%      | \$1,227,264 | +9.35%       |
| Japan       | 330   | -97.11%      | \$173,000   | -99.28%      |
| Taiwan      | 270   | N/A          | \$219,160   | N/A          |
| Netherlands | 175   | N/A          | \$125,823   | N/A          |



Source: Metal Pages December 2013

## Corporate

### \$6 million in R&D rebates

During the period, Northern Minerals received more than \$6 million as a research and development rebate for the year ending 30 June 2013. Under the Federal Government’s Research and Development Tax Incentive scheme, eligible companies which undertake R&D activities are entitled to a cash rebate of 45 cents in the dollar for all R&D expenditure incurred in Australia. Following the completion of the research and development claim, Northern Minerals received a total of \$6.03m in R&D rebates for the 2013 year.

This followed the R&D rebate announced in October for the year ended 30 June 2012. After completing a revised research and development (R&D) claim, the Company received a further \$1.52m in R&D rebates for the 2012 year in early October. This was in addition to the \$0.29m received earlier in the year, and means the Company received a total rebate of \$1.81m (before expenses) for 2011/12 financial year.

### PCF Capital engaged for Browns Range HRE production financing strategy

In early January, Northern Minerals announced it had engaged PCF Capital Group to provide a range of strategic financing and corporate advisory services. The partnership with PCF will help position the business to take the next steps toward production at its Browns Range HRE project. Northern Minerals is aiming to leverage the full breadth of PCF expertise over time to help take Browns Range into production by 2016 and generate value for our shareholders.



PCF Capital (PCF) is an independent corporate advisory and institutional stock broking firm based in Perth, with specialist expertise in the mining and resources sector. It was founded in 1999 in Perth, and its team has more than 100 years experience in investment banking, corporate finance and all facets of mining and exploration activities. PCF's clients represent a broad range of mining companies including exploration focused juniors, growth oriented mid-tiers and globally diversified mining majors. Its services include corporate advisory, equity capital markets, institutional stock broking and research, asset divestment, project finance solutions and asset and equipment finance.

### Positive share price performance for 2013

Northern Minerals' share price ended the 2013 year up 5.71%, making it one of the few REE focused Company's that closed 2013 higher. During this period, the REE Stocks Company "REE Leaders" index closed down approximately 54%. The index represents the world's 15 largest publicly owned companies that have exploration, production or separation of rare earth elements as one of their primary activities.

### AGM

In November, Northern Minerals held its Annual General Meeting of shareholders. The meeting included a total of 20 resolutions for shareholders to consider – all of which were passed by strong majority.

### Competent Persons Declaration

The information in this report that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information compiled by Mr Robin Wilson, a full-time employee of Northern Minerals, a Competent Person, who is a member of the Australasian Institute of Mining and Metallurgy. Robin Wilson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information presented herein in relation to Browns Range Mineral Resource Estimation is extracted from the ASX announcement dated 15 October 2013 titled "Substantial increase in Browns Range HRE JORC compliant Mineral Resource estimate". The Competent Person responsible for the Browns Range Mineral Resource Estimate is Mr John Tyrrell, a full time employee of AMC Consultants Pty Ltd. This report is stored on the ASX website under ASX:NTU announcements and on Northern Minerals website, [www.northernminerals.com.au](http://www.northernminerals.com.au).

Northern Minerals confirms that it is not aware of any new information or data that materially affects the information included in the announcement dated 15 October 2013 and titled "Substantial increase in Browns Range HRE JORC compliant Mineral Resource estimate". In the case of estimates of Mineral Resources, Northern Minerals confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. Northern Minerals confirms that the form and context in which the Competent Person's findings are presented have not been materially modified.



Information required by Listing Rule 5.3.3.

| Project            | Location        | Tenement ID | State | Change of Status in Quarter | Status            | Holder Application   | Interest                |
|--------------------|-----------------|-------------|-------|-----------------------------|-------------------|----------------------|-------------------------|
| Browns Range WA    | Browns Range    | E80/3548    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | E 80/3547   | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | E80/4393    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | E80/4479    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | E80/4725    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | E80/4726    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | E80/4806    | WA    |                             | Application       | Northern Minerals    | 100%                    |
|                    | Browns Range    | E80/4782    | WA    |                             | Application       | Northern Minerals    | 100%                    |
|                    | Browns Range    | M80/627     | WA    | Application                 |                   | Northern Minerals    | 100%                    |
| Browns Range NT    | Tanami          | EL24193     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL24174     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Browns Range    | EL24941     | NT    |                             | Application       | Northern Minerals    | 100%                    |
| John Galt          | John Galt       | E80/4298    | WA    |                             | Granted           | Arnhem Resources Ltd | Option Agreement (100%) |
|                    | Nullagine River | E80/4671    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | John Galt       | E80/4779    | WA    |                             | Application       | Northern Minerals    | 100%                    |
| Gardiner-Tanami WA | Gardiner Range  | E80/3404    | WA    | Surrendered                 |                   | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/3405    | WA    | Surrendered                 |                   | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/3414    | WA    | Surrendered                 |                   | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/3530    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/3915    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/4214    | WA    | Surrendered                 |                   | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/4213    | WA    | Surrendered                 |                   | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/4242    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/4652    | WA    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/4717    | WA    | Granted                     |                   | Northern Minerals    | 100%                    |
|                    | Gardiner Range  | E80/4718    | WA    | Granted                     |                   | Northern Minerals    | 100%                    |
| Gardiner-Tanami NT | Tanami          | EL23932     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Suplejack       | EL23934     | NT    | Surrendered                 |                   | Northern Minerals    | 100%                    |
|                    | Tanami          | EL24177     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL25009     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL25171     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Ware Range      | EL26498     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Ware Range      | EL26541     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Pargee          | EL27367     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Suplejack       | EL27368     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL29592     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL29593     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL29594     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
|                    | Tanami          | EL29595     | NT    |                             | Granted           | Northern Minerals    | 100%                    |
| Tanami             | EL29620         | NT          |       | Granted                     | Northern Minerals | 100%                 |                         |



| Project       | Location         | Tenement ID | State | Change of Status in Quarter | Status      | Holder Application  | Interest                 |
|---------------|------------------|-------------|-------|-----------------------------|-------------|---------------------|--------------------------|
|               | Tanami           | EL23933     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Ware Range       | EL24179     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL24849     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL24935     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Ware Range       | EL24947     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Ware Range       | EL25003     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Ware Range       | EL25004     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL25172     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL28868     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL29619     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL29621     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL29622     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL29630     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Tanami           | EL30132     | NT    |                             | Application | Northern Minerals   | 100%                     |
| Manhattan JV  | Gardner Range    | E80/3275    | WA    |                             | Granted     | Manhattan/Northern  | 60%                      |
|               | Gardner Range    | E80/3817    | WA    |                             | Granted     | Manhattan/Northern  | 60%                      |
|               | Gardner Range    | E80/4081    | WA    |                             | Granted     | Manhattan/Northern  | 60%                      |
| Toro JV       | Browns Range     | EL26270     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
|               | Browns Range     | EL26271     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
|               | Browns Range     | EL26286     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
|               | Tanami           | EL26635     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
|               | Tanami           | EL27000     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
|               | Tanami           | EL27001     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
|               | Tanami           | EL27590     | NT    |                             | Granted     | Toro Energy Limited | Earning 50%              |
| Kurundi       | Kurundi          | EL29616     | NT    |                             | Granted     | Northern Minerals   | 100%                     |
| Wallal        | Wallal           | E45/2815    | WA    | Surrendered                 |             | Northern Minerals   | 100%                     |
| Epenarra      | Epenarra 7       | EL27555     | NT    |                             | Application | Northern Minerals   | 100%                     |
| Amadeus Basin | Ross River 1     | EL26920     | NT    |                             | Granted     | Northern Minerals   | 100%                     |
| Rabbit Flats  | Rabbit Flats 1   | EL25157     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Rabbit Flats 2   | EL25158     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Rabbit Flats 3   | EL25159     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Rabbit Flats 4   | EL25160     | NT    |                             | Application | Northern Minerals   | 100%                     |
|               | Rabbit Flats 5   | EL23935     | NT    |                             | Application | Northern Minerals   | 100%                     |
| Yarawindah    | Yarawindah South | E70/2914    | WA    | Surrendered                 |             | Northern Minerals   | 100%                     |
|               | Yarawindah       | E70/3080    | WA    |                             | Granted     | Northern Minerals   | 80%                      |
| Bulla         | Mortlock         | E70/2719    | WA    |                             | Granted     | Northern Minerals   | 100% Non iron ore rights |



For more information:

| Name                               | Company                                      | Contact   |
|------------------------------------|--|---|
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| Ryan McKinlay /<br>Michael Vaughan | Cannings Purple                              | +61 408 347 282<br>+61 422 602 720<br>+61 8 6314 6300 |

About Northern Minerals:

Northern Minerals Limited (ASX: NTU) is focused on development of rare earth elements (REE), with a large and prospective landholding in Western Australia and the Northern Territory. The Company's flagship project is Browns Range, where it has a number of prospects with high value HRE in xenotime mineralisation. In particular, the mineralisation includes high levels of dysprosium and yttrium, which are in short supply globally and expected to be increasingly sought after as world economies stabilise and recent trends in urbanisation and technology diffusion, particularly in Asia, accelerate. Following outstanding results from its drilling programs the Company has delivered an expanded JORC resource, and is advancing Browns Range toward production using a relatively simple and low cost processing flowsheet to produce a high grade mixed Rare Earth oxide. Northern Minerals also has a HRE exploration program underway at the geologically similar John Galt Project and Boulder Ridge Project. For more information [www.northernminerals.com.au](http://www.northernminerals.com.au)

