ASX ANNOUNCEMENT
7 April 2020

OVER 50% INCREASE IN DAZZLER HIGH-GRADE MINERAL RESOURCE

Highlights:

- Upgraded Mineral Resource estimate for the Dazzler deposit has increased the tonnage by over 50%;
- Slight grade increase from 2.23% to 2.33% TREO;
- Updated Mineral Resource follows maiden Mineral Resource in March 2019;
- High proportion of heavy rare earths (95%), with 2,170 ppm dysprosium compared to 750 ppm Dy at Wolverine;
- Dazzler now becomes the second largest resource at Browns Range behind Wolverine; and
- Company is planning mining studies in 2020.

Australian heavy rare earths producer, Northern Minerals (ASX: NTU; the **Company**) is pleased to announce an upgrade to the Mineral Resource estimate for the Dazzler deposit at the Browns Range Heavy Rare Earth Project (the **Project**) in northern Western Australia.

The updated Inferred Mineral Resource for the Dazzler deposit has been estimated at **214,000 tonnes at 2.33% TREO comprising 5,000,000 kg TREO** using a cut-off grade of 0.15% TREO. This represents a more than 50% increase in contained TREO from the maiden Mineral Resource Estimate reported on 6 March 2019 (see ASX announcement *"Dazzler shines with High-Grade Maiden Mineral Resource"*).

The Dazzler deposit is located less than 15km from the Browns Range Pilot Plant on the edge of a small scarp slope. The prospect was first drilled in 2013 with only patchy mineralisation intersected within the Browns Range Metamorphics. In 2018, follow-up drilling intersected extremely encouraging mineralisation within the Gardiner Sandstone (which had previously been considered non-prospective). Subsequent drilling led to a maiden Mineral Resource estimate in early 2019.

Following several Reverse Circulation (**RC**) and diamond drilling programs in 2019, (*see ASX announcements dated 21 August 2019, 3 September 2019, 12 November 2019 and 11 March 2020*) an updated Mineral Resource estimate has been completed.

Northern Minerals
Level 1
675 Murray Street
West Perth WA 6005

PO Box 669
West Perth WA 6872
northernminerals.com.au
info@northernminerals.com.au

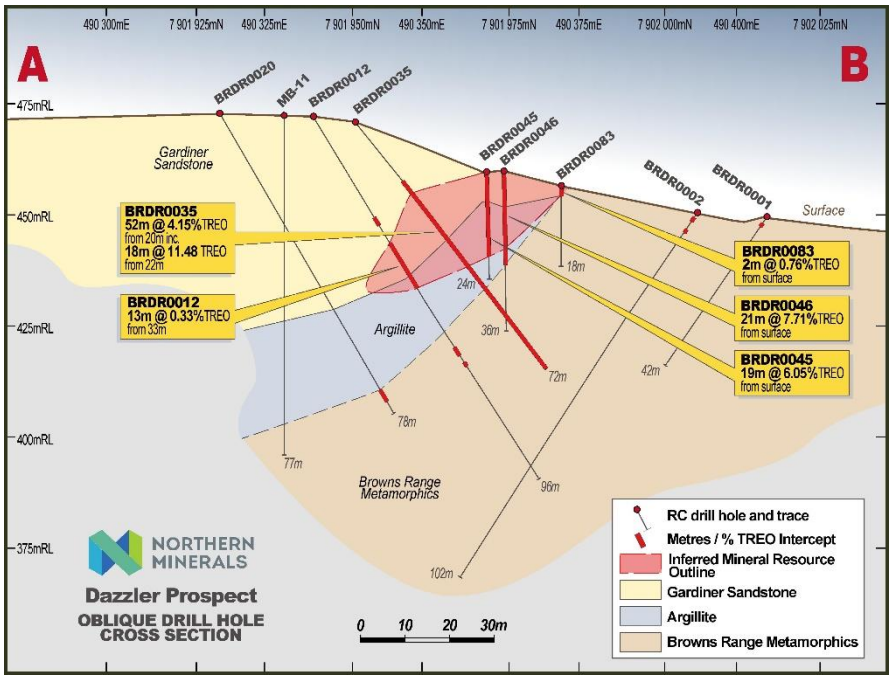
ASX: NTU
T: +61 8 9481 2344
F: +61 8 9481 5929
ABN: 61 119 966 353

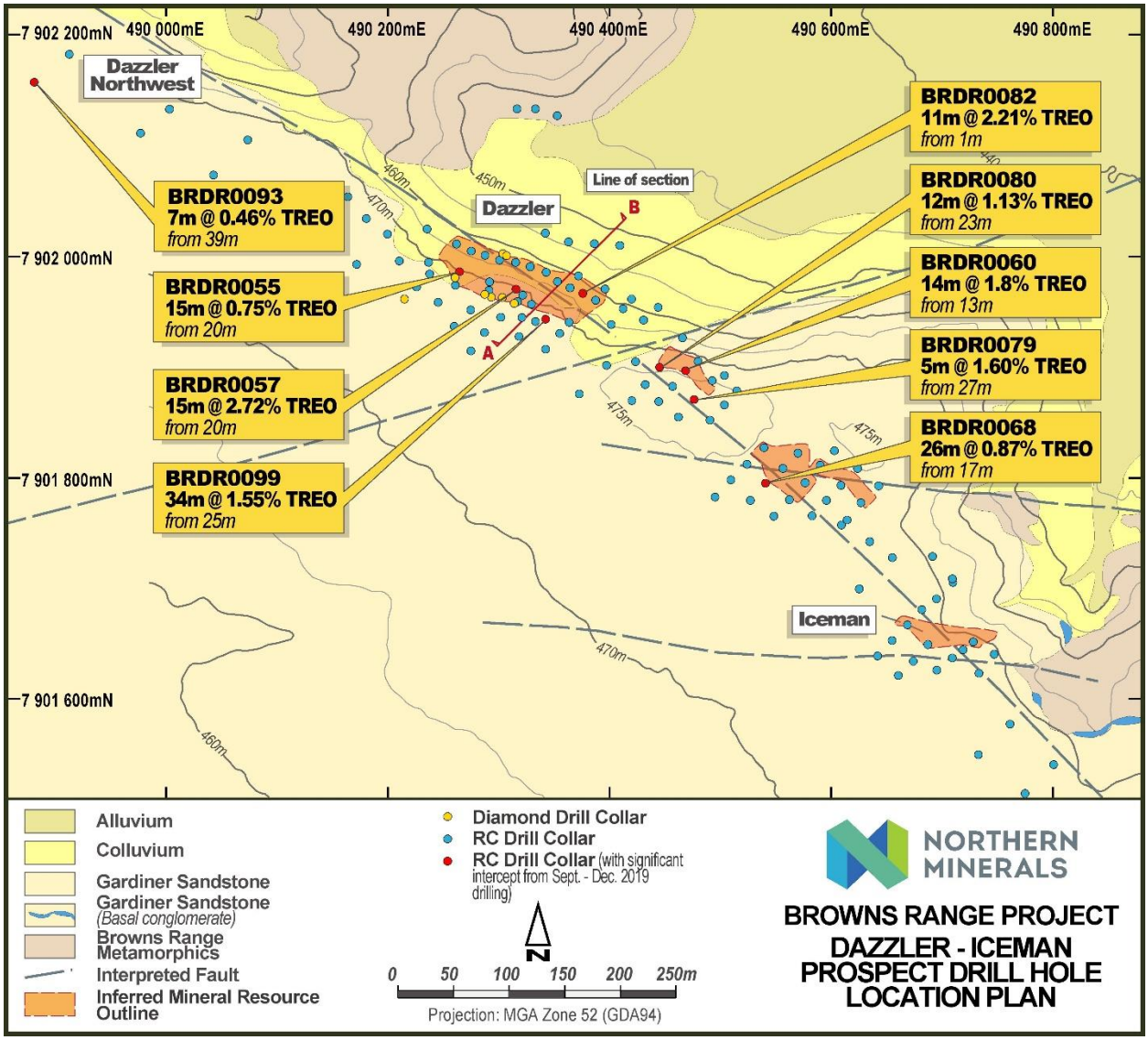
RC drilling at Dazzler

Commenting on the Dazzler estimate, Managing Director and CEO, George Bauk, said "*We are extremely pleased with the growth of the Dazzler resource in a short period of time.*

"This is a significant increase in high-grade tonnes for the project and highlights the potential of this style of mineralisation.

We look forward to getting back on the ground in the future to further test extensions of Dazzler, as well as other unconformity-related targets."




7 902 200mN
490 000mE
490 200mE
490 400mE
490 600mE
490 800mE
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7 901 600mN
Dazzler Northwest
BRDR0093
7m @ 0.46% TREO
from 39m
BRDR0055
15m @ 0.75% TREO
from 20m
BRDR0057
15m @ 2.72% TREO
from 20m
BRDR0099
34m @ 1.55% TREO
from 25m
Line of section
A
B
Dazzler
BRDR0082
11m @ 2.21% TREO
from 1m
BRDR0080
12m @ 1.13% TREO
from 23m
BRDR0060
14m @ 1.8% TREO
from 13m
BRDR0079
5m @ 1.60% TREO
from 27m
BRDR0068
26m @ 0.87% TREO
from 17m
Iceman
460m
450m
470m
475m
Alluvium
Colluvium
Gardiner Sandstone
Gardiner Sandstone (Basal conglomerate)
Browns Range Metamorphics
Interpreted Fault
Inferred Mineral Resource Outline
Diamond Drill Collar
RC Drill Collar
RC Drill Collar (with significant intercept from Sept. - Dec. 2019 drilling)
N
0 50 100 150 200 250m
Projection: MGA Zone 52 (GDA94)
NORTHERN MINERALS
BROWNS RANGE PROJECT
DAZZLER - ICEMAN PROSPECT DRILL HOLE LOCATION PLAN

SECTION 1: SUMMARY OF MATERIAL INFORMATION – DAZZLER MINERAL RESOURCE

Table 1: Dazzler Mineral Resource Estimate (At 7 April 2020)

Deposit	Category	Mt	TREO %	Dy_2O_3 kg/t	Y_2O_3 kg/t	Tb_4O_7 kg/t	HREO %	TREO kg
DAZZLER	Indicated	-	-	-	-	-	-	-
	Inferred	0.21	2.33	2.17	13.93	0.29	95	5,000,000
	Total	0.21	2.33	2.17	13.93	0.29	95	5,000,000

Rounding may cause some computational discrepancies
TREO = Total Rare Earth Oxides – La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3;
HRE or HREO = Heavy Rare Earth Oxides – Total of Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3
HREO % = HREO / TREO * 100

Table 2: Dazzler Mineral Resource individual REO proportions.

REO	% of Total REO
La_2O_3	0.87%
CeO_2	2.48%
Pr_6O_{11}	0.35%
Nd_2O_3	1.65%
Sm_2O_3	1.50%
Eu_2O_3	0.51%
Gd_2O_3	5.29%
Tb_4O_7	1.26%
Dy_2O_3	9.31%
Ho_2O_3	2.08%
Er_2O_3	6.56%
Tm_2O_3	1.00%
Yb_2O_3	6.30%
Y_2O_3	59.89%
Lu_2O_3	0.86%

Geology and geological interpretation

The deposit is located close to the unconformable contact between the Mesoproterozoic Gardiner Sandstone and the Archean-Palaeoproterozoic Browns Range Metamorphics, a sedimentary package of meta-arkoses and arenites. The high-grade mineralisation occurs immediately above the unconformity, dipping moderately (30-40 degrees) towards the southwest.

The mineralisation has been modelled based on rare earth element geochemistry and logged geology.

Mineralisation is related to the presence of hydrothermal xenotime, which has been identified by petrographic analysis. Xenotime is the dominant rare earth mineral at the other Browns Range deposits.

Drilling techniques

RC drill holes account for 123 holes (98%) of the drill holes within the deposit area and were completed using a face sampling hammer with diameters from 133 to 146mm, with hole depths up to 150m. Diamond drilling accounts for the remainder of the drilling, 3 holes (2%), at HQ core sizes with hole depths up to 87.6m.

Several drill holes have also been drilled, but not assayed, for metallurgical, geotechnical and water monitoring purposes, and these were not considered as part of the mineral resource estimate.

Sampling techniques

Diamond core was generally cut in half using an electric core saw. However, some less competent diamond core intervals were split in half with a manual bolster. Sample intervals were selected on the basis of lithological and structural features, together with indicative results from handheld portable X-Ray Fluorescence (pXRF) measurements. Drill core was sampled at a nominal one metre interval although constrained to within geological intervals where evident.

RC samples were sub sampled by riffle splitting. Both rig-mounted and standalone splitters have been used. Most samples were collected dry with a minor number being moist due to ground conditions or excessive dust suppression. RC drill holes were sampled at one metre intervals exclusively and split to target 3 kilogram sample weight.

Determinations of bulk density were completed by immersion techniques upon drill core.

Sample analysis method

Samples were screened in the field using a handheld pXRF and those above an applied threshold value, or at the geologist's discretion, were selected for analysis using ICP-MS. Samples assayed for rare earth elements were fused with sodium peroxide within a nickel crucible and dissolved with hydrochloric acid for analysis. This fusion digestion ensures complete dissolution of the refractory minerals such as xenotime and is considered a total analysis. The digestion solution, suitably diluted, is analysed by ICP Mass Spectroscopy (ICP-MS) for the determination of the rare earth elements (REE) (La – Lu) plus Y, Th, and U. Sample analysis was performed by Intertek Genalysis Laboratories in Perth. Samples below the threshold, being low grade and not material to the estimate, were assigned a value based upon correlation studies and regression analysis of the pXRF values.

Estimation and modelling techniques

Grade estimation using Ordinary Kriging (OK) was completed for the model, using Surpac software. Potentially economic elements yttrium, lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium were estimated in standard oxide forms. Total rare earth oxide (TREO) was then calculated as the sum of the estimated values for La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 +Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb2O3 + Lu_2O_3 +Y_2O_3. Additionally, the elements uranium and thorium were estimated as potentially deleterious elements.

Sample data was composited to one metre downhole lengths.

Wireframes, representing the interpreted geology and mineralisation, were used as the mineralisation domains for modelling purposes. These wireframes were used as boundaries to select sample populations for data analysis and estimation.

Mineral Resource classification criteria

The Dazzler Mineral Resource estimate is classified as 'Inferred' in its entirety.

The classification is based upon, confidence in the geological model, mineralization continuity, data density, data quality and clustering.

Drill hole spacing for the estimate was not uniform. Overall, the sampling densities for Dazzler Inferred Mineral Resource was: 220 BCM. of Mineral Resource per 1m of drilling.

The estimate was extrapolated from the nearest drilling, slightly, to allow for more realistic termination of interpreted wireframes. A representative example of this is shown in cross section (see above). The maximum extrapolation is 10m. The basis of the extrapolation is the continuation of the geometric alignment of mineralization past the last drill hole.

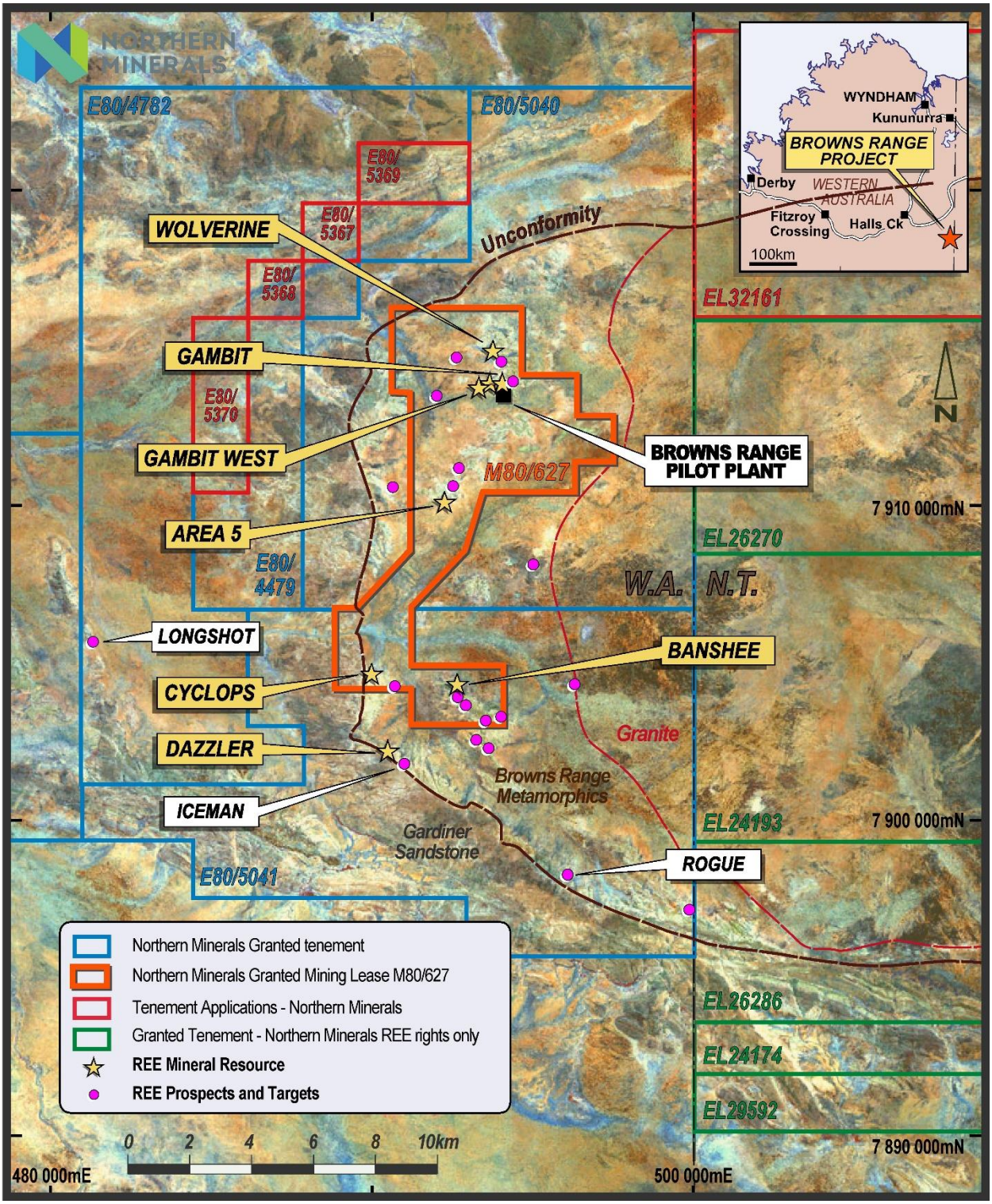
Cut-off parameters

A nominal grade cut off at 0.15% TREO has been used to report the Mineral Resource at the Dazzler deposit. Consideration of mining, metallurgical and pricing assumptions, while not rigorous, suggest that material exceeding 0.15% TREO has a reasonable prospect for eventual economic extraction.

Mining, Metallurgical and Other Assumptions

An operating pilot plant at Browns Range has confirmed, in general, that the project's xenotime hosted mineralisation can be successfully processed using a flowsheet consisting of crushing and grinding, followed by Wet High Gradient Magnetic Separation (WHGMS), flotation and hydrometallurgical processes. More limited, preliminary, testwork specifically at Dazzler has demonstrated that its mineralisation can be successfully processed using the same methods.

The deposit geometry and grade estimated at Dazzler suggest it has potential to support an operation utilizing conventional open cut mining methods.



Location of Browns Range Mineral Resources

Competent Persons Declaration:

The information in this announcement that relates to the Mineral Resource Estimate at Dazzler was compiled by Mr Bill Rayson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Rayson is a consultant to Northern Minerals, employed by Total Earth Science Pty Ltd, and has sufficient experience 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' (the JORC Code). Mr Rayson consents to the inclusion of this information in the form and context in which it appears.

The information in this announcement that relates to the Exploration Results from the Dazzler deposit is extracted from the reports entitled "NTU – Exploration updated" dated 11 March 2020, "NTU – Near surface high-grade results from Dazzler drilling" dated 12 November 2019, "NTU – Dazzler returns best ever drill result at Browns Range" dated 3 September 2019 and "NTU – High grades from Dazzler, Iceman diamond drilling" dated 21 August 2019 which are available to view on the company's website (www.northernminerals.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Name	Company	Contact
George Bauk	Managing Director / CEO Northern Minerals	+ 61 8 9481 2344
Andrew Rowell	Cannings Purple	+61 400 466 226 +61 8 6314 6314

About Northern Minerals:

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) has commenced commissioning of the Browns Range Heavy Rare Earth Pilot Plant Project in northern Western Australia.

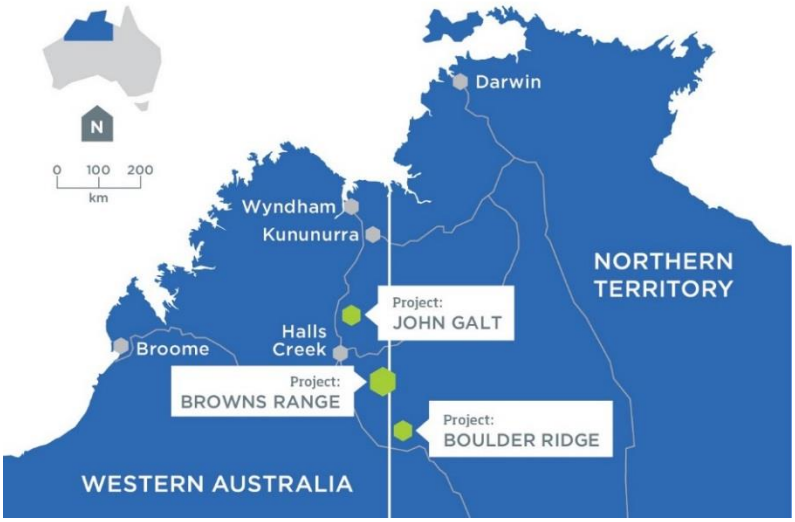
Through the development of its flagship project, the Browns Range Project (the Project), Northern Minerals aims to be the first significant world producer of dysprosium outside of China.

The Project is 100% owned by Northern Minerals and has several 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.

The three-year R&D pilot plant project will commence first production of heavy rare earth carbonate in Q3 2018. The pilot plant development provides the opportunity to gain production experience, surety of supply for our offtake partner and assess the economic and technical feasibility of the larger full-scale development.

For more information: northernminerals.com.au.



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JORC TABLE ONE: DAZZLER MINERAL RESOURCE ESTIMATE

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• The deposit was sampled using both Reverse Circulation (RC) and diamond drilling. A total of 123 RC drill holes and 3 diamond drill holes were available for the resource estimate. • RC samples were collected at one metre intervals via a cyclone, then by riffle splitter. Diamond core was half-core sampled at nominal one-metre intervals and constrained to geological boundaries where appropriate. Sampling was carried out under NTU protocols and employed QAQC procedures in line with industry standard practice. • Diamond core was drilled using HQ3 variant. RC drill holes were sampled at one metre intervals exclusively and split targeting 3 kilogram sample weight. Diamond and RC samples were dried, crushed, split and pulverised by Intertek Genalysis Laboratories in Perth prior to analysis of the rare earth element suite using ICP-MS.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drill holes account for 98% of the sampled drill holes within the prospect area, with nominal diameters of 133-146mm. RC drilling was completed using face sampling hammer. Diamond core was drilled using HQ3 variant. Several drill holes have also been drilled, but not assayed, for metallurgical, geotechnical and water monitoring purposes, and these were not considered as part of the mineral resource estimate.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• RC recovery was assessed via subjective inspection based on volume recovered. Diamond recovery is measured by measuring the recovered core and comparing to the drilled interval. The results are sufficient for the Inferred classification at Dazzler. • Geologists were based at the RC rig, and inspected regularly to ensure procedures being used. RC samples were visually checked

Northern Minerals
Level 1
675 Murray Street
West Perth WA 6005

PO Box 669
West Perth WA 6872
northernminerals.com.au
info@northernminerals.com.au

ASX: NTU
T: +61 8 9481 2344
F: +61 8 9481 5929
ABN: 61 119 966 353

Criteria	JORC Code explanation	Commentary
		for recovery, moisture and contamination. The cyclone and splitter were routinely cleaned ensuring no material build up. • The potential for a relationship between sample recovery and grade is poorly understood at this stage.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• RC logging was completed on one metre intervals at the rig by the geologist. The information collected is sufficient to support mineral resource estimation. • Logging was generally qualitative in nature. • All recovered intervals were geologically logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Diamond core was cut in half using an electric core saw. However, some less competent diamond core intervals were split in half with a manual bolster. Sample intervals were marked on the core by the responsible geologist considering lithological and structural features, together with indicative results from handheld XRF measurements. Core selected for duplicate analysis had the initial half core cut into quarter core with both quarters submitted individually for analysis. • RC samples were collected from the full recovered interval by riffle splitting. The majority of samples were collected dry with a minor number being moist due to ground conditions or excessive dust suppression. Samples were split without drying. • The sample preparation techniques employed for the samples follow industry standard practice at Intertek Genalysis Laboratory in Perth. Samples are oven dried, crushed if required and pulverised prior to a pulp packet being removed for analysis. • Duplicates are taken at the following stages and analysed to assess acceptability of sub-sampling. Field Split.RC RPD = 5%, Field Split.DD RPD = 13%, Pulp Dup. RPD = 2% RPD = abs[(yttrium_orig-yttrium_dup)/(yttrium_orig+yttrium_dup)]

Criteria	JORC Code explanation	Commentary
		• Field splits were regularly taken from RC samples. Diamond ¼ core splits are taken. (Results above). • Sample sizes are appropriate to the grain size of the mineral being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples assayed by Intertek Genalysis for rare earth elements were fused with sodium peroxide within a nickel crucible and dissolved with hydrochloric acid for analysis. Fusion digestion ensures complete dissolution of the refractory minerals such as xenotime. The digestion solution, suitably diluted, is analysed by ICP Mass Spectroscopy (ICP-MS) for the determination of the REE (La – Lu) plus Y, Th, U. The technique is considered total. • Northern Minerals extensively uses portable X-ray fluorescence (pXRF) technology. • In the field a Niton (XL3T-950 GOLDD+) XRF handheld tool was used to assist with the identification of mineralized zones for sample collection and submission. A reading time of 30 seconds was used, with readings taken for every metre of RC drilling. Intervals for which readings returned Yttrium (Y) of 200ppm or greater were selected for laboratory analysis, as were a selection of sub 200ppm Yttrium samples. Samples submitted for analysis at Intertek Genalysis have been analysed following the standard laboratory preparation, i.e., drying, splitting, pulverisation. Where pXRF analysis were used in the Mineral Resource estimates, the final rare earth element values were assigned from the raw analysis using correlation studies upon samples for which both pXRF and ICP-MS were available. Rare Earth Oxide derived from pXRF instruments contributes negligibly to the contained Rare Earth Oxide in this total Mineral Resource estimate. • Certified reference materials, using values across the range of mineralisation, were inserted blindly and randomly. Results

Criteria	JORC Code explanation	Commentary
		highlight that sample assay values are suitably accurate and unbiased. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. Umpire laboratory campaigns are used to routinely conduct round robin analysis. Results of round robin analysis are acceptable.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• High range values are routinely resubmitted for repeat analysis with results comparing within acceptable limits. • 2 RC holes have been twinned with diamond. • Primary data is collected into a proprietary logging package (OCRIS) with in-built data validation. Details were extracted and pre-processed prior to loading. Datashed is used as the database storage and management software and incorporates numerous data validation and integrity checks, using a series of defined data loading tools. Data is stored on a SQL server subject to electronic backup. • The ICP-MS assay analysis were not adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill collar locations were surveyed using high accuracy KGPS. Down hole surveys were gyroscopic surveys conducted at the completion of drilling, where practical. Occasional planned or single shot survey data is used where it was impractical to resurvey the hole with gyroscopic surveys. Survey accuracy of both collars and down hole is considered acceptable. • The grid system used is MGA94 Zone 52. All reported coordinates are referenced to this grid. • Topographic control is based on drone photogrammetry corrected to known survey and LIDAR control. This is adequate for this Mineral Resource Estimate.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and*	• Drill spacing, while variable, on average is 220 BCM of Mineral Resource per 1m of drilled sample. • The degree of geological and grade continuity demonstrated by the data density is sufficient to support the definition of Mineral

Criteria	JORC Code explanation	Commentary
	classifications applied. • *Whether sample compositing has been applied.*	Resources and the associated classifications applied to the Mineral Resource estimate as defined under the 2012 JORC Code. • No compositing was performed on the samples prior to laboratory analysis.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• All mineralisation is interpreted to be a moderately dipping (30-40 degrees) to the southwest, roughly coincident with the contact between the Gardiner Sandstone and the Browns Range Metamorphics stratigraphic units, and striking northwest-southeast. Resource drilling is predominantly conducted at -60 degrees dips drilled to an azimuth of 045 degrees, and as such drill holes intersect the mineralisation at acceptable angles. This was somewhat variable depending on site access conditions and proximity to the scarp. Vertical holes were drilled where access was restricted across the face of the scarp. The orientation of drilling is not likely to introduce a sampling bias. • The orientation of drilling with respect to mineralisation is not expected to introduce any sampling bias.
Sample security	• *The measures taken to ensure sample security.*	• Samples are collected on site under supervision of a responsible geologist and stored in bulka bags on site prior to transport by company truck or utility to Halls Creek commercial transport yard. The samples were stored in a secure area until loaded and delivered to Intertek Genalysis Laboratory in Perth. Laboratory dispatch sheets are completed and forwarded electronically as well as being placed within the samples transported. Dispatch sheets are compared against received samples and discrepancies reported and corrected.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• All relevant data was reviewed by the competent person in the course of this Mineral Resource estimation. Review of the data integrity and consistency of the drill hole database shows sufficient quality to support resource estimation.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The deposit is located wholly within Exploration Licence E80/5041. The tenement is located in the company's Browns Range Project approximately 150 kilometres south-east of Halls Creek and adjacent to the Northern Territory border in the Tanami Desert. Northern Minerals owns 100% of all mineral rights on the tenement. The Jaru Native Title Claim is registered over the Browns Range Project area and the fully determined Tjurabalan claim is located in the south of the project area. • The tenement is in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Prior to NTU, no previous systematic exploration for rare earth element mineralisation has been completed at Dazzler. Regional exploration for uranium mineralisation was completed in the 1980s by PNC and in the 2000s by Areva but without success.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Browns Range deposits (including Dazzler) are located on the western side of the Browns Range Dome, a Paleoproterozoic dome formed by a granitic core intruding the Paleoproterozoic Browns Range Metamorphics (meta-arkoses, feldspathic metasandstones and schists) and an Archaean orthogneiss and schist unit to the south. The dome and its aureole of metamorphics are surrounded by the Mesoproterozoic Gardiner Sandstone (Birrindudu Group). Mineralisation is related to the presence of hydrothermal xenotime. Petrographic analysis of samples has confirmed xenotime mineralisation.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
		• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.

Criteria	JORC Code explanation	Commentary
	○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
Other substantive	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical*	• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.

Criteria	JORC Code explanation	Commentary
exploration data	*survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Logging was completed directly onto a laptop in the field using a proprietary geological logging package with in-built validation. All data transfer is electronic, with no double handling of data. Sample numbers are unique. Logging and survey information was reviewed by the responsible geologist prior to final load into the database. The data is stored in a single database for the Browns Range project. • The first validation starts with the field logging software package during data entry. Data validations are routinely run prior to uploading of data to the database. Many check routines and rules are run to ensure referential integrity, such as overlapping intervals, repeat sample IDs, out of range density measurements, survey azimuth deviations >10 degrees, drill hole dip deviations >5 degrees, and missing samples have been developed in Datashed .Before Resource Estimation commenced, the data was checked for: Excessive survey deviation, missing/overlapping/duplicate sample interval. Holes were visually plotted in SURPAC and

Criteria	JORC Code explanation	Commentary
		reviewed for obvious location errors.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Competent person, Bill Rayson, has visited Browns Range. No fatal flaws identified.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• There is only sufficient confidence to support an 'Inferred' classification. • The nature of data and assumptions supports an Inferred Mineral Resource Estimate. The data is limited, and confidence is low. • No alternative interpretations were considered. • Wireframes, representing the interpreted geology and mineralisation, were used as the mineralisation domains for modelling purposes. These wireframes were used as boundaries to select sample populations for data analysis and estimation. • Factors affecting the continuity of grade and geology have not been confirmed and are at a low level of confidence.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The modelled Mineral Resource has a strike length of 600m, Plan width 60m. The Mineral Resource starts at surface and extends to 50m below surface. Mineralisation is not continuous over the 600m extent, instead consisting of 5 individual pods. Pod1 – 150m long x 50m wide x 50m deep. Pod2– 60m long x 30m wide x 30m deep. Pod3– 50m long x 60m wide x 30m deep. Pod4– 70m long x 15m wide x 30m deep. Pod5– 90m long x 40m wide x 40m deep. The previous “Iceman” exploration prospect was estimated as Pod5 of the Dazzler deposit.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes*	• Grade estimation using Ordinary Kriging (OK) was completed for the Mineral Resource, using Surpac software. Potentially economic elements Yttrium, Lanthanum, Cerium, Praseodymium, Neodymium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium and Lutetium were estimated in standard oxide forms. Total rare earth oxide was then estimated as the sum of the estimated values for La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 +Tb4O7 +

Criteria	JORC Code explanation	Commentary
	appropriate account of such data. • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 +Y2O3. Additionally, the elements uranium and thorium were estimated as elements of potential interest. Wireframes were used to define the mineralisation domains. The mineralisation domains were used as hard boundaries to select sample populations for data analysis and grade estimation. Sample data was composited to one metre downhole lengths. Maximum search radius was 35m, 6 samples minimum, 25 samples maximum. • No mill reconciled production records exists. This estimate is at a similar grade with more tonnes to previous estimates, which was expected. • No assumptions were made regarding recovery of by-products. • Estimates were undertaken for U and Th as potential deleterious elements. • The parent block for estimation was 5mX, 5mY, 5mZ. The maximum search was 35m. Drill spacing was variable, but average around 15mx15m spacing. Compositing was 1m intervals. • No selective mining units were assumed in this estimate. • Strong correlation exists between Y and Sm Eu Gd Tb Dy Ho Er Tm Yb Lu, which in turn make up the majority of the total rare earths present. These correlations have been used in the Mineral Resource estimate to assist with variography and to assign a calculated pXRF grade for elements where no ICP-MS data is available. • The wireframes are used to define the mineralisation domains. The mineralisation domains are used as hard boundaries to select sample populations for variography, statistical analysis and estimation. • Decile/Percentile plots, histograms and cumulative probability curves were plotted to assess the need for capping. • Block model grades were compared to input composite grades. Wireframe volumes were compared to blockmodel volumes. No reconciliation data is available yet.

Criteria	JORC Code explanation	Commentary
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The tonnage is estimated on a dry basis. Samples are dried before assay, zero moisture content assumed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A nominal grade cut off at 0.15% TREO has been used to report the Mineral Resource at the Dazzler deposit. Consideration of mining, metallurgical and pricing assumptions, while not rigorous, suggest that material exceeding 0.15%TREO has a reasonable prospect for eventual economic extraction.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Dazzler is likely to be amenable to extraction by conventional open pit mining methods.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Browns Range mineralisation has an extensive history of metallurgical testwork and pilot plant operation. Preliminary metallurgical testwork of comparable flowsheets for Dazzler suggests the mineralisation here should be similarly amenable to processing.
Environmen-tal factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where*	• Environmental Studies for mining at Browns Range are well advanced and have not highlighted any environmental issues likely to be detrimental to this Mineral Resource.

Criteria	JORC Code explanation	Commentary
	these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density has been assumed based on preliminary information from density measurements carried out on selected core samples using the Archimedes method of dry weight versus weight in water, considered in light of complementary density measurements carried out on select pulped RC samples using gas pycnometer. • The water immersion method (as performed in the field) is potentially inappropriate for the Dazzler mineralisation, however is considered sufficient at this (Inferred) level of mineral resource confidence. • A density of 2.3 was assumed for all mineralisation.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Dazzler has been classified as Inferred in its entirety. • Appropriate account has been taken of relevant factors. • The result appropriately reflects the competent persons view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The Mineral Resource estimate has not been audited.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local*	• The Mineral Resource classification implies a confidence level and level of accuracy in the estimates. The entire Mineral Resource at Dazzler is classified as 'Inferred'. • These levels of confidence and accuracy relate to the global estimates of grade and tonnes for the deposit. • No production data is available

Criteria	JORC Code explanation	Commentary
	estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

ASX ANNOUNCEMENT
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Northern Minerals
Level 1
675 Murray Street
West Perth WA 6005

PO Box 669
West Perth WA 6872
northernminerals.com.au
info@northernminerals.com.au

ASX: NTU
T: +61 8 9481 2344
F: +61 8 9481 5929
ABN: 61 119 966 353