ASX ANNOUNCEMENT
21 August 2019

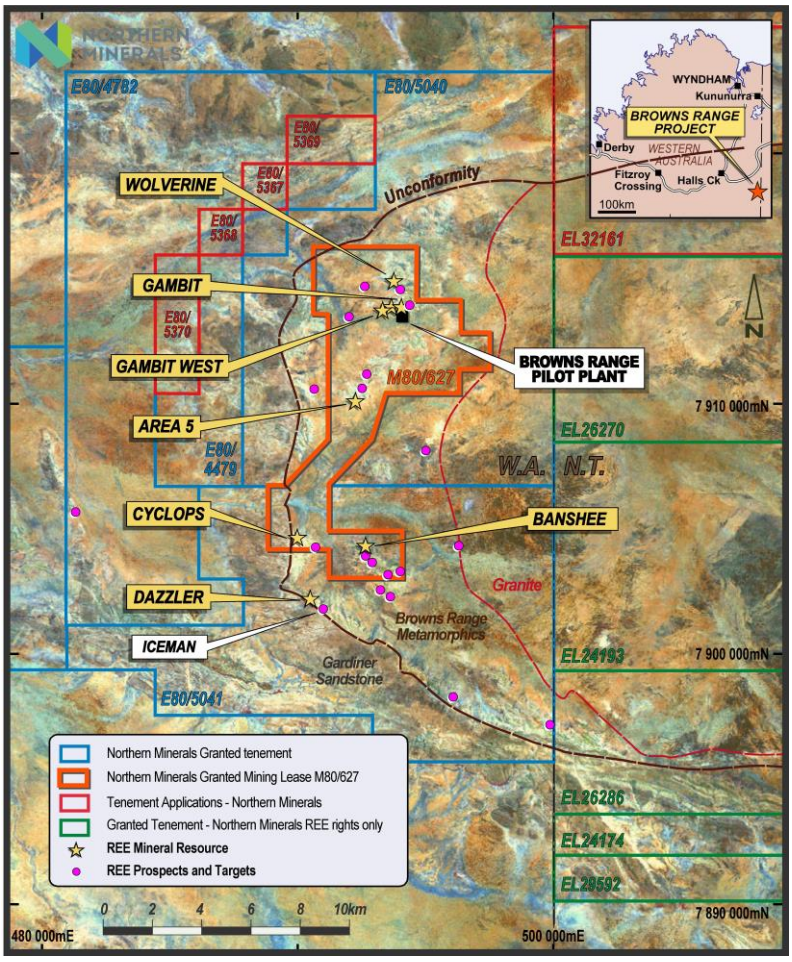
High grades from Dazzler, Iceman diamond drilling

Highlights

- Wide high-grade rare earth intercepts from Dazzler and Iceman diamond drilling including:
  - 16.59m @ 7.53% TREO from 27m
  - 18.6m @ 5.83% TREO from 25.4m
- Grades up to 10x existing Total Mineral Resource grade;
- Drilling was designed to twin previous RC drilling; and
- Further drilling planned to commence in September quarter.

Australian heavy rare earths producer, Northern Minerals Limited (ASX: NTU) (the **Company**) is pleased to announce assay results from recently completed diamond drilling at the Dazzler and Iceman prospects, part of the Browns Range Project in the East Kimberley region of Western Australia.

The diamond drilling program, which comprised 3 drill holes at Dazzler and one at Iceman, was designed to twin and validate the reverse circulation (**RC**) drilling programs undertaken in 2018 and early 2019. In addition, one of the diamond drill holes at Dazzler was drilled to provide samples for metallurgical test work. Final assay results from the RC drilling program completed earlier in the year are currently pending.



Dazzler

The assay results for diamond holes BRDD0001 and BRDD0002 are summarised in Table 1 below. BRDD0001 twinned the RC hole BRDR0014 (21m @ 2.15% TREO from 24m), whilst BRDD0002 twinned BRDR0010 (18m @ 9.1% TREO from 25m) (see Drill section AA' and BB' below).

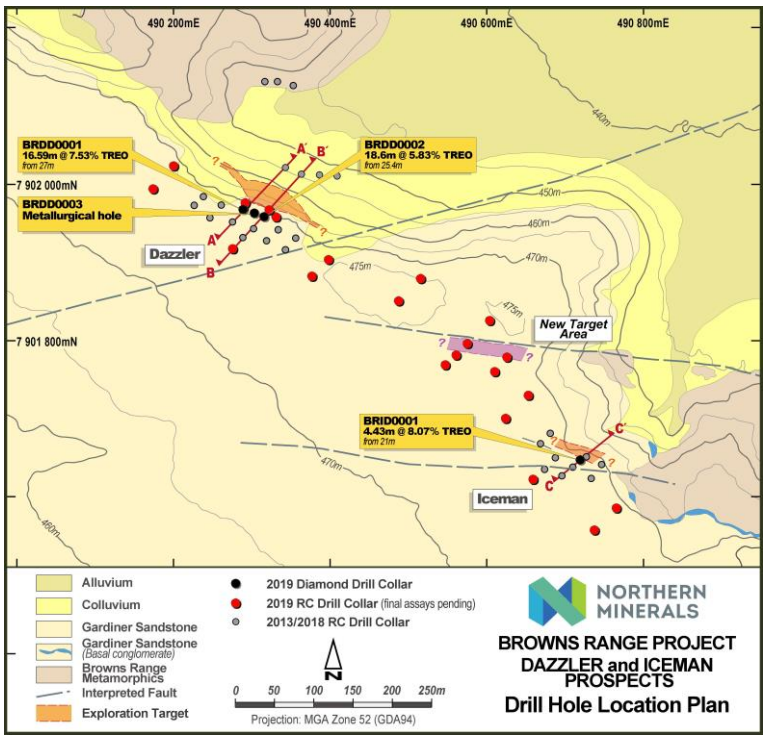
Table 1 – Significant assay results from diamond drilling – Dazzler Prospect, July 2019

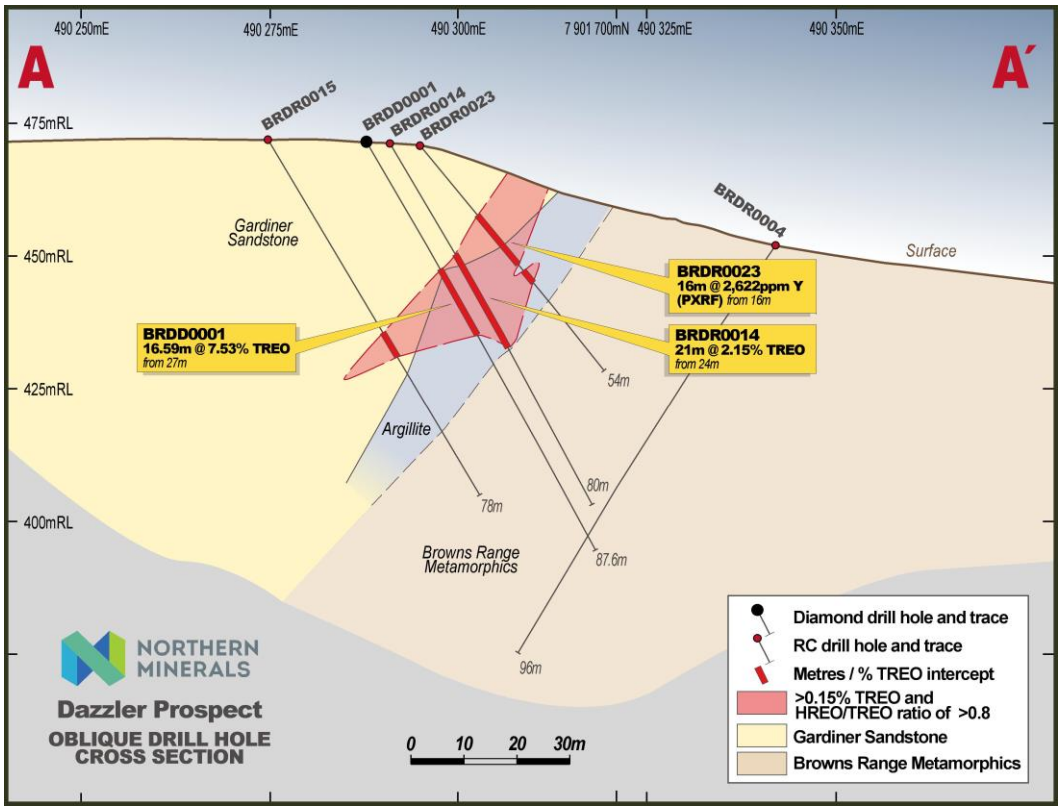
***Intervals > 2m @ 0.15% TREO or equivalent, including up to 2m internal dilution**

Hole ID	From	To	Interval (m)	TREO (%)	Dy_2O_3 (ppm)	Y_2O_3 (ppm)	MHREO/TREO (%)
BRDD0001	27	43.59	16.59	7.532	7,403.2	46,991	0.91
BRDD0001	48	58.3	10.3	0.552	272.3	1,951	0.43
BRDD0002	25.4	44	18.6	5.826	5,593.4	36,279	0.87

Comparing the diamond drilling assays with the twinned RC drill hole assays, shows the interval in BRDD0001 as being narrower than the twinned RC drill hole but with much higher grade. For BRDD0002, the interval width is approximately the same as the twinned RC drill hole, but the grade is significantly lower than the RC drill hole.

The third diamond drill hole at Dazzler, BRDD0003 was drilled for metallurgical test work purposes only and was not assayed.

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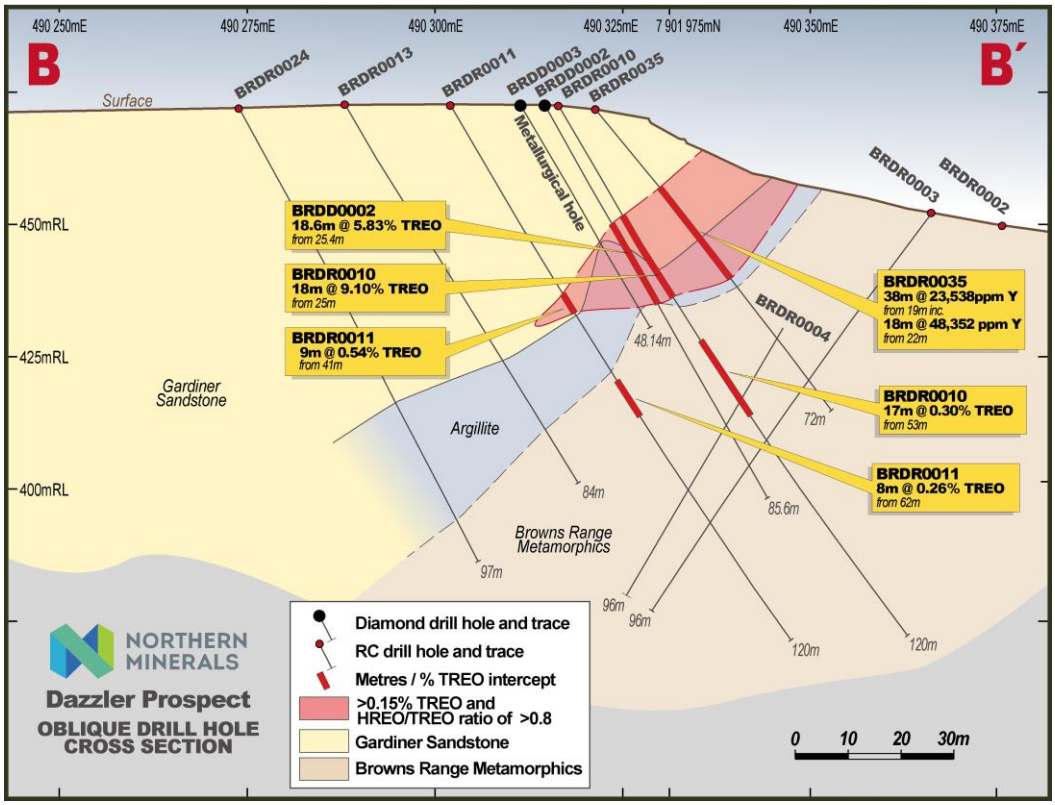
BRDR0015
BRDD0001
BRDR0014
BRDR0023
BRDR0004
Surface
Gardiner Sandstone
Argillite
Browns Range Metamorphics
BRDR0023
16m @ 2,622ppm Y
(PXRF) from 16m
BRDD0001
16.59m @ 7.53% TREO
from 27m
BRDR0014
21m @ 2.15% TREO
from 24m
54m
78m
80m
87.6m
96m
NORTHERN MINERALS
Dazzler Prospect
OBLIQUE DRILL HOLE CROSS SECTION
0 10 20 30m
Diamond drill hole and trace
RC drill hole and trace
Metres / % TREO intercept
>0.15% TREO and HREO/TREO ratio of >0.8
Gardiner Sandstone
Browns Range Metamorphics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Metallurgical hole
BRDR0003
BRDR0002
BRDR0004
450mRL
425mRL
400mRL
Gardiner Sandstone
Argillite
Browns Range Metamorphics
BRDD0002
18.6m @ 5.83% TREO
from 25.4m
BRDR0010
18m @ 9.10% TREO
from 25m
BRDR0011
9m @ 0.54% TREO
from 41m
BRDR0035
38m @ 23,538ppm Y
from 19m inc.
18m @ 48,352 ppm Y
from 22m
BRDR0010
17m @ 0.30% TREO
from 53m
BRDR0011
8m @ 0.26% TREO
from 62m
48.14m
72m
84m
85.6m
97m
96m
96m
120m
120m
NORTHERN MINERALS
Dazzler Prospect
OBLIQUE DRILL HOLE CROSS SECTION
0 10 20 30m
Diamond drill hole and trace
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Gardiner Sandstone
Browns Range Metamorphics

The high-grade mineralization at Dazzler is associated with an argillite unit close to the unconformity between the Gardiner Sandstone and the underlying Browns Range Metamorphics. There is a second lower grade mineralized zone which is hosted entirely within the Browns Range Metamorphics and which is more similar in style to the mineralization at the Wolverine and Gambit West deposits.

Iceman

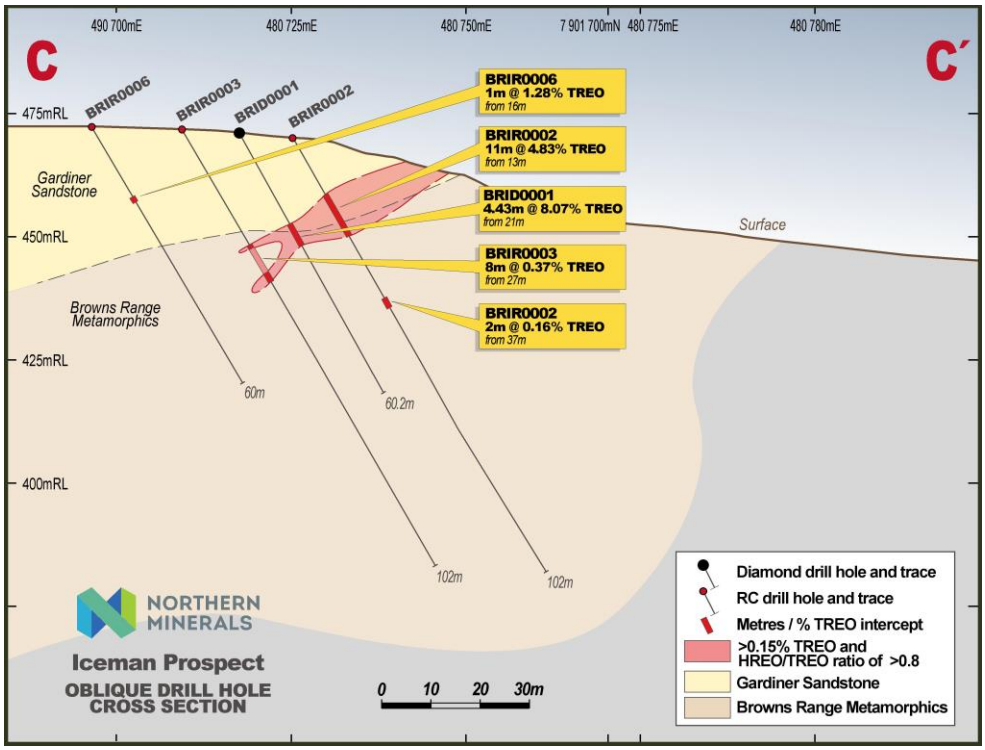
The results for single diamond drill hole at Iceman, BRID0001, which is located between two RC drill holes, BRIR0002 (12m @ 4.44% TREO from 13m) and BRIR0003 (8m @ 0.37% TREO from 27m), are summarised in Table 2 below.

The intercept in BRID0001 is narrower than that of the adjacent RC drill holes, but with much higher average grade.

Table 2 – Significant assay results from diamond drilling – Iceman Prospect, July 2019

*Intervals > 2m @ 0.15% TREO or equivalent, including up to 2m internal dilution

Hole Id	From	To	Interval	TREO (%)	Dy_2O_3 (ppm)	Y_2O_3 (ppm)	MHREO/TREO
BRID0001	21	25.43	4.43	8.069	7,527.0	50,839	0.89



Commentary

The grades at Dazzler and Iceman are an order of magnitude higher than the average Mineral Resource grade for Browns Range. As such, this style of prospect is an extremely attractive target for the Company.

Follow up drilling is planned to commence in September, which will include further Mineral Resource definition drilling at Dazzler.

Northern Minerals' Managing Director and CEO, George Bauk, said "*The grades returned in this program are amongst the highest we have ever seen at Browns Range.*

"We have already commenced the process of acquiring and installing Steinert ore sorting technology at Browns Range, aimed at doubling the feed grade to the plant.

"The extremely high grades at Dazzler and Iceman have the potential to increase the grade going into the plant even further.

"As with all resources projects, 'grade is king' and we look forward to increasing the value of Browns Range."

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About Northern Minerals:

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) has completed practical completion of the Browns Range Heavy Rare Earth Pilot Plant Project in northern Western Australia and commenced pilot plant production of heavy rare earth carbonate.

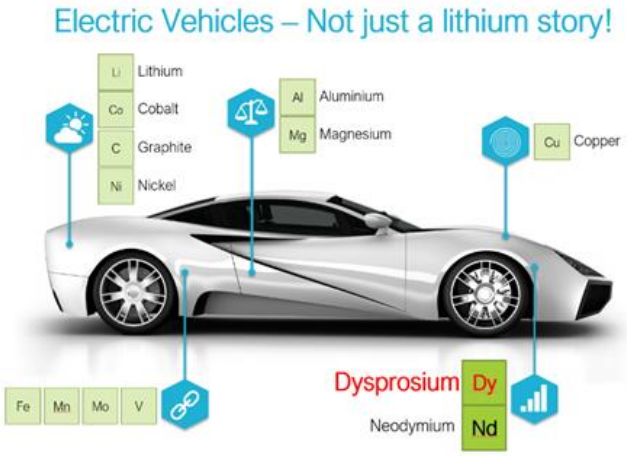
The Pilot Plant Project will continue to assist the company evaluate the economic and technical feasibility of mining at Browns Range, and will provide the opportunity to gain production experience and surety of supply for our offtake partner.

Through the development of its flagship project, the Browns Range Project (the Project), Northern Minerals aims to build the Western Australian operation into 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.

For more information: northernminerals.com.au.



ASX Code:	NTU	Market Capitalisation:	A$169.7m
Issued Shares:	2,495m	Cash (as at 30 June 2019):	A$8.1m

Compliance Statement

The information in this report relating to Exploration Results was compiled by Mr Robin Wilson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Wilson is a full time employee of Northern Minerals Limited 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 Wilson 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 and Iceman drilling in 2018 is extracted from the report entitled "Assay results confirm Dazzler and Iceman discoveries" dated 11 September 2018 and is 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 announcement 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.

The information in this announcement that relates to the Exploration Results from the Dazzler and Iceman RC drilling in 2019 is extracted from the report entitled "Encouraging portable XRF results from Dazzler drilling" dated 20 May 2019 and is 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 announcement 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.

Appendix 1

Dazzler drill hole collar details (all coordinates in GDA94 Zone 52)

Hole ID	East	North	RL	Mag Azimuth	Inclination	Depth(m)
BRDD0001	490288.7	7901966.6	471.6	046°	-60°	87.6
BRDD0002	490315	7901958.5	472.7	046°	-60°	85.6
BRDD0003	490303.7	7901963.6	472.2	045°	-60°	48.1

Iceman Drill hole collar details (all coordinates in GDA94 Zone 52)

Hole ID	East	North	RL	Mag Azimuth	Inclination	Depth(m)
BRID0001	490718.5	7901646.7	471.2	045°	-60°	60.2

Table 1: JORC code, 2012 Edition

Section 1 - Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. 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.*	Iceman Prospect: One diamond drill hole completed to a depth of 60.2m. All assays have been received for this drill hole. Dazzler Prospect: Three diamond drill holes completed, to depths of 87.6m, 85.6m and 48.1m. Assays have been received for the first two holes. Only the first two holes were sampled and assayed, with the third hole being drilled for metallurgical test work purposes only. In the field a Niton (XL3T-950 GOLDD+) XRF handheld tool was used to provide a preliminary indication of mineralisation. A reading time of 30 seconds was used, with spot readings taken.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The diamond drill holes sampled and assayed were HQ3 sized core. Diamond core was orientated using the Reflex ACT orientation tool or a spear orientation device. Calibration of the PXRF is at least daily with the silica blank standard and the TILL-4 yttrium standard checked at the beginning of every sample run.
	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*	Diamond core was drilled using either triple tube at HQ size. and sampled at a nominal one metre interval (constrained to within geological intervals). Diamond core samples were dried, crushed, split and pulverised by Intertek Genalysis Laboratory in Perth prior to analysis of the rare earth element suite using ICP-MS.

Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	Diamond drilling utilised triple tube techniques and drilling fluids in order to assist with maximising recoveries. Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. Recovered core was measured and compared against driller's blocks.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Diamond core recovery information is recorded in the geologist logs and entered into the database.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Diamond drilling utilised triple tube techniques and drilling fluids in order to assist with maximising recoveries.
	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.	No known relationship exists.
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.*	Diamond core was geologically and geotechnically logged using predefined lithological, mineralogical and physical characteristics (such as colour, weathering, fabric) logging codes. The information collected is sufficient to support mineral resource estimation, mining studies, metallurgical studies.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging was generally qualitative in nature except for the determination of core recoveries and geotechnical criteria such as RQD and fracture frequency which was quantitative. Core photos were collected for all diamond drilling.
	The total length and percentage of the relevant intersections logged.	All diamond drill core metres were logged and entered into the database.
Sub-sampling techniques and	*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	Diamond core was cut in half using an electric core saw or if the core was too soft or friable to be cut with a saw, a brick chisel was used. 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

Sample preparation		duplicate analysis was further cut to quarter core with both quarters submitted individually for analysis. Where possible, core was sampled to leave the orientation line in the core tray.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation techniques employed for the diamond core samples follow industry standard practice at Genalysis Intertek Laboratory. Samples are oven dried, crushed if required and pulverised prior to a pulp packet being removed for analysis.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QAQC procedures included the field insertion of certified reference materials (standards) having a range of values reflecting the general spread of values observed in the mineralisation. Blanks were also inserted in the field and developed from local host rock following chemical analysis. Field duplicates were collected by taking quarter core splits. Insertion rates targeted 1:20 for duplicates, blanks and standards, with increased frequency in mineralised zones.
	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.	Field duplicates inserted at a frequency of 1:20. Results indicate that sample assay values are acceptable and representative.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	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.*	Samples assayed by 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, which are only partially dissolved if the pulp is digested in acids. The digestion solution, suitably diluted, is analysed by ICP Mass Spectroscopy (ICP-MS) for the determination of the REE (La – Lu) plus Y, Th and U..

	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.	In the field a Niton (XL3T-950 GOLDD+) XRF handheld tool was used to provide a preliminary indication of mineralisation. A reading time of 30 seconds was used, with spot readings taken.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference materials, using values across the range of mineralisation, were inserted blindly and randomly. Results 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. Two of the six blank samples in the batch returned higher than expected TREO assays (130ppm and 363 ppm Y against an expected value 35 ppm Y). The amount of carryover was calculated to be 3.9g and 8.5g based on the formula Ms = Mb * (Cb1 – Cb0)/ (Cs-Cb1), where Ms = mass of the contaminating sample carried over, Mb = mass of the contaminated blank sample, Cs = concentration of contaminating sample, Cb1 = concentration of the reported blank value, Cb0 = concentration of the expected blank value. This level of contamination is not considered significant enough to materially affect the assay results reported herein. Calibration of the PXRF is at least daily with the silica blank standard and the TILL-4 yttrium standard checked at the beginning of every sample run.
	The verification of significant intersections by either independent or alternative company personnel.	Internal verification of significant results by more than one company geologist.
	The use of twinned holes.	All three diamond drill holes were either twinned with or drilled in close proximity to existing RC drill holes. BRDD0001 was designed to twin RC drill hole BRDR0014 (offset by 4m) and BRDD0002 was designed to twin drill hole BRDR0010 (offset by 3m). As

Verification of sampling and assay		described above, comparing the diamond drilling assays with the twinned RC drill hole assays, shows the interval in BRDD0001 as being narrower than the twinned RC drill hole but with much higher grade. For BRDD0002, the interval width is approximately the same as the twinned RC drill hole, but the grade is significantly lower than the RC drill hole. Despite these differences the results are acceptable and within the limits of geological variability. BRID0001 was drilled on section between 2 existing RC drill holes (BRIR0002 and BRIR0003) –approximately 11m from each RC drill hole. Comparing the results between BRID0001 and BRIR0002 shows that the intersection in the diamond hole is narrower but with much higher grade than in BRIR0002 and again is acceptable and within the limits of geological variability. The overall metal content of the two intersections is comparable.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected into a proprietary logging package (OCRIS) with in-built 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 by Northern Minerals Ltd subject to electronic backup. All data was checked by the responsible geologist and digitally transferred to Perth. 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 and electronic backups completed three times per day. Diamond drill core photographs have been reviewed for the recorded sample intervals. High range values are routinely resubmitted for repeat analysis with results comparing within acceptable limits

	Discuss any adjustment to assay data.	The assay data were converted from reported elemental assays for a range of elements to the equivalent oxide compound as applicable to rare earth oxides. Oxide calculations are completed by the laboratory and checked by Northern Minerals. No issues were identified. The oxides were calculated from the element according to the following factors below: CeO2 –1.2284, Dy2O3 – 1.1477, Er2O3 – 1.1435, Eu2O3 – 1.1579, Gd2O3 – 1.1526, Ho2O3 – 1.1455, La2O3 – 1.1728, Lu2O3 – 1.1371, Nd2O3 – 1.1664, Pr6O11 – 1.2082, Sm2O3 – 1.1596, Tb4O7 – 1.1421, Tm2O3 – 1.1421, Y2O3 – 1.2699, Yb2O3 – 1.1387.
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.*	Drill collar locations have been surveyed by NTU staff using a KGPS receiver with an accuracy of +/- 0.02 metres. Down hole surveys were completed by the drilling contractor using a Reflex single shot instrument upon completion of drilling. Down hole surveys were completed by a downhole surveying contractor using a gyroscope for BRID0001.
	Specification of the grid system used.	The grid system used is MGA94 Zone 52. All reported coordinates are referenced to this grid.
	Quality and adequacy of topographic control.	Topographic control is based on airborne digital terrain survey data collected in 2011 with accuracy considered to be +/-1m.
	Data spacing for reporting of Exploration Results.	Iceman Prospect: One diamond drill hole completed on section between 2 existing RC drill holes (BRIR0002 and BRIR0003) –approximately 11m from each RC drill hole. Dazzler Prospect: three diamond drill holes were completed in the current program, with two of the drill holes on two drill fences approximately 25m apart, and the third hole, BRDD0003, the metallurgical drill hole, drilled between the two sections. BRDD0001 was designed to twin RC drill hole BRDR0014 (offset by 4m) and BRDD0002 was designed to twin drill hole BRDR0010 (offset by 3m).

		All holes at both prospects in the current program have been drilled at an inclination of 60° towards the northwest (045°).
Data spacing and distribution	*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 classifications applied.*	Exploration Results reported only.
	Whether sample compositing has been applied.	Sampling is generally on 1m intervals, constrained to geological contacts and mineralisation boundaries. Results have not been physically composited.
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.*	All drill holes in the current program at Iceman and Dazzler have been drilled at an inclination of 60° towards the northwest (045°), which is interpreted to be perpendicular to the overall structural and lithological trend of the southern margin of the Browns Range Dome. The drilling results have suggested that the mineralised zone is spatially associated with the Gardiner Sandstone/Browns Range Metamorphics unconformity which is interpreted to dip moderately towards the southwest.
	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.	Mineralisation at Iceman and Dazzler is interpreted to strike approximately west or northwest/southeast and dip moderately to the south or southwest. Current knowledge indicates that the orientation of drilling with respect to overall structural and lithological trends 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 the responsible geologist and stored in bulk bags on site prior to transport by company truck or utility to Halls Creek commercial transport yard. The samples are stored in a secure area until loaded and delivered to the Intertek Genalysis laboratory in Perth.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits/reviews have been conducted.

Section 2: Reporting of Exploration Results

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 Iceman and Dazzler prospects are located on 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 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 tenements are in good standing and no known impediments exist.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	No previous exploration for REE mineralisation has been completed by other parties at the Iceman and Dazzler prospects. Regional exploration for uranium mineralisation was completed in the 1980s without success.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Browns Range prospects 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 meta-sandstones 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). The Browns Range xenotime mineralisation is typically hosted in hydrothermal quartz and hematite veins and breccias within the meta-arkoses of the Archaean Browns

		Range Metamorphics. Various alteration styles and intensities have been observed; namely silicification, sericitisation and kaolinite alteration. The Iceman and Dazzler prospects are located on a scarp slope that marks the unconformity between the younger overlying Gardiner Sandstone and the older Browns Range Metamorphics. At both prospects it is currently unclear what the controls on mineralisation are, however there is a clear spatial association between the unconformity and the most anomalous zones, with mineralisation occurring in both units above and below the unconformity. Further work is required to determine the controls on mineralisation at both prospects with analysis and interpretation of the structural data obtained from the diamond core and then follow-up RC drilling program. .
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* *dip and azimuth of the hole* *down hole length and interception depth* *hole length.*	See tables above in Appendix 1 and Tables 1 & 2 in body of text.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg*	Significant intervals were tabulated downhole for reporting. Each metre downhole was analysed using sodium fusion ICP-MS. All individual metres (one result per metre) were averaged over the entire tabulated range. A lower cut-off

	cutting of high grades) and cut-off grades are usually Material and should be stated.	of 0.15% TREO was used during data aggregation, allowing for 2m of internal dilution. No top-cuts have been applied.
	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.	All intervals were initially based on 1m sample runs but are constrained to geological and mineralisation contacts The geologist then qualitatively grouped contiguous mineralised runs together and the weighted average analysis of the entire run is reported here.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents values are used for reporting of exploration results.
Relationship between mineralisation widths and intercept lengths	*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	Not known.
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.*	Refer to Figures 1, 2, 3, 4, 5 in body of text.
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.*	Previous exploration results are the subject of previous reports. The preliminary results of all current drillholes have been reported, including those with "No Significant Results".
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment;*	At Browns Range Project WA, airborne magnetic and radiometric surveys were acquired by Northern Minerals in 2011. Hyperspectral data captured during

	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	October 2012 by Hyvista Corporation Pty Ltd. Very high resolution "Ultracam" aerial photography was captured by Hyvista during the Hyperspectral survey. Regional reconnaissance including geological mapping, rock chip sampling and also geochemical soil sampling completed over the Iceman and Dazzler prospects. Dazzler and Iceman have previously had RC drilling in 2013, 2018 and earlier in 2019. Details of these drilling programs were reported in ASX announcement dated 15 October 2014 entitled "Further Discoveries Reinforce Exploration Potential at Browns Range", dated 11 September 2018 entitled "NTU Assay results confirm Dazzler and Iceman discoveries" and 20 May 2019, "Encouraging portable XRF results from Dazzler drilling".
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further RC drilling is planned for both prospects which will include infill resource definition drilling and step-out resource extension drilling, both along strike and down-dip where appropriate. This drilling program is expected to commence in the December quarter 2019.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to Figures 1, 2, 3, 4, 5 in body of text.

Section 3: Estimation and Reporting of Mineral Resources

Not applicable

Section 4: Estimation and Reporting of Ore Reserves

Not applicable