QUARTERLY ACTIVITIES REPORT- MARCH 2023

HIGHLIGHTS

- Definitive Feasibility Study (DFS) progressing well with Early Contractor Involvement (ECI) work on the Browns Range Beneficiation Plant's engineering and design contracted and well advanced.
- DFS geotechnical drilling completed.
- Mining strategy for an open pit followed by an underground mine at Wolverine determined.
- Non-process infrastructure design and studies have advanced in several areas.
- Wolverine Deeps exploration drilling underway (sub 350m vertical) to test orebody extension, with initial results indicating a continuation of the mineralised structure.
- Project funding activities ongoing including processes underway with potential debt providers.

Northern Minerals Limited (ASX: NTU) ("Northern Minerals" or the "Company"), a company advancing towards production at its 100% of the Browns Range Project in northern Western Australia, is pleased to provide an overview of the Company's activities for the period ending 31 March 2023 ("Quarter", "Reporting Period") to accompany the Appendix 5B.

EXECUTIVE CHAIRMAN'S REVIEW

The March 2023 quarter was centered on continuing work programs within the Company that are all primarily focused on reaching a Final Investment Decision (FID) for the Browns Range Project. These programs are to ultimately enable the design, construct and commissioning of the proposed commercial-scale mining and beneficiation facility at Browns Range to produce a REO concentrate rich in dysprosium and terbium to sell to Iluka Resources Limited (ASX:ILU) pursuant to the terms of the Iluka Supply Contract executed in October 2022.

A key milestone for the Company is to complete its 2023 DFS during Q4 of 2023. The DFS will outline the proposed Browns Range Project shape including definitive construction and operational CAPEX, mining and processing OPEX, mining schedule and process design and engineering, logistics and non-process infrastructure.

Significant advances were made during the quarter on finalising the mining strategy and the development of a provisional open pit and underground design and mining schedule. This was a key output as it provides a basis to finalise a provisional project shape including mining and production schedules.

The two appointed Early Contractor Involvement (ECI) contractors engaged to undertake the process design and engineering progressed well during the quarter with review of their preliminary designs undertaken.

In support of the DFS and to explore for potential continuations to the orebody with depth and down plunge beyond the current Mineral Resource wireframe the Company commenced a seven-hole diamond drilling ("Wolverine Deeps").

As the Company moves towards production, the Company expanded the operational team including experienced hires in the Mining and Process Engineering disciplines.

The Company continued its process of implementing its strategy to procure sufficient project funding required for the construction and commissioning of the Browns Range Project. This included engaging with groups such as the Northern Australian Infrastructure Facility (NAIF) and Export Finance Australia (EFA) seeking to participate in their respective processes for NTU to be considered for the various funding packages available through these agencies.

Definitive Feasibility Study

The DFS will outline the proposed commercial-scale mining and beneficiation facility at the Browns Range Project ("Browns Range") that will extract and process ore from the Wolverine deposit to produce xenotime concentrate for sale to Iluka Resources Limited (ASX:ILU). The 2023 DFS will build on the work undertaken in the earlier 2015 DFS, as well as leverage the experience and knowledge gained from operating the large scale 10 tph pilot plant at Browns Range from 2018 to 2022. The Company expects the DFS to be completed in the fourth quarter of 2023.

The basis of sale of this xenotime concentrate to Iluka is outlined in the Iluka Supply Agreement (refer ASX Announcement announced - 26 October 2022) and is to be mined from the existing Mineral Resource for the ultimate supply of 30,500 tonnes of contained TREO in concentrate during an initial 8+ year mine life, of which 2,800 tonnes will be dysprosium and 420 tonnes will be terbium.

The production of a xenotime concentrate from Browns Range to supply Iluka's rare earth refinery at Eneabba significantly reduces the capital required to deliver the project but importantly also reduces the Company's technical and operational risk associated with the downstream cracking.

During the quarter, the DFS project team, which includes a selection of prominent mining consultants and engineers, commenced several work packages. The key focus areas for the team included mine design and scheduling, process design and engineering, and non-process infrastructure.

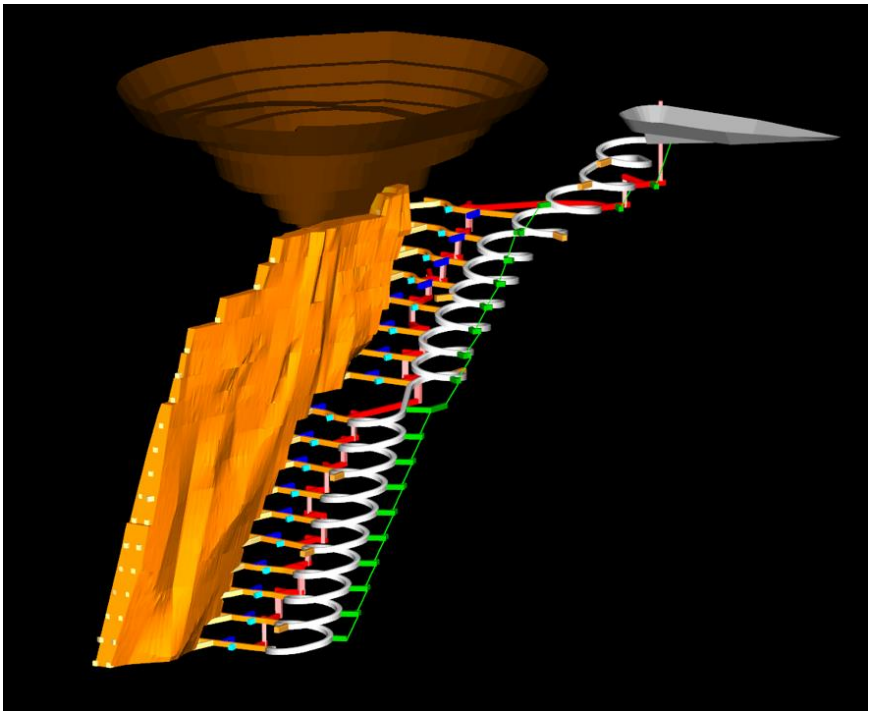
DFS - Mine Design & Scheduling

During the Reporting Period the mining team focussed on finalising the mining strategy, developing the provisional open pit and underground mine designs and schedules, and collecting geotechnical data.

Entech Pty Ltd progressed the DFS mining studies on the updated Wolverine Mineral Resource estimate and completed optimisation studies during the Quarter to determine the optimal open pit at Wolverine prior to proceeding to an underground mine. The study showed that an open pit at Wolverine to a depth of 125m, approximately the same size as the 2015 DFS open pit, is the optimum cut-over point to transition from open pit to underground mining.

The underground mining method selected is longitudinal sub-level retreat (SLR). The orebody shape and geotechnical characteristics of the Wolverine deposit are conducive to SLR mining, which will more productive than the 2015 DFS mining method of longitudinal long hole open stoping with paste backfill. *Figure 1* provides a schematic of the open pit and the underground SLR layout which will be accessed by a boxcut from surface.

Figure 1: Wolverine Open Pit and SLR Schematic



DFS – Wolverine Geotechnical Drilling

The final five diamond drill holes of the second DFS geotechnical drilling program (11 diamond drill holes consisting of 4,036.4m, *Table 1*) were completed during the Quarter. The core is currently being tested for geotechnical properties and will provide additional data for the final open pit and underground mine designs. Assays for all 11 holes should be completed during Q2 2023.

Table 1: Wolverine Geotechnical Drilling

Hole ID Actual	Collar East	Collar North	Collar RL	Dip _	Azi _	EOH Depth Actual
BRWT0053	493563	7914895	452	-59	181	270.8
BRWD0063	493596	7914889	451	-59	181	270.9
BRWD0056	493631	7914893	451	-57	180	270.8
BRWD0064	493680	7914929	452	-59	177	354.9
BRWD0058	493730	7914922	459	-59	182	341
BRWD0057	493761	7914933	461	-57	182	420
BRWD0065	493669	7914960	452	-60	187	552.2
BRWD0059	493570	7914990	456	-57	177	411.9
BRWD0061	493488	7914978	455	-61	175	409
BRWD0066	493457	7914998	453	-58	178	413.1
BRWD0062	493512	7914920	455	-60	180	321.8
Total						4,036.4

The work program in the Q2 2023 quarter will focus on costing the mine designs and schedules for both the open pit and underground operations, water management, analysing the geotechnical data and undertaking cave flow modelling for the SLR.

DFS - Process Design and Engineering

The dual-party Early Contractor Involvement (ECI) process with GR Engineering Services Ltd and MACA Interquip for the Beneficiation Plant continued to progress. The ECI process requires the contractors to perform all engineering, design and costing activities required to enter into an executable lumpsum Engineering Procurement and Construction (EPC) contract for the delivery of the Beneficiation Plant.

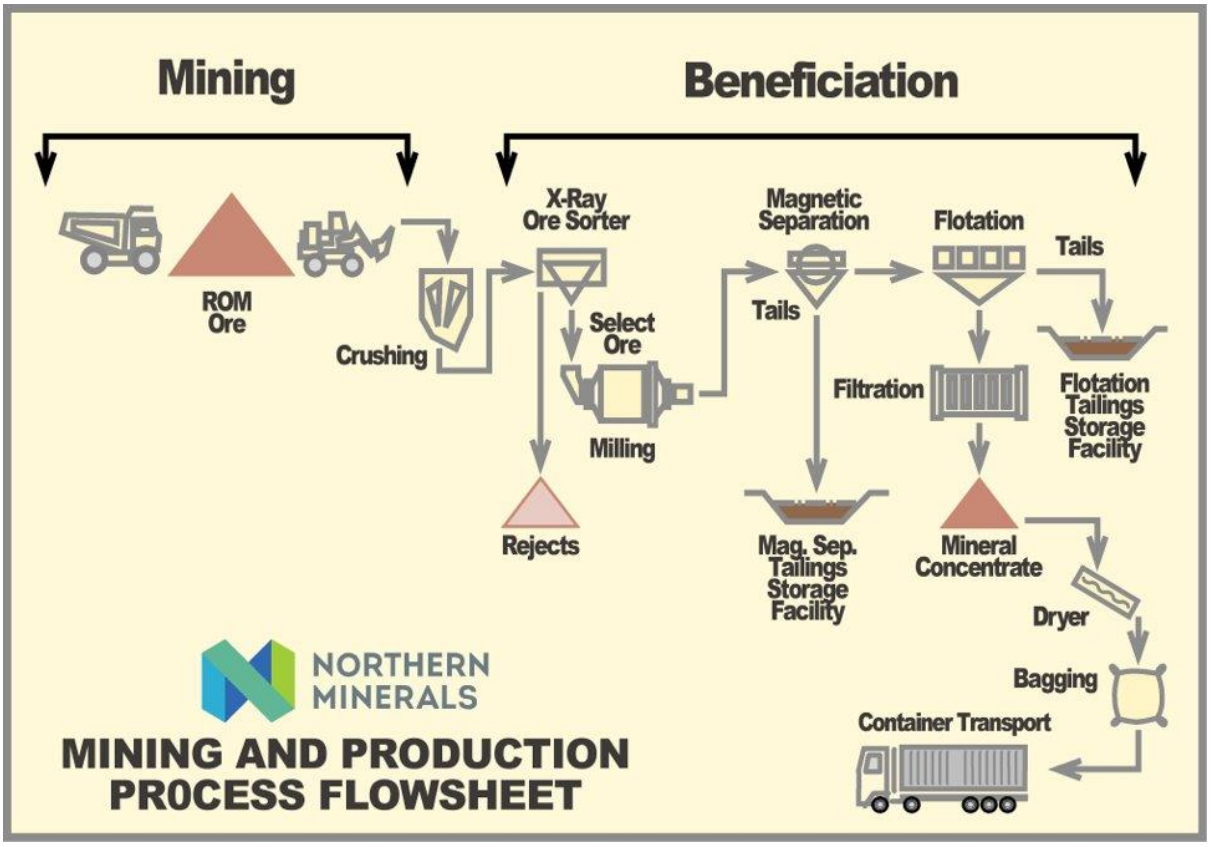
Process design and Beneficiation plant 3D model reviews were conducted with both companies during the Quarter with the majority of the major equipment packages now tendered with proposals being submitted for design and costing activities.

The process flowsheet as summarised in ***Figure 2*** includes crushing, ore sorting, milling, magnetic separation, flotation and filtration to produce a high grade 25% TREO xenotime concentrate rich in dysprosium and terbium. The inclusion of ore sorter circuit in the commercial scale plant to increase mill feed grade and de-risk mining dilution is a notable improvement to the 2015 DFS Beneficiation process plant design.

The geotechnical investigation for the process plant site was completed during the Quarter.

The completion of the ECI process is anticipated during Q2 2023, with the final preferred EPC contractor being notified during Q3 2023.

Figure 2: Summary Process Flowsheet



DFS - Non-Process Infrastructure

Non-Process Infrastructure (NPI) design and studies progressed in several areas during the quarter, including:

- Tailings Storage Facility design is well advanced and is expected to be completed in Q2 2023.
- Preliminary design of surface water management has been completed with all modelled stormwater for a 1:100 year rainfall event effectively managed.
- The water supply system design is complete and is under review.
- The dewatering study will progress in Q2 2023 in line with provisional mine designs and schedules.
- Airstrip upgrade design completed with design review by aerodrome specialists underway.
- Road and earthworks design is well advanced with incorporation of surface water management design expected in the coming quarter.
- Camp water services equipment design is complete.
- Accommodation village upgrade and NPI buildings design is complete.
- Communications study is complete.
- Route survey and logistics study for inbound cargo is complete and a study has commenced on the outbound cargo to delivery concentrate to Eneabba.
- Development of the power station load requirements was progressed.

Procurement activities commenced this quarter with the following packages out to tender in the market including:

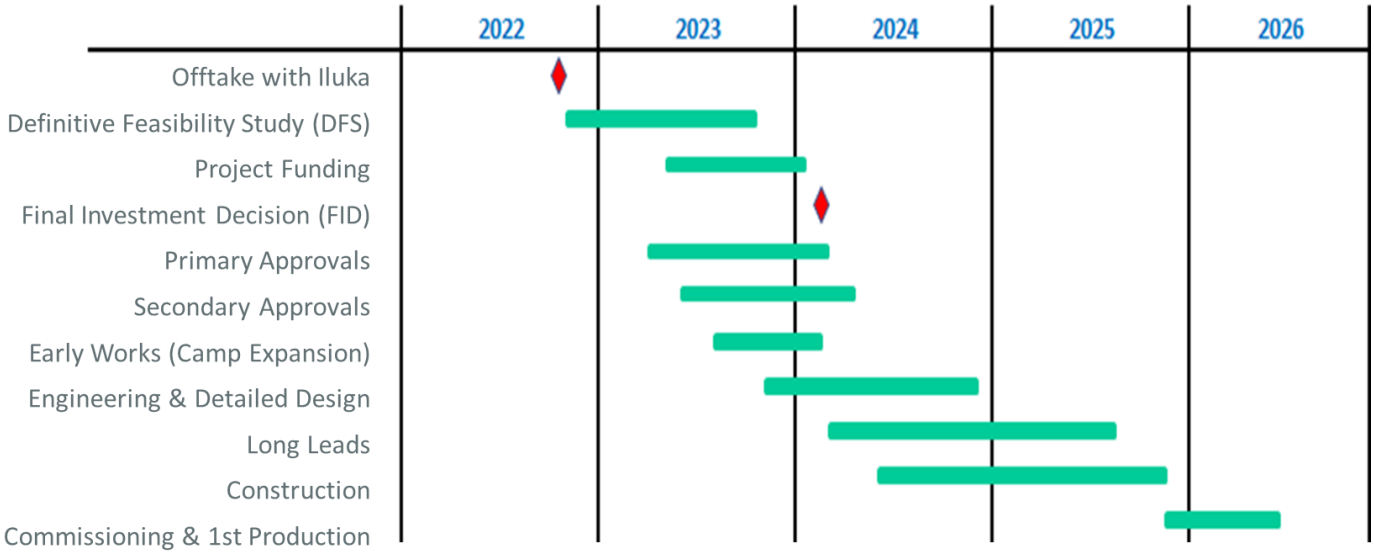
- Accommodation and NPI buildings
- Camp water services equipment

Expenditure on feasibility study activities during the Quarter was approximately $1.7 million.

Schedule

The DFS is on track for completion in Q4 2023 with the Final Investment Decision targeted in Q1 2024. Subject to funding, an early works program is being planned for Q4 2023 that consist of preparing the existing camp for expansion and commencing detailed front end engineering design.

Figure 3: Summary Proposed Schedule to Production



WOLVERINE DEEPS EXPLORATION DRILLING

Background

The flagship Wolverine deposit, located at Browns Range, is a hydrothermal, shear hosted, xenotime rich breccia controlled by approximately east-west trending structures dipping steeply to the north. Xenotime is a rich source of dysprosium and other HREE's such as terbium and yttrium. The mineralisation at Wolverine has an exceptionally high HREO to TREO ratio where ~89% of the TREO are heavy rare earths.

In September 2022, reinterpretation of the Wolverine ore body was completed by CSA Global using Multiple Indicated Kriging (MIK) resulting in an updated Mineral Resource estimate reported in accordance with the JORC (2012) code (***Table 2***) (Refer ASX announcement 10 October 2022 "Updated Wolverine Mineral Resource estimate at Browns Range").

Table 2: Depleted Mineral Resources for the Wolverine deposit at 30 September 2022, TREO cut-off grade 0.15%

Classification	Tonnage Mt	TREO %	Dy_2O_3 kg/t	Y_2O_3 kg/t	Tb_4O_7 kg/t	HREO rel.%	U_3O_8 ppm	ThO_2 ppm	TREO t
Measured	0.14	0.70	0.61	3.99	0.09	88%	24	31	986
Indicated	3.24	0.95	0.83	5.53	0.12	89%	39	30	30,751
Measured + Indicated	**3.39**	**0.94**	**0.82**	**5.47**	**0.12**	**89%**	**38**	**30**	**31,737**
Inferred	3.05	0.98	0.84	5.68	0.13	89%	41	32	29,756
Total	**6.44**	**0.96**	**0.83**	**5.57**	**0.12**	**89%**	**39**	**31**	**61,492**

Proposed Wolverine Deeps Programme

A seven-hole diamond drilling programme has been designed to explore for further continuations to the orebody with depth and down plunge beyond the current Mineral Resource wireframe. The main objectives are:

A) To determine the extent of the orebody to the west of the wireframe below 500m vertical and define the orientation of the primary plunge. To achieve this, 2 drill lines are spaced at 40m intervals from east to west. Each line comprises one primary hole with two or three branching wedge holes. There will be 50 metres vertical distance between all three holes on any particular line. This will provide coverage over 100m of strike east to west from the current western extent of the Mineral Resource wireframe and 100m vertical down dip extent (***Figure 1*** and ***Figure 2***).

B) To determine the grade of the mineralization to provide an understanding whether grade continues with depth.

During the Reporting Period, a total of five holes have been completed (***Figure 4, Figure 5 and Figure 6***) for a total of 2,955 metres (**Table 3**)

Table 3: Wolverine Deeps Drill Summary

Wolverine Deeps Exploration Drill Summary						
Hole ID Actual	Collar East	Collar North	Collar RL	Dip	Azi	EOH Depth Actual
BRWD0067	493476	7915007	453	-73	194	532
BRWD0067W1	493476	7915007	453	-75	194	543
BRWD0068	493449	7915125	446	-67	182	601
BRWD0068W1	493449	7915125	446	-67	182	697
BRWD0069	493408	7915076	446	-59	180	582
Totals						2955

Assay Results

Assay results have been received for the first 2 holes completed. (BRWD0067 and BRWD0067W1). Significant intercepts are given in (Table 4).

Table 4: Significant Intercepts[1]

Hole Number	From (metres)	To (metres)	Interval (metres)	TREO[2] (%)	Dy2O3 (ppm)
BRWD0067	490	498	8	0.26	145
BRWD0067W1	515	530.8	15.8	0.51	454
	547	548.9	1.9	2.29	2,029
BRWD0068	*Results Awaited*				
BRWD0068W1	*Results Awaited*				
BRWD0069	*Results Awaited*				

1. Significant intercepts (>=2m @ 0.15% TREO or equivalent, with a maximum of 2m continuous internal dilution. No top-cut has been applied all widths are downhole lengths.)
2. (TREO – Total Rare Earth Oxides = Sum of La2O3, CeO2, Pr6O11, Nd2O3, Sm2O3, Eu2O3, Gd2O3, Tb4O7, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3, Lu2O3, Y2O3)

Discussion

The first line of drill holes has successfully intersected the primary structure of the mineralised breccia that indicates an average true width of this zone to be around 22m.

Assays from hole BRWD0067 and BRWD0067W1 indicate that mineralisation is increasing as we approach the central portion of the primary plunge. Both holes look to have intersected the very western edge of the primary structure.

Mineralisation is anticipated to increase with depth in holes BRWD0068 and BRWD0068W1. The initial concept was that the primary plunge was stepping over to the west, however results are indicating that the primary plunge is steeper than first thought.

Expenditure on exploration and evaluation activities during the quarter was approximately $2.9 million.

Figure 4: Wolverine Deeps Exploration Drilling- Longitudinal Section Looking North

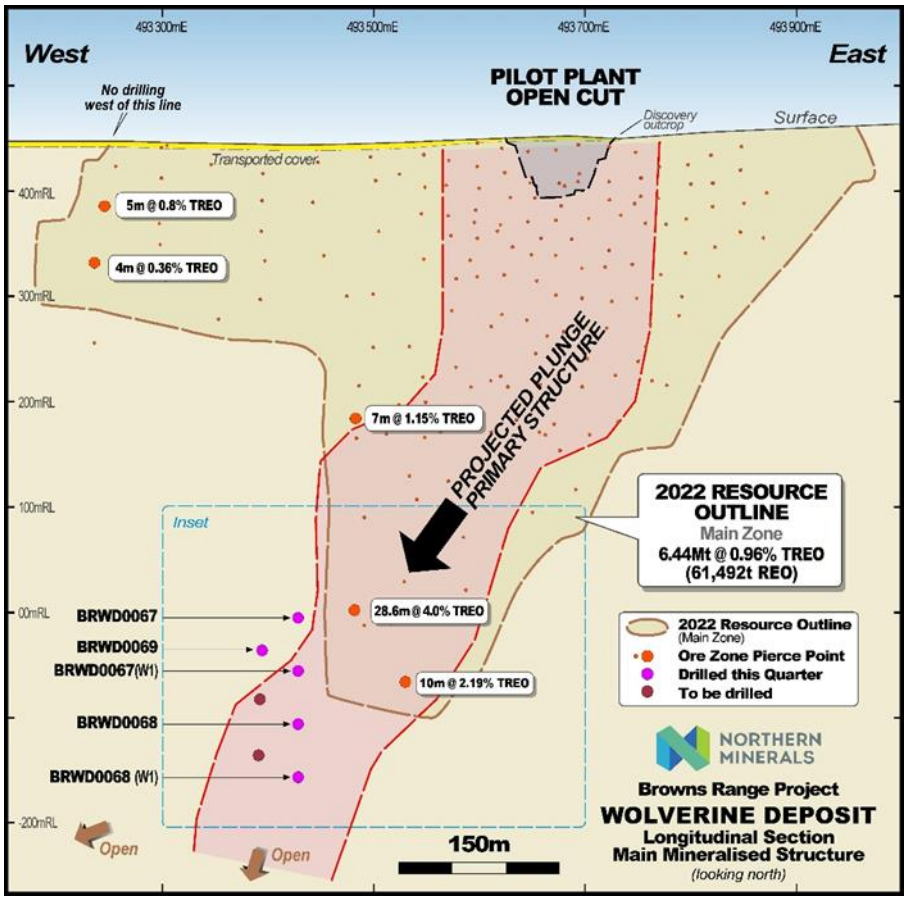


Figure 5: Wolverine Deeps Exploration Drilling Insert

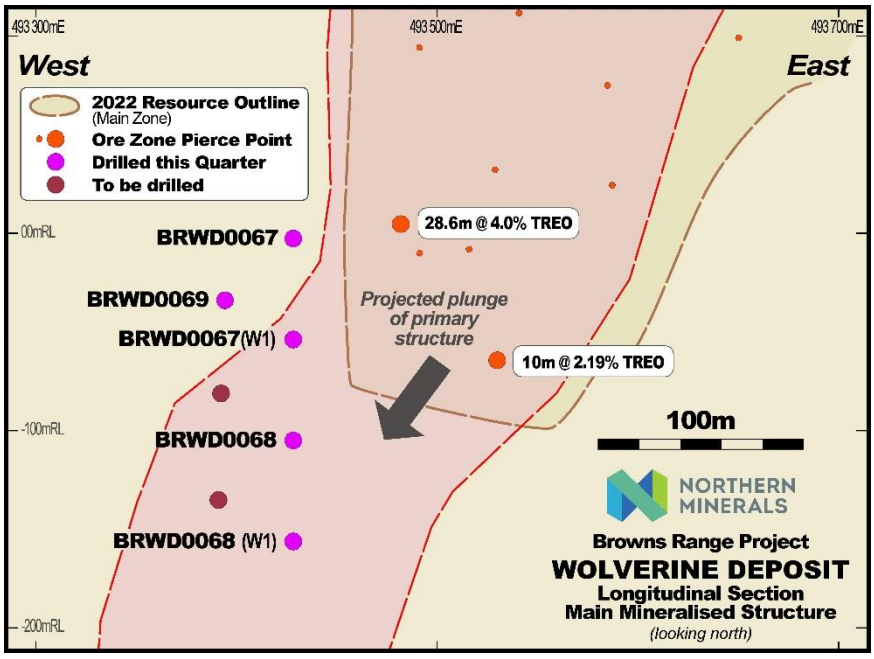
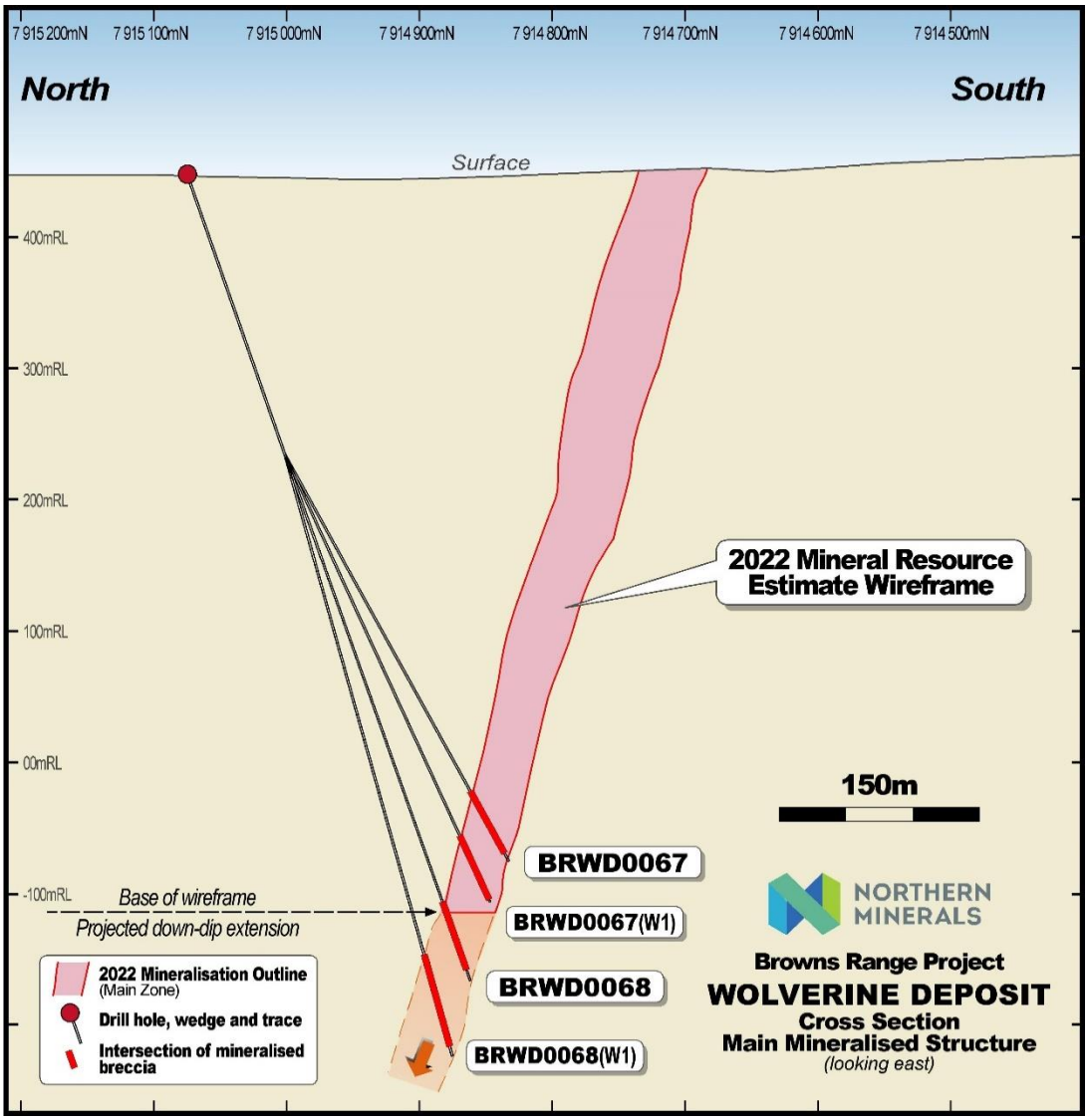


Figure 6: Wolverine Deeps Exploration Drilling Cross Section Looking East



PROJECT FUNDING

During the Quarter, NTU continued its process of implementing its strategy to procure sufficient project funding required for the construction and commissioning of the Browns Range Project. This included engaging with groups such as the Northern Australian Infrastructure Facility (NAIF) and Export Finance Australia (EFA) seeking to participate in their respective processes for NTU to be considered for the various funding packages available through these agencies.

During the Quarter the Company determined an Order of Magnitude (OOM) early estimate for the Browns Range Project CAPEX requirement to be in the order of approximately A$500M (excluding financing costs). This OOM estimate will be updated in the outcomes of the final DFS (expected Q4 2023).

PAYMENTS TO RELATED PARTIES OF THE ENTITY AND THEIR ASSOCIATES

Payments made during the quarter and included in 6.1 and 6.2 of Appendix 5B – Mining exploration entity quarterly cash flow report are detailed below:

Aggregate amount of payments to related parties and their associates included in cash flows from operating activities total $0.43 million.

This comprises of payments to Executive and Non-executive directors' remuneration from services. There were no payments to related parties and their associates included in cash flows from investing activities.

Compliance Statement – Exploration Results

The information in this report relating to Exploration Results was compiled by Mr Simon Pooley who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pooley 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 Pooley consents to the inclusion of this information in the form and context in which it appears.

Authorised by The Board of Directors of Northern Minerals Limited

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FUTURE PERFORMANCE AND FORWARD-LOOKING STATEMENTS

This Report contains certain "forward-looking statements". The words "expect", "anticipate", "estimate", "intend", "believe", "guidance", "should", "could", "may", "will", "predict", "plan" and other similar expressions are intended to identify forward-looking statements. Any indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Forward-looking statements, opinions and estimates provided in this Report are based on assumptions and contingencies that are subject to change without notice and involve known and unknown risks and uncertainties and other factors that are beyond the control of Northern Minerals, its directors and management including any further impacts of COVID-19 on Northern Minerals' continued trading and operations. This includes statements about market and industry trends, which are based on interpretations of current market conditions.

You are strongly cautioned not to place undue reliance on forward-looking statements, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption caused by factors including the COVID-19 pandemic.

Forward-looking statements are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. Actual results, performance or achievements may differ materially from those expressed or implied in such statements and any projections and assumptions on which these statements are based. These statements may assume the success of Northern Minerals' business strategies, whether the success is realised in the period for which the forward-looking statement may have been prepared or otherwise. No representation or warranty, express or implied, is made as to the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters contained in this Report. The forward-looking statements are based on information available to Northern Minerals as at the date of this Report. Except as required by law or regulation (including the ASX Listing Rules), none of Northern Minerals, its representatives or advisers undertakes any obligation to provide any additional or updated information whether as a result of a change in expectations or assumptions, new information, future events or results or otherwise.

About Northern Minerals

Northern Minerals Limited (ASX: NTU) (Northern Minerals or the Company) owns 100% of the Browns Range Project in northern Western Australia, tenements uniquely rich in the heavy rare earth elements dysprosium (Dy) and terbium (Tb).

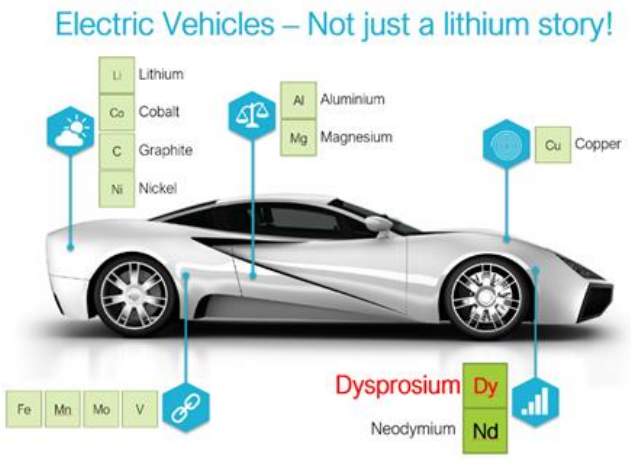
Dysprosium and terbium are critical in the production of dysprosium neodymium iron-boron (DyNdFeB) magnets used in clean energy, military, and high technology solutions. Dysprosium and terbium are prized because their unique properties improve the durability of magnets by increasing their resistance to demagnetisation.

The Project's flagship deposit is Wolverine, which is thought to be the highest-grade dysprosium and terbium orebody in Australia. The Company is preparing to bring Wolverine into production with the objective of providing a reliable alternative source of dysprosium and terbium to production sourced from China. Northern Minerals is one of only a few companies outside of China to have produced these heavy rare earth elements.

To further its strategic objective, Northern Minerals is preparing to undertake a Definitive Feasibility Study for a commercial scale beneficiation plant to process Wolverine ore.

Apart from Wolverine, Northern Minerals and has several other deposits and prospects within the Browns Range Project that contain dysprosium and other heavy rare earth elements, hosted in xenotime mineralisation.

For more information: northernminerals.com.au.



TENEMENT REPORT

Details of mining tenements as at the quarter ended 31 March 2023 (ASX Listing Rule 5.3.3).

.Project	Location	Tenement ID	State	Status	Holder Application	Interest
Browns Range WA	Browns Range	E80/4479	WA	Granted	Northern Minerals	100%
	Browns Range	E80/4782	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5040	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5041	WA	Granted	Northern Minerals	100%
	Browns Range	M80/627	WA	Granted	Northern Minerals	100%
	Browns Range	M80/649	WA	Application	Northern Minerals	100%
	Browns Range	L80/76	WA	Granted	Northern Minerals	100%
	Browns Range	L80/77	WA	Granted	Northern Minerals	100%
	Browns Range	L80/78	WA	Granted	Northern Minerals	100%
	Browns Range	L80/79	WA	Granted	Northern Minerals	100%
	Browns Range	L80/107	WA	Application	Northern Minerals	100%
	Browns Range	E80/5260	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5261	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5367	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5368	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5369	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5370	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5418	WA	Granted	Northern Minerals	100%
Browns Range NT	Browns Range	EL24193	NT	Granted	Northern Minerals	100%
	Browns Range	EL24174	NT	Granted	Northern Star Resources	REE rights only
	Browns Range	EL26270	NT	Granted	Northern Minerals	100%
	Browns Range	EL26286	NT	Granted	Northern Minerals	100%
	Browns Range	ELA32161	NT	Application	Northern Minerals	100%

.Project	Location	Tenement ID	State	Status	Holder Application	Interest
	Browns Range	ELA32162	NT	Application	Northern Minerals	100%
John Galt	John Galt	E80/4298	WA	Granted	Northern Minerals	100%
	John Galt	E80/4967	WA	Granted	Northern Minerals	100%
	John Galt	E80/5070	WA	Granted	Northern Minerals	100%
	John Galt	E80/5230	WA	Granted	Northern Minerals	100%
Boulder Ridge	Boulder Ridge	EL29594	NT	Granted	Northern Minerals	100%
	Boulder Ridge	ELA24849	NT	Application	Northern Minerals	100% (excluding gold rights)
	Boulder Ridge	ELA24935	NT	Application	Northern Minerals	100% (excluding gold rights)
	Boulder Ridge	EL24177	NT	Granted	Northern Minerals	100%
	Boulder Ridge	EL25171	NT	Granted	Northern Star Resources	REE rights only
	Boulder Ridge	ELA28868	NT	Application	Northern Star Resources	REE rights only
	Boulder Ridge	EL27590	NT	Granted	Northern Star Resources	REE rights only
Gardiner-Tanami NT	Tanami	EL23932	NT	Granted	Northern Star Resources	REE rights only
	Tanami	EL25009	NT	Granted	Northern Star Resources	REE rights only
	Ware Range	EL26498	NT	Granted	Northern Minerals	100%
	Ware Range	EL26541	NT	Granted	Northern Minerals	100%
	Pargee	EL27367	NT	Granted	Northern Minerals	100%
	Tanami	EL29592	NT	Granted	Northern Star Resources	REE rights only
	Tanami	EL29593	NT	Granted	Northern Star Resources	REE rights only
	Tanami	EL29595	NT	Granted	Northern Minerals	100%
	Tanami	ELA29619	NT	Application	Northern Star Resources	REE rights only
	Tanami	EL26635	NT	Granted	Northern Star Resources	REE rights only

.Project	Location	Tenement ID	State	Status	Holder Application	Interest
	Tanami	ELA32163	NT	Application	Northern Star Resources	REE rights only
	Tanami	ELA32164	NT	Application	Northern Star Resources	REE rights only
Rabbit Flats	Rabbit Flats	ELA25159	NT	Application	Northern Star Resources	REE rights only
	Rabbit Flats	ELA25160	NT	Application	Northern Star Resources	REE rights only

An application was made in the quarter for tenement M80/649. The Company neither had granted nor relinquished any mining tenements in the quarter. No farm-in or farm-out agreements were entered into during the quarter.

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.*	A total of 10 diamond holes inclusive of three wedge daughter holes were drilled at the Wolverine deposit during the quarter. Assay results have only been received for one diamond hole (BRWD0067) only. In the field a portable 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 HQ2 or HQ3 sized core. The pXRF instrument is calibrated and serviced annually or more frequently. Additionally, at the start of each sampling session, standards and silica blanks are analysed. Sampling was carried out under NTU protocols and employed QAQC procedures in line with industry standard practice and fit for purpose.
	Aspects of the determination of mineralisation that are Material to the Public Report.	This report relates to exploration results only. Sampling was undertaken at a nominal 1m interval, although geologist's discretion to constrain samples on observed geological intervals was also used. Diamond core samples were dried, crushed, split and pulverised by Intertek Genalysis Laboratories in Perth prior to analysis of the rare earth element suite using a sodium perioxide fusion digest and 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 core was drilled using either HQ2 or HQ3 diameter. Triple tube was only used where fractured ground was encountered to maximise recovery. Diamond core was orientated using the Reflex ACT orientation tool.

	diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	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 Diamond recovery is measured by measuring the recovered core and comparing to the drilled interval.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Diamond drilling utilised triple tube techniques and drilling fluids in broken or fractured ground in order to assist with maximising recoveries. Competent ground was drilled using standard HQ2.
	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. 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 was further cut to quarter core with both quarters submitted

Sample preparation		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 samples follow industry standard practice at Intertek Genalysis 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 were obtained from quartering the core. Insertion rates targeted 1:20 for duplicates, blanks and standards, with increased frequency in mineralised zones.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample is appropriate for the grain size of the material.
	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	In the field a portable XRF handheld tool was used to provide a preliminary quantitative indication of mineralisation. A reading time of 30 seconds was used. With diamond core, up to 4-point readings were recorded every metre. Daily checks on the PXRF are

	analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	completed with the silica blank standard and the TILL-4 yttrium standard checked at the beginning of every sample run.
Quality of assay data and laboratory tests	*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. Insertion rates targeted 1:20 for duplicates, blanks and standards, with increased frequency in mineralised zones Results highlight that sample assay values are suitably accurate and unbiased. Blanks were inserted in the field and developed from local host rock following chemical analysis. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures.
	The verification of significant intersections by either independent or alternative company personnel.	Internal verification of significant results by more than one company geologist.
Verification of sampling and assay	*The use of twinned holes.*	No holes have been twinned in this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Portable XRF Analytical data was collected directly by the Niton pXRF and downloaded by digital transfer to an excel sheet with inbuilt QAQC.Daimaond Drilling 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.

	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
	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 with a high accuracy KGPS receiver with an accuracy of +/- 0.02 metres. Down hole surveys were completed by the drilling contractor using a AXIS Champ gyroscope survey tool at the time of drilling.
Location of data points	*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.	BRWD0067 is an exploration hole designed to test for down-plunge continuity of mineralisation outside of the current resource area. It is located approximately 40m west of the nearest drill hole.
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 only. Data spacing and distribution is currently not yet sufficient to support Mineral Resource or Ore Reserve Estimation.
	Whether sample compositing has been applied.	N/A
Orientation of data in relation	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	All diamond drilling completed at Wolverine is at an orientation perpendicular to the interpreted structural and/or lithological trend. BRWD0067 intersected mineralisation at an inclination of -66 degrees at an azimuth of approximately 200 degrees.

to geological structure	*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 the Wolverine deposit has an east-west strike and dips steeply north. 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 to Perth by a commercial transport company. 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 Wolverine Deposit is located on M80/627. 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 fully determined 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 systematic exploration for REE mineralisation has been completed by other parties prior to Northern Minerals at Wolverine. Regional exploration for uranium mineralisation was completed in the 1980s without success.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Browns Range deposits including Wolverine are unconformity related HREE style deposits. They 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.

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 Table 3 in body of text.
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.*	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 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 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.*	The drilling is designed to intersect at an azimuth approximately perpendicular to the strike of mineralisation. The geometry of mineralisation at the Wolverine Deposit has an east-west strike and dips approximately 75 degrees north. BRWD0067 has intersected mineralisation at an azimuth of 200 degrees at an inclination of -66 degrees.

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 4, 5 and 6, in the 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 results of all drill holes have been reported. Where holes were not reported with significant intercepts there were 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; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	At Browns Range Project WA, airborne magnetic and radiometric surveys were acquired by Northern Minerals in 2011. Hyperspectral data captured during 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 all the prospects reported herein. Ground based radiometric surveys were also completed. Several Mineral Resource estimates have been completed for the Wolverine deposit between 2012 and 2022. Comprehensive metallurgical test work has been undertaken since 2010 allowing the successful development of a process flowsheet incorporating beneficiation and hydrometallurgy circuits. A trial mine and pilot plant operation, including ore extracted from Wolverine, was undertaken between 2017 and 2022 to demonstrate proof of concept of the flowsheet and de-risk the project. Geotechnical studies by external consultants have been undertaken on diamond core from Wolverine between 2013 and 2023 in support of mine planning for open pit and underground operations.

Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	The diamond drill program is still in progress. Assay results for three holes drilled under BRWD0067 at 30-40m vertical intervals are still pending. Additional holes are planned to test for a lateral extension down plunge to the west.
	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 4, 5 and 6 in body of text.

Section 3: Estimation and Reporting of Mineral Resources

Not applicable

Section 4: Estimation and Reporting of Ore Reserves

Not applicable