



# NORTHERN MINERALS

Powering Technology.



## Quarterly Activities Report

DECEMBER 2019

Northern Minerals is one of a few non-Chinese producers of dysprosium and terbium. Production from the Browns Range Heavy Rare Earth Pilot Plant Project in the East Kimberley region of Western Australia continued during the quarter as the Company assesses the technical and economic feasibility of a full scale operation.



Northern Minerals Limited (ASX:NTU; Northern Minerals or the Company) is focused on production from 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 is one of a few no-Chinese producers of dysprosium..

The pilot plant is continuing to assess the technical and economic feasibility of a full-scale commercial operation. Northern Minerals is continuing to increase output from the pilot plant to steady state to assess the quality of the rare earth carbonate produced. Test work has identified areas of new knowledge that have been applied to the pilot plant.

**Corporate Overview**



## Highlights:

- Pilot plant at Browns Range is continuing operations, with nameplate capacity rates expected to be achieved in the coming months
- Significant modifications successfully undertaken on the kiln feed system to improve throughput and performance
- The prices of Dysprosium and Terbium eased slightly during the quarter, down 7-8%, however for the full calendar year, the Dy price increased by 48% and the Tb price rose by 16% over the same period
- New assays from the RC program undertaken at Dazzler returned the best ever results from Browns Range
- Siteworks for the ore sorting project have commenced ahead of expected installation during the June quarter
- Initial separation scoping study results were positive, with the next stage of assessment underway in the US
- Sales to offtake partner thyssenkrupp progressed during the quarter, with shipments commencing post-quarter end following completion of documentation
- Discussions continuing with government and government agencies with regards to the critical minerals framework and Browns Range
- Training2Work facility at Browns Range officially opened
- Post quarter end, high grade copper rock chip results up to 2.9% Cu returned from the John Galt Project

## Browns Range Project Update

The Company is operating a pilot scale project aimed at assessing the technical and economic feasibility of a full-scale commercial operation. The three-year testwork program is approximately 50% complete and at the end of the December 2019 quarter, a total of 158,959kg of Rare Earth Carbonate had been produced to test the pilot plant operation and to collect data to feed back into the processing flowsheet.

The Company will continue to ramp up output from the pilot plant to nameplate capacity to assess the quality of the rare earth carbonate produced. The Company expects that incremental steps will be made from new knowledge from the testwork program to adjust both the rate of production and the quality of product.



A major shutdown was undertaken during the quarter to enable modifications to the kiln feed system. These modifications addressed scale build up in the kiln, throughput rates and availability. These works were successful, with a notable increase in kiln performance since.

Further drilling at the Dazzler deposit has highlighted the potential of the deposit as a future high-grade ore source for Browns Range, with the best ever intercept returned during the quarter.



Figure 1: The Hon. Melissa Price, Member for Durack, Northern Mineral’s Chairman Colin McCavana and Wunan Foundation executives touring site as part of the Training2Work facility opening





## Browns Range Pilot Plant

The Browns Range Pilot Plant Project has been developed in order to assess the economic and technical feasibility of a larger scale development. As this is the first xenotime-hosted rare earth development anywhere, it is important that the Company fully understands and tests the metallurgical processes before committing to a full-scale development.

Many individual R&D projects have been planned for the three-year pilot plant stage, with experiments conducted on most areas of the plant, including fine grinding, magnetic separation, flotation, leaching, purification, ion exchange and the sulphation bake process.

Following a significant modification of the kiln feed system during the December quarter, the Company is targeting the June quarter for achieving nameplate capacity for the plant.

## Ore sorting on track for mid-2020 commencement

During the December quarter, the Company progressed the approvals process for the installation and operation of the ore sorter.

The detailed design is complete, all key items of equipment have been procured and installation contracts are being finalised.

Subject to receiving approvals, the Company is on track to have the ore sorter system installed and commissioning underway by mid-2020.

## Thyssenkrupp sales underway

Following the execution of a new offtake agreement in August 2019 with thyssenkrupp Materials Trading GmbH (**thyssenkrupp**) for 100% of offtake from the Browns Range Pilot Plant Project, the Company has been working through the documentation process to enable export sales to thyssenkrupp.

Export shipments have now commenced to thyssenkrupp, with shipments expected to increase in size and frequency following the end of the wet season.

## Rare earth separation Scoping Study showing positive results

Positive results were reported during the December quarter from K-Tech's bench scale testwork in Florida which showed that the Stage 1 continuous ion exchange (**CIX**) process has been successful.

The rare earths (RE) load in preference to the non-RE on the resin. Regeneration was successful and the composition of the regeneration solution showed that final non-RE/RE ratio is in the range that would allow for the regeneration solution to be used as the feed for the Stage 2 continuous ion chromatography (**CIC**) step, where initial separation of the rare earths by group begins.

Stage 2 bench testing simulating the first phase of the CIC has also been successful, as regeneration solution from Stage 1 has been introduced to the CIC test columns and demonstrate that group separations of RE's have



occurred. Testwork continued towards the end of the quarter to optimize this stage of the separation and collect sufficient group RE samples to proceed to Stage 3: Individual RE separation and purification.



Figure 2: K-Tech testing facilities in Florida, USA.

If the bench scale testwork and Scoping Study is successful, the Company intends to undertake a pilot testwork program and install the technology as part of the current Pilot Plant Project at Browns Range to enable the Company to sell separated rare earth products to a larger and more diverse end user customer base.

## Training2Work facility opened at Browns Range

Another key milestone for the Company during the December quarter was the official opening of the Training2Work facility as part of the program that is being jointly undertaken with the Wunan Foundation.

The Hon Melissa Price MP, Federal member for Durack, opened the training facility, with the first intake of trainees scheduled to commence in early 2020.

The Training2Work facility has been planned to enable members of the local indigenous community at Ringer Soak and Halls Creek to be trained in the skills that are required for positions in and around the mine site and forms an important part of our relationship with our local community that we are proud to be a part of.



Figure 3: Colin McCavana and the Hon Melissa Price, member for Durack at the official opening of the Training2Work facility at Browns Range

## Dazzler drill results continue to shine

High grade heavy rare earth results continued to be returned from Dazzler during the December quarter, including the best drill intercept ever recorded at Browns Range over the past decade of exploration.

The spectacular results were from infill and step out reverse circulation (RC) drilling completed during the quarter.

The drilling program focussed on the area of the scree slope below the scarp where previous drilling was undertaken. The drilling program was designed to step-out and infill previous drilling in order to expand and update the existing Mineral Resource. These results are highly significant as many of the intercepts occur at or near the surface, opening up the potential for a low cost operation.

Table 1 – Dazzler Prospect RC drilling – Significant assay results ( $\geq 2\text{m}$  @ 0.15% TREO or equivalent, and a maximum of 2m continuous internal dilution. No top cut has been applied)

Hole ID	From	To	Interval* (m)	TREO (%)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	HREO%
BRDR0037	6	9	3	0.44	272	54
BRDR0037	27	29	2	0.40	270	71
BRDR0038	6	13	7	0.53	377	65
BRDR0038	23	37	14	0.46	299	67
BRDR0039	4	11	7	0.52	345	53
BRDR0039	20	22	2	0.34	101	40
<b>BRDR0040</b>	<b>0</b>	<b>13</b>	<b>13</b>	<b>0.91</b>	<b>808</b>	<b>77</b>

BRDR0040	22	31	9	0.21	109	57
BRDR0041	0	7	7	0.59	511	72
BRDR0041	22	27	5	0.25	169	69
<b>BRDR0042</b>	<b>0</b>	<b>9</b>	<b>9</b>	<b>5.27</b>	<b>5,293</b>	<b>78</b>
BRDR0043	0	6	6	0.58	491	78
BRDR0043	9	12	3	0.34	212	63
BRDR0043	18	20	2	0.25	133	53
BRDR0044	0	4	4	0.45	333	75
BRDR0044	7	10	3	0.22	95	39
<b>BRDR0045</b>	<b>0</b>	<b>19</b>	<b>19</b>	<b>6.05</b>	<b>5,595</b>	<b>87</b>
<b>BRDR0046</b>	<b>0</b>	<b>21</b>	<b>21</b>	<b>7.71</b>	<b>7,502</b>	<b>92</b>
BRDR0046	29	30	1	0.36	177	58
<b>BRDR0047</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>1.19</b>	<b>1,111</b>	<b>87</b>
BRDR0047	17	20	3	0.15	70	45
BRDR0048	30	34	4	0.21	113	51

\* Downhole widths only.

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

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

HREO % = HREO / TREO \* 100

These new drill intercepts will be incorporated into an updated Mineral Resource estimate, planned for the March quarter.

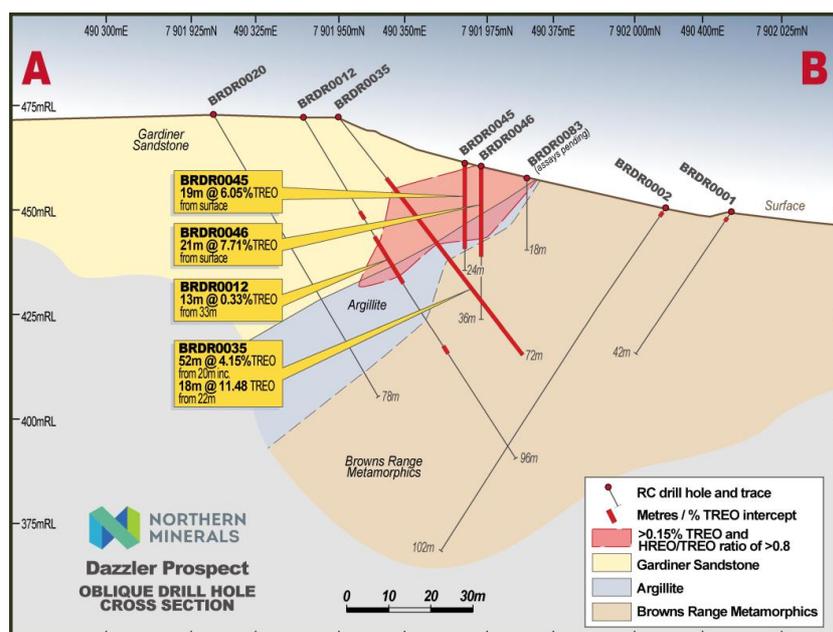


Figure 3: Dazzler drillhole location plan

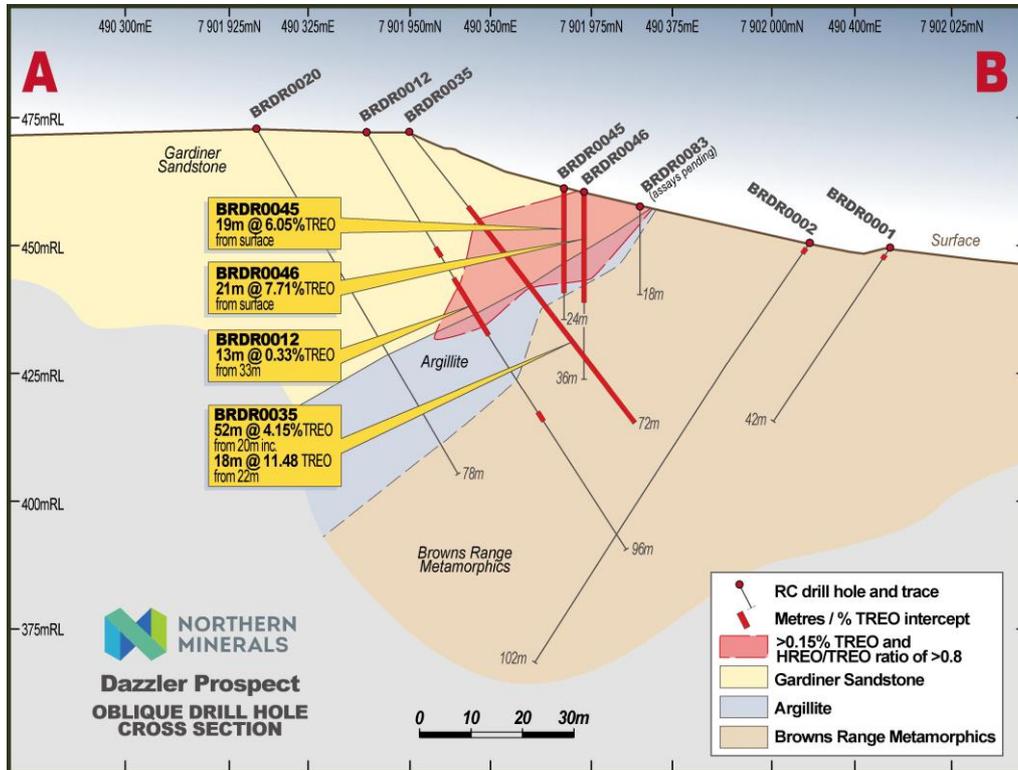


Figure 4: Oblique drill hole cross section – Dazzler Prospect

## Other Projects

### High-grade copper results returned at John Galt

Following quarter end, the Company announced high-grade copper assays from a selective rock chip sampling program at the Company’s 100%-owned John Galt Project, located 200km south of Kununurra in the East Kimberley region of Western Australia.

Of the 24 samples collected and analysed, 12 returned assays of greater than 1.0% Cu. The higher-grade copper samples mostly occurred in a cluster over 500m of strike length. Anomalous gold and silver assays were also observed for some of the anomalous copper samples.



Figure 4: Photograph of malachite in outcrop from John Galt copper prospect



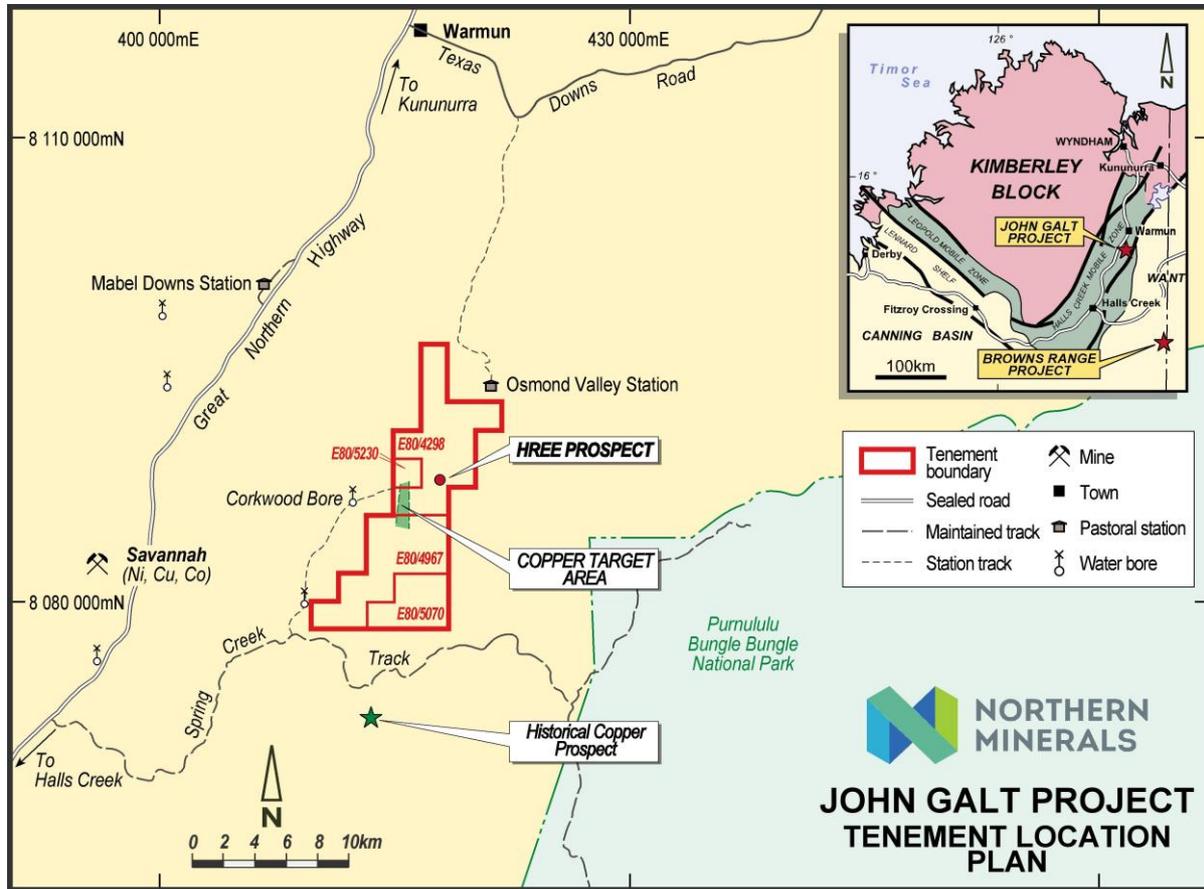


Figure 5: John Galt Location Plan

While the Company has a primary focus on rare earth elements, the discovery of copper mineralisation is an unexpected bonus that offers opportunistic upside potential, particularly for a company focussed on electric vehicles and sustainable power generation.

John Galt Project: Rock Chip Sampling – anomalous results (>0.7% Cu)

Sample Number	Northing	Easting	Copper (%)	Gold (ppb)	Silver (ppm)
JGRK000253	8085732	415399	1.38	3	0.88
JGRK000255	8085802	415367	1.87	9	3.14
JGRK000256	8085798	415413	0.88	4	0.9
JGRK000257	8085100	415043	1.04	3	2.13
JGRK000259	8086691	415259	0.81	27	9.46
JGRK000260	8085339	415212	1.04	3	0.39
JGRK000264	8085277	415048	0.72	15	0.21
JGRK000266	8085370	415049	0.72	1	0.39
JGRK000268	8086067	415367	1.98	3	0.17
JGRK000269	8086137	415396	2.19	22	0.82
JGRK000270	8086168	415392	2.25	11	1.82





JGRK000271	8086156	415387	1.73	4	0.16
JGRK000272	8086122	415398	1.44	7	0.18
JGRK000273	8086023	415484	1.08	5	1.54
JGRK000274	8085972	415442	2.92	16	2.53
JGRK000275	8085901	415202	1.88	77	0.17

Copper mineralisation was observed associated with quartz veins and breccias, primarily within sandstone and siltstone units of the Red Rock Formation, or along the contacts between the two units. The quartz veins are believed to represent dilational features related to northwest and northeast trending faults. Mafic volcanics occur a few hundred metres to the east and south of the mineralised veins and breccias. The samples are point samples and therefore have a high potential of bias and should not be considered as being representative of the overall mineralised structure or rock type.

The Company plans to undertake further geological mapping, a follow up soil sampling program and a ground geophysics program later in the year, following the end of the wet season. Based on these results, a drilling program may be considered for the June quarter.

## Corporate and Financial

### R&D claim appeal still pending

Following a lodgement in July during the September quarter of a formal appeal with AusIndustry regarding its decision to claim that the Company’s activities were ‘ineligible R&D claims’, the Company advises that the process is still ongoing. The Company has liaised with AusIndustry and has provided further clarifying information where requested.

The Company and the ATO have reached an in-principle agreement that will allow staged payment of the disputed amounts while the case is being appealed.

### Equity and Debt

#### \$30 million Placement update

In July, the Company announced it had entered into multiple subscription agreements with sophisticated investors, for the placement of 483,870,970 fully paid Ordinary shares in the Company at an issue price of A\$0.062 per share to raise A\$30 million (before costs).

During the December quarter, a further A\$2.9 million was received, with a further \$0.2 million received in January. The payment date for the balance has extended to 31 January 2020.

Funds raised from the issues of these shares will be used for ore sorting and product separation studies.

#### Baogang Placement update

In August 2019, the Company announced that it had entered into a Subscription Agreement with Baogang Investment (Australia) Pty Ltd (BGIA) to raise A\$20 million at \$0.062 per share, with 322,580,645 Ordinary shares issued to the investors. BGIA is a wholly-owned subsidiary of a Chinese State Owned Entity that owns steel mills in China.





The Placement funds will be used to progress the Enhancement Initiatives at Browns Range, including ore sorting and product separation as well as strengthening the balance sheet.

The Placement is subject to approval of the Company's shareholders, BGIA obtaining Australian Foreign Investment Review Board (FIRB) approval and all regulatory approvals in the People's Republic of China being obtained. All conditions to the Placement must be satisfied within 6 months (or such longer period as agreed) in order for the Placement to complete. Funds from the Placement are due to be received within 60 days following satisfaction (or waiver) of the above conditions.

In December, BGIA confirmed that it lodged an application with the Australian Foreign Investment Review Board (FIRB) in relation to the Baogang Placement. The Baogang Placement was also subject to approval of the Company's shareholders, which was obtained at the Company's AGM on 13 November 2019.

### Amendment to JHY convertible note terms

The Company refers to its announcements on 17 December 2018 and 17 January 2019 detailing the \$4 million convertible note subscription and option agreement entered into with JHY. The terms of the convertible notes issued to JHY (**Notes**) provided that the Notes would mature on 31 December 2019 and that an interest rate of 16% per annum would be payable on the Notes. The Company has successfully negotiated an extension of the maturity date for the Notes for a further year and also a lower interest rate. The maturity date for the Notes is now 31 December 2020 and the interest rate payable on the Notes will be reduced to 10% per annum on and from 1 January 2020.

The Company's shareholders ratified the issue of the Notes at the General Meeting held on 26 February 2019. As consideration for agreeing to amend the terms of the Notes, the Company has issued 2 million fully paid ordinary shares in the capital of the Company to JHY out of the Company's placement capacity under Listing Rule 7.1. The Company may seek to ratify this issue at its next general meeting.

### Exercise of performance rights

A total of 206,050 fully paid ordinary shares have been issued as a result of the exercise of performance rights which vested when performance conditions relating to key performance indicators regarding occupational health and safety, production levels and quality of product produced and shipped from the Browns Range Pilot Plant were satisfied. These shares were issued under Listing Rule 7.2, exception 9 and the issue is not conditional on receipt of shareholder approval.

## Director changes

During the quarter, Mr Congyan Xue, a Non-Executive Director of the Company, resigned from the Board due to personal reasons. Following the resignation of Mr Xue, the Board consists of:

- Mr Colin McCavana Non-executive Chairman
- Mr George Bauk Managing Director / CEO
- Mr Adrian Griffin Non-executive Director
- Ms Yanchung Wang Non-executive Director (Mr Bin Cai – Alternative Director)
- Mr Ming Lu Non-executive Director



## Conferences and Marketing

During the December quarter, the Company's Managing Director, George Bauk, participated in an Australian Critical Minerals Delegation with Federal Resources Minister, Matt Canavan, to Washington DC. The delegation met with US politicians, defence and public servants regarding opportunities for Australian companies to supply critical minerals to US industry.

Also during the quarter, the Company's Chief Financial Officer, Mark Tory, participated in a panel discussion at the In The Zone conference hosted by the Perth USAsia Centre.

The Company is continuing to liaise with Australian and US politicians and advisers with regards to opportunities that exist for closer relationships and sale agreements that are beneficial to all parties.

During the December quarter, the Company also presented and exhibited at the New World Metals conference in Perth.

## March Quarter Activities

Key newsflow expected during the March 2020 quarter includes:

- Browns Range Pilot Plant performance update
- Potential update on the review of the Company's R&D claim by AusIndustry
- Update on developments with respect to enhancement projects, including ore sorting and ore separation
- Dazzler Mineral Resource estimate upgrade, and
- Follow up drilling at various prospects

### For further information:

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## About Northern Minerals

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) is the only producer of heavy rare earth element Dysprosium outside of China via production from the Browns Range Heavy Rare Earth Project in northern Western Australia.

The Company commenced the production of heavy rare earth carbonate in late 2018 as part of a three-year pilot assessment of economic and technical feasibility of a larger scale development at Browns Range.

The current program provides the opportunity to gain production experience and surety of supply for our offtake partner, Thyssenkrupp, as well as allowing the assessment of various project enhancement initiatives including ore sorting and the separation of the product into individual rare earth oxides.

Through the development of its flagship project, the Browns Range Project (the Project), Northern Minerals aims to build the Western Australian operation into a 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, military and high technology solutions.

For more information: [northernminerals.com.au](http://northernminerals.com.au)

### Compliance Statement

The information in this report that relates to the Mineral Resource Estimate for the Dazzler deposit is extracted from the report entitled “Dazzler shines with high-grade Maiden Mineral Resource” dated 6 March 2019 and is available to view on the company’s website ([www.northernminerals.com.au](http://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 report that relates to Exploration Results from the Dazzler deposit is extracted from the report entitled “NTU – Near surface high-grade results from Dazzler drilling” dated 12 November 2019 and is available to view on the company’s website ([www.northernminerals.com.au](http://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 report that relates to Exploration Results from the John Galt Project is extracted from the report entitled "NTU – Significant copper results at John Galt" dated 13 January 2020 and is available to view on the company's website ([www.northernminerals.com.au](http://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.





Tenement Report

Project	Location	Tenement ID	State	Status	Holder Application	Interest
Browns Range WA	Browns Range	E80/4479	WA	Granted	Northern Minerals	100%
	Browns Range	E80/4806	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	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 WA	Browns Range	E80/5260	WA	Application	Northern Minerals	100%
Browns Range WA	Browns Range	E80/5261	WA	Application	Northern Minerals	100%
Browns Range WA	Browns Range	E80/5367	WA	Application	Northern Minerals	100%
Browns Range WA	Browns Range	E80/5368	WA	Application	Northern Minerals	100%
Browns Range WA	Browns Range	E80/5369	WA	Application	Northern Minerals	100%
Browns Range WA	Browns Range	E80/5370	WA	Application	Northern Minerals	100%
Browns Range WA	Browns Range	E80/5418	WA	Application	Northern Minerals	100%
Browns Range NT	Browns Range	EL24193	NT	Granted	Northern Star Resources	REE rights only





	Browns Range	EL24174	NT	Granted	Northern Star Resources	REE rights only
	Browns Range	EL26270	NT	Granted	Northern Star Resources	REE rights only
	Browns Range	EL26286	NT	Granted	Northern Star Resources	REE rights only
Browns Range NT	Browns Range	EL32161	NT	Application	Northern Minerals	100%
Browns Range NT	Browns Range	EL32162	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%
<b>John Galt</b>	John Galt	E80/5230	WA	Granted	Northern Minerals	100%
Boulder Ridge	Boulder Ridge	EL29594	NT	Granted	Northern Minerals	100% (excluding gold rights)
	Boulder Ridge	EL24849	NT	Application	Northern Minerals	100% (excluding gold rights)
	Boulder Ridge	EL24935	NT	Application	Northern Minerals	100% (excluding gold rights)
Gardiner-Tanami NT	Boulder Ridge	EL24177	NT	Granted	Northern Star Resources	REE rights only
	Boulder Ridge	EL25171	NT	Granted	Northern Star Resources	REE rights only





	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 Star Resources	REE rights only	
	Ware Range	EL26541	NT	Granted	Northern Star Resources	REE rights only	
	Pargee	EL27367	NT	Granted	Northern Star Resources	REE rights only	
	Tanami	EL29592	NT	Granted	Northern Star Resources	REE rights only	
	Tanami	EL29593	NT	Granted	Northern Star Resources	REE rights only	
Gardiner-Tanami NT	Tanami	EL29595	NT	Granted	Northern Star Resources	REE rights only	
		Tanami	EL29619	NT	Application	Northern Star Resources	REE rights only
		Tanami	EL29621	NT	Application	Northern Star Resources	REE rights only
	Tanami	EL26635	NT	Granted	Northern Star Resources	REE rights only	





	Boulder Ridge	EL28868	NT	Application	Northern Star Resources	REE rights only
	Boulder Ridge	EL30132	NT	Application	Northern Star Resources	REE rights only
	Boulder Ridge	EL27590	NT	Granted	Northern Star Resources	REE rights only
Gardiner-Tanami NT	Tanami	EL32163	NT	Application	Northern Star Resources	REE rights only
Gardiner-Tanami NT	Tanami	EL32163	NT	Application	Northern Star Resources	REE rights only
Rabbit Flats	Rabbit Flats 1	EL25157	NT	Application	Northern Star Resources	REE rights only
	Rabbit Flats 2	EL25158	NT	Application	Northern Star Resources	REE rights only
	Rabbit Flats 3	EL25159	NT	Application	Northern Star Resources	REE rights only
Rabbit Flats	Rabbit Flats 4	EL25160	NT	Application	Northern Star Resources	REE rights only
	Rabbit Flats 5	EL23935	NT	Application	Northern Star Resources	REE rights only
Kurundi	Kurundi	EL29616	NT	Granted	Horn Resources	REE rights only





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## Contact:

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Managing Director/CEO

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Chief Financial Officer/ Company  
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## Directors:

Colin McCavana  
Non-executive Chairman

George Bauk  
Managing Director / CEO

Adrian Griffin  
Non-executive Director

Yanchung Wang  
Non-executive Director

Ming Lu  
Non-executive Director

Congyang Xue  
Non-executive Director

Bin Cai  
Alternate Director

## Management:

Robin Jones  
Chief Operating Officer

Robin Wilson  
Exploration Manager

Mark Tory  
CFO/ Company Secretary

Hayley Patton  
HR Manager

Tony Hadley  
General Manager

Eben Van Rooyen  
Engineering Manager

## About Northern Minerals

Northern Minerals Limited (ASX:NTU; Northern Minerals or the Company) is focused on production from the Browns Range Heavy Rare Earth Pilot Plant Project in northern Western Australia. The Browns Range Project is one of a few non-Chinese producers of dysprosium.

Commissioning is progressing on the three-year pilot plant project with first production of heavy rare earth carbonate in October 2018. The pilot plant development will continue with its R&D studies and will provide 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.

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