

# QUARTERLY ACTIVITIES REPORT FOR THREE MONTHS ENDED 30 JUNE 2019

- Northern Cobalt has completed an assessment of the potential for iron ore to contribute to the Snettisham Project
- Metallurgical test work from the Snettisham Project (Alaska) demonstrates the potential to produce a highgrade magnetite product with vanadium credits
- A 63% Fe and 0.64% V<sub>2</sub>O<sub>5</sub> concentrate (DTR) produced from surface samples
- Significantly the recoveries were achieved using a very coarse grind size of 250 microns

#### **Snettisham Project - Alaska**

Northern Cobalt Limited (ASX: N27) has staked 48 mineral claims over the Snettisham Vanadium Project in south-western Alaska. In its global search for a new vanadium project, the company identified the potential for large scale mineralisation and its unique position regarding fundamental infrastructure requirements such as cheap electricity, transport options and proximity to the mining town of Juneau in southern Alaska. The Snettisham Vanadium Project occurs within titaniferous magnetite, concentrated within an Alaskan-style mafic-ultramafic intrusion, extending over 3.8km along the coast of the Snettisham Peninsula and up to 1.5 km inland.

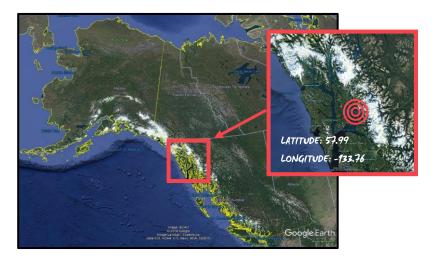


Figure 1. Snettisham Project Location

#### **CAPITAL STRUCTURE**

Ordinary Shares Issued 66.0 M

Options and rights
Listed options 6.3 M @ 20c
Listed options 6.1 M @ 10c
Unlisted options 12.3 M @ 25c
Unlisted rights 2.5 M

Performance Shares Class A 9.6 M Class B 3.6 M

Last Capital Raise
June 2019 – Rights issue
\$160k @ 5c

#### **BOARD**

Len Dean - Chair Michael Schwarz - MD Duncan Chessell - NED Andrew Shearer - NED Jarek Kopias - Co Sec



On 4 June 2019, the Company released a geophysical Exploration Target (ET) for the Snettisham Project as part of an assessment of the value of the magnetite iron ore to contribute to the economics of the project in addition to vanadium. The results from metallurgical testing confirm the potential for Snettisham to produce a high-quality magnetite concentrate with significant vanadium credits at a very coarse grind size.

The Snettisham Project contains several critical infrastructure requirements for processing a vanadium-rich magnetite concentrate and exporting it to market. These include:

- Close proximity to cheap electricity to undertake magnetic separation and operation of grinding facilities, a high voltage transmission line and several existing and proposed hydropower projects nearby.
- Access to bulk material handling and transport facilities to move the concentrate to steel markets in either the USA or China, deep water channel adjacent to project.
- Access to an experienced mining workforce to support year-round operations.

Table 1. Magnetite iron ore Exploration Target for the Snettisham Project (ASX Release, June 4, 2019)

Prospect	Low-grade*		Low-grade*		High-gr	ade**
	Tonnage (Bt) Grade (Fe%)		Tonnage (Mt)	Grade (Fe%)		
Snettisham	1.1-2.1	14-26	297-551	28-52		

The potential quantity and grade of the ET are conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Table 2. Summary DTR results from high- and low- grade rock chip samples

Summary High Grade								
				DA	VIS TUBE	MAG ASS	AY	
Sample ID	Head Grade	Recovery	Fe	SiO <sub>2</sub>	$Al_2O_3$	Р	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>
	Fe (%)	(DTR%)	(%)	(%)	(%)	(%)	(%)	(%)
SNET19RO0011	41.0	60.2	63.1	0.70	3.30	0.0005	5.36	0.64
Summary Low Grade								
				DA	VIS TUBE	<b>MAG ASS</b>	AY	
Sample ID	Head Grade	Recovery	Fe	SiO <sub>2</sub>	$Al_2O_3$	Р	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>
Composite	Fe (%)	(DTR%)	(%)	(%)	(%)	(%)	(%)	(%)
Average (1,5,6,7,8,9,10,12)	19.0	20.9	62.7	3.31	1.88	0.028	3.74	0.63



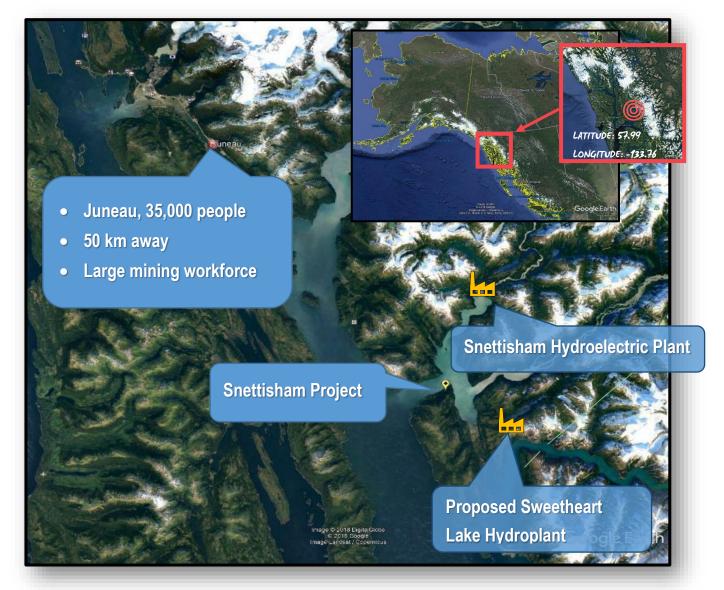


Figure 2. Location of the Snettisham Project in relation to the capital city of Juneau and surrounding infrastructure

#### Titaniferous and Vanadiferous Magnetite Mineralisation

Mineralisation at the Snettisham Prospect is interpreted to be associated with a mafic-ultramafic Alaskan zoned intrusive complex and consists of a titaniferous magnetite style of mineralisation. The main host to mineralisation is a pyroxenite unit which outcrops over an area of approximately 3800m by 1500m along the coast of the Snettisham Peninsula. Magnetite mineralisation within this body averages approximately 20% Fe based on historical drilling and rock chip sampling undertaken by the United States Geological Survey and confirmed by recent sampling by Northern Cobalt (Figure 2). A higher grader body of magnetite mineralisation within the pyroxenite body is indicated by a significant magnetic anomaly extending for over 2500m by 600m in the south-eastern part of the intrusion (Figure 4). This body averages >40% Fe based on magnetic susceptibility calculations (represented by sample SNET19RO0011).





Figure 3. Samples were taken at within the magnetite bearing pyroxenite unit at Snettisham.

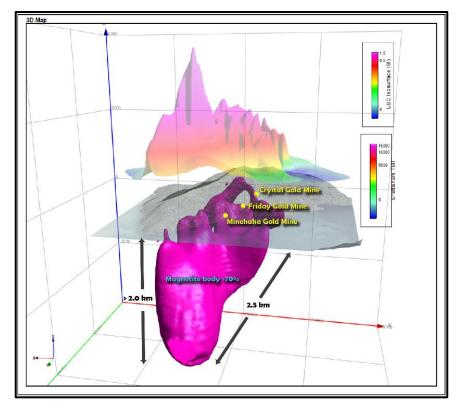


Figure 4. 3D Model (UBC Inversion) of the Snettisham Magnetic Anomaly



#### Corporate

#### Share capital changes

On 22 May 2019, Northern Cobalt issued 9,000,000 shares under a share placement raising \$450,000 followed by 3,196,400 shares on 24 June 2019 under a rights issue entitlement and shortfall offer raising a further \$159,820. In conjunction with the placement and rights issue, the Company issued 6,098,225 quoted options forming a new class of quoted security (N27OA). The new quoted options have an exercise price of \$0.10 and expiry of 30 June 2022.

A summary of movements and balances of equity securities between 1 April 2019 and this report are listed:

	Quoted			Unquoted		
	Ordinary shares	Options \$0.1993 14Sep19	Options \$0.10 30Jun22	Options	Performance rights	Performance shares
On issue at start of the Quarter	53,813,406	6,323,337	-	12,250,000	2,500,000	13,175,000
Placement shares	9,000,000	-	-	-	-	-
Rights issue shares	3,196,400	-	-	-	-	-
Rights issue options	-	-	6,098,225			
Total securities on issue at the date of this report	66,009,806*	6,323,337	6,098,225	12,250,000	2,500,000	13,175,000

<sup>\* 8,510,000</sup> ordinary shares are escrowed to 22 September 2019



#### Tenement table

Tenement number	Tenement name	Beneficial Interest at the end of the Quarter	Changes during Quarter
Northern Territory	, Australia		
Wollogorang			
EL30496	Karns	100%	None
EL30590	Selby	100%	None
EL31272	Running Creek	100%	None
EL31546	Wollogorang	100%	None
EL31547	Wollogorang	100%	None
EL31548	Wollogorang	100%	None
EL31549	Wollogorang	100%	None
EL31550	Wollogorang	100%	None
Arunta			
EL28886	Alcoota Pegmatite Field	100%	None
EL29481	Harts Range Pegmatite Field	0%	Relinquished
EL29511	Harts Range Pegmatite Field	0%	Relinquished
EL29851	Harts Range Pegmatite Field	0%	Relinquished
EL31147	Harts Range Pegmatite Field	0%	Relinquished
EL31777	Alcoota Pegmatite Field	100%	None
EL31778	Undippa Pegmatite Field	100%	None
EL31779	Alcoota Pegmatite Field	100%	None
Alaska USA - Snet	tisham		
AKAA 095408 to AKAA 095408	Snettisham (48 contiguous blocks)	100%	None

Four Arunta tenements were relinquished following assessment of exploration potential.



#### **Competent Person Statement**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Michael Schwarz who is a member of the Australian Institute of Geoscientists. Mr Michael Schwarz is a full-time employee of the company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Michael Schwarz consents to the inclusion in the report of the matters based on his information in the form in which it is appears.

The information in this report that relates to exploration results is based on, and fairly represents, information and supporting documentation compiled by Mr Michael Schwarz who is a member of the Australian Institute of Geoscientists. Mr Michael Schwarz is an employee of Northern Cobalt and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Michael Schwarz consents to the inclusion in the report of the matters based on his information in the form in which it is appears and confirms that the data reported as foreign estimates are an accurate representation of the available data and studies of the material mining project. This report includes results that have previously been released under JORC 2012 by the Company as "Southern Alaska Vanadium Project Acquired" on 18 December 2018 "Magnetic Survey Identifies Vanadium and Iron Ore Potential" on 26 February 2019, "3D Model confirms Vanadium and Gold Potential at Snettisham" on 14 March 2019 "Snettisham Iron Ore Potential and Exploration Target" on 4 June 2019 and "Positive Met Results at Snettisham Underpin Drilling Program" on 1 July 2019. The Company is not aware of any new information or data that materially affects the information included in this announcement and all material assumptions and technical parameters underpinning the Mineral Resource and/or Exploration Target continue to apply and have not materially changed.

\*The low-grade exploration target is based on the calculated volume of 20% Fe material based on the UBC inversion with a  $\pm$ -30% variation applied. The volume of the 20% Fe material was calculated at 434 million m3 which was then multiplied by the density of pyroxenite containing 20% Fe in the form of magnetite which has a specific gravity of 3.75 s.g. units. This gives a calculated weight of 434,000,000 m3 x 3.75 = 1,628,000,000 t or 1.63 Bt (subject to rounding). \*\*The high-grade exploration target is based on the calculated volume of 40% Fe material based on the UBC inversion with a  $\pm$ -30% variation applied. The volume of the 40% Fe material was calculated at 91.8 million m3 which was then multiplied by the density of pyroxenite containing 40% Fe in the form of magnetite which has a specific gravity of 4.62 s.g. units. This gives a calculated weight of 91,800,000 m3 x 4.62 = 424,000,000 t or 424 Mt (subject to rounding).

For further information please contact:
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+Rule 5.5

### Appendix 5B

## Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

#### Name of entity

Northern Cobalt Limited

ABN

Quarter ended ("current quarter")

99 617 789 732

30 June 2019

Cor	nsolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(104)	(2,926)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(36)	(337)
	(e) administration and corporate costs	(178)	(496)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	30
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(318)	(3,729)

2.	Cash flows from investing activities	
2.1	Payments to acquire:	
	(a) property, plant and equipment	-
	(b) tenements (see item 10)	-
	(c) investments	-
	(d) other non-current assets	-

<sup>+</sup> See chapter 19 for defined terms

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Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	(49)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	610	610
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(77)	(82)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	533	528

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	527	3,992
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(318)	(3,729)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(49)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	533	528
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	742	742

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	722	507
5.2	Call deposits	20	20
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	742	527

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	71
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

The amount above includes all payments to Directors and also includes payments to entities associated with Leonard Dean. The payments relate to executive services and directors' fees on commercial terms.

7.	Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transactic items 7.1 and 7.2	ons included in

Not applicable			

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<sup>+</sup> See chapter 19 for defined terms

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8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

Not applicable

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	120
9.2	Development	-
9.3	Production	-
9.4	Staff costs	70
9.5	Administration and corporate costs	100
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	290

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	Northern Territory EL29481 EL29511 EL29851 EL31147	Beneficial interest – tenement not renewed.	100% 100% 100% 100%	0% 0% 0% 0%
10.2	Interests in mining tenements and petroleum tenements acquired or increased		Not applicable		

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<sup>+</sup> See chapter 19 for defined terms

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: Date: 30 July 2019

Company secretary

Print name: Jaroslaw (Jarek) Kopias

#### **Notes**

- 1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

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<sup>+</sup> See chapter 19 for defined terms