NORTHERN COBALT
ASX: N27, N27O

ASX RELEASE
14 March 2019

3D MODEL CONFIRMS VANADIUM AND GOLD POTENTIAL AT SNETTISHAM, ALASKA

- **New 3D magnetic geophysics inversion model has identified a near surface, >60% magnetite body interpreted to be 2.5 km long, 600 m wide and at least 2 km deep.**
- **Historical surface samples of magnetite rich rock chips showed the vanadium potential, with values up to 0.56% V_2O_5, 35.9% Fe and 6.47% TiO_2.**
- **3 diamond drill holes are planned to test the 3D model for vanadium, iron, gold and obtain metallurgy samples for beneficiation test work.**
- **Review of historic data shows gold potential in addition to the vanadium and iron ore potential. The Crystal, Friday and Minehaha Gold Mines, within the project area, forms part of the Juneau Gold Belt of SE Alaska, which has produced over 7 Moz of gold and is analogous to the orogenic gold mineralisation style at Fosterville in Victoria (Aus).**
- **Northern Cobalt's detailed magnetic survey has highlighted significant potential for further lode gold mineralisation and field investigations for gold potential will be undertaken in parallel with proposed drilling in 2Q 2019.**

Alaskan Vanadium Project

Northern Cobalt Limited (**ASX: N27**) has completed 3D modelling of a detailed helicopter borne magnetic survey over the Snettisham Vanadium Project in southern Alaska. The survey was conducted over an Alaskan-style mafic-ultramafic intrusive complex which is host to significant concentrations of titaniferous and vanadium bearing magnetite and has several historic gold mines in the vicinity. The project is located close to the mining town of Juneau and accessible all year round and is adjacent to deep water and hydro power.

"The 3D inversion of the magnetic anomaly at Snettisham has identified compelling near surface drill targets for vanadium bearing titanomagnetite within the intrusion. Planning and approvals for drilling are in progress and we look forward to commencing our maiden drilling program in Alaska. It has also been pleasing to identify the significant gold potential, with three (3) historic gold mines occurring within the project.", Michael Schwarz (MD).

CAPITAL STRUCTURE

Ordinary Shares
Issued 51.3 M

Options and rights
Listed options 6.3 M @ 20c
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
24 April 2018 - SPP
$0.6M @ 35c

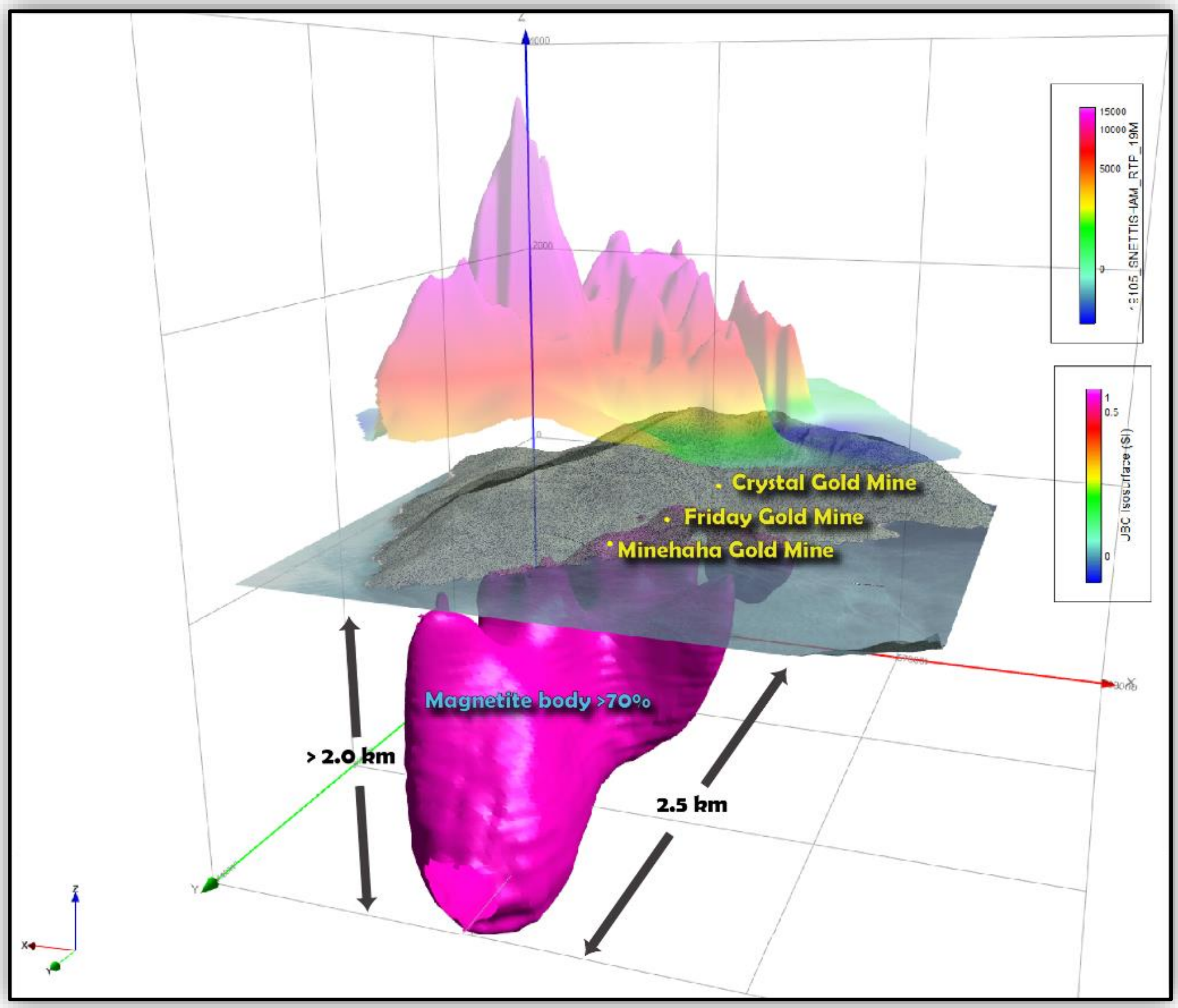

Figure 1. 3D model of Snettisham - reduced to magnetic pole of Snettisham Vanadium Project on Google Earth image on UBC inversion of >70% magnetite shell.

To view a video explainer of the 3D model, go here.

Northern Cobalt completed the helicopter borne magnetic survey in late February 2019, confirming a significant magnetic anomaly existed within the project area. The latest magnetic survey undertaken by Northern Cobalt has identified the magnitude of the total field magnetic anomaly to be in excess of 24,000 nT (nanoTesla). The company has now produced a 3D model of the subsurface distribution of magnetite based upon a UBS (University of British Columbia) inversion.

What is an inversion and why is it important?

- **This process uses a complex algorithm to calculate the likely distribution of magnetite based on its physical properties, primarily, its magnetic susceptibility.**
- **Magnetite's magnetic susceptibility is extremely high relative to other minerals and has the ability to produce a change in the earth's magnetic field, close to where it in located beneath the ground.**
- **This "disturbance" of the earth's magnetic field has been measured in the recently completed magnetic survey and was found to be very significant over the Snettisham project area.**
- **The inversion process takes the measured magnetic anomaly (local disturbance) and calculates the most likley;**
    - **concentration; and**
    - **distribution or size of magnetite required to produce the disturbance.**
- **The result is a 3D model of the size and amount of magnetite at Snettisham.**
- **This is useful as magnetite is the main vanadium bearing mineral with magnetic concentration having the potential to significantly upgrade the primary iron and vanadium grades.**

Significant results of the model

- **The top of the magnetite body has been modelled as being close to surface (~ 50m depth).**
- **The 3D model in figure 1 shows where the magnetite content is 70% or greater (which equates to 40% contained Fe)*.**
- **Historical drilling by the USGS (United States Geolgoical Survey) was undertaken too far up the hill and at too shallow an angle meaning the USGS drilling didn't test the main magnetitic anomaly (Figure 1).**
- **Positively the USGS results reported an average grade of 20% Fe even though they missed the main target.**
- **The model predicts a very large magnetite body beneath Snettisham, in the order of 2.5 km long, up to 600m wide and over 2 km deep from less than 50m beneath surface.**

* Magnetite has the chemical formula Fe_3O_4. Approximately 60% of magnetite is composed of Fe (iron). Therefore, a body with 70% magnetite will contain an Fe grade of approximately 40% as 60% of the 70% magnetite consists of Fe (70% Fe_3O_4 x 0.6 = 42% Fe).

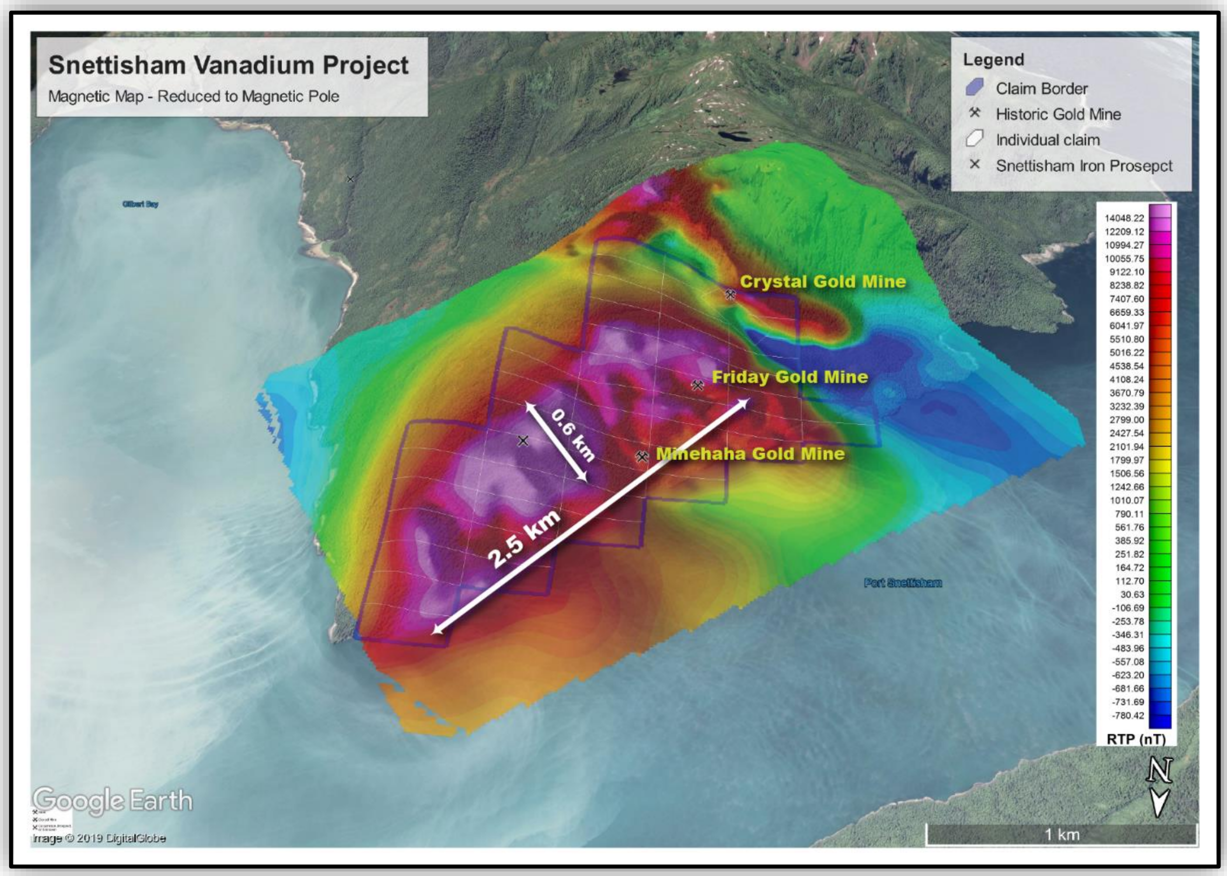

Figure 2. Magnetic map - reduced to magnetic pole of Snettisham Vanadium Project on Google Earth image

Gold Potential

The Snettisham Project is within the Juneau Gold Belt of SE Alaska which has produced over 7 Moz (million ounces). The historical Crystal, Friday and Minehaha Gold mines all occur with the boundary of the project area. In the late 1800's to early 1900's the Alaska Snettisham Gold Mining Company had a 20-stamp mill in the township of Snettisham processing ore from the local mines. As a result of the recently flown magnetic survey, Northern Cobalt has identified significant potential for further gold mineralisation with in the project area.

The local geology is well suited to hosting Juneau Gold Belt style mineralisation which occurs as lode gold within fault and shear structures in the host rocks. At Snettisham a mafic-ultramafic intrustive complex and granite intrude layered metasediments and metavolcanics. This geological scenario, when subjected to deformation and metamorphism during the gold producing event, produces an ideal environment for the deposition of gold mineralisation in space forming structures. These structures are produced as a result of the contrasting competancy of the intrusive rocks and metasediments where deformation is focussed around the margins of the intrusive bodies and in discrete zones within them. The Cystal, Friday and Minehaha Gold Mines appear to occur on these type of structures.
The detailed magnetic survey recently undertaken by Northern Cobalt allows the mapping of these structures obscured by vegetation and overburden (Figure 3). Targeted sampling to identify and test these structures is planned for the upcoming field season.

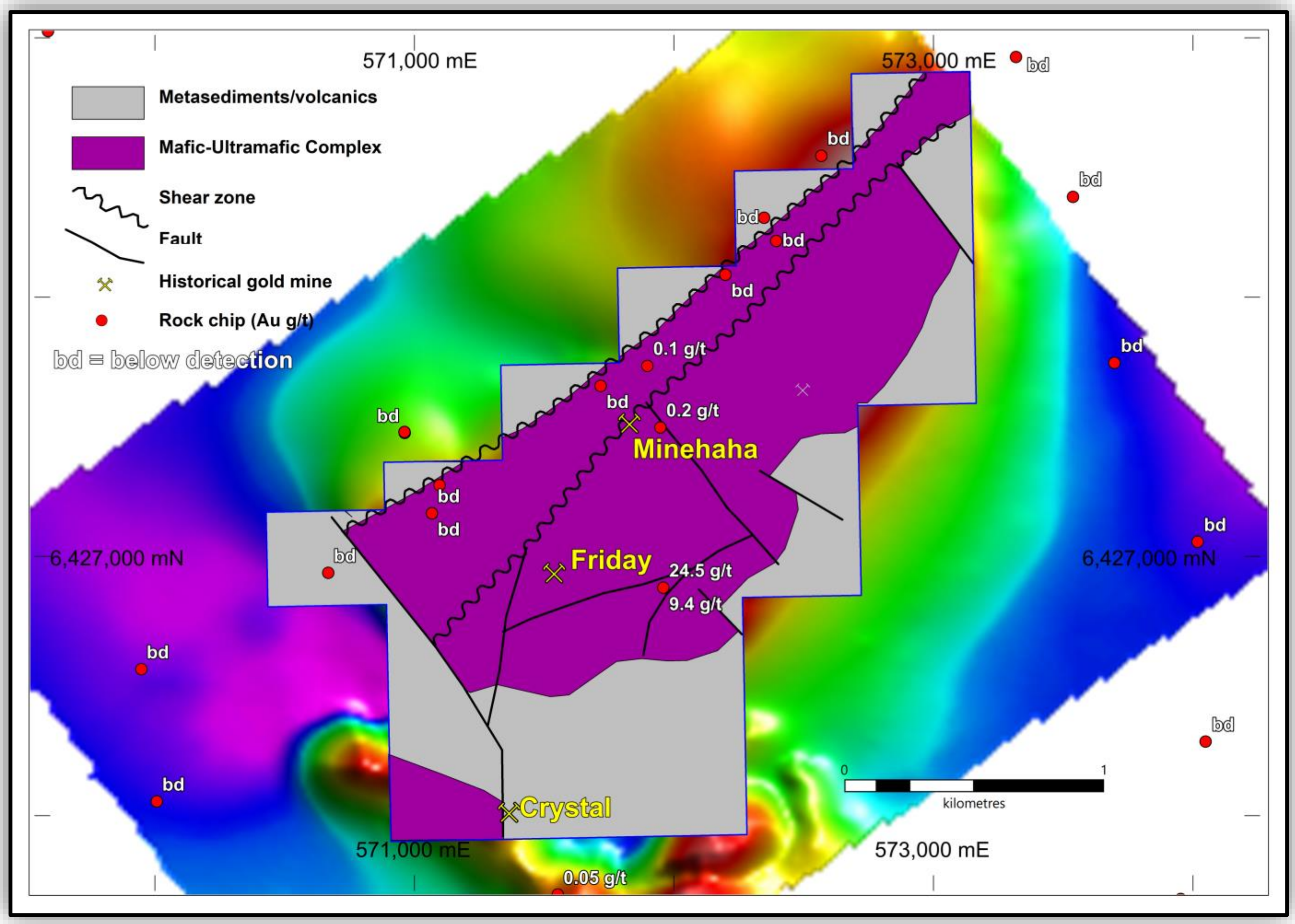

Figure 3. Interpreted geology on 1VD of TMI, with rock chips and historic gold mine locations

Iron Ore Potential

Historical Davis Tube Separation of composited low grade (20%) magnetite material produced concentrate grades of 66.1% Fe, 2.85% TiO_2, 0.41% S, 0.66% V_2O_5 and < 0.01% P. This material was collected from the beach adjacent to the main Snettisham body by Arrowstar Resources in 2012 and is thought to represent the broad distribution of rock types across the complex. It was targeted for magnetite iron ore beneficiation. Northern Cobalt believes that the higher grade material it is targeting from the aeromagnetic survey will have significantly better results when targeting for vanadium content.

Exploration Program

Northern Cobalt has planned 3 diamond drill holes to test the 3D model at Snettisham. These holes have been designed to achieve the following results;

- Test the depth to high grade magnetite mineralisation
- Test the primary grades of iron and vanadium mineralisation
- Obtain samples for beneficiation testing
- Test the concentrate grades for vanadium, titanium and iron along with levels of deleterious elements

At the same time, the company is planning to undertake exploration on the prospective, gold bearing structures, with the project. Rock chip, stream sediment sampling and mapping are planned to highlight drill targets for follow up drilling during the current field season.

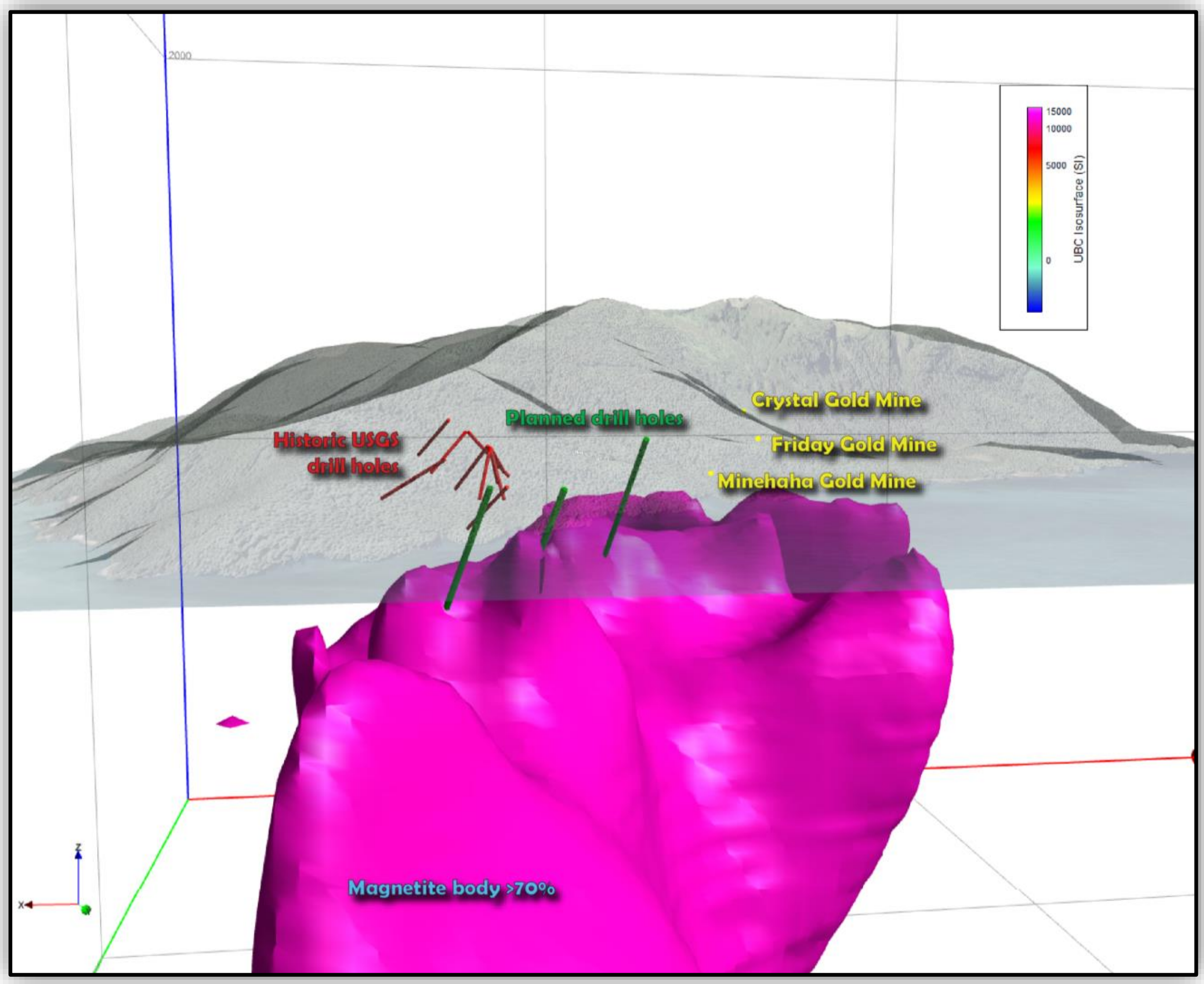

Figure 4. Location of planned drilling (green holes) in 3D model of Snettisham magnetite body.

Project Location

The Snettisham Vanadium Project occurs in the Juneau Province in south-western Alaska. Juneau is the capital city of Alaska and is located approximately 50 km to the north of the project area. The city has a population of approximately 35,000 people many of whom work in the mining industry, supporting local gold and base metal mines.

Due to the proximity to the ocean, lack of frozen tundra and hilly nature of the terrain, exploration activities can continue all year around supported by barges and helicopters.

Figure 5. Google Earth image showing the location of N27's vanadium project

As compared to many Alaskan projects this location has significant advantages from both an ongoing operational point of view immediately and for potential future material movements direct from project to Cape and Panamax class shipping options via the deep-water channel adjacent to the project.

Infrastructure

There are several critical infrastructure requirements for processing a vanadium concentrate and exporting it to market. These include:

- Cheap electricity to undertake magnetic separation and operate grinding facilities.

- Access to bulk material handling and transport facilities to move the concentrate to steel markets in either the US or China.
- Access to an experienced mining workforce to support year-round operations.

The Snettisham Vanadium Project is uniquely situated to take advantage of infrastructure facilities already in place:

- The Snettisham Hydroelectric Power Plant is situated 18 km to the north-west and the main transmission line runs within 2.5 km of the project.
- The project is located on the coast, adjacent to a deep-water channel capable of hosting Panamax and Cape class vessels.
- Juneau, the capital city of Alaska, with a population of 35,000 people, is located approximately 50 km to the north of the project. The population is a mining community supporting gold and base metal mines in the local area.

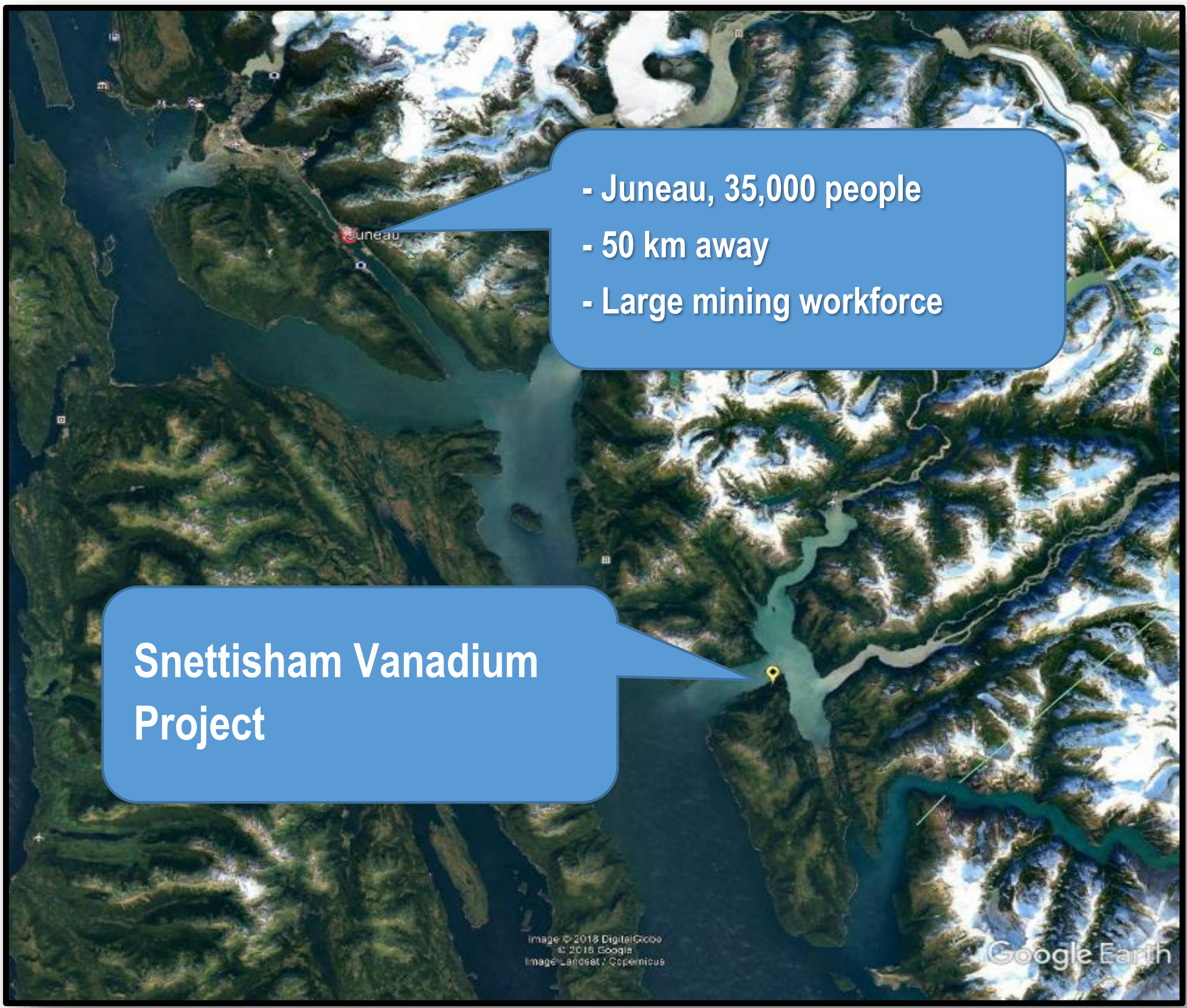

Figure 6. Location of the Snettisham Vanadium Project in relation to Juneau

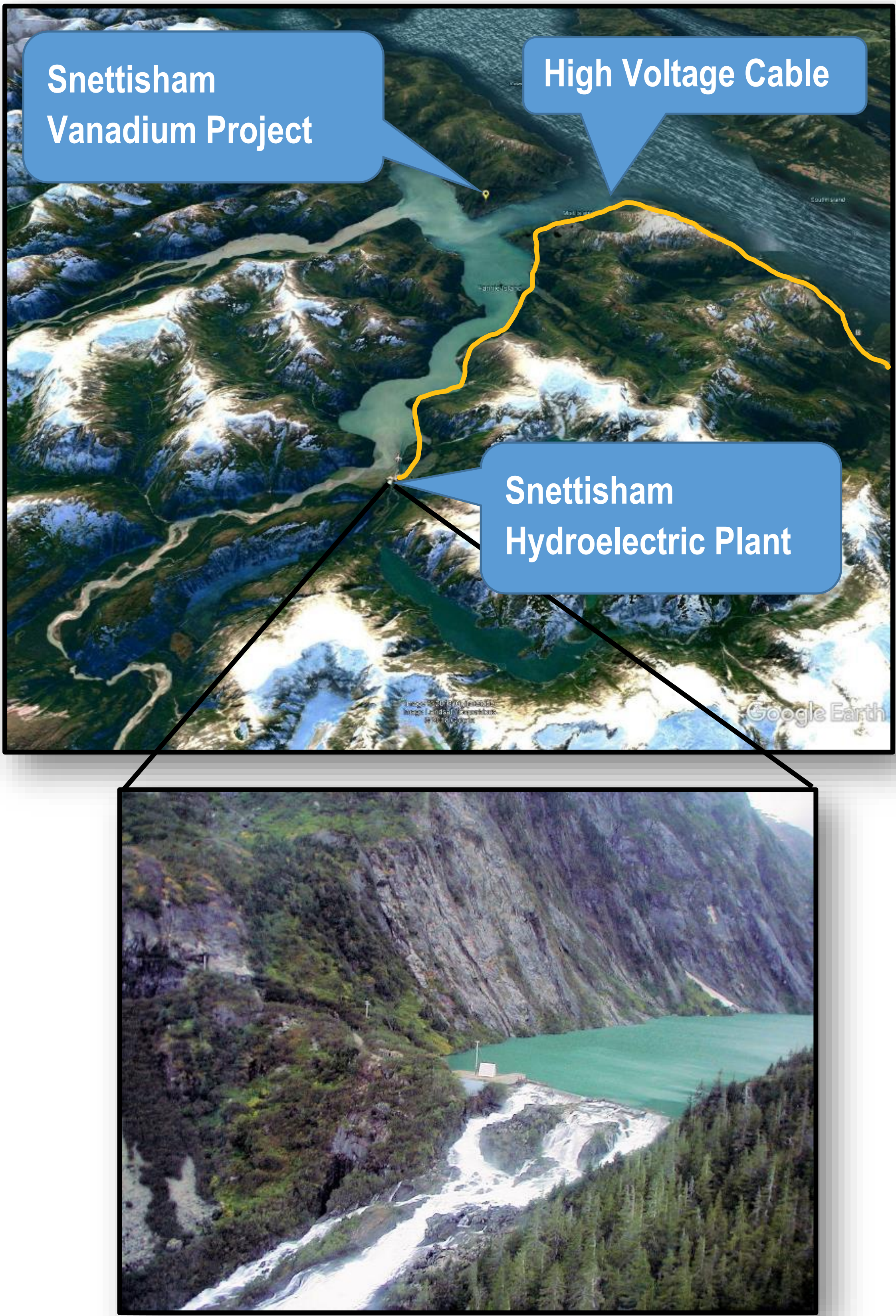

Figure 7. Location of the Snettisham Vanadium Project in relation to the Snettisham Hydroelectric Facility

Competent Persons Statement

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 on the 26th of February as"Magnetic Survey Identifies Vanadium and Iron Ore Potential". Northern Cobalt confirms that the Company is not aware of any new information or data that that materially affects the information announced on 19 December 2018 as "Southern Alaskan Vanadium Project Acquired".

For further information please contact:
Michael Schwarz
Managing Director, Northern Cobalt Ltd
M: +61 402 101 790
E: mschwarz@northerncobalt.com.au

Appendix 1. The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of the exploration results for the Snettisham Vanadium Project

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	Historical Data • Sampling of rock chip were undertaken by BCI and Arrowstar Resources in 2012. • The sampling was focussed on selecting samples of pyroxenite with varying concentrations of magnetite to get an indication of the chemical composition of the various ranges in concentration. • Samples were taken of scree and outcrop along a beach exposure and are not considered to be representative of the entire magnetite bearing pyroxenite. • Other historical samples were taken from the USGS geochemical database. Geophysics • A Scintrex CS-3 cesium vapor magnetometer (S/N 0712302) was used to measure total magnetic intensity at 20 Hz on the survey. • Two GEM GSM-19T base station magnetometers were used at all times while airborne data were being collected • Terrain clearance was measured by an Opti-Logic RS800 Rangefinder laser altimeter
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what*	• No drilling reported

Criteria	JORC Code explanation	Commentary
	method, etc).	
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No drilling reported.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• No drilling reported
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No drilling reported
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations*	**Analytical Laboratory Analyses** • The samples were sent to the Vancouver laboratory of Inspectorate Exploration & Mining Services Ltd., (a Bureau Veritas Group Company) Metallurgical Division, 11620 Horseshoe Way, Richmond, BC Canada V7A 4V5 for analysis using an Fire assay, ICP, XRF machines and wet chemistry assay to

Criteria	JORC Code explanation	Commentary
	factors applied and their derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	determine the Fe2 component • Samples from the USGS geochemical database don't report analytical techniques. **Inspectorate Testing Procedure for PerMr.oll and Sala Testing** Each composite was crushed to four (4) different sizes and subjected to a magnetic separation process as follows: • 6.3 mm (1/4") PerMr.oll Separator • 3.4 mm (6 mesh) PerMr.oll Separator • 1.7 mm (10 mesh) PerMr.oll Separator • 0.15 mm (100 mesh) Sala Separator The three per Mr.oll tests produced a concentrate, middlings and tailings product, while the Sala test resulted in a concentrate and tailings. All products were analysed for Fe_3O_4 (magnetite content). The concentrate was producted by wet magnetic separation of minus-35-mesh material followed by regrinding the magnetic portion to minus-150mesh and re-treatment.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No verification reported
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The geodetic system used for the geophysical survey was WGS 84 in UTM Zone 8N
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing, and*	• A total of 179 line km of magnetic data was collected on 57 survey lines and 4 tie lines. The survey was

Criteria	JORC Code explanation	Commentary
	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. • *Whether sample compositing has been applied.*	flown at 75 metre spacing at a heading of 145°/325°; tie lines were flown at 750 metre spacing at a heading of 055°/235°
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Sample relationship to mineralisation and structure is unknown at this stage. • The aeromagnetic survey was flown with flight lines at 90 degrees to the trend of the main magnetic body at Snettisham.
Sample security	• *The measures taken to ensure sample security.*	• No information reported
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits reported

Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Snettisham Vanadium Project consists of a series of mineral claims in the State of Alaska (USA) • The claims have only recently been pegged and are currently in good standing. • The claims overly federal controlled land administrated by the Bueau of Land Management
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other. parties.*	• Based on work undertaken from 1950 to 1956, the U.S. Bureau of Mines produced a report titled "Studies of the Snettisham Magnetite Deposit South East Alaska, Bureau of Mines Report of Investigations 5195", States Department of the Interior, February 1956". In this report they completed a magnetic survey, drilled 11 holes for a total depth of 1,995 metres (in 1953), completed detailed geochemistry and petrographic studies and collected enough sample to beneficiate the iron ore using dry magnetic separation. • In 1969 Marcona Corporation completed a drilling program and feasibility study for production with Marubeni Corporation, unfortunately no reports from this work have been found. • In 2011, Arrowstar Resources entered into an option agreement with Gulfside Minerals to acquire 100% of the property. Arrowstar undertook a detailed ground magnetic survey, rock chip sampling and Davis Tube Separation studies. A sharp decline in the iron ore price in 2013 led them to relinquish all interest in the project.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The body in Port Snettisham is an elliptical intrusion about 3.2 kilometres maximum outcrop that is mainly composed of hornblende-magnetite clinopyroxenite, biotite-magnetite pyroxenite, and hornblende-biotite-magnetite clinopyroxenite. There

Criteria	JORC Code explanation	Commentary
		appears to be numerous metasomatic replacement episodes. The pyroxenite locally grades into diorite. As in several other such bodies in south-eastern Alaska, the magnetite content is locally high enough to be considered as a source of iron, titanium, vanadium, and possibly platinum-group elements.
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.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No drill holes reported
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No drilling results reported
Relationship between mineralisatio n widths and	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is*	• No drilling results reported

Criteria	JORC Code explanation	Commentary
intercept lengths	*known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	
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.*	• See attached release.
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.*	• All relevant representative samples of the target unit have been reported
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.*	• No other relevant data to report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Planned further work detailed in this, arelease.