



Ministry of Energy, Mines & Petroleum Resources  
 Mining & Minerals Division  
 BC Geological Survey

Assessment Report  
 Title Page and Summary

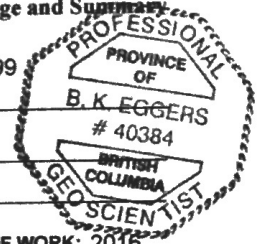
TYPE OF REPORT [type of survey(s)]: GEOCHEMICAL ASSESSMENT REPORT

TOTAL COST: \$6512.99

AUTHOR(S): Benjamin Eggers, P.Geo.

SIGNATURE(S):

*[Handwritten Signature]*  
 20 DEC 2016



NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A

YEAR OF WORK: 2016

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5626011 / November 15, 2016

PROPERTY NAME: Northstar

CLAIM NAME(S) (on which the work was done): 337674 & 337675

COMMODITIES SOUGHT: Cu, Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 094D032

MINING DIVISION: Omineca Mining Division

NTS/BCGS: 094D01W / 094D009

LATITUDE: 56 ° 03 ' 14 " LONGITUDE: 126 ° 14 ' 31 " (at centre of work)

OWNER(S):

1) Mona Jean Miller-Tait 2) \_\_\_\_\_

MAILING ADDRESS:

1214 Eastview Rd  
North Vancouver, BC V7J 1L6

OPERATOR(S) [who paid for the work]:

1) Mona Jean Miller-Tait 2) \_\_\_\_\_

MAILING ADDRESS:

1214 Eastview Rd  
Mona Jean Miller-Tait

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Stikina Terrane, Takla Group, Upper Triassic, Savage Mountain Formation, feldspar porphyritic andesite, disseminated and open space filling mineralization, chalcocite, bornite, native copper and chalcopyrite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 05247, 24792, 27354, 27599, 27818, 27957, 30501, 31769, 34380, 35839

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping			
Photo interpretation			
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
Soil 36 / 36 element ICP-ES / MS		337674 & 337675	\$4503.00
Silt			
Rock			
Other			
<b>DRILLING (total metres; number of holes, size)</b>			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying 36 / Bureau Veritas Commodities Can		337674 & 337675	\$659.99
Petrographic			
Mineralographic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY / PHYSICAL</b>			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other Report preparation, program administration		337674 & 337675	\$1,350.00
<b>TOTAL COST:</b>			<b>\$6512.99</b>

# **GEOCHEMICAL ASSESSMENT REPORT**

**on the**

## **NORTHSTAR PROPERTY**

**Tenure No. 337674 & 337675**

**Omineca Mining Division**

**NTS Map Sheet: 094D01W**

**BCGS Map Sheet: 094D009**

**Latitude: 56° 03' 14" N; Longitude 126° 14' 31" W**

**UTM (NAD 83 – Zone 9): 671 750 E; 6 215 500 N**

**Owner/Operator:**

**MONA JEAN MILLER-TAIT**

**1214 Eastview Rd, North Vancouver, BC V7J 1L6**

**Author: Benjamin Eggers. P.Geo.**

**Blackbird  
Geoscience  
Ltd.**

PO Box 1012, Tofino, B.C., V0R 2Z0

**December 20, 2016**



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NS-16-6 (after p.19)	2015-2016 Soil Sampling: Cu (ppm)	1:4,000
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## **SECTION A: REPORT**

### **INTRODUCTION:**

The Northstar project, situated in north-central British Columbia within the Omineca Mining Division, is approximately 220 km north-northwest of Fort St. James in the Takla Lake area. The claim group, owned and funded by Mona J. Miller-Tait, has been reduced in recent years and now consists of 8 two-post claims covering 200 ha centered on the Northstar (Fred) mineral occurrence.

The property lies at the eastern margin of the Stikina Terrane and is underlain by Upper Triassic Takla Group rocks of the Savage Mountain Formation volcano - sedimentary sequence. Trenching and diamond drilling has identified a northwest oriented corridor 1 km by 500 m in area of Cu - Ag mineralization, consisting of chalcocite, bornite, native copper and chalcopyrite, which occurs as disseminated and open space filling mineralization, primarily hosted within feldspar porphyritic andesite.

Previous diamond drilling on the property by Northern Hemisphere Development Corporation in 2004-2005 intersected disseminated and fracture-controlled bornite and chalcocite in feldspar-pyric flows, tuffs and related sediments of the Takla Group. The standout hole from this phase of drilling (NS-04-02) intersected 138.3 metres grading 0.55 % copper.

A short soil geochemical program was completed in 2016 targeting an area of prospective porphyritic andesite, 1 km east of the previously drilled mineralization. The program built on the highly anomalous Cu in soil values (max 3074.7 ppm Cu) returned from the 2015 geochemical sampling in an underexplored portion of the claim group. Two additional soil sampling transects were completed north and south of the 2015 sampling and returned moderately anomalous Cu values (max 630 ppm Cu). This program appears to have constrained the geochemical anomaly N-03-03 to the north and extended it 200 m to the west.

### **PROPERTY:**

The Northstar property is situated in north-central British Columbia within the Omineca Mining Division (Figure NS-16-1) and is approximately 220 km north-northwest of Fort St. James in the Takla Lake area (Figure NS-16-2). The claim group is owned by Mona J. Miller-Tait of North Vancouver, BC and consists of 8 two-post claims covering a gross area of 200 ha (Figure NS-16-3).

The Northstar claims cover the Fred (Northstar) mineral occurrence as documented by BC Minfile (094D032).

The details of the mineral tenures that comprise the Northstar Property are set out in Section B of this report. The “good to dates” are based on the Statement of Exploration and Development Work registered on November 15, 2016 as Event #5626011 and assume that the work contained in this report will be accepted for assessment purposes.

## **LOCATION AND ACCESS:**

The Northstar claims in north-central British Columbia lie within the Cariboo Heart Range, a sub-region of the Hogem Ranges in the Omineca Mountains. The property is located 220 km north-northwest of Fort St. James, 150 km north-northeast of Smithers, 40 km north of the north end of Takla Lake, 5 km north of Kaza Peak and 4 km northeast of Kaza Lake. The claims lie on the eastern flank of the Cariboo Heart Range between Kaza lake and Ominicetla Creek.

The Northstar project is accessible by road approximately 260 km from Fort St. James. All-weather logging roads in good condition extend as far as the overgrown Driftwood airstrip, 40 km north of the Lovell Cove logging camp. From here, the property is accessible during the summer by 4WD vehicles along a narrow road, extending to an exploration camp at the south end of Kaza Lake. This camp, located at UTM 668788E 6211070N (NAD 83 Zone 9), was constructed in 2004 but requires considerable work prior to being utilized for future work. From the camp a rough track extends a further 6 km to the Northstar drilled prospect.

Alternatively the property can be accessed by fixed wing aircraft based at Fort St. James 220 km to the south-southeast, or by helicopter from Smithers 150 km to the south-southwest.

Fort St. James is a full-service community servicing a population of approximately 4,500, with excellent road and hydro-electric power access. Smaller population centres exist along Takla Lake, particularly in the Lovell Cove area. The abandoned CN Rail line, which extends north-northwest from Fort St. James, is located roughly 20 km southwest of the property.

The property is located on NTS map sheet 094D01W and BCGS map sheet 094D009. The geographic centre of the claims is 56° 03' 14" North latitude and 126° 14' 31" West longitude while the UTM coordinates are 671750 E, 6215500 N (NAD 83 Zone 09).

## **CLIMATE, TOPOGRAPHY AND VEGETATION:**

The Northstar claim area within Cariboo Heart Range is characterized by steep to moderate topography. Elevations on the property range from 1180 m in the east of the claim area towards Ominicetla Creek to 1520 m on the western edge of the claims near the Main showing.

The property is located within the Engelmann Spruce-Subalpine Fir biogeoclimatic zone and all claims lie below tree line. Thick stands of sub-alpine fir give way to spruce at moderate elevations and dense alder and willow cover the broad, flat marshlands at the lower elevations along Ominicetla Creek.

The climate is typical of northern continental areas, with cool summers and cold winters, and fairly abundant summer rainfall and winter snowfall. Mean annual precipitation on the property at 1300 m is 745 mm with temperatures averaging 9.6°C in summer and -11.9°C in winter (UBC, 2014). The snow-free field season occurs from to June to early November, although drilling can be done under early winter conditions with moderate snow cover.



Northstar Property  
 Omineca Mining Division  
 BC Location Plan  
 Figure NS-16-1

Scale: As shown  
 Projection: WGS84  
 Date: Jan 2016  
 Drawn By: B. Eggers

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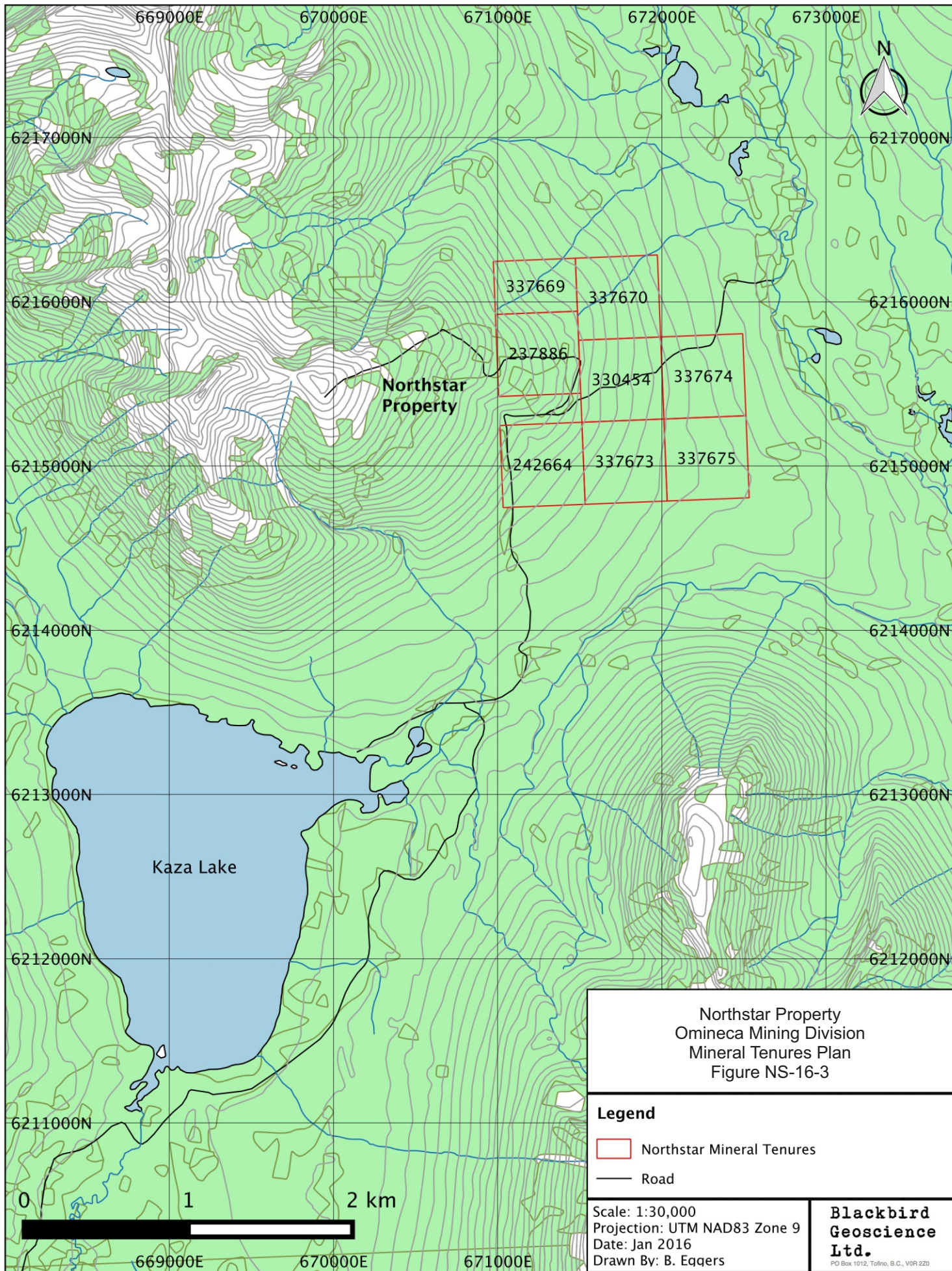


Northstar Property  
 Omineca Mining Division  
 General Location Plan  
 Figure NS-16-2

Scale: 1:1,250,000  
 Projection: UTM NAD83 Zone 9  
 Date: Jan 2016  
 Drawn By: B. Eggers

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Northstar Property  
 Omineca Mining Division  
 Mineral Tenures Plan  
 Figure NS-16-3

**Legend**

- Northstar Mineral Tenures
- Road

Scale: 1:30,000  
 Projection: UTM NAD83 Zone 9  
 Date: Jan 2016  
 Drawn By: B. Eqgers

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## HISTORY:

A summary of the work completed on the Northstar project by various operators has been documented by the British Columbia Geological Survey as follows:

The showings comprising the Northstar project area were first discovered and staked as the FRED prospect by Mr. Robert Tait in 1965. Five showings were identified: the Main showing, the North showing, the CV and CVH showing (both also referred to as the B showing) and the BC showing.

Exploration in 1966 consisted of preliminary mapping, prospecting and geological mapping, followed by grid soil sampling and a 637-metre diamond drilling program of nine AQ-diameter holes targeting the Main and B showings.

In 1968, eleven AQ-diameter holes totalling 800 metres were drilled by Northstar Copper Mines Ltd., as well as 9,144 metres of bulldozer trenching and blasting of 50 shallow pits. A further thirteen AQ-diameter holes totalling 1242 metres were drilled, largely across the B showing.

In 1972, Northstar Copper Mines Ltd. drilled nine AQ-diameter holes totalling 693 metres; however, locations and results are not known. At this time proven and probable ore reserves were 1,090,000 tonnes grading 2.0 per cent Cu (Property File Cyprus Anvil Northstar Copper Mines Ltd., 1972).

In 1973, Bethlehem Copper Mines Ltd. optioned the property, conducted a geochemical survey across the eastern portion of the property, excavated two more bulldozer trenches, and drilled eight shallow AQ diamond drill holes totalling 290 metres (Dean and Davis, 1973).

In 1974, Northstar Copper Mines Ltd. conducted limited bulldozer trenching and a 10-hole, 398-foot (121.5 metre) "Winkie" drilling program targeting extension of the shale unit hosting the "RMT" showing, interpreted as occurring north of the B-showing. No significant intercepts were reported (Wehr, 1974).

The property lay dormant until 1996, when Everest Mines and Minerals Ltd optioned both the Kaza and Northstar properties. A bulldozer trench at the B-showing exposed a system of parallel chalcocite veins and mineralized shear zones within porphyritic andesite. A second showing, the "B-Zone 2", discovered 100 metres to the north, is comprised of three narrow north-south striking, west-dipping chalcocite-bornite veins (Miller-Tait, 1996b).

In 1997, Everest Mines and Minerals Ltd established a cut grid of eleven 990-metre lines. Everest conducted a detailed soil geochemical program at 15-metre station intervals across the southern ten lines. Everest also excavated three new trenches and a blast trench: the "Discovery Cut", hosting the "New Vein", located south of the B-showing; Trench TN-1 located about 40 metres to the north of the Discovery Cut; and the blast trench and trench TN-2, about 180 metres to the northeast, all within porphyritic andesite. Channel sampling of the 0.75-metre "New Vein", hosted within a 2.0-metre wide shear zone oriented at 160°, returned values of 51.68% Cu and 279 g/tonne Ag across 1.0 metre, and 20.6% Cu and 124 g/tonne Ag across 2.0 metres (Schulze, 2005b). Results from trench sampling shown in Table 1.

Everest also contracted Geotronics Surveys Ltd. in 1997 to conduct ground magnetic, induced polarization (IP) chargeability and resistivity surveys covering the same grid lines as the geochemical survey (Church and Miller-Tait, 1998b).

**Table 1. 1997 Northstar Trenching results**

Trench*	Width (m)	Cu (%)	Ag (g/tonne)	Au (ppb)
Discovery	5.0	7.9	55.2	266
Blast trench	5.5	7.3	46.6	
TN-1	23.0	2.1	4.6	
TN-2	7.0	7.9	55.2	

\* after Varas and Williams, 2002

In March 2002, Northern Hemisphere Development Corporation entered into an option agreement to acquire a 100 per cent interest in both the Kaza and Northstar properties. Northern Hemisphere then staked the TLA 1–8 claims, covering territory between the two claim blocks, effectively creating one contiguous land holding, as well as additional ground to the north and south of the respective project areas.

In 2003, Northern Hemisphere conducted line cutting to extend existing grids on both the Northstar and Kaza project areas. This was followed by soil geochemical sampling, geological mapping, rock and silt sampling covering the grid extensions of both project areas. Detailed geological mapping and rock sampling were also conducted over the 1997 grids at both project areas, and directly northwest of the previously gridded portion of the Northstar project area. Ground magnetometer and induced polarization surveys were conducted over the entire newly cut grids at the Kaza project area; Chargeability and resistivity IP surveying was also done across much of the grid extension of the Northstar project area. A two-line gravity survey was conducted across the central portion of the Northstar project area (Schulze, 2003).

In 2004, Northern Hemisphere drilled 1,133.2 metres in five NQ diamond-drill holes on its Northstar property. Drilling intersected disseminated and fracture-controlled bornite and chalcocite in feldspar-phyric flows, tuffs and related sediments of the Takla Group. Hole NS-04-02 intersected 138.3 metres grading 0.55 % copper (Schulze, 2005a).

In 2005, follow up diamond drilling occurred on the Northstar project and soil and rock chip sampling was completed in the Henry Lee Creek area (Kaza Northstar property) by Northern Hemisphere. A total of 1,287.1 metres in eight NQ holes was drilled, intersecting narrow zones of bornite, chalcocite and chalcopyrite (Schulze, 2005c).

In 2008, initial geological mapping, sampling and prospecting on the Kaza 2 and 3 claims by Blind Creek Resources Ltd outlined similar stratigraphy on the Kaza 2 claim to that hosting the Northstar prospect (2-3 km south) with a copper anomalous drainage basin, and favourably altered ultramafic rocks that may have gold potential on the northeast Kaza 3 claim with a gold in stream sediment anomaly downstream (Pautler, 2009).

In 2010, Blind Creek Resources Ltd completed stream sediment sampling, contour soil sampling, geological mapping, and rock geochemical sampling on the northern Kaza claims (565421, 565420, 831237, 505153, and 506163). The work was designed to test the source of the copper anomalous drainage basin in the western Kaza 2 (565421) area, the source of the 433 ppb gold in stream sediment anomaly on tenure 506163, and the gold potential of the ultramafic rocks and thrust faults on Kaza 3 (565420). Follow up of a previous anomalous bulk stream sediment



sample containing 433 parts per billion gold from Ominecetta Creek east of the Northstar prospect and approximately 800 metres south of the Kaza 3 claim did not yield significant gold anomalies upstream (Pautler, 2010).

In 2012, an MMI (mobile metal ion) soil sampling survey was carried out by Blind Creek Resources within the Kaza Northstar property. The MMI sampling amounted to 400 samples along ten northeast-trending lines for a total survey length of 9750 meters. The survey grid was located about 1 kilometre to the north-northwest of the Kaza Copper prospect. Copper anomalism defined four areas of interest (Mark, 2013).

In 2015, a short soil geochemical program targeted an area of prospective porphyritic andesite, 1 km east of the previously drilled mineralization. One soil sample transect identified highly anomalous Cu values (max 3074.7 ppm Cu) approximately coincident with a geochemical anomaly identified in 2003, but displaying higher Cu grades.

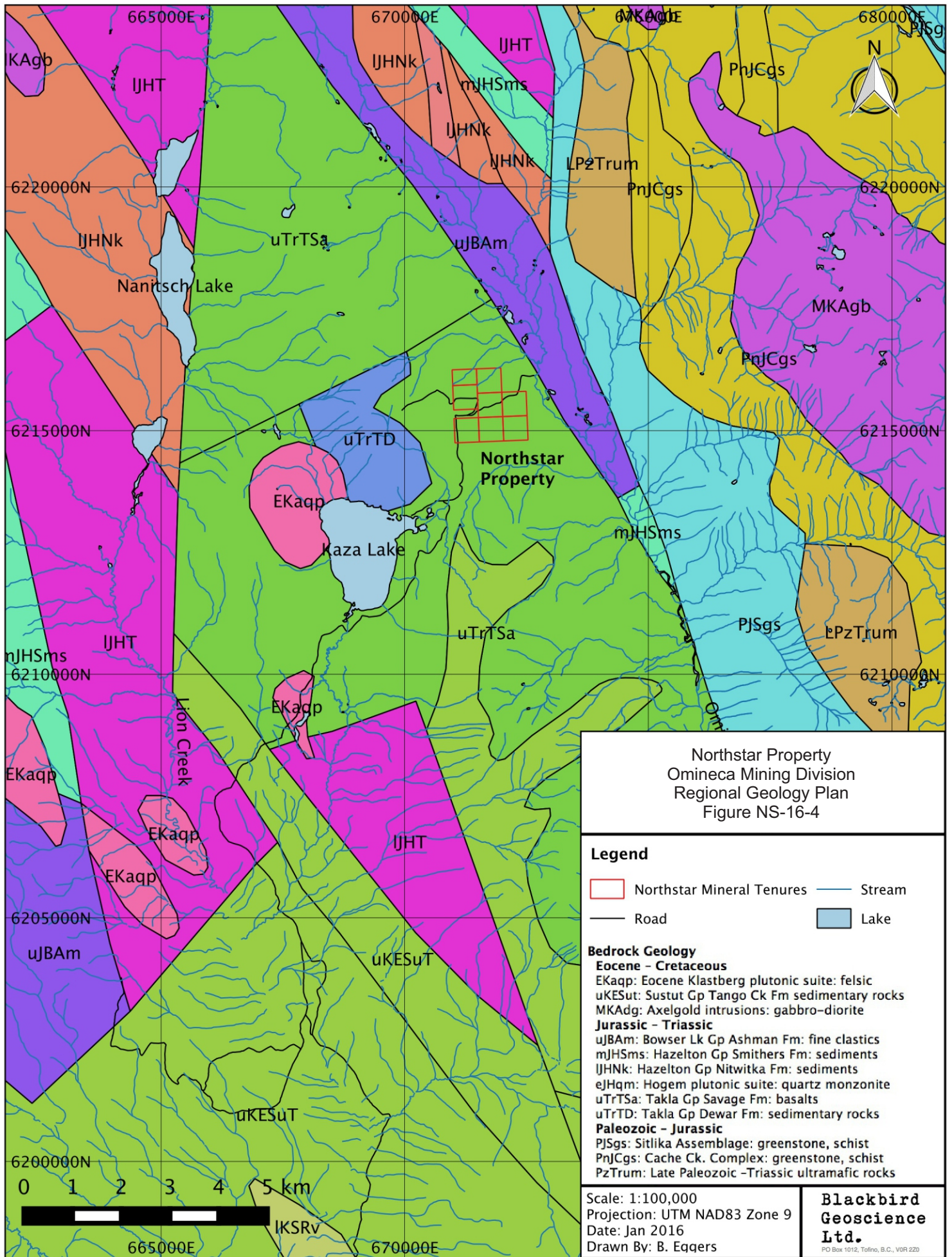
## **REGIONAL GEOLOGY:**

The property is located within the Intermontane Belt of the Canadian Cordillera at the eastern boundary of the Stikinia terrane. The north-northwest trending Takla fault approximately 2 km east of the claims separates Stikinia from rocks of the Cache Creek terrane. A further 10 km to the east, the Quesnel Terrane is separated from the Cache Creek Terrane by the Pinchi Fault. Overlap rocks of the Upper Jurassic Bowser Basin overlie Stikinia 1 km east of the property and felsic intrusives of Eocene Kastberg plutonic suite occur to the west of the claims (Figure NS-16-4).

The Cariboo Heart Range and much of the broad, north-northwest trending Lion Creek valley to the west is underlain by northwest trending gentle northeast dipping Upper Triassic Takla Group (Stuhini Group) rocks, predominantly Savage Mountain Formation subaqueous augite porphyritic basaltic and porphyritic andesitic flows and tuffs, with lesser shale and greywacke and minor limestone. These stratigraphically overlie Dewar Formation tuffs and clastic sediments, with minor limestone, also part of the Takla Group, exposed within southwestern portions of the Cariboo Heart Range (Schulze, 2005).

South of Kaza Lake, klippen of Takla Group rocks have been emplaced by thrust faulting onto an assemblage of predominantly Jurassic to Cretaceous Hazelton Group rocks, which underlie much of the lower Lion Creek valley. Here, the Hazelton Group consists largely of Telkwa Formation calc-alkaline basaltic to andesitic flow, tuff and lapilli tuff volcanics, with lesser dacitic and rhyolitic volcanics and intercalated volcanoclastic sediments (Church and Tait, 1998, after Dean, 1973). Telkwa Formation rocks are overlain by Cretaceous Sustut Group, Tango Creek Formation conglomerate, sandstone, siltstone and coaly shale, which directly underlie the Stuhini Group klippen. Eocene Kastberg Intrusives, consisting of biotite rhyodacite porphyry and massive leucorhyolite intrude Stikinia terrane rocks and overlying sedimentary units (Church and Tait; 1998, after Dean, 1973).

Regional and district scale faults, including the Takla Fault east of the Cariboo Heart Range, and the Pinchi Fault further to the east, extend NNW - SSE, conformable to regional stratigraphic and tectonic trends within the northern Cordillera at comparable latitudes. Within the Lion Creek area, these faults signify major structural breaks manifested as river drainages. Dean (1973) identified a major northeast-dipping thrust fault, the Vital Fault, east of the Takla Fault, resulting in





emplacement of upper Cretaceous layered Axelgold gabbroic to dioritic intrusives onto Triassic to Jurassic Stiliika Assemblage metapelites, metaconglomerates and metavolcanics. Pennsylvanian to Permian Cache Creek oceanic volcanics, oceanic shales and chemical sediments, and serpentinite underlie much of the territory east of the Vital Fault (Schulze, 2005).

## **PROPERTY GEOLOGY:**

### **Geology and Structure**

The Northstar property is underlain by Upper Triassic Takla Group rocks subdivided into four members of the Savage Mountain Formation volcano - sedimentary package, described here in detail by Schulze (2005).

Within the project area the oldest member of the Savage Mountain Formation, "Unit 1", consists of a broad unit of feldspar porphyritic andesite, with up to 25% porphyritic plagioclase clasts to 2 cm in length, locally bladed, within a fine grained dark groundmass. Andesites are commonly vesicular to amygdaloidal with calcite emplacement. The "B" showing and trenches exposed by Everest Minerals occur within these porphyritic andesites. The second unit (Unit 2) consists of augite porphyritic green epidotic and chloritic basaltic flows, tuffs and lapilli tuffs, which have undergone greenschist-facies metamorphism. An age relationship was established through identification of rare lithic fragments of Unit 1 feldspar-porphyritic andesites within the basalts. Unit 3 consists of fine bedded shales, mudstones and siltstones, locally calcareous. Unit 4 consists of grey limestone, locally as broad units, and commonly hosting late-stage calcite vein stockwork zones.

Year-2003 mapping indicates that Unit 2 basalts underlie southern and southwestern portions of the Northstar project area, separated from Unit 1 andesites to the northeast by a north-northwest extending contact. A small limestone unit occurs along the contact south of the Discovery Cut. Northwestern portions of this project area, including the Main Zone area, are underlain by a complex sequence of east-northeast trending intercalated, largely narrow, members of Unit 1 andesites, Unit 2 basalts and Unit 3 fine clastic sediments, locally calcareous. A fairly broad member of veined Unit 4 limestone extending conformably to this sequence marks the upper (northwest) boundary of the finely intercalated portion, although broader andesitic, basaltic and sedimentary units occur along a similar orientation farther to the northwest. The North showing occurs within Unit 1 andesites, along and to the north of a conformable fault contact separating these from Unit 2 basalts and minor Unit 3 sediments to the south-east.

Farther to the northwest, beyond the property boundary, northeast - southwest trending Unit 2 basalts are intercalated with members of Unit 3 fine clastic sediments up to 75 metres in width. Much of the sediments and portions of the volcanics have undergone strong carbonate alteration and silicification.

South of the gridded area, an east-northeast trending lens of weakly quartz - feldspar porphyritic granite was identified. No occurrences of similar lithology are mentioned in past literature; descriptions in past reports suggest it resembles the Early Jurassic Hogem Batholith most closely.

Detailed geological mapping in 2003 identified a pervasive structural fabric, manifested as small shear zones, minor faults and a widespread northwest - southeast oriented foliation with variable dips ranging from steeply southwest to steeply northeast dipping. Joint planes are commonly parallel to this. This fabric is dominant in southern and eastern areas, including the "B" showing area, where mineralization is controlled by it. The inferred major contact and most stream drainages also parallel it. However, in northeastern areas, underlain by feldspar porphyritic andesite, a more pronounced north-northwest trending fabric predominates. At Trench T-N-2 and at a bornite occurrence to the north, chalcocite - bornite veins are oriented roughly north - south, dipping steeply and variably to the west or east. This suggests an approximately north - south oriented dilational corridor open to the north and potentially extending somewhat south of the Discovery Cut.

Bedding within the limestone unit along the northwest trending andesite - basalt contact is oriented at 300°, dipping at 40° to the northeast.

To the northwest, foliation generally parallels the finely intercalated northeast trending stratigraphy. The Main showing occurs along a fault contact oriented at 55°, dipping steeply to the southeast, between Unit 1 andesites to the southeast and Unit 3 fine bedded siltstone to mudstone to the northwest. To the northwest, the North Showing occurs within porphyritic andesite along the northwest side of a fault of similar orientation, separating the andesites from basalts to the southeast. Both major structural fabrics occur within intercalated basalts and sediments in the area of carbonate alteration further northwest.

Interpretation of year-2003 mapping results indicates the boundary between northwest - southeast trending stratigraphy and the northeast trending intercalated assemblage to the northwest occurs north of L9+00N (UTM 671010E 6215760N, NAD83 Zone 9). However, no fault contacts or fold axis were observed, and are omitted from interpretations to date.

Stratigraphic interpretation from year-2004 and 2005 diamond drilling within the "B" showing area indicates that the contact between feldspar porphyritic andesite and basal basalts extends at roughly 020°, dipping at 25° to the east-southeast. The drill sections, primarily oriented at 110° - 290°, are almost normal to stratigraphy; a drill section extending at 020° - 200° indicates the basal contact is horizontal at this orientation. The limestone unit between the volcanic units is discontinuous and very thin; however it extends at least as far north as the intercept in DDH NS-05-10, roughly 325 metres north of the Discovery Cut surface exposure. The andesite - basalt +/- limestone contact itself is strongly sheared, showing intense ductile deformation with a "swirling" texture and some fine intercalation of limestone with basalt. Limestone in drill core directly above the contact also shows strong ductile deformation. These textures indicate a fault contact, and therefore an unconformity between the andesitic and underlying, younger basaltic units.

## **Mineralization**

The Northstar (Fred) prospect occurs within the Upper Triassic Savage Mountain Formation volcano - sedimentary sequence in a northwest oriented corridor 1 km by 500m in area. Cu-Ag mineralization consisting of chalcocite, bornite, native copper and chalcopyrite, occurs as disseminated and open space filling mineralization, primarily hosted within feldspar porphyritic andesite (Unit 1).

The mineralization and setting is similar to the Sustut Copper deposit, an example of the volcanic redbed copper deposit model, located approximately 70 km northwest of the Northstar property. Sustut Copper contains a NI43-101 compliant resource of 8.6 Mt grading 1.6% Cu equating to 138,000 tonnes of contained Cu at a 0.65% Cu cutoff grade (Doublestar Resources Ltd. Press Release, February 3, 2003).

The showings comprising the Northstar project area were first discovered and staked as the FRED prospect by Mr. Robert Tait in 1965. Five showings were identified: the Main showing, the North showing, the CV and CVH showing (both also referred to as the B showing) and the BC showing (BC Minfile, 2015).

The Main showing consists of disseminated bornite, chalcopyrite and copper oxide mineralization within north-south striking, steeply east dipping siltstones, from which a sample returned a value of 2.65% Cu, 6.86 g/t Ag and 0.2 g/t Au (Kikuchi, T., 1969). The North showing, located 300 - 450 metres to the northwest, hosts disseminated chalcocite within andesite, from which a sample taken in 1966 returned 1.57% Cu and 13.7 g/t Ag (White, 1966). The BC showing, 500 metres southeast of the Main showing, consists of a 7 - 15 centimetre wide vein, from which a channel sample returned a value of 50.9% Cu, 603.4 g/t Ag and 0.3 g/t Au (Letter from the President, Northstar Copper, 1967). The CVH showing, consisting of bornite, chalcocite and specular hematite located 600 metres south-southeast of the Main showing, returned a value from trench chip sampling of 2.60% Cu, 5.14 g/t Ag and 0.2 g/t Au across 7.3 metres (Kikuchi, 1969). The CV showing, consisting of shear-hosted bornite, covellite, chalcocite and specular hematite located 45 metres west of the CVH showing, returned a channel sample value of 3.3% Cu and 10.3 g/t Ag across 3.66 metres (Kikuchi, 1969).

The B showing, as summarized by Schulze (2005), consists of several zones of vein and shear-hosted chalcocite and minor bornite hosted by Unit 1 feldspar porphyritic andesite. Trench T-N-1 exposed massive chalcocite veins with azurite and malachite staining within east-southeast striking, steeply southwest dipping shear zones. Massive bornite and minor malachite and azurite also occur as amygdules within vesicular andesite, where it has replaced secondary calcite veins and vesicular infilling. Past sampling returned values to 2.1% Cu and 4.6 g/t Ag across 23.0 metres. Host andesites display fairly strong hematite alteration; epidote occurs as veins and as amygdules somewhat outbound from the zone. Drilling in 1968 identified a copper horizon at depth, interpreted as striking north-south and dipping 50' to the west (Church and Tait, 1998). Drill records are unavailable; however White has described mineralization as disseminations and irregular veinlets of bornite within brecciated andesite porphyry (White, 1968). Reported drill intercepts range from 1.14% Cu across 40 feet (12.2 metres) to 1.68% Cu across 48 feet (14.6 metres), with an intercept grading 1.97% Cu across 16 feet (4.9 metres), open at depth, terminated due to hole abandonment. These do not necessarily represent true widths. Reinterpretation in 2003 of the reported data suggests an east-southeast striking zone, dipping to the southwest, conformable to orientation of surface shear hosted mineralization.

The most prospective mineralized zones at the Northstar project area, as identified by Schulze (2003) occur within the B Showing area and along an interpreted north-south dilational corridor. This interpreted corridor contains several vein-style massive chalcocite showings, with azurite and malachite staining, including the Discovery Cut and Trench T-N-2, hosted by Unit 1 porphyritic andesite. A 1.0 metre channel sample of massive bornite from the Discovery Cut returned 51.68% Cu and 279 g/t Ag, and a 5.0-metre chip sample returned 7.9% Cu, 55.2 g/t Ag and 266 ppb Au. At Trench T-N-2 channel sampling returned 7.9% Cu and 55.2 g/t Ag across 7.0 metres.

The dilational corridor was considered a favourable extensional tectonic environment for the deposition of vein, shear and fracture-fill mineralization and was the focus for additional diamond drilling in 2004-2005. Drilling in 2004 intersected wide mineralized intercepts just south of the B Showing and extending into the dilational corridor. Hole NS-04-02 returned 138.3 metres grading 0.55% copper from disseminated and fracture-filled mineralization within porphyritic andesite (Unit 1). Follow-up drilling in 2005 failed to intersect similar broad zones, intersecting only narrow zones of high grade and low-grade mineralization (Schulze, 2005).

## **2016 GEOCHEMICAL SAMPLING PROGRAM:**

A short field program was completed in the fall, September 12-13<sup>th</sup> 2016, on the Northstar property to follow up the highly anomalous Cu values (up to 3074.7 ppm Cu) reported in 2015, 1 km east of the 2004-2005 drilling.

An exploration sampler was mobilized to the project by road from Vancouver, BC and work on the Northstar property was completed in conjunction with the nearby Kaza property. The project area was accessed by road and a fly camp established at the site of the exploration camp constructed on Kaza Lake. Road access to Kaza Lake has deteriorated since it was last visited in 2015. The 4WD track north of Kaza Lake to the Northstar property was in poor condition, but allowed vehicle access to within 2 km of the claims.

The sampling transect completed in 2015 had identified highly anomalous Cu in soils within an area interpreted to be underlain by the prospective Unit 1 porphyritic andesite. This area of the claims lies 1 km east of the Northstar dilational corridor targeted during the 2004-2005 diamond drilling. Thicker soil profiles cover this part of the claims and bedrock exposure is sparse compared to higher elevations where most of the previous discoveries have been made. Previous soil sampling during 2003-2004 had identified anomalous Cu in this area but it has not been followed up and no bedrock source yet identified.

Two 400 m east-west soil sampling transects were completed in 2016, one located 150 m north of the 2015 transect and the other located 50 m to the south. A total of 36 B-horizon soil samples were collected at 25 m spacing and submitted to Bureau Veritas Commodities Canada in Vancouver for 36 element ICP-MS analysis (refer to Section D for analytical methods and results).

Results from the 2016 soil transects served to build on and verify the current geochemical coverage of the anomalous area. The southern 2016 sampling transect was located along the former sampling line 4+00N and serves to validate the previous data collected. Cu values reported in 2016 along this line are comparable with the values produced during the 2003 geochemical survey.

The northern line appears to close off the Cu geochemical anomaly to the north with a maximum value of 107 ppm Cu reported. Anomalous Cu in soil values were returned along the southern line, with 7 samples returning greater than 200 ppm Cu, to a maximum of 630 ppm Cu (Figures NS-16-5 & 6). The eastern half of the elevated Cu samples lie within the anomalous zone previously defined as anomaly N-03-03. Anomalous Cu values also extend 200 m further east, as was confirmed by the 2015 sampling, but not identified from the 2003 results. Minor low level Au and Ag values were also identified (Figures NS-16-7 & 8).

## **CONCLUSIONS:**

The highly anomalous Cu in soil values from the 2015-2016 geochemical sampling, completed in an underexplored portion of the claims, represents an area with high potential to host additional Cu mineralization on the Northstar property.

Previous soil geochemical surveying completed on the Northstar project in 1997 and 2003 has identified 200 ppm as a lower cut off value for anomalous Cu within the Savage Mountain Formation volcanics (Church, C. and Miller-Tait, J., 1998, Schulze, 2003). The B Showing area and dilational corridor identified by prior explorers and previously deemed the most prospective portion of the claims occurs at higher elevations with increased bedrock exposure than the area to the east targeted during the 2015-2016 programs. Geochemical sampling across the B Showing area returned Cu in soil values generally in the 200 – 500 ppm range (Schulze, 2003 & 2005b), somewhat lower than the 200 – 3000 ppm Cu values returned from the 2015-2016 target area to the east.

Extensions to the soil survey grid completed in 2003-2004 identified Cu anomalism 1 km east of the B Showing area. A broad northwest-trending zone of 200 – 1000 ppm Cu in soils was outlined over an area 400 x 150 m in extent and was referred to as Anomaly N-03-03. The geochemical sampling results from 2015-2016 confirmed this Cu in soil anomalism and identified additional strongly anomalous Cu extending upslope 200 m to the west. Whilst not as strong as the 2015 Cu results, geochemical sampling in 2016 continued to expand on this anomalous zone.

Following the most recent phase of diamond drilling and surface exploration (2003-2005), stratigraphic interpretation of the Northstar project area by Schulze concluded that the faulted/sheared contact between the feldspar porphyritic andesite, primary host to Cu mineralization, and basal basalts strikes at 020° and dips at 25° to the east-southeast with the surface contact between these two units crossing the southwest corner of the claims. Based on this interpretation the prospective Unit 1 porphyritic andesite horizon in the vicinity of anomaly N-03-03, 1 km east of the previous drilling, should be considerably thicker than within the B Showing area.

With an interpreted thicker sequence of feldspar porphyritic andesite and confirmed geochemical anomalism, anomaly N-03-03, toward the eastern side of the Northstar property, has strong potential to host additional Cu mineralization.

## **RECOMMENDATIONS:**

Although much of the Northstar project grid established in 1997 / 2003 was subject to induced polarization surveying in addition to soil geochemical, magnetic and gravity surveys, the area covered by the N-03-03 anomaly targeted during the 2015-2016 programs was not. This area east of the main showings has greater overburden cover and displays stronger soil Cu values than the portion of the claims previously trenched and drill tested and little is known of the nature of Cu mineralization in this part of the property.

Induced polarization geophysical surveys have been utilized successfully elsewhere on the property to target disseminated and fracture controlled Cu mineralization. Based on previous drill results from

the property and the highly anomalous soil Cu values returned from recent geochemical sampling, a limited IP geophysical survey is recommended to assess the extent of buried mineralization in the vicinity of the N-03-03 anomaly and to refine future drill targets. Four lines of approximately 750 m in length, spaced 100 m apart and utilizing the previously cut east-west grid lines, are recommended to delineate the interpreted Cu mineralization prior to drill testing. Additional soil geochemical sampling and geological mapping of the limited exposure present may still prove valuable for exploration targeting in this underexplored portion of the claims.

**Respectfully submitted,**



**Benjamin Eggers, P. Geo.  
Blackbird Geoscience Ltd.**



## STATEMENT OF QUALIFICATIONS:

**For: Benjamin Eggers of 321 Olsen Road, Tofino, British Columbia.**

I am a Consulting Geologist and Director of Blackbird Geoscience Ltd. with offices at 321 Olsen Road, Tofino, British Columbia V0R 2Z0;

I graduated from the University of Otago, New Zealand with a Bachelor of Science Degree with Honours in Geology (2004) and have been practicing my profession as a geologist in mineral exploration and mining continuously since graduation;

I am a registered member in good standing as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (Licence #40384);

The observations, conclusions and recommendations contained in the report are based on review of the described program, field examinations and the evaluation of results of the exploration program completed by the operator of the property.



**Benjamin Eggers, P. Geo.  
Blackbird Geoscience Ltd.**

## REFERENCES:

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## SECTION B: PROPERTY

### NORTHSTAR SCHEDULE OF MINERAL TENURES:

Tenure No.	Owner	Tenure Type	Claim Name	Map No.	Record Date	Good To Date	Cells	Area (ha)
237886	M. J. Miller-Tait	MINERAL	MARS	94D009	1976/OCT/14	2019/AUG/19	2-POST	25
242664	M. J. Miller-Tait	MINERAL	MOON	94D009	1990/AUG/25	2019/AUG/19	2-POST	25
330454	M. J. Miller-Tait	MINERAL	LAKE#4	94D009	1994/AUG/26	2019/AUG/19	2-POST	25
337669	M. J. Miller-Tait	MINERAL	JIM#1	94D009	1995/JUL/04	2019/AUG/19	2-POST	25
337670	M. J. Miller-Tait	MINERAL	JIM#2	94D009	1995/JUL/04	2019/AUG/19	2-POST	25
337673	M. J. Miller-Tait	MINERAL	BOB#1	94D009	1995/JUL/04	2019/AUG/19	2-POST	25
337674	M. J. Miller-Tait	MINERAL	BOB#2	94D009	1995/JUL/4	2019/AUG/19	2-POST	25
337675	M. J. Miller-Tait	MINERAL	BOB#3	94D009	1995/JUL/04	2019/AUG/19	2-POST	25
Total		8						200

The “good to” dates shown are based on the Statement of Exploration and Development Work registered on November 15, 2016 as Event #5626011 and assume that the work contained in this report will be accepted for assessment purposes.

## SECTION C: EXPENDITURES

### NORTHSTAR 2016 GEOCHEMICAL SAMPLING PROGRAM:

NORTHSTAR PROJECT	Expenditure: 2016 Geochemical Sampling Program					November 10, 2016
Item / Contractor	Work	Period	Quantity	Unit	Rate	Amount
<b>Personnel:</b>						
Jim Miller-Tait, P.Geo.	Exploraion Manager	Sept. 2016	2	days	\$550.00	\$1,100.00
Fred Miller-Tait	Exploration Sampler	Sept. 10 - 20, 2016	4	days	\$400.00	\$1,600.00
Subtotal						\$2,700.00
<b>Accommodation &amp; Meals:</b>						
Accommodation - On route	Field program	Sept. 10 - 20, 2016	2	man days	\$165.00	\$330.00
Food / Meal Expenditures	Field program	Sept. 10 - 20, 2016	4	man days	\$55.00	\$220.00
Subtotal						\$550.00
<b>Transportation (Vehicle):</b>						
Pickup - Ford F-150	Travel to & from Northstar Project	Sept. 10 - 20, 2016	1200	km	\$0.40	\$480.00
Fuel - Ford F-150			1	units	\$263.00	\$263.00
Subtotal						\$743.00
<b>Assaying:</b>						
Bureau Veritas Commodities Canada Ltd.	Soil Samples: AQ201 analytical code	VAN16001941	36	samples	\$18.33	\$659.99
Subtotal						\$659.99
<b>Field Supplies:</b>						
Army and Navy	Field Camp Supplies	Sept. 10 - 20, 2016	1	units	\$510.00	\$510.00
Subtotal						\$510.00
<b>Drafting:</b>						
Drafter - B.Eggers, P.Geo	GIS work: plan drafting		0.5	days	\$450.00	\$225.00
Subtotal						\$225.00
<b>Report Preparation:</b>						
Report - B. Eggers, P.Geo	Data compilation, report preparation		2.5	days	\$450.00	\$1,125.00
Subtotal						\$1,125.00
<b>Total</b>						<b>\$6,512.99</b>
<b>Tenures: 337674 &amp; 337675</b>						

## SECTION D: ANALYTICAL REPORTS

### NORTHSTAR 2016 GEOCHEMICAL ASSAYS:

1. Analyses carried out by Bureau Veritas Commodities Canada Ltd. of Vancouver, B.C.

<b>File Number</b>	<b>Date of Certificate</b>	<b>No. of Samples</b>	<b>Sample Type</b>	<b>Analytical Procedure</b>
<b>Mineral Analysis:</b> VAN16001941	Nov 25 2016	36	Soil	AQ201
<b>Total</b>		<b>36</b>		

2. Statement of Analytical Procedures: 1 data sheet
  - Bureau Veritas Commodities Canada Ltd AQ300, AQ200; Multi-Element (36) Assay by ICP-ES/MS; Aqua Regia Digestion



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada  
PHONE (604) 253-3158

**Client:** **Miller-Tait, Jim**  
828 Whitechurch Ave  
North Vancouver British Columbia V7L 2A5 Canada

Submitted By: Jim Miller-Tait  
Receiving Lab: Canada-Vancouver  
Received: October 11, 2016  
Report Date: November 25, 2016  
Page: 1 of 3

# CERTIFICATE OF ANALYSIS

VAN16001941.1

## CLIENT JOB INFORMATION

Project: Northstar  
Shipment ID:  
P.O. Number  
Number of Samples: 36

## SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Miller-Tait, Jim  
828 Whitechurch Ave  
North Vancouver British Columbia V7L 2A5  
Canada

CC:

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	36	Dry at 60C			VAN
SS80	36	Dry at 60C sieve 100g to -80 mesh			VAN
AQ201	36	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

## ADDITIONAL COMMENTS

  
JEFFREY CANNON  
Geochemistry Department Supervisor

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.  
\*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

**Client:** **Miller-Tait, Jim**  
828 Whitechurch Ave  
North Vancouver British Columbia V7L 2A5 Canada

**Project:** Northstar  
**Report Date:** November 25, 2016

**Page:** 2 of 3

**Part:** 1 of 2

# CERTIFICATE OF ANALYSIS

## VAN16001941.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
NS18	Soil	3.5	34.2	11.7	39	0.1	11.2	9.3	366	4.80	6.9	3.6	0.4	11	0.1	0.9	0.3	218	0.18	0.058	4
NS19	Soil	1.3	63.7	11.2	83	0.4	12.5	12.1	478	3.95	8.0	4.5	0.2	30	0.5	0.4	0.2	127	1.33	0.052	6
NS20	Soil	3.5	49.9	11.4	42	0.1	14.7	18.6	644	5.30	11.5	4.5	0.3	9	<0.1	0.8	0.2	251	0.25	0.068	3
NS21	Soil	1.1	54.1	7.4	94	0.1	20.9	19.9	1089	7.41	9.2	2.4	0.6	10	0.3	0.6	0.1	243	0.15	0.107	4
NS22	Soil	1.7	45.4	39.5	99	0.1	20.6	17.2	899	7.00	12.0	3.4	0.7	12	0.2	0.7	0.2	277	0.19	0.127	6
NS23	Soil	1.0	65.3	9.7	69	0.2	16.4	16.3	1221	5.62	10.0	8.3	0.4	14	0.1	0.6	<0.1	195	0.26	0.124	3
NS24	Soil	1.0	47.3	10.4	130	0.2	19.7	20.1	888	5.48	8.4	3.0	0.4	26	0.3	0.5	0.1	170	0.67	0.083	3
NS25	Soil	0.8	56.6	7.9	121	0.2	20.6	19.1	756	5.68	8.5	2.1	0.3	27	0.3	0.5	<0.1	169	0.91	0.105	4
NS26	Soil	0.8	72.3	7.3	94	0.2	20.4	17.5	787	5.11	8.5	1.8	0.3	27	0.3	0.4	<0.1	164	1.02	0.083	5
NS27	Soil	1.0	56.3	9.2	84	<0.1	14.8	14.9	566	5.67	13.7	59.9	0.4	13	0.3	0.9	<0.1	192	0.24	0.166	3
NS28	Soil	1.0	53.2	11.6	87	0.2	11.9	12.3	707	4.86	7.2	1.6	0.3	26	0.4	0.5	0.1	187	0.26	0.087	5
NS29	Soil	1.0	48.9	10.3	69	0.3	14.3	12.9	730	4.90	8.8	1.6	0.4	12	0.2	0.6	0.1	184	0.25	0.088	4
NS30	Soil	0.6	36.3	6.7	70	0.2	16.3	15.3	676	5.65	3.8	2.0	0.4	24	0.2	0.3	<0.1	190	0.31	0.205	2
NS31	Soil	0.9	70.3	8.3	46	0.2	11.4	9.6	505	5.96	6.7	1.2	0.5	9	<0.1	0.8	0.1	215	0.17	0.116	4
NS32	Soil	0.8	51.9	8.3	48	0.4	9.3	7.8	342	4.30	6.6	1.3	0.2	10	0.1	0.6	0.1	188	0.19	0.077	4
NS33	Soil	0.9	107.4	10.7	67	0.8	9.7	15.3	580	4.25	4.3	<0.5	0.3	30	0.5	0.8	0.1	156	1.59	0.065	5
NS34	Soil	0.8	75.0	7.5	100	0.4	20.6	17.8	955	5.19	7.3	2.2	0.3	28	0.3	0.8	<0.1	189	1.21	0.069	4
NS35	Soil	1.0	69.6	154.6	132	0.4	16.8	14.5	912	8.35	12.8	4.8	0.8	9	0.2	0.6	<0.1	235	0.17	0.294	5
NS36	Soil	0.8	98.6	9.6	68	0.7	9.6	14.7	614	4.15	4.0	0.6	0.2	28	0.5	0.6	0.1	154	1.44	0.058	5
NS37	Soil	1.7	371.3	8.2	121	0.6	26.1	19.9	2164	5.01	12.8	2.8	0.3	38	0.6	0.5	0.1	157	1.85	0.174	16
NS38	Soil	1.4	373.7	9.6	120	0.4	22.9	22.4	2961	4.90	12.2	2.2	0.3	40	0.8	0.7	<0.1	178	1.98	0.114	9
NS39	Soil	1.2	307.0	9.4	90	0.2	29.1	21.3	1167	5.19	12.6	3.0	0.7	34	0.2	0.7	<0.1	174	1.24	0.070	11
NS40	Soil	1.6	630.4	11.8	120	0.6	34.0	23.7	2220	5.65	14.0	1.6	1.2	36	0.6	1.0	0.1	179	1.72	0.068	14
NS41	Soil	0.8	94.5	6.7	74	0.2	17.4	14.7	722	6.57	9.0	2.9	0.4	11	0.2	0.6	<0.1	216	0.27	0.338	4
NS42	Soil	0.8	61.9	8.1	62	0.3	15.3	15.5	1099	6.40	8.2	4.4	0.5	12	0.1	0.7	<0.1	238	0.34	0.229	3
NS43	Soil	0.8	208.1	7.4	96	0.3	20.6	20.0	2033	6.21	8.9	9.4	0.7	22	0.1	0.6	<0.1	202	0.43	0.262	3
NS44	Soil	1.2	214.5	12.2	76	0.5	18.2	16.9	2347	6.90	8.9	2.8	0.6	15	0.2	0.7	<0.1	300	0.59	0.200	6
NS45	Soil	0.6	50.7	13.9	41	0.2	8.4	7.9	436	4.93	4.9	2.2	0.5	11	<0.1	0.6	0.1	196	0.19	0.114	4
NS46	Soil	1.1	61.9	8.6	66	0.2	12.2	10.9	577	6.51	7.4	2.2	0.6	12	0.2	0.6	<0.1	227	0.22	0.231	4
NS47	Soil	1.1	80.2	249.6	186	0.2	13.7	11.8	504	5.29	6.5	3.2	0.5	12	1.7	0.8	0.1	229	0.29	0.112	5





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**Project:** Northstar  
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# CERTIFICATE OF ANALYSIS

VAN16001941.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.01	0.05	1	0.5	0.2	0.2
NS18	Soil	36	0.25	37	0.245	5	0.87	0.012	0.03	<0.1	0.03	4.4	<0.1	<0.05	14	<0.5	<0.2	
NS19	Soil	28	0.64	86	0.067	3	2.11	0.012	0.03	0.1	0.08	5.8	0.1	<0.05	9	<0.5	<0.2	
NS20	Soil	28	0.31	58	0.220	4	1.30	0.013	0.03	0.1	0.05	4.5	<0.1	<0.05	17	<0.5	<0.2	
NS21	Soil	48	1.16	84	0.221	4	3.20	0.015	0.04	0.2	0.05	7.4	0.1	<0.05	16	<0.5	<0.2	
NS22	Soil	49	1.13	63	0.291	3	2.86	0.014	0.05	0.1	0.05	6.9	0.1	<0.05	24	<0.5	<0.2	
NS23	Soil	37	0.99	68	0.179	3	2.20	0.014	0.04	0.1	0.05	6.7	0.1	<0.05	12	<0.5	<0.2	
NS24	Soil	39	1.31	123	0.177	3	2.60	0.014	0.06	0.1	0.03	6.4	0.1	<0.05	12	<0.5	<0.2	
NS25	Soil	36	1.32	152	0.156	3	2.94	0.013	0.06	0.1	0.03	7.9	0.1	<0.05	12	<0.5	<0.2	
NS26	Soil	37	1.29	154	0.125	4	3.08	0.016	0.05	0.1	0.03	7.3	0.1	<0.05	11	<0.5	<0.2	
NS27	Soil	29	0.89	74	0.115	3	2.82	0.012	0.05	0.1	0.03	7.9	0.2	<0.05	14	<0.5	<0.2	
NS28	Soil	29	0.68	170	0.184	3	2.13	0.021	0.07	0.1	0.04	6.1	<0.1	<0.05	14	<0.5	<0.2	
NS29	Soil	36	0.70	55	0.175	3	1.83	0.017	0.05	0.1	0.04	6.4	0.1	<0.05	14	<0.5	<0.2	
NS30	Soil	41	1.07	40	0.346	3	1.93	0.015	0.05	0.1	0.04	4.4	<0.1	<0.05	12	<0.5	<0.2	
NS31	Soil	33	0.51	44	0.186	3	1.66	0.013	0.05	0.1	0.03	5.9	<0.1	<0.05	14	<0.5	<0.2	
NS32	Soil	28	0.42	69	0.112	3	1.53	0.013	0.05	<0.1	0.03	4.8	<0.1	<0.05	15	<0.5	<0.2	
NS33	Soil	25	0.34	235	0.075	3	1.78	0.012	0.04	0.2	0.06	5.4	<0.1	<0.05	8	<0.5	<0.2	
NS34	Soil	36	1.30	216	0.082	4	3.18	0.033	0.06	0.2	0.03	7.5	0.2	<0.05	12	<0.5	<0.2	
NS35	Soil	47	0.86	88	0.102	2	3.54	0.009	0.05	0.1	0.06	6.7	<0.1	<0.05	17	<0.5	<0.2	
NS36	Soil	25	0.36	222	0.049	3	1.76	0.015	0.03	<0.1	0.05	5.0	<0.1	<0.05	9	<0.5	<0.2	
NS37	Soil	44	1.26	170	0.048	4	3.38	0.017	0.08	<0.1	0.12	11.4	0.3	0.12	10	1.1	<0.2	
NS38	Soil	40	1.08	165	0.084	5	2.57	0.016	0.08	0.1	0.09	12.3	0.2	<0.05	9	0.9	<0.2	
NS39	Soil	53	1.41	127	0.147	4	2.71	0.016	0.08	0.1	0.08	13.8	0.2	<0.05	9	1.1	<0.2	
NS40	Soil	48	1.40	187	0.093	5	3.56	0.014	0.10	0.2	0.07	19.1	0.3	<0.05	13	<0.5	<0.2	
NS41	Soil	40	0.98	70	0.108	3	2.95	0.013	0.04	0.1	0.08	7.2	0.1	<0.05	14	<0.5	<0.2	
NS42	Soil	39	1.02	53	0.234	4	2.41	0.015	0.05	<0.1	0.05	7.7	<0.1	<0.05	17	<0.5	<0.2	
NS43	Soil	35	1.15	76	0.181	5	3.91	0.016	0.09	0.2	0.06	9.2	0.2	<0.05	14	<0.5	<0.2	
NS44	Soil	39	0.85	90	0.275	5	2.32	0.014	0.06	0.3	0.06	9.5	0.1	<0.05	16	<0.5	<0.2	
NS45	Soil	29	0.42	41	0.197	3	1.67	0.011	0.04	<0.1	0.04	5.2	<0.1	<0.05	16	<0.5	<0.2	
NS46	Soil	32	0.59	41	0.176	3	2.04	0.013	0.05	0.2	0.06	5.0	<0.1	<0.05	14	<0.5	<0.2	
NS47	Soil	34	0.72	58	0.203	2	2.31	0.013	0.07	0.1	0.07	5.2	<0.1	<0.05	16	<0.5	<0.2	



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# CERTIFICATE OF ANALYSIS

VAN16001941.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
NS48	Soil	0.9	231.1	8.4	108	0.3	26.7	18.9	715	6.51	10.1	2.3	1.1	15	0.2	0.6	<0.1	179	0.36	0.325	4
NS49	Soil	1.1	124.0	10.5	120	0.3	21.0	21.2	2827	5.49	6.5	2.3	0.5	22	0.4	0.6	<0.1	187	1.02	0.083	5
NS50	Soil	1.0	55.7	8.6	91	0.2	12.0	14.5	565	5.19	4.6	1.9	0.5	21	0.3	0.5	0.1	196	1.02	0.066	6
NS51	Soil	1.6	74.9	9.7	86	0.1	15.8	12.9	444	6.36	8.8	2.4	0.5	12	0.3	0.6	0.1	215	0.21	0.166	5
NS52	Soil	1.2	118.0	7.0	97	0.3	23.4	21.5	1353	8.82	12.1	2.6	0.6	10	0.2	0.7	<0.1	329	0.24	0.169	3
NS53	Soil	0.7	80.4	6.4	90	0.1	19.5	18.4	1050	6.68	7.0	3.0	0.4	9	0.1	0.8	<0.1	224	0.24	0.242	3



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# CERTIFICATE OF ANALYSIS

VAN16001941.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
NS48	Soil	46	1.34	90	0.166	5	4.70	0.012	0.06	0.3	0.08	9.1	0.1	<0.05	11	<0.5	<0.2
NS49	Soil	40	1.13	154	0.080	3	2.83	0.012	0.04	0.1	0.05	7.5	0.1	<0.05	11	<0.5	<0.2
NS50	Soil	28	0.77	143	0.121	2	2.49	0.012	0.04	<0.1	0.04	6.3	<0.1	<0.05	14	<0.5	<0.2
NS51	Soil	37	0.86	111	0.158	2	2.91	0.011	0.04	0.2	0.04	5.9	<0.1	<0.05	15	<0.5	<0.2
NS52	Soil	51	1.73	74	0.267	4	4.08	0.015	0.03	0.2	0.05	8.8	<0.1	<0.05	17	<0.5	<0.2
NS53	Soil	43	1.23	71	0.171	3	3.59	0.011	0.05	0.2	0.05	7.6	0.1	<0.05	16	<0.5	<0.2



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# QUALITY CONTROL REPORT

VAN16001941.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
NS50	Soil	1.0	55.7	8.6	91	0.2	12.0	14.5	565	5.19	4.6	1.9	0.5	21	0.3	0.5	0.1	196	1.02	0.066	6
REP NS50	QC	1.0	57.5	8.5	95	0.2	12.3	14.6	575	5.26	4.4	2.1	0.5	22	0.2	0.6	0.1	191	1.05	0.073	6
Reference Materials																					
STD DS10	Standard	15.4	163.2	156.8	375	1.8	76.9	13.7	928	2.90	47.2	71.1	7.7	69	2.8	9.3	12.4	48	1.07	0.083	18
STD DS10	Standard	14.1	160.8	150.4	383	2.0	77.0	13.5	926	2.85	48.8	91.1	7.9	65	3.0	10.3	13.3	42	1.01	0.082	18
STD OXC129	Standard	1.4	30.2	6.6	46	<0.1	84.4	22.4	451	3.32	0.8	208.1	1.9	192	<0.1	<0.1	<0.1	49	0.66	0.113	13
STD OXC129	Standard	1.4	30.8	7.1	41	<0.1	83.9	21.0	420	3.19	0.6	198.9	2.0	184	<0.1	<0.1	<0.1	54	0.65	0.105	13
STD DS10 Expected		15.1	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	46.2	91.9	7.5	67.1	2.62	9	11.65	43	1.0625	0.0765	17.5
STD OXC129 Expected		1.3	28	6.3	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.665	0.102	13
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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# QUALITY CONTROL REPORT

VAN16001941.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
NS50	Soil	28	0.77	143	0.121	2	2.49	0.012	0.04	<0.1	0.04	6.3	<0.1	<0.05	14	<0.5	<0.2
REP NS50	QC	30	0.79	146	0.175	5	2.62	0.012	0.05	0.2	0.04	6.9	<0.1	<0.05	15	0.5	<0.2
Reference Materials																	
STD DS10	Standard	59	0.78	352	0.080	8	1.03	0.074	0.32	3.4	0.32	3.3	5.3	0.29	4	2.4	5.3
STD DS10	Standard	55	0.83	350	0.081	6	1.08	0.061	0.31	3.4	0.30	2.9	5.1	0.29	5	2.5	5.0
STD OXC129	Standard	58	1.61	53	0.429	1	1.62	0.652	0.38	<0.1	<0.01	1.7	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	53	1.55	52	0.411	2	1.48	0.596	0.37	<0.1	<0.01	1.8	<0.1	<0.05	6	<0.5	<0.2
STD DS10 Expected		54.6	0.775	359	0.0817		1.0755	0.067	0.338	3.32	0.3	3	5.1	0.29	4.5	2.3	5.01
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.6	0.37			1.1			5.6		
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



# AQ300, AQ200

Package Description	Geochemical aqua regia digestion
Sample Digestion	HNO <sub>3</sub> -HCl acid digestion
Instrumentation Method	ICP-ES (AQ300, AQ200), ICP-MS (AQ200)
Legacy Code	1D, 1DX
Applicability	Sediment, Soil, Non-mineralized Rock and Drill Core

## METHOD DESCRIPTION:

Prepared sample is digested with a modified Aqua Regia solution of equal parts concentrated HCl, HNO<sub>3</sub> and DI H<sub>2</sub>O for one hour in a heating block or hot water bath. Sample is made up to volume with dilute HCl. Sample splits of 0.5g are analyzed optional 15g or 30g digestion available for AQ200.

Element	AQ300 Detection	AQ200 Detection	Upper Limit	Element	AQ300 Detection	AQ200 Detection	Upper Limit
Ag	0.3 ppm	0.1 ppm	100 ppm	Na*	0.01 %	0.001 %	5 %
Al*	0.01 %	0.01 %	10 %	Ni	1 ppm	0.1 ppm	10000 ppm
As	2 ppm	0.5 ppm	10000 ppm	P*	0.001 %	0.001 %	5 %
Au	-	0.5 ppb	100 ppm	Pb	3 ppm	0.1 ppm	10000 ppm
B*^	20 ppm	20 ppm	2000 ppm	S	0.05 %	0.05 %	10 %
Ba*	1 ppm	1 ppm	10000 ppm	Sb	3 ppm	0.1 ppm	2000 ppm
Bi	3 ppm	0.1 ppm	2000 ppm	Sc	-	0.1 ppm	100 ppm
Ca*	0.01 %	0.01 %	40 %	Se	-	0.5 ppm	100 ppm
Cd	0.5 ppm	0.1 ppm	2000 ppm	Sr*	1 ppm	1 ppm	10000 ppm
Co	1 ppm	0.1 ppm	2000 ppm	Te	-	0.2 ppm	1000 ppm
Cr*	1 ppm	1 ppm	10000 ppm	Th*	2 ppm	0.1 ppm	2000 ppm
Cu	1 ppm	0.1 ppm	10000 ppm	Ti*	0.01 %	0.001 %	5 %
Fe*	0.01 %	0.01 %	40 %	Tl	5 ppm	0.1 ppm	1000 ppm
Ga*	-	1 ppm	1000 ppm	U*	8 ppm	0.1 ppm	2000 ppm
Hg	1 ppm	0.01 ppm	50 ppm	V*	1 ppm	2 ppm	10000 ppm
K*	0.01 %	0.01 %	10 %	W*	2 ppm	0.1 ppm	100 ppm
La*	1 ppm	1 ppm	10000 ppm	Zn	1 ppm	1 ppm	10000 ppm
Mg*	0.01 %	0.01 %	30 %				
Mn*	2 ppm	1 ppm	10000 ppm				
Mo	1 ppm	0.1 ppm	2000 ppm				

\* Solubility of some elements will be limited by mineral species present. ^Detection limit = 1 ppm for 15g / 30g analysis.

### Limitations:

Au solubility can be limited by refractory and graphitic samples.

## SECTION E: SAMPLE LOCATIONS

### NORTHSTAR 2016 SOIL SAMPLE LOCATIONS AND DESCRIPTIONS:

Project	Sample Type	Sample ID	Easting NAD83_09	Northing NAD83_09	Elevation (m)	Sampler	Date	Notes
Northstar	B-Horizon	NS-18	672450	6215500	1196	FMT	12-Sep-16	
Northstar	B-Horizon	NS-19	672425	6215498	1200	FMT	12-Sep-16	
Northstar	B-Horizon	NS-20	672401	6215493	1204	FMT	12-Sep-16	
Northstar	B-Horizon	NS-21	672384	6215495	1208	FMT	12-Sep-16	
Northstar	B-Horizon	NS-22	672353	6215490	1212	FMT	12-Sep-16	
Northstar	B-Horizon	NS-23	672330	6215486	1216	FMT	12-Sep-16	
Northstar	B-Horizon	NS-24	672299	6215483	1220	FMT	12-Sep-16	
Northstar	B-Horizon	NS-25	672267	6215476	1224	FMT	12-Sep-16	
Northstar	B-Horizon	NS-26	672757	6215478	1228	FMT	12-Sep-16	
Northstar	B-Horizon	NS-27	672241	6215477	1232	FMT	12-Sep-16	
Northstar	B-Horizon	NS-28	672218	6215467	1236	FMT	12-Sep-16	
Northstar	B-Horizon	NS-29	672194	6215467	1240	FMT	12-Sep-16	
Northstar	B-Horizon	NS-30	672168	6215466	1244	FMT	12-Sep-16	
Northstar	B-Horizon	NS-31	672138	6215464	1248	FMT	12-Sep-16	
Northstar	B-Horizon	NS-32	672119	6215462	1252	FMT	12-Sep-16	
Northstar	B-Horizon	NS-33	672091	6215455	1256	FMT	12-Sep-16	
Northstar	B-Horizon	NS-34	672061	6215447	1260	FMT	12-Sep-16	
Northstar	B-Horizon	NS-35	672043	6215449	1263	FMT	12-Sep-16	
Northstar	B-Horizon	NS-36	672448	6215297	1203	FMT	13-Sep-16	
Northstar	B-Horizon	NS-37	672428	6215299	1206	FMT	13-Sep-16	
Northstar	B-Horizon	NS-38	672404	6215298	1209	FMT	13-Sep-16	
Northstar	B-Horizon	NS-39	672381	6215299	1212	FMT	13-Sep-16	
Northstar	B-Horizon	NS-40	672364	6215296	1215	FMT	13-Sep-16	
Northstar	B-Horizon	NS-41	672335	6215295	1218	FMT	13-Sep-16	
Northstar	B-Horizon	NS-42	672300	6215292	1221	FMT	13-Sep-16	
Northstar	B-Horizon	NS-43	672278	6215293	1224	FMT	13-Sep-16	
Northstar	B-Horizon	NS-44	672256	6215292	1227	FMT	13-Sep-16	
Northstar	B-Horizon	NS-45	672233	6215289	1230	FMT	13-Sep-16	
Northstar	B-Horizon	NS-46	672211	6215288	1233	FMT	13-Sep-16	
Northstar	B-Horizon	NS-47	672182	6215282	1236	FMT	13-Sep-16	
Northstar	B-Horizon	NS-48	672158	6215282	1239	FMT	13-Sep-16	
Northstar	B-Horizon	NS-49	672140	6215282	1242	FMT	13-Sep-16	
Northstar	B-Horizon	NS-50	672111	6215280	1245	FMT	13-Sep-16	
Northstar	B-Horizon	NS-51	672092	6215278	1248	FMT	13-Sep-16	
Northstar	B-Horizon	NS-52	672073	6215278	1251	FMT	13-Sep-16	
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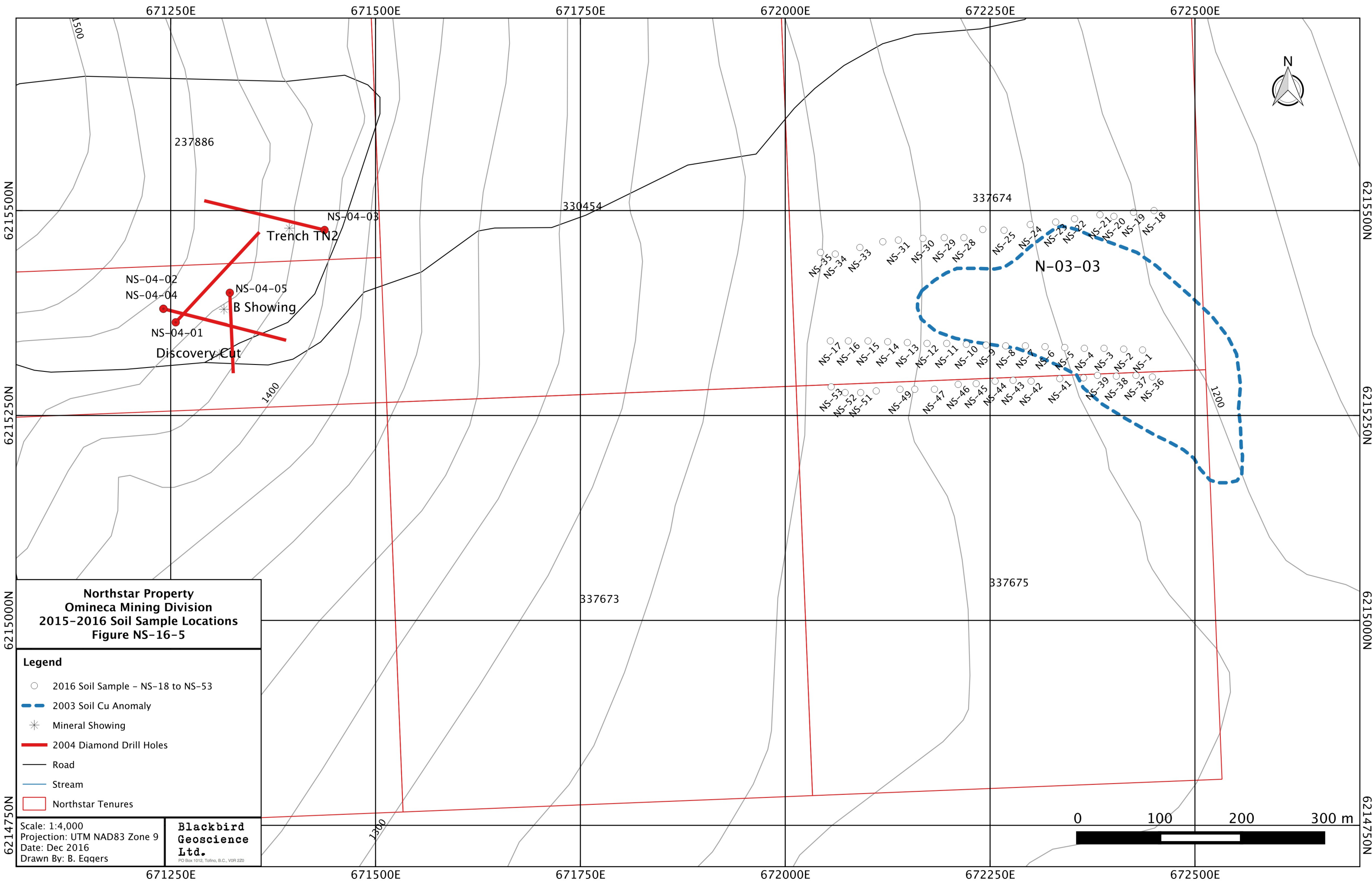
Coordinate locations recorded in UTM NAD83 Zone 09.

## SECTION F: ILLUSTRATIONS

### LIST OF FIGURES:

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NS-16-2 (after p.2)	General Location Plan	1:1,250,000
NS-16-3 (after p.2)	Mineral Tenures Plan	1:30,000
NS-16-4 (after p.5)	Regional Geology Plan	1:100,000
NS-16-5 (after p.19)	2015-2016 Soil Sample Locations	1:4,000
NS-16-6 (after p.19)	2015-2016 Soil Sampling: Cu (ppm)	1:4,000
NS-16-7 (after p.19)	2015-2016 Soil Sampling: Au (ppb)	1:4,000
NS-16-8 (after p.19)	2015-2016 Soil Sampling: Ag (ppm)	1:4,000



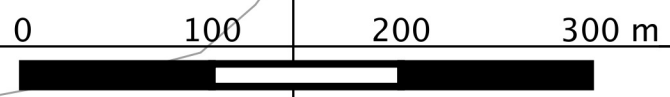


**Northstar Property  
Omineca Mining Division  
2015-2016 Soil Sample Locations  
Figure NS-16-5**

- Legend**
- 2016 Soil Sample - NS-18 to NS-53
  - 2003 Soil Cu Anomaly
  - \* Mineral Showing
  - 2004 Diamond Drill Holes
  - Road
  - Stream
  - Northstar Tenures

Scale: 1:4,000  
 Projection: UTM NAD83 Zone 9  
 Date: Dec 2016  
 Drawn By: B. Eqgers

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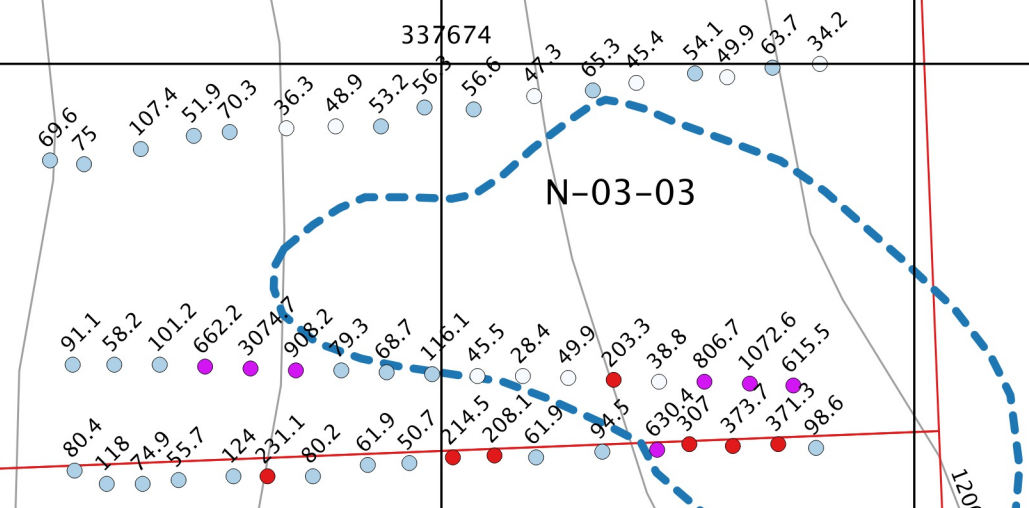
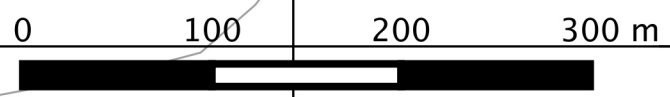


**Northstar Property  
Omineca Mining Division  
2015-2016 Soil Sampling: Cu (ppm)  
Figure NS-16-6**

- Legend**
- Soil Cu ppm
    - 0 - 50
    - 50 - 200
    - 200 - 500
    - 500 - 3075
  - 2003 Soil Cu Anomaly
  - \* Mineral Showing
  - 2004 Diamond Drill Holes
  - Road
  - Stream
  - Northstar Tenures

Scale: 1:4,000  
 Projection: UTM NAD83 Zone 9  
 Date: Dec 2016  
 Drawn By: B. Eqgers

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NS-04-02  
 NS-04-04  
 NS-04-01  
 Discovery Cut

Trench TN2  
 B Showing

NS-04-03

330454

337674

N-03-03

337673

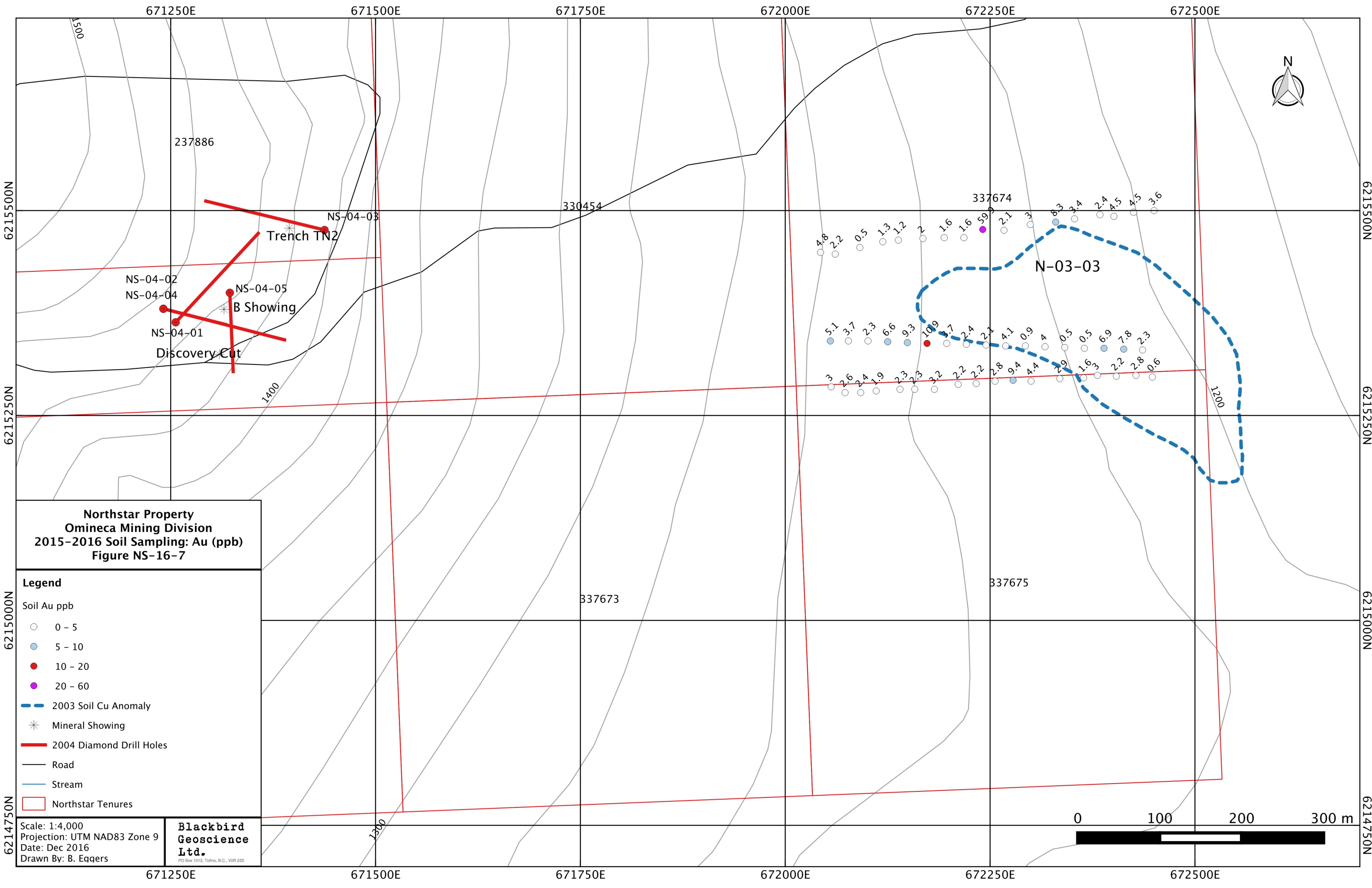
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237886

1400

1200

1300

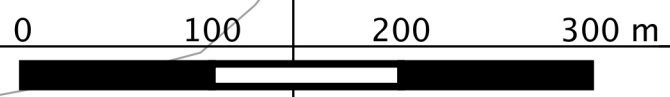


**Northstar Property  
Omineca Mining Division  
2015-2016 Soil Sampling: Au (ppb)  
Figure NS-16-7**

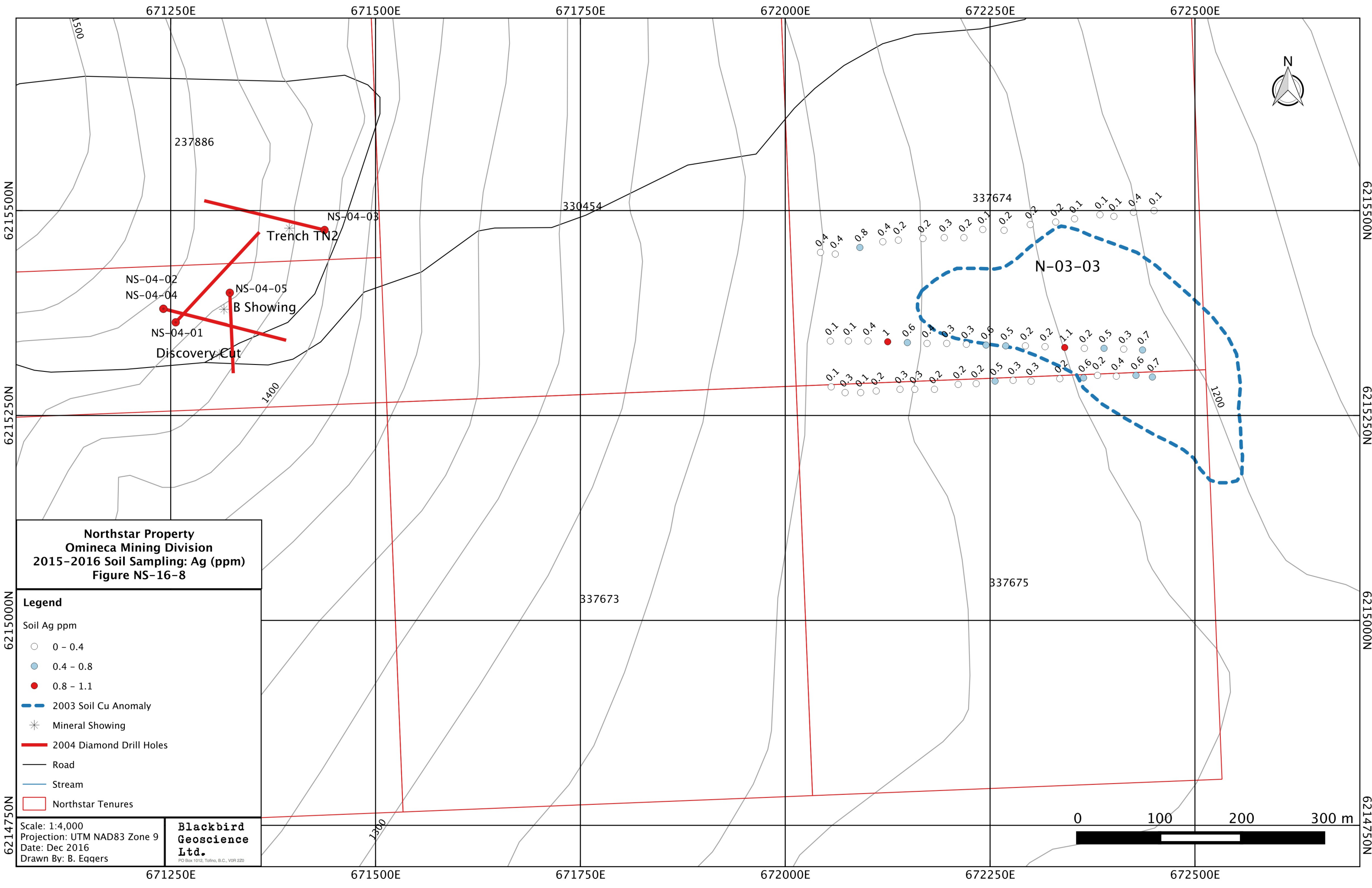
- Legend**
- Soil Au ppb
    - 0 - 5
    - 5 - 10
    - 10 - 20
    - 20 - 60
  - 2003 Soil Cu Anomaly
  - \* Mineral Showing
  - 2004 Diamond Drill Holes
  - Road
  - Stream
  - Northstar Tenures

Scale: 1:4,000  
 Projection: UTM NAD83 Zone 9  
 Date: Dec 2016  
 Drawn By: B. Eqgers

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**Northstar Property  
Omineca Mining Division  
2015-2016 Soil Sampling: Ag (ppm)  
Figure NS-16-8**

- Legend**
- Soil Ag ppm
    - 0 - 0.4
    - 0.4 - 0.8
    - 0.8 - 1.1
  - 2003 Soil Cu Anomaly
  - \* Mineral Showing
  - 2004 Diamond Drill Holes
  - Road
  - Stream
  - Northstar Tenures

Scale: 1:4,000  
 Projection: UTM NAD83 Zone 9  
 Date: Dec 2016  
 Drawn By: B. Eqgers

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