BC Geological Survey
Assessment Report
40206

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 Sampling; LiDAR; IP; Aeromagnetic Survey **TOTAL COST:** $950,104.85

AUTHOR(S): Cheyenne Sica; Bonnie Spence **SIGNATURE(S):**

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): 1640915-201902 (2021-Jun-25); 1640915-201903 (2020-A **YEAR OF WORK:** 2021

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5865307 (2020/DEC/30); 5929904 (2022/MAR/28)

PROPERTY NAME: Max-Mount Milligan Greenfield

CLAIM NAME(S) (on which the work was done): 521187, 521189, 521194, 521195, 521196, 521197, 521198, 521199, 521200, 521201, 521202, 521203, 521204, 521205, 521206, 521207, 521208, 521209, 521210, 521212, 521213, 524892, 530480, 532538, 532540,532541, 532542, 532543, 532635, 532638, 551895, 678524, 678527, 678536, 678564, 678583, 678588, 678

COMMODITIES SOUGHT: Gold, Copper, Silver

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 093N/ 194

MINING DIVISION: Omineca **NTS/BCGS:** 093K, 093O, 093J, 093K UTM Zone 10

LATITUDE: 54 ° 55 '30 " **LONGITUDE:** -124 ° 3 '16.8 " **(at centre of work)**

OWNER(S):
1) JAMA Holdings Inc.
2) Thompson Creek Metals Company Inc

MAILING ADDRESS:
200-299 VICTORIA STREET, PRINCE GEORGE, BC
V2L 5B8, CANADA

OPERATOR(S) [who paid for the work]:
1) Thompson Creek Metals Company Inc
2)

MAILING ADDRESS:
200-299 VICTORIA STREET, PRINCE GEORGE, BC
V2L 5B8, CANADA

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Alteration: K-Feldspar, Biotite, Actinolite, Epidote, Calcite, Chlorite, Albite, Pyrite
Classification: Porphyry, Hydrothermal, Epigenetic
Type: L03: Alkalic Porphyry Au-Cu

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
4274, 4742, 5175, 11951, 12912, 13508, 13891, 14377, 17860, 19164, 19268, 19396, 19921, 20227, 20230, 20280, 20416, 20

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	Palmer 1:20,000 surficial geology map	521187, 521189, 521194, 521195, 521	$31,365.49
Photo interpretation	Eagle Mapping LiDAR 37,600 ha (376	521187, 521189, 521194, 521195, 521	$86,550.00
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization	22.6 line-km	532635, 532543, 1076914, 1076910, 5	$387,064.36
Radiometric			
Seismic			
Other	Helicopter costs for IP	521203, 521204, 521205, 521209, 521	$80,835.71
Airborne	1546 line-km	521208, 521210, 521189, 521198, 521	$73,048.50
GEOCHEMICAL (number of samples analysed for...)			
Soil	132 soil samples, analyzed for 53 element aqua regi	521210, 521198, 521199, 521200, 521	$3,712.25
Silt			
Rock	54 rock samples, analyzed for 53 element aqua reg	521210, 521198, 521199, 521200, 521	$2,045.61
Other	3 Till Samples (hand-dug pit), analyzed for 53 elem	532537, 1076910	$84,216.05
DRILLING (total metres; number of holes, size)			
Core			
Non-core	67 Talon drill samples sites, depths 0.8-2.1 m	532635, 532543, 532538, 532540	$199,389.59
RELATED TECHNICAL			
Sampling/assaying	Talon Drill (till) Samples	532635, 532543, 532538, 532540	$1,877.29
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	$950,104.85

Assessment Report

Max and Mount Milligan Greenfield Exploration Project 2021 Geochemical Sampling, LiDAR, Induced Polarization, and Aeromagnetic Program

Omineca Mining Division

N.T.S. 93N , 93O, 93J, 93K
Latitude 550 07’ 19” N
Longitude 1240 01’ 46” W

Claims Worked:

521187, 521189, 521194, 521195, 521196, 521197, 521198, 521199, 521200, 521201, 521202, 521203, 521204, 521205, 521206, 521207, 521208, 521209, 521210, 521212, 521213, 524892, 530480, 532537, 532538, 532540, 532541, 532542, 532543, 532635, 532638, 551895, 678524, 678527, 678536, 678564, 678583, 678588, 678603, 842877, 842878, 1050265, 1076910, 1076911, 1076912, 1076913, 1076914, 1076915, 1076916, 1076917

Operator/Owner:

Thompson Creek Metals Company Inc.
Mount Milligan Mine
299 Victoria Street, Suite 200
Prince George, B.C. V2L 5B8

Owner:

Jama Holdings
1287 Mcnair Street,
North Vancouver, B.C. V7K 0A1

Prepared for:

Ministry of Energy, Mines, & Petroleum Resources
Mining & Minerals Division

Prepared By:

Bonnie Spence, Geoff McMaster, Cheyenne Sica
Centerra Gold Services Inc.

March 30, 2022

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1 Summary

The Mount Milligan alkalic gold-copper porphyry deposit is in central British Columbia, approximately 155 km northwest of Prince George. The property consists of 1 mineral lease and 121 claims, comprising the Mount Milligan Greenfield Exploration Project, covering approximately 61,891.9 hectares. Thompson Creek Metals Company Inc. (TCM) owns 100% of the operation and all mineral titles. The Mount Milligan Mine consists of one open pit and one tailings storage facility. The mine contains total proven and probable reserve of 149,975 kilo tonnes grading 0.38 g/t gold and 0.22% copper as of December 31, 2021, (1,838 kilo ounces contained gold and 736 million pounds contained copper) and is currently operating at a rate of approximately 60,000 tonnes per day.

The Max property is located 21 km south of the Mount Milligan mine, contiguous with the Mount Milligan Greenfield claim group. The Max project is a mineral claim block (4,869 ha) owned 100% by Jama Holdings Ltd. under option to Thompson Creek Metals (TCM) Company Ltd. An additional adjoining claim package surrounding the original Max property tenure (9,208 ha) was staked by TCM in 2020. The property encompasses late Triassic volcanic and sedimentary rocks of the Takla Group intruded by the Max stock, a series of late Triassic - early Jurassic phaneritic and porphyritic intrusive rocks. Copper and gold have been explored for on the Max property using surface techniques (geological mapping, soil sampling, silt sampling) and both airborne and ground geophysical methods discontinuously since 1986.

Prior to 2021 field programs, Palmer was contracted to complete two desktop studies to develop additional surficial exploration strategies for the area and refine planned surficial work programs and drill targets based on the results. A 1:20 000-scale surficial geology map and preliminary assessment of existing surficial exploration data, including glacial history and implications for exploration, was completed for the Max and Mt. Milligan Greenfield areas. The results of the surficial geology mapping were used to derive till sampling suitability (TSS) and drift thickness maps. This was followed by a detailed standardization and evaluation of the existing geochemical dataset on the Max property which, accounting for ice transport direction and surficial geology, identified 17 soil target areas (MAX_ST1 through MAX_ST17). 2021 Talon till sampling programs were planned to field test two of these soil targets: Max_ST9 in the K2 Showing and Max_ST9 in the North Road target area.

Surficial exploration in 2021 was completed in two phases. Phase 1 soil/rock sampling and prospecting occurred between June 5th and September 23rd, targeting the K2 Showing, North Road targets, South Ring target, and the Caldera zone at Max, as well as the Sentinel target and Fugro-2 zones in the Mt. Milligan Greenfield area. Phase 2 till sampling was completed between November 9th and December 13th, testing soil targets in the K2 Showing and North Road 3 area at Max.

The K2 Showing is a Cu-Ag bearing breccia/vein BC MINFILE showing laying within the Max fault zone with an associated west-northwest trending soil geochemistry anomaly. Sampling and prospecting at K2 showing confirmed the presence of Cu-bearing quartz breccia and identified several porphyritic outcrops-subcrops upslope. The highest Cu results were returned from the K2 breccia/vein float samples, including 3,029.5 ppm Cu from sample D00155321 and 1,572.2 ppm Cu from sample D00155322. No significant (>500 ppm) Cu was returned from the surrounding porphyry outcrops. These porphyritic rocks are coincident with a shallow resistivity high feature rimmed by a high chargeability halo identified in the 2021 IP survey, making this a high priority drill target.

The North Road target area is defined by a triangular magnetic high feature surrounded by lows, coincident with historical Mo-in-soil anomalies and bound to the south by the east-northeast trending

'Max Fault'. The South Ring target is defined by a circular aeromagnetic high doughnut feature with a magnetic low rim and center, interpreted as a magnetite-bearing intrusion with magnetite-destructive alteration halo, coincident with four Cu-Mo soil geochemistry targets. A strong magnetic break highlights a regional northwest-trending fault that bisects the South Ring target, bounding a high chargeability and resistivity feature to the west. Resampling of historical Mo and Cu soil/rock anomalies in the North Road and South Ring targets on the Max property yielded similar results and increased confidence in the historical geochemistry dataset. Prospecting in the North Road and Fugro-2 target areas also confirmed that rock exposure is limited and thick till cover prevents the identification of bedrock sources for even the most anomalous soil samples. As a result, drill targeting in this area still relies heavily on geophysics.

The Caldera East target is identified in the regional aeromagnetic survey by an elongate magnetic high feature rimmed by a magnetic low, interpreted to be a magnetite-bearing intrusion (mag high) with a magnetic destructive alteration halo. It is located at the southern edge of the Max property, outside the existing historical soil geochemistry dataset. Anomalous results were returned from three consecutive soil samples: D00155567 (149.5 ppm Cu, 1.2 ppm Mo), D00155568 (87.9 ppm Cu, 3.3 ppm Mo), and D00155569 (145.9 ppm, Cu 1.2 ppm Mo). However, the 2021 IP survey conducted over the Caldera and Caldera East zones (Appendix L) showed that moderate to high chargeability anomalies were >300 m depth from surface so this area is not recommended as a high priority target for further exploration.

The Sentinel target is represented by a nested magnetic high with destructive halo and outer magnetic high rim, defined from the 2021 detailed aeromagnetic survey. The feature is situated in a regional fault block bound on the west by Sentinel fault and on the east by the Great Eastern Fault. Soil geochemistry results show anomalous Cu (>100 ppm) and Mo (>1 ppm) soil geochemistry coincident with the center of the Sentinel aeromagnetic doughnut feature as well as a northwest trending Au-in-soil anomaly (>30 ppb) on the western side of the survey area, located downhill from quartz vein outcrop sample D00155460 (129 ppb Au, 97.5 ppm Cu, 1.0 ppm Mo). Results from the 2021 IP survey show a central break consistent with the interpreted Sentinel fault, as well as a ~500 m wide chargeability high feature coincident with a resistivity high, east of the fault. A shallow chargeability high feature was also identified on the eastern margin of L6400N and warrants additional follow-up.

Phase 2 Talon till sampling up- and down-ice from in-situ soil targets in the K2 Showing and North Road areas verified their locations, with down-ice samples yielding anomalous Mo and Cu concentrations while up-ice samples did not. Anomalous till samples also coincide with down-ice soil dispersal trains exhibiting porphyry and epithermal relative importance signatures (RIS) identified during the 2021 soil geochemistry review, proving Talon till sampling as a suitable exploration technique for the project.

2 Introduction

This report summarizes the 2021 exploration programs on the Max and Mt. Milligan Greenfield exploration property including a total of 150 soil samples, 62 rock samples, 4 hand-dug till samples, 78 Talon drill till samples, 22.6 line-km of ground induced polarization surveys and 1,546 line-km of airborne magnetic survey. The report also describes a 2020 LiDAR survey covering 37,600 ha (376 sq km) of the claim block and two 2021 desktop studies evaluating regional surficial geology and historical soil sample geochemistry. The report is submitted on behalf of Thompson Creek Metals Company Inc. (TCM), a wholly owned subsidiary of Centerra Gold Inc. (Centerra). TCM is working the Max property under an option agreement with the owner of the claims, Jama holdings Inc. An additional adjoining claim package surrounding the original Max property tenure (9,208.25 ha) was staked by TCM in 2020. The Max property is located 21 km south of the Mount Milligan mine and adjoins the 100% TCM-owned Milligan greenfield

claim block. All exploration activities completed in 2021 were planned, managed, and reported by the Centerra Gold Services (CGS) exploration department.

3 Property Description

The Milligan Greenfield property is 100% owned by Thompson Creek Metals Company Inc. (BC Mineral Titles owner Number 283374), a division of Centerra Gold Inc. The property is located within the Omineca Mining Division in north-central British Columbia, approximately 155 km northwest of Prince George. Access is from Fort St James 86 km to the south, or from Mackenzie 95 km to the east (Figure 1). The claim group consists of 121 mineral claims and one mining lease covering a total area of 61,891.9 ha, the details of which are summarized in Table 1 and shown in Figures 2, 3, and Appendix C. The boundaries of these claims are defined by map locations (longitude/latitude or UTM) rather than ground position. The claims are positioned over four National Topographic System (NTS) maps, which include 93O04, 93N01, 93K16 and 93J13, the Property is centred at approximately 124°01'46" west longitude and 55°07'19" north latitude, or 434,349 mE, 6,108,845 mN (NAD 83 Zone 10).

The Max property is located approximately 21 km south of the Mount Milligan mine, to the north of Nendatoo Lake, formerly Cripple Lake (Figure 1). The property falls entirely within the Omineca Mining Division and within the Tezzeron Creek NTS map sheet (093K/16), centered on 54.920°N, 124.067°W. It is comprised of 20 mineral claims covering an area of 14,077.10 ha; 12 claims (4868.85 ha) are 100% owned by Jama Holdings (Client Number 265548) and worked under an earn-in agreement by TCM in 2020, and an additional eight claims (9208.25 ha) were staked by TCM in June 2020.

3.1 Location and Access

The Mt. Milligan and Max properties can be accessed from the south via Fort St James on the Germansen Landing (North) Road followed by the Rainbow Forest Service Road (FSR), or from the east via Mackenzie on the Community Connector FSR and switching to the Rainbow FSR. The roads are in good condition and well-maintained owing to active logging and mining in the area that utilizes both routes. In addition, the Community Connector FSR serves as a haul road for the Mt. Milligan mine site. Both routes are used for daily and weekly crew changes.

The northern and eastern portions of the Sentinel exploration target can be accessed from the west via the Rainbow FSR, switching to the Community Connector FSR at 17 km, and heading south-southeast on forest service roads off the Community Connector FSR at 6.3 km. Approximately 7 km of this forest service road are drivable using 4x4 vehicles, although some road sections are no longer maintained. The Rainbow FSR also connects to the informally named "Number 5" road at 3.3 km, which accesses the northern portions of the Max property. The "Number 5" road is well maintained with creeks spanned by forestry bridges in good working shape and areas along the road large enough for truck turnarounds and helicopter staging.

The southern portions of the Max property as well as the western and southern portions of the Sentinel target may be accessed on foot or via helicopter. There are several helicopter companies based in Fort St. James, Smithers, and Prince George providing light- and medium-lift helicopters.

3.2 Infrastructure and Local Resources

Electrical power is supplied to the Mount Milligan mine from the BC provincial grid through the Kennedy Substation near Mackenzie, BC to within 20 km of the Max project site (Mills et al., 2009).

The Max and Mt. Milligan Greenfield property is accessible by secondary and resource roads form the municipality of Fort St James (population 1691, 2011) and Mackenzie (population 3507, 2011), both of which offer labor and support services for the resource extraction industry. The regional hub city of Prince

George (population 74 003, 2016) is approximately 3 hours by road from the Max and Mt. Milligan Greenfield property. The Mount Milligan mine is 22.5 km from the Max property along the Rainbow FSR.

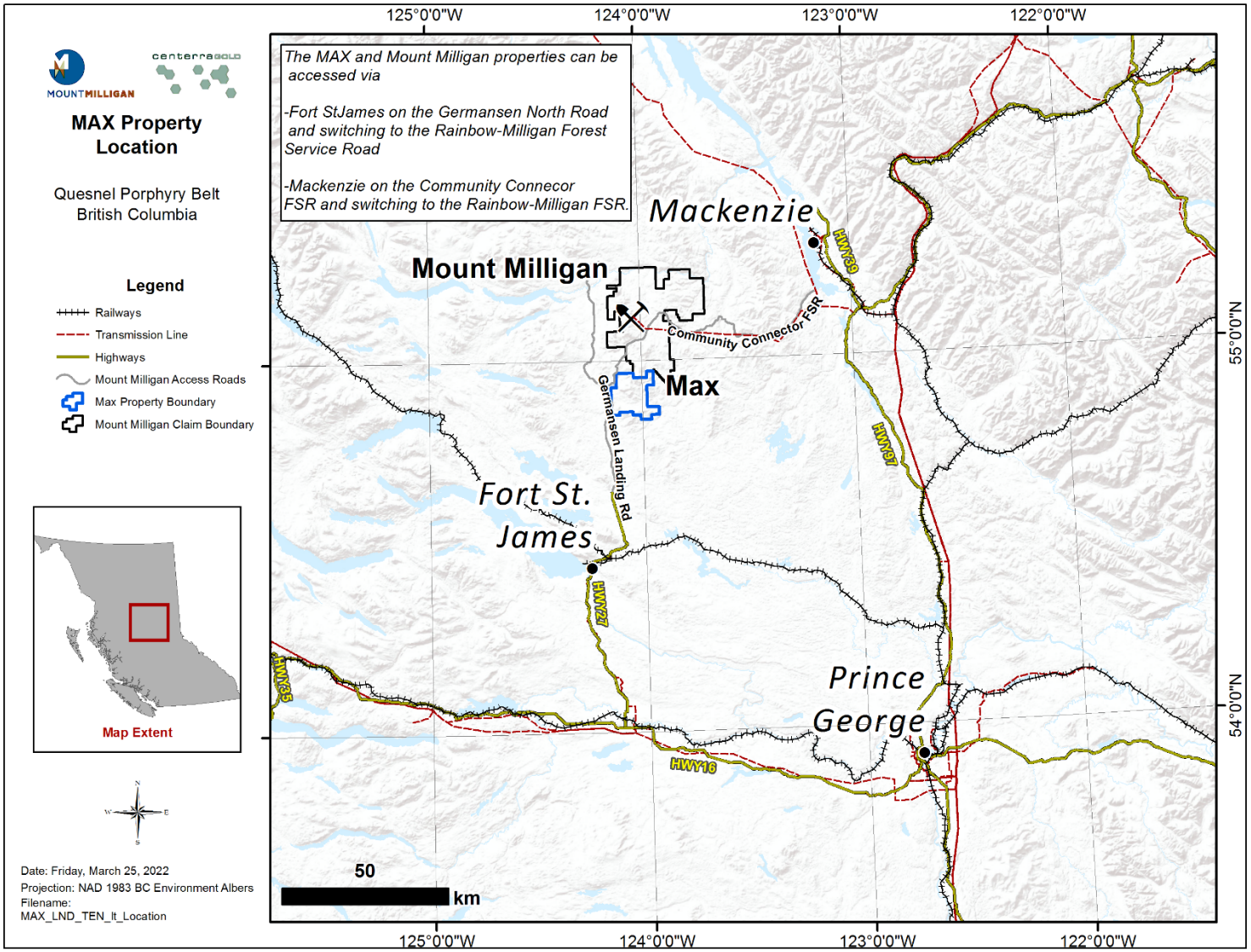

Figure 1: MAX Property Location

3.3 Physiography and Climate

Regionally, the Max and Mt. Milligan Greenfield property lies near the northern boundary of the Nechako Plateau and the southern limits of the Swannell Range of the Omineca Mountains in the Canadian Cordilleran Interior System. A chain of peaks aligned in an approximate north-south direction dominates the western part of the Mt. Milligan Greenfield property. Mt. Milligan is the highest of these peaks, rising to an elevation of 1508 m, and is rounded and symmetrical in shape. The Mt. Milligan deposit occurs to the south of Mt. Milligan at an elevation of approximately 1100 m. The eastern part of the property is dominated by gentle relief but includes a central region of elevated topography trending northwest and rising to approximately 1350 m. Several isolated rounded hills also occur in the area rising to a similar elevation. A region of lower topography separates the western and eastern areas of the property. Several elongated northwest-trending lakes occur in the eastern part of the property and are interpreted to reflect the regional structural fabric.

A bow-shaped trend of northwest aligned peaks bounds the western margin of the Sentinel target area, with the highest and southernmost Rainbow peak reaching 1575 m elevation. The western side of the Sentinel ridge is steep with several westerly-flowing creeks draining into a broad swampy lowland. Elevation changes more gradually to the northeast with fewer east-northeast-trending drainages. Further south, a chain of peaks aligned in an approximate cross-shape dominates the central part of the Max property. The central, unnamed peak rises to over 1400 m. Below the central cross-shaped ridge, the topography is gentle. South flowing creeks are present on the east and west sides of the property. The southern portion of the property is swampy.

The area was last glaciated 10,000–20,000 years ago with regional ice flow direction to the northeast (Kerr and Sibbick, 1992). This event blanketed the landscape with glacial till and altered pre-glacial drainage patterns. Drumlins, flutings, eskers, and melt-water channels of various dimensions are noticeable features of the region. The field area is generally well drained except for ephemeral swamps during freshet. The west side of the property is within the Lower Trembleur Lake watershed, and the east side of the property is within the Salmon River watershed.

Vegetation in the region consists primarily of pine and spruce with lesser amounts of alder in wet areas. Beetle-killed timber is present throughout the field area and represents a hazard during fieldwork, especially during strong winds. In addition, numerous recent and active logging cut blocks occur throughout the field area, many of which have been recently replanted.

The property is in the northernmost part of the Nechako Plateau, with a predominantly continental climate, somewhat moderated by the Pacific Coastal derived air. Winters are typically long and cold, sometimes reaching lows below -35°C, with below-freezing temperatures from late fall to early spring (Foord, 2016). Average snowfall in the Fort St. James area is 1.7 m (Environment Canada). Summers are warm with temperatures sometimes reaching over 30°C and precipitation dominated by convective storms (Foord, 2016). The property may be accessed year-round although deep snow may hinder access on foot from December through May.

4 Mineral Tenure

The Mt. Milligan claim group consists of one mining lease encompassed by 121 mineral claims, comprising the Mt. Milligan Greenfield property, and covering a total area of 61,891.9 ha, the details of which are summarized in Table 1 and shown in Figures 2, 3, and Appendix C with the most recent addition of two claims (3044.21ha) occurring in February 2022. Adjoining the Mt. Milligan Greenfield tenure to the south,

the Max project is a mineral claim block consisting of 12 mineral claims (4,869 ha) owned 100% by Jama Holdings Ltd. under option to Thompson Creek Metals (TCM) Company Ltd. An additional, adjoining claim package of eight mineral claims (9,208 ha) was staked by TCM in 2020 (Figure 2). Claim information is displayed below in Table 1.

The Sentinel target area is located southeast of adjoining Mt. Milligan Greenfield claims covered by Notice of Work (NoW) Permit MX-13-182, 1300188-202002. NoW application 1300188-202101 was submitted in April 2021 to cover planned 2021 IP surveys in the Sentinel area, however the Inspector determined that no permit was required for the work. The 2021 Max ground IP surveys were conducted under Notice of Work (NoW) Permit MX-13-302, 1640915-202002.

To the author's knowledge, the property is not subject to any royalties, back-in rights, payments or other agreements and encumbrances.

To the author's knowledge, there are no environmental liabilities to which the property is subject.

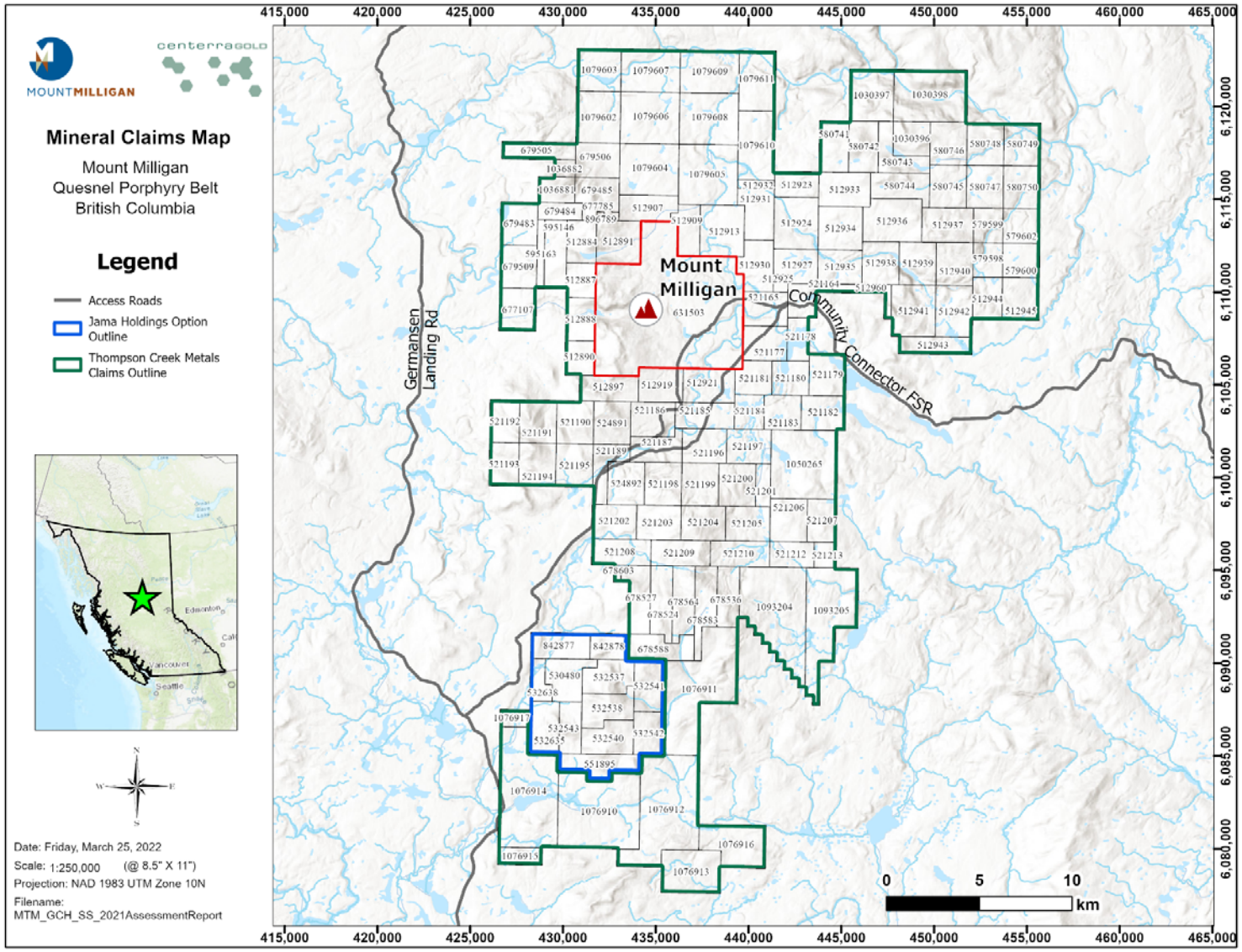

Figure 2: Mineral Claim Map

Table 1: Mineral claim data for the Mount Milligan and Max properties as of March 2022

Project	Title Number	Claim Name	Owner	Title Sub Type	Issue Date	Good To Date	Status	Area (ha)
Mount Milligan	631503		Thompson Creek Metals Company Inc. (100%)	Lease	2009-09-09	2022-09-09	GOOD	5138
Mount Milligan	512884		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2028-01-13	GOOD	369.632
Mount Milligan	512887		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2028-01-13	GOOD	295.844
Mount Milligan	512888		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2028-01-13	GOOD	369.979
Mount Milligan	512890		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2028-01-13	GOOD	296.121
Mount Milligan	512891		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	554.449
Mount Milligan	512897		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2028-01-13	GOOD	444.34
Mount Milligan	512907		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	424.903
Mount Milligan	512909		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	351.094
Mount Milligan	512913		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	665.236
Mount Milligan	512919		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	444.319
Mount Milligan	512921		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	518.369
Mount Milligan	512923		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	332.428
Mount Milligan	512924		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	665.165
Mount Milligan	512925		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	73.961
Mount Milligan	512927		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	406.695
Mount Milligan	512930		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	480.648
Mount Milligan	512931		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	480.341
Mount Milligan	512932		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	92.341
Mount Milligan	512933		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	517.134
Mount Milligan	512934		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	554.332
Mount Milligan	512935		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	443.673
Mount Milligan	512936		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	720.559
Mount Milligan	512937		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	517.346

Project	Title Number	Claim Name	Owner	Title Sub Type	Issue Date	Good To Date	Status	Area (ha)
Mount Milligan	512938		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	462.136
Mount Milligan	512939		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	462.135
Mount Milligan	512940		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	462.134
Mount Milligan	512941		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	665.851
Mount Milligan	512942		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	554.875
Mount Milligan	512943		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	370.069
Mount Milligan	512944		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	369.861
Mount Milligan	512945		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	462.324
Mount Milligan	512960		Thompson Creek Metals Company Inc. (100%)	Claim	2005-05-18	2026-03-18	GOOD	203.414
Mount Milligan	521164	MILL 1	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	332.887
Mount Milligan	521165	MILL 2	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	443.905
Mount Milligan	521177	MILL 3	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	444.089
Mount Milligan	521178	MILL 4	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	277.539
Mount Milligan	521179	MILL 5	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	462.756
Mount Milligan	521180	MILL 6	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	370.225
Mount Milligan	521181	MILL 7	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	351.719
Mount Milligan	521182	MILL 8	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	444.449
Mount Milligan	521183	MILL 9	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	370.374
Mount Milligan	521184	MILL10	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	296.301
Mount Milligan	521185	MILL 11	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	444.471
Mount Milligan	521186	MILL 12	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2028-01-13	GOOD	444.496
Mount Milligan	521187	MILL 13	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2028-01-13	GOOD	407.598
Mount Milligan	521189	MILL 14	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	370.632
Mount Milligan	521190	MILL 15	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2028-01-13	GOOD	463.037
Mount Milligan	521191	MILL 16	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.038

Project	Title Number	Claim Name	Owner	Title Sub Type	Issue Date	Good To Date	Status	Area (ha)
Mount Milligan	521192	MILL 17	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	370.431
Mount Milligan	521193	MILL 18	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	370.621
Mount Milligan	521194	MILL 19	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.276
Mount Milligan	521195	MILL 20	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.276
Mount Milligan	521196	MILL 21	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	444.632
Mount Milligan	521197	MILL 22	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	444.635
Mount Milligan	521198	MILL 23	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.375
Mount Milligan	521199	MILL 24	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.374
Mount Milligan	521200	MILL 25	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.377
Mount Milligan	521201	MILL 26	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	185.351
Mount Milligan	521202	MILL 27	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.045
Mount Milligan	521203	MILL 28	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.047
Mount Milligan	521204	MILL 29	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.047
Mount Milligan	521205	MILL 30	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.049
Mount Milligan	521206	MILL 31	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	463.565
Mount Milligan	521207	MILL 32	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	370.852
Mount Milligan	521208	MILL 33	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.206
Mount Milligan	521209	MILL 34	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.207
Mount Milligan	521210	MILL 35	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	445.21
Mount Milligan	521212	MILL 36	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	333.905
Mount Milligan	521213	MILL 37	Thompson Creek Metals Company Inc. (100%)	Claim	2005-10-14	2026-03-18	GOOD	166.952
Mount Milligan	524891	ARM	Thompson Creek Metals Company Inc. (100%)	Claim	2006-01-08	2026-03-18	GOOD	463.039
Mount Milligan	524892	STRONG	Thompson Creek Metals Company Inc. (100%)	Claim	2006-01-08	2026-03-18	GOOD	463.374
Mount Milligan	579598		Thompson Creek Metals Company Inc. (100%)	Claim	2008-03-28	2026-03-18	GOOD	295.7519
Mount Milligan	579599		Thompson Creek Metals Company Inc. (100%)	Claim	2008-03-28	2026-03-18	GOOD	295.6275

Project	Title Number	Claim Name	Owner	Title Sub Type	Issue Date	Good To Date	Status	Area (ha)
Mount Milligan	579600		Thompson Creek Metals Company Inc. (100%)	Claim	2008-03-28	2026-03-18	GOOD	369.6889
Mount Milligan	579602		Thompson Creek Metals Company Inc. (100%)	Claim	2008-03-28	2026-03-18	GOOD	369.5332
Mount Milligan	580741		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	443.0304
Mount Milligan	580742		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	443.0297
Mount Milligan	580743		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	406.1485
Mount Milligan	580744		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.7058
Mount Milligan	580745		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.699
Mount Milligan	580746		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.4626
Mount Milligan	580747		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.6993
Mount Milligan	580748		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.4618
Mount Milligan	580749		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.4602
Mount Milligan	580750		Thompson Creek Metals Company Inc. (100%)	Claim	2008-04-08	2026-03-18	GOOD	461.6977
Mount Milligan	595146		Thompson Creek Metals Company Inc. (100%)	Claim	2008-12-01	2026-03-18	GOOD	443.6279
Mount Milligan	595163		Thompson Creek Metals Company Inc. (100%)	Claim	2008-12-01	2026-03-18	GOOD	147.8759
Mount Milligan	677107	FURB	Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-01	2026-03-18	GOOD	462.4242
Mount Milligan	677785		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-02	2026-03-18	GOOD	147.8006
Mount Milligan	678524		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	464.0154
Mount Milligan	678527		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	464.0028
Mount Milligan	678536		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	389.7479
Mount Milligan	678564		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	464.014
Mount Milligan	678583		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	464.0256
Mount Milligan	678588		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	464.2712
Mount Milligan	678603		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-03	2026-03-18	GOOD	55.663
Mount Milligan	679483		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-05	2026-03-18	GOOD	461.9455
Mount Milligan	679484		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-05	2028-01-13	GOOD	221.7012

Project	Title Number	Claim Name	Owner	Title Sub Type	Issue Date	Good To Date	Status	Area (ha)
Mount Milligan	679485		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-05	2026-03-18	GOOD	350.9391
Mount Milligan	679505		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-05	2026-03-18	GOOD	369.2328
Mount Milligan	679506		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-05	2026-03-18	GOOD	443.1255
Mount Milligan	679509		Thompson Creek Metals Company Inc. (100%)	Claim	2009-12-05	2026-03-18	GOOD	462.1832
Mount Milligan	896789	MILL 9	Thompson Creek Metals Company Inc. (100%)	Claim	2011-09-13	2026-03-18	GOOD	18.476
Mount Milligan	1030396	GD1	Thompson Creek Metals Company Inc. (100%)	Claim	2014-08-19	2026-03-18	GOOD	369.1532
Mount Milligan	1030397	GD2	Thompson Creek Metals Company Inc. (100%)	Claim	2014-08-19	2026-03-18	GOOD	664.135
Mount Milligan	1030398	GD3	Thompson Creek Metals Company Inc. (100%)	Claim	2014-08-19	2026-03-18	GOOD	1106.8883
Mount Milligan	1036881	DB1	Thompson Creek Metals Company Inc. (100%)	Claim	2015-06-23	2028-01-13	GOOD	277.0547
Mount Milligan	1036882	DB2	Thompson Creek Metals Company Inc. (100%)	Claim	2015-06-23	2026-03-18	GOOD	110.7931
Mount Milligan	1050265		Thompson Creek Metals Company Inc. (100%)	Claim	2017-02-24	2026-03-18	GOOD	1334.1725
Mount Milligan	1079602		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	664.3425
Mount Milligan	1079603		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	553.3019
Mount Milligan	1079604		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	886.3434
Mount Milligan	1079605		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	1034.1171
Mount Milligan	1079606		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	885.7907
Mount Milligan	1079607		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	737.7364
Mount Milligan	1079608		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	885.7897
Mount Milligan	1079609		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	737.7373
Mount Milligan	1079610		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	738.3865
Mount Milligan	1079611		Thompson Creek Metals Company Inc. (100%)	Claim	2020-11-16	2023-11-04	GOOD	645.5868
Mount Milligan	1093204		Thompson Creek Metals Company Inc. (100%)	Claim	2022-02-10	2023-02-10	GOOD	1670.67
Mount Milligan	1093205		Thompson Creek Metals Company Inc. (100%)	Claim	2022-02-10	2023-02-10	GOOD	1373.74
Max	530480	NEWCOPPER WEST	Jama Holdings (100%)	Claim	2006-03-24	2026-03-18	GOOD	464.44
Max	532537	MAX COPPER	Jama Holdings (100%)	Claim	2006-04-18	2026-03-18	GOOD	464.44

Project	Title Number	Claim Name	Owner	Title Sub Type	Issue Date	Good To Date	Status	Area (ha)
Max	532538	MAX COPPER 2	Jama Holdings (100%)	Claim	2006-04-18	2026-03-18	GOOD	464.61
Max	532540	MAX COPPER 3	Jama Holdings (100%)	Claim	2006-04-18	2026-03-18	GOOD	464.78
Max	532541	MAX COPPER 4	Jama Holdings (100%)	Claim	2006-04-18	2026-03-18	GOOD	445.9
Max	532542	MAX COPPER 5	Jama Holdings (100%)	Claim	2006-04-18	2026-03-18	GOOD	371.8
Max	532543	MAX COPPER 6	Jama Holdings (100%)	Claim	2006-04-18	2026-03-18	GOOD	334.6
Max	532635	MAX COPPER 7	Jama Holdings (100%)	Claim	2006-04-19	2026-03-18	GOOD	446.14
Max	532638	MAX COPPER 8	Jama Holdings (100%)	Claim	2006-04-19	2026-03-18	GOOD	222.95
Max	551895	MAX COPPER SOUTH	Jama Holdings (100%)	Claim	2007-02-13	2026-03-18	GOOD	464.93
Max	842877		Jama Holdings (100%)	Claim	2011-01-12	2026-03-18	GOOD	445.7
Max	842878		Jama Holdings (100%)	Claim	2011-01-12	2026-03-18	GOOD	278.56
Max	1076910		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	1786.3232
Max	1076911		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	1857.9835
Max	1076912		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	1860.6661
Max	1076913		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	744.813
Max	1076914		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	1860.4002
Max	1076915		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	223.4167
Max	1076916		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	725.9499
Max	1076917		Thompson Creek Metals Company Inc. (100%)	Claim	2020-06-23	2026-03-18	GOOD	148.6954

5 History

5.1.1 Mount Milligan Property History

Limited exploration activity was first recorded in 1937. In 1984, prospector Richard Haslinger (Haslinger) and BP Resources Canada Limited (BP Resources) located claims on the site. In 1986, Lincoln Resources Inc. (Lincoln) optioned the claims and in 1987 completed a diamond drilling program that led to the discovery of significant copper-gold mineralization. In the late 1980s, Lincoln reorganized, amalgamated with Continental Gold Corp. (Continental Gold) and continued ongoing drilling in a joint venture with BP Resources.

In 1991, Placer Dome Inc. (Placer Dome) acquired the Project from the joint-venture partners, resumed exploration drilling and completed a pre-feasibility study for the development of a 60,000 t/d open pit mine and flotation process plant.

Barrick Gold Corporation (Barrick) purchased Placer Dome in 2006 and sold its Canadian assets to Goldcorp Inc. (Goldcorp), who then in turn sold the Project to Atlas Cromwell Ltd. (Atlas Cromwell). Atlas Cromwell changed its name to Terrane Metals Company Corp. (Terrane) and initiated a comprehensive work program.

In October 2010, Thompson Creek Metals Company Inc. (TCM) acquired the Mount Milligan development project through its acquisition of Terrane and subsequently constructed the Mount Milligan Mine, which commenced commercial production in February 2014.

Between August and October 2014, an exploration program involving geological mapping, rock sampling, petrographic descriptions, soil sampling, Induced Polarization/Resistivity (IP/RES) and ground magnetic geophysical surveys on the eastern claim group of the Property was undertaken by Equity Exploration Consultants Ltd. (Equity) on behalf of Terrane. Two phases of work were completed; phase one consisted of mapping and soil sampling while phase two included IP/RES and ground magnetic surveys following up on phase one observations. This work identified a new prospect (Prospect 26) in the northeast of the Property with strong texturally destructive propylitic alteration, overlapping low, but elevated Cu and Zn soil values and is also ringed by a zone of unexplained high chargeability values (Hughes and Perk, 2014).

In the fall of 2015, Equity carried out a drill program consisting of five holes, including one abandoned hole, for 1786.43 m of drilling in the Mitzi and Snell target areas. Drilling at the Mitzi target intersected encouraging phyllic alteration and slightly elevated copper values (301 ppm over 9.52 m) in the bottom of drill hole 15-1024, however, due to limited road access, 15-1024 only tested the margins of the geophysical target. At the Snell target, drilling results suggest that the multi-element geochemical anomalies and high chargeability are related to epiclastic argillaceous rocks (Branson and Voordouw, 2016).

Additional claims were staked in August 2014 (GD1-GD3) and June 2015 (DB1-2), while two claims (ARM and STRONG) were transferred to Thompson Creek in July 2015 and one claim (MILL 9) was purchased by Thompson Creek in May 2016.

In October 2016, TCM was acquired by Centerra Gold Inc. In connection with the acquisition, Terrane (Mt. Milligan Mine), and certain other subsidiary entities of TCM were amalgamated into TCM. TCM now operates as a wholly owned subsidiary of Centerra Gold Inc.

In 2016, TCM contracted Equity to complete greenfield exploration drilling on the Mitzi Lake (2 drill holes, 1,064.97 m) and Snell (2 drill holes, 729.69 m) prospects, including 4 NQ drill holes totaling 1,794.66 m. The first two drill holes tested the magnetic anomaly and surrounding strong chargeability comprising the Mitzi Target. At the Snell Target, two drill holes were completed north of the 2015 drill holes. These were designed to further explore an untested area of the geophysical and geochemical anomalies comprised of coincident strong chargeability, high conductivity, moderate to high magnetics and anomalous Au-As-Sb-Cd-Mo-Pb-Zn geochemistry. Drill hole 16-1025 at Mitzi returned narrow weakly to moderately mineralized intervals including 0.60 m at 0.286% Cu from 241.50 m and 0.86 m at 0.174% Cu from 336.00 m (Branson, 2017).

The 2018 greenfield exploration program at Mt. Milligan, jointly supervised by Centerra Gold and Equity Exploration staff, targeted areas outside of the mine lease. It comprised 13 NQ diamond drill holes totaling 5616.85 m drilled in four areas of interest, including D-Zone, Mitzi Zone, Heidi Zone, and Fugro Zone. Drilling tested geophysical targets around the mine to better define the hydrothermal system that formed Mt. Milligan and to improve the geological understanding of the area. The target areas were selected based on geophysical survey data, including IP (chargeability, resistivity, conductivity) and magnetic surveys. Heidi zone drilling defined a broad southwest-dipping composite porphyry stock cross-cutting andesitic volcanic host rocks. The Heidi stock and adjacent host rocks are overprinted by weak to moderate potassic alteration, which transitions to propylitic alteration distal from the intrusive bodies, and host weak to moderate copper and gold mineralization. No significant assay results for Au and Cu were reported from the D-, Mitzi, or Fugro zones. Results and work done on the Heidi and Fugro zones suggests that the areas warrant follow-up drilling to better define the mineral potential of the target areas. Although drilling in the Mitzi and D-zone targets did not return significant results, the target areas warrant further investigations in surface geological mapping or geochemistry surveys (Lui et al, 2019).

Mt. Milligan greenfield exploration drilling in 2019, conducted by the Centerra Gold Services Inc. exploration team, targeted the Heidi Zone ~1 km west of the mine lease. The program included 6 NQ diamond drill holes totaling 2,745.7 m. Drilling identified a ~250 m NNW linear trend of low-grade copper mineralization that crosses the northern arm of a 400 x 250 m ring-shaped magnetic anomaly and an ENE trending, 100 m wide moderate chargeability feature. Significant mineralized intervals were related to narrow monzonite porphyry dykes in andesitic rocks overprinted by a mix of early-stage potassic and sodic-calcic (albite-actinolite-chlorite) alteration assemblages with later-stage propylitic and QSPC assemblages. Significant results from the 2018-2019 drilling included: 20.00 m at 0.206 g/t Au, 0.132% Cu from 568.00 m in DDH 18-1104; 33.60 m at 0.074 g/t Au, 0.205% Cu from 17.00 m in DDH 18-1106; 48.60 m at 0.034 g/t Au, 0.120% Cu from 149.40 m in 19-1174; 83.73 m at 0.048 g/t Au, 0.154% Cu from 24.00 m in 19-1179 (Jago and Pond, 2020).

On March 26, 2020, Centerra Gold published an updated NI 43-101 Technical Report: “Technical Report on The Mount Milligan Mine North-Central British Columbia”, effective date December 31, 2019.

5.1.2 Max Property History

The Max area was first staked in 1986 by A. A. Halleran, A. D. Halleran and U. Schmidt, a prospecting partnership based out of Fort St. James. The claims have seen periodic exploration to date, consisting of soil sampling, mapping, a VLF-EM and ground-based magnetic survey, pole-dipole IP surveys, an airborne magnetics survey and a top-of-bedrock reverse circulation drill program.

The claims were initially staked based on the location of an aeromagnetic anomaly similar to local

aeromagnetic anomalies associated with gold mineralization as well as the nearby Mount Milligan porphyry Au-Cu discovery (Schmidt, 1987).

United Pacific Gold

In 1987, United Pacific Gold Limited optioned the property and conducted grid-spaced soil sampling and geological mapping, collecting 1979 B-horizon soil samples from across the property. In 1988 United Pacific Gold Limited conducted two additional soil sampling programs to the north of the current property (Schmidt, 1988; Schmidt, 1989). Three areas outside the current Max property were covered with a VLF-EM and ground-based magnetic survey in early 1989; however, due to deep snow the planned grid within the current property was not surveyed.

City Resources (Canada) Limited

The Max property was sold to City Resources (Canada) Limited in 1990, which entered a joint venture, in May 1990, with Rio Algom to explore the property. Work done in 1990 and 1991 focused on the Central Grid on the eastern side of the current Max property. In 1990 Rio Algom conducted an airborne VLF- EM and magnetic survey over the entire claim block along with an air photo interpretation of the surficial geology, grid-spaced soil sampling, and geological mapping. This program identified a zone at least 1.0 km by 0.5 km of anomalous copper and gold in soils coincident with mapped dioritic to monzodioritic intrusions. The 1991 program extended this approach with grid-spaced soil sampling, geological mapping and IP surveying conducted over the NE, NW, and Lynx Grids, all of which are outside of the current property, and conducted a follow-up program on the Central Grid. The Central Grid follow-up program collected 303 B-horizon soil samples and 264 rock samples. As a result of this program, Rio Algom geologists determined that the anomalies identified in the 1990 program were due to “the concentration of elements in the B-horizon after leaching from the A-horizon” or “an element train from a mineralized vein” (Halleran et al., 1991) and no further work was recommended. In 1992, Rio Algom drilled two targets, outside of the current claims, identified during the 1991 program. Results were not encouraging, and the property was allowed to lapse (Halleran et al., 1992).

Standard Metals Company Exploration Ltd

The Max property was restaked in 2006 and 2007 by David Blann and then optioned to Blann’s exploration company, Standard Metals Company Exploration Ltd, who conducted soil, silt, and rock sampling concurrent with geological mapping. This program found erratic and weakly anomalous Cu and Au concentrations in soil and silt sampling and noted visible gold in pan concentrates from soil and silt samples (Blann, 2007).

Jama Holdings Ltd

Standard Metals Company Exploration Ltd. sold the Max property to Anthony Hewett in 2010, who incorporated Jama Holdings Ltd. as the owner. Peter E. Walcott and Associates conducted 20.5 line-km of pole-dipole IP survey over the 2010 field season on behalf of A. Hewett (Walcott, 2011). Four additional claims were added to the property by Jama Holdings in January 2011. Peter E. Walcott and Associates extended their survey grid in fall of 2011, conducting another 24.1 line-km of pole-dipole IP surveying (Walcott, 2012). Results showed four km-scale chargeability highs in a roughly north-south orientation coincident with the Cu-Au in soil anomalies from the 1990-91 work by Rio Algom.

Aztec Metals Company Corp

In June 2013, Jama Holdings optioned the property to Aztec Metals Company Corp. Aztec Metals Company commissioned an airborne magnetic and radiometric survey covering the entire property as well as a program of soil sampling, rock chip sampling, and geological mapping. The program was designed primarily to verify the 1990-91 soil sampling and geological mapping, and was successful in doing so (Wilkins, 2014).

In 2017 a small program of partial-leach soil sampling and traditional soil sampling was conducted in the northwestern part of the property (Wilkins, 2018). Results were inconclusive. Two mineral claims lapsed and were forfeit June 01, 2017. Aztec dropped their option from Max after the 2017 work.

Thompson Creek Metals Company Inc

An earn in agreement was signed between Jama holdings and Thompson Creek Metals Company Inc in August 2018. The 2018 program comprised a 3D inversion of the 2013 airborne magnetic survey covering the entire property, as well as a small grid-spaced soil sampling program and concurrent ground magnetic survey in the northwest corner of the property. The soil sampling did not find any notable geochemical anomalies.

The 2019 exploration program was designed to collect bedrock material from across a large area of the property on a 500 m grid, with surface exposures sampled by hand and covered areas sampled with a helicopter-portable reverse-circulation drill. The 2019 program found a 500 m x 750 m area with anomalous copper and gold concentrations in basal till coincident with an area of strong propylitic alteration, and low pyrite content bounded to the west by an area of increased pyrite.

In 2020, 11 drill holes totaling 5,441 m of diamond drilling was completed in two phases. The first phase of drilling (7 drill holes, 3573 m) followed up on a geochemical anomaly identified through a 2019 RC top-of-bedrock drilling program in the Central diorite. The second phase of drilling (4 diamond drill holes, 1865 m) targeted a geophysics feature named the Ring anomaly, ~1.5 km west of the Phase-1 drill area, interpreted to be up ice-flow direction from the base of till sample MAX19-019 which hosted high-grade porphyry mineralization. Wide runs of anomalous Au and Cu were intersected in the Ring anomaly, with narrow (~2 m wide) intersections of low grade (0.1 g/t Au, 0.1% Cu) mineralization intersected in both phases of drilling. The hydrothermal alteration, veins, and mineralization intersected suggest proximity to an Au-Cu porphyry system of unknown fertility (Sica et al, 2020).

6 Regional Geology and Mineralization

6.1 Regional Geology

The Max and Mt. Milligan Greenfield property is located within the Quesnel Terrane, with bedrock comprising late Triassic volcanic flow deposits, breccias, volcaniclastic rocks and bedded epiclastic sediments intruded by early Jurassic porphyritic diorite and monzodiorite plutons (Nelson et al., 1991; Nelson et al., 1996; Logan et al., 2010) (Figure 3).

Within the Quesnel Terrane, the upper Triassic Takla Group is the oldest stratified sequence. It comprises a large and varied suite of island-arc volcanic and sedimentary units. The oldest succession within the Takla Group is the Slate Creek Succession, comprising dark grey to black slates and phyllites with interbedded quartz-rich siltstones and sandstones and minor limestone and limy fine-grained siliciclastic rocks. This is overlain by the Inzana Lake succession, comprising siliceous dark grey to black argillite, with green to grey-green volcanic sandstone, green augite crystal clast bearing tuffs, and lapilli tuffs, water-lain tuffs, distinctive sedimentary breccias, and rare limestone pods. The Inzana Lake succession is overlain by the Witch Lake Succession, primarily comprising augite-bearing basalt and basaltic andesite flows and related pyroclastic rocks (Nelson and Bellefontaine, 1996). To the south of the property, small outliers of the Chilcotin Group basalts unconformably overlie the Takla Group. The Chilcotin group comprises columnar jointed vesicular clinopyroxene-olivine-plagioclase -phyric flows and volcanic centres sometimes with distinctive ultramafic and crustal xenoliths. To the northwest of the property, the Lower Jurassic Chuchi Lake Succession unconformably overlies the Witch Lake succession. The Chuchi Lake Succession comprises a heterolithic package of intermediate flows, volcaniclastic rocks, and epiclastic rocks with some showing evidence of subaerial deposition with maroon flows, large irregular amygdules, and lahar deposits. To the east of the property, the Wolverine Metamorphic Complex and Wolverine Range Plutonic suite are exposed by northwest and southeast dipping normal faults.

The property area is cut by northwest trending dextral transcurrent faults. These transcurrent faults bound northeast trending normal faults that form horst and graben structures (Nelson and Bellefontaine, 1996). On a broad scale, the Takla Group sit in the hanging wall to a large thrust system that translated the island arc rocks on to the North American Miogeocline; however, nowhere in the region is this thrust exposed (Nelson and Bellefontaine, 1996).

Regional-scale folding appears to be relatively scarce. In the south of the property, however, mapping by Nelson and Bellefontaine (1996) identified steeply dipping, southwest and northeast striking foliations with a moderately northwest plunging lineations (Nelson and Bellefontaine, 1996) that suggest a moderately northwest-plunging F2 fold in the area.

Intrusive rocks in the project area comprise Late Triassic-Early Jurassic diorites, monzodiorites, and syenites that intruded into the Takla Group. These intrusions may be either coarse-equigranular or porphyritic, hypabyssal, and the source intrusions for the Witch Lake and Chuchi Lake successions (Nelson and Bellefontaine, 1996). Regional age dates for these intrusions range from 204.2 ± 9 Ma to 182.5±4 Ma. Intrusions in and around the Mount Milligan mine include the 186.9±0.5 Ma Magnetite Breccia Stock (MBX) alkaline intrusive (igneous titanite, Jago et al., 2014), the 182.5±4.3 Ma Southern Star Stock (Mortensen et al., 1995), the 182.5±4 Ma Rainbow dyke (hydrothermal rutile, Nelson and Bellefontaine, 1996), the 189±3.3 Ma Heidi Lake Stock (Mortensen et al., 1995), and the 183±3.0 Ma North Slope Stock (Mortensen et al., 1995), all of which comprise part of the Early-Middle Jurassic Hogem Batholith (Nelson and Bellefontaine, 1996; Logan et al., 2010).

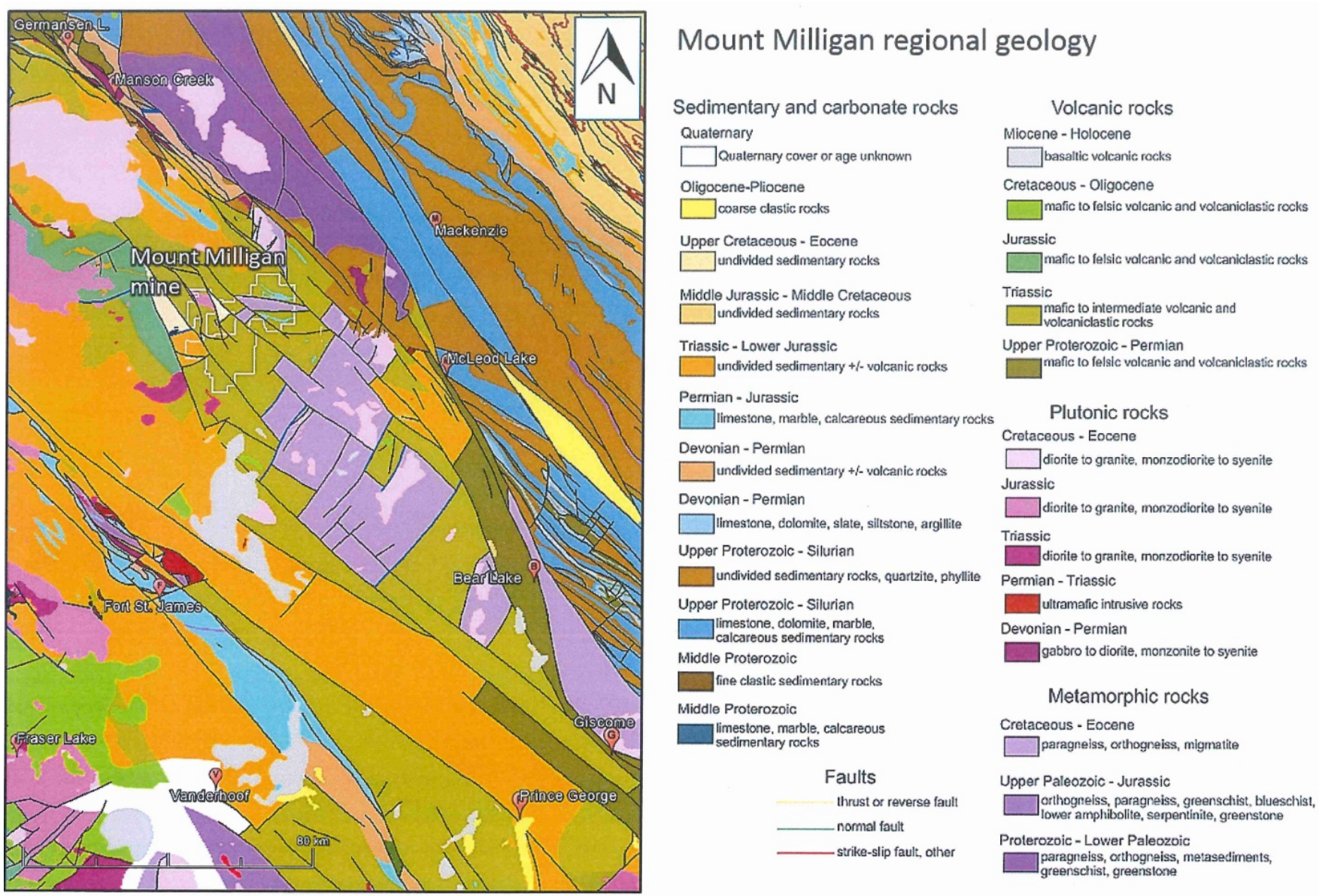

Figure 3: Regional Mount Milligan - Max Geology

6.2 Regional Mineralization

The region surrounding the Mount Milligan- Max property hosts four main styles of mineralization, most of which are related to the intrusive activity in the region: (1) late Triassic to Early Jurassic Cu-Au alkalic porphyry deposits, (2) precious and base metal-bearing quartz-sulphide veins ("quartz polymetallic veins") most likely genetically related to nearby porphyry systems, (3) relatively unexplored epithermal-style vein systems developed in the Chuchi Lake Succession rocks, and (4) volcanic reduced-facies copper hosted in the flow-tops of Takla Group volcanic rocks.

Late Triassic to Early Jurassic porphyry deposits are typically associated with relatively small, densely porphyritic, high level, dioritic-monzonitic intrusions and related hydrothermal breccias. These deposits are marked by overlapping alteration systems focused around an intrusive complex. The alteration systems typically comprise a potassic core enveloped by overlapping peripheral zones of sodic-calcic and/or propylitic alteration. These alteration assemblages may be overprinted by zones of phyllic alteration that are either zonal in distribution (between the potassic and propylitic zones) or structurally controlled. Abundant secondary magnetite is commonly associated with the potassic zone of these porphyry systems.

Copper mineralization is commonly more abundant in the potassic core whereas gold is more prevalent in the phyllic zone. Sulphide mineralization comprises chalcopyrite, pyrite, bornite and chalcocite at the Lorraine Mine. These sulphides are hosted in quartz veinlets, veins, breccias, disseminations and replacements (Nelson and Bellefontaine, 1996; Jago et al., 2014; Giroux and Lindinger, 2016).

Examples of Late Triassic to Early Jurassic porphyry deposits and prospects in the area include the Mount Milligan mine (MINFILE 093N/194, 093N/191) with 170 Mt proven and probable reserves at 0.22% Cu and 0.3 g/t Au as of December 2017 (Centerra Gold); the Tas Prospect (MINFILE 093K 091), Lorraine Prospect (MINFILE 093N/002) with a 6.4 Mt indicated resource at 0.61% Cu and 0.23 g/t Au and a 28.8 Mt inferred resource at 0.45% Cu and 0.19 g/t Au as of March 30 2012 (Giroux and Lindinger, 2016; Lorraine) and the Chuchi Lake Prospect (MINFILE 093N/007) with a NI43-101 non-compliant resource of 50 Mt between 0.21- 0.4% Cu and 0.44 g/t Au (MINFILE 093N/007).

Quartz-polymetallic vein systems are often found in association with porphyry Cu systems, representing the outer limits of Metals Company transport from the porphyry system (e.g. Lang and Eastoe, 1988; Pirajno, 2009). Regional examples of these veins include the Esker veins at Mount Milligan (MINFILE 093N/194) and the Skook Halo (MINFILE 093N/140) veins, where grab samples returned 13.4 g/t Au, 16.6 g/t Ag, and 2.3% Zn. These vein systems are rarely economic on their own; however, they may provide an indication of a nearby porphyry system.

Epithermal vein systems are known to be related to magmatic systems, with or without related porphyry systems (e.g. Eaton and Setterfield, 1993; Cooke and Simmons, 2000; Hedenquist et al., 2000; Sillitoe and Hedenquist, 2003; Cooke et al.). In the Mount Milligan region, two possible epithermal showings have been described (Nelson and Bellefontaine, 1996). The Wit showing (MINFILE 093N/141) is described as two veins, with true widths of 11 m and 4 m, hosting irregular banded chalcedonic-quartz vein with pods of galena and sphalerite as well as possible argentite and tetrahedrite (Nelson and Bellefontaine, 1996). The Chic showing, approximately 2.5 km east of the Wit showing (MINFILE 093N/202) is described as a poddy epithermal quartz-green kaolinite vein that cuts a megacrystic porphyry intrusion and hosts abundant blebs of disseminated pyrite and traces of chalcopyrite (Nelson et al., 1991). Epithermal vein systems are known to be related to magmatic systems, with or without related porphyry systems (e.g. Eaton and Setterfield, 1993; Cooke and Simmons, 2000; Hedenquist et al., 2000; Sillitoe and Hedenquist,

2003; Cooke et al.).

Approximately 60 km northwest of Max, the Gertie showing (MINFILE 093N/210) is a zone of disseminated and fracture-controlled malachite, chalcocite, and rare native copper within the volcanic rocks of the Chuchi Lake Succession within the Takla Group. Nelson et al. (1991; 1996) suggest that this may represent a red-bed style copper showing similar to the Sustut Copper prospect (MINFILE 094D/063). Assay results from the BCGS returned up to 1.08% Cu and 17.5 g/t Ag (Nelson and Bellefontaine, 1996).

7 Property Geology

7.1 Mount Milligan Greenfield Property Geology

The Mount Milligan property is mostly underlain by Upper Triassic volcanic rocks of the Witch Lake succession (**Error! Reference source not found.**). The Witch Lake succession is moderately-to-steeply east-northeast dipping and characterized by augite-phyric volcaniclastic and lesser coherent basaltic andesite to andesite, with subordinate epiclastic beds. In the northwestern part of the Mount Milligan property, volcanic rocks are intruded by Early Jurassic to Cretaceous rocks of the Mount Milligan intrusive complex located about 5 to 9 km north of the Mount Milligan porphyry deposit. The Early Jurassic component of the intrusive complex comprises monzonitic rocks with minor dioritic-monzodioritic and gabbroic-monzogabbroic rocks. In the deposit area to the south, the MBX (Magnetite breccia), Southern Star, Saddle, Goldmark, North Slope, and Heidi stocks and dyke complexes comprise the Heidi Lake stock cluster and are composed of monzonite porphyry rocks and various hydrothermal breccia phases.

The Early Jurassic intrusions are coeval with the Chuchi Lake succession, which is not currently recognized on the property but lies approximately 15 km to the west. Younger intrusions in the area include Cretaceous granites of the Mount Milligan intrusive complex, and Wolverine Metamorphic Complex (WMC). The latter includes schistose to gneissic amphibolite-grade Windermere Group basement rocks of Ancestral North America that were rapidly exhumed in the Paleogene (Ferri et al., 1994; Staples, 2009). The WMC rocks are locally exposed in the northeastern corner of the property). Tertiary sedimentary rocks locally overlie older rocks in wedge-shaped half-graben features evident on the east side of the deposit across the Great Eastern Fault (Figure 17: Max and Mt. Milligan Greenfield Property Geology).

7.1.1 Witch Lake Succession

Volcanic and volcaniclastic rocks of the Late Triassic Witch Lake succession are host rocks of the Mount Milligan deposit. Monolithic fragmental varieties of andesite (augite lapilli tuff, crystal tuff, and tuff), form most of the unit. Minor augite porphyritic flows are present in the west side of the deposit. Small, discontinuous heterolithic debris flows and polymictic breccias are found scattered throughout the deposit, and interbedded with the monolithic fragmental rocks. Plagioclase and/or hornblende phenocrysts are locally present within flows, individual lapilli, and crystal tuff.

Much of the volcanic rocks to the east of the MBX and Southern Star stocks have historically been classified as latite. They were distinguished from andesitic volcanic rocks by a darker colour, a general absence of visible hornblende, and the presence of alteration minerals associated with the potassic assemblage including biotite, magnetite, and potassium feldspar. It is common to see only one or two of the potassic alteration minerals and magnetite alteration is more common than biotite or potassium feldspar. These rocks are more appropriately interpreted as potassically altered andesite equivalents, but for consistency in drill sections and models, drilling campaigns have continued to use the historical latite lithology codes.

Rocks classified as trachyte are inter-bedded with ‘latite’ to the east of the MBX stock. They are characterized by high potassium feldspar content and a lack of mafic minerals. Minor fine-grained plagioclase is also present. Massive and bedded varieties of trachytic rocks are recognized in the volcanic stratigraphy. Bedded varieties are generally discontinuous and locally exhibit cross-bedding and graded bedding. Curvilinear pyrite-chlorite partings or bands of pyrite-chlorite are common along bedding planes. These rocks are now considered to be felsic volcanic and epiclastic units that have undergone potassic alteration. They are the only stratigraphic markers in the deposit area providing evidence that the geology

is moderately tilted to the east-northeast.

Nelson et al. (1991) reported that the abundance of potassium feldspar in the volcanic rocks led past authors to a field classification of augite-porphyritic latites and banded trachytes. Microscopic examination indicated that the potassium-rich nature of the rocks is due to infiltration of secondary potassium feldspar in veinlets and microfractures, as clumps with pyrite and epidote, as seams in plagioclase phenocrysts, and as fine-grained aggregates along bedding planes in the sediments.

7.1.2 Intrusive Rocks – Syn-Mineral

The deposit is centered on two principal intrusive bodies, the MBX (Magnetite breccia) and Southern Star stocks. Several smaller intrusive bodies are recognized as being contemporaneous with the mineralizing events, including the Unnamed stock in the Saddle zone (formerly Creek zone) and the Goldmark stock.

The MBX stock is a moderately west-southwest plunging monzonite body, approximately 400 m in diameter. Potassically altered hydrothermal breccia occurs along its margins. In the southeastern portion of the Main deposit, the Rainbow Dyke (a large sheet intrusion up to 50 m wide) protrudes from the footwall of the MBX stock (Figure 5). The dyke changes morphology from a sill-like body near the stock to a shallowly east-dipping curviplanar dyke, 200 m east of the stock, suggestive of a cone sheet (high level igneous intrusion). The Southern Star stock is a moderately west-dipping composite monzonite porphyry complex, approximately 800 x 300 m in area. Its margins are more irregular and undulated than those of the MBX stock. Hydrothermal breccia is extensive throughout the Southern Star stock. Breccia bodies are typically graded from their margins inward by relatively unaltered monzonite to crackle brecciated monzonite, to well-developed mosaic breccia with strongly potassium feldspar altered matrix.

The MBX and Southern Star stocks generally contain up to 30% sub-parallel plagioclase feldspar phenocrysts, 1-10 millimeters (mm) in length. These phenocrysts occur within a fine-grained greyish pink groundmass of potassium feldspar with lesser plagioclase feldspar, and accessory quartz, hornblende, biotite and magnetite. The Southern Star stock has coarser plagioclase phenocrysts than the core of the MBX stock. Porphyritic monzonite units vary both texturally and compositionally within the composite stocks. Late synmineral plagioclase hornblende monzonite porphyry dykes are common throughout the Southern Star stock.

7.1.3 Intrusive Rocks – Post Mineral

Three major types of post-mineral dykes cut the MBX Main and Southern Star deposits: trachytic, monzonitic, and dioritic varieties. These dykes are generally fresh-looking and lack sulphide mineralization.

Trachytic dykes are the earliest and most common in the southwestern portion of the MBX, northern portion of the Southern Star deposit, and throughout the Saddle zone (Figure 5). They are up to 15 m wide and dip moderately to the northwest. They are grey, aphanitic to fine-grained, and may contain accessory magnetite. They often have late carbonate veins (calcite/dolomite) with sericite selvages.

Monzonitic dykes are recognized throughout both deposits. They are up to 10 m wide and dip moderately to the northwest. They are characterized by 15 to 35% fresh euhedral plagioclase phenocrysts up to 5 mm in a dark aphanitic matrix, and may contain augite phenocrysts up to 5 mm. Groundmass predominantly comprises fine-grained potassium feldspar as indicated by staining. Accessory magnetite is always

present. Some monzonitic dykes are weakly propylitic altered.

Dioritic dykes are the youngest intrusive rocks. Although they are recognized in both deposits, they are most common in the northern (MBX Main) deposit area. They are up to 5 m wide and dip steeply to the northeast. They are characterized by abundant plagioclase phenocrysts up to 10 mm (often zoned) in a fine-grained groundmass, and generally contain 2-4 mm long hornblende phenocrysts and minor quartz eyes up to 1 mm. Some dioritic dykes are weakly propylitic or carbonate altered.

7.1.4 Structure

The volcanic stratigraphy within and around the Mount Milligan deposits generally dips moderately to steeply to the east-northeast. This is congruent with the geometry of the MBX and Southern Star stocks as moderately west dipping bodies and suggests that the entire Mount Milligan hydrothermal system has been tilted to the east-northeast. Exactly how and when this tilting occurred remains unclear, however there are at least two episodes (Early-Middle Jurassic and Cretaceous-Paleogene) of deformation recognized on the property.

The structural style of the Mount Milligan area regionally and at the scale of the deposit is characterized by tilted fault blocks of differing stratigraphic levels bounded by steeply dipping east-northeast and northwest trending faults, as well as by north and northeast trending faults. At the regional scale this has been interpreted to reflect a releasing bend between transcurrent northwest-trending dextral faults during Late Cretaceous to Eocene time (Nelson and Bellefontaine, 1996). A similar scenario is observed at the deposit scale where adjacent fault blocks exhibit alteration and mineralization characteristic of deeper (e.g. MBX) and shallower or peripheral (e.g. 66, DWBX) porphyry environments. The timing relationship between northeast- and northwest-trending faults remains ambiguous, likely due in part to multiple reactivations of structures.

A recent detailed structural investigation in the Mount Milligan open pit has recognized opposing shear sense indicators along northeast-trending structures, lending support for interpreted reactivation; these structures record an early dextral-reverse shear followed by later sinistral shear (Shaban and Barnett, 2019). Examples of faults in this orientation are the Alpine, North MBX, Saddle, Oliver and SS cross faults. Dextral reverse shear on these faults is interpreted to be Cretaceous in age, accommodating regional east-vergent shortening that was widespread in the Northern Cordillera at this time. The subsequent sinistral shear may have occurred during regional dextral transcurrent faulting along northwest-trending faults (Shaban and Barnett, 2019); the northeast-trending faults would be in the antithetic R' orientation with respect to the main northwest-trending dextral faults and therefore would have accommodated minor sinistral shear.

Shallow to moderately southeast- and east-dipping faults are documented to be the youngest structures in the immediate vicinity of the open pit (Shaban and Barnett, 2019). These include the Great Eastern fault which juxtaposes hydrothermally altered Witch Lake succession rocks in its footwall against Tertiary sedimentary and volcanic rocks in its hanging-wall to the east, and the Rainbow fault which is a well-developed southeast-side-down normal fault. They are interpreted to have formed as part of the Late Cretaceous-Paleogene dilational jog in the regional dextral fault system.

Other northwest- and north-trending steeply-dipping faults occur outside of the pit and were not addressed in the recent structural investigation. These faults have been identified through drilling and geophysical interpretation and include the North Slope, KR, Golo, SS10, Triangle and Harris faults. They

are interpreted as dextral-oblique normal faults predominantly, although some, such as Harris fault, have apparent reverse sense of shear.

There is evidence that at least some of these structures are long-lived, with a component of deformation that predates or is synchronous with Early Jurassic mineralization and accretion of the Quesnel terrane onto Ancestral North America. Several of the recognized east-northeast- and northwest-trending structures have been successfully targeted for high-gold-low-copper (HGLC) mineralization during recent exploration programs and exhibit enhanced phyllic alteration with late stage pyrite-dominant veins. Similarly, at a regional scale, Nelson and Bellefontaine (1996) note that preferential emplacement of Early Jurassic intrusions along northeast and northwest trends suggests localization along pre-existing crustal scale structures. These would correspond to arc-parallel and arc-transverse structures globally recognized to localize magmatism and porphyry mineralization (Richards et al., 2001).

7.1.5 Alteration

Alteration of host rocks at Mount Milligan is well developed. The alteration assemblages include potassic, sodic-calcic, inner- and outer-propylitic, and carbonate-phyllic (Jago et al., 2014). Overprint of the assemblages is common and can be locally additive or destructive of mineralization grade (Jago et al., 2014). Porphyry gold-copper mineralization broadly coincides with zones of initial potassic alteration (DeLong, 1996), and high-gold-low-copper mineralization with structurally controlled carbonate-phyllic (quartz-sericite-pyrite-carbonate; QSPC) alteration. In the following descriptions, vein classifications follow the convention of Jago et al., (2014).

7.1.5.1 Potassic Alteration

Regional mapping and petrographic studies in the Mount Milligan area have demonstrated that Witch Lake volcanic rocks and derived epiclastic sedimentary rocks are affected by strong potassic alteration as far as 4 km from the deposits (Nelson et al., 1991). Potassic alteration is best developed along the contact margins of the MBX and Southern Star stocks as well as the Rainbow Dyke and decreases in intensity both towards the core of the stocks, and outward into the host volcanic rocks. The alteration assemblage within the stocks is characterized by potassium feldspar, biotite, and magnetite with minor quartz and apatite (the potassic assemblage of Jago, 2008). The alteration assemblage in the surrounding volcanic rocks is characterized by the same assemblage with the addition of actinolite as well as minor albite, calcite and chlorite (the calc-potassic assemblage of Jago, 2008). Potassium feldspar is the predominant alteration mineral within the intrusions, whereas biotite is more prevalent within the host andesites (DeLong, 1996; Jago and Tosdal, 2009; Jago et al., 2014). Secondary biotite forms up to 30% of wall rocks near intrusive contacts, replacing the andesite protolith but also occurs as envelopes to potassium feldspar veinlets (DeLong et al., 1991). Associated vein types include all early-stage veins, including potassium feldspar (E1), quartz ± potassium feldspar (E2), chalcopyrite (E3), chalcopyrite-pyrite (E4), and magnetite (E5) veins as well as transitional pyrite-magnetite (T1) veins.

7.1.5.2 Sodic-Calcic Alteration

Sodic-calcic alteration is spatially restricted to the immediate periphery of the preserved potassic alteration zone within volcanic rocks. It comprises albite, actinolite, chlorite and pyrite with minor epidote, calcite, magnetite, apatite, titanite and quartz. (Jago et al., 2014). Albite typically replaces potassium feldspar in groundmass along with uralitization of augite phenocrysts. Sodic-calcic alteration represents an intermediate alteration between the high temperature potassic alteration and the relatively low temperature propylitic alteration (Jago et al., 2014). This spatial association of sodic-calcic alteration is

recognized in other BC alkalic porphyry systems including Copper Mountain (Lang et al. 1995) and Galore Creek (Micko et al., 2014). Associated vein types include chalcopyrite-pyrite (E4), actinolite-chlorite (T2), and pyrite (T3) veins. It is also well-developed in the Heidi stock (Heidi zone), a copper target located outside the Mount Milligan mine lease, 3.5 km west of the open pit.

7.1.5.3 Inner Propylitic Alteration

The inner propylitic alteration assemblage occurs outboard of the sodic-calcic shell and it overprints earlier potassic alteration (Jago et al., 2014). It contains epidote, albite, calcite, actinolite, and chlorite with minor potassium feldspar, biotite, apatite, titanite, and quartz (Jago et al., 2014). This assemblage is relatively narrow (~20 m wide) and discontinuous in the MBX zone, marking the spatial transition between sodic-calcic and outer propylitic alteration assemblages. Associated veins include transitional pyrite (T3) and peripheral epidote-albite-pyrite (P1) veins.

7.1.5.4 Outer Propylitic Alteration

The outer propylitic alteration assemblage is widespread and peripheral to all other alteration zones but also crosscuts older alteration assemblages along minor faults (DeLong et al., 1991; Jago et al., 2014). Epidote is the most common mineral and is associated with chlorite, calcite, actinolite, pyrite and hematite with minor quartz, titanite, apatite, and montmorillonite (Jago et al., 2014). It is associated with peripheral epidote-albite-pyrite (P1) and pyrite-epidote (P2) veins as well as late-stage pyrite-calcite (L3/L4) veins.

7.1.5.5 Carbonate-Phyllic Alteration

Carbonate-phyllic (quartz-sericite-pyrite-carbonate; QSPC) alteration is well-developed along stratigraphic horizons in the MBX and 66 zones, and along major east-northeast and north-northwest trending faults. It consists of dolomite, ankerite, potassium feldspar, adularia, albite, muscovite/sericite, chlorite, pyrite and hematite with minor illite, quartz, epidote, titanite, and rutile. In the 66 zone, the best gold grades (4-5 g/t Au) occur at the interface between potassic and carbonate-phyllic alteration where a quartz-sericite-pyrite assemblage predominates (Jago et al., 2014). This zone of carbonate-phyllic alteration is interpreted as representing a shallower level of the Mount Milligan porphyry system (such as the phyllic alteration shell in typical calc-alkalic porphyry systems) that has been downthrown ~100 m by faulting and juxtaposed on the MBX zone (Jago et al., 2014). High-gold-low-copper mineralization along major east-northeast and north-northwest trending faults is associated with a sericite-carbonate-chlorite-hematite assemblage hosting late-stage vein types including dolomite-sericite-quartz-pyrite (L1), dolomite-ankerite (L2), pyrite-calcite (L3/L4), chlorite-calcite (L5), and hematite (L6) veins.

7.1.6 Mineralization

Mineralization at the Mount Milligan deposit consists of two styles, early-stage porphyry gold-copper (Au-Cu) and late-stage high-gold-low-copper (HGLC). The early-stage porphyry Au-Cu mineralization comprises mainly chalcopyrite and pyrite, occurs with potassic alteration and early-stage vein types and is spatially associated with composite monzonite porphyry stocks (especially at their hanging-wall and footwall margins), hydrothermal breccia, and narrow dyke and breccia complexes. Late-stage, structurally-controlled pyritic HGLC style mineralization is associated with carbonate-phyllic alteration and intermediate- to late-stage vein types, and is spatially associated with faults, fault breccias and faulted lithological contacts (i.e. faulted monzonite porphyry dyke margins). It crosscuts and overprints the earlier stage porphyry Au-Cu mineralization.

Porphyry style Au-Cu mineralization occurs in the hanging-wall and footwall zones of the MBX, Saddle, Southern Star, and Goldmark stocks. Disseminated and vein/veinlet-hosted mineralization is associated with the composite monzonite stocks, their brecciated margins and variably altered volcanic host rocks. Core zones of auriferous chalcopyrite-pyrite mineralization with magnetite rich potassic alteration transition laterally and vertically to pyrite rich HGLC zones within the inner propylitic (albitic) and carbonate-phyllic alteration shells; the latter appear to be late stage and exhibit strong structural control.

Brownfield target areas west of the mine have mainly peripheral alteration and mineralization signatures; these include near surface HGLC zones proximal to structures. Narrow intrusive units, dykes or pencil porphyries, are common and are locally Au-Cu mineralized. The Heidi target farther west and outside the mine lease is a shallow copper prospect with low gold.

7.1.6.1 Hypogene Mineralization

The bulk of the mineralization consists of disseminated and vein-hosted chalcopyrite (in potassic and sodic-calcic alteration assemblages) and disseminated and vein-hosted pyrite (in all alteration assemblages). Late stage polymetallic (subepithermal) veins are rare, but most pronounced in the DWBX zone. These veins contain sphalerite, galena and sulfosalt in addition to chalcopyrite and pyrite.

7.1.6.1.1 Chalcopyrite

Chalcopyrite is associated with potassic alteration at the contact margin between volcanic and intrusive rocks. It occurs most commonly as fine-grained disseminations and fracture fillings, and less commonly as veinlets and in veinlet selvages. Adjacent to the MBX stock, chalcopyrite may be accompanied by pyrite to form coarse sulphide aggregates. Chalcopyrite-bearing veins contain pyrite and magnetite in a gangue of potassium feldspar, quartz, and calcite. In massive trachytic rocks, chalcopyrite occurs with pyrite along curviplanar partings and as disseminations. Chalcopyrite also occurs in gold-bearing early quartz veins in the Southern Star, WBX and DWBX zones.

7.1.6.1.2 Pyrite

Pyrite content increases with distance from the MBX and Southern Star stocks and is most abundant in propylitically altered rocks. Pyrite occurs as disseminations, veinlets, large clots, patches, and as replacements of mafic minerals. Gold mineralization in the 66 zone is associated with 10-20% pyrite. Cross-cutting vein relationships indicate several generations of pyrite mineralization.

7.1.6.1.3 Gold

Gold occurs as grains from 1 to 100 µm in size, as observed in process samples. Grains occur as microfracture fillings and are attached to pyrite, chalcopyrite, or bornite (Ditson, 1997). Gold also forms inclusions within pyrite, chalcopyrite, and magnetite grains. SEM work indicates electrum throughout the deposit with varying gold to silver ratios.

Petrographic work completed in 2019 on 22 drill core samples from the 66, Saddle and DWBX zones shows the settings of electrum (~3-20 µm) can be summarized as; a) isolated inclusions in cores of pyrite crystals; b) associated with microclusters of chalcopyrite and arsenopyrite in larger pyrite crystals; c) in or near microfractures filled with chalcopyrite cutting pyrite; d) at the margins of sulphide minerals such as between tetrahedrite and pyrite, or between pyrite and chalcopyrite; and e) along microfractures through pyrite. The mean Au/Ag ratio of entire suite of 74 electrum particles was 67.0% Au, or roughly 2:1 Au/Ag.

7.1.6.1.4 Silver

Silver is a minor metal found in the Mount Milligan deposits. Polymetallic gold-silver bearing sulphide and

sulfosalt rich veins are present in volcanic rocks peripheral to the MBX and Southern Star stocks. Tetrahedrite is the most widespread Ag-bearing sulfosalt mineral at Mount Milligan. Silver is also known to occur throughout the deposits in conjunction with copper and gold mineralization, from micron-scale electrum grains and inclusions.

7.1.6.2 Polymetallic Veins

Gold- and silver-bearing sulphide, sulfosalt and carbonate-rich veins are present in andesitic volcanic rocks peripheral to the MBX and Southern Star stocks on the western margin of the deposit, in the DWBX and Saddle zones. They comprise pyrite with lesser chalcopyrite sphalerite, galena, molybdenite, arsenopyrite, tetrahedrite-tennantite, and minor quartz and carbonate. Alteration envelopes are not always present but are recognized to consist of chlorite-sericite-carbonate in propylitically altered andesitic volcanic rocks. Polymetallic veins intersected in the DWBX zone exhibit subepithermal textures (Sillitoe, 2010).

7.1.6.3 Supergene Mineralization

Supergene enrichment is poorly developed at Mount Milligan. It is recognized in the MBX, WBX, and Southern Star zones, and is deeper and more extensive in the MBX and WBX zones than in Southern Star (Placer Dome, 1991). Supergene enrichment is restricted to the sporadic occurrence of secondary copper minerals including sulphides (covellite, chalcocite, and djurleite), oxides (cuprite and tenorite), carbonates (malachite and azurite) and native copper. The secondary sulphides occur as rims around chalcopyrite. Oxides, especially cuprite, occur as surface coatings on native copper. Secondary copper minerals commonly occur with iron oxides (goethite, magnetite, and hematite) and iron carbonate (siderite), particularly where malachite and azurite are present. Hydrous iron oxides, which are generally referred to as limonite and include goethite, commonly replace chalcopyrite and pyrite. Limonite either completely replaces sulphide minerals or occurs as coatings on surfaces of fractures and hairline cracks. Limonitic coatings commonly occur at depths greater than those at which pyrite or chalcopyrite are completely replaced. Supergene enrichment is best represented in the MBX and WBX zones between 6109150N to 6109800N, and between 434000E to 434850E, where it is partially developed over a 20 m thickness. Locally, the supergene mineralization reaches 50-60 m in thickness, particularly along the north and eastern margins of the MBX stock.

7.2 Max Property Geology

The Max property is predominantly underlain by the Witch Lake Succession of the Takla Group, with minor fault-bounded slivers of Inzana Lake Succession and a number of Triassic-Jurassic intrusions consisting of diorite and/or monzodiorite (Logan et al., 2010) (Figure 4). The Witch Lake Succession comprises a sequence of augite-porphyry flows, pyroclastic and rare epiclastic rocks. The Inzana Lake Succession consists of volcanic derived epiclastic rocks and fine-grained volcaniclastic rocks (Nelson et al., 1996).

This stratigraphic package has been intruded by the Max stock, a polyphase intrusive body comprising a dominant coarse-grained, phaneritic diorite cut by a crowded porphyritic monzonite, and porphyritic mafic dykes. Table 2 below connects the rock descriptions used on the properties to their formations.

No local-scale folding has been identified on the Max Property. The epiclastic and volcaniclastic beds in the northeast of the project area dip 65-70° to the north-northeast (Halleran et al., 1991; Nelson and Bellefontaine, 1996).

Table 2: Intrusive and stratified rocks on the Max property

Group	Succession	Intrusive Suite	Intrusion	Regional Lith Code	Max Lith Code	Lith Name
NA	NA	Late Triassic – Early Jurassic	Max Stock	TrJdr	DIOR	Diorite
				TrJdr	MZPP	Porphyritic monzonite
Takla	Witch Lake	NA	NA	uTrTWppbb	ANDS, APXT, ANTF	Mafic to intermediate volcanic
				?	FVOL	Felsic volcanic
	Inzana	NA	NA	muTrTsf	SEDS	Clastic sedimentary rocks
NA	NA	?	?	?	HYBX	Carbonate-cemented Hydrothermal Breccia
NA	NA	?	?	?	MFD	Mafic Dyke

7.2.1 Diorite (DIOR)

The Max stock (Nelson et al., 1996) is primarily composed of a leucocratic, coarse, holocrystalline, pyroxene-hornblende bearing diorite. Euhedral to subhedral pyroxene crystals within this lithology are typically 1-4 mm in length. Plagioclase crystals are subhedral to anhedral, forming between the pyroxene crystals. Plagioclase is commonly altered partially to epidote whereas pyroxene and hornblende are altered to chlorite. Four phases of diorite intrusions were observed in drill core: Diorite-1, Diorite-2, Diorite-3, and Diorite-4.

Figure 4: Diorite hand specimens coarse-grained (left) and medium-grained (right)

7.2.2 Diorite-1

Diorite-1 is a phenocryst-crowded (+50% mafic minerals), medium-grained 'salt-and-pepper' diorite,

commonly overprinted by inner and outer propylitic alteration suites (epidote-albite +/- chlorite). See Figure 5 below.

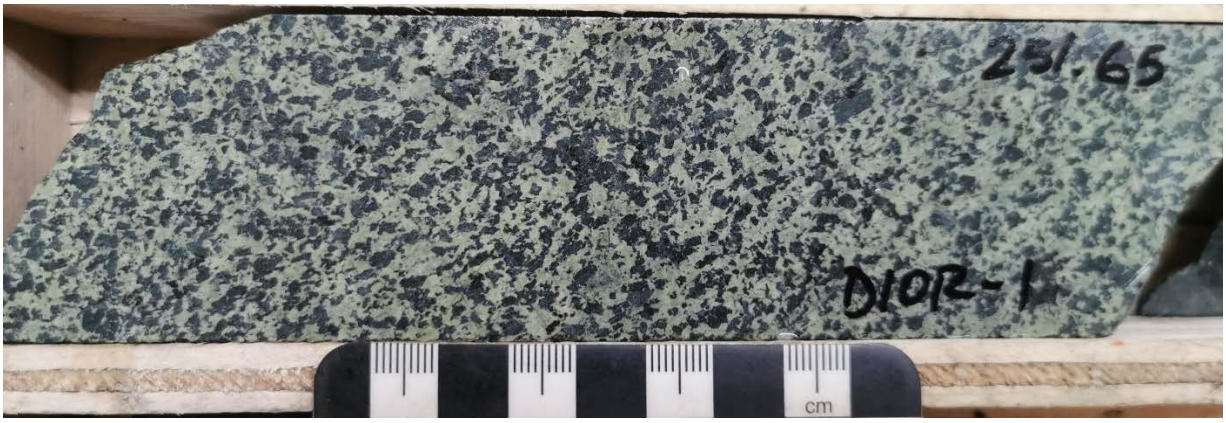

Figure 5: Hornblende-pyroxene-plagioclase 'salt-&-pepper' diorite (DIOR-1)

7.2.3 Diorite-2

Diorite-2 is a less phenocryst-crowded (20-40% mafic minerals) medium-grained diorite, commonly overprinted by potassic alteration (biotite-magnetite). The diorite-2 unit may represent altered mafic dykes. These mafic dykes become obvious at the bottom of hole 20-MAX029, in relatively unaltered rock. See Figure 6 below.

Figure 6: Hornblende-phyric Diorite Porphyry (DIOR-2)

7.2.4 Diorite-3

Diorite-3 is a plagioclase-phyric (10-15% feldspars) medium-grained diorite porphyry, commonly crosscut

by fractures with weak propylitic alteration envelopes. See Figure 7 below.

Figure 7: Plagioclase-phyric Diorite Porphyry (DIOR-3)

The aforementioned diorite suites are distinguishable by magnetic susceptibility (mag sus) readings from a KT-10 magnetic susceptibility metre. Diorite-1, likely the most distal intrusive phase indicated by the weak propylitic alteration signature, is significantly more magnetic than Diorite-2 and Diorite-3 (100+ SI compared to 20+ SI). This implies that a magnetic destructive signature may be a useful vector for exploration to distinguish mineralized versus non-mineralized phases of diorite.

7.2.5 Diorite-4

Diorite-4 is a plagioclase-phyric (20-40% plagioclase) medium-grained glomerophyric diorite, commonly with zoned plagioclase phenocrysts and weak fracture-controlled alteration halos. This unit is texturally similar to the post-mineral diorite porphyry dykes (DRPD) observed at Mount Milligan. See Figure 8 below.

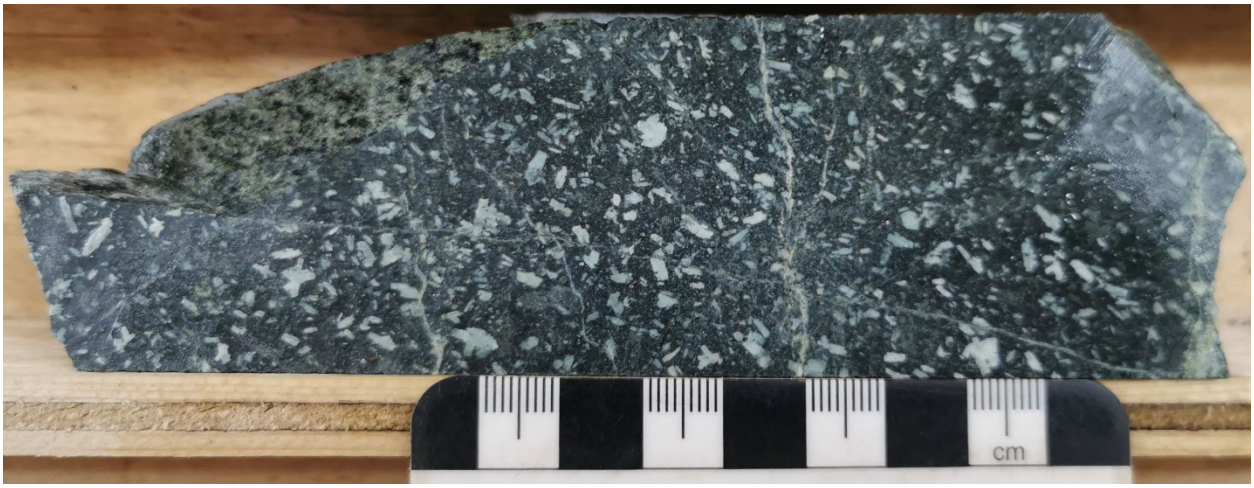

Figure 8: Glomerophyric Plagioclase Diorite Porphyry (DIOR-4)

7.2.6 Porphyritic Monzonite (MZPP)

The Max stock is cut by speckled light pink-grey bodies of weakly porphyritic to phenocryst-crowded (15-50% phenocrysts) monzonitic porphyry (Figure 9Figure 10). The monzonite porphyry comprises plagioclase (1-3 mm), alkali feldspar, and variate amounts of hornblende set in a fine-grained groundmass with accessory magnetite. These are interpreted as dykes cutting the more voluminous diorite bodies. Monzonite textures are often obscured by strong to intense silica alteration.

Monzonite porphyry units (3-20 m wide), sometimes megacrystic, were intersected in 2020 drilling in the Central diorite and Ring anomaly areas. Monzonite porphyry units (~10 m wide) with K-feldspar alteration, quartz-magnetite veining and trace chalcopyrite were also observed at the bottom of drill hole MAX20-029.

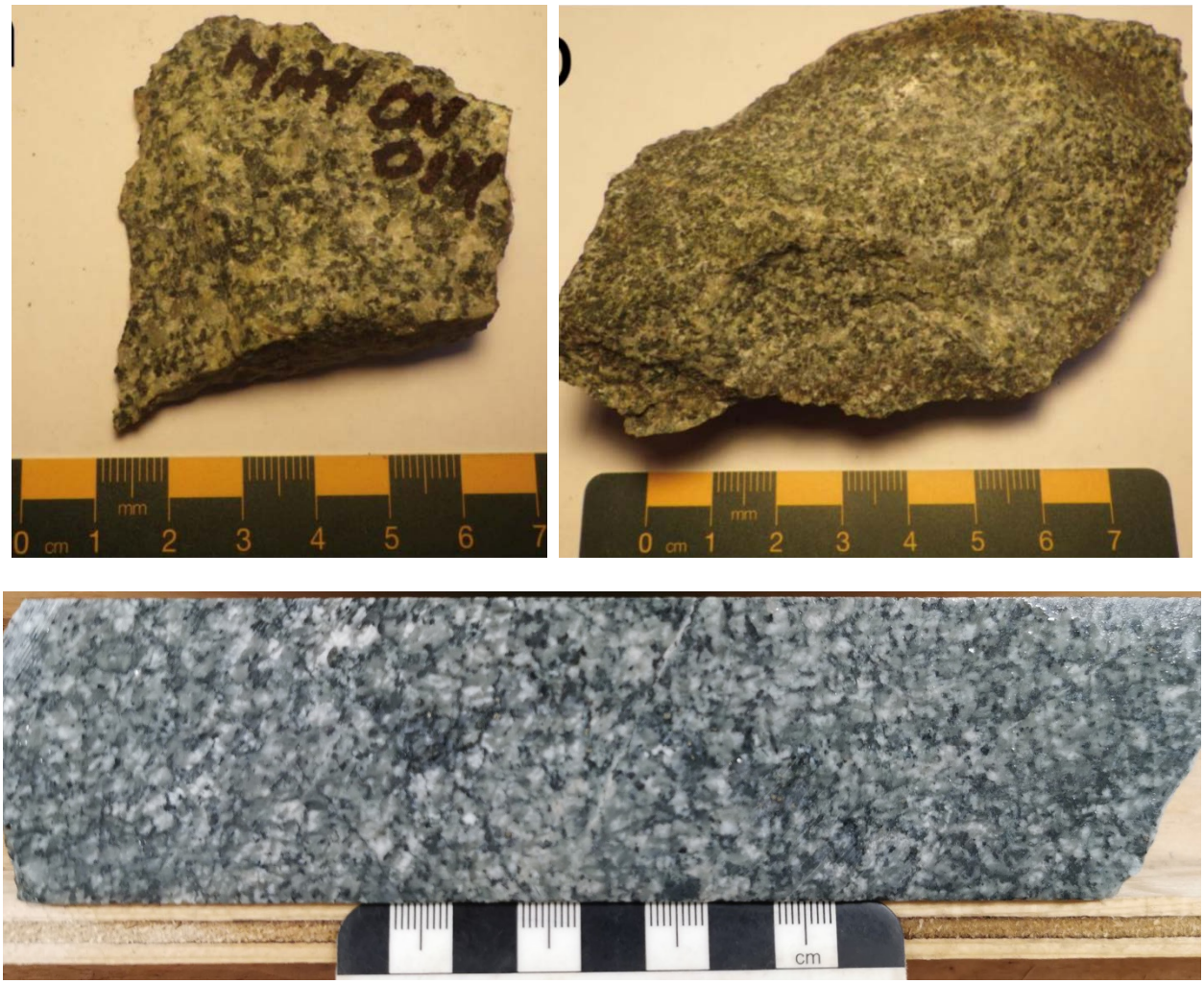

Figure 9: Plagioclase Monzonite Porphyry (MZPP) hand specimens with coarser variety on top; drill core with finer-grained variety on bottom

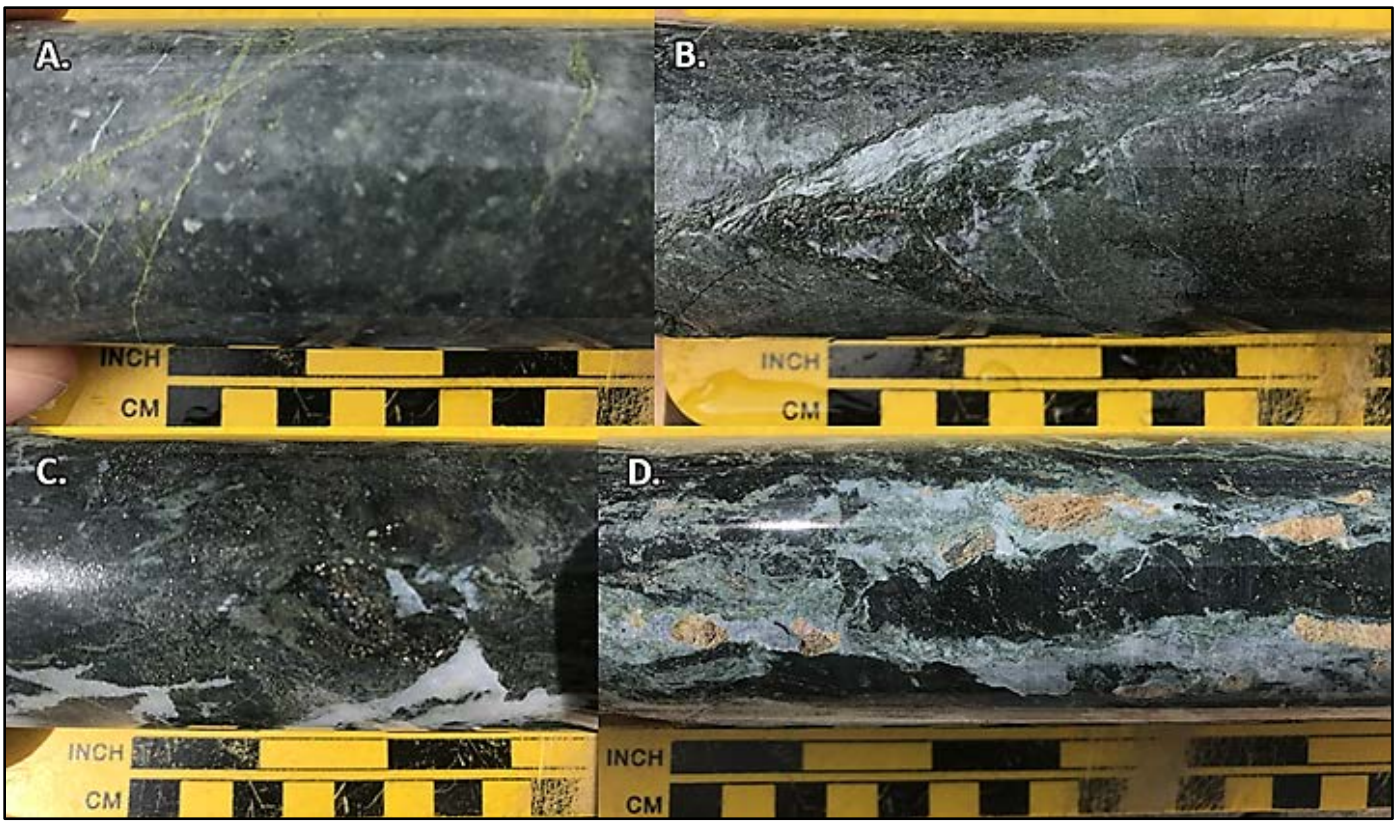

Figure 10: Selected photos from MAX20-027. A) Monzonite porphyry dyke with K-feldspar rich groundmass and magnetite-epidote replacement of mafic phenocrysts, cut by epidote-sphalerite-hematite-pyrite veins and veinlets (444 m depth). B) Chlorite-calcite vein with outer QSP envelope (suggestive of a composite vein) cutting relict pervasive biotite alteration that is retrograded to chlorite. Disseminated pyrite is 5% (490 m depth). C) Lens of biotite ± K-feldspar altered epiclastic rock cut by calcite-epidote veins and brecciated veins. Biotite is partially retrograded to chlorite. Disseminated pyrite is 10% (522 m). D) Lens of epiclastic rock with carbonate-epidote-sphalerite(?)-pyrite veins and chlorite envelope (after biotite?). Disseminated pyrite is 2-3% (532 m).

7.2.7 Mafic Dykes (MFD)

Mafic dykes on the Max property were recognized in 2020 drill core. This unit contains ~20-40% hornblende phenocrysts, commonly replaced by biotite, set in a dark-green aphanitic groundmass with accessory magnetite. There is no equivalent rock unit observed at the nearby Mount Milligan deposit. See Figure 11 below.

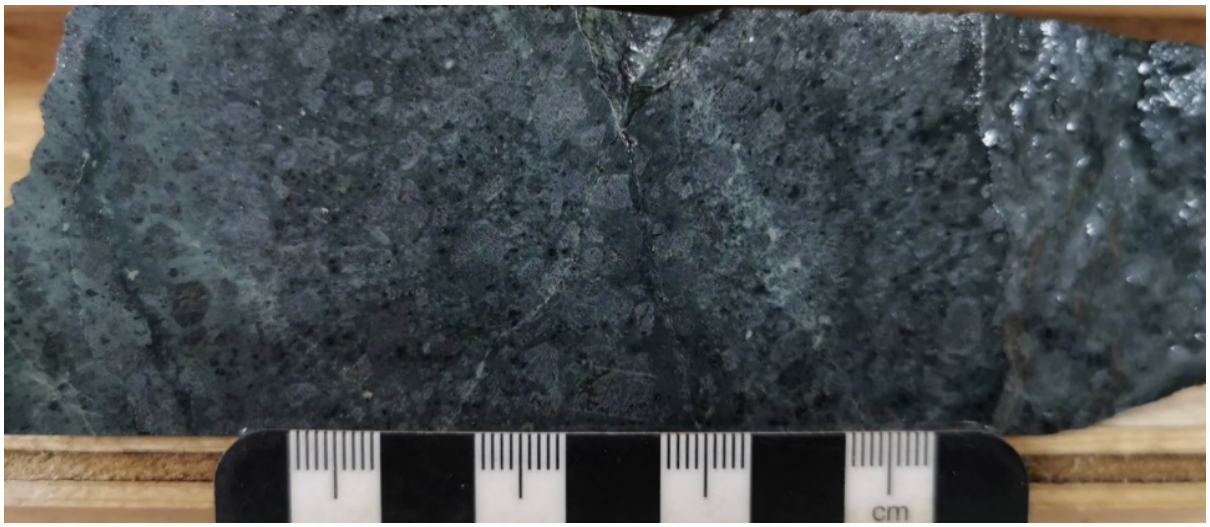

Figure 11: Medium to coarse-grained pyroxene-hornblende-phyric dyke (MFD)

7.2.8 Mafic-Intermediate Volcanic and Volcaniclastic Rock (ANDS/APXT/ANTF)

The volcanic and volcaniclastic rocks on the Max property are typical of the Witch Lake Succession with common augite phenocrysts (2-4 mm). Plagioclase phenocrysts (up to 5 mm) and crystal fragments are also prevalent within some units. Volcanic units are variably magnetic and uncommonly bedded.

7.2.9 Undifferentiated Andesite (ANDS)

Intense alteration has obscured the original volcanic textures of intermediate volcanic rocks in areas throughout the Max property. Although the textures have been obscured, the composition of these rocks is identified as andesitic. See Figure 12 below.

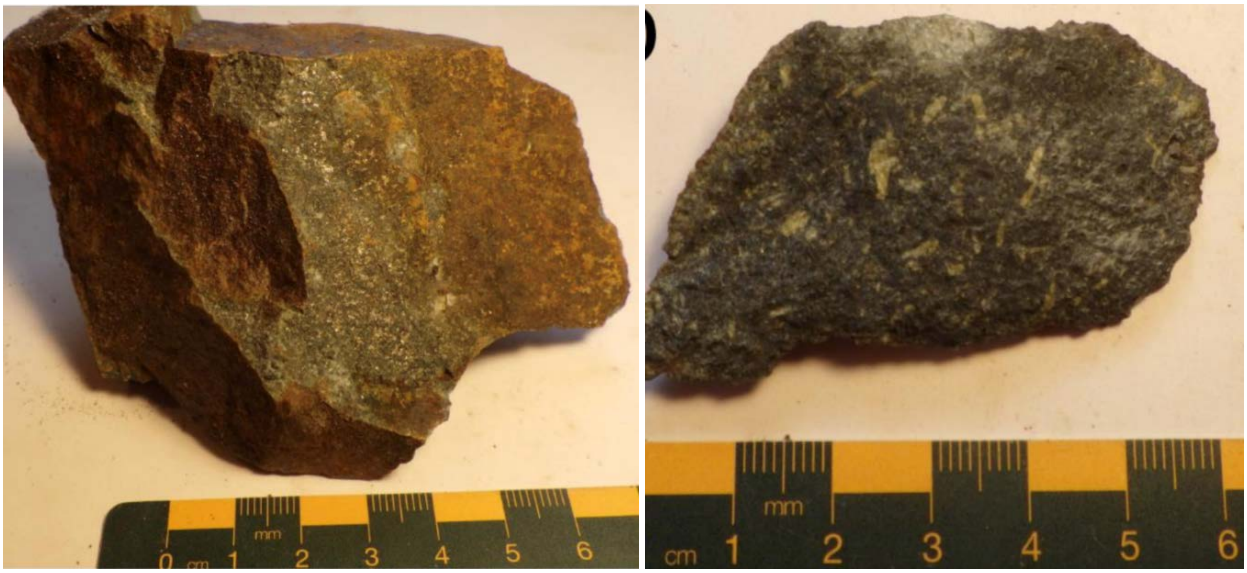

Figure 12: Fine-grained mafic volcanic rock on left (ANDS) and plagioclase-phyric mafic volcanic rock on right

7.2.10 Andesitic Pyroxene Crystal Tuff (APXT)

Intermediate tuff units bearing >20% crystals (> 2mm) that may contain minor lapilli (<20%) or ash. Crystal tuff is typically comprised of 5-40% euhedral to irregular to fractured pyroxene crystals (1-4 mm), set in a fine-grained green groundmass. See Figure 13 below.

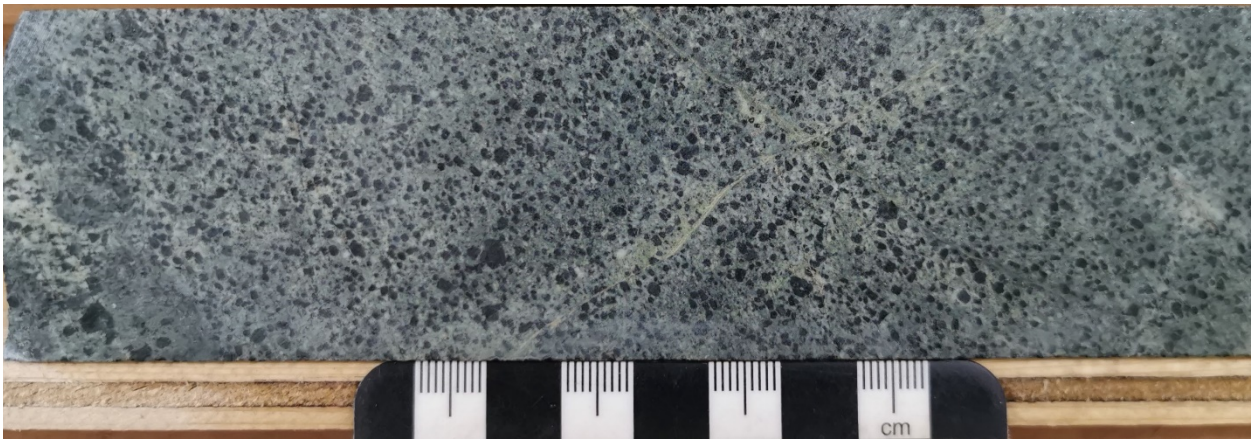

Figure 13: Medium-grained pyroxene phyric crystal tuff (APXT)

7.2.11 Andesitic Tuff (ANTF)

Intermediate tuff units predominantly comprised of ash (<2 mm) with less than 20% crystals (>2 mm) and/or lapilli (>64 mm). Texturally, the fine ash groundmass can be angular to irregular to cuspate while crystals (augite with local plagioclase) range from broken to euhedral.

7.2.12 Clastic Sedimentary Rocks (SEDS)

Clastic sedimentary rocks were not encountered during the 2020 drilling campaign. Halleran et al. (1991) describe sedimentary rocks in the northeastern portion of the property as “greywacke, argillite, and siltstone intercalated with occasional [sic] augite porphyry flows”. The greywacke is described as a volcanic-derived epiclastic rock with 1-2 mm grains of feldspar in a dark, chloritic matrix. Within this package of rocks, bedding dips steeply to the north-northeast. Based on the similar description in Nelson and Bellefontaine (1996), this package of rocks is considered to be part of the Inzana Lake Succession.

7.2.13 Carbonate-cemented Hydrothermal Breccia (HYBX-3)

Carbonate-cemented breccias and brecciated vein occurrences are present at the K2 showing in the western part of the Max property and at a malachite occurrence in the centre of the property. Breccia zones comprise a homolithic population of angular clasts in a carbonate-quartz±sulphide cement. The K2 breccia is also hematite bearing. Samples of the K2 breccia have returned up to 0.7% Cu without any significant gold. The K2 breccia was not targeted in 2020 drilling.

Hydrothermal breccias form by explosive pressure release of potentially ore bearing fluids/volatiles that fracture and displace or expand the rock. Different phases of hydrothermal breccias were intersected in 2020 drilling. Displacement may be as weak as a crackle (jigsaw) texture or intense as rotated clasts and fluidized milling of the rock (mosaic-chaotic breccia texture). See Figure 14 & Figure 15 below.

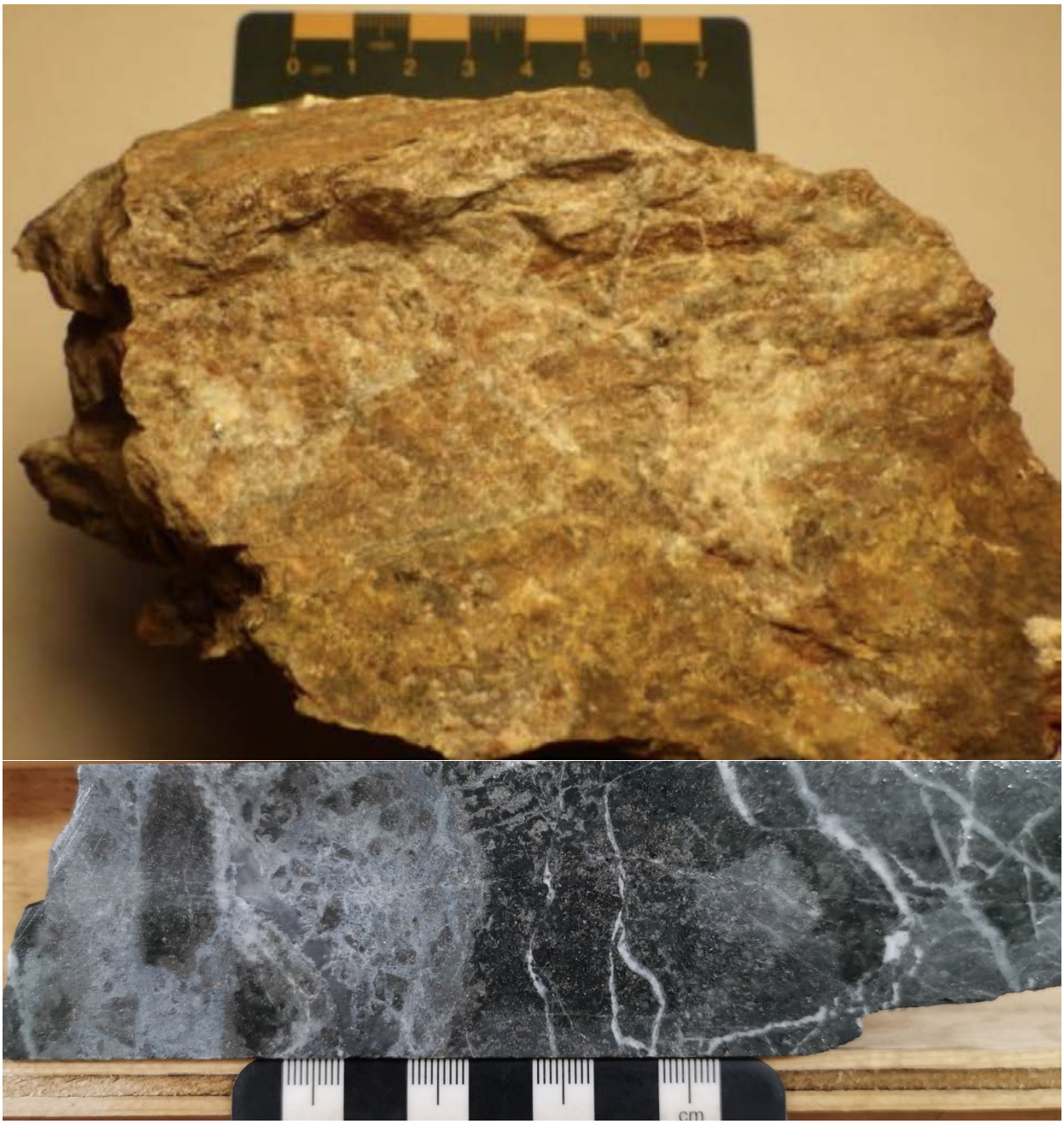

Figure 14: Carbonate-cemented Hydrothermal Breccia (HYBX-3)

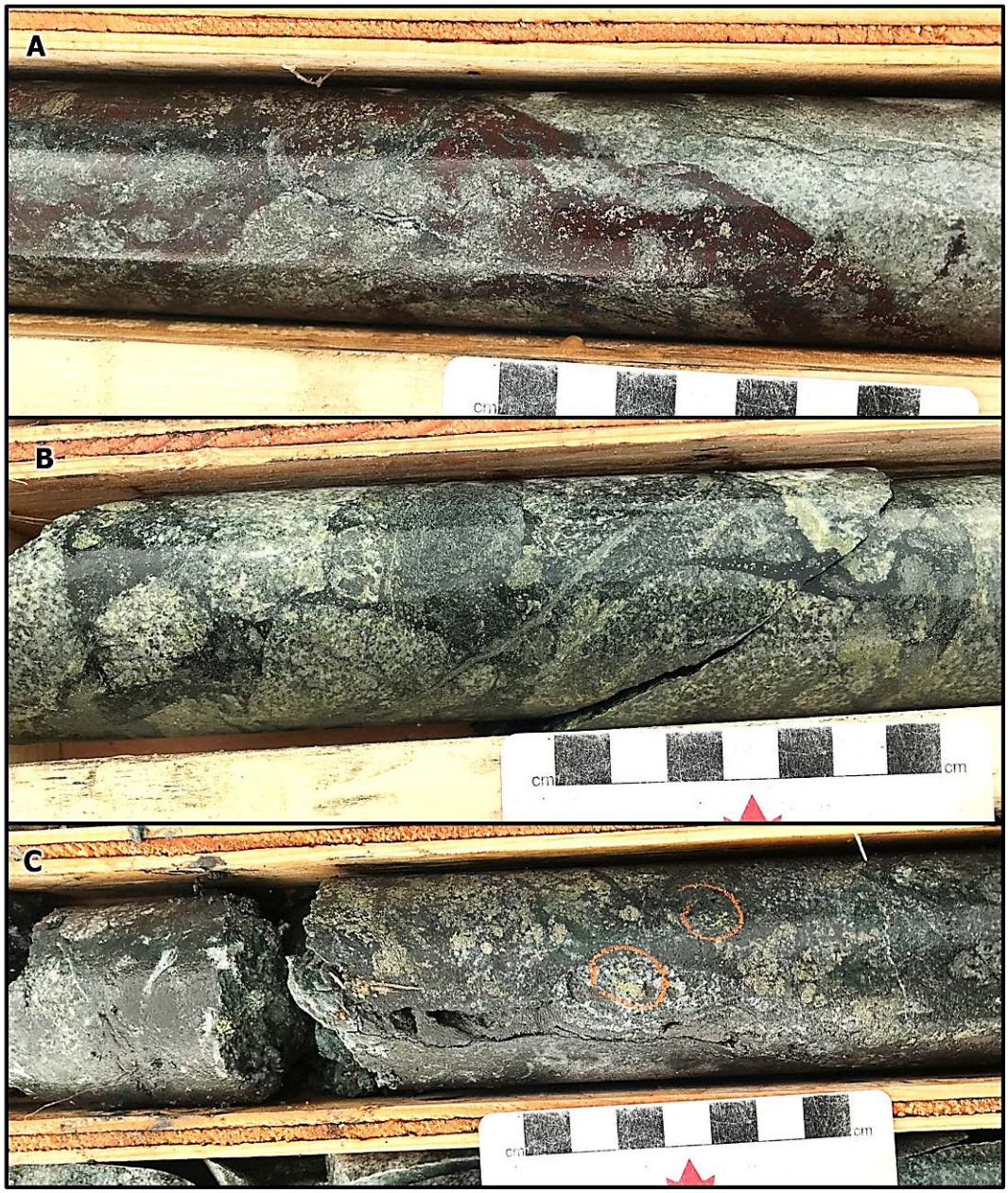

Figure 15: Detailed core photos of drill hole MAX20-032. A: Hematite (replacing magnetite)-chlorite-carbonate cemented hydrothermal breccia with patchy quartz-sericite-carbonate and 4% pyrite at 227 m. B: Magmatic-hydrothermal breccia with angular clasts of diorite in epidote-chlorite altered dioritic matrix with 2% pyrite at 317 m. C: Hematite-chlorite-carbonate cemented hydrothermal breccia in diorite host rock with 4% pyrite and 0.2% chalcopyrite at 215 m.

7.2.14 Veining

Five vein categories have been designated for the Max property based on the more complex subdivisions used at Mt. Milligan. Constituent minerals are generalized, and any vein encountered may not have all minerals present. Recording careful descriptions and envelope minerals of the veins encountered may aid in future subdivision of vein types for Max. It is important to distinguish which age-series of veins is encountered, to allow modeling of vein sets and mineralization potential. Vein types may at times be ambiguous or display two generations of veins utilizing the same structure.

Table 3: Vein categories applied to Max core logging

Vein Stage	Major Minerals	Minor Minerals	Alteration Assemblage
Early	Quartz, K-feldspar, Magnetite, Chalcopyrite	bn, cpy, py, ab	KPOT
Transitional	Pyrite - magnetite	cpy, cc, qz	IPRO, NACA
Peripheral	Epidote -albite -pyrite	act - chl - cc	OPRO, IPRO
Late	Pyrite - calcite, QSPC	ser - qz - py -ill; Pb, Zn, cpy, Cu sulfate, Cu sulfosalt	QSPC
Post	bull qtz, chlorite - calcite		

Early-stage veins at Max are generally comprised of grey quartz with minor K-feldspar, subordinate magnetite-chalcopyrite, and occasional specks of galena and sphalerite. Early veins are usually undulated, and textures vary from massive to crudely banded. These veins are dominantly associated with monzonitic units and occasionally observed in Diorite-1 porphyry units.

Transitional-stage veins are rare on the Max property and only locally observed in drill core as very narrow to discontinuous pyrite stringers cutting Diorite-1 porphyry units.

Peripheral and late-stage veins are the most common vein types observed in drill core. Peripheral veins were dominantly observed as planar epidote stringers or veinlets with diffuse epidote halos. Late veins are primarily composed of calcite, often with interstitial white quartz, and may be banded with chlorite and/or pyrite (Figure 16). Veins and their constituent mineral assemblages are summarized in Table 3 above.

Figure 16: Carbonate-chlorite-pyrite vein from drill hole MAX20-30 at 255 m. Carbonate-chlorite-pyrite vein (2-3mm) with biotite/chlorite-pyrite halo (20mm). The inner vein may be reutilizing an older vein structure associated with the secondary biotite halo. The biotite is partially retrograded to chlorite. There is 3-5% pyrite as disseminations and in veinlets/fracture fill. Hostrock is diorite with mag-act overprinted by patchy epi-ser alteration. Alteration-mineralization appears to be associated with calc-potassic (prograde) and propylitic (retrograde) assemblages.

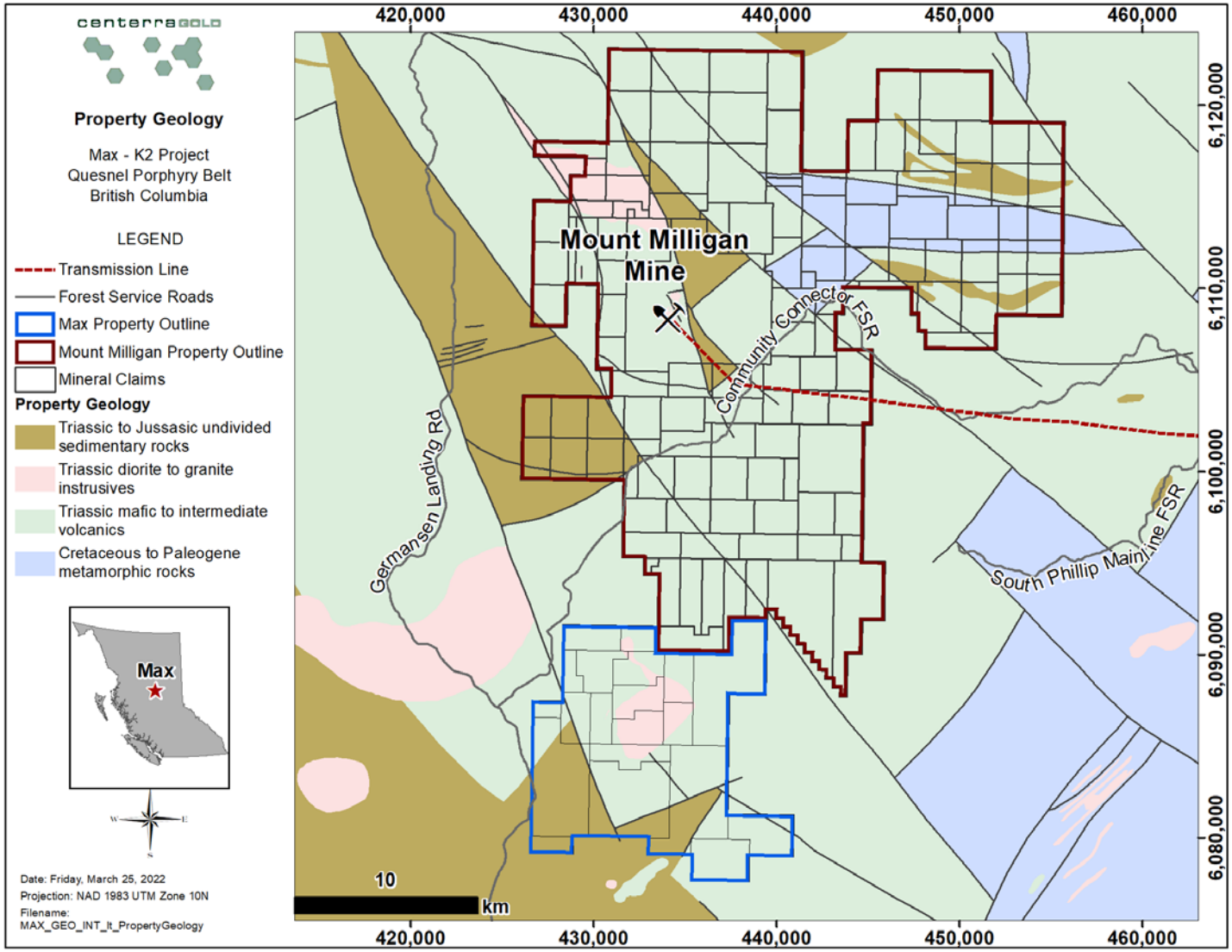

Figure 17: Max and Mt. Milligan Greenfield Property Geology

7.2.15 Max Property Mineralization

Previous work on the Max property have identified two showings named Max and K2. Each is briefly described below.

7.2.15.1 Max Showings (093K 020)

The Max showings comprise chalcopyrite and malachite bearing carbonate veins and local breccias. They have been mapped near the centre of the Max property to the north of the Max anomaly, a coincident magnetic high and soil geochemical anomaly centred on the Max Stock. Figure 18 below displays potassic altered diorite (upper image) and a chalcopyrite-pyrite vein within a calcite and epidote vein (lower image) from the Max showing. Figure 19 shows various lithologies and alteration styles from the Ring anomaly drilled in 2020, ~1.5 km west of the main Max showing.

7.2.15.2 K2 Showing (093K 086)

The K2 showing is located on the western side of the Max property within an area dominated by augite bearing mafic to intermediate flows, as well as volcaniclastic rocks with beds of poorly sorted epiclastic. The showing is a chalcopyrite- and malachite-bearing quartz-carbonate breccia-vein. Prospecting in the 2019 field program confirmed the location of this showing.

Table 4: K2 Showing significant samples

Sample ID	Year	Method	Au ppm	Ag ppm	Bi ppm	Cu ppm	Mo ppm	Zn ppm
322560	2007	Aq.Reg. ICPMS	0.026	40.8	0.56	7155	1.6	450
322559	2007	Aq.Reg. ICMS	0.022	1.8	0.17	1020	1.2	35
A00348486	2019	4 Acid ICPMS	0.022	0.8	ND	1112	1	26
D00155321	2021	4 Acid ICPMS	0.019	21.9	0.3	3030	1.3	185
D00155322	2021	4 Acid ICPMS	0.007	1.9	ND	1572	1.0	41

The K2 showing is a hydrothermally brecciated quartz-carbonate vein exposed in a subcrop zone approximately 2 metres wide which trends southeast. The vein contains bleached and milled wall rock and is strongly hematite stained. Up to 30 per cent chalcopyrite with minor malachite and an unidentified grey-silver colored sulphide occur in the rock. The vein is hosted by clinopyroxene-rich flows and agglomerates of the Witch Lake Formation. Secondary biotite and epidote are locally abundant in the rocks around the showing. These alteration minerals are probably part of the large propylitic alteration halo associated with the large multiphase intrusion on the Max claims to the east.

A rock sample from the K-2 area in 2007 yielded up to 0.71 per cent copper and 40.8 grams per tonne silver from narrow quartz carbonate chalcopyrite filled shear zones in the K2 area (Blann, 2007). See Table 4 for significant sample results from the K2 showing.

Figure 18: Photos from MAX20-023. Top – MAX20-023 potassic alteration zone at 426 m. Strong selective-pervasive biotite alteration, 5-10% disseminated replacement pyrite (some very fine grained 'peacock' tones may be copper), weaker magnetite than higher up in drill hole and late calcite veinlets. **Bottom** – MAX20-024, 4 mm wide chalcopyrite pyrite vein within a calcite and epidote vein at 163.4 m. The vein is hosted by a quartz-sericite-pyrite-carbonate altered shear zone that extends from 162.22-164.7 m. Propylitic altered diorite occurs on either side.

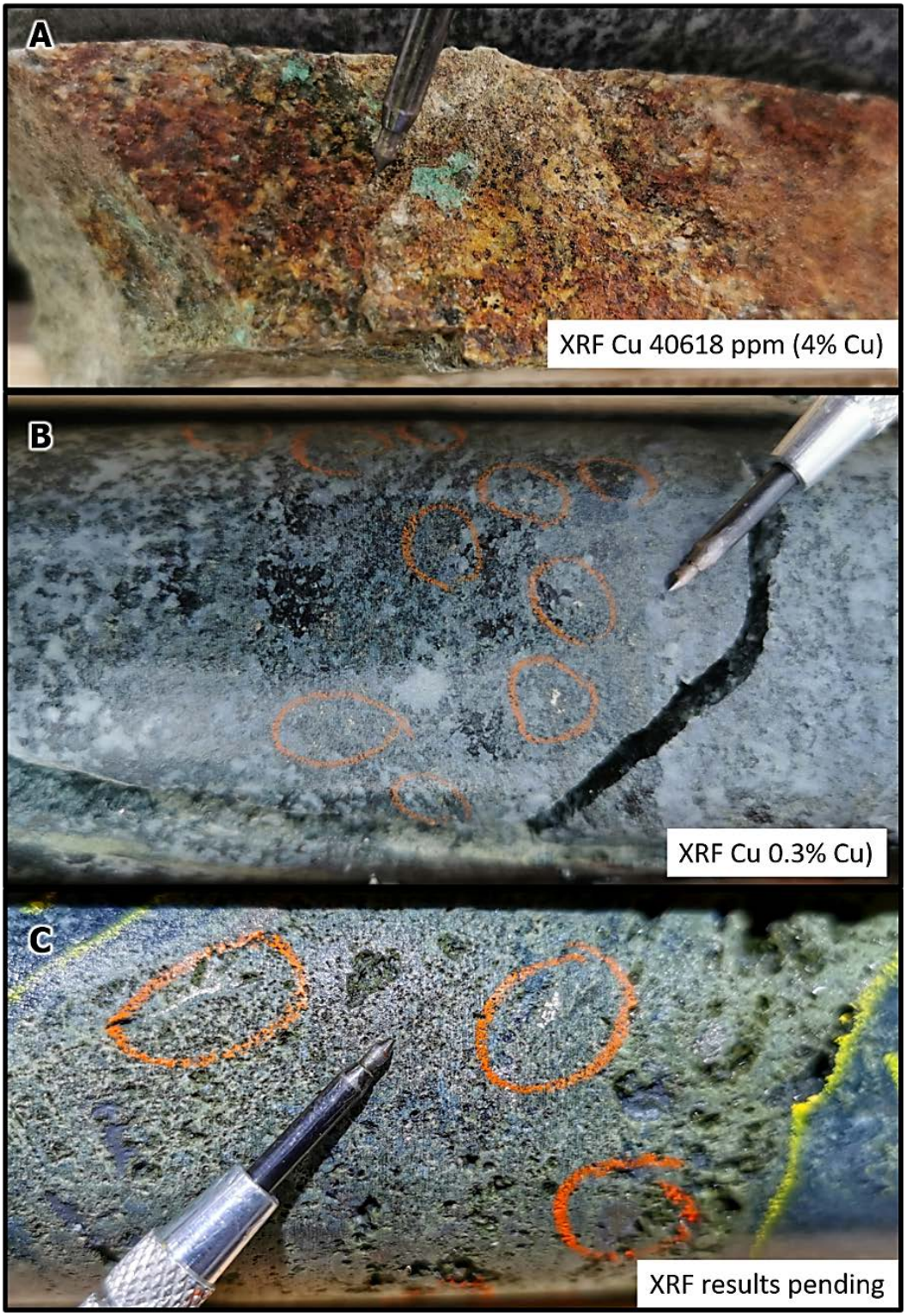

Figure 19: Detailed core photos of mineralization styles in drill hole MAX20-031 from the Ring anomaly. A: Malachite on oxidized surface within diorite at 35.55 m. B: Very fine-grained chalcopyrite in calc-potassic altered diorite at 168.65 m. C: Fine-grained chalcopyrite in a vuggy epidote-biotite(?) vein in diorite at 160.50 m.

8 Remote Sensing and Desktop Studies

8.1 LiDAR and Aerial Imagery

From September-November 2020, Eagle Mapping Ltd. was contracted to acquire 37,000 ha (376 sq km) aerial LiDAR and imagery over the Mt. Milligan Greenfield and Max property, south of the Mt. Milligan mine (Figure 27). Details of the data acquisition and processing are outlined in Appendix G - Eagle Mapping LiDAR and Orthoimagery Report.

8.2 Surficial Geology

In April 2021, Palmer completed a 1:20 000-scale surficial geology map and preliminary assessment of existing surficial exploration data, including glacial history and implications for exploration, on the Mt. Milligan Greenfield and Max property. The results of the surficial geology mapping were used to derive till sampling suitability (TSS) and drift thickness maps. A report describing the surficial geology work is provided in Appendix G - Surficial geology mapping and an inventory of surficial exploration data around the Mount Milligan Mine, BC.

The purpose of the study was to develop additional surficial exploration strategies for the area, provide baseline data required for standardizing the existing historical soil geochemical dataset, and to further refine planned surficial work programs and drill targets based on the results. The TSS and drift thickness maps were used to determine which methods of surficial sampling were suitable within different areas of the property, ultimately guiding 2021 field locations for different surficial sampling types as well geological mapping/prospecting targets. Specifically, planned soil sampling in the Sentinel target area as well as till sampling in the K2 and North Road target areas utilized this data.

8.3 Historical Geochemical Data Evaluation

Surficial geology desktop studies completed by Palmer in April 2020 (see Section 8.2) showed that the historical soil geochemistry dataset on the Max property comprised results from various sediment types and analytical methods, suggesting that all anomalies were not sourced from bedrock mineralization. A detailed standardization and evaluation of the existing geochemical dataset was undertaken by Palmer in 2021 to help refine historical soil targets. A report outlining the methods and results of the geochemical data evaluation is provided in Appendix H – Standardization and evaluation of historical soil and till geochemical data on the Max.

Detailed analysis of the soil geochemical dataset, accounting for ice transport direction and surficial geology, identified 17 soil target areas (MAX_ST1 through MAX_ST17). 2021 Talon till sampling programs were planned to test two of these soil targets: Max_ST9 in the K2 Showing and Max_ST9 in the North Road target area.

9 Geochemical Sampling

9.1 Program Design

Two exploration sampling programs were conducted on the Max and Mt. Milligan Greenfield property in 2021, including a surficial sampling program from June-September and a Talon drill till sampling program in November-December. A total of 150 soil samples, 62 rock samples, 4 hand-dug till samples, and 78 Talon till samples were collected. Both programs used 4x4 trucks to access property areas, with individual sampling sites reached on foot during the surficial program and using snowmobiles for the Talon till sampling program. The winter till sampling program utilized an ATV/snowmobile-portable Talon shallowing-drilling system, which required brushing of trails for access. Surficial sampling targeted 6 areas,

including the K2 Showing, North Road target, Caldera zone, and South Ring target on the Max property, as well as the Sentinel and Fugro-2 targets located approximately 12-14 km to the north-northeast on the Mt. Milligan Greenfield claims.

Surficial sampling commenced on June 5th, revisiting historical rock samples with up to 0.7% Cu from the K2 Showing, historical geochemical anomalies including Mo-in-soil anomalies (183 ppm and 74 ppm) at the North Road target, and elevated Mo concentrations (up to 9 ppm) from rock chips samples in the South Ring target. A total of 5 soils samples and 14 rock samples were collected in the North Road target area, 10 rock samples from the K2 Showing, and one rock sample from the South Ring target. Till samples (3 total) were also collected from hand-dug pits where suitable material was identified in the North Road area.

Field programs continued in the Sentinel target area from June to September. The Sentinel target is represented by a nested magnetic high with destructive halo and outer magnetic high rim, defined from the 2021 detailed aeromagnetic survey. The feature is situated in a regional fault block bound on the west by Sentinel fault and on the east by the Great Eastern Fault. A soil sample grid was designed along proposed 2021 ground IP lines over the Sentinel area, at a 400 m spacing north-south between lines and 200 m spacing east-west along lines. Based on results of the 2021 Till Sampling Suitability (TSS) desktop study completed by Palmer (Appendix J), the eastern portion of the proposed IP lines were excluded from the soil grid as this area is covered by thick drift with TSS ranging from 4-7, which requires deep sampling with mechanical equipment support to sample subglacial till. A total of 121 soils samples were collected on the Sentinel grid. While soil sampling, field crews also prospected and collected 30 rock samples where outcrops were encountered. Plan maps showing surficial sample locations are included in Appendix E and detailed sample data in Appendix D.

Soil sampling and prospecting was completed from September 12th to 13th over the Caldera East aeromagnetic target, an area with no previous surficial sampling. A total of 6 soil samples and 1 till sample were collected; the till sample was not submitted for assay analysis. Five soil samples spaced 200 m apart were taken along one east-west oriented line at the northern margin of the prospect and 1 sample was collected in the southeast.

Talon till sampling was conducted by Palmer in two phases, with a total of 63 till samples (excluding QAQC samples) and 6 rock samples collected; sample depths ranged from 0.8-2.1 m. Phase 1 was completed from November 9th to 17th (47 till samples), and Phase 2 from December 9th to 13th 2021 (16 till samples, 6 rock samples). The program was designed to test soil sample targets and better define drill targets by collecting samples up- and down-ice (accounting for the northeasterly glacial flow direction) from two soil target areas identified by the 2021 Palmer soil geochemistry evaluation (Appendix H): Max_ST9 in the K2 Showing and Max_ST6 in the North Road target area. Plan maps showing till sample locations and geochemical results are included in Appendix E with detailed sample data listed in Appendix D.

9.2 Program Logistics

The facilities at the Mount Milligan mine were used for lodging and staging of all crews and equipment for the duration of the surficial sampling program. Rock and soil sampling in 2021 was conducted in house by field assistants and geologists with the Centerra Gold Services (CGS) Exploration department.

Till sampling at the Max property was completed by Palmer Environmental Consulting Group (Palmer) based out of Vancouver, BC. An ATV/snowmobile portable talon drill was used, capable of collecting till samples to an approximate maximum sampling depth of 2.1 m, though actual achievable depths are

dependent on ground conditions.

Talon drill support was largely completed using snowmobiles. Brushing to facilitate snowmobile access was completed by Minconsult Services Ltd. based in Coldstream, BC.

9.3 Geochemical Sampling Location Surveys

Till, rock and soil sample coordinates and station details were captured directly into custom forms using ESRI's Survey123 on mobile phone. Photographs of till sites were taken of each sample and sample site. Each sample was labelled on an external and internal tag using a multi-part labelling system consisting of project reference, sampling year, sample type, and sample number (e.g., MAX21TD-001: MAX – "Max property"; 21 – year collected; TD – "Talon drill"; and 001 – sample number). Tracklogs and additional notes for sample sites and other points of interest were recorded in Avenza Maps.

Rock and soil sample coordinates, station details and site photos were captured directly into custom forms using ESRI's Survey123 on mobile phone. GPS coordinates were recorded from either the handheld device with accuracy ± 5 m, or a Bad Elf Pro+ GPS connected to the mobile phone, with accuracy ± 2 m. Each sample was assigned a sequential SampleID. Soil samples were primarily collected from the B horizon, with A or C horizons collected when no B horizon was present. Samples were placed in Kraft soil bags after collection, dried and organized prior to shipment. Rock samples were collected and placed in polyethylene bags, zip-tied and placed in labelled and sealed rice bags prior to shipment to BV.

Certified Reference Materials (CRM), blank samples and field duplicates were systematically included to monitor the quality assurance and quality control (QA/QC) of the surface sampling, processing, and assaying processes. Duplicate samples collected at the same sampling site was submitted for field sample duplicates. A sealed, empty sample bag with a sequential sample tag was submitted to the lab for preparation duplicates and a pulverized split of the preceding sample was taken as the preparation duplicate. Blank sample material consisted of clean coarse marble landscape rock that was purchased commercially in 18 kg bags. An average weight of approximately 2 kg was used for each blank sample.

9.4 Analytical Techniques

A total of 150 soil samples, 62 rock samples, 4 hand-dug till samples, and 78 Talon till samples were collected during 2021 exploration programs.

Rock samples and blank samples were weighed, dried and crushed to ≥70% passing 2 mm, with a 250 g split pulverized to ≥85% passing 75 µm. Gold was analysed by 30 g fire assay with an AAS finish (BV code method code FA430). Additional elements were analysed using ICP-ES/MS and a four-acid digest of a 0.25 g split (BV code MA200).

Till and soils samples were dried at 60°C, sieve 100 g to -63 µm (230 mesh), up to 1 kg sample. Elements were analysed using an ICP-ES/MS analysis following an aqua regia digest of a 30g split (BV code AQ252 or AQ252-EXT).

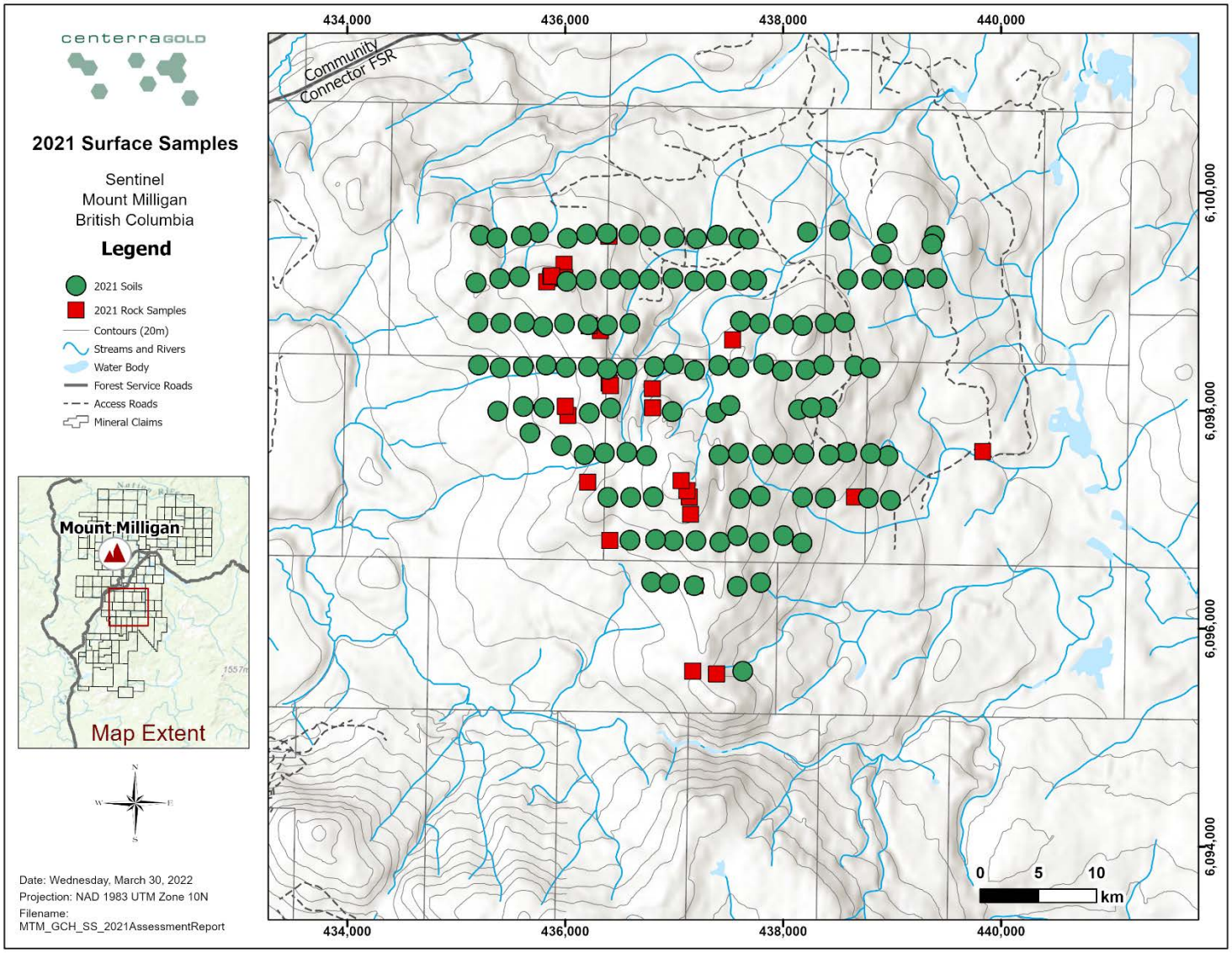

Figure 20: 2021 Sentinel Surface Samples

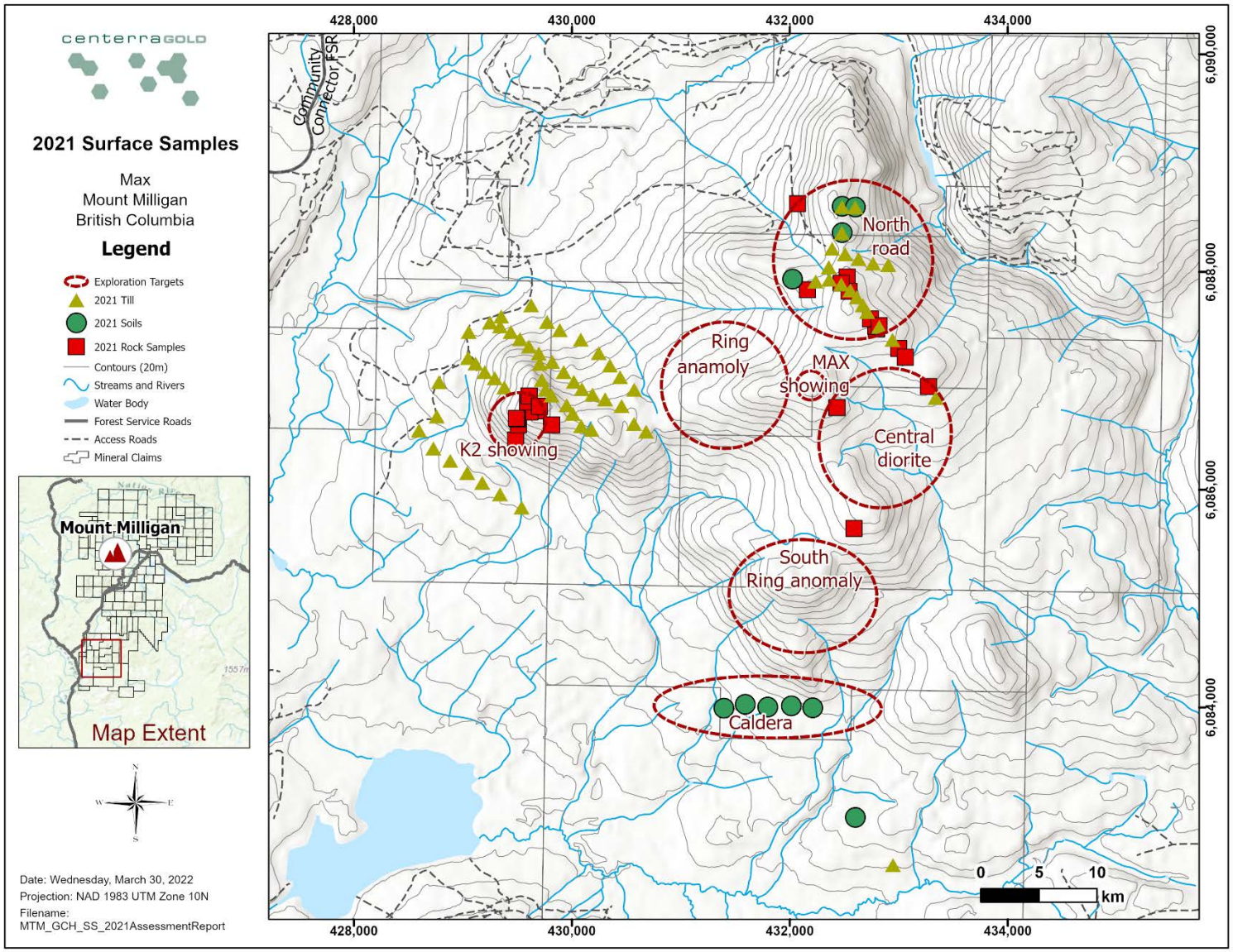

Figure 21: 2021 Max Surface Samples with Prospects

9.5 Results

Surficial exploration in 2021 was completed in two phases. Phase 1 soil/rock sampling and prospecting occurred between June 5th and September 23rd, targeting the K2 Showing, North Road targets, South Ring target, Sentinel target, Caldera zone and Fugro-2 zone. Phase 2 till sampling was completed between November 9th and December 13th, testing soil targets in the K2 Showing and North Road 3 area. A summary of surficial sampling results from each target zone is included the sections below. Assay certificates are listed in Appendix F and complete sample descriptions, including locations, listed in Appendix D.

9.5.1 K2 Showing (Max Property)

The K2 Showing is a Cu-Ag bearing breccia/vein BC MINFILE showing laying within the Max fault zone with an associated WNW trending soil geochemistry anomaly. Two phases of surface exploration were completed at the K2 showing in 2021. The first phase, competed by CGS Exploration personnel, from June 7th to 11th included rock sampling and prospecting at the historical K2 MINFILE showing as well as the surrounding area. The second phase was a till sampling program conducted by Palmer from November 8th to 18th, testing soil target anomaly Max_ST9 identified during the 2021 Palmer geochemical sampling evaluation.

9.5.1.1 Rock Sampling

Between June 7th to 11th, 2021, CGS field crews completed prospecting around the K2 Showing area, ~1.2 km west of the Ring Anomaly drilled in 2020 (Sica et al, 2021). A total of 10 new rock samples were collected, including resamples of the K2 showing which historically returned up to 0.7% Cu in a brecciated quartz vein.

Field crews were unable to locate the 2-m-wide vein described in MINFILE 093K 086 at the coordinates provided for the K2 breccia/vein showing. The K2 samples located (D00155321, D00155322) included pyrite-malachite-bearing quartz-cemented breccia float, buried to partially buried within 5-10 cm of poorly developed soil. Based on the angular nature of the clasts and their location within shallow soil developed immediately above andesite tuff bedrock, the float samples are interpreted to be locally sourced from directly below the sample sites.

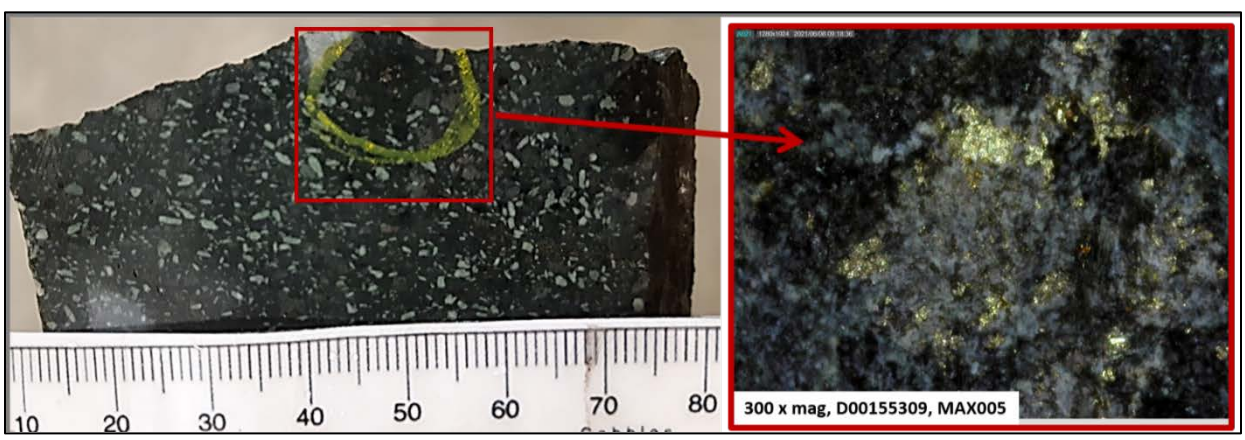

Figure 22: Hand sample (D00155309) of plagioclase porphyry intrusion with Dino microphoto (300 x mag) on the right showing chalcopyrite-pyrite mineralization. Assay results yielded 132.5 ppm Cu. Hand sample description: weathered surface is oxidized, and fresh surface is dark grey. Porphyritic texture. 20% fine-medium grained irregular plagioclase phenocrysts. Aphanitic matrix.

Blebby hematite within matrix. 0.5% very fine diss pyrite. 0.05% chalcopyrite interstitial to pyrite. Weakly magnetic. Sample site description: Top of slope. Very steep. Upslope from K2 Showing.

Prospecting near the peak ~200 m upslope (northeast) from the K2 float, an outcrop comprised of porphyritic intrusive hosting trace chalcopyrite mineralization was located and sampled (D00155309). A second porphyritic subcrop (D00155315) was discovered approximately 130 m upslope (northeast) from the K2 samples, comprised of coarser plagioclase phenocrysts than the porphyry near the peak (D00155309). A third porphyritic subcrop (D00155319), with finer plagioclase phenocrysts than the porphyry near the peak, was also located approximately ~240 m southeast (along slope) from D00155315.

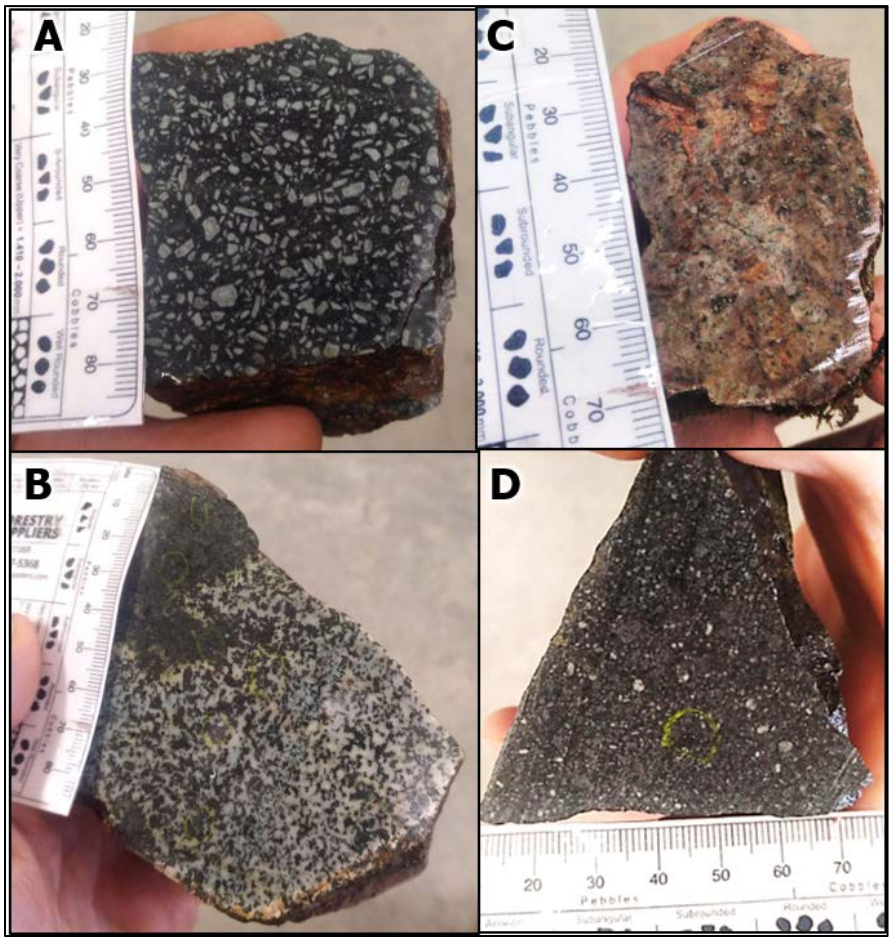

Figure 23: Hand samples collected from the K2 Showing and surrounding area. A - Hand sample of plagioclase porphyry intrusion, sample D00155315. B – Hand sample of diorite, sample D00155310. C - K2 Showing quartz breccia with pyrite, sample D00155321. D - porphyry near K2 Showing, sample D00155319.

The highest Cu results were returned from the K2 breccia/vein float samples, including 3,029.5 ppm Cu from sample D00155321 and 1,572.2 ppm Cu from sample D00155322. No significant (>500 ppm) Cu was returned from the surrounding porphyritic outcrops, which create a zone of slightly elevated Cu (up to 141.3 ppm) westward (upslope) from the K2 breccia. Based on favourable results from surface sampling, an IP survey was completed over the K2 Showing and nearby porphyritic outcrops in October 2021, extending the existing 2019 IP grid westward (see Section 10 Geophysics Work).

9.5.1.2 Talon Till Sampling

A till sampling program was completed by Palmer from November 9th to 17th, collecting a total of 47 till samples up- (southwest) and down-ice (northeast) of soil target Max_ST9 in the K2 Showing. Soil target Max_ST9 was identified by the 2021 Palmer soil geochemistry evaluation (Appendix H). A logistics report describing the Talon till sampling program is provided in Appendix J. Till sampling was designed to test the validity of the soil target, to determine whether the Talon shallow-drilling system was a suitable exploration method for the Max area, and to help refine planned drill targets.

Till samples collected immediately down-ice from target Max_ST9 were anomalous in Cu and Mo, with decreasing Cu-Mo concentrations further down-ice, while samples collected up-ice were not. The most anomalous samples (MAXTD017 at 269.28 ppm Cu and 1.38 ppm Mo; MAX21T014 at 101.63 ppm Cu and 5.39 ppm Mo) were trending down-ice (northeast) from the location where high-grade rock samples (D00155322 at 1,572.2 and D00155321 at 3,029.5 ppm Cu) were collected. Anomalous till samples also coincide with down-ice soil dispersal trains exhibiting porphyry and epithermal relative importance signatures (RIS) identified during the 2021 soil geochemistry review (Appendix J - Talon Till Sampling Logistics Report).

Till sampling results overall correlate with historical soils and are coincident with identified soil target anomaly Max_ST9, increasing confidence in up-ice anomaly source locations. While both soil sampling and Talon till sampling successfully identified a dispersal anomaly associated with known mineralization identified in K2 Showing rock samples, till sampling seemed to produce a more discrete dispersion anomaly. However, this could be related to lower density of till sampling. The results of the program show that fewer targeted till samples will produce the same anomalies as a higher density soil sample survey, but Talon till sampling was more expensive in this area due to accessibility requirements (brushing snowmobile trails) for transporting Talon equipment. Regardless, till sampling must be used in conjunction with geophysics and mapping and would not be a standalone exploration tool.

9.5.2 North Road Target (Max Property)

The North Road target area is defined by a triangular magnetic high feature surrounded by lows, coincident with historical Mo-in-soil anomalies and bound to the south by the east-northeast trending Max fault. Two phases of surface exploration were completed at the North Road targets in 2021. The first phase, competed by CGS Exploration personnel between June 5th and 23rd, included surficial sampling and prospecting focusing on historical Mo-in-soil anomalies. The second phase was a till sampling program conducted by Palmer from December 9th to 13th, testing soil target anomaly Max_ST6 identified during the 2021 Palmer geochemical sampling evaluation.

9.5.2.1 Rock and Soil Sampling

CGS field crews completed surficial sampling and prospecting between June 5th and 23rd, revisiting historical soil samples yielding up to 183 ppm and 74 ppm in the North Road target areas. A total of 14 new rock samples, 5 soil samples, and 3 till samples were collected.

Cover is thick in the North Road Target area with sparse subcrop or outcrop. Subcrop found was dominantly unaltered diorite and epidote-altered andesite crystal tuff. The highest Cu rock sample result was returned from D00155310 (262.6 ppm Cu), comprised of strongly magnetic diorite hosting 0.5% very finely disseminated pyrite. D00155310 was a resample of historical rock chip 11650-2007 (1,160 ppm Cu). The original 11650-2007 sample site could not be found so D00155310 was collected 10 m from the

recorded coordinates. Grab sample D00155408, a silica-altered andesite dyke hosting 5-7% finely disseminated pyrite, was collected ~850 m south of the main North Road 3 target area and yielded the highest rock sample concentration of Mo at 12.3 ppm.

The most anomalous soil samples, D00155305 (710.4 ppm Cu, 12.5 ppm Mo) and D00155307 (899.5 ppm Cu, 10.6 ppm Mo), were resamples of historical soils 19121 (292 ppm Cu, 11 ppm Mo) and 19122 (614 ppm Cu and 9 ppm Mo) respectively. These historical samples were targeted in anticipation of finding proximal subcrop or outcrop sourcing the highly anomalous soils. No source rocks were identified, however till samples D00155306 (145.4 ppm Cu, 3.7 ppm Mo) and D00155308 (240.0 ppm Cu, 3.8 ppm Mo) were also collected below these soil sample locations as suitable material was available.

The highest till sample result was returned from D00155304 (202.1 ppm Cu, 7.0 ppm Mo), a resample of historical soil 134N_13950E-1988 (99 ppm Cu, 183 ppm Mo, 240 ppb Au). D00155304 was collected below 2021 soil sample D00155303 (70.5 ppm Cu, 2.0 ppm Mo). The original 134N_13950E-1988 sample site could not be found so new till and soil samples were collected 4 m from recorded coordinates.

Overall, 2021 Cu and Mo results correlate well with historical sampling. Gold results were much more variable, and 2021 samples collected were unable to repeat elevated historical Au values. Several historical soils were targeted for follow-up in 2021 in anticipation of finding proximal source subcrop or outcrop, however ground truthing confirmed that till cover was too thick to uncover any source rock material.

9.5.2.2 Talon Till Sampling

A till sampling program was completed by Palmer from December 9th to 13th, collecting a total of 16 till samples and 6 rock samples up- (southwest) and down-ice (northeast) of soil target Max_ST6 in the North Road 3 target area. Soil target Max_ST6 was identified by the 2021 Palmer soil geochemistry evaluation (Appendix H). A logistics report describing the Talon till sampling program is provided in Appendix J. Till sampling was designed to test the validity of the soil target, to determine whether the Talon shallow-drilling system was a suitable exploration method for the Max area, and to help refine planned drill targets.

Till samples collected immediately down-ice from target zone Max_ST6 were anomalous in Cu and Mo with Cu-Mo concentrations appearing to decrease further down-ice (northeast) from the target zone. The most anomalous samples (MAX21TD-072, MAX21TD-072, MAX21TD-074, MAX21TD-083, MAX21TD-084; ranging from 327.0-1,112.2 ppm Cu and 6.1-18.9 ppm Mo) were trending down-ice (northeast) from the center of Max_ST6. Anomalous till samples also coincide with down-ice soil dispersal trains exhibiting porphyry and epithermal relative importance signatures (RIS) identified during the 2021 soil geochemistry review (see Appendix H). Due to weather conditions, 15 planned till samples up-ice (southwest) and further down-ice (northeast) of the anomaly could not be collected until February 2022. Results for these samples are still pending and not included in this report.

Till sampling results overall correlate with elevated Cu and Mo values in historical soils down-ice (northeast) from identified soil target anomaly Max_ST6, confirming that this method of till sampling can produce a correlative dispersal anomaly. Results from the remaining samples up-ice (southwest) and further northeast from the North Road 3 target will determine whether till sampling in this area better defined more discrete anomalies.

9.5.3 South Ring (Max Property)

The South Ring target is defined by a circular aeromagnetic high doughnut feature with a magnetic low rim and center, interpreted as a magnetite-bearing intrusion with magnetite-destructive alteration halo, coincident with four Cu-Mo soil geochemistry targets. Previous geological mapping also supports the present of augite porphyry with diorite to monzodiorite intrusions. A strong magnetic break highlights a regional northwest-trending fault that bisects the South Ring target, bounding a high chargeability and resistivity feature to the west.

One subcrop grab sample (D00155407: 97.6 ppm Cu, 4.5 ppm Mo) was collected from the northeastern margin of the South Ring target in 2021, resampling a series of east-west historical rock chips (11490, 11491, 11489) with anomalous Mo results ranging from 7-9 ppm. D00155407 was comprised of medium-grained diorite crosscut by weakly limonitic fractures with no visible sulphides.

The 2021 sample confirmed elevated Mo concentrations measured in historical samples. The combination of favorable geophysics and geology supported by surficial geochemistry make this a high-priority drilling target.

9.5.4 Caldera East (Max Property)

The Caldera East target is identified in the regional aeromagnetic survey by an elongate magnetic high feature rimmed by a magnetic low, interpreted to be a magnetite-bearing intrusion (mag high) with a magnetic destructive alteration halo. It is located at the southern edge of the Max property, outside the existing historical soil geochemistry dataset.

CGS Exploration completed soil sampling and prospecting over the Caldera East aeromagnetic target from September 12th to 13th. A total of 6 soil samples and 1 till sample were collected; the till sample was not submitted for assay analysis. Five soil samples spaced 200 m apart were taken along one east-west oriented line at the northern margin of the prospect and 1 sample was collected in the southeast.

Anomalous results were returned from three consecutive soil samples: D00155567 (149.5 ppm Cu, 1.2 ppm Mo), D00155568 (87.9 ppm Cu, 3.3 ppm Mo), and D00155569 (145.9 ppm, Cu 1.2 ppm Mo).

Results of the 2021 IP survey conducted over the Caldera and Caldera East zones (Appendix L) showed that any moderate to high chargeability anomalies present were detected at >300 m depth from surface so this area is not recommended as a high priority target for further exploration.

9.5.5 Sentinel Target (Mount Milligan Greenfield Property)

The Sentinel target is represented by a nested magnetic high with destructive halo and outer magnetic high rim, defined from the 2021 detailed aeromagnetic survey. The feature is situated in a regional fault block bound on the west by Sentinel fault and on the east by the Great Eastern Fault.

CGS Exploration personnel completed soil/rock sampling and prosecting throughout the Sentinel target area between June 17th and September 23rd. The soil sample grid was designed along proposed 2021 ground IP lines over the Sentinel area, at a 400 m spacing north-south between lines and 200 m spacing east-west along lines. Based on results of the 2021 Till Sampling Suitability (TSS) desktop study completed by Palmer (Appendix I), the eastern portion of the proposed IP lines were excluded from the soil grid as

this area is covered by thick drift with TSS ranging from 4-7, which requires deep sampling with mechanical equipment support to sample subglacial till. A total of 121 soils samples were collected on the Sentinel grid. While soil sampling, field crews also prospected and collected 30 rock samples where outcrops were encountered. Plan maps showing surficial sample locations are included in Appendix E and detailed sample data in Appendix D.

Soil geochemistry results show anomalous Cu (>100 ppm) and Mo (>1 ppm) soil geochemistry coincident with the center of the Sentinel aeromagnetic doughnut feature as well as a northwest trending Au-in-soil anomaly (>30 ppb) on the western side of the survey area, located downhill from rock sample D00155460 (129 ppb Au, 97.5 ppm Cu, 1.0 ppm Mo). Sample D00155460 was collected from a 4-m-wide quartz vein located on a peak at the northwestern corner of the sampling grid, outcropping for about 50 m and striking 320°. The vein has banded contacts with andesite wall rock overprinted by chlorite-hematite alteration and hosts finely disseminated pyrite (0.2%) with trace interstitial chalcopyrite mineralization (**Error! Reference source not found.**). The prospect lies on the western side of a regional northeast-southwest trending fault.

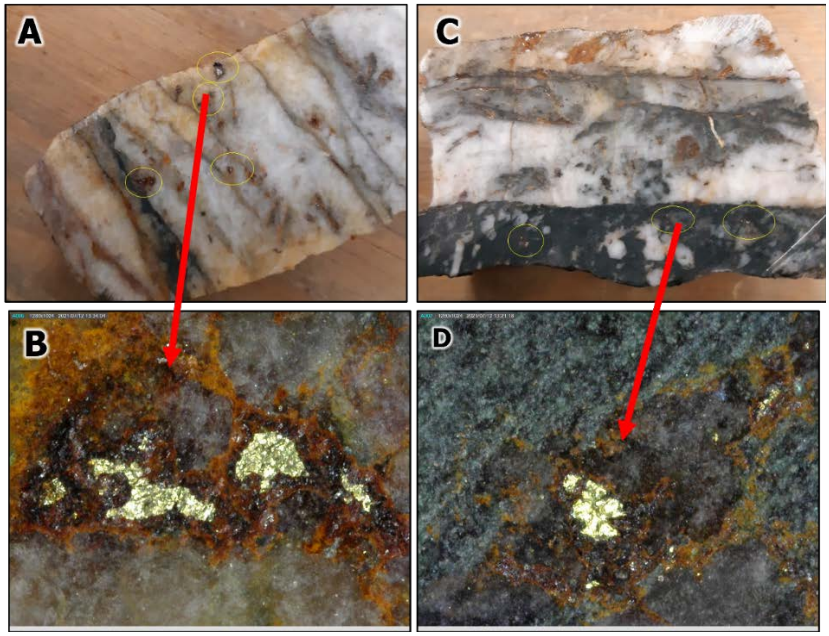

Figure 24: Hand samples collected from the Sentinel quartz vein outcrop. A – Hand sample (D00155460) of Sentinel quartz vein. B – Micro-photograph (Dinolite) of pyrite mineralization in quartz vein with location circled in photo A. C – Hand sample (D00155460) of Sentinel quartz vein/wall rock contact. D – Micro-photograph (Dinolite) of pyrite mineralization in wall rock (chlorite-hematite) with location circled in photo C.

9.5.6 Fugro-2 (Mount Milligan Greenfield Property)

On September 17th, prospecting was completed across the Fugro-2 chargeability anomaly and MN-1 aeromagnetic targets by CGS Exploration personnel. No outcrops were found within the target zones.

One rock sample (D00155573) was collected approximately 1 km northwest of Fugro-2, from an outcropping of grey course grained plagioclase-crowded monzonite porphyry to localized K-feldspar-cemented breccia crosscut by 10 cm carbonate-quartz-chlorite veining. The sample returned 0 ppm Cu from the pXRF and was not submitted for assay analysis.

9.5.7 Results Summary

Sampling and prospecting at the K2 Showing confirmed the presence of Cu-bearing quartz breccia and identified several porphyritic outcrops-subcrops upslope. These porphyritic rocks are coincident with a shallow resistivity high feature rimmed by a high chargeability halo identified in the 2021 IP survey, making this a high priority drill target.

Resampling of historical Mo and Cu soil/rock anomalies in the North Road and South Ring targets on the Max property yielded similar results and increased confidence in the historical geochemistry dataset. Prospecting in the North Road target area also confirmed that rock exposure is limited and thick till cover prevents the identification of bedrock sources for even the most anomalous soil samples. As a result, drill targeting in this area still relies heavily on geophysics.

Talon till sampling up- and down-ice from in-situ soil targets in the K2 Showing and North Road areas verified their locations, with down-ice samples yielding anomalous Mo and Cu concentrations while up-ice samples did not. Anomalous till samples also coincide with down-ice soil dispersal trains exhibiting porphyry and epithermal relative importance signatures (RIS) identified during the 2021 soil geochemistry review, proving Talon till sampling as a suitable exploration technique for the project.

Soil sampling across the Caldera East zone returned three consecutive samples with anomalous Cu-Mo. However, the 2021 IP survey conducted over the Caldera and Caldera East zones (Appendix L) showed that moderate to high chargeability anomalies were >300 m depth from surface so this area is not recommended as a high priority target for further exploration.

10 Geophysics Work - 2021

Geophysical work completed in 2021 consisted of 22.6 line-km of Induced Polarization survey, and 1,546 line-km of aeromagnetic survey collected by Peter E. Walcott & Associates Limited.

10.1 Ground Induced Polarization Survey

Ground Induced Polarization (IP) surveys were carried out over three separate phases, from May 26th to June 4th, October 24th to November 1st, and November 2nd to November 24th. A total of 22.6 line-km of ground IP survey was completed over 8 lines, testing the Caldera zone and K2 Showing on the Max

property as well as the Sentinel target on the Mt. Milligan Greenfield claims.

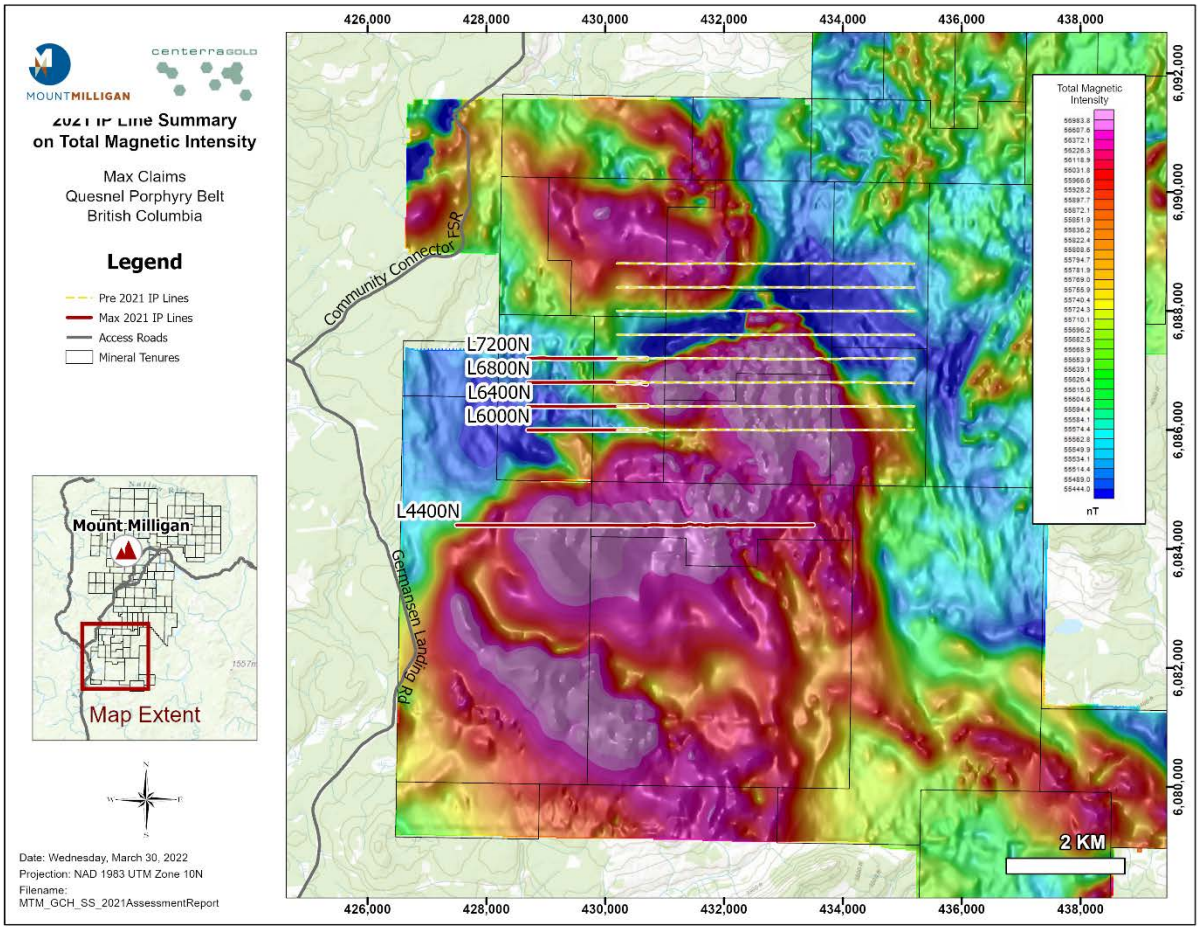

Figure 25: 2021 Max Induced Polarization Lines

10.1.1 Caldera Zone (Max Property)

The Caldera zone was surveyed from May 26th to June 4th, 2021. It is defined by a magnetic high doughnut surrounded by a magnetic low, interpreted as an intrusion with a magnetic-destructive alteration halo. One 6-km long IP survey line (L4400N, Figure 25) was designed across the Caldera and Caldera East zones to identify subsurface features that could represent a porphyry intrusion.

10.1.2 K2 Showing (Max Property)

From October 23rd to 30th, 2021, four 2-km IP lines (L6000N, L6400N, L6800N, and L7200N, Figure 25) at 400 m line spacing were completed over the K2 Showing, a Cu-Ag bearing breccia/vein BC MINFILE showing laying within the Max fault zone with an associated WNW trending soil geochemistry anomaly. These lines were extended from the existing 2019 IP grid to the west.

10.1.3 Sentinel Target (Mount Milligan Greenfield Property)

The IP survey was designed to test the Sentinel target, represented by a nested magnetic high with

destructive halo and outer magnetic high rim defined in the 2021 detailed aeromagnetic survey Figure 28. The feature is situated in a regional fault block bound on the west by Sentinel fault and on the east by the Great Eastern Fault. Between October 22nd to November 23rd, line establishment/brushing and IP surveying were completed over portions of the Sentinel target. A total of 33.4 line-km of brushing was completed over 9 east-west lines spaced 400 m apart, however only 10.6 km of IP was completed on the three southernmost lines (L6400N, L6800N, and L7200N, Figure 26) due to poor weather conditions limiting helicopter access.

10.1.4 Survey Specifications

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C1, and the potential electrodes, P1 through Pn+1, are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C2, is kept constant at "infinity". The distance, "na" between C1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse. The survey reads both the pole-dipole and dipole-pole geometries placing the current electrodes between receiving electrodes measure half n measurements. On this survey a 100-metre dipole was employed and first to fifteenth separations readings were obtained.

10.1.4.1 Horizontal and vertical control

The horizontal position of the stations was recorded using a GPS/GLONASS equipped Garmin C66 handheld GPS receiver.

10.1.4.2 Data Presentation

The data are presented as individual pseudo section plots of apparent resistivity and apparent chargeability at a scale of 1:10,000 generated using Geosoft Oasis Montaj. In addition, data was subjected to 2D inversion and presented as sections at a scale of 1: 10,000.

10.1.5 Survey Results

Survey results are displayed in Appendix L.

Moderate to high chargeability anomalies coincident with the Caldera and Caldera East targets were identified, however they were detected at >300 m depth from surface. Additional IP coverage of this area is not recommended as a high priority target.

At the K2 Showing, a shallow moderate to high resistivity feature (~300 m vertical width) bracketed by high chargeability was shown on L6800N, potentially representing an intrusion with a sulphide-bearing alteration halo. This feature is coincident with porphyritic outcrops identified upslope from the K2 Showing quartz-cemented breccia samples hosting up to 3,030 ppm Cu and represents a high priority drill target.

Across both L6400N and L6800N to the north, Sentinel IP sections show a central break consistent with the interpreted Sentinel fault, as well as a ~500 m wide chargeability high feature coincident with a resistivity high east of the fault. A shallow chargeability high feature was also identified on the eastern margin of L6400N, plunging deeper towards the north on L6800N and L7200N. The remaining 22.8 line-km of IP survey brushed in 2021 will be completed in 2022.

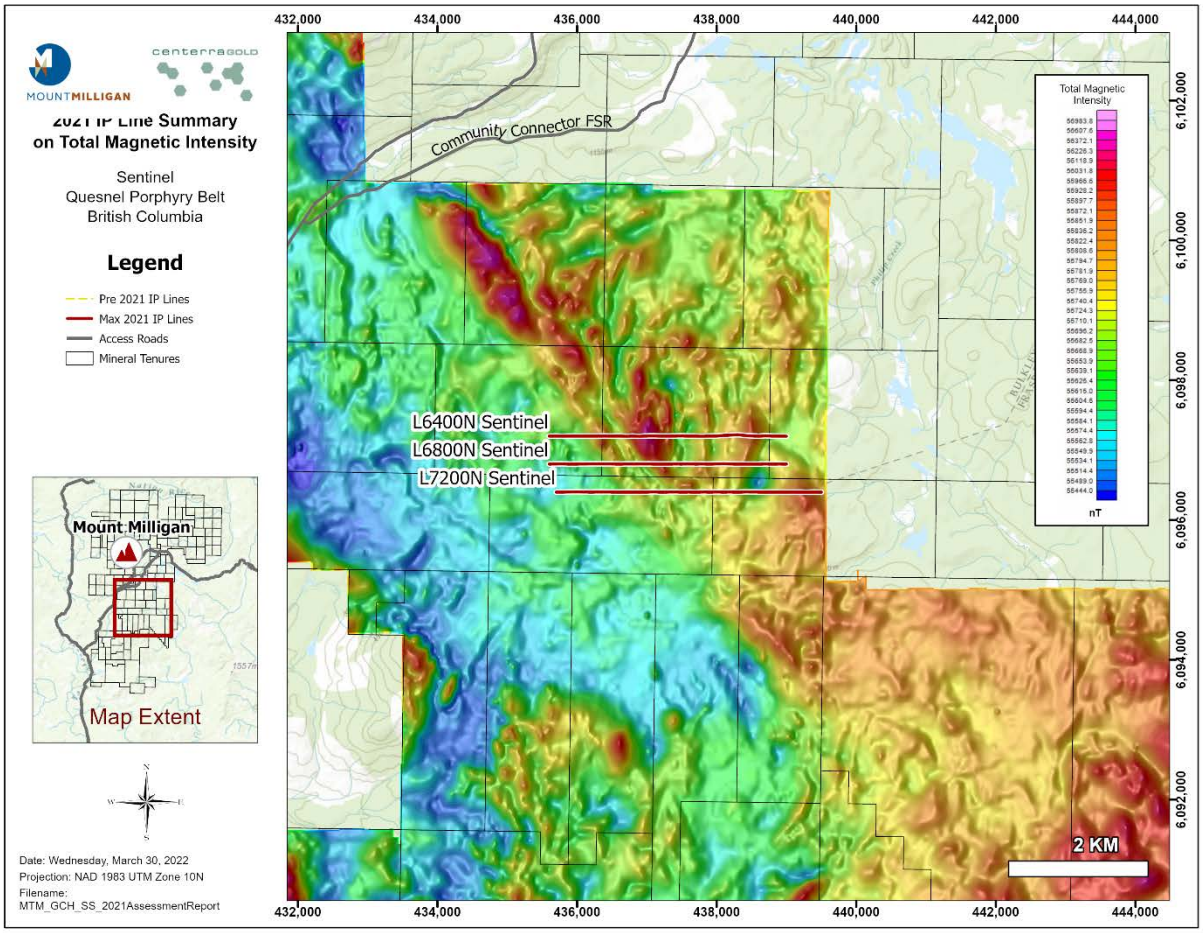

Figure 26 2021 Sentinel Induced Polarization Lines

10.2 Airborne Magnetic Survey

Between March 24th and 30th, 2021, Peter E. Walcott & Associates Limited undertook a heli-borne magnetic surveying over the southern parts of the Mount Milligan Greenfield property, for Thompson Creek Metals Co Inc. The survey area adjoins the Max claims to north and was called "Max North" in the logistics report included in Appendix K.

The surveys consisted of some 1,546 line-km of airborne magnetics. The surveys were flown on east-west orientated lines flight lines with a nominal line spacing of 100 m, with orthogonal tie lines with a nominal line spacing of 1000 m. Figure 27 shows the extents of the survey area. Access to the grid was obtained from the Blue Stain camp by helicopter.

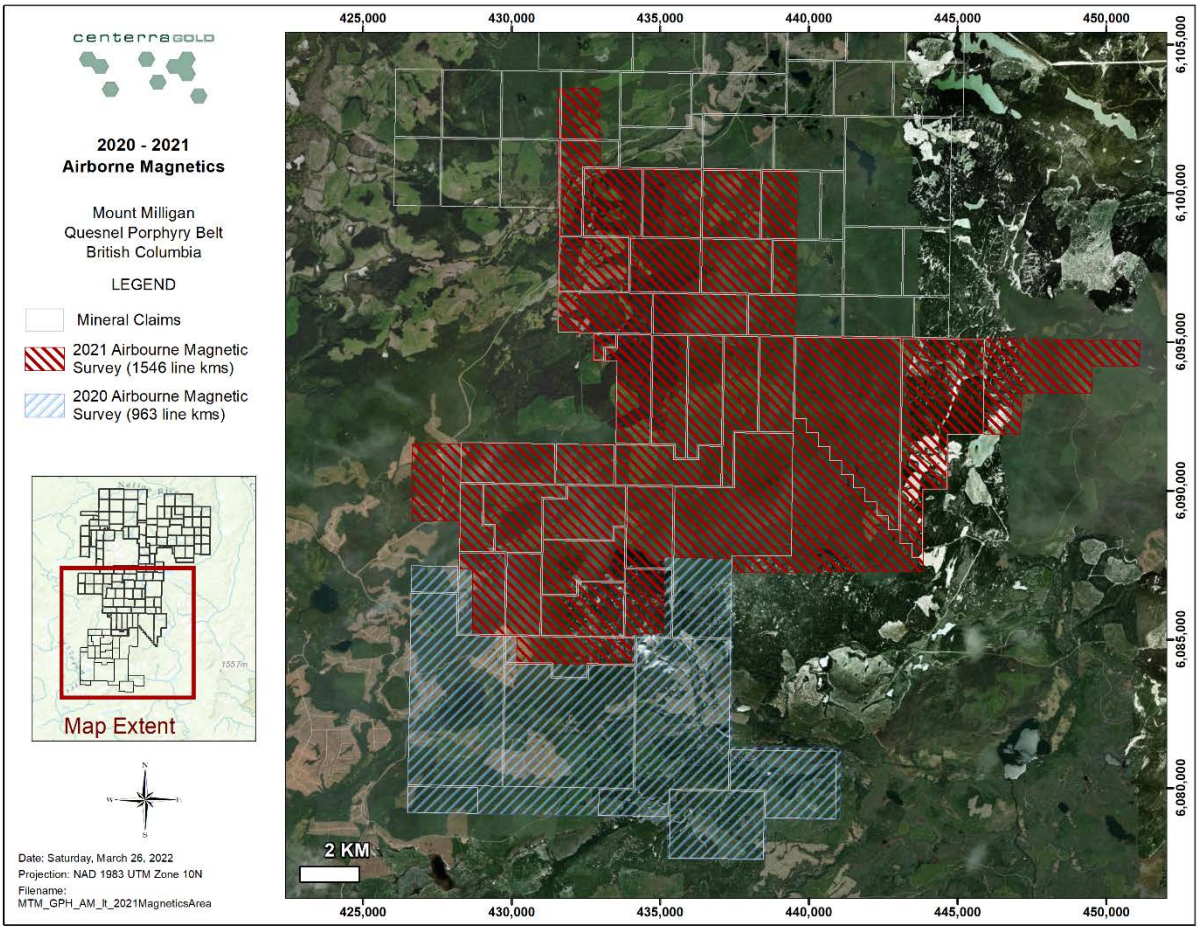

Figure 27: Outline of Airborne Magnetic Survey Area

10.2.1 Survey Specifications

The airborne magnetic survey was conducted using a stinger type system mounted on an ASTAR helicopter operated by Silver King Helicopters Ltd of Smithers, British Columbia. The stinger unit consists of three main components – C-824 Cesium Magnetometer manufactured by Geometrics San Jose, California, Bartington Mag-03 Fluxgate, and Optilogic RS-400 Laser Range Finder The C-824 Cesium Magnetometer is an extremely sensitive magnetic sensor capable of providing sensitivity up to 0.01 nT and sampling rates

up to 1000 Hz. On this survey a sampling rate of 50 Hz was employed. The Mag-03 was connected to a Kana8 24-bit digitizer inside the helicopter, where the analog output from the X, Y, and Z components where digitized and synchronized to a GPS timing signal.

The respective digital outputs, were connected to a logging computer where the respective input was synchronized to an NTP time server, utilizing a GPS timing signal. Flight line navigation data and helicopter height data was obtained using Hemisphere R330 GNSS receiver and Optilogic RS400 later range finder with a 10 Hz update rate. Data logging and navigation were carried out utilizing Picoenviotech ANAV software on a Panasonic CF-19 Toughbook computer with a secondary 7" daylight viewable pilot navigation monitor.

In addition to the airborne unit the survey also utilized two GSM 19 overhauser magnetometer manufactured by GEM Instruments of Richmond Hill, Ontario as base magnetometers. These instruments measure variations in the total intensity of the earth's magnetic field to an accuracy of plus or minus one nanotesla.

The surveys were carried out with a mean bird height of some 52 m. **Error! Reference source not found.** displays survey information.

Table 5 Airborne Magnetic Survey Details

Survey Area	Number of Lines	Number of Tie Lines	Total Distance
Max North	166	20	1,546 line-km

10.2.1.1 Data Processing and Presentation

The data was first exported from MagLogPro, where the various sensor inputs were merged into Geosoft compatible ascii files. This merged dataset was then loaded into Geosoft Oasis Montaj for data reduction and processing. The data was first corrected for diurnal magnetic drift, utilizing the magnetic base stations. The data was then lag corrected to account for positioning errors due to instrument delay and other positional errors. Tie line levelling was then undertaken prior to gridding.

Gridding was then undertaken on the levelled line data utilizing Geosoft's Bigrid algorithm using a 12.5 metre cell size. The reduced and leveled data set was then subject to several filtering techniques using the Geosoft MagMap module for evaluation and presentation. The magnetic data for each of the respective blocks presented in this report is Contours of Total Magnetic Intensity, and Contours Calculated First Vertical Derivative.

10.2.2 Survey Results

Survey results are displayed in Appendix K.

The aeromagnetic survey was flown over the southern portion of the Mt. Milligan Greenfield claim block, including the Sentinel target, as well as the extended claim package to the east acquired by TCM in 2022. A map of the raw magnetic data, merged with the historical data set, reveals additional targets across the property with a similar signature as the Ring anomaly, defined by halos of destructive magnetic signature surrounding magnetic high anomalies (Figure 1Figure 28).

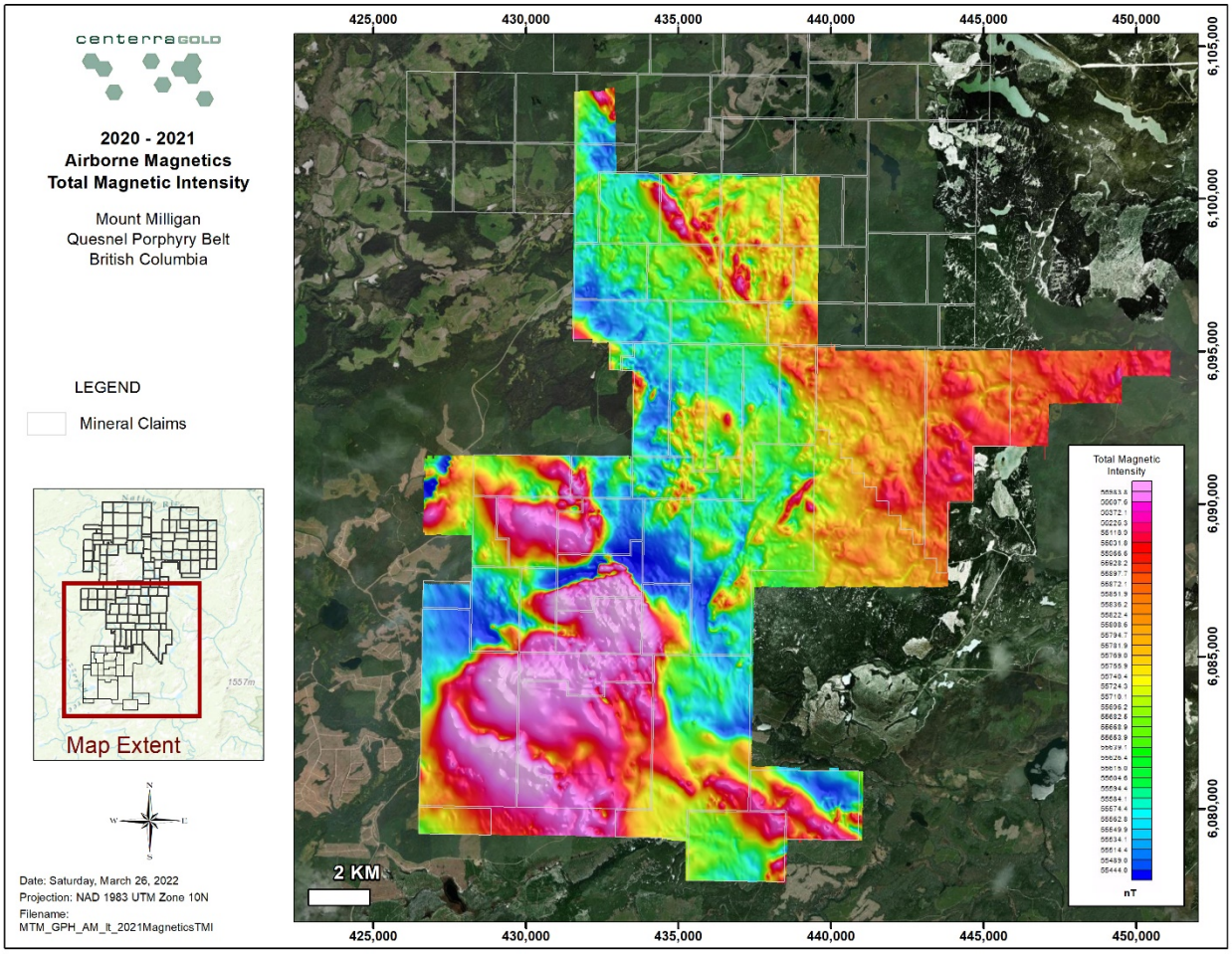

Figure 28: Map of 2021 Airborne Magnetic Total Magnetic Intensity

11 Discussion and Conclusions

The thick till cover and glacial history at the Max and Mt. Milligan Greenfield property limit the availability of reliable surface geochemistry anomalies and drill targeting depends heavily on the use of geophysical surveys. A better understanding of the glacial history was gained from 2021 surficial geology mapping and till sample suitability mapping by Palmer, which were successfully used to plan soil and till sampling exploration programs in 2021. Considering factors such as drift thickness as well as glacial transport distance and direction, data compilation and re-interpretation of existing historical sample datasets was also completed, generating 17 in-situ soil geochemistry targets. Talon till sampling up- and down-ice from two of these soil targets verified their locations and proved Talon till sampling as a suitable exploration technique for the project.

Resampling of historical Mo- and Cu-in-soil anomalies in the North Road and South Ring targets on the Max property yielded similar results and increased confidence in the historical geochemistry dataset. Prospecting in these areas also confirmed that rock exposure is limited and thick till cover prevents the identification of bedrock sources for even the most anomalous soil samples. As such, drill targeting in these areas still relies heavily on geophysics.

The interpretation of geophysics was successfully used to predict geology and mineralization for drill targeting in 2020, correlating high resistivity features to propylitic diorite with intermediate resistivity/moderate chargeability gradients representing marginal pyritic potassic alteration halos (Sica et al, 2021). Well-developed fault zones with quartz-chlorite-sericite-carbonate-pyrite alteration, brecciation, ± local shearing are also associated with a resistivity low signature and weak-to-moderate chargeability ± a magnetic low. Based on this criteria, results of the K2 Showing IP survey with a high resistivity feature rimmed by high chargeability could represent an intrusion with a pyrite-bearing alteration halo. This feature is also coincident with porphyritic outcrops identified upslope from K2 Showing quartz-cemented breccia samples with up to 3,030 ppm Cu, making this a high-priority drill target. A shallow high chargeability feature observed on the eastern margin of the Sentinel survey also has porphyry potential and warrants additional follow-up. High chargeability features were noted at >300 m depth from surface in the Caldera and Caldera East zones and are considered low priority for further exploration surveys.

A magnetic destructive signature has been recommended for targeting areas of favorable alteration as magnetic highs drill-tested in 2020 were typically associated with unaltered to weakly propylitic altered diorite with magmatic magnetite (Diorite-1) (Sica et al, 2021). An analogue for Max was suggested as the Didipio alkalic porphyry Cu-Au deposit in the Philippines, which has some geological similarities to the Ring anomaly. In aeromagnetic surveys, the Didipio deposits are located on a major fault defined by linear magnetic lows at the margins of magnetic highs. As such, magnetic highs with low magnetic halos as well as regional magnetic breaks identified from the 2020 and 2021 aeromagnetic surveys were targeted for additional exploration in 2021. Surface sampling, prospecting, and IP surveys over aeromagnetic features successfully generated drill-ready targets in the K2, North Road, South Ring, and Sentinel areas and continue to be valuable exploration tools for the Max and Mt. Milligan greenfield programs.

12 Recommendations

Sampling of basal till using the Talon shallow-drilling system proved to be a suitable exploration technique for identifying these geochemical anomalies on the project, however the technique was not as cost effective relative to soil sampling due to brushing required for snowmobile access. Using till sample suitability and drift thickness maps developed in 2021, additional soil sampling programs, or potentially regional Talon till sampling in ATV accessible areas, should be planned for unexplored aeromagnetic targets. BLEG sampling of catchment basins throughout the area is also suggested to identify potential target areas for more focused surficial sampling, prospecting, and IP surveys.

Ground truthing and prospecting of geophysical anomalies identified in the 2021 aeromagnetic surveys is also recommended. Suggested targets include aeromagnetic 'doughnuts', as well as anomalies associated with inferred major fault zones. Additional follow-up on soil geochemical anomalies returned from the Sentinel grid is also suggested, including sample locations returning >3 ppm Mo, >30 ppb Au, or >100 ppm Cu. Investigation of an eastern chargeability high feature (L6400N) and completion of the remaining 22.4 line-km of IP survey is also advised for the Sentinel target. Based on high chargeability features coincident with aeromagnetic high doughnuts rimmed by destructive lows and favorable surface geochemistry results, drill testing is recommended or the North Road target, K2 Showing, and South Ring targets on the Max property. Oriented core in future drill programs would help define vein and mineralization trends, fault orientations, as well as contact angles and volcanic bedding dip and dip direction.

Deep resistivity high features underlying the Mount Milligan deposit, which were outlined from reprocessing of historical ZTEM data, were drilled in 2021 and found to host multiple potassic altered

stocks. To assess greenfield targets for porphyry potential and prioritize areas for ground IP and other focused studies, an airborne Mobile MT (MagnetoTellurics) survey for deep resistivity imaging (~1-1.5 km range at 200 m line spacing) is also recommended. The survey has been demonstrated to successfully identify porphyry systems by defining fault contacts and fault associated conductive zones, as well as highly resistive wedges of intrusions and potassic alteration zones. The highest priority areas for the MT survey include the entire Max property as well as the Fugro-2, KC, MN-1, Sentinel and Tex targets on the Mt. Milligan Greenfield claims.

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Appendix A - *Statement of Costs*

Appendix A - Cost Statement

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal***	
Ali Brown / Field Assistant	Sep 9, 12-13, 14	4	$375.00	$1,500.00	
Colin Cenaiko / Geologist	Jul 29; Aug 17, 19	3	$500.00	$1,500.00	
Dave Cox / Senior Geologist	Jun 16-17, 24	3	$700.00	$2,100.00	
Desmond Thomas / Field Assistant	June 5-9, 12-14; Jul 1-14, 30-31; Aug 1-2, 4-5, 27-31; Sep 2-3, 6	36	$375.00	$13,500.00	
Frazer Dyson / Junior Geologist	Jun 11; Jul 7; Aug 2, 4, 8, 9, 27-30; Sep 3, 6, 15	12	$450.00	$5,400.00	
John Tejada / Geologist	Jun 23, 26; Aug 13	3	$500.00	$1,500.00	
Spencer Purnell / Junior Geologist	Jun 17-20, 22, 24-27; Jul 15-16; Aug 13-14, 16-22; Sep 9, 12-15	26	$450.00	$11,700.00	
Stephanie Fogg / Junior Geologist	Jun 17-20, 22-26; Jul 15	10	$450.00	$4,500.00	
Taylor Cherkas / Junior Geologist	Jun 5-9, 11-16; Jul 1-14, 29-31 (half day); Aug 1-2, 5, 8-9 (half day), 31; Sep 1-3, 6	39	$450.00	$17,550.00	
Tyler Sam / Field Assistant	Jun 25-27 (half day); Aug 16-17, 20	7	$375.00	$2,625.00	
				$61,875.00	**$61,875.00**
Office Studies	**List Personnel (note - Office only, do not include field days**				
Literature search			$0.00	$0.00	
Database compilation	Geoff McMaster	3.0	$750.00	$2,250.00	
Computer modelling	Bonnie Spence	2.0	$750.00	$1,500.00	
Computer modelling	Cheyenne Sica	2.0	$750.00	$1,500.00	
Reprocessing of data	Palmer Environmental Consulting Group, Max Historical Geochem Review		$0.00	$5,853.49	
General research	Paul Jago	5.0	$900.00	$4,500.00	
General research	Cheyenne Sica	1.0	$900.00	$900.00	
Report preparation	Bonnie Spence	8.0	$750.00	$6,000.00	
Report preparation	Cheyenne Sica	0.5	$750.00	$375.00	
Report preparation	Geoff McMaster	3.0	$750.00	$2,250.00	
Till Sampling Suitability Map	Palmer Environmental Consulting Group, regional surficial and till sampling suitability map		$0.00	$6,237.00	
				$31,365.49	**$31,365.49**
Airborne Exploration Surveys	**Line Kilometres / Enter total invoiced amount**				
Aeromagnetics	Peter E. Walcott & Associates Geophysics, 1,546 line-km (Mar 24-30).	1546.0	$47.25	$73,048.50	
Radiometrics			$0.00	$0.00	
Electromagnetics			$0.00	$0.00	
Gravity			$0.00	$0.00	
Digital terrain modelling			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$73,048.50	**$73,048.50**
Remote Sensing	**Area in Hectares / Enter total invoiced amount or list personnel**				
Aerial photography			$0.00	$0.00	
LANDSAT			$0.00	$0.00	
LiDAR and Aerial Imagery	Eagle Mapping 37,600 ha (376 sq km) LiDAR/Imagery survey (Sep-Nov 2020)	376.0	$230.19	$86,550.00	
				$86,550.00	**$86,550.00**
Ground Exploration Surveys	**Area in Hectares/List Personnel**				
Geological mapping					
Regional		*note: expenditures here*			
Reconnaissance		*should be captured in Personnel*			
Prospect		*field expenditures above*			
Underground	Define by length and width				
Trenches	Define by length and width			$0.00	**$0.00**
Ground geophysics	**Line Kilometres / Enter total amount invoiced list personnel**				
IP	Peter E. Walcott & Associates Geophysics, 4 line-km (May 26-Jun 4, 2021), 8 line-km (Oct 24-Nov 1, 2021) and 10.6 line-km (Nov 2-24, 2021)	22.6	$17,126.74	$387,064.36	
				$387,064.36	**$387,064.36**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Talon Drill (till)	78 talon drill till samples	78.0	$24.07	$1,877.29	
Soil	*150 soil samples*	150.0	$24.75	$3,712.25	
Rock	*62 rock samples*	62.0	$32.99	$2,045.61	
Till (hand dug pit)	4 till samples from hand dug pit	4.0	$25.26	$101.05	
				$7,736.20	**$7,736.20**
Drilling	**No. of Holes, Size of Core and Metres**	**No.**	**Rate**	**Subtotal**	
Other (Talon, till)	Talon portable shallow drilling system collecting samples at 0.8-2.1 m depth. Phase 1 (Nov 9-17, 2021) 59 talon drill samples/sites; Phase 2 (Dec 9-13, 2021) 19 till samples and 6 rock samples collected from 20 talon drill sites.	79.0	$0.00	$199,389.59	
				$199,389.59	**$199,389.59**

Appendix A - Cost Statement

Exploration Work type	Comment	Days			Totals
Other Operations	**Clarify**	**No.**	**Rate**	**Subtotal**	
Trenching			$0.00	$0.00	
Bulk sampling			$0.00	$0.00	
Underground development			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Reclamation	**Clarify**	**No.**	**Rate**	**Subtotal**	
After drilling			$0.00	$0.00	
Monitoring			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
Transportation		**No.**	**Rate**	**Subtotal**	
truck rental	F-150 rental $1,600/month for 2 months	2.00	$1,600.00	$3,200.00	
Helicopter (hours) + Fuel	Yellowhead Helicopters, helicopter support for Ground IP surveys		$0.00	$80,835.71	
				$84,035.71	**$84,035.71**
Accommodation & Food	**Rates per day**				
Camp and Meals (day rate)	272 camp days @ $70 ((Palmer 3 people x 19 days = 57 days)+(Mincon 6 people x 12 days = 72)+(CGS 143 days)=272)	272.00	$70.00	$19,040.00	
				$19,040.00	**$19,040.00**
Miscellaneous					
Telephone			$0.00	$0.00	
Other (Specify)					
				$0.00	**$0.00**
Equipment Rentals					
Field Gear (Specify)			$0.00	$0.00	
Other (Specify)					
				$0.00	**$0.00**
Freight, rock samples					
			$0.00	$0.00	
			$0.00	$0.00	
				$0.00	**$0.00**
TOTAL Expenditures					**$950,104.85**

Appendix B - *Statement of Qualifications*

Statement of Author's Qualifications

I, Bonnie Spence, P.Geo. do hereby certify that:

1. I am currently employed as Superintendent, Exploration:

   Centerra Gold Services Inc.
   299 Victoria Street, Suite 200
   Prince George, BC V2L 5B8

2. I am a Registered Professional Geologist in good standing with Engineers & Geoscientists British Columbia.
   Licence # 44934

3. I graduated from the University of Alberta with a Bachelor of Science Degree with Specialization in Geology (with Distinction) from Edmonton, Alberta in 2009.

4. I have worked as a Geologist in the industry for a total of 13 years since my graduation from university.

5. I am not aware of any material fact or material change with respect to the subject matter of the Assessment Report and supporting Report Volumes, the omission to disclose which makes the Assessment Report misleading.

Dated 30th day of March, 2022.

Bonnie Spence, P.Geo.

Appendix B

Statement of Qualifications

Statement of Author's Qualifications

I, Cheyenne Sica, P.Geo. do hereby certify that:

1. I am currently employed as Exploration Manager, Brownfield – British Columbia by:

   Centerra Gold Services Inc.
   299 Victoria Street, Suite 200
   Prince George, BC V2L 5B8

2. I am a Registered Professional Geologist in good standing with the Association of Professional Geoscientists of Ontario.
   Registration # 3005

3. I am a Registered Professional Geologist in good standing with the Engineers and Geoscientists British Columbia.
   ID # 230355

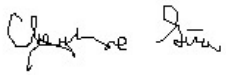
4. I graduated from Queen's University with a Bachelors of Science (Honours), Geological Sciences from Kingston, Ontario in 2010.

5. I graduated from the University of Toronto with a Masters of Science, Geology Earth Sciences from Toronto, Ontario in 2016.

6. I have worked as a Geologist in the industry for a total of 13+ years since my graduation from university.

7. I am not aware of any material fact or material change with respect to the subject matter of the Assessment Report and supporting Report Volumes, the omission to disclose which makes the Assessment Report misleading.

Dated 30th day of March, 2022.



Cheyenne Sica, P.Geo.

Appendix B

Statement of Qualifications

Statement of Author's Qualifications

I, Geoff McMaster, B. Sc do hereby certify that:

1. I am currently employed as GIS & Database Specialist by:

   Centerra Gold Services Inc.
   299 Victoria Street, Suite 200
   Prince George, BC V2L 5B8

2. I graduated from the University of British Columbia with a Bachelor of Science Degree, Chemistry in 2008.

3. I have worked in the mineral exploration and mining industry since 2007.

4. I last visited Mount Milligan project from September 27th to 30th 2021.

5. I contributed to the preparation of this Assessment Report. I am not aware of any material fact or material change with respect to the subject matter of the Assessment Report, the omission to disclose which makes the Assessment Report misleading.

Dated 28th day of March, 2022.

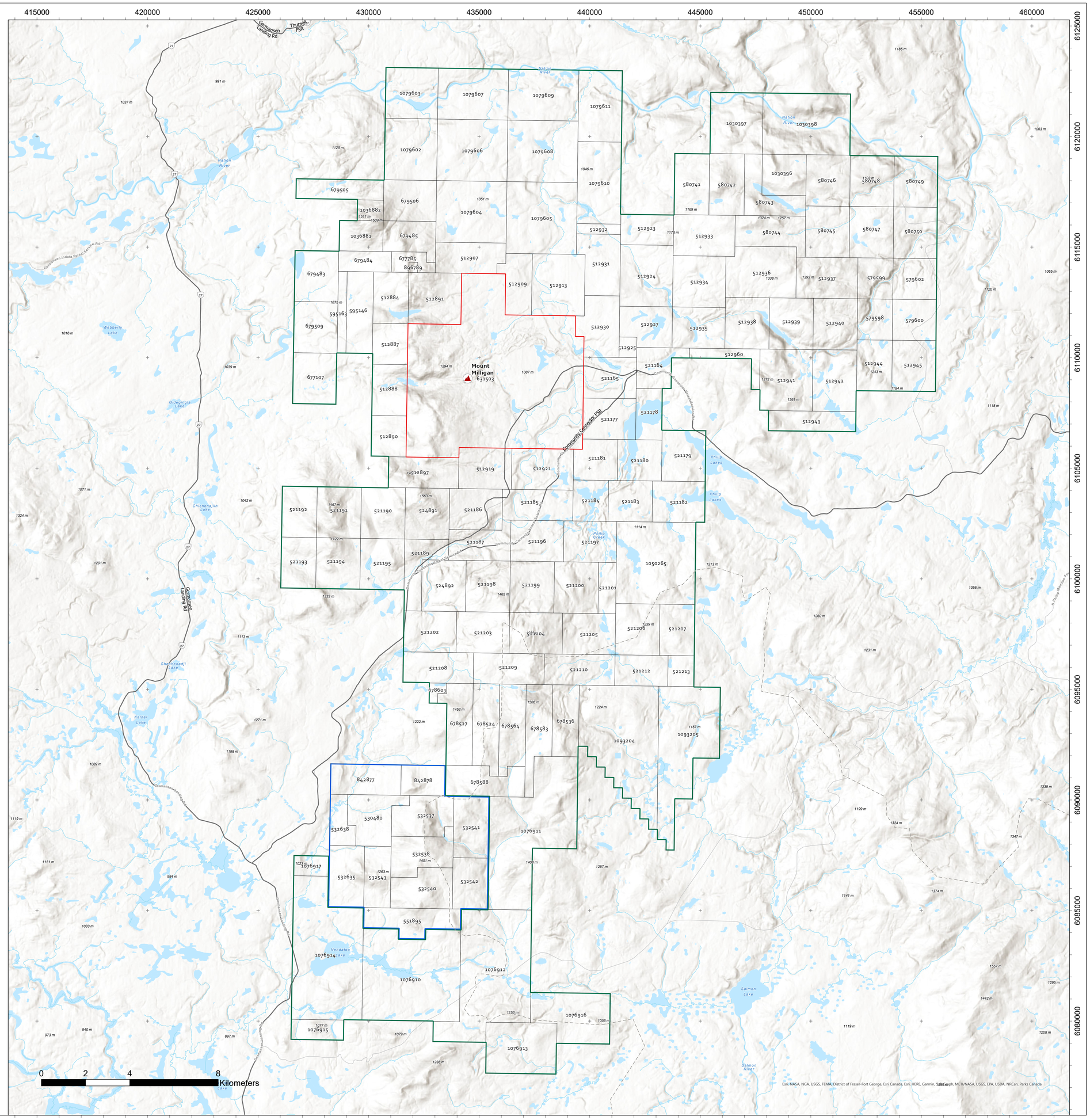
Geoff McMaster, B. Sc.

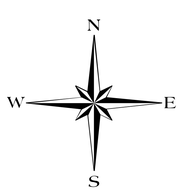
Appendix C - *Claim Map*

Mount Milligan - Max Mineral Claims

Legend

- Mineral Tenures
- Mount Milligan Mining Lease
- Jama Holdings Option Outline
- Thompson Creek Metals Claims OUtline
- Access Roads





Date: Wednesday, March 23, 2022

Scale: 1:60,000

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Appendix D - *Surface Sample Data*

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	SAMPLETYPE	Sampled_By	Sampled_Date	Site_Type	Site_ID	Site_Outcrop	Sample_Form	Sample_Horizon
D00155301	NAD83UTMZ10	432070.55	6088627.78	1234.7	ROCK	Taylor Cherkas	2021-06-05 19:10	subcrop	MAX001	OtherRock	grab	
D00155309	NAD83UTMZ10	429690.74	6086724.17	1252.9	ROCK	Taylor Cherkas	2021-06-07 23:22	outcrop	MAX005	OtherRock	grab	
D00155310	NAD83UTMZ10	432525.59	6087953.5	1341.4	ROCK	Taylor Cherkas	2021-06-08 21:31	subcrop	MAX006	None	grab	
D00155312	NAD83UTMZ10	432543.49	6087823.2	1285.0	ROCK	Taylor Cherkas	2021-06-08 22:04	outcrop	MAX007	OtherRock	grab	
D00155313	NAD83UTMZ10	429484.42	6086458.62	1107.8	ROCK	Taylor Cherkas	2021-06-11 16:30	subcrop	MAX008	OtherRock	grab	
D00155314	NAD83UTMZ10	429508.93	6086596.99	1183.1	ROCK	Taylor Cherkas	2021-06-11 17:19	outcrop	MAX009	OtherRock	grab	
D00155315	NAD83UTMZ10	429614.2	6086714.42	1214.5	ROCK	Taylor Cherkas	2021-06-11 19:41	subcrop	MAX010	OtherRock	grab	
D00155316	NAD83UTMZ10	429593.74	6086806.93	1225.3	ROCK	Taylor Cherkas	2021-06-11 20:09	subcrop	MAX011	OtherRock	grab	
D00155317	NAD83UTMZ10	429607.74	6086861.25	1194.2	ROCK	Taylor Cherkas	2021-06-11 20:51	subcrop	MAX012	OtherRock	grab	
D00155318	NAD83UTMZ10	429702.5	6086765.72	1223.6	ROCK	Taylor Cherkas	2021-06-11 21:23	subcrop	MAX013	OtherRock	grab	
D00155319	NAD83UTMZ10	429814.47	6086595.35	1225.9	ROCK	Taylor Cherkas	2021-06-11 21:49	subcrop	MAX014	OtherRock	grab	
D00155321	NAD83UTMZ10	429500.57	6086649.8	1186.8	ROCK	Taylor Cherkas	2021-06-11 22:24	float	MAX015	OtherRock	grab	
D00155322	NAD83UTMZ10	429490.97	6086657	1189.7	ROCK	Taylor Cherkas	2021-06-11 22:34	float	MAX015	OtherRock	grab	
D00155401	NAD83UTMZ10	432797.72	6087478.07	1364.0	ROCK	Spencer Purnell	2021-06-22 17:40	subcrop	MAX016	DIOR	grab	
D00155402	NAD83UTMZ10	432793.37	6087476.46	1344.1	ROCK	Spencer Purnell	2021-06-22 17:50	outcrop	MAX017	DIOR	grab	
D00155403	NAD83UTMZ10	432787.93	6087501.23	1323.2	ROCK	Spencer Purnell	2021-06-22 18:08	subcrop	MAX018	DIOR	grab	
D00155404	NAD83UTMZ10	432161.39	6087837.17	1317.7	ROCK	Spencer Purnell	2021-06-22 19:18	outcrop	MAX019	OtherRock	grab	
D00155407	NAD83UTMZ10	432588.41	6085644.64	1274.2	ROCK	John Tejada	2021-06-23 19:16	subcrop	MAX021	DIOR	grab	
D00155408	NAD83UTMZ10	432432.75	6086754.01	1328.0	ROCK	John Tejada	2021-06-23 21:16	outcrop	MAX022	ANDS	grab	
MAX21TD-062	NAD83UTMZ10	432739.85	6087569.54	1363.0	ROCK	Lindsay Nelson	2021-12-09 21:51	float		felsic intrusive	grab	C
MAX21TD-063	NAD83UTMZ10	432999.33	6087297.21	1322.9	ROCK	Lindsay Nelson	2021-12-10 18:51	subcrop		Unknown	chips	C
MAX21TD-065	NAD83UTMZ10	433271.96	6086948.38	1297.4	ROCK	Lindsay Nelson	2021-12-11 18:03	float		Unknown	chips	C
MAX21TD-066	NAD83UTMZ10	433060.25	6087217.42	1300.7	ROCK	Lindsay Nelson	2021-12-11 20:10	float		Unknown	chips	C
MAX21TD-069	NAD83UTMZ10	432819.31	6087507.13	1343.8	ROCK	Lindsay Nelson	2021-12-11 22:50	float		Unknown	chips	C
MAX21TD-074	NAD83UTMZ10	432471.97	6087896.51	1368.8	ROCK	Lindsay Nelson	2021-12-12 20:02	subcrop		Chlorite altered felsic intrusive	chips	C
D00155330	NAD83UTMZ10	438581	6097619	1313.0	ROCK	Stephanie Fogg	2021-06-18 1:10	float		ANDS	grab	
D00155331	NAD83UTMZ10	439831.11	6097624.63	1126.6	ROCK	Spencer Purnell	2021-06-17 23:39	outcrop		OtherRock	grab	
D00155426	NAD83UTMZ10	438655.18	6097208.83	1243.1	ROCK	Spencer Purnell	2021-06-26 19:04	outcrop	Sen189	APFW	grab	
D00155440	NAD83UTMZ10	436399.42	6099601.22	1335.3	ROCK	Spencer Purnell	2021-06-29 3:52	outcrop	Sen190	ANDS	grab	
D00155460	NAD83UTMZ10	435865.15	6099215.11	1452.4	ROCK	Taylor Cherkas	2021-07-09 8:36	outcrop	SEN192	VN	grab	
D00155461	NAD83UTMZ10	435830.5	6099183.89	1464.7	ROCK	Taylor Cherkas	2021-07-09 9:25	outcrop	SEN147	ANDS	grab	
D00155468	NAD83UTMZ10	435987.97	6099344.16	1380.5	ROCK	Stephanie Fogg	2021-07-15 18:10	subcrop	Sen193	ANDS	grab	
D00155469	NAD83UTMZ10	435994.91	6099221.97	1424.1	ROCK	Spencer Purnell	2021-07-15 19:14	outcrop	Sen194	ANDS	grab	
D00155470	NAD83UTMZ10	435867.45	6099234	1458.5	ROCK	Stephanie Fogg	2021-07-15 20:26	outcrop	Sen195	ANDS	grab	
D00155471	NAD83UTMZ10	435874.44	6099239.28	1461.3	ROCK	Stephanie Fogg	2021-07-15 20:55	outcrop	Sen196	APFW	chips	
D00155475	NAD83UTMZ10	436408.94	6096809.5	1408.3	ROCK	Frazer Dyson	2021-08-04 19:18	outcrop	SEN047	ANDS	grab	
D00155484	NAD83UTMZ10	437149.57	6097049.78	1529.5	ROCK	Taylor Cherkas	2021-08-08 20:20	outcrop	SEN197	ANDS	grab	
D00155486	NAD83UTMZ10	436323.12	6098735.39	1418.8	ROCK	Spencer Purnell	2021-08-13 17:53	outcrop	sen198	ANDS	grab	
D00155487	NAD83UTMZ10	436218.48	6098780.93	1422.9	ROCK	John Tejada	2021-08-13 18:12	outcrop	sen199	ANDS	grab	
D00155508	NAD83UTMZ10	437536.33	6098650.55	1393.3	ROCK	Spencer Purnell	2021-08-17 16:46	subcrop	SEN200	HMZP	grab	
D00155514	NAD83UTMZ10	436799.32	6098202.34	1394.4	ROCK	Spencer Purnell	2021-08-17 19:52	float	SEN201	OtherRock	grab	
D00155515	NAD83UTMZ10	436802.51	6098027.61	1469.7	ROCK	Colin Cenaiko	2021-08-17 20:44	subcrop	SEN105	ANDS	grab	
D00155518	NAD83UTMZ10	436404.03	6098254.06	1442.7	ROCK	Colin Cenaiko	2021-08-19 17:57	subcrop	SEN202	ANDS	grab	
D00155519	NAD83UTMZ10	436414.28	6098230.11	1440.4	ROCK	Spencer Purnell	2021-08-19 18:32	outcrop	SEN203	ANDS	grab	
D00155523	NAD83UTMZ10	436023.55	6097957.72	1386.2	ROCK	Spencer Purnell	2021-08-19 20:45	outcrop	SEN204	ANDS	grab	
D00155524	NAD83UTMZ10	436000.57	6098040.48	1422.2	ROCK	Spencer Purnell	2021-08-19 21:21	outcrop	SEN205	ANDS	grab	

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Station_UTM_Source	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	Ga_ppm
D00155301	Mobile GPS	100	8.56	3	29		1268	0.5	0.2	7.36	0.2	21	23.8	22	56.9	7.26	
D00155309	Mobile GPS	200	8.32	6	21		1243	0.5	0.2	6.32	0.3	18	32.4	96	132.5	7.15	
D00155310	Mobile GPS	400	8.17	3	23		381	0.5	0.05	9.07	0.2	10	45.6	40	262.6	9.69	
D00155312	Mobile GPS	50	7.44	18	17		469	0.5	0.05	6.96	0.05	14	29.6	162	85.3	6.79	
D00155313	Mobile GPS	50	8.22	12	16		502	0.5	0.05	6.33	0.05	20	33.1	85	108.8	7.02	
D00155314	Mobile GPS	100	8.6	7	9		922	0.5	0.05	7.74	0.05	15	38.6	48	126.1	7.04	
D00155315	Mobile GPS	100	9.77	2	25		1317	1	0.05	5.12	0.1	16	20.6	11	141.3	5.59	
D00155316	Mobile GPS	50	8.95	4	7		1278	0.5	0.05	6.18	0.05	23	30.5	35	82.6	6.84	
D00155317	Mobile GPS	50	8.99	4	2.5		968	1	0.05	5.05	0.05	22	21.3	7	37.4	6.31	
D00155318	Mobile GPS	50	9.01	5	2.5		1172	0.5	0.05	5.46	0.05	20	25.2	22	83.7	6.54	
D00155319	Mobile GPS	50	8.37	1	7		1037	0.5	0.05	6.69	0.05	19	29.6	76	67	6.87	
D00155321	Mobile GPS	21900	1.34	72	19		574	0.5	0.3	0.85	2.7	8	5.2	15	3029.5	2.34	
D00155322	Mobile GPS	1900	3.94	9	7		1101	0.5	0.05	0.73	0.2	8	10.8	58	1572.2	2.66	
D00155401	Mobile GPS	50	8.02	6	6		138	0.5	0.05	10.34	0.3	4	28.8	80	71.2	9.56	
D00155402	Mobile GPS	200	6.98	7	2.5		211	0.5	0.05	9.54	0.2	5	36.5	150	103.9	9.09	
D00155403	Mobile GPS	200	8.9	4	9		1351	1	0.05	4.67	0.05	20	29.4	8	161.7	7.19	
D00155404	Mobile GPS	50	7.26	3	2.5		563	0.5	0.05	8.35	0.1	18	29.4	163	35.2	7.47	
D00155407	Mobile GPS	500	9.13	23	12		219	0.5	0.05	10.89	0.1	10	17.6	6	97.6	9.52	
D00155408	Mobile GPS	200	8.28	11	30		43	0.5	0.05	4.51	0.05	16	25.8	20	32.3	8.05	
MAX21TD-062	Mobile GPS	398	2.11	8.2	22.1	6	64.7	0.3	0.07	1.7	0.15	4.2	26.9	19.4	287.98	5.01	6.3
MAX21TD-063	Mobile GPS	145	2.14	5.9	3.7	4	19.2	0.2	0.02	1.76	0.31	5.5	21.3	75.6	243.84	3.58	7
MAX21TD-065	Mobile GPS	206	2.23	6.8	23.8	3	50.9	0.3	0.01	1.43	0.14	10.9	32.6	49.4	191.71	4.83	8.4
MAX21TD-066	Mobile GPS	34	3.12	5.4	5.8	4	37.7	0.6	0.03	1.51	0.23	4.9	30.4	128.1	166.37	4.78	7.9
MAX21TD-069	Mobile GPS	116	2.26	7	12.4	4	143.2	0.2	0.01	1.37	0.07	4.1	21.4	73.1	125.99	5.28	6.6
MAX21TD-074	Mobile GPS	145	3.11	3.6	4.9	1	50.3	0.6	0.03	1.55	0.6	13.8	54	63.7	339.8	6.36	10.6
D00155330	Mobile GPS	50	8.07	4	5		737	0.5	0.05	6.19	0.1	13	33.4	177	89	6.9	
D00155331	Mobile GPS	50	8.1	3	2.5		338	0.5	0.05	6.6	0.2	11	43.2	255	126.1	7.56	
D00155426	Mobile GPS	50	8.47	1	8		2188	0.5	0.05	3.32	0.05	10	23.7	52	11.2	4.12	
D00155440	Mobile GPS	50	8.2	2	2.5		802	0.5	0.05	7.57	0.1	14	36.6	111	99.2	6.98	
D00155460	Mobile GPS	100	0.73	2	129		70	0.5	0.05	0.02	0.05	1	4.6	8	97.5	1.06	
D00155461	Mobile GPS	50	8.56	5	6		717	0.5	0.05	6.82	0.2	15	25.7	50	84.4	5.52	
D00155468	Mobile GPS	50	0.12	1	32		10	0.5	0.05	0.01	0.05	0.5	0.9	3	10.6	0.45	
D00155469	Mobile GPS	50	8.54	4	8		1104	0.5	0.05	5.16	0.1	18	32.6	39	111.9	6.68	
D00155470	Mobile GPS	50	5.9	7	10		593	0.5	0.05	4.63	0.05	13	21.2	21	82.2	4.79	
D00155471	Mobile GPS	50	8.39	7	2.5		821	0.5	0.05	7.44	0.05	17	30.7	31	97.6	6.92	
D00155475	Mobile GPS	50	7.71	4	11		804	0.5	0.05	6.12	0.05	15	33.5	65	94.1	6.82	
D00155484	Mobile GPS	50	8.17	11	12		989	0.5	0.05	5.98	0.05	19	13.1	84	32.6	5.4	
D00155486	Mobile GPS	50	8.31	6	9		1443	0.5	0.05	4.34	0.05	18	32.2	25	117.3	6.98	
D00155487	Mobile GPS	50	6.34	4	6		557	11	0.05	7.39	0.4	7	10.5	54	4.2	3.89	
D00155508	Mobile GPS	50	8.8	2	11		1775	0.5	0.05	2.81	0.1	17	15	16	39	4.13	
D00155514	Mobile GPS	50	4.45	0.5	7		165	0.5	0.05	6.92	0.1	13	34	347	119.6	5.32	
D00155515	Mobile GPS	100	6.62	5	17		1262	0.5	0.05	6.16	0.1	19	44.1	346	87.4	6.8	
D00155518	Mobile GPS	50	6.88	6	6		918	1	0.05	7.47	0.05	12	23.4	54	57.4	5.33	
D00155519	Mobile GPS	50	8.11	7	10		434	1	0.05	6.89	0.05	16	32.7	84	57.8	6.32	
D00155523	Mobile GPS	50	8.06	2	19		1232	0.5	0.05	5.12	0.05	18	27.7	37	107.5	6.11	
D00155524	Mobile GPS	100	8.19	5	8		26	0.5	0.05	3.95	0.2	19	19.5	48	57.3	6.6	

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Ge_ppm	Hf_ppm	Hg_ppb	In_ppm	K_pct	La_ppm	Li_ppm	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pb_ppm	Pd_ppm	Pt_gpt	Rb_ppm
D00155301		1.2		0.06	2.91	10.8	13.7	2.73	1626	1.8	1.878	3.1	13.3	0.153	7.4			62.1
D00155309		1.2		0.025	2.49	9.1	19.4	3.2	1445	0.9	2.158	3.7	26.6	0.15	6.9			56.3
D00155310		0.7		0.05	0.92	5	13.9	4.13	1805	0.4	0.845	0.9	22.4	0.15	3.9			29.7
D00155312		0.5		0.025	1.26	7.6	27.1	4.36	1434	1.9	2.366	2.7	51.6	0.115	2.8			42.2
D00155313		1.4		0.025	1.88	10.4	8	3.27	1276	1.6	2.671	4.2	29.5	0.16	1.9			72.2
D00155314		1.1		0.025	1.33	7.9	11.4	3.28	1504	0.8	2.114	2.7	20.6	0.127	5.7			22.9
D00155315		0.8		0.025	3.95	7.8	10.1	1.44	1148	3.3	2.536	4.6	7.8	0.191	5.2			65.2
D00155316		1.5		0.025	1.77	11	11.9	2.99	1489	0.7	2.704	5.6	18.5	0.152	2.3			52.6
D00155317		1.4		0.025	1.64	10.6	10.9	2.13	1387	0.7	3.289	6.7	7.7	0.164	2.5			28
D00155318		1		0.025	1.89	10.4	25.4	1.98	1255	0.6	3.269	4.4	12.8	0.176	3.3			33.5
D00155319		1.3		0.025	2.59	10.2	5.4	3.14	1365	1.6	1.703	3.6	19.5	0.14	2.9			75.9
D00155321		0.05		0.025	0.6	5.1	69.3	0.27	284	1.3	0.03	0.05	4.8	0.016	3.3			19.3
D00155322		0.4		0.025	1.64	5.5	58.3	0.4	366	1	0.606	1.8	14.6	0.032	3.5			58.9
D00155401		0.6		0.025	0.54	1.6	17.5	4.56	1558	0.4	0.194	0.6	17.2	0.015	6.3			19.9
D00155402		0.6		0.025	0.58	1.8	20.8	5.6	1633	0.4	0.573	0.4	40.3	0.015	2.8			22.6
D00155403		1.5		0.025	3.22	10.2	10.5	2.19	1742	1.9	2.567	5.6	8.4	0.186	4.9			68.7
D00155404		1		0.07	0.82	9	11.7	4.1	1901	0.7	2.261	2.8	52.3	0.158	3.9			23.1
D00155407		0.8		0.05	0.32	5.7	7.7	2.54	1600	4.5	0.736	2.6	12.8	0.103	14.9			6.7
D00155408		0.6		0.025	2.61	7.7	8.3	2.27	1234	12.3	2.46	2.7	12.9	0.133	10.4			58
MAX21TD-062	0.05	0.09	11	0.01	0.22	2	15.2	1.26	594	0.85	0.052	0.07	16.4	0.078	1.7	0.128	0.019	7
MAX21TD-063	0.1	0.14	15	0.01	0.05	2.5	13.7	1.59	443	1.37	0.087	0.38	16.6	0.135	2	0.018	0.005	2.1
MAX21TD-065	0.1	0.12	6	0.01	0.14	5.6	14.2	1.55	842	2.18	0.07	0.29	17.2	0.132	3.9	0.005	0.005	5.8
MAX21TD-066	0.05	0.08	9	0.01	0.31	2.3	34.5	2.71	780	1.09	0.038	0.15	34.4	0.078	1.5	0.005	0.004	20.8
MAX21TD-069	0.05	0.1	7	0.01	0.16	1.8	17.1	1.61	781	0.71	0.049	0.03	21.2	0.108	1.5	0.005	0.006	5.6
MAX21TD-074	0.05	0.24	2.5	0.03	0.09	7.4	16.9	2.68	1000	2.8	0.088	0.1	25.2	0.125	1.1	0.005	0.004	3.7
D00155330		1.1		0.025	1.53	6.1	22.9	4.63	1195	0.5	1.884	2.4	73	0.119	4			38.3
D00155331		0.5		0.06	0.88	5.1	13.8	4.57	1716	0.9	2.304	2.2	103.8	0.105	6.6			24.9
D00155426		0.3		0.025	2.93	5	13	1.4	831	0.7	3.418	1.3	19.5	0.139	17.9			78.2
D00155440		1		0.025	1.02	6.5	11	3.35	1454	0.8	2.641	2.6	50.4	0.136	5.1			18.6
D00155460		0.05		0.025	0.3	0.8	2.6	0.19	56	1	0.021	0.2	7.2	0.005	3			8.8
D00155461		1		0.025	1.34	7	15.1	2.11	1248	0.9	3.855	2.7	20.8	0.119	4.2			27.3
D00155468		0.05		0.025	0.05	0.1	1.3	0.03	35	0.9	0.008	0.05	2.1	0.002	0.9			1.7
D00155469		1.2		0.05	1.93	9	16.6	3.29	1239	0.8	3.243	3.3	25.6	0.159	4			35.5
D00155470		0.8		0.025	0.85	6.5	12.1	1.92	1002	0.9	2.009	2.4	16.2	0.12	3.6			16.1
D00155471		1.2		0.025	1.16	8.3	10.9	3.08	1446	0.7	2.791	3.2	22.7	0.154	4.8			18.5
D00155475		1.3		0.025	1.3	6.4	11.2	3.25	1396	1	1.916	3	31.1	0.089	3.7			31.8
D00155484		1.1		0.06	2.53	9.1	8.4	2.28	686	0.6	2.686	4.2	27.4	0.132	4.8			46.2
D00155486		1.3		0.025	2.69	8	18.6	3.45	1290	0.2	2.467	3.5	22.3	0.166	3.8			35
D00155487		0.5		0.025	0.91	3.6	1.5	1.15	4042	0.2	1.032	1.5	17.3	0.056	6.3			16.9
D00155508		1.7		0.025	5.42	7.6	3.8	1.34	861	0.1	3.133	4.9	10.9	0.138	6.9			108.7
D00155514		0.2		0.025	0.75	6	22	5.46	1166	0.2	0.017	1	146.7	0.045	2.9			23.6
D00155515		1		0.025	1.46	8.5	21.9	6.04	1581	0.4	1.527	4.1	140.2	0.118	3.8			30.3
D00155518		0.8		0.025	1.56	5.6	8.9	2.68	1490	0.2	1.583	2	27.4	0.105	6.5			30.5
D00155519		1.4		0.025	1.19	7.2	10.5	3.18	1322	0.4	2.686	3	37.8	0.17	6.6			21.1
D00155523		1		0.06	2.59	8.5	9.3	2.71	1259	0.4	2.904	3.2	21	0.157	4.9			38.8
D00155524		1.3		0.07	2.08	9	10.4	2.31	956	2.3	3.403	4.2	10.7	0.167	4.8			42.8

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm
D00155301	0.003	0.1	2.1	29	0.5	0.8	773	0.2	0.25	1.7	0.529	0.25	0.8	343	1.2	16.4	72	26.2
D00155309	0.003	0.05	1.6	25	0.5	0.6	665	0.2	0.25	1.5	0.499	0.25	0.9	284	0.5	14.8	107	34.3
D00155310	0.003	0.05	0.9	33	0.5	0.5	687	0.05	0.25	0.3	0.639	0.25	0.1	455	0.4	13.7	80	17
D00155312	0.003	0.9	2.9	36	2	0.6	576	0.2	0.25	1.6	0.473	0.25	0.8	309	0.7	13.7	52	10.5
D00155313	0.003	0.05	1.5	25	0.5	0.7	652	0.2	0.25	1.7	0.502	0.25	0.9	286	0.9	15.5	38	45.2
D00155314	0.003	0.1	1.2	31	0.5	0.6	894	0.2	0.25	1.5	0.537	0.25	0.6	334	0.3	14.7	76	29.4
D00155315	0.016	0.3	0.3	10	0.5	0.7	885	0.3	0.25	1.6	0.442	0.25	0.8	182	0.4	13.5	62	20.2
D00155316	0.003	0.05	0.7	25	0.5	0.8	721	0.4	0.25	1.5	0.644	0.25	0.8	308	0.7	18.4	82	37.3
D00155317	0.003	0.05	0.5	16	0.5	0.9	743	0.4	0.25	1.3	0.624	0.25	0.7	242	0.5	18.6	76	44.4
D00155318	0.003	0.05	0.7	14	0.5	0.7	806	0.3	0.25	1.8	0.495	0.25	1.1	257	0.6	14.4	80	26.2
D00155319	0.003	0.05	0.3	23	0.5	0.5	657	0.2	0.25	1.7	0.475	0.25	1.1	294	0.4	15.1	74	42.5
D00155321	0.003	0.2	194.2	4	2	0.1	72	0.05	0.25	0.2	0.063	0.25	0.3	134	0.05	1.7	185	3.4
D00155322	0.003	0.1	25	8	0.5	0.4	88	0.1	0.25	0.6	0.245	0.25	0.4	146	0.8	3.3	41	13.6
D00155401	0.003	0.05	3.8	40	0.5	0.4	1141	0.05	0.25	0.1	0.577	0.25	0.05	642	0.4	7.8	65	11.8
D00155402	0.003	0.1	2.6	41	0.5	0.3	691	0.05	0.25	0.05	0.449	0.25	0.05	419	0.2	9.8	73	13.2
D00155403	0.003	0.05	1	16	0.5	0.7	624	0.3	0.25	2.1	0.44	0.25	0.9	278	0.4	17.3	91	48.8
D00155404	0.003	0.05	3.1	39	0.5	0.6	781	0.2	0.25	1.4	0.528	0.25	0.8	357	1.1	15.9	83	24.7
D00155407	0.003	0.1	4.2	21	0.5	1	1423	0.1	0.25	0.7	0.666	0.25	0.5	593	1.6	10.1	73	21.7
D00155408	0.003	4.8	2.6	22	4	0.9	538	0.2	0.25	1.4	0.413	0.25	0.7	317	0.7	13.8	55	15.6
MAX21TD-062	0.001	0.04	1.98	4.8	0.2	0.2	177.7	0.03	0.46	0.4	0.162	0.02	0.2	201	0.3	4.2	45	2.5
MAX21TD-063	0.001	0.01	0.71	5.8	0.2	0.3	227.5	0.03	0.03	0.4	0.193	0.01	0.2	118	0.5	5.9	35	3.9
MAX21TD-065	0.001	0.01	1.13	6.2	0.3	0.5	199	0.03	0.14	1.2	0.21	0.03	0.6	148	0.4	8.1	85	2.9
MAX21TD-066	0.001	0.01	0.53	8	0.2	0.2	176.8	0.03	0.06	0.5	0.205	0.16	0.2	173	0.2	5.1	68	2.3
MAX21TD-069	0.001	0.01	0.88	7.7	0.05	0.2	235.9	0.03	0.1	0.2	0.221	0.04	0.05	206	0.5	5.1	38	2.4
MAX21TD-074	0.001	0.08	0.24	12.6	0.3	0.3	155.6	0.03	0.04	1.2	0.21	0.03	0.5	184	0.7	8.7	130	9.6
D00155330	0.003	0.05	3	32	0.5	0.6	803	0.1	0.25	0.9	0.514	0.25	0.4	269	0.7	14.2	58	31.1
D00155331	0.003	0.05	1.2	36	0.5	1	429	0.2	0.25	0.8	0.464	0.25	0.4	278	0.3	14	86	12.3
D00155426	0.003	0.2	1.6	16	0.5	0.4	280	0.05	0.25	0.8	0.119	0.25	0.4	166	0.3	7.6	38	10.8
D00155440	0.003	0.1	0.3	36	0.5	0.6	588	0.2	0.25	0.9	0.467	0.25	0.4	309	0.2	14.1	82	33
D00155460	0.003	0.05	2	2	0.5	0.1	9	0.05	0.25	0.1	0.029	0.25	0.05	23	0.4	0.5	12	1.5
D00155461	0.003	0.05	0.6	25	0.5	0.6	797	0.2	0.25	1.2	0.414	0.25	0.7	265	0.6	13.5	63	30.9
D00155468	0.003	0.05	1.5	0.5	0.5	0.05	3	0.05	0.25	0.05	0.004	0.25	0.05	5	0.2	0.1	4	0.2
D00155469	0.003	0.05	0.3	27	0.5	0.7	595	0.2	0.25	1.2	0.529	0.25	0.6	328	0.4	14.2	79	33.3
D00155470	0.003	0.05	25.2	19	0.5	0.5	860	0.1	0.25	0.9	0.371	0.25	0.3	289	0.3	10	58	19.7
D00155471	0.003	0.05	2.3	29	0.5	0.7	993	0.2	0.25	1.2	0.56	0.25	0.5	360	0.2	14.7	75	32.2
D00155475	0.003	0.1	1.3	31	0.5	0.5	549	0.2	0.25	1.1	0.683	0.25	0.6	322	1.1	18.1	78	33.8
D00155484	0.003	0.05	5.5	25	0.5	0.6	1167	0.2	0.7	1.3	0.536	0.25	0.7	279	0.3	16.9	39	43.8
D00155486	0.003	0.05	1.2	27	0.5	0.6	708	0.2	0.25	1.2	0.553	0.25	0.5	340	0.3	14.6	93	34.1
D00155487	0.003	0.05	2.2	8	0.5	0.05	1224	0.05	0.25	0.8	0.169	0.25	0.3	223	0.05	5.5	127	14.8
D00155508	0.003	0.05	0.3	11	0.5	0.4	489	0.4	0.25	1.4	0.355	0.5	0.6	165	0.5	14.3	63	58.5
D00155514	0.003	0.05	1.4	29	0.5	0.05	463	0.05	2.2	0.7	0.129	0.25	0.2	196	1	6.9	71	4.3
D00155515	0.003	0.05	1.7	35	0.5	0.3	391	0.3	0.8	1.1	0.48	0.25	0.6	268	0.2	14.9	91	29.4
D00155518	0.003	0.05	1.8	27	0.5	0.3	1005	0.1	0.9	0.9	0.379	0.25	0.4	285	0.2	12.8	60	21.5
D00155519	0.003	0.05	0.7	27	0.5	0.5	649	0.2	0.6	0.8	0.476	0.25	0.5	254	0.3	17	74	40.8
D00155523	0.003	0.05	0.9	25	0.5	0.5	638	0.2	0.25	1.4	0.499	0.25	0.9	292	0.1	16.2	76	29.8
D00155524	0.008	2.9	0.8	27	0.5	0.6	589	0.2	0.25	1.6	0.575	0.25	0.9	312	0.5	15.3	143	34.2

SAMPLEID	Samp_AssayMethod_D	Samp_Dispatch_D	Samp_LabJob_D
D00155301	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155309	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155310	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155312	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155313	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155314	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155315	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155316	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155317	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155318	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155319	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155321	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155322	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155401	FA430,MA200,WGHT	MAX21-Rock_01	VAN21001653
D00155402	FA430,MA200,WGHT	MAX21-Rock_01	VAN21001653
D00155403	FA430,MA200,WGHT	MAX21-Rock_01	VAN21001653
D00155404	FA430,MA200,WGHT	MAX21-Rock_01	VAN21001653
D00155407	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
D00155408	FA430,MA200,pXRF,WGHT	MAX21-Rock_01	VAN21001653
MAX21TD-062	AQ252-EXT,WGHT	MAX21-Rock_02	VAN22000035
MAX21TD-063	AQ252-EXT,WGHT	MAX21-Rock_02	VAN22000035
MAX21TD-065	AQ252-EXT,WGHT	MAX21-Rock_02	VAN22000035
MAX21TD-066	AQ252-EXT,WGHT	MAX21-Rock_02	VAN22000035
MAX21TD-069	AQ252-EXT,WGHT	MAX21-Rock_02	VAN22000035
MAX21TD-074	AQ252-EXT,WGHT	MAX21-Rock_02	VAN22000035
D00155330	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155331	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155426	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155440	FA430,MA200,pXRF,WGHT	MTM21-Rock_01	VAN21001994
D00155460	FA430,MA200,pXRF,WGHT	MTM21-Rock_01	VAN21001994
D00155461	FA430,MA200,pXRF,WGHT	MTM21-Rock_01	VAN21001994
D00155468	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155469	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155470	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155471	FA430,MA200,WGHT	MTM21-Rock_01	VAN21001994
D00155475	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155484	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155486	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155487	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155508	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155514	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155515	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155518	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155519	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155523	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673
D00155524	FA430,MA200,pXRF,WGHT	MTM21-Rock_02	VAN21002673

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	SAMPLETYPE	Sampled_By	Sampled_Date	Site_Type	Site_ID	Site_Outcrop	Sample_Form	Sample_Horizon
D00155531	NAD83UTMZ10	437169.52	6095610.7	1405.1	ROCK	Frazer Dyson	2021-08-27 10:38	float	SEN011	ANLT	grab	
D00155532	NAD83UTMZ10	437389.24	6095584.73	1379.4	ROCK	Frazer Dyson	2021-08-27 11:27	subcrop	SEN012	APFW	grab	
D00155537	NAD83UTMZ10	437189.6	6096394.24	1379.5	ROCK	Frazer Dyson	2021-08-29 12:18	float	SEN037	ANLT	grab	
D00155541	NAD83UTMZ10	439213.77	6099216.71	1265.3	ROCK	Frazer Dyson	2021-08-30 6:33	subcrop	SEN161	ANLT	grab	
D00155558	NAD83UTMZ10	437139.01	6097208.52	1546.5	ROCK	Frazer Dyson	2021-09-03 6:48	outcrop	SEN206	ANDS	grab	
D00155559	NAD83UTMZ10	437117.13	6097266.89	1555.9	ROCK	Taylor Cherkas	2021-09-03 7:45	outcrop	SEN207	HMZP	grab	
D00155561	NAD83UTMZ10	437064.17	6097358.71	1575.8	ROCK	Taylor Cherkas	2021-09-03 9:09	outcrop	SEN208	ANDS	grab	
D00155578	NAD83UTMZ10	436205.55	6097345.06	1416.3	ROCK	Spencer Purnell	2021-09-24 9:53	outcrop	SEN062	ANDS	grab	

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Station_UTM_Source	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	Ga_ppm
D00155531	Mobile GPS	50	8.12	5	6		622	0.5	0.05	6.13	0.2	10	44.3	363	88.8	7.4	
D00155532	Mobile GPS	50	7.77	2	16		628	0.5	0.05	6.19	0.1	11	41.6	248	80.3	7.72	
D00155537	Mobile GPS	50	9.32	4	5		1321	2	0.05	2.43	0.05	35	4.8	9	47.3	2.97	
D00155541	Mobile GPS	200	7.29	9	11		30	1	0.05	4.66	0.8	16	47.3	295	106.3	8.83	
D00155558	Mobile GPS	50	4.34	4	2.5		709	0.5	0.05	4.54	0.1	7	22.9	109	41.5	4.52	
D00155559	Mobile GPS	50	9.16	5	7		599	0.5	0.05	3.17	0.1	21	15.7	30	44.3	4.17	
D00155561	Mobile GPS	50	8.87	10	6		1614	0.5	0.05	5.69	0.1	20	41.2	47	117.6	8.7	
D00155578	Mobile GPS	50	8.61	2	7		751	0.5	0.05	6.42	0.2	16	33.3	65	111.6	7.25	

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Ge_ppm	Hf_ppm	Hg_ppb	In_ppm	K_pct	La_ppm	Li_ppm	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pb_ppm	Pd_ppm	Pt_gpt	Rb_ppm
D00155531		0.9	20	0.025	2.08	4.7	25.3	6.27	1442	2.2	1.915	2.1	152.7	0.107	2.7			46.4
D00155532		1	20	0.025	1.88	5.6	31.7	6.41	1412	1.9	1.695	3.1	142.8	0.128	3			32.4
D00155537		2.7	5	0.025	3.76	19.3	7.3	0.58	387	2.6	4.017	18.8	4.4	0.065	3.6			90.3
D00155541		0.7	30	0.05	2.05	7.4	29.4	6.6	1859	2.9	1.459	4	115.3	0.146	11.1			63.3
D00155558		0.5	5	0.025	0.94	3.6	14	2.96	967	1.3	1.524	1.3	43.4	0.06	2.8			16.6
D00155559		1.9	80	0.025	1.7	10.1	5.1	1.48	936	2	5.717	5.2	15.3	0.119	5.6			27.3
D00155561		1.3	5	0.06	2	10.2	27	3.69	1398	0.8	3.352	3.8	31.1	0.178	5			29.6
D00155578		1.4	30	0.06	1.35	7.7	12.5	3.24	1345	1	2.853	3.9	29.1	0.141	3.9			34.1

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm
D00155531	0.003	0.8	1.7	35	0.5	0.6	395	0.1	0.25	0.6	0.49	0.25	0.4	262	0.2	13.2	83	24.3
D00155532	0.003	0.4	0.6	33	0.5	0.6	377	0.2	0.25	0.8	0.52	0.25	0.4	262	0.2	14.5	84	30.6
D00155537	0.003	0.05	1.1	4	0.5	1.1	628	1.1	0.25	4.4	0.344	0.25	2.4	77	0.6	17.7	22	92.7
D00155541	0.003	1.9	3.7	48	1	1	197	0.2	0.25	0.9	0.747	0.25	0.4	362	0.6	19.6	139	17.2
D00155558	0.003	0.05	4.4	25	0.5	0.4	319	0.05	0.25	0.5	0.268	0.25	0.3	200	0.2	8.7	50	11.3
D00155559	0.003	0.05	3.1	11	0.5	0.8	568	0.4	0.25	2.5	0.343	0.25	1.3	140	0.3	13.6	71	70.6
D00155561	0.003	0.05	11.3	38	0.5	0.8	832	0.2	0.25	1.4	0.626	0.25	0.5	388	0.5	17	102	33.1
D00155578	0.003	0.1	1	32	0.5	0.8	775	0.2	0.25	1	0.623	0.25	0.6	338	0.2	18.1	88	37.3

Appendix D - Rock Sample and Geochemistry Data

SAMPLEID	Samp_AssayMethod_D	Samp_Dispatch_D	Samp_LabJob_D
D00155531	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155532	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155537	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155541	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155558	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155559	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155561	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308
D00155578	CV402,FA430,MA200,pXRF,WGHT	MTM21-Rock_03	VAN21003308

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	SAMPLETYPE	Sampled_By	Sampled_Date	Site_ID	Site_Vegetation	Site_TopoPosition	Site_Slope_Angle	Site_Slope_Direction
D00155302	NAD83UTMZ10	432480.27	6088362.82	1330.6	SOIL	Taylor Cherkas	2021-06-05 21:23	MAX002	EvergreenForest	MidSlope	Gentle	SW
D00155303	NAD83UTMZ10	432479.7	6088360.42	1331.5	SOIL	Taylor Cherkas	2021-06-05 22:46	MAX002	EvergreenForest	MidSlope	Gentle	SW
D00155305	NAD83UTMZ10	432480.89	6088602.66	1219.9	SOIL	Taylor Cherkas	2021-06-06 21:05	MAX003	EvergreenForest	MidSlope	Gentle	E
D00155307	NAD83UTMZ10	432602.88	6088597.48	1249.3	SOIL	Taylor Cherkas	2021-06-06 22:24	MAX004	EvergreenForest	MidSlope	Gentle	E
D00155405	NAD83UTMZ10	432024.56	6087935.59	1314.4	SOIL	Spencer Purnell	2021-06-22 19:44	MAX020	EvergreenForest	Ridgetop	Flat	NE
D00155564	NAD83UTMZ10	432601.04	6082988.93	953.4	SOIL	Spencer Purnell	2021-09-12 6:16	MAX0154	Buckbrush	MidSlope	Flat	S
D00155566	NAD83UTMZ10	432208.88	6083998.16	963.4	SOIL	Spencer Purnell	2021-09-13 5:46	MAX0022	EvergreenForest	MidSlope	Gentle	S
D00155567	NAD83UTMZ10	432015.02	6084015.75	976.3	SOIL	Ali Brown	2021-09-13 6:54	MAX0021	EvergreenForest	MidSlope	Flat	S
D00155568	NAD83UTMZ10	431797.29	6084004.02	970.0	SOIL	Spencer Purnell	2021-09-13 8:00	MAX0020	EvergreenForest	MidSlope	Flat	SE
D00155569	NAD83UTMZ10	431589.77	6084030.18	965.6	SOIL	Ali Brown	2021-09-13 9:42	MAX0019	EvergreenForest	MidSlope	Flat	S
D00155571	NAD83UTMZ10	431395.4	6083994.01	954.4	SOIL	Spencer Purnell	2021-09-13 10:10	MAX0018	DeciduousForest	MidSlope	Flat	S
D00155323	NAD83UTMZ10	438963.86	6097587.61	1178.7	SOIL	Stephanie Fogg	2021-06-17 18:53	sen090	EvergreenForest	MidSlope	Steep	E
D00155325	NAD83UTMZ10	438803.01	6097608.17	1206.8	SOIL	Spencer Purnell	2021-06-17 19:52	sen091	EvergreenForest	Bench	Gentle	E
D00155328	NAD83UTMZ10	438581.81	6097619.37	1294.2	SOIL	Stephanie Fogg	2021-06-17 21:03	sen092	EvergreenForest	MidSlope	Gentle	E
D00155332	NAD83UTMZ10	437413.53	6097594.02	1510.9	SOIL	Spencer Purnell	2021-06-18 19:13	sen088	EvergreenForest	MidSlope	Moderate	W
D00155334	NAD83UTMZ10	437590.7	6097612.87	1472.0	SOIL	Stephanie Fogg	2021-06-18 20:23	sen089	EvergreenForest	Bench	Flat	E
D00155336	NAD83UTMZ10	437811.73	6097596.99	1439.2	SOIL	Spencer Purnell	2021-06-18 21:18	sen090	EvergreenForest	MidSlope	Steep	SE
D00155338	NAD83UTMZ10	437998.53	6097603.49	1417.7	SOIL	Stephanie Fogg	2021-06-18 22:03	sen091	EvergreenForest	MidSlope	Moderate	E
D00155340	NAD83UTMZ10	438190.19	6097606.03	1378.8	SOIL	Spencer Purnell	2021-06-18 23:00	sen092	EvergreenForest	MidSlope	Moderate	SE
D00155345	NAD83UTMZ10	437788.85	6097216.31	1421.9	SOIL	Stephanie Fogg	2021-06-19 21:20	sen070	EvergreenForest	MidSlope	Gentle	SE
D00155409	NAD83UTMZ10	437592.17	6098396.74	1402.0	SOIL	Stephanie Fogg	2021-06-24 17:42	sen125	EvergreenForest	MidSlope	Gentle	W
D00155410	NAD83UTMZ10	437820.68	6098425.44	1432.4	SOIL	Stephanie Fogg	2021-06-24 18:21	sen185	Marsh	Bench	Flat	NE
D00155411	NAD83UTMZ10	437992.74	6098365.19	1400.9	SOIL	Stephanie Fogg	2021-06-24 18:51	Sen186	EvergreenForest	Bench	Gentle	NE
D00155412	NAD83UTMZ10	438207.48	6098377.84	1377.5	SOIL	Stephanie Fogg	2021-06-24 19:22	Sen126	EvergreenForest	MidSlope	Moderate	NE
D00155413	NAD83UTMZ10	438372.31	6098418.88	1350.5	SOIL	Stephanie Fogg	2021-06-24 19:50	Sen127	EvergreenForest	MidSlope	Gentle	NE
D00155414	NAD83UTMZ10	438385.05	6098802.5	1345.9	SOIL	Stephanie Fogg	2021-06-24 20:37	Sen142	EvergreenForest	MidSlope	Steep	NE
D00155416	NAD83UTMZ10	438177.69	6098781.05	1386.7	SOIL	Stephanie Fogg	2021-06-24 21:15	Sen141	EvergreenForest	MidSlope	Steep	N
D00155417	NAD83UTMZ10	438001.28	6098793.79	1367.1	SOIL	Spencer Purnell	2021-06-24 21:44	sen140	EvergreenForest	Bench	Flat	NE
D00155418	NAD83UTMZ10	437783.79	6098800.62	1361.7	SOIL	Stephanie Fogg	2021-06-24 22:17	Sen187	EvergreenForest	MidSlope	Gentle	N
D00155419	NAD83UTMZ10	437608.69	6098822.77	1351.2	SOIL	Stephanie Fogg	2021-06-24 22:47	Sen188	EvergreenForest	MidSlope	Gentle	N
D00155422	NAD83UTMZ10	438420.91	6097595.32	1327.1	SOIL	Spencer Purnell	2021-06-26 16:50	sen093	EvergreenForest	MidSlope	Gentle	SE
D00155423	NAD83UTMZ10	438177.17	6097206.72	1319.6	SOIL	Spencer Purnell	2021-06-26 17:37	Sen072	EvergreenForest	MidSlope	Moderate	SE
D00155424	NAD83UTMZ10	438387.65	6097199.58	1278.1	SOIL	Spencer Purnell	2021-06-26 18:12	Sen073	EvergreenForest	MidSlope	Moderate	SE
D00155425	NAD83UTMZ10	438780.76	6097200.82	1204.1	SOIL	Spencer Purnell	2021-06-26 19:41	Sen075	EvergreenForest	MidSlope	Moderate	SE
D00155427	NAD83UTMZ10	438983.24	6097176.74	1170.4	SOIL	Spencer Purnell	2021-06-26 20:32	Sen076	EvergreenForest	MidSlope	Gentle	SE
D00155429	NAD83UTMZ10	436012.34	6099186.29	1416.9	SOIL	Spencer Purnell	2021-06-28 14:17	Sen148	EvergreenForest	MidSlope	Moderate	NE
D00155430	NAD83UTMZ10	436191.67	6099202.91	1393.8	SOIL	Spencer Purnell	2021-06-28 14:50	Sen149	EvergreenForest	Bench	Flat	NE
D00155431	NAD83UTMZ10	436416.15	6099210.7	1349.6	SOIL	Spencer Purnell	2021-06-28 15:21	Sen150	EvergreenForest	Bench	Flat	E
D00155432	NAD83UTMZ10	436588.53	6099205.85	1382.1	SOIL	Spencer Purnell	2021-06-28 16:00	Sen151	EvergreenForest	MidSlope	Moderate	E
D00155433	NAD83UTMZ10	436770.43	6099206.35	1299.6	SOIL	Spencer Purnell	2021-06-28 16:34	Sen152	EvergreenForest	MidSlope	Gentle	NE
D00155434	NAD83UTMZ10	436989.94	6099214.89	1273.9	SOIL	Spencer Purnell	2021-06-28 17:20	Sen153	EvergreenForest	MidSlope	Gentle	NE
D00155435	NAD83UTMZ10	437188.97	6099192.59	1278.1	SOIL	Spencer Purnell	2021-06-28 17:50	Sen154	EvergreenForest	MidSlope	Gentle	N
D00155436	NAD83UTMZ10	437383.24	6099196.51	1273.1	SOIL	Spencer Purnell	2021-06-28 18:20	Sen155	EvergreenForest	MidSlope	Gentle	N
D00155437	NAD83UTMZ10	436021.87	6099583.81	1343.6	SOIL	Spencer Purnell	2021-06-29 14:34	Sen167	EvergreenForest	MidSlope	Moderate	N
D00155438	NAD83UTMZ10	436194.65	6099621.65	1350.5	SOIL	Spencer Purnell	2021-06-29 15:06	Sen168	EvergreenForest	Bench	Flat	E
D00155439	NAD83UTMZ10	436385.38	6099624.75	1374.8	SOIL	Spencer Purnell	2021-06-29 3:39	Sen169	EvergreenForest	MidSlope	Moderate	N

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Site_Outcrop	Sample_Depth_cm	Sample_Thickness_cm	Sample_AngularClasts	Sample_Carbonate	Sample_Colour	Sample_Form	Sample_Horizon	Sample_Moisture
D00155302	None	5	5		None	LightBrown		B	Damp
D00155303	None	15	5		None	LightBrown		B	Damp
D00155305	None	25	5		None	DarkBrown		B	Moist
D00155307	None	35	15		None	DarkBrown		B	Damp
D00155405	DIOR	15	5		None	LightBrown		C	Damp
D00155564	OtherRock	45	15		None	DarkGrey		B	Damp
D00155566	OtherRock	5	5		None	LightBrown		B	Dry
D00155567	OtherRock	5	15		None	DarkBrown		B	Damp
D00155568	OtherRock	5	5		None	LightBrown		AB	Damp
D00155569	OtherRock	5	5		None	LightBrown		B	Dry
D00155571	OtherRock	5	25		None	LightBrown		C	Dry
D00155323	OtherRock	55	55		None	Black		B	Damp
D00155325	DIOR	45	35		None	DarkGrey		B	Damp
D00155328	OtherRock	25	25		None	LightBrown		B	Damp
D00155332	ANDS	35	15		None	DarkBrown		B	Moist
D00155334	ANDS	25	15		None	LightBrown		BC	Damp
D00155336	ANDS	45	25		None	DarkBrown		B	Damp
D00155338	ANDS	15	5		None	DarkBrown		B	Damp
D00155340	ANDS	65	45		None	DarkBrown		AB	Damp
D00155345	OtherRock	15	15		None	DarkBrown		AB	Damp
D00155409	OtherRock	35	35		None	DarkBrown		B	Dry
D00155410	OtherRock	25	25		None	LightBrown		B	Dry
D00155411	OtherRock	25	15		None	DarkBrown		B	Damp
D00155412	OtherRock	25	25		None	DarkBrown		B	Dry
D00155413	ANDS	5	5		None	DarkBrown		B	Damp
D00155414	ANDS	15	5		None	DarkBrown		B	Damp
D00155416	OtherRock	25	25		None	DarkBrown		B	Dry
D00155417	OtherRock	25	15		None	DarkBrown		B	Damp
D00155418	OtherRock	15	15		None	DarkBrown		B	Damp
D00155419	OtherRock	15	15		None	DarkBrown		B	Dry
D00155422	OtherRock	35	15		None	DarkBrown		BC	Damp
D00155423	OtherRock	35	15		None	DarkBrown		B	Damp
D00155424	OtherRock	35	15		None	LightBrown		C	Moist
D00155425	OtherRock	45	15		None	DarkBrown		B	Damp
D00155427	ANDS	35	25		None	DarkBrown		AB	Moist
D00155429	ANDS	35	25		None	DarkBrown		B	Damp
D00155430	ANDS	25	5		None	DarkBrown		B	Damp
D00155431	OtherRock	35	25		None	DarkBrown		B	Moist
D00155432	ANDS	45	15		None	DarkBrown		B	Damp
D00155433	OtherRock	45	5		None	DarkBrown		B	Damp
D00155434	OtherRock	45	25		None	DarkBrown		AB	Moist
D00155435	OtherRock	35	25		None	LightBrown		B	Damp
D00155436	OtherRock	25	5		None	LightBrown		B	Damp
D00155437	ANDS	35	15		None	DarkBrown		B	Damp
D00155438	ANDS	25	5		None	DarkBrown		B	Damp
D00155439	ANDS	25	5		None	DarkBrown		B	Damp

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Sample_Contamination	Sample_Organics	Sample_Oxide	Sample_Cobbles	Sample_Pebbles	Sample_Sand	Sample_Silt	Sample_Parent	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm
D00155302	None	Moderate	Low	0	10	30	60	Basal Till	313	1.47	2.9	5	0.5
D00155303	None	Moderate	Moderate	0	30	30	40	Basal Till	209	3.85	10	5.6	1
D00155305	None	Moderate	None	0	10	20	70	Basal Till	1034	3.85	13.4	9.4	1
D00155307	None	Moderate	None	0	20	40	40	Basal Till	965	4.38	14.2	14.9	5
D00155405	None	Low	None	20	20	10	50	Weathered	205	1.82	3.5	3.3	1
D00155564	Low	Low	None	10	20	15	55	Till	603	3.34	5.4	3.1	3
D00155566	None	None	None	30	30	20	20	Basal Till	420	2.05	5.2	3	3
D00155567	None	Low	None	30	20	30	20	Basal Till	637	3.2	9.2	3.5	3
D00155568	None	None	None	20	30	15	35	Ablation Till	746	2.08	3.3	4.3	2
D00155569	None	None	None	5	25	25	45	Till	1148	3.75	3.3	3.4	4
D00155571	None	None	Low	10	30	45	15	Till	218	2.02	10.4	20.2	2
D00155323	None	High	None	10	20	5	65	Colluvium	1682	1.94	4.5	13.3	1
D00155325	None	None	Low	10	30	55	5	Weathered	99	2.57	6.2	48.3	1
D00155328	None	Low	Low	50	20	10	20	Till	185	2.83	9	5	3
D00155332	None	Low	None	10	40	5	45	Colluvium	214	2.35	6.5	0.8	1
D00155334	None	Low	Low	10	40	25	25	Till	248	2.79	9	2.3	3
D00155336	None	Low	None	10	20	35	35	Till	604	3.22	7.1	1.1	0.5
D00155338	None	Low	None	15	30	30	25	Till	221	2.23	5.4	2.9	1
D00155340	None	Low	None	5	20	20	55	Unknown	1059	2.07	6.3	0.3	0.5
D00155345	None	Low	None	55	10	10	25	Unknown	470	1.67	7.7	3.3	0.5
D00155409	None	None	None	5	15	40	40	Colluvium	166	3.07	8.6	6.4	2
D00155410	None	None	None	15	10	40	35	Unknown	134	3.2	7	1.8	2
D00155411	None	Low	None	5	20	35	40	Unknown	680	2.51	12.8	3.3	2
D00155412	None	None	Low	10	15	35	40	Till	196	2.91	4.1	2.5	0.5
D00155413	None	Low	None	15	20	25	40	Unknown	578	1.97	5.8	42.8	2
D00155414	None	Low	None	20	20	25	35	Colluvium	634	2.57	7.8	1.1	0.5
D00155416	None	None	Moderate	15	20	45	20	Weathered	219	2.78	6	5.9	1
D00155417	None	Low	Moderate	15	25	35	25	Unknown	131	3.07	4.7	1.9	0.5
D00155418	None	None	Low	40	20	25	15	Unknown	186	2.01	8.2	2.5	0.5
D00155419	None	Low	Moderate	40	25	20	15	Unknown	316	2.35	8.5	3.7	0.5
D00155422	None	Low	Low	20	15	45	20	Till	566	3.14	5.6	0.7	0.5
D00155423	None	None	None	15	20	20	45	Unknown	620	3.59	6.1	0.9	0.5
D00155424	None	None	None	0	20	10	70	Unknown	437	2.06	10.2	2	2
D00155425	None	None	None	35	15	10	40	Unknown	240	2.54	11.2	5.9	0.5
D00155427	None	Low	None	20	5	10	65	Unknown	230	2.51	2.9	2.7	0.5
D00155429	None	None	None	25	20	20	35	Unknown	444	1.85	6.6	5.8	1
D00155430	None	None	None	10	25	5	60	Unknown	153	1.93	4	9.4	0.5
D00155431	None	None	None	20	10	20	50	Unknown	65	2.87	6.8	3	0.5
D00155432	None	None	None	30	15	15	40	Colluvium	123	1.34	4.6	2.3	0.5
D00155433	None	None	None	25	10	15	50	Unknown	241	2.44	9.4	10.4	0.5
D00155434	None	None	None	20	10	5	65	Unknown	540	1.81	4.4	4.7	0.5
D00155435	None	None	Moderate	15	30	35	20	Till	386	2.5	11.4	6.2	1
D00155436	None	Low	Moderate	20	25	35	20	Till	289	2.21	8.3	3.4	2
D00155437	None	None	Low	35	20	15	30	Unknown	406	1.73	5.4	2.9	0.5
D00155438	None	None	Low	35	20	15	30	Unknown	274	2.38	6.6	4.9	2
D00155439	None	None	Low	35	20	15	30	Unknown	228	1.77	7.2	2.7	1

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppb	In_ppm	K_pct	La_ppm	Li_ppm	Mg_pct
D00155302	50.2	0.4	0.18	0.32	0.18	11.7	4.2	25.8	16.27	2.54	8.9	0.05	0.05	31	0.02	0.07	6.3	5.6	0.32
D00155303	91.1	0.8	0.15	0.31	0.3	9.9	15.7	58.2	70.54	4.61	8.1	0.05	0.08	63	0.03	0.13	5.3	19.9	0.84
D00155305	124.8	2.3	0.33	0.97	0.7	20.3	42.2	74.1	710.4	5.75	10.7	0.05	0.04	82	0.02	0.23	11.4	23.4	1.14
D00155307	152.3	2.9	0.32	1.07	1.4	24	52.7	77.2	899.52	5.64	10.3	0.05	0.08	133	0.04	0.3	17.7	38	1.1
D00155405	89.5	0.2	0.17	0.44	0.08	7.5	10.1	41	30.91	3.12	8.4	0.05	0.1	24	0.01	0.09	4.1	9.4	0.78
D00155564	261.9	0.8	0.18	0.42	0.26	25.6	10.4	67.1	68.34	3.41	9.5	0.05	0.01	130	0.04	0.13	12.7	21.3	0.86
D00155566	217.9	0.6	0.12	0.7	1.12	19.4	12	49.4	40.44	3.16	6.1	0.05	0.04	45	0.02	0.13	10.7	14.3	0.71
D00155567	252.3	1	0.17	0.87	0.57	20.6	25	102.5	149.53	5.4	10.2	0.05	0.07	66	0.03	0.22	13.2	24.4	1.96
D00155568	189.5	0.4	0.15	0.87	0.51	15.6	18	57.7	87.87	3.09	7.9	0.05	0.02	83	0.03	0.09	7.6	14.8	0.64
D00155569	305.6	1.1	0.15	1.25	0.96	20.7	9.7	64.5	145.89	3.04	8.1	0.05	0.1	136	0.05	0.15	11.1	15.1	0.68
D00155571	108.7	0.5	0.07	0.4	0.38	12.7	12.3	41.5	30.67	3.53	5.4	0.05	0.07	39	0.02	0.06	6.1	14.2	0.59
D00155323	73.8		0.07	0.16	0.29		8.6	91.6	127.71	3.8	6.3			71		0.05	4		0.47
D00155325	73.2		0.03	0.34	0.13		17.6	102.1	79.98	3.76	6.3			34		0.04	5		1.16
D00155328	61.4		0.01	0.4	0.2		19.8	109.4	68.67	4.76	9.1			48		0.06	5.8		1.66
D00155332	63.2		0.07	0.18	0.23		8.5	51	29.36	5.04	9.1			64		0.05	9.2		0.6
D00155334	93.4		0.05	0.37	0.19		19	108.8	51.62	6.31	10.3			57		0.05	4.4		1.43
D00155336	135.9		0.03	0.5	0.37		36.3	119.4	130.63	5.95	10.4			46		0.08	4.3		1.96
D00155338	94.7		0.07	0.39	0.23		11.1	57.1	31.68	4.51	9			67		0.05	8.4		0.77
D00155340	101.1		0.04	0.44	0.56		17.5	153.6	70.42	4.94	9.2			54		0.06	6.5		0.99
D00155345	88.2		0.1	0.65	0.45		7.7	61.7	68.69	4.06	9			68		0.06	7		0.37
D00155409	76.1		0.01	0.46	0.29		16.4	74.2	64.98	4.69	7.7			71		0.06	5.7		1.22
D00155410	45.1		0.01	0.44	0.2		20.2	102.3	72.38	5.12	8.7			78		0.05	3.3		1.63
D00155411	149.2		0.05	1.06	0.49		17.2	97	80.7	5.5	9.7			68		0.05	5.9		1.13
D00155412	59.4		0.01	0.41	0.24		19.4	86.7	43.24	4.68	8.2			65		0.05	3.4		1.59
D00155413	153.6		0.11	0.4	0.4		17.6	110.5	66.42	3.81	8.2			67		0.06	5.6		1.13
D00155414	149.6		0.07	0.3	0.41		26.4	122.8	59.52	4.46	10.1			44		0.05	7.3		1.38
D00155416	86.6		0.03	0.34	0.12		14.7	119.3	40.26	5.51	10.8			87		0.06	3.6		1.27
D00155417	70.1		0.01	0.34	0.21		24.4	115.9	70.73	5.68	11			46		0.04	3.5		2.06
D00155418	74.6		0.05	0.28	0.29		11.8	99.4	41.32	4.28	9.9			74		0.06	6.4		0.85
D00155419	81.3		0.07	0.2	0.21		9.8	65.8	33.78	5.4	9.2			86		0.06	6.7		0.67
D00155422	64.6		0.01	0.64	0.66		38.2	473.6	121.42	4.12	8.6			52		0.05	8.2		2.96
D00155423	72.9		0.01	0.74	0.71		43.7	529.2	131.57	4.59	10			62		0.06	9.4		3.25
D00155424	69.9		0.01	0.84	0.43		17	89.4	66.51	3.9	7.6			58		0.06	7.5		1.02
D00155425	106.6		0.03	0.61	0.37		19.4	97.1	75.58	5.29	9.3			77		0.08	7.4		0.97
D00155427	103.3		0.01	1.03	0.12		33.7	330	131.82	3.85	6.4			94		0.18	2.8		2.36
D00155429	104		0.02	0.37	0.24		9.6	58.3	39.21	3.75	7.3			53		0.06	5.4		0.72
D00155430	93.1		0.02	0.4	0.12		10.1	49.9	33.63	2.89	8.7			45		0.04	6.3		0.91
D00155431	90		0.01	0.48	0.22		10.6	68.1	39.69	4.12	7.3			102		0.04	4.9		0.93
D00155432	84.5		0.05	0.2	0.21		4.9	42	34.36	2.51	6.4			63		0.04	6.8		0.32
D00155433	66.6		0.03	0.31	0.21		10.5	57.4	69.08	3.78	6.7			87		0.06	7.1		0.72
D00155434	68.7		0.15	0.21	0.23		7.4	37.6	49.54	2.21	5.3			88		0.05	8.1		0.47
D00155435	103.8		0.1	0.33	0.27		18.5	77.5	66.68	4.74	8.4			111		0.08	4.8		1.1
D00155436	102.9		0.13	0.23	0.32		15.2	46.1	45.39	3.43	7.3			78		0.09	8.5		0.66
D00155437	57.9		0.12	0.23	0.23		9.5	50.6	30.22	4.14	8.2			63		0.05	8		0.66
D00155438	71.2		0.1	0.28	0.21		12.4	51	51.25	3.96	7.2			76		0.06	7.2		0.85
D00155439	76.9		0.09	0.25	0.46		9.8	40.4	46.74	4.1	7.9			64		0.06	7.1		0.72

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pd_ppm	Pt_gpt	Pb_ppm	Rb_ppm	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm
D00155302	157	1.07	0.008	1.06	8.3	0.104	0.005	0.001	8.2	7.9	0.001	0.01	0.26	2.8	0.1	0.6	27	0.03
D00155303	429	1.95	0.014	0.94	32.9	0.249	0.005	0.001	6.8	15	0.001	0.01	0.46	5.6	0.1	0.3	25.6	0.03
D00155305	1997	12.5	0.014	1.09	65.8	0.171	0.01	0.001	13.1	35.2	0.001	0.04	0.6	18	1.1	0.6	59.4	0.03
D00155307	2691	10.59	0.016	0.8	86.9	0.185	0.02	0.001	12	57	0.004	0.06	0.64	20.4	1.5	0.4	57	0.03
D00155405	535	1.52	0.022	0.63	15.6	0.107	0.005	0.001	6.5	12.8	0.001	0.01	0.34	4.3	0.2	0.4	35.2	0.03
D00155564	337	0.91	0.009	0.95	47.9	0.121	0.005	0.001	6.7	14	0.001	0.01	0.47	7.7	0.5	0.7	35.8	0.03
D00155566	673	0.65	0.012	0.77	43.2	0.09	0.005	0.001	5.8	11.6	0.001	0.01	0.64	7.2	0.5	0.5	42.8	0.03
D00155567	791	1.2	0.008	1.9	67.5	0.163	0.005	0.001	8.8	21.9	0.001	0.01	0.53	9.1	0.4	0.6	57.6	0.03
D00155568	620	3.3	0.008	1.09	34.7	0.138	0.005	0.001	7.8	13.5	0.001	0.04	0.31	4.5	0.5	0.5	51.5	0.03
D00155569	308	1.55	0.011	1.28	62.9	0.215	0.005	0.001	5.7	14.6	0.003	0.12	0.43	10.1	1.3	0.5	55.8	0.03
D00155571	347	0.94	0.008	0.57	35.1	0.191	0.005	0.003	4.7	6.6	0.001	0.01	0.62	4.6	0.3	0.2	22.9	0.03
D00155323	157	1.03	0.007		26.1	0.394			4			0.03	0.59	2.4	0.3		21.1	
D00155325	355	0.53	0.007		39.8	0.091			3.6			0.01	0.53	5.5	0.05		28.2	
D00155328	542	0.82	0.007		47	0.091			4.3			0.01	0.55	7.1	0.05		34.9	
D00155332	248	1.16	0.006		17.9	0.103			6.1			0.02	0.46	4.4	0.2		19.7	
D00155334	492	1.03	0.007		36.5	0.246			4.7			0.01	0.53	10	0.05		29.2	
D00155336	1041	0.53	0.006		35.4	0.21			4.3			0.01	0.68	19.2	0.1		33.8	
D00155338	316	0.78	0.005		20.9	0.111			4.7			0.01	0.54	4.4	0.2		31.2	
D00155340	818	0.98	0.006		41.9	0.103			9.3			0.01	0.48	7	0.2		29.4	
D00155345	218	2.05	0.006		17.6	0.072			7.7			0.02	0.42	5	0.2		37.8	
D00155409	510	0.95	0.009		30.4	0.108			4.3			0.01	0.61	6.4	0.2		37.4	
D00155410	618	0.51	0.009		40.7	0.216			3.6			0.01	0.51	10	0.2		35.1	
D00155411	486	0.66	0.007		27.3	0.105			7.1			0.03	0.65	8.3	0.4		53.5	
D00155412	499	0.51	0.008		35.1	0.17			3.4			0.01	0.28	5.7	0.1		37.5	
D00155413	428	0.69	0.007		43.3	0.138			5.8			0.02	0.25	4.7	0.05		30.1	
D00155414	940	1.01	0.005		48.3	0.148			7.9			0.01	0.31	6.9	0.05		27.5	
D00155416	381	0.45	0.009		36.6	0.214			5			0.01	0.45	7.8	0.3		27.2	
D00155417	532	0.57	0.005		35.6	0.173			3.4			0.01	0.46	11.5	0.3		27.5	
D00155418	270	1.18	0.007		33.5	0.112			7.7			0.01	0.48	3.1	0.3		18.4	
D00155419	396	2.36	0.008		19.8	0.259			5.6			0.02	0.51	4.6	0.2		17.1	
D00155422	1376	0.72	0.005		110.5	0.068			5			0.01	0.16	5.7	0.05		26.2	
D00155423	1544	0.79	0.006		124	0.071			5.9			0.01	0.17	6.8	0.1		29.1	
D00155424	610	0.97	0.01		38.5	0.072			5.2			0.02	0.6	5.9	0.05		48.8	
D00155425	484	1.36	0.007		42.1	0.107			5			0.03	0.57	5.1	0.5		45.1	
D00155427	803	0.5	0.006		110.3	0.079			2.5			0.02	0.17	5.7	0.3		75.9	
D00155429	318	0.88	0.009		23.7	0.15			4.5			0.01	0.55	3.8	0.2		27.6	
D00155430	303	0.6	0.008		19.8	0.047			4.7			0.01	0.42	4.9	0.2		33.7	
D00155431	301	1.1	0.008		27	0.049			4			0.03	0.61	5.1	0.5		40.9	
D00155432	189	0.81	0.006		11.8	0.112			5.4			0.01	0.34	3.3	0.05		20.3	
D00155433	348	0.89	0.009		26	0.091			4.4			0.01	0.66	4.9	0.4		25.5	
D00155434	358	0.7	0.007		16.1	0.092			4.7			0.04	0.34	1.8	0.2		22.8	
D00155435	918	1.12	0.009		32.4	0.165			6.9			0.02	0.82	4.8	0.3		27.2	
D00155436	897	1.38	0.007		25.8	0.116			6			0.02	0.61	4.2	0.2		22.9	
D00155437	348	0.78	0.006		17.6	0.191			6.1			0.01	0.68	4.1	0.1		24	
D00155438	341	1.01	0.007		24.1	0.066			4.8			0.01	0.68	5.4	0.3		28.3	
D00155439	341	0.81	0.006		18.8	0.128			5.3			0.03	0.57	3.6	0.3		25.2	

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Samp_AssayMethod_D	Samp_Dispatch_D	Samp_LabJob_D
D00155302	0.04	1.4	0.12	0.06	0.3	87	0.2	2.1	30	1.7	AQ252-EXT,pXRF	MAX21-Soil_01	VAN21001654
D00155303	0.06	2.1	0.112	0.09	0.5	121	0.3	2.7	83	2.9	AQ252-EXT,pXRF	MAX21-Soil_01	VAN21001654
D00155305	0.13	1	0.07	0.18	2.1	130	0.2	15.9	143	1.4	AQ252-EXT,pXRF	MAX21-Soil_01	VAN21001654
D00155307	0.09	0.9	0.069	0.28	3.9	123	0.2	34.8	169	2.9	AQ252-EXT,pXRF	MAX21-Soil_01	VAN21001654
D00155405	0.01	1.2	0.169	0.1	0.2	109	0.2	2	58	2.7	AQ252-EXT	MAX21-Soil_01	VAN21001654
D00155564	0.05	1.2	0.035	0.16	1.5	73	0.1	7.8	120	0.7	AQ252-EXT,pXRF	MAX21-Soil_02	VAN21003309
D00155566	0.03	1.6	0.067	0.11	0.9	71	0.1	8.7	114	1.4	AQ252-EXT,pXRF	MAX21-Soil_02	VAN21003309
D00155567	0.06	2.2	0.18	0.11	1.1	169	0.2	12.4	130	3	AQ252-EXT,pXRF	MAX21-Soil_02	VAN21003309
D00155568	0.03	0.6	0.056	0.09	1.2	109	0.1	5	79	1.1	AQ252-EXT,pXRF	MAX21-Soil_02	VAN21003309
D00155569	0.03	1.1	0.039	0.16	1.5	61	0.1	11.4	88	3	AQ252-EXT,pXRF	MAX21-Soil_02	VAN21003309
D00155571	0.03	1.5	0.068	0.06	0.3	96	0.2	4.4	92	2.7	AQ252-EXT,pXRF	MAX21-Soil_02	VAN21003309
D00155323	0.03	0.9	0.039	0.05	0.3	81	0.2		32		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155325	0.03	1.8	0.128	0.06	0.3	106	0.1		45		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155328	0.01	1.4	0.146	0.06	0.4	122	0.1		65		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155332	0.01	2.4	0.135	0.06	0.5	134	0.2		48		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155334	0.01	1.3	0.104	0.05	0.3	164	0.1		78		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155336	0.03	1.1	0.104	0.05	0.3	162	0.05		84		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155338	0.01	1.4	0.071	0.05	0.3	109	0.1		72		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155340	0.01	1.3	0.123	0.05	0.4	140	0.05		72		AQ252-EXT	MTM21-Soil_01	VAN21002068
D00155345	0.01	1.5	0.121	0.04	0.6	122	0.2		46		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155409	0.01	0.8	0.106	0.04	0.4	130	0.1		68		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155410	0.01	1	0.131	0.05	0.3	142	0.05		70		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155411	0.01	0.9	0.133	0.04	0.6	146	0.05		63		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155412	0.01	1.1	0.175	0.06	0.2	122	0.1		69		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155413	0.01	1.3	0.138	0.05	0.3	98	0.1		58		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155414	0.01	1.3	0.093	0.07	0.3	115	0.1		83		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155416	0.01	2.5	0.111	0.06	0.3	158	0.2		68		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155417	0.01	1.4	0.164	0.06	0.2	156	0.1		85		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155418	0.02	1.6	0.173	0.04	0.4	132	0.2		65		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155419	0.04	2.4	0.106	0.04	0.6	148	0.2		49		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155422	0.01	0.6	0.11	0.07	0.3	98	0.05		86		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155423	0.01	0.6	0.124	0.08	0.4	112	0.05		98		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155424	0.01	0.7	0.117	0.05	0.5	110	0.1		53		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155425	0.01	2	0.146	0.06	0.6	120	0.1		61		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155427	0.01	0.6	0.156	0.05	0.4	115	0.1		49		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155429	0.01	0.7	0.08	0.03	0.4	106	0.1		60		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155430	0.02	0.5	0.071	0.04	0.3	103	0.05		52		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155431	0.01	0.7	0.094	0.02	0.4	105	0.1		45		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155432	0.03	1.3	0.065	0.04	0.4	82	0.1		30		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155433	0.05	1.3	0.101	0.05	0.5	103	0.2		50		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155434	0.01	0.6	0.034	0.06	0.7	65	0.05		42		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155435	0.02	0.7	0.071	0.06	0.4	124	0.1		77		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155436	0.03	0.8	0.056	0.1	0.5	90	0.1		80		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155437	0.02	1.9	0.095	0.04	0.3	123	0.2		58		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155438	0.01	2.2	0.122	0.05	0.5	104	0.2		55		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155439	0.01	0.6	0.068	0.04	0.5	121	0.1		55		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	SAMPLETYPE	Sampled_By	Sampled_Date	Site_ID	Site_Vegetation	Site_TopoPosition	Site_Slope_Angle	Site_Slope_Direction
D00155441	NAD83UTMZ10	436581.49	6099618.74	1327.8	SOIL	Spencer Purnell	2021-06-29 4:22	Sen170	EvergreenForest	MidSlope	Steep	NE
D00155442	NAD83UTMZ10	436778.84	6099603.8	1287.6	SOIL	Spencer Purnell	2021-06-29 5:03	Sen171	EvergreenForest	MidSlope	Gentle	E
D00155443	NAD83UTMZ10	437003.76	6099591.47	1258.9	SOIL	Spencer Purnell	2021-06-29 5:34	Sen172	EvergreenForest	Bench	Gentle	NE
D00155444	NAD83UTMZ10	437207.12	6099579.14	1246.6	SOIL	Spencer Purnell	2021-06-29 6:06	Sen173	EvergreenForest	Bench	Flat	N
D00155446	NAD83UTMZ10	437394.71	6099612.82	1262.3	SOIL	Taylor Cherkas	2021-07-02 4:55	SEN174	EvergreenForest	ValleyBottom	Flat	N
D00155447	NAD83UTMZ10	437593.53	6099585.37	1252.5	SOIL	Taylor Cherkas	2021-07-02 5:54	SEN175	EvergreenForest	ValleyBottom	Flat	N
D00155448	NAD83UTMZ10	437683.72	6099575.2	1249.4	SOIL	Taylor Cherkas	2021-07-02 6:49	SEN176	EvergreenForest	ValleyBottom	Flat	N
D00155449	NAD83UTMZ10	437755.39	6099198.77	1288.6	SOIL	Taylor Cherkas	2021-07-02 8:42	SEN157	EvergreenForest	Plateau	Flat	N
D00155450	NAD83UTMZ10	437609.85	6099197.46	1284.8	SOIL	Taylor Cherkas	2021-07-02 9:16	SEN156	EvergreenForest	Bench	Flat	N
D00155451	NAD83UTMZ10	438141.96	6098010.14	1345.3	SOIL	Taylor Cherkas	2021-07-03 7:14	SEN110	EvergreenForest	MidSlope	Gentle	E
D00155452	NAD83UTMZ10	438402.71	6098032.69	1326.6	SOIL	Taylor Cherkas	2021-07-03 7:53	SEN111	EvergreenForest	MidSlope	Gentle	E
D00155453	NAD83UTMZ10	438257.31	6098028.95	1119.9	SOIL	Taylor Cherkas	2021-07-03 8:43	SEN112	EvergreenForest	MidSlope	Gentle	E
D00155454	NAD83UTMZ10	438224.71	6099640.4	1250.9	SOIL	Taylor Cherkas	2021-07-04 7:16	SEN178	EvergreenForest	Ridgetop	Flat	N
D00155456	NAD83UTMZ10	438518.2	6099656.94	1240.6	SOIL	Taylor Cherkas	2021-07-04 8:44	SEN179	EvergreenForest	ValleyBottom	Gentle	N
D00155457	NAD83UTMZ10	438565.63	6098812.15	1309.7	SOIL	Taylor Cherkas	2021-07-05 8:44	SEN143	EvergreenForest	MidSlope	Moderate	E
D00155458	NAD83UTMZ10	438657.41	6098411.73	1316.5	SOIL	Taylor Cherkas	2021-07-05 9:18	SEN128	EvergreenForest	MidSlope	Gentle	E
D00155459	NAD83UTMZ10	435753.29	6099637.42	1352.6	SOIL	Taylor Cherkas	2021-07-06 8:25	SEN166	EvergreenForest	MidSlope	Gentle	N
D00155462	NAD83UTMZ10	435579.34	6099232.02	1416.7	SOIL	Taylor Cherkas	2021-07-09 10:10	SEN146	EvergreenForest	Bench	Flat	W
D00155463	NAD83UTMZ10	435396.8	6099213.7	1406.6	SOIL	Taylor Cherkas	2021-07-09 10:37	SEN145	EvergreenForest	Bench	Flat	W
D00155464	NAD83UTMZ10	435182.74	6099175.25	1359.2	SOIL	Taylor Cherkas	2021-07-09 11:11	SEN144	EvergreenForest	ValleyBottom	Flat	W
D00155466	NAD83UTMZ10	436593.47	6098800.89	1353.2	SOIL	Taylor Cherkas	2021-07-11 8:47	SEN138	EvergreenForest	MidSlope	Gentle	E
D00155467	NAD83UTMZ10	436385.74	6098785.89	1392.1	SOIL	Taylor Cherkas	2021-07-11 10:03	SEN137	EvergreenForest	MidSlope	Moderate	E
D00155473	NAD83UTMZ10	437198.86	6096806.57	1480.6	SOIL	Frazer Dyson	2021-08-02 20:20	SEN051	Buckbrush	Ridgetop	Flat	W
D00155474	NAD83UTMZ10	436993.74	6096807.68	1458.9	SOIL	Frazer Dyson	2021-08-02 22:13	SEN050	Buckbrush	MidSlope	Gentle	SW
D00155476	NAD83UTMZ10	436595.24	6096811.64	1414.5	SOIL	Frazer Dyson	2021-08-04 20:41	SEN048	Buckbrush	MidSlope	Gentle	S
D00155477	NAD83UTMZ10	436830.17	6096819.07	1438.3	SOIL	Frazer Dyson	2021-08-04 21:37	SEN049	Buckbrush	MidSlope	Gentle	SW
D00155478	NAD83UTMZ10	437420.78	6096794.63	1466.8	SOIL	Frazer Dyson	2021-08-04 23:01	SEN052	Buckbrush	MidSlope	Flat	E
D00155479	NAD83UTMZ10	437779.5	6096790	1331.9	SOIL	Taylor Cherkas	2021-08-05 18:27	SEN054	EvergreenForest	MidSlope	Moderate	E
D00155480	NAD83UTMZ10	437583.44	6096855.8	1354.9	SOIL	Taylor Cherkas	2021-08-05 19:12	SEN053	EvergreenForest	MidSlope	Moderate	E
D00155481	NAD83UTMZ10	437791.38	6096425.15	1378.4	SOIL	Taylor Cherkas	2021-08-05 20:17	SEN040	EvergreenForest	MidSlope	Moderate	E
D00155482	NAD83UTMZ10	438002.83	6096852.74	1353.8	SOIL	Taylor Cherkas	2021-08-05 21:32	SEN055	EvergreenForest	MidSlope	Gentle	E
D00155483	NAD83UTMZ10	438174.39	6096787.11	1331.7	SOIL	Taylor Cherkas	2021-08-05 22:05	SEN056	EvergreenForest	MidSlope	Gentle	E
D00155485	NAD83UTMZ10	437579.69	6096388.96	1423.3	SOIL	Taylor Cherkas	2021-08-09 21:27	SEN039	EvergreenForest	Bench	Flat	E
D00155488	NAD83UTMZ10	436208.27	6098787.64	1436.9	SOIL	John Tejada	2021-08-13 18:29	sen136	EvergreenForest	Ridgetop	Gentle	SW
D00155489	NAD83UTMZ10	435993.54	6098799.43	1422.9	SOIL	John Tejada	2021-08-13 19:15	sen135	EvergreenForest	MidSlope	Gentle	NE
D00155491	NAD83UTMZ10	435794.87	6098772.6	1394.9	SOIL	Spencer Purnell	2021-08-13 19:56	sen134	EvergreenForest	MidSlope	Gentle	W
D00155492	NAD83UTMZ10	435626.87	6098811.01	1361.7	SOIL	Spencer Purnell	2021-08-13 20:43	sen133	EvergreenForest	MidSlope	Gentle	W
D00155493	NAD83UTMZ10	435410.57	6098803.18	1331.4	SOIL	Spencer Purnell	2021-08-13 21:13	sen132	EvergreenForest	MidSlope	Gentle	W
D00155494	NAD83UTMZ10	435200.36	6098810.86	1331.9	SOIL	Spencer Purnell	2021-08-13 21:51	sen131	EvergreenForest	MidSlope	Gentle	W
D00155496	NAD83UTMZ10	435202.81	6098421.11	1279.1	SOIL	Spencer Purnell	2021-08-13 22:34	sen113	EvergreenForest	MidSlope	Gentle	S
D00155498	NAD83UTMZ10	436563.78	6098380.06	1442.9	SOIL	Spencer Purnell	2021-08-16 18:10	Sen120	EvergreenForest	Ridgetop	Gentle	E
D00155499	NAD83UTMZ10	436389.25	6098380.69	1431.8	SOIL	Spencer Purnell	2021-08-16 18:33	sen119	EvergreenForest	Bench	Gentle	E
D00155501	NAD83UTMZ10	436213.66	6098403.59	1441.0	SOIL	Spencer Purnell	2021-08-16 19:10	sen118	EvergreenForest	MidSlope	Gentle	W
D00155502	NAD83UTMZ10	436007.3	6098399.12	1417.6	SOIL	Spencer Purnell	2021-08-16 19:45	sen117	EvergreenForest	MidSlope	Gentle	W
D00155503	NAD83UTMZ10	435826.44	6098418.78	1379.6	SOIL	Spencer Purnell	2021-08-16 20:13	sen116	EvergreenForest	MidSlope	Gentle	W
D00155504	NAD83UTMZ10	435614.33	6098406.25	1338.8	SOIL	Spencer Purnell	2021-08-16 20:38	Sen115	EvergreenForest	MidSlope	Gentle	W

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Site_Outcrop	Sample_Depth_cm	Sample_Thickness_cm	Sample_AngularClasts	Sample_Carbonate	Sample_Colour	Sample_Form	Sample_Horizon	Sample_Moisture
D00155441	ANDS	35	25		None	DarkBrown		B	Damp
D00155442	ANDS	25	15		None	LightBrown		B	Dry
D00155443	OtherRock	25	5		None	DarkBrown		AB	Damp
D00155444	OtherRock	25	15		None	LightBrown		B	Dry
D00155446	ANDS	25	5		None	LightBrown		B	Damp
D00155447	ANDS	25	5		None	LightBrown		B	Damp
D00155448	ANDS	25	15		None	DarkBrown		B	Damp
D00155449	ANDS	15	5		None	LightBrown		B	Damp
D00155450	ANDS	25	5		None	LightBrown		B	Damp
D00155451	ANDS	25	5		None	LightBrown		B	Damp
D00155452	ANDS	25	5		None	LightBrown		B	Wet
D00155453	ANDS	35	15		None	LightBrown		B	Damp
D00155454	ANDS	25	15		None	LightBrown		B	Dry
D00155456	ANDS	25	15		None	LightBrown		B	Damp
D00155457	ANDS	25	5		None	LightBrown		B	Damp
D00155458	ANDS	15	5		None	DarkBrown		B	Damp
D00155459	ANDS	45	35		None	LightBrown		B	Damp
D00155462	ANDS	25	5		None	LightBrown		B	Dry
D00155463	ANDS	15	5		None	LightBrown		B	Dry
D00155464	ANDS	55	15		None	LightGrey		B	Damp
D00155466	ANDS	25	5		None	LightBrown		B	Dry
D00155467	ANDS	35	15		None	LightBrown		B	Damp
D00155473	ANLT	45	5		None	LightBrown		B	Damp
D00155474	ANLT	25	5		None	LightBrown		B	Dry
D00155476	ANDS	15	5		None	LightBrown		B	Dry
D00155477	ANDS	25	5		None	LightBrown		B	Dry
D00155478	ANDS	25	5		None	LightBrown		B	Damp
D00155479	ANDS	25	5		None	LightBrown		B	Damp
D00155480	ANDS	35	5		None	LightBrown		B	Damp
D00155481	ANDS	25	5		None	LightBrown		B	Damp
D00155482	ANDS	15	5		None	DarkBrown		B	Damp
D00155483	ANDS	25	5		Low	DarkBrown		B	Damp
D00155485	ANDS	15	5		None	LightBrown		BC	Dry
D00155488	ANDS	35	15		None	LightBrown		B	Damp
D00155489	APFW	35	15		None	LightBrown		B	Dry
D00155491	OtherRock	25	15		None	DarkBrown		AB	Damp
D00155492	OtherRock	25	15		None	DarkBrown		B	Damp
D00155493	OtherRock	25	15		None	LightBrown		B	Damp
D00155494	OtherRock	35	25		None	LightBrown		B	Dry
D00155496	OtherRock	25	15		None	LightBrown		B	Damp
D00155498	OtherRock	25	25		None	LightBrown		B	Dry
D00155499	OtherRock	15	15		None	LightBrown		B	Dry
D00155501	OtherRock	25	5		None	LightBrown		B	Damp
D00155502	OtherRock	35	5		None	LightBrown		B	Damp
D00155503	OtherRock	15	25		None	LightBrown		B	Dry
D00155504	OtherRock	15	25		None	LightBrown		B	Dry

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Sample_Contamination	Sample_Organics	Sample_Oxide	Sample_Cobbles	Sample_Pebbles	Sample_Sand	Sample_Silt	Sample_Parent	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm
D00155441	None	None	Low	30	15	20	35	Unknown	169	2.41	6.9	2.9	0.5
D00155442	None	Low	Low	35	25	10	30	Unknown	266	2.32	7	2.4	0.5
D00155443	None	Moderate	None	35	20	15	30	Unknown	648	1.66	6.3	1.9	1
D00155444	None	None	Low	15	15	30	40	Unknown	136	1.51	6.3	8.8	0.5
D00155446	None	Low	Low	10	20	30	40	Basal Till	148	1.9	7.1	9.4	1
D00155447	None	Low	Low	0	20	40	40	Basal Till	432	3.11	11.6	4.4	1
D00155448	None	Low	None	30	20	20	30	Basal Till	293	2.43	5.9	7.1	0.5
D00155449	None	Low	Low	10	20	40	30	Basal Till	556	2.29	7.1	3.9	0.5
D00155450	None	Low	Low	5	20	50	25	Basal Till	365	2.28	6.2	5.5	2
D00155451	None	Low	Low	10	20	50	20	Basal Till	227	2.22	10.2	16.9	2
D00155452	None	Low	Low	5	20	40	35	Basal Till	159	2.58	6.3	9.5	3
D00155453	None	Low	Low	15	30	30	25	Unknown	140	2	8.8	11	0.5
D00155454	None	Low	Moderate	20	30	40	10	Unknown	204	2.69	10.8	7	1
D00155456	None	Low	Moderate	10	30	40	20	Unknown	65	2	4.2	6.2	1
D00155457	None	Moderate	Moderate	20	15	35	30	Basal Till	775	3.85	11.4	3.1	0.5
D00155458	None	Low	None	10	20	30	40	Basal Till	441	1.9	6.6	4.4	2
D00155459	None	Low	Moderate	20	20	30	30	Basal Till	408	2.63	7.8	4.5	1
D00155462	None	Low	Low	40	10	40	10	Basal Till	219	2.26	3.1	4.9	2
D00155463	None	Low	Low	40	10	40	10	Basal Till	248	2.87	2.3	1.4	2
D00155464	None	Low	None	0	10	20	70	Basal Till	198	1.48	6	5.7	2
D00155466	None	Low	Low	20	20	40	20	Basal Till	153	2.38	6.7	5.3	1
D00155467	None	Low	Moderate	10	20	30	40	Basal Till	251	1.81	5.4	4.8	1
D00155473	Low	None	None	10	25	40	25	Basal Till	99	1.78	5.1	7.6	2
D00155474	None	None	None	5	10	75	10	Weathered	378	2.55	8.3	2	3
D00155476	None	Low	Low	25	25	50	0	Weathered	307	1.94	4.1	2.1	3
D00155477	None	Low	None	5	15	80	0	Basal Till	110	2.05	6.9	9.4	3
D00155478	None	Low	None	5	10	80	5	Basal Till	177	2.7	9.2	3.1	3
D00155479	None	Low	None	10	20	40	30	Basal Till	314	2.22	10.9	5.2	2
D00155480	None	Low	Low	20	10	40	30	Basal Till	183	2.43	8.2	3	3
D00155481	None	Low	None	20	30	30	20	Basal Till	546	2.5	45	2.8	3
D00155482	None	Moderate	None	5	25	40	30	Basal Till	1058	2.55	13.9	2.4	3
D00155483	None	Low	None	15	20	40	25	Basal Till	232	2.34	10.8	3.7	3
D00155485	None	Low	Moderate	10	30	40	20	Basal Till	208	2.92	19	0.7	3
D00155488	None	None	Moderate	40	10	25	25	Ablation Till	56	2.76	5.6	6.2	2
D00155489	None	None	Moderate	20	20	30	30	Till	74	2.33	6.4	6.3	2
D00155491	None	Low	None	5	10	40	45	Basal Till	494	1.87	6.6	2.8	2
D00155492	None	Low	None	25	20	20	35	Basal Till	421	1.66	3	3.6	2
D00155493	None	Low	Low	10	30	25	35	Unknown	119	1.53	3.4	5.8	2
D00155494	None	None	Moderate	30	25	10	35	Till	155	2.31	4.9	94.9	2
D00155496	None	None	Moderate	5	25	10	60	Till	73	2.06	4.9	7.2	2
D00155498	None	None	Low	10	35	20	35	Till	88	2.54	7.6	3.8	2
D00155499	None	None	Low	20	35	10	35	Till	110	3.07	8.2	2.7	3
D00155501	None	None	Low	20	35	10	35	Till	119	1.81	4.4	10.2	2
D00155502	Low	None	None	25	15	20	40	Unknown	39	1.95	4.2	2.7	2
D00155503	None	None	Low	20	35	20	25	Till	192	1.86	5	4.1	2
D00155504	None	None	Low	30	30	20	20	Till	322	1.77	5.8	612.9	2

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppb	In_ppm	K_pct	La_ppm	Li_ppm	Mg_pct
D00155441	66.9		0.04	0.43	0.2		16.1	67.5	47.91	4.82	8.1			64		0.05	5.2		1.25
D00155442	65.1		0.09	0.24	0.25		8.9	51.5	37.71	3.95	7.1			90		0.05	7.4		0.67
D00155443	135.9		0.12	1.02	0.94		16.7	43.2	62.89	2.91	6.2			63		0.06	9		0.58
D00155444	70.2		0.04	0.36	0.19		8.6	43	38.8	3.01	5.1			44		0.04	6.4		0.59
D00155446	66.1		0.07	0.41	0.18		9.4	41.9	81.34	2.95	5.9			68		0.05	10.3		0.72
D00155447	102.5		0.13	0.23	0.37		14.1	58.4	99.11	4.42	8.5			110		0.1	12.6		0.87
D00155448	92		0.1	0.42	0.28		7.7	46.5	59.11	2.87	7.1			84		0.08	8.7		0.62
D00155449	101.7		0.08	0.4	0.41		11.3	53.3	88.51	3.52	8			60		0.07	8.3		0.84
D00155450	60.5		0.08	0.29	0.51		8.5	45.1	81.04	3.8	6.5			107		0.06	6.8		0.55
D00155451	76		0.05	0.79	0.31		15.6	102.3	59.44	4.84	7.7			85		0.05	5.7		1.21
D00155452	77.2		0.04	0.84	0.23		19.4	85.1	75.12	4.04	7.7			73		0.05	7		1.42
D00155453	112.8		0.09	0.61	0.21		15.9	75.4	84.61	3.6	6.1			51		0.08	7.1		0.89
D00155454	86.6		0.05	0.39	0.23		18.7	81.1	51.13	5	7.6			62		0.07	4.8		1.16
D00155456	66.5		0.09	0.27	0.21		11.8	88.5	29.53	3.58	7.3			46		0.06	8.6		0.88
D00155457	91.3		0.08	0.78	0.37		25.6	144.6	173.34	4.7	6.9			135		0.07	10.6		0.85
D00155458	82.8		0.07	0.69	0.3		16.5	70.3	82.82	3.27	6.9			59		0.05	9.2		0.93
D00155459	95.9		0.07	0.33	0.23		14.7	89.1	53.86	4.39	7.6			47		0.06	7.9		0.83
D00155462	85.8		0.06	0.43	0.15		18	108.7	62.22	3.46	8.2			54		0.05	7.6		1.39
D00155463	111.7		0.07	0.55	0.22		27.7	185.8	88.29	5.14	9.8			86		0.06	7.2		2.03
D00155464	82.7		0.1	0.87	0.13		11.7	38	113.05	2.66	4.8			212		0.05	11.4		0.69
D00155466	61.2		0.1	0.29	0.2		9.5	48.4	40.86	3.44	6.3			90		0.06	9		0.68
D00155467	117.2		0.09	0.37	0.21		11.5	46.1	47.96	3.64	7.5			59		0.04	9.3		0.55
D00155473	85.4	0.4	0.07	0.71	0.07	16.3	13.1	65.4	67.94	3.28	5.4	0.05	0.1	70	0.01	0.04	8.5	11.5	0.92
D00155474	78.1	0.8	0.1	0.86	0.34	18	22	87.4	87.64	4.08	7.4	0.05	0.03	63	0.03	0.06	10.6	13.9	0.88
D00155476	115	0.4	0.12	0.56	0.29	12.2	11.7	43	39.73	4.18	8.4	0.05	0.03	52	0.03	0.06	6.1	14	0.55
D00155477	70.2	0.4	0.08	0.87	0.3	18.7	16.8	65.9	71.68	3.73	5.7	0.05	0.05	86	0.02	0.06	7.9	15.8	0.87
D00155478	80.4	0.6	0.12	0.82	0.28	22.2	17.6	90.5	104.38	4.19	6.4	0.05	0.03	82	0.03	0.06	8.8	29.6	1.15
D00155479	87.2	0.5	0.1	0.6	0.26	21.6	18.8	75.6	131.16	3.51	5.8	0.05	0.02	59	0.02	0.05	9.6	20.2	0.9
D00155480	56.2	0.5	0.07	0.92	0.19	15.8	19.7	77.2	76.34	3.88	6.4	0.05	0.05	53	0.02	0.04	6.3	20.1	1.21
D00155481	75.9	0.6	0.08	1.07	0.47	13.1	20.1	106.9	142.04	4.29	7	0.05	0.01	85	0.03	0.05	9.2	19.2	1.25
D00155482	99.7	0.8	0.14	1.35	0.62	21.3	17.8	91.6	176.48	3.29	5.3	0.05	0.03	208	0.03	0.05	12.3	21.8	0.52
D00155483	51	0.5	0.09	0.56	0.19	14.6	14.6	83.4	76.65	4.3	7.9	0.05	0.04	48	0.02	0.04	7.9	16	0.99
D00155485	80.9	0.2	0.06	0.83	0.15	5.8	29.4	155	44.59	5.23	9.6	0.05	0.07	39	0.01	0.08	2.9	21.8	2.62
D00155488	63.6	0.3	0.07	0.32	0.16	11.5	9	53.5	53.34	3.6	6	0.05	0.07	92	0.02	0.04	6.2	11.5	0.65
D00155489	75.2	0.4	0.07	0.43	0.22	14.3	8.3	42.7	37.01	3.79	6	0.05	0.04	57	0.02	0.05	7.5	11.4	0.56
D00155491	110.4	0.5	0.12	1.72	0.92	15.5	12.3	47.7	83.99	2.53	5	0.05	0.06	150	0.01	0.06	11.3	9	0.51
D00155492	127.6	0.4	0.08	1.06	0.39	16.1	9.7	30.4	40.14	2.33	5	0.05	0.01	64	0.01	0.05	9.2	9	0.48
D00155493	71	0.2	0.07	0.66	0.21	10	6.2	29.2	22.81	2.36	5.8	0.05	0.03	27	0.01	0.04	5	9.6	0.45
D00155494	71.9	0.5	0.07	0.49	0.14	16.2	15.2	46.5	103.75	3.96	7	0.05	0.07	26	0.03	0.03	6	20.5	0.77
D00155496	64.2	0.4	0.04	0.34	0.17	10.2	8.6	43.1	27.77	3.25	4.5	0.05	0.07	35	0.01	0.03	5.3	10.5	0.47
D00155498	86.7	0.4	0.08	0.32	0.16	12.2	17	66.3	41.13	4.31	6.5	0.05	0.03	43	0.03	0.04	6.2	18.2	1
D00155499	49.4	0.3	0.07	0.36	0.14	7.7	16.4	79.8	41.55	6.59	10.5	0.05	0.04	88	0.03	0.04	3.6	19	1.32
D00155501	60.1	0.2	0.11	0.3	0.16	14	6.2	39.9	26.65	3.07	7.6	0.05	0.03	55	0.01	0.04	7.3	8.3	0.5
D00155502	64.6	0.3	0.08	0.3	0.17	12.7	5.7	38	32.21	2.69	5.8	0.05	0.04	58	0.01	0.04	6.6	10.5	0.42
D00155503	71.7	0.4	0.09	0.37	0.23	13.4	7.4	36.7	35.86	3.06	6.1	0.05	0.04	56	0.01	0.05	7.1	9.9	0.44
D00155504	111.7	0.3	0.08	0.36	0.28	10.1	7.8	40.3	29.33	3.87	6.2	0.05	0.07	106	0.02	0.04	5.2	12.5	0.42

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pd_ppm	Pt_gpt	Pb_ppm	Rb_ppm	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm
D00155441	415	0.61	0.007		29.5	0.157			3.9			0.01	0.83	6.9	0.05		35.9	
D00155442	300	0.85	0.007		19.1	0.148			5.1			0.01	0.59	4.7	0.2		22.7	
D00155443	1889	0.95	0.007		20.2	0.117			7.3			0.05	0.41	3.2	0.2		49.9	
D00155444	293	0.66	0.008		21.3	0.137			4.4			0.01	0.58	3.2	0.05		28.1	
D00155446	275	1	0.008		24	0.084			4.9			0.01	0.49	4.7	0.1		34.2	
D00155447	447	1.36	0.008		36	0.1			7.4			0.02	0.67	6	0.2		25.8	
D00155448	259	1.06	0.009		21.2	0.079			5.5			0.03	0.33	2.9	0.5		36.8	
D00155449	391	1.31	0.009		25.7	0.072			5.8			0.03	0.57	4.6	0.3		43.3	
D00155450	353	1.29	0.008		17.9	0.072			5.2			0.03	0.51	3.5	0.4		28.9	
D00155451	475	1.07	0.008		35.4	0.075			7.5			0.02	0.56	5.8	0.3		56.2	
D00155452	475	0.57	0.009		39	0.076			4.1			0.01	0.54	7.1	0.2		55.7	
D00155453	539	0.79	0.01		34.3	0.084			5.1			0.01	0.75	6	0.2		70.7	
D00155454	508	1.13	0.008		34.2	0.139			4.6			0.01	0.71	5.8	0.1		29.1	
D00155456	316	0.7	0.007		28.7	0.127			6.3			0.01	0.48	4.7	0.05		24.2	
D00155457	446	0.94	0.007		56.6	0.12			6.3			0.03	0.51	9.6	0.6		39	
D00155458	701	0.89	0.009		28.8	0.087			5			0.03	0.44	6.3	0.3		44.7	
D00155459	404	1.19	0.008		28.2	0.121			5.7			0.01	0.86	5.7	0.2		31.6	
D00155462	347	1.07	0.006		51.8	0.083			5.3			0.01	0.49	4.2	0.2		40.5	
D00155463	1337	2.19	0.007		65.6	0.112			5.6			0.04	0.98	4.3	0.2		54.7	
D00155464	487	0.73	0.016		22.3	0.125			4.3			0.01	0.72	7.5	0.05		59.8	
D00155466	412	0.91	0.008		20.6	0.081			4.8			0.01	0.57	4.5	0.3		27.6	
D00155467	320	0.93	0.008		19.4	0.069			5.5			0.01	0.52	4.9	0.1		34.3	
D00155473	469	0.89	0.01	0.29	30.8	0.095	0.005	0.001	3.9	4.1	0.001	0.01	0.64	8.8	0.2	0.3	40.2	0.03
D00155474	1127	1.13	0.01	0.74	32.5	0.108	0.005	0.001	5.4	13.2	0.001	0.03	0.38	8.4	0.3	0.4	44.5	0.03
D00155476	669	0.98	0.008	1.14	17.6	0.137	0.005	0.001	6	11.7	0.001	0.02	0.44	4.1	0.2	0.5	46.6	0.03
D00155477	654	0.71	0.01	0.75	30	0.073	0.005	0.001	4.7	9.8	0.001	0.03	0.66	7	0.6	0.3	47.3	0.03
D00155478	856	0.89	0.009	0.57	48.2	0.115	0.005	0.001	5.4	7.7	0.001	0.03	0.58	8.3	0.6	0.4	35.9	0.03
D00155479	857	0.97	0.01	0.52	33.9	0.095	0.005	0.001	5.4	8.4	0.001	0.02	0.54	8.9	0.4	0.3	34.3	0.03
D00155480	505	0.61	0.009	0.76	36.9	0.075	0.005	0.001	3.7	5.2	0.001	0.03	0.53	8.1	0.3	0.3	42.8	0.03
D00155481	819	1.16	0.008	0.64	42.8	0.124	0.005	0.002	5.6	10.9	0.001	0.05	0.68	7.9	0.5	0.3	45	0.03
D00155482	1678	1.35	0.008	0.81	27.5	0.187	0.012	0.001	6.8	10.7	0.001	0.1	0.46	6.6	1.1	0.4	45.7	0.03
D00155483	363	1.09	0.009	1	36.2	0.062	0.005	0.001	4.8	7.2	0.001	0.02	0.53	5.2	0.2	0.4	36.1	0.03
D00155485	821	0.69	0.007	0.81	81.2	0.108	0.005	0.003	3	14.1	0.001	0.01	0.43	5.8	0.2	0.3	38.4	0.03
D00155488	253	0.81	0.009	1.12	22	0.076	0.005	0.001	4.2	3.7	0.001	0.01	0.42	5.4	0.4	0.3	25.6	0.03
D00155489	263	1.15	0.007	1.03	19.3	0.113	0.005	0.001	4	6.5	0.001	0.02	0.34	3.6	0.3	0.3	31	0.03
D00155491	1215	0.81	0.01	0.46	18.5	0.239	0.005	0.001	5.7	7.2	0.001	0.12	0.5	2.7	1.1	0.3	62.9	0.03
D00155492	603	0.93	0.008	0.41	15.1	0.121	0.005	0.001	4	7.7	0.001	0.05	0.21	2	0.3	0.3	68	0.03
D00155493	202	0.62	0.01	0.83	11.9	0.038	0.005	0.001	3.5	7.6	0.001	0.01	0.26	2.8	0.2	0.3	49.9	0.03
D00155494	364	0.82	0.01	0.72	26.5	0.093	0.005	0.001	4.4	6.1	0.001	0.01	0.42	5.4	0.1	0.3	31.4	0.03
D00155496	206	0.64	0.009	0.62	20.5	0.118	0.005	0.001	2.8	4.6	0.001	0.01	0.42	3.7	0.2	0.2	24	0.03
D00155498	339	0.74	0.009	0.63	38.5	0.125	0.005	0.001	4.4	7.2	0.001	0.01	0.48	5.7	0.3	0.3	25.3	0.03
D00155499	591	1.15	0.008	0.96	31.3	0.298	0.005	0.002	6	9.6	0.001	0.01	0.59	6.8	0.3	0.4	25.9	0.03
D00155501	218	0.79	0.008	0.8	15.3	0.19	0.005	0.001	5.3	7.2	0.001	0.01	0.33	3.4	0.2	0.5	23.5	0.03
D00155502	206	0.88	0.007	0.93	15.6	0.066	0.005	0.001	4	5.5	0.001	0.01	0.32	2.7	0.3	0.3	24.8	0.03
D00155503	269	1.05	0.009	0.82	16.5	0.095	0.005	0.001	4	7.7	0.001	0.01	0.37	3.2	0.3	0.3	29.7	0.03
D00155504	251	1.13	0.008	1.19	16.2	0.078	0.005	0.001	3.9	5.5	0.001	0.01	0.39	3.2	0.2	0.3	30.2	0.03

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Samp_AssayMethod_D	Samp_Dispatch_D	Samp_LabJob_D
D00155441	0.01	1.4	0.09	0.04	0.3	125	0.2		56		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155442	0.01	1.9	0.091	0.04	0.4	103	0.1		55		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155443	0.01	0.5	0.042	0.05	0.6	79	0.05		93		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155444	0.01	0.9	0.085	0.03	0.3	89	0.2		40		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155446	0.03	1.2	0.09	0.05	0.5	80	0.1		41		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155447	0.04	1.3	0.084	0.09	0.8	108	0.1		81		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155448	0.02	0.3	0.058	0.06	0.8	79	0.05		48		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155449	0.03	0.6	0.115	0.05	0.8	110	0.1		54		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155450	0.03	0.6	0.09	0.05	0.8	97	0.2		41		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155451	0.01	1.9	0.146	0.05	0.5	126	0.1		54		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155452	0.01	1	0.132	0.05	0.5	114	0.1		56		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155453	0.05	0.9	0.105	0.06	0.5	102	0.1		69		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155454	0.03	1.7	0.115	0.04	0.4	143	0.2		76		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155456	0.01	2.3	0.114	0.05	0.4	93	0.1		49		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155457	0.01	1.8	0.123	0.11	0.8	114	0.1		49		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155458	0.03	0.6	0.096	0.06	0.4	104	0.05		46		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155459	0.02	2.1	0.14	0.05	0.6	126	0.2		70		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155462	0.01	0.7	0.092	0.03	0.6	95	0.1		52		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155463	0.01	0.4	0.096	0.03	0.7	150	0.05		70		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155464	0.01	2.9	0.098	0.05	0.6	79	0.1		41		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155466	0.03	2.6	0.098	0.07	0.5	87	0.2		56		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155467	0.02	1.9	0.127	0.04	0.5	111	0.2		38		AQ252-EXT,pXRF	MTM21-Soil_01	VAN21002068
D00155473	0.01	1.8	0.091	0.04	0.4	92	0.1	9.7	41	4.3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155474	0.01	0.5	0.08	0.06	0.7	109	0.05	18.6	87	1.1	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155476	0.02	0.5	0.09	0.04	0.5	104	0.2	3	100	1.3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155477	0.01	0.8	0.093	0.04	0.7	98	0.1	9.5	79	1.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155478	0.01	0.7	0.047	0.07	0.5	90	0.05	12.6	92	0.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155479	0.01	0.7	0.055	0.07	0.7	93	0.05	15.6	62	0.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155480	0.01	0.7	0.101	0.04	0.4	93	0.05	11.4	55	1.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155481	0.01	0.3	0.064	0.05	0.7	102	0.05	20.3	67	0.7	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155482	0.01	0.3	0.028	0.1	0.8	83	0.05	35.4	103	1	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155483	0.01	0.4	0.119	0.06	0.5	108	0.1	8.3	49	1.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155485	0.01	0.6	0.215	0.06	0.2	134	0.2	3.4	85	2.8	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155488	0.03	1.3	0.097	0.03	0.5	98	0.2	3.8	40	3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155489	0.02	0.6	0.095	0.04	0.5	102	0.2	5.2	43	1.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155491	0.01	0.4	0.021	0.05	1.3	72	0.05	14.4	53	1.5	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155492	0.01	0.1	0.034	0.04	0.6	68	0.05	7.9	41	0.4	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155493	0.01	0.4	0.083	0.04	0.3	74	0.1	3.2	39	1.2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155494	0.01	1.4	0.101	0.04	0.4	116	0.1	4.8	55	3.4	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155496	0.02	1.2	0.08	0.02	0.4	93	0.2	4.3	36	3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155498	0.03	1.1	0.074	0.03	0.3	110	0.1	3.7	60	1.3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155499	0.01	0.8	0.112	0.04	0.3	172	0.2	2.6	67	2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155501	0.02	0.5	0.08	0.04	0.3	83	0.1	2.9	41	1.2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155502	0.02	0.3	0.08	0.04	0.4	72	0.1	3.7	38	1.6	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155503	0.02	0.6	0.091	0.03	0.5	83	0.1	4.1	44	1.6	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155504	0.03	1.1	0.102	0.03	0.4	97	0.2	3.4	47	2.8	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	SAMPLETYPE	Sampled_By	Sampled_Date	Site_ID	Site_Vegetation	Site_TopoPosition	Site_Slope_Angle	Site_Slope_Direction
D00155505	NAD83UTMZ10	435403.36	6098392.79	1300.2	SOIL	Spencer Purnell	2021-08-16 21:17	Sen114	EvergreenForest	MidSlope	Gentle	W
D00155506	NAD83UTMZ10	435382.5	6097996.5	1286.8	SOIL	Spencer Purnell	2021-08-16 21:58	Sen098	EvergreenForest	MidSlope	Gentle	W
D00155509	NAD83UTMZ10	437408.12	6098417.15	1391.2	SOIL	Spencer Purnell	2021-08-17 17:17	SEN124	EvergreenForest	MidSlope	Gentle	NW
D00155511	NAD83UTMZ10	437187.57	6098370.68	1361.7	SOIL	Spencer Purnell	2021-08-17 17:58	SEN123	EvergreenForest	MidSlope	Gentle	NE
D00155512	NAD83UTMZ10	436996.33	6098425.94	1387.4	SOIL	Spencer Purnell	2021-08-17 18:34	SEN122	EvergreenForest	MidSlope	Moderate	NW
D00155513	NAD83UTMZ10	436817.01	6098404.48	1387.5	SOIL	Colin Cenaiko	2021-08-17 19:10	SEN121	EvergreenForest	MidSlope	Gentle	N
D00155516	NAD83UTMZ10	436980.91	6097992.66	1483.9	SOIL	Spencer Purnell	2021-08-17 21:20	SEN106	EvergreenForest	MidSlope	Gentle	E
D00155517	NAD83UTMZ10	437382.25	6097983.16	1436.1	SOIL	Spencer Purnell	2021-08-17 22:38	SEN108	EvergreenForest	MidSlope	Flat	N
D00155521	NAD83UTMZ10	436415.11	6098025.04	1461.0	SOIL	Spencer Purnell	2021-08-19 18:51	SEN103	EvergreenForest	Ridgetop	Flat	N
D00155522	NAD83UTMZ10	436220.32	6097979.82	1411.8	SOIL	Spencer Purnell	2021-08-19 19:48	CEN102	EvergreenForest	MidSlope	Gentle	W
D00155525	NAD83UTMZ10	435805.6	6098028.62	1384.2	SOIL	Spencer Purnell	2021-08-19 21:41	Sen100	EvergreenForest	MidSlope	Gentle	W
D00155526	NAD83UTMZ10	435615.29	6098037.67	1371.3	SOIL	Spencer Purnell	2021-08-19 22:08	SEN099	EvergreenForest	MidSlope	Moderate	W
D00155527	NAD83UTMZ10	435221.75	6099610.41	1347.5	SOIL	Spencer Purnell	2021-08-20 18:39	Sen163	EvergreenForest	MidSlope	Moderate	NE
D00155528	NAD83UTMZ10	435375.26	6099587.97	1331.4	SOIL	Spencer Purnell	2021-08-20 19:24	Sen164	EvergreenForest	MidSlope	Flat	NE
D00155529	NAD83UTMZ10	435596.43	6099604.07	1345.5	SOIL	Spencer Purnell	2021-08-20 19:54	SEN165	EvergreenForest	MidSlope	Flat	NE
D00155533	NAD83UTMZ10	437627.35	6095609.42	1320.1	SOIL	Frazer Dyson	2021-08-28 12:00	SEN013	Buckbrush	MidSlope	Moderate	NE
D00155534	NAD83UTMZ10	436794.38	6096428.19	1375.1	SOIL	Frazer Dyson	2021-08-28 9:50	SEN035	Buckbrush	MidSlope	Flat	SW
D00155535	NAD83UTMZ10	436955.92	6096415.89	1396.7	SOIL	Frazer Dyson	2021-08-28 10:42	SEN036	Buckbrush	MidSlope	Gentle	SW
D00155536	NAD83UTMZ10	437184.41	6096396.17	1423.6	SOIL	Frazer Dyson	2021-08-28 11:50	SEN037	Buckbrush	MidSlope	Gentle	SE
D00155538	NAD83UTMZ10	439410.52	6099215.71	1219.0	SOIL	Frazer Dyson	2021-08-30 4:26	SEN162	Buckbrush	MidSlope	Flat	E
D00155539	NAD83UTMZ10	439213.56	6099216.9	1264.8	SOIL	Frazer Dyson	2021-08-30 6:21	SEN161	Buckbrush	MidSlope	Flat	E
D00155542	NAD83UTMZ10	439009.83	6099206.14	1259.8	SOIL	Frazer Dyson	2021-08-30 8:03	SEN160	Buckbrush	MidSlope	Moderate	E
D00155543	NAD83UTMZ10	438814.46	6099207.14	1297.3	SOIL	Frazer Dyson	2021-08-30 8:58	SEN159	Buckbrush	MidSlope	Flat	W
D00155544	NAD83UTMZ10	438591.97	6099203.88	1280.4	SOIL	Frazer Dyson	2021-08-30 10:10	SEN158	Buckbrush	MidSlope	Steep	E
D00155545	NAD83UTMZ10	439390.51	6099609.04	1218.4	SOIL	Taylor Cherkas	2021-08-31 5:46	SEN184	EvergreenForest	MidSlope	Gentle	E
D00155546	NAD83UTMZ10	439363.43	6099528.9	1228.0	SOIL	Taylor Cherkas	2021-08-31 6:40	SEN183	EvergreenForest	Plateau	Flat	E
D00155547	NAD83UTMZ10	438957	6099627.92	1287.4	SOIL	Taylor Cherkas	2021-08-31 8:22	SEN182	EvergreenForest	MidSlope	Gentle	W
D00155548	NAD83UTMZ10	438902.52	6099437.98	1186.9	SOIL	Taylor Cherkas	2021-08-31 9:04	SEN181	EvergreenForest	MidSlope	Steep	W
D00155549	NAD83UTMZ10	437600.13	6097196.31	1459.1	SOIL	Taylor Cherkas	2021-09-01 5:33	SEN069	EvergreenForest	Bench	Flat	E
D00155551	NAD83UTMZ10	437511.44	6098049.15	1456.9	SOIL	Taylor Cherkas	2021-09-01 6:58	SEN109	EvergreenForest	Bench	Flat	NE
D00155552	NAD83UTMZ10	438798.1	6098393.98	1308.8	SOIL	Taylor Cherkas	2021-09-01 8:33	SEN129	EvergreenForest	MidSlope	Gentle	E
D00155553	NAD83UTMZ10	436567.06	6097620.05	1450.3	SOIL	Taylor Cherkas	2021-09-02 7:42	SEN084	EvergreenForest	MidSlope	Gentle	W
D00155554	NAD83UTMZ10	436360.42	6097612.6	1416.1	SOIL	Taylor Cherkas	2021-09-02 8:17	SEN083	EvergreenForest	MidSlope	Gentle	W
D00155555	NAD83UTMZ10	436173.9	6097596.34	1391.6	SOIL	Taylor Cherkas	2021-09-02 8:47	SEN082	EvergreenForest	MidSlope	Gentle	W
D00155556	NAD83UTMZ10	435962.67	6097678.38	1357.6	SOIL	Taylor Cherkas	2021-09-02 9:16	SEN081	EvergreenForest	MidSlope	Gentle	W
D00155557	NAD83UTMZ10	435676.62	6097796.75	1278.7	SOIL	Taylor Cherkas	2021-09-02 9:52	SEN080	EvergreenForest	MidSlope	Gentle	W
D00155562	NAD83UTMZ10	436745.56	6097588.58	1518.9	SOIL	Taylor Cherkas	2021-09-03 10:13	SEN085	EvergreenForest	MidSlope	Gentle	W
D00155575	NAD83UTMZ10	436805.75	6097210.07	1510.2	SOIL	Frazer Dyson	2021-09-23 7:37	SEN065	Buckbrush	MidSlope	Gentle	SW
D00155576	NAD83UTMZ10	436602.64	6097205.34	1488.9	SOIL	Frazer Dyson	2021-09-23 8:10	SEN064	Buckbrush	MidSlope	Flat	W
D00155577	NAD83UTMZ10	436390.36	6097207.24	1482.6	SOIL	Frazer Dyson	2021-09-23 8:59	SEN063	Buckbrush	MidSlope	Flat	W

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Site_Outcrop	Sample_Depth_cm	Sample_Thickness_cm	Sample_AngularClasts	Sample_Carbonate	Sample_Colour	Sample_Form	Sample_Horizon	Sample_Moisture
D00155505	OtherRock	15	25		None	DarkGrey		AB	Dry
D00155506	OtherRock	15	25		None	LightBrown		B	Dry
D00155509	OtherRock	15	15		None	LightBrown		B	Dry
D00155511	OtherRock	15	15		None	DarkBrown		B	Dry
D00155512	OtherRock	15	35		None	LightBrown		B	Damp
D00155513	OtherRock	15	15		None	LightBrown		B	Dry
D00155516	OtherRock	15	5		None	LightGrey		BC	Dry
D00155517	OtherRock	25	15		None	YellowishOrange		B	Damp
D00155521	ANDS	15	5		None	LightBrown		B	Damp
D00155522	APFW	25	15		None	LightBrown		B	Dry
D00155525	ANDS	5	25		None	LightBrown		B	Dry
D00155526	OtherRock	15	15		None	LightBrown		B	Dry
D00155527	OtherRock	15	15		None	DarkBrown		B	Damp
D00155528	OtherRock	5	15		None	DarkBrown		B	Damp
D00155529	OtherRock	5	25		None	LightBrown		B	Damp
D00155533	APFW	15	5		None	DarkBrown		B	Moist
D00155534	ANDS	25	15		None	DarkBrown		B	Moist
D00155535	ANDS	45	15		None	LightBrown		B	Damp
D00155536	ANLT	25	5		None	LightBrown		B	Damp
D00155538	ANDS	25	5		None	LightBrown		B	Damp
D00155539	ANDS	25	15		None	LightBrown		BC	Dry
D00155542	ANLT	35	15		None	DarkBrown		B	Dry
D00155543	ANDS	25	5		None	LightBrown		B	Dry
D00155544	OtherRock	35	5		None	LightBrown		BC	Dry
D00155545	ANDS	35	5		None	DarkBrown		B	Damp
D00155546	ANDS	25	5		None	LightBrown		B	Damp
D00155547	ANDS	35	5		None	LightBrown		B	Damp
D00155548	ANDS	25	5		None	LightBrown		BC	Dry
D00155549	ANDS	15	5		None	DarkBrown		B	Damp
D00155551	ANDS	25	5		None	LightBrown		B	Damp
D00155552	ANDS	35	5		None	LightBrown		B	Dry
D00155553	ANDS	35	15		None	DarkBrown		B	Damp
D00155554	ANDS	35	15		None	LightBrown		B	Dry
D00155555	ANDS	35	15		None	LightBrown		B	Dry
D00155556	ANDS	35	15		None	LightBrown		B	Damp
D00155557	ANDS	15	5		None	DarkBrown		B	Damp
D00155562	ANDS	25	5		None	LightBrown		B	Dry
D00155575	ANDS	15	5		None	LightBrown		BC	Damp
D00155576	ANDS	15	5		None	LightBrown		BC	Damp
D00155577	ANDS	25	5		None	LightBrown		B	Damp

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Sample_Contamination	Sample_Organics	Sample_Oxide	Sample_Cobbles	Sample_Pebbles	Sample_Sand	Sample_Silt	Sample_Parent	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm
D00155505	None	None	None	75	5	5	15	Ablation Till	177	1.68	2.2	2.4	1
D00155506	None	None	Low	35	20	20	25	Till	173	3.21	6.1	6.6	2
D00155509	None	None	Moderate	25	35	20	20	Till	148	2.44	33.2	2.2	2
D00155511	None	None	None	10	30	30	30	Till	313	2.23	12.9	7.7	2
D00155512	None	None	None	35	20	25	20	Till	407	1.57	3.7	11.6	1
D00155513	None	None	Moderate	5	30	40	25	Till	142	1.92	5.5	4.1	1
D00155516	None	None	None	10	30	30	30	Till	149	1.36	2.5	2.7	2
D00155517	None	None	Moderate	10	35	30	25	Till	485	2.91	8.4	1.7	2
D00155521	None	None	Low	10	20	35	35	Unknown	132	2.03	4.2	2	2
D00155522	None	None	Moderate	20	30	25	25	Till	127	3.88	8.5	2.2	3
D00155525	None	None	Low	35	35	10	20	Till	226	2.61	8.9	48.5	3
D00155526	None	None	Low	20	25	30	25	Till	192	1.57	5.9	10.4	2
D00155527	None	None	None	10	20	30	40	Unknown	301	1.96	4.1	0.3	5
D00155528	None	None	None	20	15	15	50	Unknown	512	2.24	5.1	1.1	1
D00155529	None	None	Low	25	25	20	30	Unknown	233	2.66	5.4	1.8	3
D00155533	None	Low	None	5	40	55	0	Till	421	2.04	23.6	7.4	3
D00155534	None	Low	None	0	10	90	0	Ablation Till	683	3.21	8.2	4.6	0.5
D00155535	None	None	None	0	10	90	0	Fluvial	117	1.71	6.4	258.8	2
D00155536	None	Low	None	5	25	70	0	Weathered	446	2.24	5.9	3.7	2
D00155538	None	Moderate	None	15	20	65	0	Weathered	180	2.27	15.7	5.9	0.5
D00155539	None	None	Low	5	10	85	0	Weathered	137	2.24	5.7	5.3	0.5
D00155542	None	Low	None	5	15	80	0	Weathered	504	1.6	3.9	2.9	0.5
D00155543	None	None	None	0	10	90	0	Ablation Till	494	1.69	2.4	1.7	0.5
D00155544	None	Low	None	0	15	85	0	Weathered	161	4.43	7.1	0.7	2
D00155545	None	Low	Low	10	30	40	20	Basal Till	1824	2.45	6.4	8.7	1
D00155546	None	Low	Moderate	10	30	40	20	Basal Till	179	2.36	5	7.1	1
D00155547	None	Low	Low	10	30	30	30	Basal Till	171	2.78	5.5	4.5	2
D00155548	None	Moderate	Moderate	20	40	30	10	Basal Till	325	2.91	2.9	4.3	1
D00155549	None	Moderate	None	10	20	30	40	Basal Till	881	2.4	12.9	4.2	1
D00155551	None	Low	Moderate	10	30	40	20	Basal Till	367	2.42	7.2	7	2
D00155552	None	Low	Moderate	5	30	40	25	Basal Till	321	1.67	7.5	7.8	1
D00155553	None	Low	None	5	25	30	40	Basal Till	362	1.94	4.9	4.9	2
D00155554	None	Low	Moderate	0	30	50	20	Basal Till	129	2.22	7.5	5.3	1
D00155555	None	Low	Moderate	5	30	40	25	Basal Till	426	2.21	4.9	2.7	1
D00155556	None	Low	Low	10	25	40	25	Basal Till	96	1.61	3.7	3.7	4
D00155557	None	Moderate	None	10	10	20	60	Basal Till	127	1.7	4.9	3	0.5
D00155562	None	Low	Moderate	5	35	40	20	Basal Till	378	2.99	9.2	0.7	0.5
D00155575	None	None	Low	10	25	55	10	Weathered	343	2.86	6.1	0.3	2
D00155576	None	None	Moderate	10	30	60	0	Basal Till	296	2.94	20.8	7.1	3
D00155577	None	None	None	10	20	70	0	Till	344	2.85	2.9	2.7	3

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppb	In_ppm	K_pct	La_ppm	Li_ppm	Mg_pct
D00155505	118.4	0.4	0.09	0.49	0.29	15.4	10.6	31.3	19.59	2.35	5.1	0.05	0.01	43	0.01	0.04	7.9	10.3	0.34
D00155506	101.5	0.5	0.07	0.28	0.16	13.5	10.2	53.5	36.55	3.65	6	0.05	0.1	90	0.02	0.04	6.6	16.3	0.59
D00155509	82.3	0.3	0.09	0.16	0.13	12.9	15.7	84.2	51.13	5.89	8	0.05	0.01	81	0.03	0.05	6.7	13.3	0.76
D00155511	109.5	0.6	0.08	0.7	0.22	12	18.5	62.7	91.42	3.66	6.5	0.05	0.02	47	0.02	0.06	9	11.8	1.02
D00155512	65.5	0.2	0.1	0.22	0.2	13.8	4.9	38.1	24.38	2.23	6	0.05	0.01	62	0.01	0.04	7.2	7.6	0.35
D00155513	66.3	0.3	0.09	0.24	0.22	11.1	6.9	41.1	28.84	3.17	5.9	0.05	0.03	66	0.01	0.04	5.7	10.3	0.42
D00155516	49.2	0.1	0.12	0.33	0.17	15.4	5.6	30.4	21.17	2.45	7.4	0.05	0.05	36	0.01	0.04	7.9	6.3	0.43
D00155517	64	0.3	0.07	0.44	0.31	8.6	17	92.2	64.28	5.65	9.4	0.05	0.01	95	0.03	0.05	4.3	15.3	1.46
D00155521	69.1	0.2	0.12	0.26	0.14	14.3	7.7	54.1	24.46	3.44	9.3	0.05	0.03	42	0.02	0.04	7.3	11.7	0.68
D00155522	66	0.6	0.05	0.44	0.21	7.3	20.2	56.3	49.09	7.23	11.9	0.05	0.07	163	0.04	0.04	3.2	25.5	1.16
D00155525	50.8	0.5	0.06	0.38	0.16	11.9	14.3	39.3	57.54	4.44	7	0.05	0.05	148	0.03	0.05	5.8	15.4	0.86
D00155526	74.1	0.2	0.07	0.43	0.13	9.8	8.9	42.4	29.66	3.61	6.5	0.05	0.06	31	0.01	0.04	4.9	9.1	0.54
D00155527	62.7	0.5	0.14	0.39	0.18	19.3	11.9	42.4	54.84	3.53	8.5	0.05	0.05	35	0.03	0.04	10	17.2	0.56
D00155528	89	0.9	0.14	0.52	0.89	22.5	15.6	65.4	224.41	3.64	6.5	0.05	0.01	83	0.03	0.04	14.5	20.8	0.54
D00155529	76.2	0.3	0.09	0.48	0.22	11	12.5	63.8	41.76	4.66	9.3	0.05	0.08	74	0.02	0.04	5.6	14.7	1.07
D00155533	57.3	0.8	0.08	1.53	0.62	11.4	17.5	136.6	186.67	3.34	6	0.05	0.07	249	0.03	0.05	8.6	16.2	0.9
D00155534	171.6	0.8	0.14	0.83	0.47	24.6	15.3	62.7	106.07	3.98	7.5	0.05	0.01	107	0.03	0.08	16.2	15	0.74
D00155535	69.8	0.4	0.04	0.64	0.13	18.4	15.4	43.9	58.74	3.32	4.4	0.05	0.04	37	0.02	0.08	6.8	8.8	0.84
D00155536	117.6	0.4	0.13	0.82	0.56	17.8	15.6	54.3	87.93	3.3	6.7	0.05	0.01	58	0.03	0.07	10.3	12.6	0.75
D00155538	47.6	0.2	0.19	0.23	0.36	13.8	30.2	108.9	93.35	7.46	8.3	0.05	0.02	53	0.03	0.05	5.8	11	1.27
D00155539	70.9	0.3	0.08	0.27	0.21	15.1	17.8	63.9	47.12	3.79	6.7	0.05	0.05	42	0.02	0.06	7.9	16.2	0.83
D00155542	43.1	0.3	0.07	0.4	0.17	11.4	10.6	68.3	94.37	3.35	5.8	0.05	0.05	63	0.01	0.06	6.2	5.7	0.62
D00155543	49.8	0.1	0.06	0.34	0.22	8.4	15.8	105	34.32	3.19	7.9	0.05	0.03	35	0.01	0.05	4.2	8.3	0.99
D00155544	102.6	0.4	0.01	0.28	0.08	6.6	46.4	559.1	91.42	6.75	11.4	0.05	0.01	144	0.03	0.13	1.5	49.6	4.7
D00155545	161.6	0.7	0.14	0.95	3.18	29.6	42.7	98.3	445.53	4.41	7	0.05	0.03	300	0.03	0.05	16.2	17.4	1.02
D00155546	63.5	0.3	0.05	0.37	0.24	10.9	16.2	77	58.71	3.68	6.3	0.05	0.04	64	0.01	0.05	5.4	13.6	1.06
D00155547	53.4	0.3	0.05	0.51	0.16	12.3	19.9	98.5	65.91	4.18	7.9	0.05	0.03	48	0.03	0.08	6.3	19.2	1.69
D00155548	122.4	0.2	0.15	0.34	0.12	10.8	21.5	74.1	47.61	4.48	8.9	0.05	0.01	50	0.04	0.08	5.1	18.9	1.28
D00155549	122.8	1.2	0.15	0.94	0.36	22.3	12.2	119.9	297.03	3.24	7.4	0.05	0.04	324	0.04	0.05	22.4	18.7	0.77
D00155551	65.2	0.2	0.08	0.54	0.21	14.9	13.9	66.7	50.63	3.98	8.1	0.05	0.04	63	0.03	0.07	7.7	16.1	1.17
D00155552	42.6	0.05	0.08	0.44	0.16	14	12	59.9	60.15	3.35	6	0.05	0.03	48	0.01	0.06	7.2	14	0.76
D00155553	92.1	0.5	0.13	0.68	0.27	20.4	11	56.6	90.12	3.06	6.7	0.05	0.02	77	0.01	0.06	12.3	13.2	0.59
D00155554	64.3	0.4	0.05	0.42	0.26	13	10.3	45.3	37.32	3.75	6	0.05	0.04	73	0.01	0.05	6.7	12.1	0.67
D00155555	64.6	0.4	0.09	0.34	0.24	17.2	8.9	38.3	35.71	3.02	5.9	0.05	0.03	64	0.01	0.06	9	11.9	0.5
D00155556	84.9	0.2	0.05	0.61	0.12	15.9	8.3	36.2	32.62	2.5	5.2	0.05	0.03	41	0.01	0.05	7.5	10.4	0.58
D00155557	109.5	0.2	0.08	0.73	0.19	19.7	9.6	38.8	29.92	2.46	5	0.05	0.02	55	0.01	0.07	10	11.4	0.56
D00155562	68.4	0.7	0.05	0.17	0.21	8.9	23.7	201.6	103.2	6.46	10.4	0.05	0.01	66	0.03	0.03	4.3	13.1	1.61
D00155575	54.6	0.3	0.08	0.3	0.15	11.5	17.2	137.8	53.56	5.18	10.5	0.05	0.04	75	0.03	0.06	5.9	16.7	1.25
D00155576	64.9	1.1	0.07	0.3	0.2	13.9	14.5	58.4	75.22	5.41	7.1	0.05	0.02	101	0.03	0.08	7	17.1	0.76
D00155577	70.6	0.2	0.1	0.32	0.16	16	10.6	38.2	42.43	3.17	8.7	0.05	0.03	103	0.03	0.06	8.3	14.6	0.81

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pd_ppm	Pt_gpt	Pb_ppm	Rb_ppm	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm
D00155505	1404	3.72	0.01	0.22	11.8	0.1	0.005	0.001	4.1	8.2	0.001	0.04	0.16	0.8	0.2	0.3	39.6	0.03
D00155506	227	0.99	0.01	1.1	25.1	0.088	0.005	0.001	4.1	6	0.001	0.02	0.31	5.5	0.3	0.3	23.4	0.03
D00155509	490	3.58	0.007	0.65	27.3	0.181	0.005	0.002	6.9	8.6	0.001	0.01	1.08	5.4	0.3	0.3	14.1	0.03
D00155511	817	1.04	0.011	0.5	30.3	0.082	0.005	0.001	4.2	9	0.001	0.03	0.58	7.1	0.2	0.3	44.6	0.03
D00155512	188	1.19	0.006	0.76	12.7	0.115	0.005	0.001	4.5	8.2	0.001	0.02	0.25	1.2	0.2	0.4	18.1	0.03
D00155513	353	0.79	0.008	0.83	16.2	0.121	0.005	0.001	4.7	7.4	0.001	0.01	0.36	3.2	0.2	0.3	19.3	0.03
D00155516	168	0.49	0.007	0.92	11.1	0.097	0.005	0.001	6	8.9	0.001	0.01	0.24	3.4	0.05	0.5	29.1	0.03
D00155517	520	0.88	0.007	0.8	35.3	0.366	0.005	0.001	4.5	7.1	0.001	0.03	0.54	5.9	0.4	0.3	37.4	0.03
D00155521	305	0.86	0.006	1.68	16.4	0.124	0.005	0.001	5.2	7	0.001	0.01	0.38	4	0.2	0.7	19.7	0.03
D00155522	691	1.13	0.006	1.04	22.4	0.159	0.005	0.001	4	4.3	0.001	0.03	1.01	10.7	0.4	0.6	34.5	0.03
D00155525	441	0.91	0.009	0.6	22.1	0.146	0.005	0.001	4	6.5	0.001	0.01	0.74	6.1	0.2	0.3	30.4	0.03
D00155526	293	0.95	0.009	0.83	19.3	0.068	0.005	0.001	4	9.2	0.001	0.01	0.39	3.8	0.2	0.3	27.7	0.03
D00155527	535	1.48	0.007	1.49	17.6	0.061	0.005	0.001	6.5	7.7	0.001	0.01	0.38	4.4	0.05	0.5	32.2	0.03
D00155528	1685	0.8	0.007	1.01	22.1	0.143	0.005	0.001	7	7.6	0.001	0.04	0.52	12	0.5	0.5	33.7	0.03
D00155529	346	1.03	0.008	1.31	26.2	0.15	0.005	0.001	4.6	6.5	0.001	0.01	0.36	5.4	0.2	0.4	34.4	0.03
D00155533	1254	1.27	0.008	0.6	44.6	0.155	0.03	0.003	5.4	12.2	0.001	0.09	1.38	9.1	1.5	0.3	70.2	0.03
D00155534	1196	1.42	0.008	0.54	33.7	0.14	0.005	0.002	6.2	12.3	0.001	0.04	0.59	4.6	0.7	0.6	53.5	0.03
D00155535	507	0.51	0.011	0.19	27.7	0.105	0.005	0.003	3.7	7.3	0.001	0.01	0.64	5.1	0.3	0.2	42.9	0.03
D00155536	832	0.95	0.009	0.64	28.8	0.117	0.005	0.001	6.1	14.8	0.001	0.03	0.43	5.7	0.4	0.5	47.3	0.03
D00155538	775	2.49	0.004	1.31	38.7	0.108	0.005	0.001	14.1	8.3	0.001	0.05	0.86	5.5	1.5	0.4	19.8	0.03
D00155539	424	0.9	0.007	0.59	27.5	0.12	0.005	0.001	6.6	13.9	0.001	0.01	0.42	5.5	0.1	0.5	29.7	0.03
D00155542	239	0.48	0.005	0.75	20.4	0.316	0.005	0.002	4.8	19.7	0.001	0.01	0.38	3.1	0.5	0.3	40.6	0.03
D00155543	671	0.65	0.006	0.57	27.8	0.119	0.005	0.004	4.5	18	0.001	0.01	0.43	3.4	0.3	0.3	37.2	0.03
D00155544	1244	0.32	0.004	0.03	183.6	0.12	0.005	0.006	2.2	9.8	0.001	0.01	1.9	9.8	0.1	0.2	27.6	0.03
D00155545	2914	1.64	0.009	0.91	69.1	0.13	0.027	0.003	12.1	12	0.001	0.05	0.68	10.1	1.4	0.5	49.7	0.03
D00155546	402	0.82	0.007	0.7	28.6	0.12	0.005	0.001	4.4	12.1	0.001	0.01	0.44	5	0.3	0.3	37.5	0.03
D00155547	485	0.58	0.008	0.49	39.5	0.084	0.005	0.003	4.3	10.1	0.001	0.01	0.44	7.8	0.5	0.3	44.5	0.03
D00155548	738	0.57	0.006	0.64	30.3	0.063	0.005	0.004	6.9	24.6	0.001	0.01	0.34	7.9	0.3	0.3	33.5	0.03
D00155549	1039	1.23	0.007	0.77	28.2	0.17	0.023	0.001	6.1	10.4	0.001	0.06	0.73	8.7	1.1	0.5	43.3	0.03
D00155551	505	0.75	0.009	0.73	30.2	0.07	0.005	0.002	4.6	9	0.001	0.01	0.67	5.3	0.5	0.4	54.4	0.03
D00155552	337	0.72	0.009	0.72	25.4	0.058	0.005	0.001	4.1	12	0.001	0.01	0.46	3.9	0.4	0.3	36.8	0.03
D00155553	676	0.75	0.008	0.66	24.6	0.074	0.005	0.001	5.4	17.6	0.001	0.01	0.41	4.6	0.4	0.5	41.8	0.03
D00155554	319	0.88	0.009	0.64	23.4	0.084	0.005	0.001	3.8	5.8	0.001	0.01	0.51	4.3	0.5	0.3	34.6	0.03
D00155555	365	0.82	0.008	0.84	18.5	0.11	0.005	0.001	4.5	9	0.001	0.01	0.39	4.2	0.3	0.4	29	0.03
D00155556	322	0.54	0.01	0.43	19.7	0.06	0.005	0.001	3.4	7.1	0.001	0.01	0.34	3.5	0.2	0.3	44.3	0.03
D00155557	490	1.12	0.009	0.4	21.6	0.083	0.005	0.001	4.5	9.1	0.001	0.01	0.31	4.7	0.4	0.2	48.7	0.03
D00155562	967	2.05	0.007	0.2	64.9	0.196	0.005	0.004	4.8	5.7	0.001	0.01	1.58	10.1	0.4	0.3	31.7	0.03
D00155575	466	0.94	0.006	0.62	42.3	0.192	0.005	0.001	4.9	10.9	0.001	0.01	0.67	8	0.5	0.5	44.9	0.03
D00155576	493	1.64	0.007	0.56	26	0.301	0.005	0.001	8.2	13.1	0.001	0.01	1.73	4.3	0.6	0.3	32.4	0.03
D00155577	294	0.91	0.007	1.34	17.2	0.103	0.005	0.001	4.8	8.2	0.001	0.02	0.36	6.1	0.6	0.6	38.3	0.03

Appendix D - Soil Sample and Geochemistry Data

SAMPLEID	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Samp_AssayMethod_D	Samp_Dispatch_D	Samp_LabJob_D
D00155505	0.01	0.05	0.023	0.05	0.4	70	0.05	5.3	47	0.2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155506	0.01	1.8	0.112	0.04	0.6	93	0.2	4.8	45	4.2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155509	0.02	0.9	0.058	0.05	0.6	128	0.1	2.5	60	1	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155511	0.02	0.3	0.07	0.05	0.5	108	0.1	11.5	54	0.8	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155512	0.01	0.1	0.046	0.05	0.4	65	0.1	2.4	45	0.7	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155513	0.03	0.9	0.075	0.04	0.3	92	0.1	2.6	57	1.5	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155516	0.01	0.8	0.11	0.03	0.3	85	0.05	2.7	41	2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155517	0.01	0.3	0.067	0.04	0.4	143	0.1	3.3	76	0.8	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155521	0.01	0.6	0.094	0.04	0.3	108	0.1	2.1	51	1.2	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155522	0.03	0.6	0.124	0.03	0.4	187	0.05	3.5	122	3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155525	0.01	1.2	0.093	0.03	0.4	112	0.1	4.7	65	2.3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155526	0.02	0.8	0.115	0.04	0.3	110	0.2	3.4	47	2.5	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155527	0.01	1.5	0.115	0.04	0.5	113	0.1	4.7	87	2.3	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155528	0.01	0.4	0.045	0.05	0.8	101	0.05	26.5	117	0.7	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155529	0.02	1.1	0.146	0.04	0.4	140	0.2	3.4	54	3.9	AQ252-EXT,pXRF	MTM21-Soil_02	VAN21002674
D00155533	0.03	0.9	0.051	0.13	7.5	98	0.05	22.7	91	1.4	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155534	0.03	0.6	0.038	0.07	1.1	106	0.1	18.7	85	0.6	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155535	0.03	1.1	0.074	0.05	0.5	100	0.2	7	37	1.1	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155536	0.04	0.7	0.056	0.07	0.8	90	0.1	10.4	78	0.6	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155538	0.1	1	0.114	0.05	0.3	129	0.1	4.5	56	1.1	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155539	0.04	2.3	0.108	0.06	0.4	93	0.1	3.5	52	2.8	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155542	0.01	1.4	0.082	0.04	0.3	76	0.1	3.8	32	1.3	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155543	0.01	0.8	0.171	0.07	0.2	97	0.2	2.6	48	1	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155544	0.01	0.4	0.07	0.11	0.2	210	0.05	1.8	80	0.4	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155545	0.05	1	0.054	0.18	0.9	76	0.1	22.6	121	1.1	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155546	0.03	1.4	0.142	0.05	0.4	96	0.2	3.8	49	2.1	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155547	0.01	1.3	0.148	0.06	0.4	122	0.1	5.1	64	1.4	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155548	0.01	1.6	0.096	0.07	0.2	122	0.1	3	48	0.8	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155549	0.03	0.7	0.023	0.12	1.8	140	0.05	51.5	63	1.2	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155551	0.01	0.9	0.12	0.05	0.4	116	0.1	4.5	65	1.5	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155552	0.04	0.8	0.108	0.05	0.4	94	0.1	4.9	47	1.2	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155553	0.02	0.6	0.061	0.06	0.6	84	0.05	13.4	67	0.7	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155554	0.02	1	0.121	0.04	0.6	103	0.1	5.2	46	1.7	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155555	0.04	2.1	0.096	0.05	0.5	81	0.2	4.3	54	1.3	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155556	0.02	0.9	0.097	0.04	0.4	74	0.1	5.2	45	0.8	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155557	0.03	1	0.066	0.06	0.8	71	0.05	7.5	52	0.7	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155562	0.04	0.6	0.039	0.04	0.3	160	0.1	4.3	85	0.7	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155575	0.02	1.9	0.122	0.05	0.4	151	0.1	3	64	1.9	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155576	0.03	1.5	0.053	0.05	0.7	102	0.2	3.5	94	0.7	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310
D00155577	0.02	1.5	0.109	0.05	0.6	94	0.1	3.7	49	1.4	AQ252-EXT,pXRF	MTM21-Soil_03	VAN21003310

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	Station_UTM_Source	Sampled_By	Sampled_By2	Sampled_Date	SAMPLETYPE	Site_Exposure	Site_SurficialUnit	Site_ID
D00155304	NAD83UTMZ10	432476.17	6088367.52	1337	Mobile GPS	Taylor Cherkas		2021-06-06 19:50	TILL			MAX002
D00155306	NAD83UTMZ10	432478.4	6088607.15	1221.5	Mobile GPS	Taylor Cherkas		2021-06-06 21:28	TILL			MAX003
D00155308	NAD83UTMZ10	432599.86	6088603.1	1281.1	Mobile GPS	Taylor Cherkas		2021-06-06 22:39	TILL			MAX004
MAX21TD-001	NAD83UTMZ10	430680.67	6086543.27	1200.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-09 20:36	TILL	drill	Tv	
MAX21TD-002	NAD83UTMZ10	430569.3	6086613.29	1229.2	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-09 22:05	TILL	drill	Tv	
MAX21TD-003	NAD83UTMZ10	430455.87	6086777.74	1225.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-09 23:27	TILL	drill	Tv	
MAX21TD-004	NAD83UTMZ10	430304.5	6086839.93	1202.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-10 17:51	TILL	pit	Tb	
MAX21TD-005	NAD83UTMZ10	430188.91	6086883.53	1190	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-10 19:27	TILL	drill	Tb	
MAX21TD-006	NAD83UTMZ10	430091.62	6086933.39	1189.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-10 20:41	TILL	drill	Td	
MAX21TD-007	NAD83UTMZ10	430017.54	6087001.21	1180.1	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-10 22:50	TILL	drill	Tb	
MAX21TD-008	NAD83UTMZ10	429924.16	6087089.84	1150.2	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-10 23:44	TILL	drill	Tb	
MAX21TD-009	NAD83UTMZ10	429818.77	6087184.49	1147.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-11 16:52	TILL	drill	Tb	
MAX21TD-010	NAD83UTMZ10	429695.97	6087261.44	1115.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-11 18:03	TILL	drill	Tv	
MAX21TD-011	NAD83UTMZ10	430178.98	6086560.49	1218.6	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-11 23:29	TILL	drill	Tv	
MAX21TD-012	NAD83UTMZ10	430085.17	6086594.3	1226.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-12 17:35	TILL	drill	Tv	
MAX21TD-013	NAD83UTMZ10	430007.91	6086709.11	1218.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-12 18:19	TILL	drill	Tv	
MAX21TD-014	NAD83UTMZ10	429951.74	6086785.28	1214.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-12 19:06	TILL	drill	Tv	
MAX21TD-015	NAD83UTMZ10	429813.03	6086875.54	1213.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-12 21:27	TILL	drill	Tv	
MAX21TD-017	NAD83UTMZ10	429757.73	6086928.29	1210.1	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-12 22:31	TILL	drill	Tv	
MAX21TD-018	NAD83UTMZ10	429723.87	6087017.59	1211	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-12 23:12	TILL	drill	Tv	
MAX21TD-020	NAD83UTMZ10	429703.94	6087166.83	1150.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 16:42	TILL	drill	Tv	
MAX21TD-021	NAD83UTMZ10	429605.06	6087324.96	1097.1	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 18:26	TILL	drill	Tv	
MAX21TD-022	NAD83UTMZ10	429523.32	6087393.06	1083.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 19:43	TILL	drill	Tv	
MAX21TD-023	NAD83UTMZ10	429438.9	6087458.52	1051.7	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 20:50	TILL	drill	Tb	
MAX21TD-024	NAD83UTMZ10	429340.64	6087509.99	1054.4	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 21:41	TILL	drill	Tb	
MAX21TD-027	NAD83UTMZ10	429247.57	6087545.82	1026.1	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 22:53	TILL	drill	Tb	
MAX21TD-028	NAD83UTMZ10	429053.13	6087458.11	1027.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-13 23:47	TILL	drill	Tb	
MAX21TD-030	NAD83UTMZ10	429379.54	6086948.9	1128.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 16:54	TILL	drill	Tv	
MAX21TD-031	NAD83UTMZ10	429291.72	6087033.64	1084.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 17:58	TILL	drill	Tv	
MAX21TD-032	NAD83UTMZ10	429199.68	6087090.06	1063.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 18:36	TILL	drill	Tv	
MAX21TD-033	NAD83UTMZ10	429115.8	6087168.55	1033.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 19:28	TILL	drill	Tb	
MAX21TD-034	NAD83UTMZ10	429047.17	6087219.94	1032.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 20:52	TILL	drill	Tb	
MAX21TD-035	NAD83UTMZ10	429538.38	6085846.54	982.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 22:37	TILL	drill	Ts	
MAX21TD-036	NAD83UTMZ10	429339.81	6085967.01	992.7	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-14 23:47	TILL	drill	Ts	
MAX21TD-038	NAD83UTMZ10	429177.12	6086072.94	998.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 16:34	TILL	drill	Ts	
MAX21TD-041	NAD83UTMZ10	429039.39	6086164.43	986.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 17:49	TILL	drill	Ts	
MAX21TD-042	NAD83UTMZ10	428883.45	6086274.57	991.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 18:36	TILL	drill	Ts	
MAX21TD-043	NAD83UTMZ10	428728.98	6086388.58	974.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 19:30	TILL	drill	Tb	
MAX21TD-044	NAD83UTMZ10	428596.43	6086553.47	968.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 21:24	TILL	drill	Tb	
MAX21TD-045	NAD83UTMZ10	428759.41	6086682.03	980	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 22:08	TILL	drill	Tb	
MAX21TD-046	NAD83UTMZ10	428781.11	6086998.18	1012.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-15 23:25	TILL	drill	Tb	
MAX21TD-048	NAD83UTMZ10	430570.42	6086928.02	1197.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-16 17:24	TILL	drill	Tb-RW	
MAX21TD-049	NAD83UTMZ10	430441.94	6087043.06	1189.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-16 19:02	TILL	drill	Tb-RW	
MAX21TD-050	NAD83UTMZ10	430348	6087149.69	1163.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-16 19:51	TILL	drill	Tb-RW	
MAX21TD-051	NAD83UTMZ10	430246.5	6087264.42	1142.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-16 21:23	TILL	drill	Tb-RW	
MAX21TD-052	NAD83UTMZ10	430081.21	6087387.46	1098	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-16 22:09	TILL	drill	Tb-RW	

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Site_Vegetation	Site_TopoPosition	Site_Slope_Angle	Site_Slope_Direction	Site_Outcrop	Site_Drainage	Sample_Horizon	Sample_Depth_cm	Sample_Colour	Sample_MatrixPct
D00155304	EvergreenForest	MidSlope	Gentle	SW	None		C	45	LightBrown	
D00155306	EvergreenForest	MidSlope	Gentle	E	None		C	45	LightBrown	
D00155308	EvergreenForest	MidSlope	Gentle	E	None		C	65	LightBrown	
MAX21TD-001	Coniferous	MidSlope				Moderately Well	C	190	DarkBrown	80
MAX21TD-002	Coniferous	MidSlope				Moderately Well	C	150	DarkBrown	75
MAX21TD-003	Coniferous	MidSlope				well	C	210	DarkBrown	75
MAX21TD-004	Coniferous	MidSlope					C	128	DarkBrown	75
MAX21TD-005	Coniferous	MidSlope					C	158	MediumBrown	75
MAX21TD-006	DeciduousForest	MidSlope					C	181	DarkBrown	80
MAX21TD-007	Coniferous	MidSlope				Moderately Well	C	145	DarkBrown	75
MAX21TD-008	Coniferous	MidSlope					C	150	DarkBrown	80
MAX21TD-009	Coniferous	MidSlope				Moderately Well	C	175	DarkBrown	75
MAX21TD-010	Coniferous	MidSlope					C	145	DarkBrown	70
MAX21TD-011	Coniferous	MidSlope					C	90	RedishBrown	60
MAX21TD-012	Coniferous-Deciduous	MidSlope				Moderately Well	C	115	DarkGrey	50
MAX21TD-013	Coniferous	MidSlope					C	120	RedishBrown	70
MAX21TD-014	Coniferous	MidSlope				Moderately Well	C	140	GreenishGrey	60
MAX21TD-015	Coniferous	MidSlope				Moderately Well	C	120	DarkBrown	40
MAX21TD-017	Coniferous	MidSlope					C	150	GreenishGrey	75
MAX21TD-018	Coniferous	MidSlope				Moderately Well	C	130	MediumBrown	60
MAX21TD-020	Coniferous	MidSlope				Moderately Well	C	115	MediumBrown	60
MAX21TD-021	Coniferous	MidSlope					C	170	DarkBrown	75
MAX21TD-022	Coniferous-Deciduous	MidSlope				Poor	C	185	MediumBrown	75
MAX21TD-023	Coniferous-Deciduous	MidSlope					C	180	DarkBrown	70
MAX21TD-024	Coniferous	MidSlope				well	C	145	DarkBrown	80
MAX21TD-027	Coniferous	MidSlope					C	173	DarkBrown	80
MAX21TD-028	Coniferous	MidSlope				Moderately Well	C	175	DarkBrown	70
MAX21TD-030	Coniferous	MidSlope				well	C	115	MediumBrown	75
MAX21TD-031	Coniferous-Deciduous	MidSlope					C	170	DarkBrown	75
MAX21TD-032	Coniferous-Deciduous	MidSlope				Moderately Well	C	175	DarkBrown	80
MAX21TD-033	Coniferous-Deciduous	MidSlope					C	170	DarkBrown	75
MAX21TD-034	Coniferous-Deciduous	MidSlope				Moderately Well	C	140	DarkBrown	80
MAX21TD-035	Coniferous	MidSlope					C	185	DarkBrown	80
MAX21TD-036	Brush	MidSlope				Moderately Well	C	150	DarkBrown	75
MAX21TD-038	Brush	MidSlope				Moderately Well	C	205	DarkBrown	80
MAX21TD-041	Coniferous	MidSlope					C	140	DarkBrown	75
MAX21TD-042	Brush	MidSlope				Poor	C	160	DarkBrown	80
MAX21TD-043	Coniferous	MidSlope					C	185	DarkBrown	70
MAX21TD-044	Coniferous	MidSlope				Moderately Well	C	175	DarkBrown	70
MAX21TD-045	Coniferous	MidSlope					C	190	DarkBrown	80
MAX21TD-046	Brush	MidSlope				well	C	190	DarkBrown	75
MAX21TD-048	Coniferous	MidSlope					C	190	DarkBrown	70
MAX21TD-049	Coniferous	MidSlope				Moderately Well	C	170	DarkBrown	80
MAX21TD-050	Coniferous	MidSlope					C	175	DarkBrown	75
MAX21TD-051	Coniferous	MidSlope				well	C	190	DarkBrown	75
MAX21TD-052	Coniferous	MidSlope					C	170	DarkBrown	80

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Sample_MatrixTxt	Sample_Compaction	Sample_Fissility	Sample_Jointing	Sample_ClastMode	Sample_ClastShape	Sample_ClastSize	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm
D00155304								98	3.11	57.7	8.1	2
D00155306								112	2.07	7.9	4.9	2
D00155308								139	2.94	10.8	10.9	3
MAX21TD-001	czs	dense	moderate	none	Pebble	subangular	S	60	2.03	9.8	5.5	2
MAX21TD-002	czs	dense	moderate	none	Pebble	subangular	M	147	1.74	9.1	7.1	1
MAX21TD-003	sZ	very dense	weak	none	Pebble	subangular	M	136	3.94	1.7	1.1	0.5
MAX21TD-004	czs	dense	moderate	weak	Pebble	subangular	M	133	2.56	11.1	8.6	1
MAX21TD-005	csz	dense	moderate	none	Pebble	subangular	S	69	2.23	12.2	6	3
MAX21TD-006	csz	moderate	moderate	weak	Pebble	subangular	S	153	1.96	11	7.5	2
MAX21TD-007	zS	moderate	moderate	none	Pebble	subangular	M	82	2.03	10.6	8.3	1
MAX21TD-008	cZ	dense	moderate	none	Pebble	subangular	S	149	1.86	12.7	9.1	2
MAX21TD-009	csz	moderate	moderate	none	Pebble	subangular	M	209	2.52	12.8	6.7	3
MAX21TD-010	csz	dense	moderate	weak	Pebble	subangular	M	341	2.23	13.9	6.1	2
MAX21TD-011	zS	dense	weak	none	Pebble	angular	M	186	4.09	26.7	21.1	1
MAX21TD-012	sZ	moderate	weak	none	Pebble	angular	M	124	4.07	10.5	3.2	2
MAX21TD-013	zS	moderate	weak	none	Pebble	angular	S	123	2.76	6.9	9.7	1
MAX21TD-014	zS	moderate	weak	none	Pebble	angular	M	127	3.21	14.5	11.4	2
MAX21TD-015	sZ	dense	none	none	Pebble	angular	M	140	2.77	17.3	9.7	4
MAX21TD-017	zS	moderate	moderate	weak	Pebble	angular	S	225	4.53	3	14.3	3
MAX21TD-018	zS	moderate	none	none	Pebble	angular	M	172	3.48	17.3	11.1	3
MAX21TD-020	zS	moderate	weak	none	Pebble	angular	M	164	3.23	19.4	8.4	4
MAX21TD-021	zS	dense	strong	weak	Pebble	subangular	S	481	2.08	14.4	12.9	3
MAX21TD-022	csz	moderate	weak	none	Pebble	subangular	M	219	2.04	16	5.3	3
MAX21TD-023	csz	dense	strong	weak	Pebble	subangular	S	173	1.95	13.1	5.7	4
MAX21TD-024	sZ	dense	moderate	none	Pebble	subangular	S	163	1.71	10.8	8.5	0.5
MAX21TD-027	csz	dense	strong	weak	Pebble	subrounded	S	122	1.78	10.5	8	2
MAX21TD-028	sZ	dense	moderate	none	Pebble	subangular	S	112	1.64	11.5	6.6	3
MAX21TD-030	csz	very dense	moderate	none	Pebble	subangular	S	256	2.22	11.1	5.2	3
MAX21TD-031	csz	dense	moderate	weak	Pebble	subrounded	S	86	1.92	10.5	5.8	3
MAX21TD-032	cZ	dense	moderate	none	Pebble	subangular	S	110	1.8	11.5	5.5	2
MAX21TD-033	csz	moderate	moderate	weak	Pebble	subrounded	M	92	1.82	10.2	7.7	0.5
MAX21TD-034	czs	dense	moderate	none	Pebble	subangular	S	151	2.05	11.7	18.9	2
MAX21TD-035	cZ	very dense	moderate	weak	Pebble	subrounded	S	140	2.1	12.4	4.6	5
MAX21TD-036	csz	dense	strong	none	Pebble	subangular	M	209	2	11.6	5.4	4
MAX21TD-038	csz	dense	moderate	weak	Pebble	subrounded	S	121	1.93	11.6	4.4	3
MAX21TD-041	csz	dense	moderate	weak	Pebble	subangular	S	162	1.96	12.1	14.4	2
MAX21TD-042	csz	dense	moderate	weak	Pebble	subangular	S	147	2	13.1	19.2	0.5
MAX21TD-043	csz	dense	moderate	weak	Pebble	angular	M	107	2.07	12.8	3.7	0.5
MAX21TD-044	csz	dense	moderate	none	Pebble	subrounded	M	170	1.98	12.2	4.8	1
MAX21TD-045	csz	dense	moderate	weak	Pebble	subangular	S	153	2.01	11.9	3.6	4
MAX21TD-046	csz	dense	moderate	none	Pebble	subangular	M	199	2.1	12.4	14.9	4
MAX21TD-048	csz	moderate	strong	moderate	Pebble	subrounded	S	65	2.48	10.7	7.3	3
MAX21TD-049	csz	moderate	moderate	none	Pebble	subangular	M	87	2.24	12.2	6	3
MAX21TD-050	csz	dense	moderate	weak	Pebble	subrounded	S	33	2	10.6	8.9	0.5
MAX21TD-051	csz	dense	moderate	none	Pebble	subangular	S	133	1.66	11.2	18	0.5
MAX21TD-052	csz	moderate	moderate	weak	Pebble	subrounded	S	169	1.71	11.4	8.9	0.5

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe_pct	Ga_ppm	Ge_ppm	Hg_ppb	Hf_ppm	In_ppm	K_pct	La_ppm
D00155304	65.7	1	0.33	0.38	0.24	8.7	24.6	64.9	0.85	202.08	6.59	7.3	0.05	53	0.08	0.01	0.1	3.9
D00155306	50.8	0.6	0.17	0.76	0.17	15.8	19.2	49.6	1.32	145.43	4.09	7	0.05	28	0.05	0.02	0.14	6.3
D00155308	77.8	0.9	0.17	0.85	0.39	20.6	22.6	62.1	1.72	239.97	4.65	8.2	0.05	41	0.03	0.02	0.27	7.3
MAX21TD-001	155.2	0.4	0.11	0.73	0.11	19.2	17.3	49.6	1.31	84.34	3.78	6.3	0.05	93	0.19	0.01	0.24	10.5
MAX21TD-002	145.8	0.5	0.09	0.55	0.12	22.4	14.2	47.7	0.86	61.41	3.13	5.1	0.05	79	0.1	0.01	0.07	10.8
MAX21TD-003	250.9	1.3	0.07	1.54	0.24	6.7	44.4	75.7	3.15	280.98	7.74	14.9	0.3	11	0.34	0.03	2.44	3.1
MAX21TD-004	183.4	0.5	0.08	0.97	0.17	19.1	24.7	59.5	1.45	117.99	4.63	8.2	0.2	116	0.16	0.01	0.31	10.1
MAX21TD-005	144	0.5	0.09	0.76	0.17	24.7	22.1	54.9	1.23	90.47	4.07	6.6	0.05	74	0.12	0.02	0.22	11.3
MAX21TD-006	155.1	0.4	0.08	0.71	0.21	20.7	18.8	53.1	1.08	81.22	3.5	6	0.05	88	0.13	0.01	0.15	10.1
MAX21TD-007	136.6	0.3	0.07	0.69	0.19	21.6	20.2	50.7	0.98	73.91	3.57	6.2	0.1	34	0.05	0.01	0.16	9.2
MAX21TD-008	138.4	0.3	0.13	0.75	0.45	21.8	20	55.6	1.21	85.35	3.72	6	0.05	123	0.12	0.03	0.17	11.1
MAX21TD-009	110	0.05	0.1	0.89	0.11	18.3	26.9	48.4	1.27	109.13	4.48	8.1	0.1	39	0.1	0.01	0.29	8
MAX21TD-010	173.3	0.4	0.1	0.93	0.29	21.5	22.4	61.3	1.3	100.54	4.04	6.9	0.05	75	0.05	0.03	0.2	10.8
MAX21TD-011	112.4	1.7	0.1	0.9	0.07	14.1	44.2	50.9	2.41	313.72	7.04	12.9	0.1	24	0.07	0.02	0.78	6.1
MAX21TD-012	251	0.5	0.05	1.28	0.07	12.7	48.9	63	2.4	183.12	5.26	9.6	0.1	11	0.08	0.01	0.94	6.2
MAX21TD-013	60	0.5	0.05	0.67	0.05	6.4	30.9	68.4	1.34	115.67	7.42	6.8	0.2	10	0.12	0.01	0.41	2.4
MAX21TD-014	150.3	0.5	0.18	0.88	0.02	8.5	15.4	16.6	1.57	101.63	5.64	7.5	0.1	20	0.17	0.01	0.85	3.4
MAX21TD-015	127.1	0.4	0.12	0.75	0.15	12.3	28.9	62.7	1.36	108.46	4.73	8.6	0.05	28	0.09	0.01	0.3	6.1
MAX21TD-017	88	0.6	0.01	1.43	0.02	13.4	65.2	164.1	8.72	269.28	6.79	13.2	0.2	8	0.1	0.01	1.89	7.4
MAX21TD-018	137.4	0.6	0.29	0.66	0.14	9.2	37	94.8	2.34	125.55	6.19	10.6	0.05	27	0.13	0.02	0.55	4.5
MAX21TD-020	117.6	0.7	0.08	1.02	0.12	12.4	32.2	65.5	1.76	150.54	5.28	9.8	0.1	29	0.09	0.01	0.48	6.1
MAX21TD-021	102.2	0.6	0.08	0.91	0.27	22.6	23.1	51.6	0.98	132.39	3.87	5.9	0.05	63	0.1	0.01	0.23	9.9
MAX21TD-022	157.8	0.2	0.1	0.9	0.37	23.6	21.9	58	1.33	107.36	3.94	6.6	0.1	97	0.08	0.02	0.19	11.6
MAX21TD-023	171.6	0.3	0.11	0.83	0.48	24.6	20.7	60.4	1.33	90.95	3.72	6.2	0.05	121	0.14	0.03	0.13	11.9
MAX21TD-024	166.5	0.5	0.09	0.77	0.17	21.7	16.5	57.5	1.16	82.31	3.39	5.7	0.05	86	0.07	0.02	0.11	11.3
MAX21TD-027	167.8	0.3	0.09	0.85	0.26	23.1	19	53	1.15	84	3.56	5.7	0.05	83	0.15	0.03	0.14	12.1
MAX21TD-028	158.1	0.3	0.09	0.82	0.28	23.2	17.2	51.6	1.12	78.59	3.4	5	0.05	75	0.2	0.02	0.12	12
MAX21TD-030	169.6	0.6	0.07	0.7	0.12	23	17.2	60	0.92	70.4	3.69	6.7	0.05	86	0.13	0.03	0.1	11.8
MAX21TD-031	165.7	0.7	0.14	0.74	0.15	22.7	16	54.1	1.09	80.61	3.67	5.6	0.05	131	0.15	0.03	0.11	11.9
MAX21TD-032	169.5	0.3	0.1	0.79	0.15	22.2	14.8	53.2	1.07	83.61	3.48	5.7	0.05	136	0.15	0.02	0.1	11.7
MAX21TD-033	175.5	0.5	0.08	1.09	0.21	20.6	15.1	50	1.3	85.45	3.56	6.1	0.05	87	0.18	0.03	0.15	10.3
MAX21TD-034	198.6	0.3	0.1	0.82	0.25	22	16.2	60.5	1.19	82.41	3.74	6.2	0.05	104	0.2	0.03	0.13	11.2
MAX21TD-035	210.8	0.4	0.09	1.1	0.38	25.3	19.8	58.4	1.23	79.75	3.78	6.7	0.05	104	0.33	0.02	0.16	13.1
MAX21TD-036	210.6	0.5	0.1	1.11	0.33	23.8	20.7	60.2	1.2	76.24	3.75	6.3	0.05	111	0.21	0.02	0.14	12.6
MAX21TD-038	201.3	0.5	0.09	1.22	0.37	26.2	20.3	58.2	1.25	83.72	3.67	5.8	0.05	107	0.23	0.03	0.12	12.4
MAX21TD-041	193.9	0.7	0.11	0.77	0.26	25.3	20.3	59.7	1.33	81.3	3.76	6.4	0.05	113	0.25	0.02	0.13	12
MAX21TD-042	201.7	0.2	0.11	0.96	0.35	25.4	20.3	60	1.44	81.18	3.75	6.1	0.1	120	0.26	0.03	0.13	12.5
MAX21TD-043	198.5	0.4	0.1	0.85	0.37	25.5	20.6	55.5	1.35	84.65	3.82	6.5	0.05	119	0.23	0.02	0.14	12.5
MAX21TD-044	195.2	0.8	0.1	1.19	0.44	25.2	19.3	56.1	1.34	82.59	3.57	6	0.05	119	0.22	0.02	0.15	12.3
MAX21TD-045	197.9	0.6	0.08	1.59	0.37	24.6	19.1	56.7	1.2	79.58	3.72	6.3	0.05	110	0.2	0.01	0.15	12.2
MAX21TD-046	216.5	0.3	0.09	0.9	0.25	25.6	19.8	63.4	1.17	83.92	3.77	6.5	0.05	98	0.2	0.03	0.15	13.1
MAX21TD-048	197.1	0.6	0.06	0.85	0.15	21.2	21.4	62.6	1.36	100.97	4.22	7.1	0.05	78	0.19	0.03	0.3	11.5
MAX21TD-049	196.9	0.5	0.07	0.86	0.25	22.5	19.5	55.1	1.24	101.35	4.04	7	0.05	100	0.12	0.03	0.23	11.5
MAX21TD-050	165.1	0.7	0.07	0.6	0.21	25.8	17.5	58.3	1.34	76.27	3.46	6.2	0.05	100	0.17	0.01	0.14	12.6
MAX21TD-051	158.9	0.4	0.08	0.75	0.3	25.5	18.2	55.7	1.3	82.72	3.49	5.3	0.05	100	0.16	0.01	0.14	12.6
MAX21TD-052	159.7	0.3	0.08	0.79	0.28	24.3	17.3	57.9	1.2	82.85	3.46	5.4	0.05	80	0.07	0.02	0.13	12.4

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Li_ppm	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pb_ppm	Pd_ppm	Pt_gpt	Rb_ppm	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm
D00155304	13.8	1.24	690	7.04	0.009	0.51	30.2	0.192	5.3	0.005	0.003	9.6	0.001	0.01	0.82	5.8	0.9	0.3
D00155306	16.1	1.09	772	3.67	0.018	0.72	31	0.048	6.1	0.005	0.001	17.6	0.001	0.01	0.45	6.8	0.5	0.3
D00155308	36.7	1.29	940	3.82	0.017	0.56	52.8	0.11	7.6	0.005	0.001	37.4	0.001	0.01	0.5	8.7	0.7	0.3
MAX21TD-001	11.1	1.03	662	1.36	0.024	0.15	36.8	0.105	5.8	0.005	0.002	18	0.001	0.01	0.71	8.3	0.2	0.3
MAX21TD-002	9.7	0.7	586	1.18	0.02	0.23	32.8	0.102	5.7	0.005	0.001	6	0.001	0.01	0.66	7.4	0.2	0.3
MAX21TD-003	43.6	3.6	1522	0.8	0.046	0.04	37.5	0.138	11.9	0.005	0.009	115.9	0.001	0.01	0.12	18.1	0.2	0.3
MAX21TD-004	13.6	1.32	828	2.19	0.036	0.25	40.2	0.11	6.3	0.005	0.003	21.9	0.001	0.01	0.69	9.7	0.3	0.3
MAX21TD-005	11.7	0.98	841	1.81	0.024	0.24	39.8	0.098	6.8	0.005	0.002	16.3	0.001	0.01	0.65	10.3	0.3	0.4
MAX21TD-006	10.4	0.85	742	1.63	0.024	0.29	37.1	0.097	6.1	0.005	0.001	11.7	0.001	0.01	0.68	8.7	0.05	0.3
MAX21TD-007	12.4	0.91	705	1.83	0.025	0.6	34.8	0.102	5.7	0.005	0.002	13.4	0.001	0.01	0.55	5.6	0.4	0.3
MAX21TD-008	12.4	0.86	923	1.89	0.022	0.18	52.2	0.093	7.2	0.005	0.003	10.9	0.001	0.01	0.8	9.1	0.2	0.4
MAX21TD-009	15	1.25	779	2.21	0.033	0.51	33.3	0.123	5.3	0.005	0.003	20.4	0.001	0.01	0.52	7.9	0.3	0.4
MAX21TD-010	13.3	1.01	938	2.63	0.03	0.46	44.3	0.104	6.5	0.005	0.002	13.8	0.001	0.01	0.7	9.2	0.2	0.4
MAX21TD-011	16.4	2.23	1174	4.47	0.037	0.39	38.7	0.192	5.7	0.005	0.004	63.2	0.001	0.02	0.69	8.9	1	0.3
MAX21TD-012	18.5	2.02	1003	1.91	0.045	0.11	37.1	0.092	2.6	0.005	0.003	62.6	0.001	0.01	0.34	7.8	0.2	0.3
MAX21TD-013	16.9	1.86	801	3.79	0.018	0.48	25.9	0.185	2.2	0.005	0.008	28	0.001	0.13	0.23	8	1.8	0.2
MAX21TD-014	9.6	1.66	576	5.39	0.034	0.45	12.7	0.194	5.6	0.005	0.001	45.4	0.001	0.33	0.29	4.8	0.9	0.4
MAX21TD-015	17	1.25	623	2.6	0.02	0.95	35.6	0.147	6	0.005	0.005	23.3	0.002	0.01	0.92	5.7	0.3	0.5
MAX21TD-017	30.6	5.71	1175	1.38	0.009	0.08	183.3	0.226	4.6	0.014	0.007	91	0.001	0.01	0.09	2.8	0.05	0.3
MAX21TD-018	22	2.15	682	3.54	0.024	0.48	59.6	0.121	22.6	0.005	0.001	39.4	0.001	0.01	0.4	6.2	0.2	0.4
MAX21TD-020	19.8	1.84	746	3.41	0.035	0.82	38.9	0.161	5.2	0.005	0.004	30.8	0.001	0.01	0.39	7.1	0.3	0.4
MAX21TD-021	19.2	0.97	779	2.65	0.036	0.68	33.8	0.101	6.1	0.005	0.001	15.5	0.002	0.01	0.57	7.8	0.2	0.4
MAX21TD-022	14.1	0.98	977	3.42	0.028	0.39	51.3	0.108	7.4	0.005	0.003	12.9	0.001	0.01	0.84	10	0.2	0.4
MAX21TD-023	13	0.92	989	2.31	0.023	0.25	60.1	0.096	7.6	0.005	0.002	9	0.001	0.01	0.96	9.4	0.2	0.4
MAX21TD-024	10.6	0.76	707	1.28	0.029	0.25	46	0.103	6	0.005	0.001	7.8	0.001	0.01	0.79	8.4	0.2	0.4
MAX21TD-027	11.8	0.89	764	0.9	0.031	0.15	44.8	0.13	6.4	0.005	0.001	10	0.001	0.01	0.7	8.3	0.05	0.4
MAX21TD-028	11.3	0.84	726	0.95	0.026	0.12	42.8	0.121	6.4	0.005	0.001	8.6	0.001	0.01	0.8	7.7	0.1	0.4
MAX21TD-030	12.6	0.85	676	1.62	0.022	0.43	42.1	0.092	6.7	0.005	0.001	7.8	0.001	0.01	0.67	8	0.1	0.5
MAX21TD-031	11.8	0.81	706	0.86	0.024	0.12	43	0.115	6.4	0.005	0.001	7.8	0.002	0.01	0.71	8.6	0.05	0.4
MAX21TD-032	10.4	0.76	656	0.86	0.027	0.12	39.7	0.097	6	0.005	0.002	7.5	0.001	0.01	0.74	9	0.05	0.3
MAX21TD-033	12.5	0.92	648	0.98	0.031	0.11	38.4	0.122	5.2	0.005	0.001	10.4	0.001	0.01	0.71	8.1	0.05	0.3
MAX21TD-034	13.8	0.9	718	1.13	0.028	0.08	46.5	0.097	6.6	0.005	0.001	9.2	0.001	0.01	0.78	9.5	0.2	0.4
MAX21TD-035	14.2	1.04	874	1.16	0.031	0.11	54.3	0.114	7.8	0.005	0.001	10.5	0.001	0.01	0.97	9.9	0.05	0.4
MAX21TD-036	14.6	1.02	876	1.27	0.03	0.08	54.9	0.103	7.8	0.005	0.001	9.3	0.001	0.01	0.88	9	0.3	0.4
MAX21TD-038	14.5	1.02	929	1.1	0.028	0.07	56.6	0.102	8.1	0.005	0.001	8.9	0.001	0.01	0.89	8.6	0.3	0.4
MAX21TD-041	14.2	0.95	916	1.4	0.031	0.08	55.6	0.107	7.7	0.005	0.001	9.7	0.001	0.01	0.8	9.5	0.05	0.4
MAX21TD-042	14.3	1	957	1.26	0.029	0.06	54.7	0.098	7.8	0.005	0.001	10.1	0.001	0.01	0.86	9.4	0.1	0.4
MAX21TD-043	13.5	0.97	980	1.42	0.03	0.05	56.8	0.107	7.9	0.005	0.002	10.5	0.001	0.01	0.83	9.4	0.3	0.4
MAX21TD-044	13.8	0.96	857	1.19	0.03	0.05	52	0.105	7.2	0.005	0.002	10.4	0.001	0.01	0.82	9.6	0.1	0.4
MAX21TD-045	14.5	1.04	895	1.06	0.031	0.05	52.4	0.111	7.6	0.005	0.001	8.8	0.001	0.01	0.85	9.5	0.4	0.4
MAX21TD-046	15	1.04	834	1.19	0.031	0.07	53	0.105	7.6	0.005	0.002	9.6	0.001	0.01	0.85	9.9	0.05	0.4
MAX21TD-048	14.2	1.26	794	0.91	0.027	0.12	44.8	0.128	6.3	0.005	0.002	18.9	0.001	0.01	0.59	9.5	0.05	0.3
MAX21TD-049	13.4	1.03	819	0.87	0.029	0.13	46.8	0.124	6.6	0.005	0.001	14.8	0.001	0.01	0.74	9.1	0.3	0.4
MAX21TD-050	11.8	0.8	700	0.98	0.02	0.29	42.1	0.123	6.3	0.005	0.001	11.5	0.001	0.01	0.66	8.1	0.05	0.3
MAX21TD-051	11.5	0.84	794	1.55	0.025	0.12	45	0.125	6.5	0.005	0.001	10.9	0.001	0.01	0.66	8.6	0.1	0.3
MAX21TD-052	11.7	0.78	750	1.37	0.025	0.33	42	0.122	6.6	0.005	0.001	10.1	0.001	0.01	0.66	8.7	0.1	0.3

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Samp_LabJob_D	Samp_AssayMethod_D	Samp_Dispatch_D
D00155304	45.6	0.03	0.35	1.8	0.188	0.08	0.6	135	0.6	4	51	3.8	VAN21001655	AQ252-EXT,pXRF	MAX21-Till_01
D00155306	56.4	0.03	0.11	1.1	0.148	0.09	0.5	111	0.2	6.3	76	2.1	VAN21001655	AQ252-EXT,pXRF	MAX21-Till_01
D00155308	60.7	0.03	0.09	1.1	0.135	0.15	0.8	128	0.2	9.4	89	1.6	VAN21001655	AQ252-EXT,pXRF	MAX21-Till_01
MAX21TD-001	48.7	0.03	0.04	2.7	0.117	0.17	0.4	97	0.3	10.6	73	7.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-002	41.8	0.03	0.03	2.8	0.101	0.08	0.5	80	0.6	8.8	51	5.1	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-003	34.8	0.03	0.01	0.9	0.221	0.52	0.4	226	0.4	9	143	12.6	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-004	63.7	0.03	0.05	2.6	0.173	0.18	0.5	122	0.4	11.2	77	7.7	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-005	48.3	0.03	0.06	2.9	0.134	0.15	0.5	96	0.2	9.6	75	6.4	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-006	58.4	0.03	0.05	2.3	0.121	0.13	0.5	94	0.5	9.2	66	5.3	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-007	57.8	0.03	0.07	1.8	0.132	0.1	0.4	89	0.4	7.4	59	2.5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-008	47.9	0.03	0.06	2.7	0.102	0.12	0.4	87	0.3	10.5	82	5.3	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-009	68.5	0.03	0.1	1.9	0.189	0.13	0.4	113	0.7	7.5	68	4.6	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-010	60.8	0.03	0.05	2.5	0.121	0.13	0.5	102	0.6	10	74	2.8	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-011	72	0.03	0.35	1.7	0.196	0.43	0.6	254	0.8	7	93	3.1	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-012	290.6	0.03	0.16	1	0.218	0.33	0.3	151	0.7	6.1	79	3.8	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-013	52.4	0.03	0.35	0.9	0.232	0.15	0.3	152	0.6	4	59	4.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-014	236.9	0.03	0.31	0.6	0.282	0.29	0.3	135	0.6	3.8	48	4.5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-015	82.3	0.03	0.11	1.6	0.175	0.11	0.4	132	0.7	4.9	62	3.4	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-017	53.4	0.03	0.09	1.8	0.188	0.37	0.5	187	0.2	5.6	87	3.5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-018	70.7	0.03	0.12	1.5	0.229	0.16	0.4	171	0.4	4.6	86	5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-020	120.3	0.03	0.11	1.6	0.208	0.14	0.4	153	0.9	6.2	65	4.5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-021	75.4	0.03	0.05	2.7	0.154	0.1	0.6	109	1.1	9.7	49	4.8	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-022	49.5	0.03	0.06	2.6	0.117	0.13	0.6	94	0.4	11.2	80	5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-023	44.6	0.03	0.06	2.8	0.1	0.14	0.5	83	0.2	11.3	93	6.9	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-024	45.7	0.03	0.04	2.7	0.096	0.1	0.5	87	0.7	9.5	67	4.4	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-027	56.9	0.03	0.03	3.2	0.113	0.12	0.5	90	0.5	9.9	67	6.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-028	55.8	0.03	0.01	3.2	0.105	0.1	0.5	85	0.3	9.4	61	7	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-030	56.7	0.03	0.04	3	0.132	0.09	0.5	94	0.6	9.6	62	6.4	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-031	56.1	0.03	0.04	3.5	0.11	0.09	0.5	92	0.2	10.3	64	6.3	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-032	48.8	0.03	0.05	2.8	0.102	0.1	0.4	93	0.3	9.6	66	7.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-033	57.7	0.03	0.05	2.6	0.119	0.11	0.5	99	0.2	9.2	66	7.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-034	50.4	0.03	0.05	3	0.099	0.12	0.5	101	0.2	10.7	79	8.5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-035	68.2	0.03	0.04	3.7	0.134	0.13	0.5	94	0.3	11.6	84	11	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-036	67.7	0.03	0.03	3.7	0.114	0.14	0.5	87	0.3	10.6	81	8.6	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-038	68.6	0.03	0.04	3.4	0.101	0.12	0.5	85	0.2	10.6	84	8	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-041	54.7	0.03	0.04	3.1	0.114	0.13	0.5	95	0.4	10.8	81	9.7	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-042	56.1	0.03	0.04	3.2	0.108	0.13	0.4	95	0.2	11.3	87	9.7	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-043	52	0.03	0.06	3	0.107	0.13	0.5	95	0.3	11.4	91	8.9	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-044	58.7	0.03	0.05	3.2	0.117	0.14	0.5	93	0.3	10.9	83	9.5	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-045	73.2	0.03	0.04	3.6	0.107	0.13	0.6	90	0.2	11.1	83	8	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-046	67.5	0.03	0.02	3.9	0.112	0.13	0.5	94	0.3	11	78	8.6	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-048	73.3	0.03	0.04	2.9	0.146	0.15	0.5	111	0.3	10.3	68	7	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-049	75.8	0.03	0.03	3.1	0.129	0.13	0.4	104	0.2	10.5	69	5.7	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-050	45.9	0.03	0.02	3.1	0.142	0.12	0.5	92	0.3	8.4	70	8.3	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-051	52.9	0.03	0.05	3.5	0.104	0.11	0.5	92	0.3	10.6	66	7.1	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-052	52.9	0.03	0.04	2.9	0.11	0.11	0.7	93	0.3	10.7	67	4	VAN21004332	AQ252-EXT	MAX21-Till_02

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	POINTGRID	POINTEAST	POINTNORTH	POINTRL	Station_UTM_Source	Sampled_By	Sampled_By2	Sampled_Date	SAMPLETYPE	Site_Exposure	Site_SurficialUnit	Site_ID
MAX21TD-053	NAD83UTMZ10	429888.78	6087475.18	1092.7	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-17 0:06	TILL	drill	Tb	
MAX21TD-054	NAD83UTMZ10	429771.51	6087551.37	1075.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-17 16:20	TILL	drill	Tb	
MAX21TD-056	NAD83UTMZ10	429625.49	6087704.19	1032.7	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-11-17 17:16	TILL	drill	Tb	
MAX21TD-059	NAD83UTMZ10	429350.89	6087600.39	1036.4	Mobile GPS	Bob Janzen	Lindsay Nelson	2021-11-17 18:42	TILL			
MAX21TD-060	NAD83UTMZ10	432554.39	6087840.45	1371.2	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-09 17:22	TILL	drill	Tv	
MAX21TD-061	NAD83UTMZ10	432669.68	6087705.26	1345.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-09 18:55	TILL	drill	Tv	
MAX21TD-064	NAD83UTMZ10	433339.02	6086854.89	1267.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-10 23:03	TILL	drill	Tb	
MAX21TD-067	NAD83UTMZ10	432941.17	6087386.35	1340.6	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-11 21:21	TILL	drill	Tv	
MAX21TD-068	NAD83UTMZ10	432819.5	6087505.9	1343.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-11 22:44	TILL	drill	Tv.R	
MAX21TD-071	NAD83UTMZ10	432708.83	6087643.09	1349.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-12 17:16	TILL	drill	Tv	
MAX21TD-072	NAD83UTMZ10	432613.39	6087776.44	1359.4	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-12 18:39	TILL	drill	Tv	
MAX21TD-073	NAD83UTMZ10	432471.35	6087895.86	1367.9	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-12 19:49	TILL	drill	TvR	
MAX21TD-075	NAD83UTMZ10	432361.55	6087939.75	1326.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-12 21:37	TILL	drill	Tv	
MAX21TD-076	NAD83UTMZ10	432236.74	6087923.1	1327.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-12 22:44	TILL	drill	TvR	
MAX21TD-077	NAD83UTMZ10	432357.12	6088053.61	1307.3	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-12 23:33	TILL	drill	Tv	
MAX21TD-078	NAD83UTMZ10	432387.37	6088223.01	1297	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-13 16:37	TILL	drill	Tv	
MAX21TD-081	NAD83UTMZ10	432506.21	6088173.92	1327.8	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-13 17:40	TILL	drill	Tv	
MAX21TD-082	NAD83UTMZ10	432630.04	6088128.91	1305.1	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-13 19:34	TILL	drill	Tb	
MAX21TD-083	NAD83UTMZ10	432763.11	6088087.48	0	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-13 21:25	TILL	drill	Tb	
MAX21TD-084	NAD83UTMZ10	432902.82	6088074.57	1288.5	Mobile GPS	Lindsay Nelson	Bob Janzen	2021-12-13 22:09	TILL	drill	Tv	

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Site_Vegetation	Site_TopoPosition	Site_Slope_Angle	Site_Slope_Direction	Site_Outcrop	Site_Drainage	Sample_Horizon	Sample_Depth_cm	Sample_Colour	Sample_MatrixPct
MAX21TD-053	Coniferous	MidSlope				Poor	C	190	DarkBrown	80
MAX21TD-054	Coniferous	MidSlope				Poor	C	185	DarkBrown	80
MAX21TD-056	Coniferous	MidSlope					C	160	DarkBrown	70
MAX21TD-059										
MAX21TD-060	Coniferous	MidSlope				Poor	C	170	DarkBrown	80
MAX21TD-061	Coniferous	MidSlope					C	160	DarkBrown	80
MAX21TD-064	Coniferous	MidSlope				Poor	C	120	DarkBrown	60
MAX21TD-067	Coniferous	MidSlope				Moderately Well	C	120	DarkBrown	50
MAX21TD-068	Coniferous	MidSlope					C	80	RedishBrown	60
MAX21TD-071	Coniferous	MidSlope				Moderately Well	C	80	MediumBrown	60
MAX21TD-072	Coniferous	MidSlope					C	170	DarkBrown	80
MAX21TD-073	Coniferous	MidSlope				Moderately Well	C	150	MediumBrown	50
MAX21TD-075	Coniferous	MidSlope					C	140	GreenishGrey	85
MAX21TD-076	Coniferous	MidSlope				Moderately Well	C	90	MediumBrown	50
MAX21TD-077	Coniferous	MidSlope					C	100	DarkBrown	75
MAX21TD-078	Coniferous	MidSlope					C	140	DarkBrown	80
MAX21TD-081	Coniferous	MidSlope				Moderately Well	C	115	MediumBrown	70
MAX21TD-082	Coniferous	MidSlope					C	110	DarkBrown	70
MAX21TD-083	Coniferous	MidSlope				Poor	C	110	DarkBrown	70
MAX21TD-084	Coniferous	MidSlope					C	120	DarkBrown	65

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Sample_MatrixTxt	Sample_Compaction	Sample_Fissility	Sample_Jointing	Sample_ClastMode	Sample_ClastShape	Sample_ClastSize	Ag_ppb	Al_pct	As_ppm	Au_ppb	B_ppm
MAX21TD-053	csz	dense	moderate	weak	Pebble	subangular	S	183	2.28	15.8	10.4	3
MAX21TD-054	csz	moderate	weak	none	Pebble	subangular	S	134	1.76	12.7	5.1	4
MAX21TD-056	csz	dense	moderate	weak	Pebble	subrounded	M	143	1.76	10.3	8.3	2
MAX21TD-059								114	1.76	10.1	6.3	3
MAX21TD-060	czs	dense	weak	weak	Pebble	subangular	M	219	2.92	11	11.5	4
MAX21TD-061	csz	dense	moderate	weak	Pebble	subangular	S	125	2.23	11.5	20	3
MAX21TD-064	czs	moderate			Pebble	subangular	L	840	3.33	11.3	52.3	3
MAX21TD-067	zS	loose	none		Pebble	subangular	M	425	3.06	24.4	22.2	3
MAX21TD-068	sZ	moderate			Pebble	angular	M	184	2.97	23.1	28.3	3
MAX21TD-071	czs	loose			Pebble	subangular	M	97	3.09	11.3	13.8	4
MAX21TD-072	sZ	moderate	moderate	moderate	Pebble	subangular	S	196	3.41	30.3	23.3	2
MAX21TD-073	zS	loose	none	none	Pebble	angular	M	222	3.49	68	114.1	1
MAX21TD-075	szc	moderate			Pebble	subangular	S	300	3.22	21.4	13.5	2
MAX21TD-076	zS	loose	none	none	Pebble	angular	M	149	4.54	11.3	4.5	1
MAX21TD-077	cZ	dense	moderate	weak	Pebble	subrounded	S	75	2.62	10.6	10.8	3
MAX21TD-078	csz	dense	strong	moderate	Pebble	subangular	S	105	2.52	10.7	8.9	3
MAX21TD-081	sZ	moderate			Pebble	angular	M	90	4.56	4.8	5.9	3
MAX21TD-082	sZ	dense	moderate	weak	Pebble	angular	M	159	2.52	10.3	10.6	3
MAX21TD-083	czs	moderate			Pebble	angular	M	493	3.49	9.5	37.9	2
MAX21TD-084	sZ	moderate	moderate	weak	Pebble	angular	M	169	3.56	17.4	31.2	2

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Ba_ppm	Be_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe_pct	Ga_ppm	Ge_ppm	Hg_ppb	Hf_ppm	In_ppm	K_pct	La_ppm
MAX21TD-053	182.6	0.6	0.08	0.95	0.32	22.7	23.2	60.3	1.29	105.65	4.33	7.1	0.05	76	0.19	0.02	0.23	11.9
MAX21TD-054	171.4	0.4	0.08	0.92	0.34	23	18.2	49	1.05	80.19	3.49	5.4	0.05	99	0.15	0.01	0.15	11.5
MAX21TD-056	145.3	0.5	0.07	0.76	0.28	23.1	15.8	50.1	0.9	68.4	3.33	5.2	0.05	82	0.14	0.02	0.12	12.1
MAX21TD-059	143	0.4	0.11	0.82	0.24	21.2	16.7	54.4	1.04	77.87	3.47	5.4	0.05	75	0.15	0.02	0.13	11
MAX21TD-060	175.6	0.7	0.17	0.85	0.3	19.6	27.1	68.6	1.1	161.14	4.91	8	0.05	45	0.16	0.03	0.17	10.7
MAX21TD-061	133.9	0.6	0.11	0.91	0.19	19	26.6	49.1	0.74	202.56	4.64	6.5	0.05	33	0.06	0.02	0.1	9
MAX21TD-064	92.8	0.9	0.12	1	0.38	25.1	49.7	57.7	1.32	328.98	5.4	6.6	0.05	112	0.04	0.02	0.11	10.2
MAX21TD-067	46.6	1.8	0.17	0.8	0.34	25.6	33.4	39.7	2	450.99	7.53	13.6	0.2	54	0.03	0.03	0.33	9.6
MAX21TD-068	116.5	0.7	0.13	0.99	0.14	8.3	43.9	94.6	0.84	365.12	8.96	9.3	0.05	30	0.07	0.01	0.11	3.2
MAX21TD-071	94	0.5	0.12	0.78	0.35	16.2	35.1	53.3	0.85	178.36	5.02	7.6	0.05	31	0.06	0.02	0.13	7.7
MAX21TD-072	46.3	4.6	0.19	0.94	2.73	17	54.7	147.5	6.7	326.99	9.9	14.4	0.4	109	0.25	0.06	1.44	7.9
MAX21TD-073	53.3	1.1	0.27	1.02	0.89	13.1	113.2	68.5	0.59	789.38	9.98	12.9	0.05	15	0.04	0.05	0.09	6.5
MAX21TD-075	53.5	1.7	0.32	1.16	0.23	10.5	31.5	26	4.78	272.91	6.99	12.9	0.2	26	0.19	0.02	0.69	5.3
MAX21TD-076	58	1.4	0.17	0.75	0.19	11.5	66.7	96.1	2.14	326.79	8.37	13	0.1	20	0.07	0.05	0.31	4.2
MAX21TD-077	158.3	0.6	0.15	0.69	0.21	20.3	20	66.5	1.23	102.26	4.2	7	0.05	85	0.08	0.03	0.18	10.9
MAX21TD-078	147.5	0.7	0.16	1.07	0.24	17.7	24.1	64.1	1.38	124.17	4.56	7.9	0.05	52	0.12	0.03	0.35	9.5
MAX21TD-081	187.7	1	0.06	0.82	0.25	11.3	52.2	328.6	4.58	255.78	6.31	10.4	0.2	19	0.07	0.01	0.81	6.7
MAX21TD-082	108	0.5	0.15	0.73	0.26	18	22.5	54.3	1.17	111.32	4.19	6.6	0.05	28	0.09	0.02	0.2	8.4
MAX21TD-083	265.3	0.5	0.26	1.16	0.42	12.1	74.2	244.9	3.47	1112.18	7.64	9.5	0.1	39	0.14	0.02	0.54	6.1
MAX21TD-084	155.8	0.9	0.38	1	0.37	15.1	54.6	103.3	3.34	365.07	7.47	10.5	0.2	25	0.14	0.02	0.44	6.8

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Li_ppm	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_pct	Pb_ppm	Pd_ppm	Pt_gpt	Rb_ppm	Re_ppm	S_pct	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm
MAX21TD-053	13.2	1.13	902	1.98	0.028	0.25	47.6	0.123	7.4	0.005	0.003	14.7	0.001	0.01	0.82	9.8	0.2	0.4
MAX21TD-054	11.9	0.9	770	0.91	0.024	0.07	46.3	0.113	7	0.005	0.001	9.1	0.001	0.01	0.71	8	0.2	0.3
MAX21TD-056	10.7	0.78	755	0.99	0.023	0.23	39.5	0.112	6.8	0.005	0.001	8	0.001	0.01	0.71	8	0.1	0.4
MAX21TD-059	11.1	0.86	717	0.96	0.034	0.17	42.2	0.109	5.5	0.005	0.001	9.6	0.001	0.01	0.65	8	0.05	0.3
MAX21TD-060	16.8	1.17	830	3.29	0.023	0.46	43.4	0.115	8.6	0.005	0.003	12.2	0.001	0.03	0.73	9.8	0.7	0.5
MAX21TD-061	14.3	1.05	914	1.87	0.014	0.4	28	0.13	7.2	0.005	0.003	7.9	0.001	0.01	0.63	8.2	0.4	0.6
MAX21TD-064	28.1	1.04	891	6.83	0.027	1.33	33.5	0.142	11.3	0.005	0.003	10.5	0.002	0.06	0.6	9.2	1	0.4
MAX21TD-067	35.6	2.4	2609	6.05	0.004	0.83	22.7	0.187	11	0.005	0.001	25.6	0.002	0.13	1.22	6.5	1.3	0.4
MAX21TD-068	23.7	1.99	1205	3.79	0.005	0.08	27.4	0.191	6.5	0.005	0.007	7.9	0.001	0.01	0.92	13.5	0.8	0.2
MAX21TD-071	19.4	1.16	1017	2.09	0.013	1.12	37	0.14	7.5	0.005	0.003	10.3	0.001	0.01	0.65	7.1	0.7	0.5
MAX21TD-072	89.6	4.28	3714	7.52	0.009	0.16	52.7	0.186	55.7	0.005	0.008	121.4	0.001	0.01	1.02	28.2	1.9	0.5
MAX21TD-073	26.1	2.98	2300	18.87	0.015	0.4	33.5	0.185	4.8	0.01	0.006	7.2	0.001	0.03	0.58	15.3	1.9	0.7
MAX21TD-075	45.4	2.96	1158	3.63	0.014	0.28	17.4	0.133	18.1	0.005	0.002	67.2	0.001	0.01	0.63	11.3	1	0.6
MAX21TD-076	40.6	3.24	2016	3.32	0.014	0.34	51.3	0.159	11.7	0.005	0.008	24.8	0.001	0.01	0.62	27.6	0.9	0.5
MAX21TD-077	15.9	1.11	724	2.15	0.021	0.35	43	0.091	7.7	0.005	0.001	14.1	0.001	0.01	0.71	9.4	0.3	0.4
MAX21TD-078	15.9	1.3	882	3.36	0.032	0.22	43.2	0.11	8	0.005	0.003	26.2	0.001	0.01	0.57	10.2	0.3	0.4
MAX21TD-081	39.9	3.25	963	2.69	0.011	0.46	107	0.099	5.1	0.011	0.009	45.1	0.001	0.01	0.28	5	2	0.7
MAX21TD-082	14.3	1.07	825	2.28	0.026	0.74	32	0.128	9.1	0.005	0.002	15.9	0.001	0.01	0.58	6.5	0.6	0.5
MAX21TD-083	30.1	3.25	1137	6.51	0.019	0.39	99.2	0.115	9.8	0.033	0.011	32.3	0.001	0.05	0.51	12.2	0.9	0.4
MAX21TD-084	30.2	2.62	1443	7.4	0.013	0.34	36	0.18	24	0.005	0.006	38.5	0.001	0.01	0.74	10.8	1.6	0.5

Appendix D - Till Sample and Geochemistry Data

SAMPLEID	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_pct	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Samp_LabJob_D	Samp_AssayMethod_D	Samp_Dispatch_D
MAX21TD-053	74.7	0.03	0.04	3.3	0.14	0.15	0.7	108	0.3	10.9	81	7.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-054	58.8	0.03	0.02	3	0.098	0.11	0.5	85	0.2	9.4	73	6	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-056	54	0.03	0.02	3.3	0.103	0.1	0.5	83	0.4	9.6	57	6.2	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-059	53.2	0.03	0.03	2.5	0.112	0.1	0.5	95	0.2	10.3	62	7.6	VAN21004332	AQ252-EXT	MAX21-Till_02
MAX21TD-060	74.4	0.03	0.12	2.2	0.209	0.12	0.7	129	0.8	11.1	78	7.5	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-061	74	0.03	0.1	1.7	0.17	0.08	0.5	126	0.4	9	60	3	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-064	93	0.03	0.12	1.2	0.147	0.09	1	123	0.9	16.6	68	1.6	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-067	33.9	0.03	0.36	1.5	0.141	0.27	1.2	261	2	12.9	152	1.8	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-068	84.4	0.03	1	0.5	0.248	0.1	0.4	245	1	6.9	61	2.6	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-071	64.4	0.03	0.1	1.4	0.188	0.08	0.4	132	0.3	7	81	2.8	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-072	63.2	0.03	0.37	1.5	0.353	1.1	1.3	403	0.3	19.2	580	8.2	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-073	94.8	0.03	0.25	0.9	0.142	0.11	0.6	281	0.5	6.9	188	1.9	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-075	54.7	0.03	0.16	1.1	0.255	0.49	0.9	256	0.4	12	121	7.9	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-076	62	0.03	0.17	1	0.256	0.19	0.4	307	0.7	7.8	58	3.4	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-077	53.8	0.03	0.08	2.2	0.152	0.14	0.5	107	0.2	9.9	77	4.7	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-078	73.4	0.03	0.1	2	0.176	0.16	0.4	124	0.3	10.3	82	5.9	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-081	38	0.03	0.11	0.6	0.362	0.32	0.3	177	0.3	5.1	206	2.9	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-082	60.5	0.03	0.1	1.8	0.175	0.12	0.4	120	0.6	7.2	72	4.4	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-083	53.7	0.03	0.15	1.3	0.293	0.2	0.5	152	0.3	9.4	152	6.5	VAN22000034	AQ252-EXT	MAX21-Till_03
MAX21TD-084	93.6	0.03	0.26	1.4	0.309	0.26	0.5	227	0.7	9.5	121	5.7	VAN22000034	AQ252-EXT	MAX21-Till_03

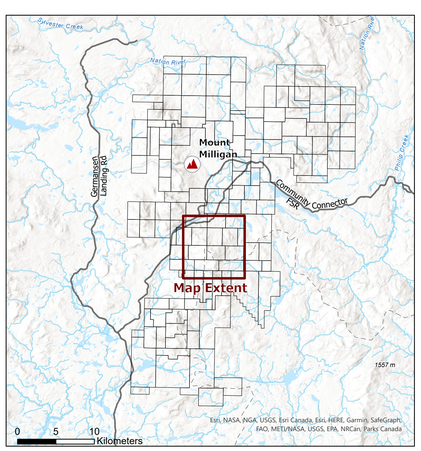
Appendix E – *Surface Sample Maps*

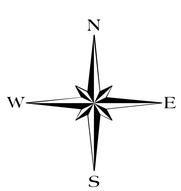
Mount Milligan - Sentinel
2021 Surface Geochemistry

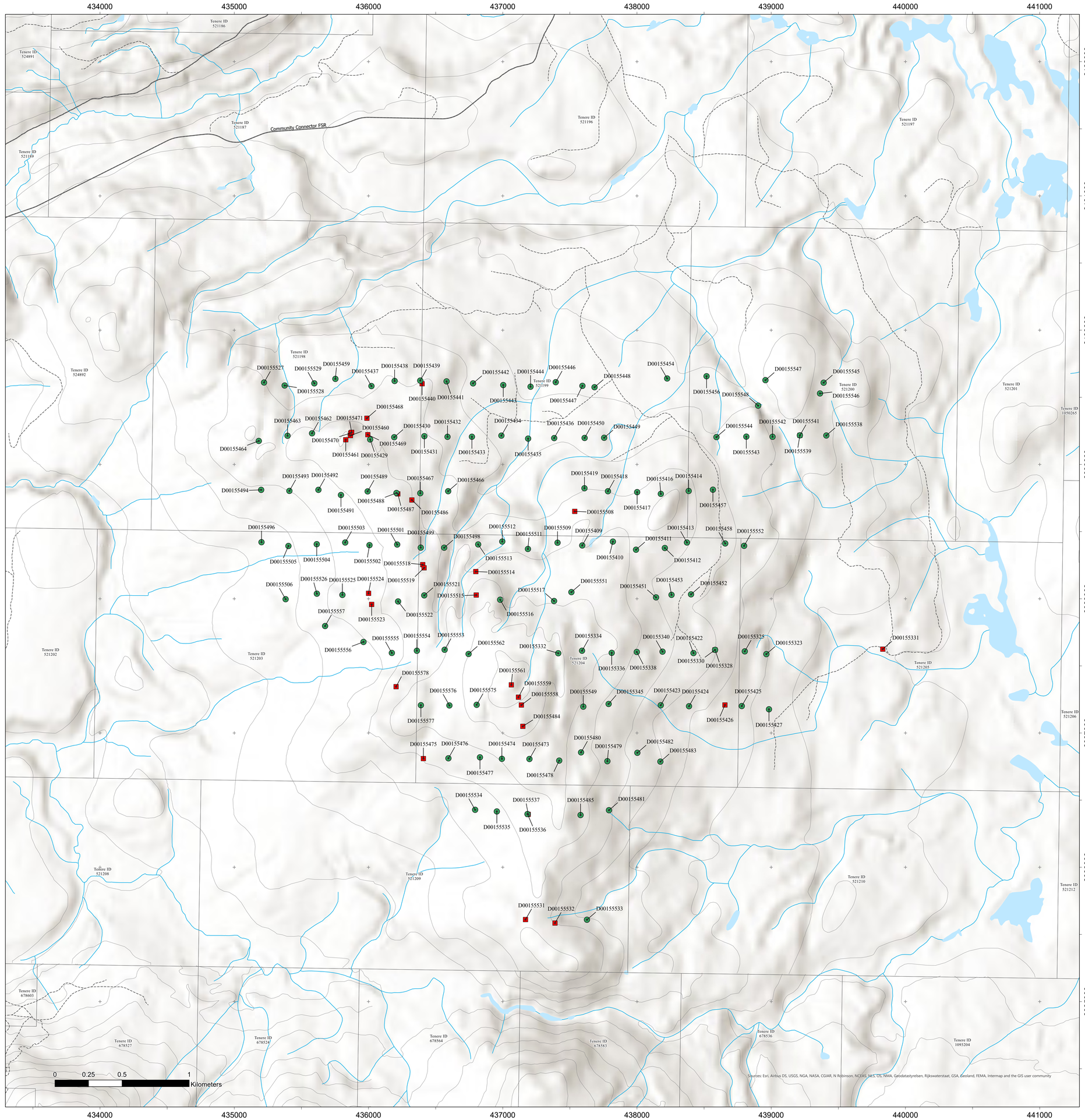
Sample IDs

Legend

- 2021 Till
- 2021 Soils
- 2021 Rock Samples
- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body







Date: Wednesday, March 23, 2022

Scale: 1:10,000

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Sentinel
2021 Surface Geochemistry

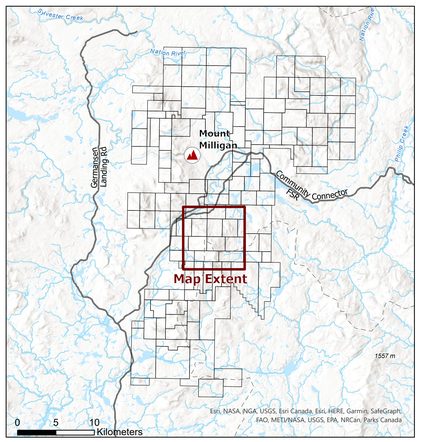
Copper

Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Rock Samples Cu (ppm)	Soil Samples Cu (ppm)
> 50	> 50
50 - 100	50 - 100
100 - 250	100 - 250
250 - 1000	250 - 1000
> 1000	> 1000



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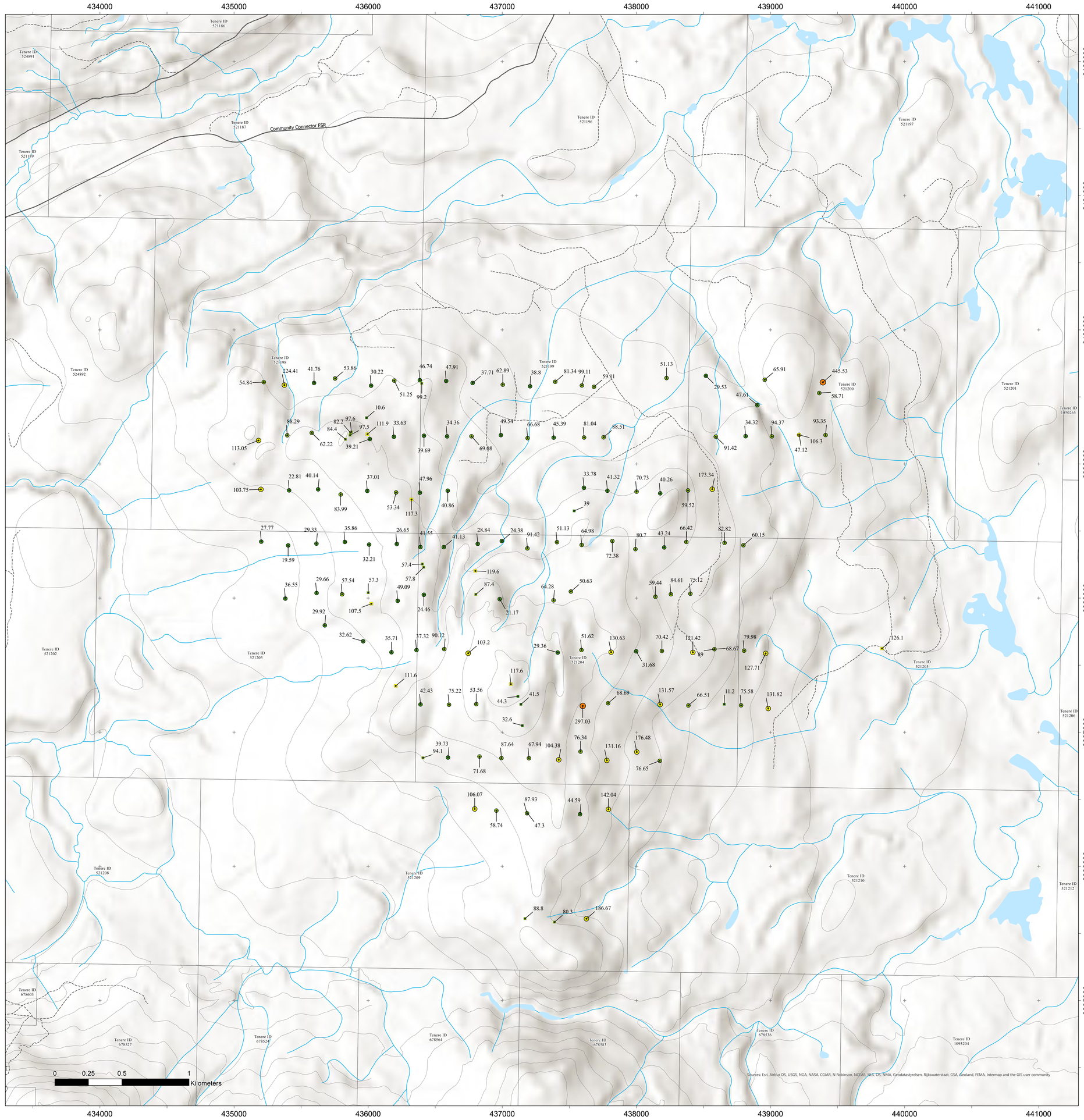
Date: Wednesday, March 23, 2022

Scale: 1:10,000

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport



Mount Milligan - Sentinel
2021 Surface Geochemistry

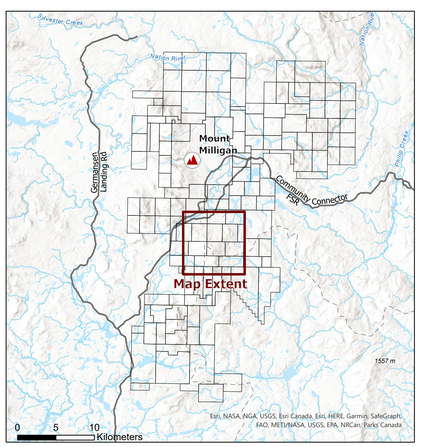
Gold

Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Rock Samples Au (ppb)	Soil Samples Au (ppb)
< 2.5	< 2.5
2.5 - 10	2.5 - 10
10 - 25	10 - 25
25 - 50	25 - 50
> 50	> 50



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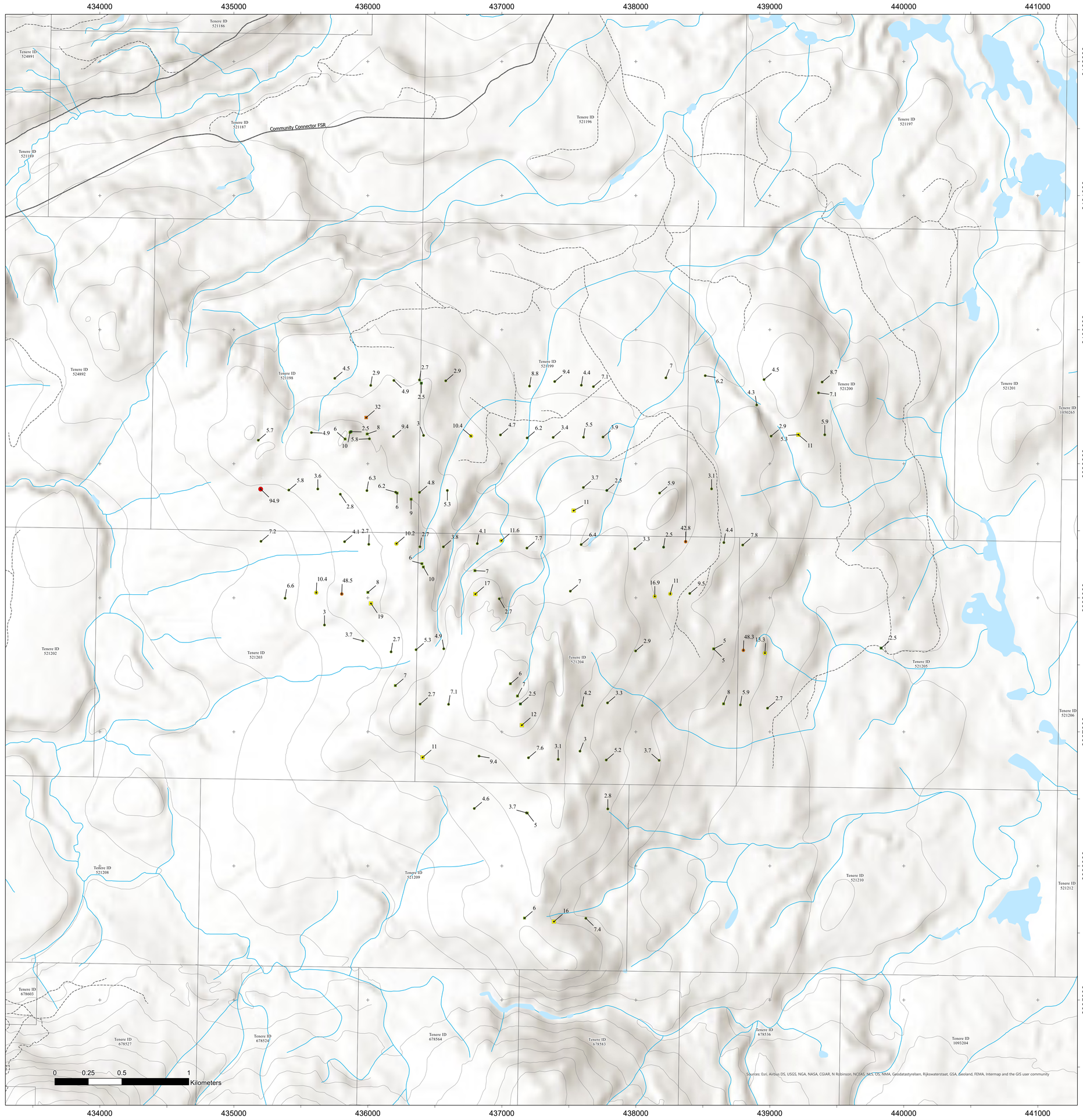


Date: Wednesday, March 23, 2022

Scale: 1:10,000

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Sentinel
2021 Surface Geochemistry

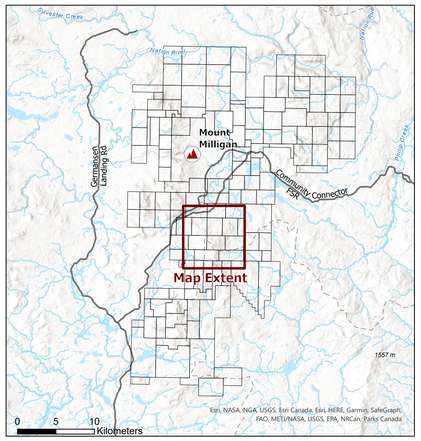
Silver

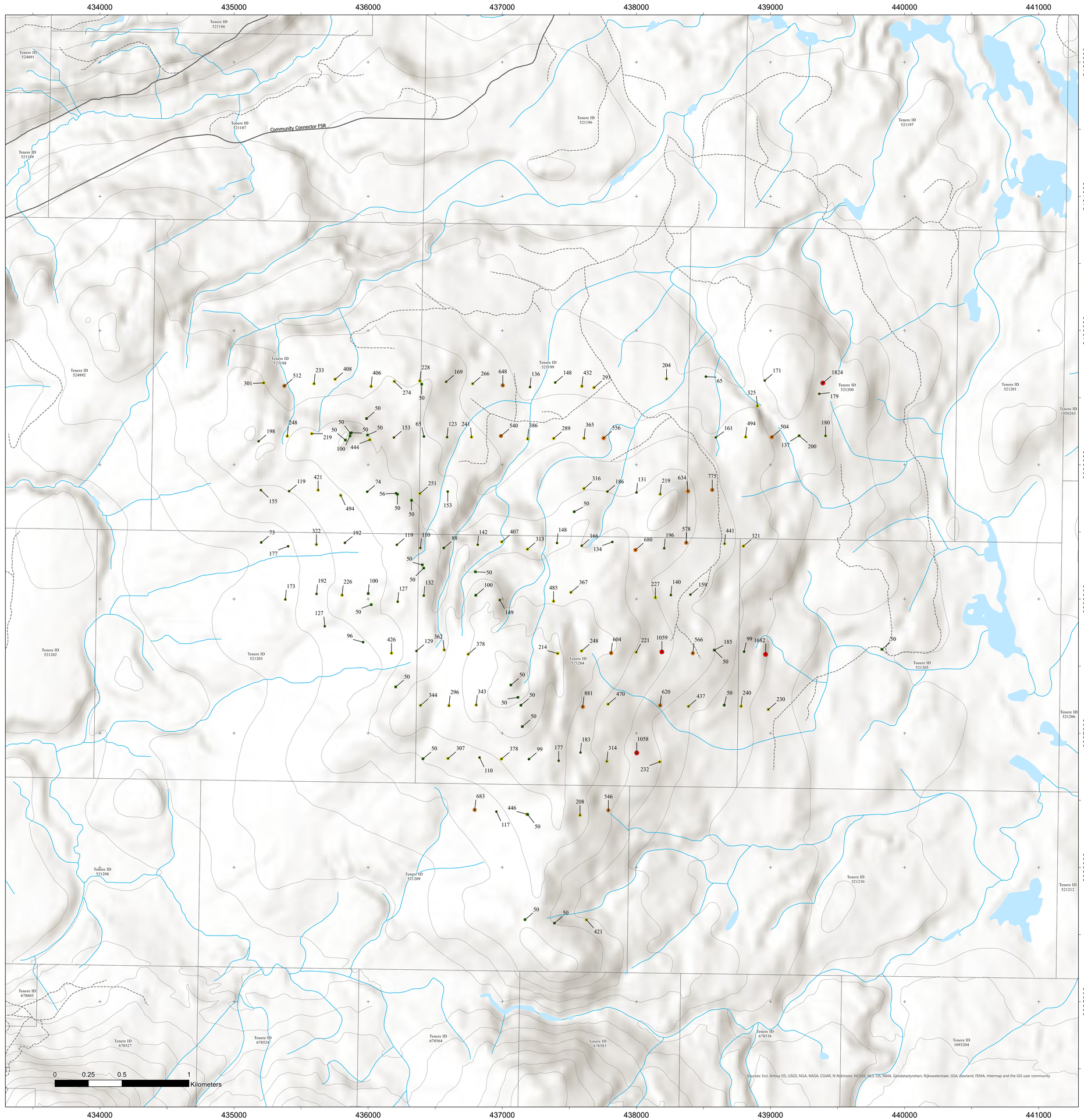
Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Rock Samples Ag (ppb)	Soil Samples Ag (ppb)
50 - 100	50 - 100
101 - 200	101 - 200
201 - 500	201 - 500
501 - 1000	501 - 1000
> 1000	> 1000





Date: Wednesday, March 23, 2022

Scale: 1:10,000

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Sentinel
2021 Surface Geochemistry

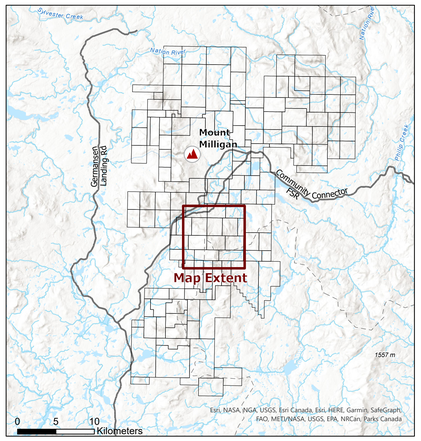
Molybdenum

Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Rock Samples Mo (ppm)	Soil Samples Mo (ppm)
< 1	< 1
1 - 5	1 - 5
5 - 10	5 - 10
10 - 25	10 - 25
> 25	> 25



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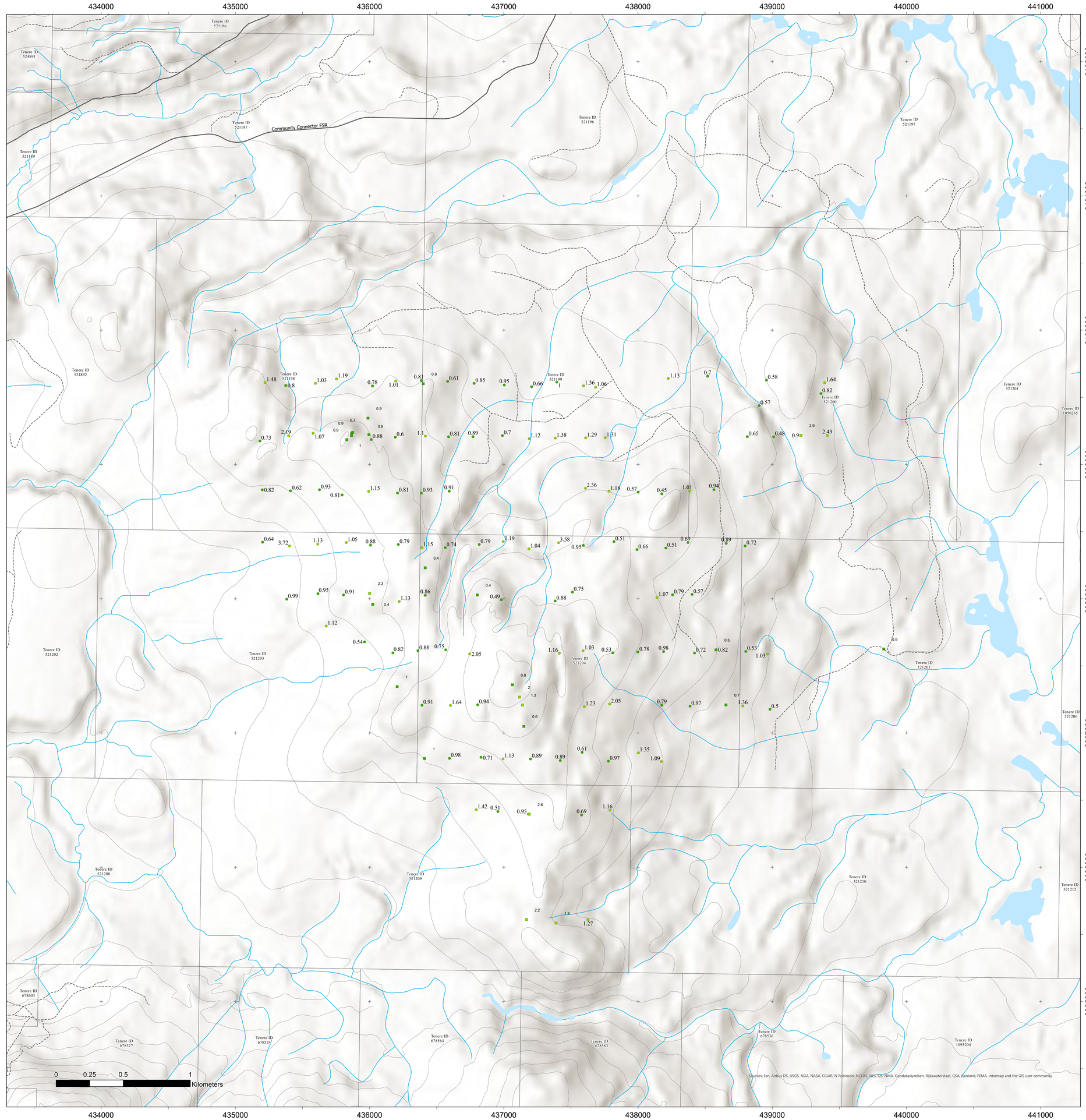


Date: Wednesday, March 23, 2022

Scale: 1:10,000

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Sentinel
2021 Surface Geochemistry

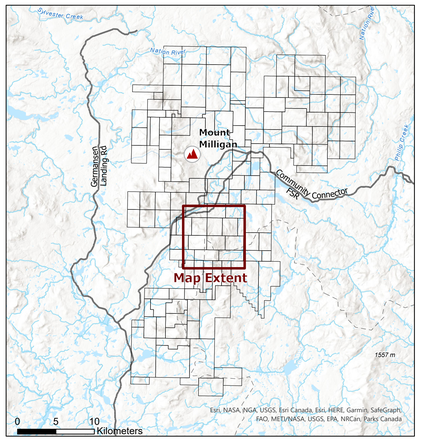
Zinc

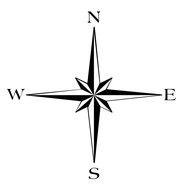
Legend

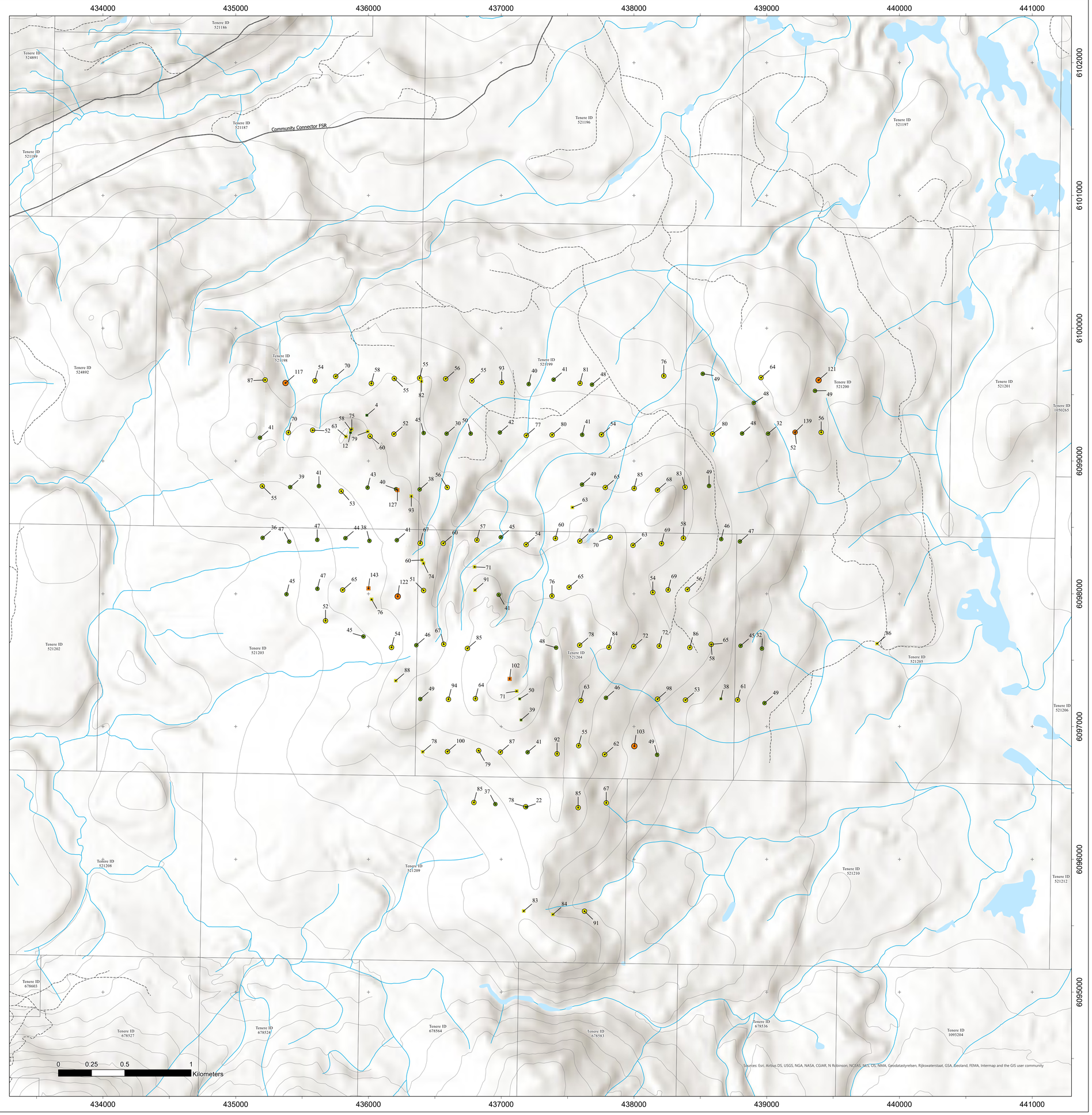
- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Rock Samples Zn (ppm)	Soil Samples Zn (ppm)
4 - 25	30 - 25
26 - 50	26 - 50
51 - 100	51 - 100
101 - 250	101 - 250
> 250	> 250







Date: Wednesday, March 23, 2022

Scale: 1:10,000

Projection: NAD 1983 UTM Zone 10N

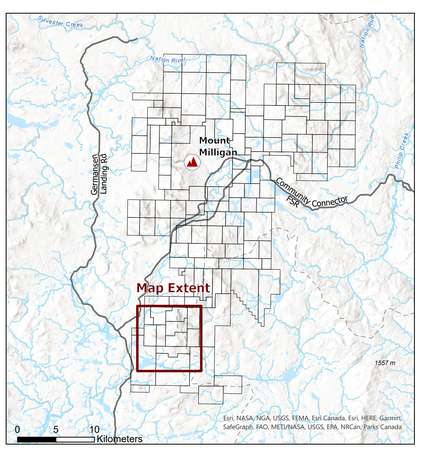
Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Max Claims
2021 Surface Geochemistry

Sample IDs

Legend

- 2021 Till
- 2021 Soils
- 2021 Rock Samples
- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body



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Date: Wednesday, March 23, 2022

Scale: 1:10,404

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

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6090000 6089000 6088000 6087000 6086000 6085000 6084000 6083000 6082000

Mt Milligan Connector FSR

Tenere ID 842877
Tenere ID 842876
Tenere ID 678588
Tenere ID 530440
Tenere ID 532638
Tenere ID 532537
Tenere ID 532541
Tenere ID 1076911
Tenere ID 532538
Tenere ID 1076917
Tenere ID 532542
Tenere ID 532540
Tenere ID 532635
Tenere ID 532543
Tenere ID 551895
Tenere ID 1076914
Tenere ID 1076912
Tenere ID 1076910

D00155301
D00155306
D00155305
D00155307
D00155308
D00155303
D00155302
D00155304
MAX21TD-078
MAX21TD-081
MAX21TD-083
MAX21TD-082
D00155405
MAX21TD-076
MAX21TD-075
MAX21TD-084
MAX21TD-077
D00155310
MAX21TD-074
MAX21TD-060
MAX21TD-072
D00155404
MAX21TD-073
D00155312
MAX21TD-061
MAX21TD-071
MAX21TD-062
MAX21TD-069
MAX21TD-068
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MAX21TD-036
MAX21TD-035
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D00155571
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D00155568
D00155567
D00155566
D00155564
D00155565

0 0.25 0.5 1 Kilometers

Esri, NASA, NGA, USGS, FEMA

Mount Milligan - Max Claims
2021 Surface Geochemistry

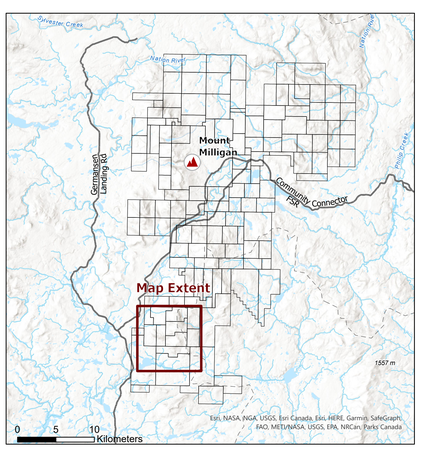
Copper

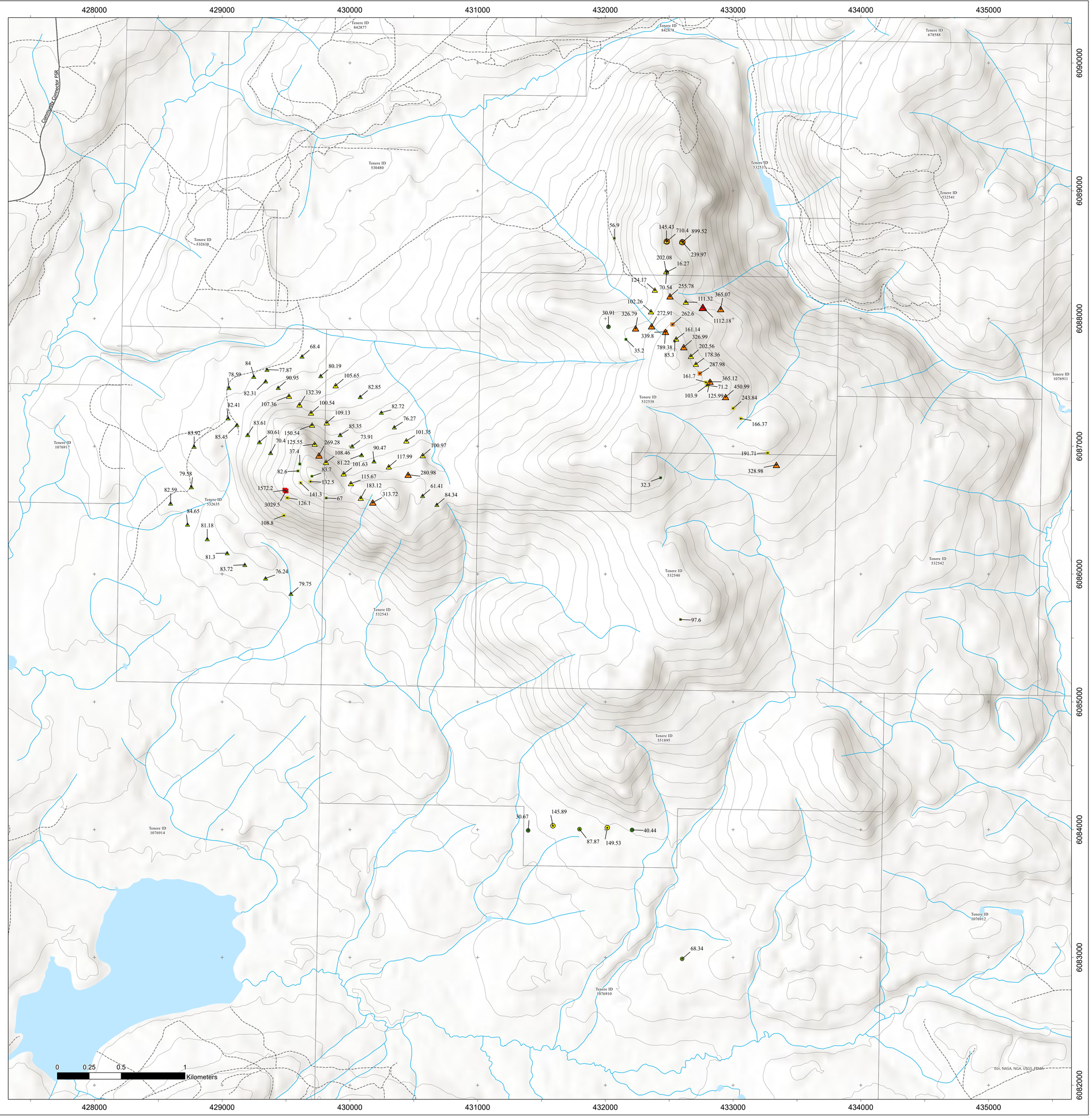
Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Till Samples Cu (ppm)	Rock Samples Cu (ppm)	Soil Samples Cu (ppm)
> 50	> 50	> 50
50 - 100	50 - 100	50 - 100
100 - 250	100 - 250	100 - 250
250 - 1000	250 - 1000	250 - 1000
> 1000	> 1000	> 1000





Date: Wednesday, March 23, 2022

Scale: 1:10,404

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Max Claims
2021 Surface Geochemistry

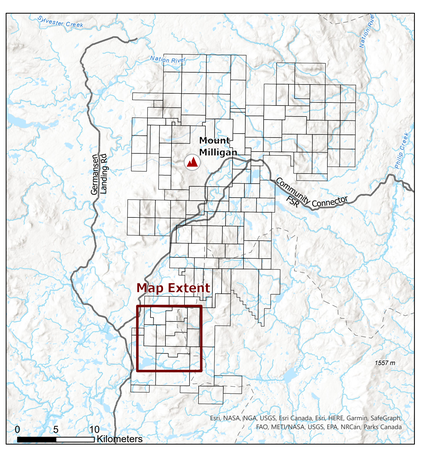
Gold

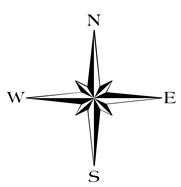
Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Till Samples Au (ppb)	Rock Samples Au (ppb)	Soil Samples Au (ppb)
< 2.5	< 2.5	< 2.5
2.5 - 10	2.5 - 10	2.5 - 10
10 - 25	10 - 25	10 - 25
25 - 50	25 - 50	25 - 50
> 50	> 50	> 50





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Scale: 1:10,404

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Mount Milligan - Max Claims
2021 Surface Geochemistry

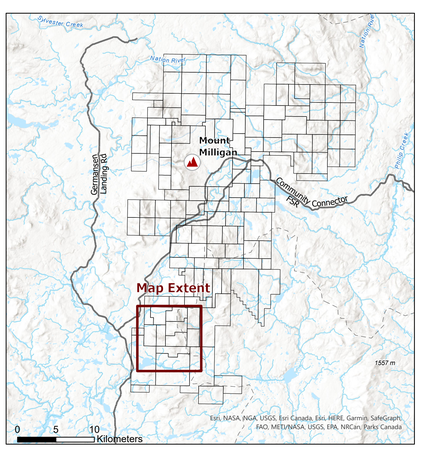
Silver

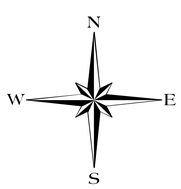
Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Till Samples Ag (ppb)	Rock Samples Ag (ppb)	Soil Samples Ag (ppb)
50 - 100	50 - 100	50 - 100
101 - 200	101 - 200	101 - 200
201 - 500	201 - 500	201 - 500
501 - 1000	501 - 1000	501 - 1000
> 1000	> 1000	> 1000





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Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

428000 429000 430000 431000 432000 433000 434000 435000

6090000 6089000 6088000 6087000 6086000 6085000 6084000 6083000 6082000

0 0.25 0.5 1 Kilometers

Esri, NASA, NGA, USGS, FEMA

Mount Milligan - Max Claims
2021 Surface Geochemistry

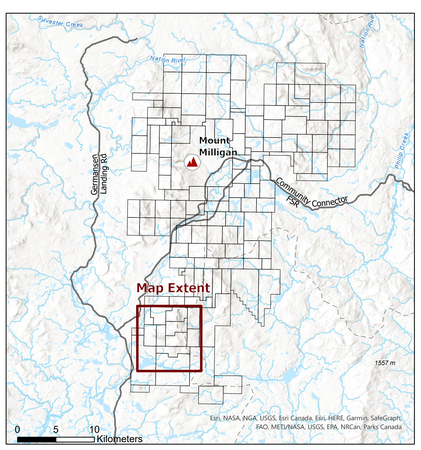
Molybdenum

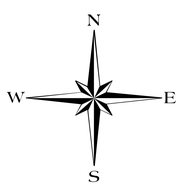
Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Till Samples Mo (ppm)	Rock Samples Mo (ppm)	Soil Samples Mo (ppm)
< 1	< 1	< 1
1 - 5	1 - 5	1 - 5
5 - 10	5 - 10	5 - 10
10 - 25	10 - 25	10 - 25
> 25	> 25	> 25





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6090000 6089000 6088000 6087000 6086000 6085000 6084000 6083000 6082000

0 0.25 0.5 1 Kilometers

Esri, NASA, NGA, USGS, FEMA

Mount Milligan - Max Claims
2021 Surface Geochemistry

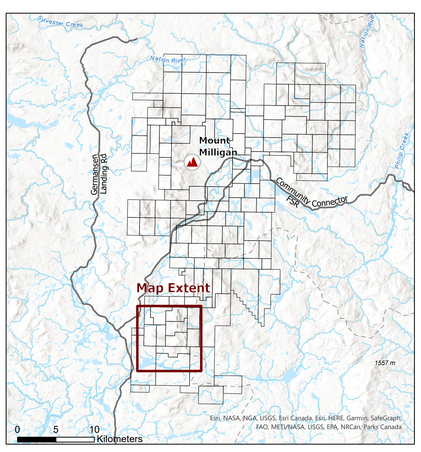
Zinc

Legend

- Mineral Claims
- Access Roads
- Forest Service Roads
- Streams and Rivers
- Contours (20m)
- Water Body

Geochemistry

Till Samples Zn (ppm)	Rock Samples Zn (ppm)	Soil Samples Zn (ppm)
4 - 25	4 - 25	30 - 25
26 - 50	26 - 50	26 - 50
51 - 100	51 - 100	51 - 100
101 - 250	101 - 250	101 - 250
> 250	> 250	> 250



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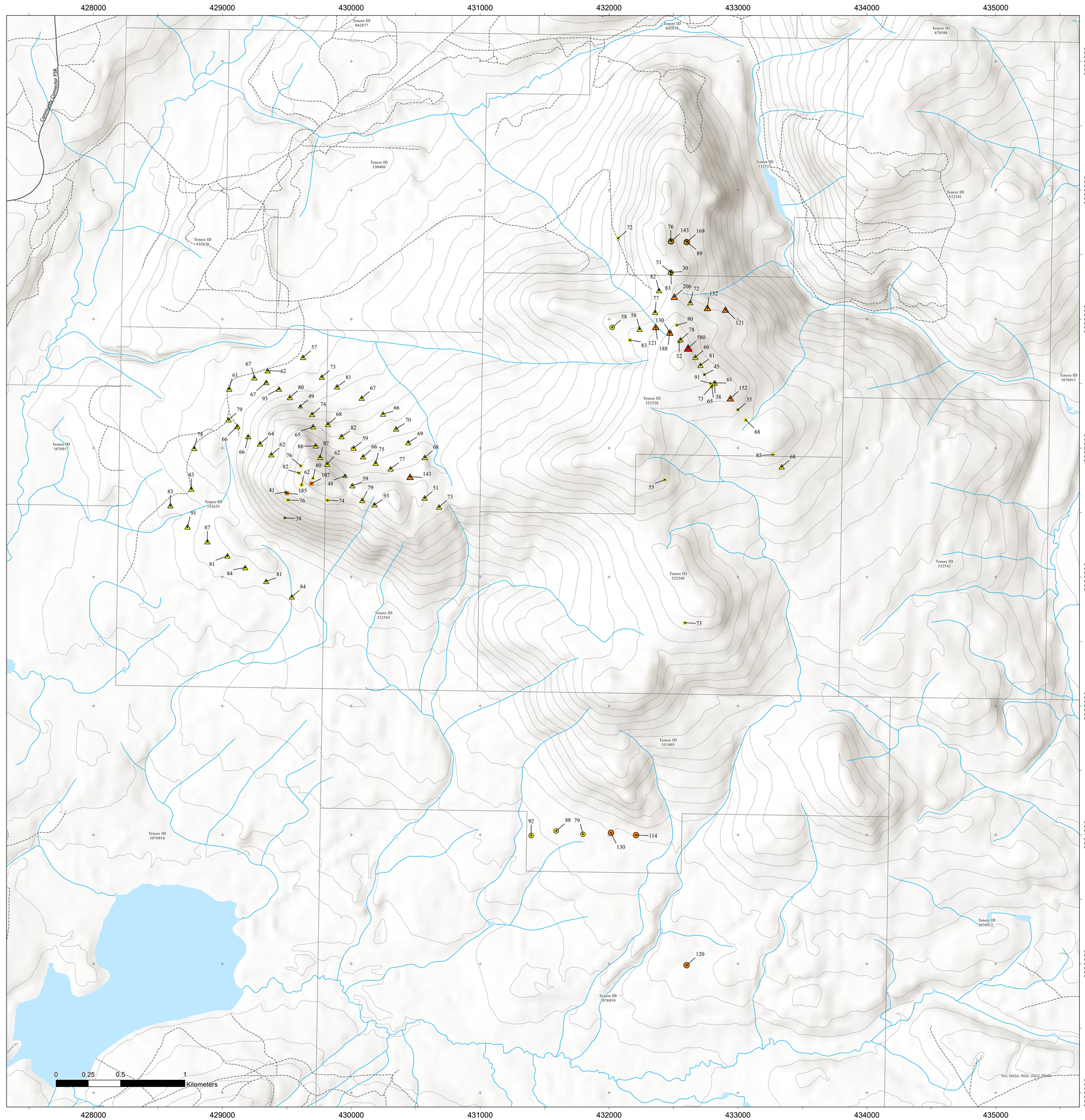

Date: Wednesday, March 23, 2022

Scale: 1:10,404

Projection: NAD 1983 UTM Zone 10N

Filename:MTM_GCH_SS_2021AssessmentReport

Appendix F - *Assay Certificates*

BUREAU VERITAS
MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

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

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Data Distribution List
Receiving Lab:	Canada-Vancouver
Received:	June 30, 2021
Analysis Start:	July 20, 2021
Report Date:	July 28, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21001653.1

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Rock_01
P.O. Number	M28096
Number of Samples:	21

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP80-250	20	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	1	Sort, label and box pulps			VAN
FA430	21	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
EN002	21	Environmental disposal charge-Fire assay lead waste			VAN
MA200	21	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

SOFIA DEVOTA
XRF Manager

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
MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

CERTIFICATE OF ANALYSIS VAN21001653.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
D00155301	Rock	1.85	0.029	1.8	56.9	7.4	72	0.1	13.3	23.8	1626	7.26	3	0.8	1.7	773	0.2	2.1	0.2	343	7.36
D00155309	Rock	3.74	0.021	0.9	132.5	6.9	107	0.2	26.6	32.4	1445	7.15	6	0.9	1.5	665	0.3	1.6	0.2	284	6.32
D00155310	Rock	6.36	0.023	0.4	262.6	3.9	80	0.4	22.4	45.6	1805	9.69	3	0.1	0.3	687	0.2	0.9	<0.1	455	9.07
D00155311	Rock	1.58	0.007	<0.1	1.1	0.7	4	<0.1	<0.1	0.3	131	0.14	<1	<0.1	<0.1	45	<0.1	<0.1	<0.1	<1	18.91
D00155312	Rock	4.57	0.017	1.9	85.3	2.8	52	<0.1	51.6	29.6	1434	6.79	18	0.8	1.6	576	<0.1	2.9	<0.1	309	6.96
D00155313	Rock	4.01	0.016	1.6	108.8	1.9	38	<0.1	29.5	33.1	1276	7.02	12	0.9	1.7	652	<0.1	1.5	<0.1	286	6.33
D00155314	Rock	2.90	0.009	0.8	126.1	5.7	76	0.1	20.6	38.6	1504	7.04	7	0.6	1.5	894	<0.1	1.2	<0.1	334	7.74
D00155315	Rock	2.30	0.025	3.3	141.3	5.2	62	0.1	7.8	20.6	1148	5.59	2	0.8	1.6	885	0.1	0.3	<0.1	182	5.12
D00155316	Rock	2.50	0.007	0.7	82.6	2.3	82	<0.1	18.5	30.5	1489	6.84	4	0.8	1.5	721	<0.1	0.7	<0.1	308	6.18
D00155317	Rock	2.43	<0.005	0.7	37.4	2.5	76	<0.1	7.7	21.3	1387	6.31	4	0.7	1.3	743	<0.1	0.5	<0.1	242	5.05
D00155318	Rock	1.67	<0.005	0.6	83.7	3.3	80	<0.1	12.8	25.2	1255	6.54	5	1.1	1.8	806	<0.1	0.7	<0.1	257	5.46
D00155319	Rock	1.44	0.007	1.6	67.0	2.9	74	<0.1	19.5	29.6	1365	6.87	1	1.1	1.7	657	<0.1	0.3	<0.1	294	6.69
D00155320	Rock Pulp	0.13	0.212	98.0	2782.0	22.1	75	0.4	62.9	15.9	569	4.39	18	5.1	18.5	307	<0.1	2.0	0.7	131	2.67
D00155321	Rock	2.21	0.019	1.3	3029.5	3.3	185	21.9	4.8	5.2	284	2.34	72	0.3	0.2	72	2.7	194.2	0.3	134	0.85
D00155322	Rock	2.38	0.007	1.0	1572.2	3.5	41	1.9	14.6	10.8	366	2.66	9	0.4	0.6	88	0.2	25.0	<0.1	146	0.73
D00155401	Rock	1.98	0.006	0.4	71.2	6.3	65	<0.1	17.2	28.8	1558	9.56	6	<0.1	0.1	1141	0.3	3.8	<0.1	642	10.34
D00155402	Rock	2.20	<0.005	0.4	103.9	2.8	73	0.2	40.3	36.5	1633	9.09	7	<0.1	<0.1	691	0.2	2.6	<0.1	419	9.54
D00155403	Rock	2.86	0.009	1.9	161.7	4.9	91	0.2	8.4	29.4	1742	7.19	4	0.9	2.1	624	<0.1	1.0	<0.1	278	4.67
D00155404	Rock	2.36	<0.005	0.7	35.2	3.9	83	<0.1	52.3	29.4	1901	7.47	3	0.8	1.4	781	0.1	3.1	<0.1	357	8.35
D00155407	Rock	3.74	0.012	4.5	97.6	14.9	73	0.5	12.8	17.6	1600	9.52	23	0.5	0.7	1423	0.1	4.2	<0.1	593	10.89
D00155408	Rock	2.31	0.030	12.3	32.3	10.4	55	0.2	12.9	25.8	1234	8.05	11	0.7	1.4	538	<0.1	2.6	<0.1	317	4.51

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

CERTIFICATE OF ANALYSIS VAN21001653.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
D00155301	Rock	0.153	10.8	22	2.73	1268	0.529	8.56	1.878	2.91	1.2	26.2	21	0.8	16.4	3.1	0.2	<1	29	13.7	0.1
D00155309	Rock	0.150	9.1	96	3.20	1243	0.499	8.32	2.158	2.49	0.5	34.3	18	0.6	14.8	3.7	0.2	<1	25	19.4	<0.1
D00155310	Rock	0.150	5.0	40	4.13	381	0.639	8.17	0.845	0.92	0.4	17.0	10	0.5	13.7	0.9	<0.1	<1	33	13.9	<0.1
D00155311	Rock	0.002	0.5	1	12.40	7	0.003	0.08	0.014	0.02	<0.1	0.3	<1	<0.1	0.2	<0.1	<0.1	<1	<1	1.8	<0.1
D00155312	Rock	0.115	7.6	162	4.36	469	0.473	7.44	2.366	1.26	0.7	10.5	14	0.6	13.7	2.7	0.2	<1	36	27.1	0.9
D00155313	Rock	0.160	10.4	85	3.27	502	0.502	8.22	2.671	1.88	0.9	45.2	20	0.7	15.5	4.2	0.2	<1	25	8.0	<0.1
D00155314	Rock	0.127	7.9	48	3.28	922	0.537	8.60	2.114	1.33	0.3	29.4	15	0.6	14.7	2.7	0.2	<1	31	11.4	0.1
D00155315	Rock	0.191	7.8	11	1.44	1317	0.442	9.77	2.536	3.95	0.4	20.2	16	0.7	13.5	4.6	0.3	1	10	10.1	0.3
D00155316	Rock	0.152	11.0	35	2.99	1278	0.644	8.95	2.704	1.77	0.7	37.3	23	0.8	18.4	5.6	0.4	<1	25	11.9	<0.1
D00155317	Rock	0.164	10.6	7	2.13	968	0.624	8.99	3.289	1.64	0.5	44.4	22	0.9	18.6	6.7	0.4	1	16	10.9	<0.1
D00155318	Rock	0.176	10.4	22	1.98	1172	0.495	9.01	3.269	1.89	0.6	26.2	20	0.7	14.4	4.4	0.3	<1	14	25.4	<0.1
D00155319	Rock	0.140	10.2	76	3.14	1037	0.475	8.37	1.703	2.59	0.4	42.5	19	0.5	15.1	3.6	0.2	<1	23	5.4	<0.1
D00155320	Rock Pulp	0.097	33.7	88	1.56	989	0.487	7.76	2.072	3.36	4.4	69.7	63	3.1	23.8	16.4	1.2	3	12	31.4	0.3
D00155321	Rock	0.016	5.1	15	0.27	574	0.063	1.34	0.030	0.60	<0.1	3.4	8	0.1	1.7	<0.1	<0.1	<1	4	69.3	0.2
D00155322	Rock	0.032	5.5	58	0.40	1101	0.245	3.94	0.606	1.64	0.8	13.6	8	0.4	3.3	1.8	0.1	<1	8	58.3	0.1
D00155401	Rock	0.015	1.6	80	4.56	138	0.577	8.02	0.194	0.54	0.4	11.8	4	0.4	7.8	0.6	<0.1	<1	40	17.5	<0.1
D00155402	Rock	0.015	1.8	150	5.60	211	0.449	6.98	0.573	0.58	0.2	13.2	5	0.3	9.8	0.4	<0.1	<1	41	20.8	0.1
D00155403	Rock	0.186	10.2	8	2.19	1351	0.440	8.90	2.567	3.22	0.4	48.8	20	0.7	17.3	5.6	0.3	1	16	10.5	<0.1
D00155404	Rock	0.158	9.0	163	4.10	563	0.528	7.26	2.261	0.82	1.1	24.7	18	0.6	15.9	2.8	0.2	<1	39	11.7	<0.1
D00155407	Rock	0.103	5.7	6	2.54	219	0.666	9.13	0.736	0.32	1.6	21.7	10	1.0	10.1	2.6	0.1	<1	21	7.7	0.1
D00155408	Rock	0.133	7.7	20	2.27	43	0.413	8.28	2.460	2.61	0.7	15.6	16	0.9	13.8	2.7	0.2	<1	22	8.3	4.8

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

CERTIFICATE OF ANALYSIS VAN21001653.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Rb	Hf	In	Re	Se	Te	Tl
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5
D00155301	Rock	62.1	1.2	0.06	<0.005	<1	<0.5	<0.5
D00155309	Rock	56.3	1.2	<0.05	<0.005	<1	<0.5	<0.5
D00155310	Rock	29.7	0.7	0.05	<0.005	<1	<0.5	<0.5
D00155311	Rock	0.9	<0.1	<0.05	<0.005	<1	<0.5	<0.5
D00155312	Rock	42.2	0.5	<0.05	<0.005	2	<0.5	<0.5
D00155313	Rock	72.2	1.4	<0.05	<0.005	<1	<0.5	<0.5
D00155314	Rock	22.9	1.1	<0.05	<0.005	<1	<0.5	<0.5
D00155315	Rock	65.2	0.8	<0.05	0.016	<1	<0.5	<0.5
D00155316	Rock	52.6	1.5	<0.05	<0.005	<1	<0.5	<0.5
D00155317	Rock	28.0	1.4	<0.05	<0.005	<1	<0.5	<0.5
D00155318	Rock	33.5	1.0	<0.05	<0.005	<1	<0.5	<0.5
D00155319	Rock	75.9	1.3	<0.05	<0.005	<1	<0.5	<0.5
D00155320	Rock Pulp	183.8	2.2	0.06	<0.005	1	<0.5	0.9
D00155321	Rock	19.3	<0.1	<0.05	<0.005	2	<0.5	<0.5
D00155322	Rock	58.9	0.4	<0.05	<0.005	<1	<0.5	<0.5
D00155401	Rock	19.9	0.6	<0.05	<0.005	<1	<0.5	<0.5
D00155402	Rock	22.6	0.6	<0.05	<0.005	<1	<0.5	<0.5
D00155403	Rock	68.7	1.5	<0.05	<0.005	<1	<0.5	<0.5
D00155404	Rock	23.1	1.0	0.07	<0.005	<1	<0.5	<0.5
D00155407	Rock	6.7	0.8	0.05	<0.005	<1	<0.5	<0.5
D00155408	Rock	58.0	0.6	<0.05	<0.005	4	<0.5	<0.5

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

QUALITY CONTROL REPORT VAN21001653.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
Pulp Duplicates																					
D00155322	Rock	2.38	0.007	1.0	1572.2	3.5	41	1.9	14.6	10.8	366	2.66	9	0.4	0.6	88	0.2	25.0	<0.1	146	0.73
REP D00155322	QC		<0.005																		
Core Reject Duplicates																					
D00155301	Rock	1.85	0.029	1.8	56.9	7.4	72	0.1	13.3	23.8	1626	7.26	3	0.8	1.7	773	0.2	2.1	0.2	343	7.36
DUP D00155301	QC		0.029	1.7	54.4	6.9	69	0.1	13.0	23.2	1616	7.14	3	0.8	1.6	772	0.2	2.0	0.2	348	7.31
Reference Materials																					
STD OREAS25A-4A	Standard			2.5	34.1	25.0	42	<0.1	48.0	8.3	510	6.76	8	2.8	15.8	48	<0.1	0.6	0.3	169	0.31
STD OREAS232	Standard		0.884																		
STD OREAS263	Standard		0.202																		
STD OREAS232	Standard		0.872																		
STD OREAS45H	Standard			1.6	822.8	12.7	37	<0.1	469.5	99.6	412	20.83	16	1.7	7.4	28	<0.1	0.6	0.2	291	0.14
STD OXN155	Standard		7.531																		
STD OXN155	Standard		7.531																		
STD OREAS45H Expected				1.55	767	12.2	39.7	0.147	451	92	405	20.4	16.9	1.68	7.6	28		0.63	0.17	275	0.135
STD OREAS25A-4A Expected				2.41	33.9	25.2	44.4		45.8	7.7	480	6.6	9.94	2.94	15.8	48.5		0.65	0.37	157	0.301
STD OXN155 Expected			7.776																		
STD OREAS263 Expected			0.214																		
STD OREAS232 Expected			0.902																		
BLK	Blank			<0.1	0.2	0.2	<1	<0.1	<0.1	<0.2	2	<0.01	<1	<0.1	<0.1	1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		0.007																		
BLK	Blank		<0.005																		
BLK	Blank		<0.005																		
BLK	Blank		0.006																		
Prep Wash																					
ROCK-VAN	Prep Blank		0.005	1.6	5.5	3.0	33	<0.1	1.9	4.1	636	2.19	1	1.3	2.9	204	<0.1	0.3	<0.1	33	1.58
ROCK-VAN	Prep Blank		0.012	1.2	5.7	3.4	36	<0.1	1.9	4.0	659	2.13	2	1.2	2.8	197	<0.1	0.3	<0.1	34	1.45

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

QUALITY CONTROL REPORT VAN21001653.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Pulp Duplicates																					
D00155322	Rock	0.032	5.5	58	0.40	1101	0.245	3.94	0.606	1.64	0.8	13.6	8	0.4	3.3	1.8	0.1	<1	8	58.3	0.1
REP D00155322	QC																				
Core Reject Duplicates																					
D00155301	Rock	0.153	10.8	22	2.73	1268	0.529	8.56	1.878	2.91	1.2	26.2	21	0.8	16.4	3.1	0.2	<1	29	13.7	0.1
DUP D00155301	QC	0.153	10.5	21	2.75	1245	0.529	8.61	1.917	2.94	1.2	29.7	21	0.7	16.5	3.1	0.2	<1	30	13.7	0.1
Reference Materials																					
STD OREAS25A-4A	Standard	0.046	24.0	115	0.35	140	0.949	9.42	0.131	0.47	1.8	152.4	48	3.7	10.1	18.7	1.3	<1	13	34.8	<0.1
STD OREAS232	Standard																				
STD OREAS263	Standard																				
STD OREAS232	Standard																				
STD OREAS45H	Standard	0.022	13.4	722	0.26	335	0.905	8.42	0.093	0.21	0.8	126.7	24	1.8	9.4	12.9	0.9	1	58	12.7	<0.1
STD OXN155	Standard																				
STD OXN155	Standard																				
STD OREAS45H Expected		0.023	13.3	660	0.2575	342	0.878	8.2	0.09	0.215	0.9	126	24.3	1.93	10.4	13.8	1	1.09	59	13.9	
STD OREAS25A-4A Expected		0.048	21.8	115	0.327	147	0.93	8.87	0.131	0.482	2	155	47.3	4.06	10.5	20.9	1.4	0.93	13.7	36.7	0.047
STD OXN155 Expected																					
STD OREAS263 Expected																					
STD OREAS232 Expected																					
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	0.003	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-VAN	Prep Blank	0.039	13.0	6	0.52	762	0.220	7.31	3.589	1.61	0.3	50.0	24	0.7	15.5	5.4	0.4	1	7	2.6	<0.1
ROCK-VAN	Prep Blank	0.038	12.4	6	0.55	775	0.213	7.26	3.636	1.66	0.3	49.7	24	0.7	15.2	5.3	0.4	1	6	2.5	<0.1

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

QUALITY CONTROL REPORT VAN21001653.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Rb	Hf	In	Re	Se	Te	Tl
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5
Pulp Duplicates								
D00155322	Rock	58.9	0.4	<0.05	<0.005	<1	<0.5	<0.5
REP D00155322	QC							
Core Reject Duplicates								
D00155301	Rock	62.1	1.2	0.06	<0.005	<1	<0.5	<0.5
DUP D00155301	QC	62.2	1.3	0.06	<0.005	<1	<0.5	<0.5
Reference Materials								
STD OREAS25A-4A	Standard	61.9	4.0	0.09	<0.005	2	<0.5	<0.5
STD OREAS232	Standard							
STD OREAS263	Standard							
STD OREAS232	Standard							
STD OREAS45H	Standard	22.2	3.3	0.09	<0.005	1	<0.5	<0.5
STD OXN155	Standard							
STD OXN155	Standard							
STD OREAS45H Expected		22.5	3.42	0.1		2.02		
STD OREAS25A-4A Expected		61	4.14	0.09		2.4		0.35
STD OXN155 Expected								
STD OREAS263 Expected								
STD OREAS232 Expected								
BLK	Blank	<0.1	<0.1	<0.05	<0.005	<1	<0.5	<0.5
BLK	Blank							
BLK	Blank							
BLK	Blank							
BLK	Blank							
Prep Wash								
ROCK-VAN	Prep Blank	32.9	1.7	<0.05	<0.005	<1	<0.5	<0.5
ROCK-VAN	Prep Blank	34.1	1.6	<0.05	<0.005	<1	<0.5	<0.5

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Data Distribution List
Receiving Lab:	Canada-Vancouver
Received:	June 30, 2021
Analysis Start:	July 21, 2021
Report Date:	July 24, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21001654.1

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Soil_01
P.O. Number	M28096
Number of Samples:	6

SAMPLE DISPOSAL

RTRN-PLP	Return 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.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	5	Dry at 60C sieve 100g to -80 mesh			VAN
SLBHP	1	Sort, label and box pulps			VAN
AQ252_EXT	6	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

GEORGE ARCALA
Instrumentation Shift Supervisor

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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.

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 24, 2021

CERTIFICATE OF ANALYSIS VAN21001654.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155302	Soil	1.07	16.27	8.21	29.6	313	8.3	4.2	157	2.54	2.9	0.3	5.0	1.4	27.0	0.18	0.26	0.18	87	0.32	0.104
D00155303	Soil	1.95	70.54	6.80	82.8	209	32.9	15.7	429	4.61	10.0	0.5	5.6	2.1	25.6	0.30	0.46	0.15	121	0.31	0.249
D00155305	Soil	12.50	710.40	13.11	142.5	1034	65.8	42.2	1997	5.75	13.4	2.1	9.4	1.0	59.4	0.70	0.60	0.33	130	0.97	0.171
D00155307	Soil	10.59	899.52	12.00	168.8	965	86.9	52.7	2691	5.64	14.2	3.9	14.9	0.9	57.0	1.40	0.64	0.32	123	1.07	0.185
D00155405	Soil	1.52	30.91	6.54	58.0	205	15.6	10.1	535	3.12	3.5	0.2	3.3	1.2	35.2	0.08	0.34	0.17	109	0.44	0.107
D00155420	Pulp	97.36	2829.84	8.15	72.1	419	60.8	14.7	388	3.76	24.6	5.3	211.5	20.7	58.5	0.23	1.69	0.78	114	0.97	0.101

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Project: MAX
Report Date: July 24, 2021

CERTIFICATE OF ANALYSIS VAN21001654.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
		MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
D00155302	Soil		6.3	25.8	0.32	50.2	0.120	<1	1.47	0.008	0.07	0.2	2.8	0.06	<0.02	31	0.1	0.04	8.9	0.67	<0.1	0.05
D00155303	Soil		5.3	58.2	0.84	91.1	0.112	1	3.85	0.014	0.13	0.3	5.6	0.09	<0.02	63	0.1	0.06	8.1	1.48	<0.1	0.08
D00155305	Soil		11.4	74.1	1.14	124.8	0.070	1	3.85	0.014	0.23	0.2	18.0	0.18	0.04	82	1.1	0.13	10.7	3.41	<0.1	0.04
D00155307	Soil		17.7	77.2	1.10	152.3	0.069	5	4.38	0.016	0.30	0.2	20.4	0.28	0.06	133	1.5	0.09	10.3	3.41	<0.1	0.08
D00155405	Soil		4.1	41.0	0.78	89.5	0.169	1	1.82	0.022	0.09	0.2	4.3	0.10	<0.02	24	0.2	<0.02	8.4	1.41	<0.1	0.10
D00155420	Pulp		34.5	72.4	1.22	420.1	0.359	3	2.10	0.185	1.15	2.5	7.6	0.75	0.35	21	1.1	0.25	8.3	9.63	0.2	0.26

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299 Victoria Street, Suite 200
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Project: MAX
Report Date: July 24, 2021

CERTIFICATE OF ANALYSIS VAN21001654.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
		MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
D00155302	Soil		1.06	7.9	0.6	<0.05	1.7	2.06	11.7	0.02	<1	0.4	5.6	<10	<2
D00155303	Soil		0.94	15.0	0.3	<0.05	2.9	2.70	9.9	0.03	<1	0.8	19.9	<10	<2
D00155305	Soil		1.09	35.2	0.6	<0.05	1.4	15.91	20.3	0.02	1	2.3	23.4	10	<2
D00155307	Soil		0.80	57.0	0.4	<0.05	2.9	34.75	24.0	0.04	4	2.9	38.0	20	<2
D00155405	Soil		0.63	12.8	0.4	<0.05	2.7	2.02	7.5	<0.02	<1	0.2	9.4	<10	<2
D00155420	Pulp		0.43	125.1	2.4	<0.05	5.8	16.74	63.6	0.03	<1	0.6	33.6	<10	<2

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
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Project: MAX
Report Date: July 24, 2021

QUALITY CONTROL REPORT VAN21001654.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
D00155307	Soil	10.59	899.52	12.00	168.8	965	86.9	52.7	2691	5.64	14.2	3.9	14.9	0.9	57.0	1.40	0.64	0.32	123	1.07	0.185
REP D00155307	QC	10.56	890.48	12.23	170.3	1011	86.0	51.5	2705	5.61	14.4	4.2	11.8	0.9	59.3	1.39	0.69	0.34	125	1.07	0.173
Reference Materials																					
STD DS11	Standard	13.49	143.43	135.89	338.4	1657	80.7	13.6	1025	3.00	42.7	2.7	65.1	8.3	65.2	2.31	8.15	11.91	50	1.05	0.072
STD OREAS262	Standard	0.64	116.05	58.55	156.3	445	69.9	29.5	546	3.20	36.3	1.3	60.4	10.0	35.8	0.64	4.81	1.06	22	3.10	0.039
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	0.02	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001

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Project: MAX
Report Date: July 24, 2021

QUALITY CONTROL REPORT VAN21001654.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
D00155307	Soil	17.7	77.2	1.10	152.3	0.069	5	4.38	0.016	0.30	0.2	20.4	0.28	0.06	133	1.5	0.09	10.3	3.41	<0.1	0.08
REP D00155307	QC	17.9	78.9	1.09	153.7	0.069	3	4.40	0.016	0.31	0.2	20.9	0.28	0.06	117	2.0	0.09	10.5	3.44	<0.1	0.07
Reference Materials																					
STD DS11	Standard	17.3	58.6	0.84	347.3	0.090	9	1.14	0.071	0.40	2.9	3.3	4.73	0.29	267	1.7	4.34	4.8	2.71	<0.1	0.06
STD OREAS262	Standard	16.1	44.6	1.20	241.3	0.003	3	1.30	0.068	0.30	0.2	3.3	0.47	0.28	167	<0.1	0.24	3.8	2.57	<0.1	0.19
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 24, 2021

QUALITY CONTROL REPORT VAN21001654.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
D00155307	Soil	0.80	57.0	0.4	<0.05	2.9	34.75	24.0	0.04	4	2.9	38.0	20	<2
REP D00155307	QC	0.76	58.8	0.5	<0.05	2.1	36.15	24.4	0.05	2	2.7	36.7	<10	<2
Reference Materials														
STD DS11	Standard	1.34	32.1	1.7	<0.05	3.3	7.79	34.1	0.22	50	0.3	21.9	82	170
STD OREAS262	Standard	<0.02	17.5	0.5	<0.05	9.0	11.14	31.2	0.03	<1	1.2	19.2	<10	<2
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Data Distribution List
Receiving Lab:	Canada-Vancouver
Received:	June 30, 2021
Analysis Start:	July 22, 2021
Report Date:	July 28, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21001655.1

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Till_01
P.O. Number	M28096
Number of Samples:	4

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	3	Dry at 60C sieve 100g to -80 mesh			VAN
SLBHP	1	Sort, label and box pulps			VAN
AQ252_EXT	4	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

JEFFREY CANNON
Geochemistry Department Supervisor

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CERTIFICATE OF ANALYSIS VAN21001655.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155304	Till	7.04	202.08	5.31	51.1	98	30.2	24.6	690	6.59	57.7	0.6	8.1	1.8	45.6	0.24	0.82	0.33	135	0.38	0.192
D00155306	Till	3.67	145.43	6.12	76.1	112	31.0	19.2	772	4.09	7.9	0.5	4.9	1.1	56.4	0.17	0.45	0.17	111	0.76	0.048
D00155308	Till	3.82	239.97	7.60	88.5	139	52.8	22.6	940	4.65	10.8	0.8	10.9	1.1	60.7	0.39	0.50	0.17	128	0.85	0.110
D00155421	Pulp	95.08	2718.54	6.94	66.7	424	57.7	11.9	396	3.91	22.8	4.2	202.2	17.6	58.9	0.12	1.45	0.58	113	1.02	0.094

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	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
D00155304	Till	3.9	64.9	1.24	65.7	0.188	2	3.11	0.009	0.10	0.6	5.8	0.08	<0.02	53	0.9	0.35	7.3	0.85	<0.1	0.08
D00155306	Till	6.3	49.6	1.09	50.8	0.148	2	2.07	0.018	0.14	0.2	6.8	0.09	<0.02	28	0.5	0.11	7.0	1.32	<0.1	0.05
D00155308	Till	7.3	62.1	1.29	77.8	0.135	3	2.94	0.017	0.27	0.2	8.7	0.15	<0.02	41	0.7	0.09	8.2	1.72	<0.1	0.03
D00155421	Pulp	30.5	69.0	1.22	386.2	0.346	4	2.18	0.221	1.22	2.3	6.8	0.69	0.33	10	1.4	0.24	8.4	8.61	0.3	0.32

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CERTIFICATE OF ANALYSIS VAN21001655.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
D00155304	Till	0.51	9.6	0.3	<0.05	3.8	4.01	8.7	<0.02	<1	1.0	13.8	<10	3
D00155306	Till	0.72	17.6	0.3	<0.05	2.1	6.27	15.8	0.02	<1	0.6	16.1	<10	<2
D00155308	Till	0.56	37.4	0.3	<0.05	1.6	9.41	20.6	0.02	1	0.9	36.7	<10	<2
D00155421	Pulp	0.35	132.7	2.3	<0.05	7.7	15.41	61.0	0.04	2	0.5	29.3	<10	<2

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

QUALITY CONTROL REPORT VAN21001655.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
D00155308	Till	3.82	239.97	7.60	88.5	139	52.8	22.6	940	4.65	10.8	0.8	10.9	1.1	60.7	0.39	0.50	0.17	128	0.85	0.110
REP D00155308	QC	3.75	238.20	7.41	87.1	193	51.6	22.1	922	4.61	10.5	0.8	190.9	1.1	58.7	0.37	0.49	0.17	129	0.85	0.108
Reference Materials																					
STD DS11	Standard	14.58	155.94	128.08	355.5	1759	80.7	11.8	1052	3.17	41.8	2.2	64.7	6.8	65.2	2.09	7.63	9.80	49	1.08	0.065
STD OREAS262	Standard	0.68	119.28	49.95	141.5	447	64.0	23.2	550	3.30	34.0	1.0	55.6	8.0	34.3	0.59	4.29	0.83	22	3.03	0.036
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.3	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

QUALITY CONTROL REPORT VAN21001655.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
D00155308	Till	7.3	62.1	1.29	77.8	0.135	3	2.94	0.017	0.27	0.2	8.7	0.15	<0.02	41	0.7	0.09	8.2	1.72	<0.1	0.03
REP D00155308	QC	7.1	60.0	1.27	75.7	0.131	3	2.93	0.017	0.27	0.2	8.5	0.14	<0.02	31	0.7	0.10	8.0	1.67	<0.1	0.03
Reference Materials																					
STD DS11	Standard	16.8	59.6	0.86	341.9	0.092	7	1.15	0.076	0.41	2.9	3.1	4.71	0.28	255	2.2	4.65	5.2	2.58	0.1	0.07
STD OREAS262	Standard	14.2	43.1	1.19	231.3	0.002	3	1.29	0.069	0.32	0.2	3.0	0.44	0.26	160	0.5	0.22	4.1	2.41	<0.1	0.28
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: July 28, 2021

QUALITY CONTROL REPORT VAN21001655.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
D00155308	Till	0.56	37.4	0.3	<0.05	1.6	9.41	20.6	0.02	1	0.9	36.7	<10	<2
REP D00155308	QC	0.54	36.6	0.3	<0.05	1.5	9.19	19.9	0.02	1	0.9	36.0	<10	<2
Reference Materials														
STD DS11	Standard	1.60	31.5	1.6	<0.05	3.1	7.46	35.0	0.22	44	0.7	21.4	97	161
STD OREAS262	Standard	<0.02	17.3	0.5	<0.05	12.5	9.90	30.5	0.03	<1	1.1	15.7	<10	<2
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	July 22, 2021
Analysis Start:	August 16, 2021
Report Date:	August 23, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21001994.1

CLIENT JOB INFORMATION

Project:	Mt. Milligan
Shipment ID:	MTM21-Rock_01
P.O. Number	M27463
Number of Samples:	12

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP80-250	11	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	1	Sort, label and box pulps			VAN
FA430	12	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
MA200	12	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC: Mt. Milligan Data Distribution List

BRITISH COLUMBIA CERTIFIED ASSAYER
Gerald Chik
Sample Preparation Manager

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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.

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: August 23, 2021

CERTIFICATE OF ANALYSIS VAN21001994.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
D00155330	Rock	1.80	0.005	0.5	89.0	4.0	58	<0.1	73.0	33.4	1195	6.90	4	0.4	0.9	803	0.1	3.0	<0.1	269	6.19
D00155331	Rock	2.73	<0.005	0.9	126.1	6.6	86	<0.1	103.8	43.2	1716	7.56	3	0.4	0.8	429	0.2	1.2	<0.1	278	6.60
D00155426	Rock	1.31	0.008	0.7	11.2	17.9	38	<0.1	19.5	23.7	831	4.12	1	0.4	0.8	280	<0.1	1.6	<0.1	166	3.32
D00155428	Rock Pulp	0.13	0.218	95.7	2816.5	21.2	76	0.4	61.0	15.3	588	4.48	17	4.9	18.9	328	0.1	2.1	0.7	127	2.74
D00155440	Rock	1.61	<0.005	0.8	99.2	5.1	82	<0.1	50.4	36.6	1454	6.98	2	0.4	0.9	588	0.1	0.3	<0.1	309	7.57
D00155460	Rock	1.98	0.129	1.0	97.5	3.0	12	0.1	7.2	4.6	56	1.06	2	<0.1	0.1	9	<0.1	2.0	<0.1	23	0.02
D00155461	Rock	2.45	0.006	0.9	84.4	4.2	63	<0.1	20.8	25.7	1248	5.52	5	0.7	1.2	797	0.2	0.6	<0.1	265	6.82
D00155468	Rock	1.92	0.032	0.9	10.6	0.9	4	<0.1	2.1	0.9	35	0.45	1	<0.1	<0.1	3	<0.1	1.5	<0.1	5	0.01
D00155469	Rock	1.57	0.008	0.8	111.9	4.0	79	<0.1	25.6	32.6	1239	6.68	4	0.6	1.2	595	0.1	0.3	<0.1	328	5.16
D00155470	Rock	1.83	0.010	0.9	82.2	3.6	58	<0.1	16.2	21.2	1002	4.79	7	0.3	0.9	860	<0.1	25.2	<0.1	289	4.63
D00155471	Rock	1.37	<0.005	0.7	97.6	4.8	75	<0.1	22.7	30.7	1446	6.92	7	0.5	1.2	993	<0.1	2.3	<0.1	360	7.44
D00155472	Rock	1.51	<0.005	<0.1	1.1	1.4	5	<0.1	<0.1	0.3	141	0.14	<1	<0.1	<0.1	42	<0.1	0.1	<0.1	2	21.78

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: August 23, 2021

CERTIFICATE OF ANALYSIS VAN21001994.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
D00155330	Rock	0.119	6.1	177	4.63	737	0.514	8.07	1.884	1.53	0.7	31.1	13	0.6	14.2	2.4	0.1	<1	32	22.9	<0.1
D00155331	Rock	0.105	5.1	255	4.57	338	0.464	8.10	2.304	0.88	0.3	12.3	11	1.0	14.0	2.2	0.2	<1	36	13.8	<0.1
D00155426	Rock	0.139	5.0	52	1.40	2188	0.119	8.47	3.418	2.93	0.3	10.8	10	0.4	7.6	1.3	<0.1	<1	16	13.0	0.2
D00155428	Rock Pulp	0.102	33.6	88	1.54	1001	0.502	7.64	2.084	3.38	4.5	69.4	67	3.2	24.4	17.1	1.2	3	13	35.5	0.3
D00155440	Rock	0.136	6.5	111	3.35	802	0.467	8.20	2.641	1.02	0.2	33.0	14	0.6	14.1	2.6	0.2	<1	36	11.0	0.1
D00155460	Rock	0.005	0.8	8	0.19	70	0.029	0.73	0.021	0.30	0.4	1.5	1	0.1	0.5	0.2	<0.1	<1	2	2.6	<0.1
D00155461	Rock	0.119	7.0	50	2.11	717	0.414	8.56	3.855	1.34	0.6	30.9	15	0.6	13.5	2.7	0.2	<1	25	15.1	<0.1
D00155468	Rock	0.002	<0.1	3	0.03	10	0.004	0.12	0.008	0.05	0.2	0.2	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	1.3	<0.1
D00155469	Rock	0.159	9.0	39	3.29	1104	0.529	8.54	3.243	1.93	0.4	33.3	18	0.7	14.2	3.3	0.2	<1	27	16.6	<0.1
D00155470	Rock	0.120	6.5	21	1.92	593	0.371	5.90	2.009	0.85	0.3	19.7	13	0.5	10.0	2.4	0.1	<1	19	12.1	<0.1
D00155471	Rock	0.154	8.3	31	3.08	821	0.560	8.39	2.791	1.16	0.2	32.2	17	0.7	14.7	3.2	0.2	<1	29	10.9	<0.1
D00155472	Rock	0.003	0.5	1	11.97	5	0.003	0.05	0.011	0.02	<0.1	0.2	<1	<0.1	0.3	<0.1	<0.1	<1	<1	1.6	<0.1

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Project: Mt. Milligan
Report Date: August 23, 2021

CERTIFICATE OF ANALYSIS VAN21001994.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Rb	Hf	In	Re	Se	Te	Tl
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5
D00155330	Rock	38.3	1.1	<0.05	<0.005	<1	<0.5	<0.5
D00155331	Rock	24.9	0.5	0.06	<0.005	<1	<0.5	<0.5
D00155426	Rock	78.2	0.3	<0.05	<0.005	<1	<0.5	<0.5
D00155428	Rock Pulp	200.8	2.2	0.07	<0.005	1	<0.5	1.0
D00155440	Rock	18.6	1.0	<0.05	<0.005	<1	<0.5	<0.5
D00155460	Rock	8.8	<0.1	<0.05	<0.005	<1	<0.5	<0.5
D00155461	Rock	27.3	1.0	<0.05	<0.005	<1	<0.5	<0.5
D00155468	Rock	1.7	<0.1	<0.05	<0.005	<1	<0.5	<0.5
D00155469	Rock	35.5	1.2	0.05	<0.005	<1	<0.5	<0.5
D00155470	Rock	16.1	0.8	<0.05	<0.005	<1	<0.5	<0.5
D00155471	Rock	18.5	1.2	<0.05	<0.005	<1	<0.5	<0.5
D00155472	Rock	0.9	<0.1	<0.05	<0.005	<1	<0.5	<0.5

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Report Date: August 23, 2021

QUALITY CONTROL REPORT VAN21001994.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
Pulp Duplicates																					
D00155461	Rock	2.45	0.006	0.9	84.4	4.2	63	<0.1	20.8	25.7	1248	5.52	5	0.7	1.2	797	0.2	0.6	<0.1	265	6.82
REP D00155461	QC			0.7	84.9	4.2	65	<0.1	20.7	25.2	1257	5.49	5	0.7	1.3	802	0.1	0.6	<0.1	266	6.82
REP D00155471	QC			0.6	98.8	4.8	77	<0.1	23.1	31.1	1439	7.07	7	0.5	1.2	1001	<0.1	2.3	<0.1	363	7.51
Core Reject Duplicates																					
D00155471	Rock	1.37	<0.005	0.7	97.6	4.8	75	<0.1	22.7	30.7	1446	6.92	7	0.5	1.2	993	<0.1	2.3	<0.1	360	7.44
DUP D00155471	QC		0.005	0.6	96.2	4.8	75	<0.1	22.9	30.9	1424	6.86	8	0.5	1.2	1004	0.1	2.2	<0.1	360	7.40
Reference Materials																					
STD OREAS263	Standard		0.218																		
STD OREAS232	Standard		0.908																		
STD OREAS45H	Standard			1.5	795.1	11.6	37	0.1	449.8	91.8	416	19.78	15	1.5	6.9	27	<0.1	0.6	0.2	281	0.14
STD OREAS45H	Standard			1.5	809.7	11.8	37	<0.1	461.0	95.5	422	20.99	16	1.6	7.0	30	<0.1	0.6	0.2	286	0.14
STD OREAS501D	Standard			94.6	2773.2	25.4	86	0.6	22.1	9.8	386	3.43	11	3.8	13.6	212	0.3	2.2	1.2	74	1.84
STD OREAS501D	Standard			90.5	2694.9	25.0	81	0.6	20.8	9.3	374	3.31	12	3.6	13.1	213	0.2	2.2	1.2	72	1.80
STD OXN155	Standard		7.702																		
STD OXN155 Expected			7.776																		
STD OREAS263 Expected			0.214																		
STD OREAS232 Expected			0.902																		
STD OREAS45H Expected				1.55	767	12.2	39.7	0.147	451	92	405	20.4	16.9	1.68	7.6	28		0.63	0.17	275	0.135
STD OREAS501D Expected				95	2720	25.2	90	0.664	20	9.57	370	3.37	15.1	3.88	14	212	0.3	2.25	1.26	71	1.85
BLK	Blank		<0.005																		
BLK	Blank		<0.005																		
BLK	Blank			<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	1	<0.01	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
Prep Wash																					
ROCK-VAN	Prep Blank		0.006	1.3	3.7	3.6	31	<0.1	2.0	3.6	611	2.06	1	1.2	2.7	215	<0.1	0.1	<0.1	32	1.55
ROCK-VAN	Prep Blank		0.006	1.4	3.7	3.1	31	<0.1	2.2	4.0	629	2.05	2	1.2	2.8	214	<0.1	0.1	<0.1	36	1.66

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: August 23, 2021

QUALITY CONTROL REPORT VAN21001994.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Pulp Duplicates																					
D00155461	Rock	0.119	7.0	50	2.11	717	0.414	8.56	3.855	1.34	0.6	30.9	15	0.6	13.5	2.7	0.2	<1	25	15.1	<0.1
REP D00155461	QC	0.119	7.3	48	2.11	728	0.410	8.68	3.756	1.33	0.7	34.1	15	0.6	13.4	2.7	0.2	<1	23	14.8	<0.1
REP D00155471	QC	0.162	8.6	30	3.13	844	0.550	8.51	2.752	1.17	0.3	32.1	17	0.7	14.9	3.3	0.2	<1	29	11.1	<0.1
Core Reject Duplicates																					
D00155471	Rock	0.154	8.3	31	3.08	821	0.560	8.39	2.791	1.16	0.2	32.2	17	0.7	14.7	3.2	0.2	<1	29	10.9	<0.1
DUP D00155471	QC	0.156	8.5	30	3.08	818	0.552	8.34	2.731	1.16	0.2	30.6	18	0.7	14.7	3.2	0.2	<1	29	11.1	<0.1
Reference Materials																					
STD OREAS263	Standard																				
STD OREAS232	Standard																				
STD OREAS45H	Standard	0.022	12.3	683	0.26	332	0.904	8.31	0.096	0.21	0.8	124.1	24	1.9	9.1	13.2	0.9	1	58	13.4	<0.1
STD OREAS45H	Standard	0.023	13.1	719	0.27	333	0.916	8.64	0.102	0.23	1.0	127.5	25	1.9	9.8	13.6	0.9	1	62	13.9	<0.1
STD OREAS501D	Standard	0.085	34.6	42	0.84	981	0.384	7.79	2.169	3.16	9.6	65.4	69	4.6	15.3	11.4	1.0	3	9	53.3	0.4
STD OREAS501D	Standard	0.088	30.5	43	0.81	949	0.368	7.75	2.106	3.08	9.4	64.6	62	4.5	15.5	11.1	0.9	3	9	52.6	0.3
STD OXN155	Standard																				
STD OXN155 Expected																					
STD OREAS263 Expected																					
STD OREAS232 Expected																					
STD OREAS45H Expected		0.023	13.3	660	0.2575	342	0.878	8.2	0.09	0.215	0.9	126	24.3	1.93	10.4	13.8	1	1.09	59	13.9	
STD OREAS501D Expected		0.087	34.8	45.4	0.827	1032	0.359	7.69	2.07	3.01	8.56	62	73	4.86	15.7	12.2	1.09	2.65	9.47	51	0.38
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	0.002	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
Prep Wash																					
ROCK-VAN	Prep Blank	0.039	11.6	5	0.52	810	0.203	7.18	3.517	1.70	0.3	51.4	24	0.7	15.0	5.6	0.4	1	6	2.3	<0.1
ROCK-VAN	Prep Blank	0.038	11.7	6	0.56	796	0.200	7.00	3.427	1.72	0.3	50.7	24	0.7	14.7	5.3	0.4	1	7	2.8	<0.1

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: August 23, 2021

QUALITY CONTROL REPORT VAN21001994.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Rb	Hf	In	Re	Se	Te	Tl
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5
Pulp Duplicates								
D00155461	Rock	27.3	1.0	<0.05	<0.005	<1	<0.5	<0.5
REP D00155461	QC	26.4	1.1	<0.05	<0.005	<1	<0.5	<0.5
REP D00155471	QC	18.8	1.2	0.05	<0.005	<1	<0.5	<0.5
Core Reject Duplicates								
D00155471	Rock	18.5	1.2	<0.05	<0.005	<1	<0.5	<0.5
DUP D00155471	QC	18.4	1.2	0.05	<0.005	<1	<0.5	<0.5
Reference Materials								
STD OREAS263	Standard							
STD OREAS232	Standard							
STD OREAS45H	Standard	22.6	3.2	0.11	<0.005	2	<0.5	<0.5
STD OREAS45H	Standard	23.7	3.2	0.09	<0.005	2	<0.5	<0.5
STD OREAS501D	Standard	165.8	2.0	0.08	0.048	2	<0.5	0.9
STD OREAS501D	Standard	157.7	1.8	0.07	0.044	2	<0.5	0.9
STD OXN155	Standard							
STD OXN155 Expected								
STD OREAS263 Expected								
STD OREAS232 Expected								
STD OREAS45H Expected		22.5	3.42	0.1		2.02		
STD OREAS501D Expected		164	2	0.086	0.049			0.91
BLK	Blank							
BLK	Blank							
BLK	Blank	<0.1	<0.1	<0.05	<0.005	<1	<0.5	<0.5
Prep Wash								
ROCK-VAN	Prep Blank	33.5	1.7	<0.05	<0.005	<1	<0.5	<0.5
ROCK-VAN	Prep Blank	34.7	1.6	<0.05	<0.005	<1	<0.5	<0.5

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	July 22, 2021
Analysis Start:	August 23, 2021
Report Date:	September 01, 2021
Page:	1 of 4

CERTIFICATE OF ANALYSIS VAN21002068.1

CLIENT JOB INFORMATION

Project:	Mt. Milligan
Shipment ID:	MTM21-Soil_01
P.O. Number	M27463
Number of Samples:	62

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
DISP-RJT	Dispose of Reject After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	58	Dry at 60C sieve 100g to -80 mesh			VAN
PRP70-250	2	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	2	Sort, label and box pulps			VAN
AQ252	62	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

JEFFREY CANNON
Geochemistry Department Supervisor

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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.

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 01, 2021

CERTIFICATE OF ANALYSIS VAN21002068.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155323	Soil		1.03	127.71	4.01	32.3	1682	26.1	8.6	157	3.80	4.5	0.3	13.3	0.9	21.1	0.29	0.59	0.07	81	0.16	0.394
D00155325	Soil		0.53	79.98	3.59	44.6	99	39.8	17.6	355	3.76	6.2	0.3	48.3	1.8	28.2	0.13	0.53	0.03	106	0.34	0.091
D00155328	Soil		0.82	68.67	4.29	64.6	185	47.0	19.8	542	4.76	9.0	0.4	5.0	1.4	34.9	0.20	0.55	<0.02	122	0.40	0.091
D00155332	Soil		1.16	29.36	6.06	48.0	214	17.9	8.5	248	5.04	6.5	0.5	0.8	2.4	19.7	0.23	0.46	0.07	134	0.18	0.103
D00155334	Soil		1.03	51.62	4.70	78.1	248	36.5	19.0	492	6.31	9.0	0.3	2.3	1.3	29.2	0.19	0.53	0.05	164	0.37	0.246
D00155336	Soil		0.53	130.63	4.31	84.0	604	35.4	36.3	1041	5.95	7.1	0.3	1.1	1.1	33.8	0.37	0.68	0.03	162	0.50	0.210
D00155338	Soil		0.78	31.68	4.71	71.6	221	20.9	11.1	316	4.51	5.4	0.3	2.9	1.4	31.2	0.23	0.54	0.07	109	0.39	0.111
D00155340	Soil		0.98	70.42	9.29	71.9	1059	41.9	17.5	818	4.94	6.3	0.4	0.3	1.3	29.4	0.56	0.48	0.04	140	0.44	0.103
D00155344	Rock		0.06	0.68	0.68	2.6	5	<0.1	<0.1	129	0.12	3.0	<0.1	<0.2	0.1	44.0	<0.01	<0.02	<0.02	<1	20.34	0.001
D00155345	Soil		2.05	68.69	7.71	46.2	470	17.6	7.7	218	4.06	7.7	0.6	3.3	1.5	37.8	0.45	0.42	0.10	122	0.65	0.072
D00155409	Soil		0.95	64.98	4.31	67.9	166	30.4	16.4	510	4.69	8.6	0.4	6.4	0.8	37.4	0.29	0.61	<0.02	130	0.46	0.108
D00155410	Soil		0.51	72.38	3.58	70.2	134	40.7	20.2	618	5.12	7.0	0.3	1.8	1.0	35.1	0.20	0.51	<0.02	142	0.44	0.216
D00155411	Soil		0.66	80.70	7.09	63.4	680	27.3	17.2	486	5.50	12.8	0.6	3.3	0.9	53.5	0.49	0.65	0.05	146	1.06	0.105
D00155412	Soil		0.51	43.24	3.35	68.9	196	35.1	19.4	499	4.68	4.1	0.2	2.5	1.1	37.5	0.24	0.28	<0.02	122	0.41	0.170
D00155413	Soil		0.69	66.42	5.75	57.5	578	43.3	17.6	428	3.81	5.8	0.3	42.8	1.3	30.1	0.40	0.25	0.11	98	0.40	0.138
D00155414	Soil		1.01	59.52	7.88	82.5	634	48.3	26.4	940	4.46	7.8	0.3	1.1	1.3	27.5	0.41	0.31	0.07	115	0.30	0.148
D00155415	Pulp		94.03	2712.60	8.11	72.6	474	61.9	14.3	392	3.78	25.2	5.1	229.5	23.0	59.4	0.21	1.56	0.67	110	1.00	0.097
D00155416	Soil		0.45	40.26	4.98	68.4	219	36.6	14.7	381	5.51	6.0	0.3	5.9	2.5	27.2	0.12	0.45	0.03	158	0.34	0.214
D00155417	Soil		0.57	70.73	3.41	85.4	131	35.6	24.4	532	5.68	4.7	0.2	1.9	1.4	27.5	0.21	0.46	<0.02	156	0.34	0.173
D00155418	Soil		1.18	41.32	7.65	64.6	186	33.5	11.8	270	4.28	8.2	0.4	2.5	1.6	18.4	0.29	0.48	0.05	132	0.28	0.112
D00155419	Soil		2.36	33.78	5.59	48.7	316	19.8	9.8	396	5.40	8.5	0.6	3.7	2.4	17.1	0.21	0.51	0.07	148	0.20	0.259
D00155422	Soil		0.72	121.42	5.02	86.3	566	110.5	38.2	1376	4.12	5.6	0.3	0.7	0.6	26.2	0.66	0.16	<0.02	98	0.64	0.068
D00155423	Soil		0.79	131.57	5.88	98.2	620	124.0	43.7	1544	4.59	6.1	0.4	0.9	0.6	29.1	0.71	0.17	<0.02	112	0.74	0.071
D00155424	Soil		0.97	66.51	5.23	52.5	437	38.5	17.0	610	3.90	10.2	0.5	2.0	0.7	48.8	0.43	0.60	<0.02	110	0.84	0.072
D00155425	Soil		1.36	75.58	4.96	61.4	240	42.1	19.4	484	5.29	11.2	0.6	5.9	2.0	45.1	0.37	0.57	0.03	120	0.61	0.107
D00155427	Soil		0.50	131.82	2.52	48.5	230	110.3	33.7	803	3.85	2.9	0.4	2.7	0.6	75.9	0.12	0.17	<0.02	115	1.03	0.079
D00155429	Soil		0.88	39.21	4.53	60.3	444	23.7	9.6	318	3.75	6.6	0.4	5.8	0.7	27.6	0.24	0.55	0.02	106	0.37	0.150
D00155430	Soil		0.60	33.63	4.65	52.3	153	19.8	10.1	303	2.89	4.0	0.3	9.4	0.5	33.7	0.12	0.42	0.02	103	0.40	0.047
D00155431	Soil		1.10	39.69	4.03	45.3	65	27.0	10.6	301	4.12	6.8	0.4	3.0	0.7	40.9	0.22	0.61	<0.02	105	0.48	0.049
D00155432	Soil		0.81	34.36	5.41	30.0	123	11.8	4.9	189	2.51	4.6	0.4	2.3	1.3	20.3	0.21	0.34	0.05	82	0.20	0.112

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CERTIFICATE OF ANALYSIS VAN21002068.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
D00155323	Soil		4.0	91.6	0.47	73.8	0.039	1	1.94	0.007	0.05	0.2	2.4	0.05	0.03	71	0.3	0.03	6.3
D00155325	Soil		5.0	102.1	1.16	73.2	0.128	1	2.57	0.007	0.04	0.1	5.5	0.06	<0.02	34	<0.1	0.03	6.3
D00155328	Soil		5.8	109.4	1.66	61.4	0.146	3	2.83	0.007	0.06	0.1	7.1	0.06	<0.02	48	<0.1	<0.02	9.1
D00155332	Soil		9.2	51.0	0.60	63.2	0.135	1	2.35	0.006	0.05	0.2	4.4	0.06	0.02	64	0.2	<0.02	9.1
D00155334	Soil		4.4	108.8	1.43	93.4	0.104	3	2.79	0.007	0.05	0.1	10.0	0.05	<0.02	57	<0.1	<0.02	10.3
D00155336	Soil		4.3	119.4	1.96	135.9	0.104	<1	3.22	0.006	0.08	<0.1	19.2	0.05	<0.02	46	0.1	0.03	10.4
D00155338	Soil		8.4	57.1	0.77	94.7	0.071	1	2.23	0.005	0.05	0.1	4.4	0.05	<0.02	67	0.2	<0.02	9.0
D00155340	Soil		6.5	153.6	0.99	101.1	0.123	<1	2.07	0.006	0.06	<0.1	7.0	0.05	<0.02	54	0.2	<0.02	9.2
D00155344	Rock		<0.5	0.9	10.83	1.9	<0.001	<1	0.02	0.002	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
D00155345	Soil		7.0	61.7	0.37	88.2	0.121	<1	1.67	0.006	0.06	0.2	5.0	0.04	0.02	68	0.2	<0.02	9.0
D00155409	Soil		5.7	74.2	1.22	76.1	0.106	2	3.07	0.009	0.06	0.1	6.4	0.04	<0.02	71	0.2	<0.02	7.7
D00155410	Soil		3.3	102.3	1.63	45.1	0.131	2	3.20	0.009	0.05	<0.1	10.0	0.05	<0.02	78	0.2	<0.02	8.7
D00155411	Soil		5.9	97.0	1.13	149.2	0.133	2	2.51	0.007	0.05	<0.1	8.3	0.04	0.03	68	0.4	<0.02	9.7
D00155412	Soil		3.4	86.7	1.59	59.4	0.175	<1	2.91	0.008	0.05	0.1	5.7	0.06	<0.02	65	0.1	<0.02	8.2
D00155413	Soil		5.6	110.5	1.13	153.6	0.138	2	1.97	0.007	0.06	0.1	4.7	0.05	0.02	67	<0.1	<0.02	8.2
D00155414	Soil		7.3	122.8	1.38	149.6	0.093	<1	2.57	0.005	0.05	0.1	6.9	0.07	<0.02	44	<0.1	<0.02	10.1
D00155415	Pulp		30.9	73.9	1.21	381.3	0.345	3	2.21	0.232	1.19	2.5	8.0	0.74	0.32	30	1.3	0.25	8.5
D00155416	Soil		3.6	119.3	1.27	86.6	0.111	1	2.78	0.009	0.06	0.2	7.8	0.06	<0.02	87	0.3	<0.02	10.8
D00155417	Soil		3.5	115.9	2.06	70.1	0.164	<1	3.07	0.005	0.04	0.1	11.5	0.06	<0.02	46	0.3	<0.02	11.0
D00155418	Soil		6.4	99.4	0.85	74.6	0.173	<1	2.01	0.007	0.06	0.2	3.1	0.04	<0.02	74	0.3	0.02	9.9
D00155419	Soil		6.7	65.8	0.67	81.3	0.106	<1	2.35	0.008	0.06	0.2	4.6	0.04	0.02	86	0.2	0.04	9.2
D00155422	Soil		8.2	473.6	2.96	64.6	0.110	<1	3.14	0.005	0.05	<0.1	5.7	0.07	<0.02	52	<0.1	<0.02	8.6
D00155423	Soil		9.4	529.2	3.25	72.9	0.124	<1	3.59	0.006	0.06	<0.1	6.8	0.08	<0.02	62	0.1	<0.02	10.0
D00155424	Soil		7.5	89.4	1.02	69.9	0.117	2	2.06	0.010	0.06	0.1	5.9	0.05	0.02	58	<0.1	<0.02	7.6
D00155425	Soil		7.4	97.1	0.97	106.6	0.146	<1	2.54	0.007	0.08	0.1	5.1	0.06	0.03	77	0.5	<0.02	9.3
D00155427	Soil		2.8	330.0	2.36	103.3	0.156	<1	2.51	0.006	0.18	0.1	5.7	0.05	0.02	94	0.3	<0.02	6.4
D00155429	Soil		5.4	58.3	0.72	104.0	0.080	1	1.85	0.009	0.06	0.1	3.8	0.03	<0.02	53	0.2	<0.02	7.3
D00155430	Soil		6.3	49.9	0.91	93.1	0.071	<1	1.93	0.008	0.04	<0.1	4.9	0.04	<0.02	45	0.2	0.02	8.7
D00155431	Soil		4.9	68.1	0.93	90.0	0.094	<1	2.87	0.008	0.04	0.1	5.1	0.02	0.03	102	0.5	<0.02	7.3
D00155432	Soil		6.8	42.0	0.32	84.5	0.065	<1	1.34	0.006	0.04	0.1	3.3	0.04	<0.02	63	<0.1	0.03	6.4

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 01, 2021

CERTIFICATE OF ANALYSIS VAN21002068.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155433	Soil	0.89	69.08	4.42	49.9	241	26.0	10.5	348	3.78	9.4	0.5	10.4	1.3	25.5	0.21	0.66	0.03	103	0.31	0.091
D00155434	Soil	0.70	49.54	4.70	41.9	540	16.1	7.4	358	2.21	4.4	0.7	4.7	0.6	22.8	0.23	0.34	0.15	65	0.21	0.092
D00155435	Soil	1.12	66.68	6.94	77.4	386	32.4	18.5	918	4.74	11.4	0.4	6.2	0.7	27.2	0.27	0.82	0.10	124	0.33	0.165
D00155436	Soil	1.38	45.39	5.99	79.7	289	25.8	15.2	897	3.43	8.3	0.5	3.4	0.8	22.9	0.32	0.61	0.13	90	0.23	0.116
D00155437	Soil	0.78	30.22	6.11	57.8	406	17.6	9.5	348	4.14	5.4	0.3	2.9	1.9	24.0	0.23	0.68	0.12	123	0.23	0.191
D00155438	Soil	1.01	51.25	4.77	55.1	274	24.1	12.4	341	3.96	6.6	0.5	4.9	2.2	28.3	0.21	0.68	0.10	104	0.28	0.066
D00155439	Soil	0.81	46.74	5.26	54.6	228	18.8	9.8	341	4.10	7.2	0.5	2.7	0.6	25.2	0.46	0.57	0.09	121	0.25	0.128
D00155441	Soil	0.61	47.91	3.86	55.8	169	29.5	16.1	415	4.82	6.9	0.3	2.9	1.4	35.9	0.20	0.83	0.04	125	0.43	0.157
D00155442	Soil	0.85	37.71	5.13	54.5	266	19.1	8.9	300	3.95	7.0	0.4	2.4	1.9	22.7	0.25	0.59	0.09	103	0.24	0.148
D00155443	Soil	0.95	62.89	7.33	92.6	648	20.2	16.7	1889	2.91	6.3	0.6	1.9	0.5	49.9	0.94	0.41	0.12	79	1.02	0.117
D00155444	Soil	0.66	38.80	4.41	39.7	136	21.3	8.6	293	3.01	6.3	0.3	8.8	0.9	28.1	0.19	0.58	0.04	89	0.36	0.137
D00155445	Soil	0.65	43.50	4.00	46.5	83	24.9	9.7	298	2.96	6.2	0.4	10.1	1.2	27.5	0.21	0.67	0.04	84	0.39	0.116
D00155446	Soil	1.00	81.34	4.86	41.2	148	24.0	9.4	275	2.95	7.1	0.5	9.4	1.2	34.2	0.18	0.49	0.07	80	0.41	0.084
D00155447	Soil	1.36	99.11	7.40	80.7	432	36.0	14.1	447	4.42	11.6	0.8	4.4	1.3	25.8	0.37	0.67	0.13	108	0.23	0.100
D00155448	Soil	1.06	59.11	5.45	48.0	293	21.2	7.7	259	2.87	5.9	0.8	7.1	0.3	36.8	0.28	0.33	0.10	79	0.42	0.079
D00155449	Soil	1.31	88.51	5.85	54.2	556	25.7	11.3	391	3.52	7.1	0.8	3.9	0.6	43.3	0.41	0.57	0.08	110	0.40	0.072
D00155450	Soil	1.29	81.04	5.19	40.8	365	17.9	8.5	353	3.80	6.2	0.8	5.5	0.6	28.9	0.51	0.51	0.08	97	0.29	0.072
D00155451	Soil	1.07	59.44	7.51	53.6	227	35.4	15.6	475	4.84	10.2	0.5	16.9	1.9	56.2	0.31	0.56	0.05	126	0.79	0.075
D00155452	Soil	0.57	75.12	4.13	55.6	159	39.0	19.4	475	4.04	6.3	0.5	9.5	1.0	55.7	0.23	0.54	0.04	114	0.84	0.076
D00155453	Soil	0.79	84.61	5.14	69.0	140	34.3	15.9	539	3.60	8.8	0.5	11.0	0.9	70.7	0.21	0.75	0.09	102	0.61	0.084
D00155454	Soil	1.13	51.13	4.57	75.7	204	34.2	18.7	508	5.00	10.8	0.4	7.0	1.7	29.1	0.23	0.71	0.05	143	0.39	0.139
D00155455	Rock	0.03	0.44	0.75	3.2	8	<0.1	<0.1	128	0.11	2.2	<0.1	2.8	0.1	48.8	0.02	<0.02	<0.02	<1	18.87	0.002
D00155456	Soil	0.70	29.53	6.25	48.7	65	28.7	11.8	316	3.58	4.2	0.4	6.2	2.3	24.2	0.21	0.48	0.09	93	0.27	0.127
D00155457	Soil	0.94	173.34	6.32	48.9	775	56.6	25.6	446	4.70	11.4	0.8	3.1	1.8	39.0	0.37	0.51	0.08	114	0.78	0.120
D00155458	Soil	0.89	82.82	4.95	45.7	441	28.8	16.5	701	3.27	6.6	0.4	4.4	0.6	44.7	0.30	0.44	0.07	104	0.69	0.087
D00155459	Soil	1.19	53.86	5.66	69.8	408	28.2	14.7	404	4.39	7.8	0.6	4.5	2.1	31.6	0.23	0.86	0.07	126	0.33	0.121
D00155462	Soil	1.07	62.22	5.34	51.7	219	51.8	18.0	347	3.46	3.1	0.6	4.9	0.7	40.5	0.15	0.49	0.06	95	0.43	0.083
D00155463	Soil	2.19	88.29	5.63	70.4	248	65.6	27.7	1337	5.14	2.3	0.7	1.4	0.4	54.7	0.22	0.98	0.07	150	0.55	0.112
D00155464	Soil	0.73	113.05	4.31	40.8	198	22.3	11.7	487	2.66	6.0	0.6	5.7	2.9	59.8	0.13	0.72	0.10	79	0.87	0.125
D00155465	Pulp	98.72	2764.30	8.82	74.3	447	60.0	15.7	400	3.87	26.0	5.4	218.6	24.4	65.2	0.24	1.78	0.78	115	1.02	0.103

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

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CERTIFICATE OF ANALYSIS VAN21002068.1

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		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
D00155433	Soil		7.1	57.4	0.72	66.6	0.101	<1	2.44	0.009	0.06	0.2	4.9	0.05	<0.02	87	0.4	0.05	6.7
D00155434	Soil		8.1	37.6	0.47	68.7	0.034	<1	1.81	0.007	0.05	<0.1	1.8	0.06	0.04	88	0.2	<0.02	5.3
D00155435	Soil		4.8	77.5	1.10	103.8	0.071	1	2.50	0.009	0.08	0.1	4.8	0.06	0.02	111	0.3	0.02	8.4
D00155436	Soil		8.5	46.1	0.66	102.9	0.056	2	2.21	0.007	0.09	0.1	4.2	0.10	0.02	78	0.2	0.03	7.3
D00155437	Soil		8.0	50.6	0.66	57.9	0.095	<1	1.73	0.006	0.05	0.2	4.1	0.04	<0.02	63	0.1	0.02	8.2
D00155438	Soil		7.2	51.0	0.85	71.2	0.122	2	2.38	0.007	0.06	0.2	5.4	0.05	<0.02	76	0.3	<0.02	7.2
D00155439	Soil		7.1	40.4	0.72	76.9	0.068	1	1.77	0.006	0.06	0.1	3.6	0.04	0.03	64	0.3	<0.02	7.9
D00155441	Soil		5.2	67.5	1.25	66.9	0.090	<1	2.41	0.007	0.05	0.2	6.9	0.04	<0.02	64	<0.1	<0.02	8.1
D00155442	Soil		7.4	51.5	0.67	65.1	0.091	<1	2.32	0.007	0.05	0.1	4.7	0.04	<0.02	90	0.2	<0.02	7.1
D00155443	Soil		9.0	43.2	0.58	135.9	0.042	1	1.66	0.007	0.06	<0.1	3.2	0.05	0.05	63	0.2	<0.02	6.2
D00155444	Soil		6.4	43.0	0.59	70.2	0.085	<1	1.51	0.008	0.04	0.2	3.2	0.03	<0.02	44	<0.1	<0.02	5.1
D00155445	Soil		6.6	45.5	0.64	65.1	0.081	1	1.78	0.008	0.04	0.1	3.5	0.03	<0.02	39	0.2	<0.02	4.6
D00155446	Soil		10.3	41.9	0.72	66.1	0.090	1	1.90	0.008	0.05	0.1	4.7	0.05	<0.02	68	0.1	0.03	5.9
D00155447	Soil		12.6	58.4	0.87	102.5	0.084	1	3.11	0.008	0.10	0.1	6.0	0.09	0.02	110	0.2	0.04	8.5
D00155448	Soil		8.7	46.5	0.62	92.0	0.058	<1	2.43	0.009	0.08	<0.1	2.9	0.06	0.03	84	0.5	0.02	7.1
D00155449	Soil		8.3	53.3	0.84	101.7	0.115	<1	2.29	0.009	0.07	0.1	4.6	0.05	0.03	60	0.3	0.03	8.0
D00155450	Soil		6.8	45.1	0.55	60.5	0.090	2	2.28	0.008	0.06	0.2	3.5	0.05	0.03	107	0.4	0.03	6.5
D00155451	Soil		5.7	102.3	1.21	76.0	0.146	2	2.22	0.008	0.05	0.1	5.8	0.05	0.02	85	0.3	<0.02	7.7
D00155452	Soil		7.0	85.1	1.42	77.2	0.132	3	2.58	0.009	0.05	0.1	7.1	0.05	<0.02	73	0.2	<0.02	7.7
D00155453	Soil		7.1	75.4	0.89	112.8	0.105	<1	2.00	0.010	0.08	0.1	6.0	0.06	<0.02	51	0.2	0.05	6.1
D00155454	Soil		4.8	81.1	1.16	86.6	0.115	1	2.69	0.008	0.07	0.2	5.8	0.04	<0.02	62	0.1	0.03	7.6
D00155455	Rock		0.6	0.6	12.55	3.6	<0.001	<1	0.01	0.002	<0.01	<0.1	0.2	<0.02	<0.02	<5	<0.1	<0.02	<0.1
D00155456	Soil		8.6	88.5	0.88	66.5	0.114	1	2.00	0.007	0.06	0.1	4.7	0.05	<0.02	46	<0.1	<0.02	7.3
D00155457	Soil		10.6	144.6	0.85	91.3	0.123	<1	3.85	0.007	0.07	0.1	9.6	0.11	0.03	135	0.6	<0.02	6.9
D00155458	Soil		9.2	70.3	0.93	82.8	0.096	2	1.90	0.009	0.05	<0.1	6.3	0.06	0.03	59	0.3	0.03	6.9
D00155459	Soil		7.9	89.1	0.83	95.9	0.140	1	2.63	0.008	0.06	0.2	5.7	0.05	<0.02	47	0.2	0.02	7.6
D00155462	Soil		7.6	108.7	1.39	85.8	0.092	2	2.26	0.006	0.05	0.1	4.2	0.03	<0.02	54	0.2	<0.02	8.2
D00155463	Soil		7.2	185.8	2.03	111.7	0.096	2	2.87	0.007	0.06	<0.1	4.3	0.03	0.04	86	0.2	<0.02	9.8
D00155464	Soil		11.4	38.0	0.69	82.7	0.098	2	1.48	0.016	0.05	0.1	7.5	0.05	<0.02	212	<0.1	<0.02	4.8
D00155465	Pulp		35.0	70.7	1.23	418.5	0.351	3	2.18	0.216	1.23	2.6	7.5	0.77	0.34	22	1.5	0.25	8.8

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

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	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155466	Soil	0.91	40.86	4.83	55.6	153	20.6	9.5	412	3.44	6.7	0.5	5.3	2.6	27.6	0.20	0.57	0.10	87	0.29	0.081
D00155467	Soil	0.93	47.96	5.47	37.6	251	19.4	11.5	320	3.64	5.4	0.5	4.8	1.9	34.3	0.21	0.52	0.09	111	0.37	0.069

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		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
D00155466	Soil		9.0	48.4	0.68	61.2	0.098	1	2.38	0.008	0.06	0.2	4.5	0.07	<0.02	90	0.3	0.03	6.3
D00155467	Soil		9.3	46.1	0.55	117.2	0.127	1	1.81	0.008	0.04	0.2	4.9	0.04	<0.02	59	0.1	0.02	7.5

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Report Date: September 01, 2021

QUALITY CONTROL REPORT VAN21002068.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
D00155424	Soil	0.97	66.51	5.23	52.5	437	38.5	17.0	610	3.90	10.2	0.5	2.0	0.7	48.8	0.43	0.60	<0.02	110	0.84	0.072
REP D00155424	QC	1.01	70.67	5.16	52.9	452	37.6	16.8	617	3.84	10.7	0.5	2.5	0.7	50.3	0.40	0.60	<0.02	107	0.84	0.072
D00155458	Soil	0.89	82.82	4.95	45.7	441	28.8	16.5	701	3.27	6.6	0.4	4.4	0.6	44.7	0.30	0.44	0.07	104	0.69	0.087
REP D00155458	QC	0.92	84.61	4.88	50.2	429	29.4	17.0	708	3.28	6.4	0.5	6.7	0.5	46.0	0.27	0.46	0.06	105	0.71	0.092
Reference Materials																					
STD BVGEO01	Standard	11.01	4174.07	186.93	1635.1	2588	155.0	25.7	693	3.46	121.8	4.0	214.0	17.7	56.8	7.23	3.78	25.90	70	1.25	0.075
STD DS11	Standard	15.72	153.24	135.85	348.3	1737	82.3	13.5	1025	3.12	44.1	2.5	67.6	8.8	65.5	2.39	8.03	11.60	49	1.05	0.071
STD OREAS262	Standard	0.73	118.93	61.81	161.3	483	66.0	29.3	526	3.31	38.5	1.4	64.8	10.9	38.2	0.71	5.26	1.07	23	2.97	0.044
STD OREAS262	Standard	0.63	115.80	56.01	151.0	481	66.8	28.6	555	3.28	38.0	1.2	60.1	10.4	35.0	0.63	4.53	0.96	21	2.97	0.040
STD BVGEO01 Expected		11.2	4415	187	1741	2530	163	25	733	3.7	121	3.77	219	14.4	55	6.5	3.39	25.6	73	1.3219	0.0727
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	0.02	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
Prep Wash																					
ROCK-VAN	Prep Blank	0.82	10.11	0.87	27.3	13	1.0	3.2	437	1.69	11.0	0.4	1.5	2.1	22.3	0.02	0.05	0.04	22	0.50	0.039

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 01, 2021

QUALITY CONTROL REPORT VAN21002068.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Pulp Duplicates																		
D00155424	Soil	7.5	89.4	1.02	69.9	0.117	2	2.06	0.010	0.06	0.1	5.9	0.05	0.02	58	<0.1	<0.02	7.6
REP D00155424	QC	7.4	89.6	1.01	70.3	0.119	3	2.06	0.010	0.06	0.1	5.6	0.05	0.02	59	0.2	0.02	7.4
D00155458	Soil	9.2	70.3	0.93	82.8	0.096	2	1.90	0.009	0.05	<0.1	6.3	0.06	0.03	59	0.3	0.03	6.9
REP D00155458	QC	9.4	72.2	0.94	83.0	0.105	<1	1.92	0.009	0.05	<0.1	6.1	0.05	0.03	67	0.3	<0.02	6.9
Reference Materials																		
STD BVGEO01	Standard	29.1	177.6	1.23	343.5	0.232	3	2.20	0.185	0.84	5.7	6.1	0.63	0.62	95	4.7	1.04	7.4
STD DS11	Standard	17.8	62.8	0.84	365.3	0.093	8	1.16	0.076	0.40	3.1	3.3	4.99	0.27	263	2.1	4.79	5.2
STD OREAS262	Standard	19.7	43.8	1.19	271.5	0.003	3	1.37	0.069	0.32	0.2	3.6	0.48	0.26	173	0.4	0.25	4.4
STD OREAS262	Standard	16.2	46.8	1.19	246.6	0.003	3	1.38	0.067	0.31	0.2	3.5	0.46	0.26	162	0.3	0.22	4.2
STD BVGEO01 Expected		25.9	187	1.2963	260	0.233	3.8	2.347	0.1924	0.89	5.3	5.97	0.62	0.6655	100	4.84	1.02	7.37
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	8	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
Prep Wash																		
ROCK-VAN	Prep Blank	5.3	3.8	0.45	55.9	0.061	1	0.79	0.106	0.09	<0.1	2.2	<0.02	<0.02	6	<0.1	<0.02	3.3

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

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	August 26, 2021
Analysis Start:	September 15, 2021
Report Date:	September 23, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21002673.1

CLIENT JOB INFORMATION

Project:	Mt. Milligan
Shipment ID:	MTM21-Rock_02
P.O. Number	M27463
Number of Samples:	13

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP80-250	12	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	1	Sort, label and box pulps			VAN
FA430	13	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
MA200	13	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC: Mt. Milligan Data Distribution List

BRITISH COLUMBIA CERTIFIED ASSAYER
Gerald Chik
Sample Preparation Manager

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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.

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 23, 2021

CERTIFICATE OF ANALYSIS VAN21002673.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
D00155475	Rock	1.02	0.011	1.0	94.1	3.7	78	<0.1	31.1	33.5	1396	6.82	4	0.6	1.1	549	<0.1	1.3	<0.1	322	6.12
D00155484	Rock	3.02	0.012	0.6	32.6	4.8	39	<0.1	27.4	13.1	686	5.40	11	0.7	1.3	1167	<0.1	5.5	<0.1	279	5.98
D00155486	Rock	1.95	0.009	0.2	117.3	3.8	93	<0.1	22.3	32.2	1290	6.98	6	0.5	1.2	708	<0.1	1.2	<0.1	340	4.34
D00155487	Rock	0.88	0.006	0.2	4.2	6.3	127	<0.1	17.3	10.5	4042	3.89	4	0.3	0.8	1224	0.4	2.2	<0.1	223	7.39
D00155497	Rock Pulp	0.10	0.236	96.2	2815.0	21.9	85	0.5	62.4	16.2	577	4.41	19	4.6	18.5	315	0.1	2.3	0.6	127	2.69
D00155508	Rock	1.21	0.011	0.1	39.0	6.9	63	<0.1	10.9	15.0	861	4.13	2	0.6	1.4	489	0.1	0.3	<0.1	165	2.81
D00155514	Rock	1.89	0.007	0.2	119.6	2.9	71	<0.1	146.7	34.0	1166	5.32	<1	0.2	0.7	463	0.1	1.4	<0.1	196	6.92
D00155515	Rock	1.24	0.017	0.4	87.4	3.8	91	0.1	140.2	44.1	1581	6.80	5	0.6	1.1	391	0.1	1.7	<0.1	268	6.16
D00155518	Rock	1.83	0.006	0.2	57.4	6.5	60	<0.1	27.4	23.4	1490	5.33	6	0.4	0.9	1005	<0.1	1.8	<0.1	285	7.47
D00155519	Rock	1.84	0.010	0.4	57.8	6.6	74	<0.1	37.8	32.7	1322	6.32	7	0.5	0.8	649	<0.1	0.7	<0.1	254	6.89
D00155523	Rock	1.71	0.019	0.4	107.5	4.9	76	<0.1	21.0	27.7	1259	6.11	2	0.9	1.4	638	<0.1	0.9	<0.1	292	5.12
D00155524	Rock	1.78	0.008	2.3	57.3	4.8	143	0.1	10.7	19.5	956	6.60	5	0.9	1.6	589	0.2	0.8	<0.1	312	3.95
D00155530	Rock	1.58	0.008	<0.1	1.1	0.7	4	<0.1	<0.1	0.3	119	0.12	<1	<0.1	0.1	50	<0.1	<0.1	<0.1	<1	20.90

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 23, 2021

CERTIFICATE OF ANALYSIS VAN21002673.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
D00155475	Rock	0.089	6.4	65	3.25	804	0.683	7.71	1.916	1.30	1.1	33.8	15	0.5	18.1	3.0	0.2	<1	31	11.2	0.1
D00155484	Rock	0.132	9.1	84	2.28	989	0.536	8.17	2.686	2.53	0.3	43.8	19	0.6	16.9	4.2	0.2	<1	25	8.4	<0.1
D00155486	Rock	0.166	8.0	25	3.45	1443	0.553	8.31	2.467	2.69	0.3	34.1	18	0.6	14.6	3.5	0.2	<1	27	18.6	<0.1
D00155487	Rock	0.056	3.6	54	1.15	557	0.169	6.34	1.032	0.91	<0.1	14.8	7	<0.1	5.5	1.5	<0.1	11	8	1.5	<0.1
D00155497	Rock Pulp	0.097	31.4	84	1.53	1015	0.512	7.67	2.079	3.57	4.5	69.9	69	3.4	24.8	17.6	1.3	3	13	29.0	0.3
D00155508	Rock	0.138	7.6	16	1.34	1775	0.355	8.80	3.133	5.42	0.5	58.5	17	0.4	14.3	4.9	0.4	<1	11	3.8	<0.1
D00155514	Rock	0.045	6.0	347	5.46	165	0.129	4.45	0.017	0.75	1.0	4.3	13	<0.1	6.9	1.0	<0.1	<1	29	22.0	<0.1
D00155515	Rock	0.118	8.5	346	6.04	1262	0.480	6.62	1.527	1.46	0.2	29.4	19	0.3	14.9	4.1	0.3	<1	35	21.9	<0.1
D00155518	Rock	0.105	5.6	54	2.68	918	0.379	6.88	1.583	1.56	0.2	21.5	12	0.3	12.8	2.0	0.1	1	27	8.9	<0.1
D00155519	Rock	0.170	7.2	84	3.18	434	0.476	8.11	2.686	1.19	0.3	40.8	16	0.5	17.0	3.0	0.2	1	27	10.5	<0.1
D00155523	Rock	0.157	8.5	37	2.71	1232	0.499	8.06	2.904	2.59	0.1	29.8	18	0.5	16.2	3.2	0.2	<1	25	9.3	<0.1
D00155524	Rock	0.167	9.0	48	2.31	26	0.575	8.19	3.403	2.08	0.5	34.2	19	0.6	15.3	4.2	0.2	<1	27	10.4	2.9
D00155530	Rock	<0.001	0.6	<1	11.58	4	0.002	0.06	0.008	0.02	<0.1	0.4	<1	<0.1	0.3	<0.1	<0.1	<1	<1	2.1	<0.1

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 23, 2021

CERTIFICATE OF ANALYSIS VAN21002673.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Rb	Hf	In	Re	Se	Te	Tl
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5
D00155475	Rock	31.8	1.3	<0.05	<0.005	<1	<0.5	<0.5
D00155484	Rock	46.2	1.1	0.06	<0.005	<1	0.7	<0.5
D00155486	Rock	35.0	1.3	<0.05	<0.005	<1	<0.5	<0.5
D00155487	Rock	16.9	0.5	<0.05	<0.005	<1	<0.5	<0.5
D00155497	Rock Pulp	178.7	2.3	0.09	<0.005	1	<0.5	1.0
D00155508	Rock	108.7	1.7	<0.05	<0.005	<1	<0.5	0.5
D00155514	Rock	23.6	0.2	<0.05	<0.005	<1	2.2	<0.5
D00155515	Rock	30.3	1.0	<0.05	<0.005	<1	0.8	<0.5
D00155518	Rock	30.5	0.8	<0.05	<0.005	<1	0.9	<0.5
D00155519	Rock	21.1	1.4	<0.05	<0.005	<1	0.6	<0.5
D00155523	Rock	38.8	1.0	0.06	<0.005	<1	<0.5	<0.5
D00155524	Rock	42.8	1.3	0.07	0.008	<1	<0.5	<0.5
D00155530	Rock	0.9	<0.1	<0.05	<0.005	<1	2.8	<0.5

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 23, 2021

QUALITY CONTROL REPORT VAN21002673.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
Pulp Duplicates																					
D00155508	Rock	1.21	0.011	0.1	39.0	6.9	63	<0.1	10.9	15.0	861	4.13	2	0.6	1.4	489	0.1	0.3	<0.1	165	2.81
REP D00155508	QC		0.008																		
REP D00155519	QC			0.4	54.7	6.8	73	<0.1	37.5	31.5	1362	6.38	6	0.5	0.9	663	<0.1	0.8	<0.1	257	7.04
D00155530	Rock	1.58	0.008	<0.1	1.1	0.7	4	<0.1	<0.1	0.3	119	0.12	<1	<0.1	0.1	50	<0.1	<0.1	<0.1	<1	20.90
REP D00155530	QC		0.007																		
Core Reject Duplicates																					
D00155519	Rock	1.84	0.010	0.4	57.8	6.6	74	<0.1	37.8	32.7	1322	6.32	7	0.5	0.8	649	<0.1	0.7	<0.1	254	6.89
DUP D00155519	QC		0.006	0.3	55.4	7.0	74	<0.1	37.2	32.6	1356	6.26	7	0.5	0.9	660	<0.1	0.9	<0.1	254	6.99
Reference Materials																					
STD OREAS263	Standard		0.217																		
STD OREAS232	Standard		0.913																		
STD OREAS45H	Standard			1.4	812.1	12.9	44	0.1	463.7	94.0	430	19.97	17	1.8	8.3	29	<0.1	0.6	<0.1	297	0.15
STD OREAS501D	Standard			91.2	2717.0	26.3	94	0.7	22.6	9.7	371	3.28	13	3.8	14.1	209	0.2	2.2	1.0	72	1.80
STD OXN155	Standard		7.913																		
STD OXN155 Expected			7.776																		
STD OREAS263 Expected			0.214																		
STD OREAS232 Expected			0.902																		
STD OREAS45H Expected				1.55	767	12.2	39.7	0.147	451	92	405	20.4	16.9	1.68	7.6	28		0.63	0.17	275	0.135
STD OREAS501D Expected				95	2720	25.2	90	0.664	20	9.57	370	3.37	15.1	3.88	14	212	0.3	2.25	1.26	71	1.85
BLK	Blank		0.008																		
BLK	Blank		0.006																		
BLK	Blank			<0.1	0.2	<0.1	<1	<0.1	<0.1	<0.2	2	<0.01	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
Prep Wash																					
ROCK-VAN	Prep Blank		0.008	0.6	5.3	2.6	35	<0.1	2.5	4.6	651	2.04	3	1.3	3.0	220	<0.1	<0.1	<0.1	36	1.63
ROCK-VAN	Prep Blank		<0.005	0.7	2.6	2.7	30	<0.1	0.8	3.6	568	1.89	1	1.2	3.1	203	<0.1	0.2	<0.1	30	1.46

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 23, 2021

QUALITY CONTROL REPORT VAN21002673.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Pulp Duplicates																					
D00155508	Rock	0.138	7.6	16	1.34	1775	0.355	8.80	3.133	5.42	0.5	58.5	17	0.4	14.3	4.9	0.4	<1	11	3.8	<0.1
REP D00155508	QC																				
REP D00155519	QC	0.174	7.0	80	3.21	442	0.482	8.38	2.760	1.19	0.3	47.1	16	0.4	17.5	3.1	0.2	<1	27	10.9	<0.1
D00155530	Rock	<0.001	0.6	<1	11.58	4	0.002	0.06	0.008	0.02	<0.1	0.4	<1	<0.1	0.3	<0.1	<0.1	<1	<1	2.1	<0.1
REP D00155530	QC																				
Core Reject Duplicates																					
D00155519	Rock	0.170	7.2	84	3.18	434	0.476	8.11	2.686	1.19	0.3	40.8	16	0.5	17.0	3.0	0.2	1	27	10.5	<0.1
DUP D00155519	QC	0.177	7.1	79	3.17	447	0.487	8.25	2.728	1.22	0.2	41.8	16	0.4	16.6	3.1	0.2	1	27	10.1	<0.1
Reference Materials																					
STD OREAS263	Standard																				
STD OREAS232	Standard																				
STD OREAS45H	Standard	0.021	13.5	664	0.25	341	0.922	8.44	0.084	0.20	1.1	120.1	27	2.0	9.9	13.8	1.0	1	58	13.6	<0.1
STD OREAS501D	Standard	0.083	30.0	41	0.81	975	0.392	7.52	2.064	3.05	10.2	63.6	67	4.6	15.4	11.5	0.9	2	8	46.6	0.4
STD OXN155	Standard																				
STD OXN155 Expected																					
STD OREAS263 Expected																					
STD OREAS232 Expected																					
STD OREAS45H Expected		0.023	13.3	660	0.2575	342	0.878	8.2	0.09	0.215	0.9	126	24.3	1.93	10.4	13.8	1	1.09	59	13.9	
STD OREAS501D Expected		0.087	34.8	45.4	0.827	1032	0.359	7.69	2.07	3.01	8.56	62	73	4.86	15.7	12.2	1.09	2.65	9.47	51	0.38
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	0.004	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
Prep Wash																					
ROCK-VAN	Prep Blank	0.042	11.6	5	0.60	844	0.225	7.19	3.472	1.72	0.2	50.4	25	0.6	16.2	5.4	0.4	1	8	2.5	<0.1
ROCK-VAN	Prep Blank	0.039	11.9	2	0.46	829	0.213	6.98	3.350	1.73	0.3	49.2	25	0.5	15.9	5.7	0.4	<1	7	2.3	<0.1

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 23, 2021

QUALITY CONTROL REPORT VAN21002673.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Rb	Hf	In	Re	Se	Te	Tl
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5
Pulp Duplicates								
D00155508	Rock	108.7	1.7	<0.05	<0.005	<1	<0.5	0.5
REP D00155508	QC							
REP D00155519	QC	21.4	1.3	0.06	<0.005	<1	0.8	<0.5
D00155530	Rock	0.9	<0.1	<0.05	<0.005	<1	2.8	<0.5
REP D00155530	QC							
Core Reject Duplicates								
D00155519	Rock	21.1	1.4	<0.05	<0.005	<1	0.6	<0.5
DUP D00155519	QC	20.8	1.3	0.07	<0.005	<1	<0.5	<0.5
Reference Materials								
STD OREAS263	Standard							
STD OREAS232	Standard							
STD OREAS45H	Standard	22.5	3.4	0.11	<0.005	<1	<0.5	<0.5
STD OREAS501D	Standard	150.2	2.0	0.08	0.040	2	<0.5	0.9
STD OXN155	Standard							
STD OXN155 Expected								
STD OREAS263 Expected								
STD OREAS232 Expected								
STD OREAS45H Expected		22.5	3.42	0.1		2.02		
STD OREAS501D Expected		164	2	0.086	0.049			0.91
BLK	Blank							
BLK	Blank							
BLK	Blank	<0.1	<0.1	<0.05	<0.005	<1	<0.5	<0.5
Prep Wash								
ROCK-VAN	Prep Blank	33.7	1.9	<0.05	<0.005	<1	<0.5	<0.5
ROCK-VAN	Prep Blank	34.5	1.9	<0.05	<0.005	<1	<0.5	<0.5

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	August 26, 2021
Analysis Start:	September 21, 2021
Report Date:	September 30, 2021
Page:	1 of 3

CERTIFICATE OF ANALYSIS VAN21002674.1

CLIENT JOB INFORMATION

Project:	Mt. Milligan
Shipment ID:	MTM21-Soil_02
P.O. Number	M27463
Number of Samples:	45

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	41	Dry at 60C sieve 100g to -80 mesh			VAN
PRP70-250	2	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	2	Sort, label and box pulps			VAN
AQ252_EXT	45	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

JEFFREY CANNON
Geochemistry Department Supervisor

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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.

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

CERTIFICATE OF ANALYSIS VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155473	Soil	0.89	67.94	3.86	40.6	99	30.8	13.1	469	3.28	5.1	0.4	7.6	1.8	40.2	0.07	0.64	0.07	92	0.71	0.095
D00155474	Soil	1.13	87.64	5.38	86.6	378	32.5	22.0	1127	4.08	8.3	0.7	2.0	0.5	44.5	0.34	0.38	0.10	109	0.86	0.108
D00155476	Soil	0.98	39.73	6.01	100.1	307	17.6	11.7	669	4.18	4.1	0.5	2.1	0.5	46.6	0.29	0.44	0.12	104	0.56	0.137
D00155477	Soil	0.71	71.68	4.65	78.8	110	30.0	16.8	654	3.73	6.9	0.7	9.4	0.8	47.3	0.30	0.66	0.08	98	0.87	0.073
D00155478	Soil	0.89	104.38	5.39	91.6	177	48.2	17.6	856	4.19	9.2	0.5	3.1	0.7	35.9	0.28	0.58	0.12	90	0.82	0.115
D00155479	Soil	0.97	131.16	5.37	62.1	314	33.9	18.8	857	3.51	10.9	0.7	5.2	0.7	34.3	0.26	0.54	0.10	93	0.60	0.095
D00155480	Soil	0.61	76.34	3.71	55.1	183	36.9	19.7	505	3.88	8.2	0.4	3.0	0.7	42.8	0.19	0.53	0.07	93	0.92	0.075
D00155481	Soil	1.16	142.04	5.59	67.3	546	42.8	20.1	819	4.29	45.0	0.7	2.8	0.3	45.0	0.47	0.68	0.08	102	1.07	0.124
D00155482	Soil	1.35	176.48	6.83	102.8	1058	27.5	17.8	1678	3.29	13.9	0.8	2.4	0.3	45.7	0.62	0.46	0.14	83	1.35	0.187
D00155483	Soil	1.09	76.65	4.85	49.1	232	36.2	14.6	363	4.30	10.8	0.5	3.7	0.4	36.1	0.19	0.53	0.09	108	0.56	0.062
D00155485	Soil	0.69	44.59	3.01	85.0	208	81.2	29.4	821	5.23	19.0	0.2	0.7	0.6	38.4	0.15	0.43	0.06	134	0.83	0.108
D00155488	Soil	0.81	53.34	4.17	40.0	56	22.0	9.0	253	3.60	5.6	0.5	6.2	1.3	25.6	0.16	0.42	0.07	98	0.32	0.076
D00155489	Soil	1.15	37.01	4.00	43.1	74	19.3	8.3	263	3.79	6.4	0.5	6.3	0.6	31.0	0.22	0.34	0.07	102	0.43	0.113
D00155490	Rock	0.06	0.91	0.52	4.1	5	<0.1	0.2	131	0.11	0.2	<0.1	<0.2	0.1	44.7	<0.01	<0.02	<0.02	<1	20.75	0.001
D00155491	Soil	0.81	83.99	5.66	52.9	494	18.5	12.3	1215	2.53	6.6	1.3	2.8	0.4	62.9	0.92	0.50	0.12	72	1.72	0.239
D00155492	Soil	0.93	40.14	4.05	40.6	421	15.1	9.7	603	2.33	3.0	0.6	3.6	0.1	68.0	0.39	0.21	0.08	68	1.06	0.121
D00155493	Soil	0.62	22.81	3.53	39.3	119	11.9	6.2	202	2.36	3.4	0.3	5.8	0.4	49.9	0.21	0.26	0.07	74	0.66	0.038
D00155494	Soil	0.82	103.75	4.44	55.4	155	26.5	15.2	364	3.96	4.9	0.4	94.9	1.4	31.4	0.14	0.42	0.07	116	0.49	0.093
D00155495	Soil	0.74	109.65	4.14	50.4	113	27.2	17.5	396	3.92	4.7	0.4	2.1	1.2	31.7	0.12	0.46	0.06	115	0.52	0.091
D00155496	Soil	0.64	27.77	2.82	35.5	73	20.5	8.6	206	3.25	4.9	0.4	7.2	1.2	24.0	0.17	0.42	0.04	93	0.34	0.118
D00155498	Soil	0.74	41.13	4.36	59.6	88	38.5	17.0	339	4.31	7.6	0.3	3.8	1.1	25.3	0.16	0.48	0.08	110	0.32	0.125
D00155499	Soil	1.15	41.55	6.05	66.9	110	31.3	16.4	591	6.59	8.2	0.3	2.7	0.8	25.9	0.14	0.59	0.07	172	0.36	0.298
D00155500	Pulp	94.68	2715.35	7.55	69.6	454	58.7	14.4	390	3.99	23.5	4.8	206.6	18.4	59.4	0.12	1.19	0.64	109	0.98	0.092
D00155501	Soil	0.79	26.65	5.25	41.0	119	15.3	6.2	218	3.07	4.4	0.3	10.2	0.5	23.5	0.16	0.33	0.11	83	0.30	0.190
D00155502	Soil	0.88	32.21	3.96	37.9	39	15.6	5.7	206	2.69	4.2	0.4	2.7	0.3	24.8	0.17	0.32	0.08	72	0.30	0.066
D00155503	Soil	1.05	35.86	4.05	43.5	192	16.5	7.4	269	3.06	5.0	0.5	4.1	0.6	29.7	0.23	0.37	0.09	83	0.37	0.095
D00155504	Soil	1.13	29.33	3.86	47.4	322	16.2	7.8	251	3.87	5.8	0.4	612.9	1.1	30.2	0.28	0.39	0.08	97	0.36	0.078
D00155505	Soil	3.72	19.59	4.06	46.7	177	11.8	10.6	1404	2.35	2.2	0.4	2.4	<0.1	39.6	0.29	0.16	0.09	70	0.49	0.100
D00155506	Soil	0.99	36.55	4.13	45.1	173	25.1	10.2	227	3.65	6.1	0.6	6.6	1.8	23.4	0.16	0.31	0.07	93	0.28	0.088
D00155507	Soil	0.96	35.42	4.19	41.2	189	23.4	9.5	215	3.36	5.7	0.6	4.8	1.7	24.3	0.14	0.28	0.08	88	0.27	0.085

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

CERTIFICATE OF ANALYSIS VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
D00155473	Soil	8.5	65.4	0.92	85.4	0.091	2	1.78	0.010	0.04	0.1	8.8	0.04	<0.02	70	0.2	<0.02	5.4	1.66	<0.1	0.10
D00155474	Soil	10.6	87.4	0.88	78.1	0.080	3	2.55	0.010	0.06	<0.1	8.4	0.06	0.03	63	0.3	<0.02	7.4	6.81	<0.1	0.03
D00155476	Soil	6.1	43.0	0.55	115.0	0.090	3	1.94	0.008	0.06	0.2	4.1	0.04	0.02	52	0.2	0.02	8.4	4.63	<0.1	0.03
D00155477	Soil	7.9	65.9	0.87	70.2	0.093	3	2.05	0.010	0.06	0.1	7.0	0.04	0.03	86	0.6	<0.02	5.7	7.14	<0.1	0.05
D00155478	Soil	8.8	90.5	1.15	80.4	0.047	3	2.70	0.009	0.06	<0.1	8.3	0.07	0.03	82	0.6	<0.02	6.4	10.88	<0.1	0.03
D00155479	Soil	9.6	75.6	0.90	87.2	0.055	2	2.22	0.010	0.05	<0.1	8.9	0.07	0.02	59	0.4	<0.02	5.8	4.45	<0.1	0.02
D00155480	Soil	6.3	77.2	1.21	56.2	0.101	3	2.43	0.009	0.04	<0.1	8.1	0.04	0.03	53	0.3	<0.02	6.4	5.62	<0.1	0.05
D00155481	Soil	9.2	106.9	1.25	75.9	0.064	3	2.50	0.008	0.05	<0.1	7.9	0.05	0.05	85	0.5	<0.02	7.0	6.60	<0.1	<0.02
D00155482	Soil	12.3	91.6	0.52	99.7	0.028	3	2.55	0.008	0.05	<0.1	6.6	0.10	0.10	208	1.1	<0.02	5.3	12.21	<0.1	0.03
D00155483	Soil	7.9	83.4	0.99	51.0	0.119	3	2.34	0.009	0.04	0.1	5.2	0.06	0.02	48	0.2	<0.02	7.9	1.91	<0.1	0.04
D00155485	Soil	2.9	155.0	2.62	80.9	0.215	3	2.92	0.007	0.08	0.2	5.8	0.06	<0.02	39	0.2	<0.02	9.6	4.83	<0.1	0.07
D00155488	Soil	6.2	53.5	0.65	63.6	0.097	2	2.76	0.009	0.04	0.2	5.4	0.03	<0.02	92	0.4	0.03	6.0	1.88	<0.1	0.07
D00155489	Soil	7.5	42.7	0.56	75.2	0.095	2	2.33	0.007	0.05	0.2	3.6	0.04	0.02	57	0.3	0.02	6.0	0.77	<0.1	0.04
D00155490	Rock	<0.5	0.7	11.79	2.2	<0.001	<1	0.02	0.002	0.01	<0.1	<0.1	<0.02	<0.02	<5	0.4	<0.02	<0.1	0.06	<0.1	<0.02
D00155491	Soil	11.3	47.7	0.51	110.4	0.021	2	1.87	0.010	0.06	<0.1	2.7	0.05	0.12	150	1.1	<0.02	5.0	7.63	<0.1	0.06
D00155492	Soil	9.2	30.4	0.48	127.6	0.034	2	1.66	0.008	0.05	<0.1	2.0	0.04	0.05	64	0.3	<0.02	5.0	0.71	<0.1	<0.02
D00155493	Soil	5.0	29.2	0.45	71.0	0.083	2	1.53	0.010	0.04	0.1	2.8	0.04	<0.02	27	0.2	<0.02	5.8	0.65	<0.1	0.03
D00155494	Soil	6.0	46.5	0.77	71.9	0.101	2	2.31	0.010	0.03	0.1	5.4	0.04	<0.02	26	0.1	<0.02	7.0	1.92	<0.1	0.07
D00155495	Soil	5.3	47.1	0.85	64.3	0.103	2	2.33	0.007	0.03	0.1	5.9	0.04	<0.02	37	0.2	<0.02	6.6	1.85	<0.1	0.10
D00155496	Soil	5.3	43.1	0.47	64.2	0.080	2	2.06	0.009	0.03	0.2	3.7	0.02	<0.02	35	0.2	0.02	4.5	0.45	<0.1	0.07
D00155498	Soil	6.2	66.3	1.00	86.7	0.074	2	2.54	0.009	0.04	0.1	5.7	0.03	<0.02	43	0.3	0.03	6.5	1.66	<0.1	0.03
D00155499	Soil	3.6	79.8	1.32	49.4	0.112	3	3.07	0.008	0.04	0.2	6.8	0.04	<0.02	88	0.3	<0.02	10.5	2.84	<0.1	0.04
D00155500	Pulp	29.9	67.9	1.19	363.9	0.328	4	2.09	0.194	1.16	2.2	7.1	0.72	0.33	18	1.4	0.21	8.1	9.60	0.2	0.28
D00155501	Soil	7.3	39.9	0.50	60.1	0.080	2	1.81	0.008	0.04	0.1	3.4	0.04	<0.02	55	0.2	0.02	7.6	1.51	<0.1	0.03
D00155502	Soil	6.6	38.0	0.42	64.6	0.080	2	1.95	0.007	0.04	0.1	2.7	0.04	<0.02	58	0.3	0.02	5.8	0.71	<0.1	0.04
D00155503	Soil	7.1	36.7	0.44	71.7	0.091	2	1.86	0.009	0.05	0.1	3.2	0.03	<0.02	56	0.3	0.02	6.1	0.72	<0.1	0.04
D00155504	Soil	5.2	40.3	0.42	111.7	0.102	2	1.77	0.008	0.04	0.2	3.2	0.03	<0.02	106	0.2	0.03	6.2	0.69	<0.1	0.07
D00155505	Soil	7.9	31.3	0.34	118.4	0.023	1	1.68	0.010	0.04	<0.1	0.8	0.05	0.04	43	0.2	<0.02	5.1	0.97	<0.1	<0.02
D00155506	Soil	6.6	53.5	0.59	101.5	0.112	2	3.21	0.010	0.04	0.2	5.5	0.04	0.02	90	0.3	<0.02	6.0	0.76	<0.1	0.10
D00155507	Soil	6.8	49.6	0.55	98.8	0.109	2	2.88	0.010	0.04	0.2	5.1	0.04	<0.02	98	0.2	0.02	5.9	0.71	<0.1	0.08

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

CERTIFICATE OF ANALYSIS VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
D00155473	Soil	0.29	4.1	0.3	<0.05	4.3	9.72	16.3	<0.02	<1	0.4	11.5	<10	<2
D00155474	Soil	0.74	13.2	0.4	<0.05	1.1	18.62	18.0	0.03	<1	0.8	13.9	<10	<2
D00155476	Soil	1.14	11.7	0.5	<0.05	1.3	3.00	12.2	0.03	<1	0.4	14.0	<10	<2
D00155477	Soil	0.75	9.8	0.3	<0.05	1.9	9.53	18.7	0.02	<1	0.4	15.8	<10	<2
D00155478	Soil	0.57	7.7	0.4	<0.05	0.9	12.58	22.2	0.03	<1	0.6	29.6	<10	<2
D00155479	Soil	0.52	8.4	0.3	<0.05	0.9	15.63	21.6	0.02	<1	0.5	20.2	<10	<2
D00155480	Soil	0.76	5.2	0.3	<0.05	1.9	11.39	15.8	0.02	<1	0.5	20.1	<10	<2
D00155481	Soil	0.64	10.9	0.3	<0.05	0.7	20.31	13.1	0.03	<1	0.6	19.2	<10	2
D00155482	Soil	0.81	10.7	0.4	<0.05	1.0	35.40	21.3	0.03	<1	0.8	21.8	12	<2
D00155483	Soil	1.00	7.2	0.4	<0.05	1.9	8.29	14.6	0.02	<1	0.5	16.0	<10	<2
D00155485	Soil	0.81	14.1	0.3	<0.05	2.8	3.42	5.8	<0.02	<1	0.2	21.8	<10	3
D00155488	Soil	1.12	3.7	0.3	<0.05	3.0	3.80	11.5	0.02	<1	0.3	11.5	<10	<2
D00155489	Soil	1.03	6.5	0.3	<0.05	1.9	5.23	14.3	0.02	<1	0.4	11.4	<10	<2
D00155490	Rock	<0.02	0.3	<0.1	<0.05	<0.1	0.24	0.7	<0.02	<1	<0.1	0.9	<10	<2
D00155491	Soil	0.46	7.2	0.3	<0.05	1.5	14.36	15.5	<0.02	<1	0.5	9.0	<10	<2
D00155492	Soil	0.41	7.7	0.3	<0.05	0.4	7.92	16.1	<0.02	<1	0.4	9.0	<10	<2
D00155493	Soil	0.83	7.6	0.3	<0.05	1.2	3.17	10.0	<0.02	<1	0.2	9.6	<10	<2
D00155494	Soil	0.72	6.1	0.3	<0.05	3.4	4.85	16.2	0.03	<1	0.5	20.5	<10	<2
D00155495	Soil	0.64	5.1	0.3	<0.05	4.0	5.44	17.0	0.03	<1	0.4	18.3	<10	<2
D00155496	Soil	0.62	4.6	0.2	<0.05	3.0	4.29	10.2	<0.02	<1	0.4	10.5	<10	<2
D00155498	Soil	0.63	7.2	0.3	<0.05	1.3	3.69	12.2	0.03	<1	0.4	18.2	<10	<2
D00155499	Soil	0.96	9.6	0.4	<0.05	2.0	2.57	7.7	0.03	<1	0.3	19.0	<10	2
D00155500	Pulp	0.27	133.2	2.4	<0.05	7.2	16.63	60.9	0.05	2	0.5	31.4	<10	<2
D00155501	Soil	0.80	7.2	0.5	<0.05	1.2	2.85	14.0	<0.02	<1	0.2	8.3	<10	<2
D00155502	Soil	0.93	5.5	0.3	<0.05	1.6	3.66	12.7	<0.02	<1	0.3	10.5	<10	<2
D00155503	Soil	0.82	7.7	0.3	<0.05	1.6	4.13	13.4	<0.02	<1	0.4	9.9	<10	<2
D00155504	Soil	1.19	5.5	0.3	<0.05	2.8	3.38	10.1	0.02	<1	0.3	12.5	<10	<2
D00155505	Soil	0.22	8.2	0.3	<0.05	0.2	5.27	15.4	<0.02	<1	0.4	10.3	<10	<2
D00155506	Soil	1.10	6.0	0.3	<0.05	4.2	4.82	13.5	0.02	<1	0.5	16.3	<10	<2
D00155507	Soil	1.02	5.7	0.3	<0.05	3.8	4.73	13.7	0.02	<1	0.5	15.0	<10	<2

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

CERTIFICATE OF ANALYSIS VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155509	Soil	3.58	51.13	6.93	60.1	148	27.3	15.7	490	5.89	33.2	0.6	2.2	0.9	14.1	0.13	1.08	0.09	128	0.16	0.181
D00155510	Rock	0.04	0.36	0.47	3.5	4	<0.1	0.2	107	0.10	0.2	<0.1	<0.2	<0.1	37.9	<0.01	<0.02	<0.02	<1	17.86	0.001
D00155511	Soil	1.04	91.42	4.19	53.7	313	30.3	18.5	817	3.66	12.9	0.5	7.7	0.3	44.6	0.22	0.58	0.08	108	0.70	0.082
D00155512	Soil	1.19	24.38	4.46	45.3	407	12.7	4.9	188	2.23	3.7	0.4	11.6	0.1	18.1	0.20	0.25	0.10	65	0.22	0.115
D00155513	Soil	0.79	28.84	4.67	57.2	142	16.2	6.9	353	3.17	5.5	0.3	4.1	0.9	19.3	0.22	0.36	0.09	92	0.24	0.121
D00155516	Soil	0.49	21.17	5.96	40.7	149	11.1	5.6	168	2.45	2.5	0.3	2.7	0.8	29.1	0.17	0.24	0.12	85	0.33	0.097
D00155517	Soil	0.88	64.28	4.50	76.3	485	35.3	17.0	520	5.65	8.4	0.4	1.7	0.3	37.4	0.31	0.54	0.07	143	0.44	0.366
D00155520	Pulp	98.12	2742.76	7.54	70.5	435	57.7	14.1	390	3.90	22.7	4.5	207.3	18.1	60.4	0.12	1.19	0.63	112	0.99	0.091
D00155521	Soil	0.86	24.46	5.19	50.5	132	16.4	7.7	305	3.44	4.2	0.3	2.0	0.6	19.7	0.14	0.38	0.12	108	0.26	0.124
D00155522	Soil	1.13	49.09	3.95	121.5	127	22.4	20.2	691	7.23	8.5	0.4	2.2	0.6	34.5	0.21	1.01	0.05	187	0.44	0.159
D00155525	Soil	0.91	57.54	3.99	64.5	226	22.1	14.3	441	4.44	8.9	0.4	48.5	1.2	30.4	0.16	0.74	0.06	112	0.38	0.146
D00155526	Soil	0.95	29.66	4.05	46.7	192	19.3	8.9	293	3.61	5.9	0.3	10.4	0.8	27.7	0.13	0.39	0.07	110	0.43	0.068
D00155527	Soil	1.48	54.84	6.45	87.3	301	17.6	11.9	535	3.53	4.1	0.5	0.3	1.5	32.2	0.18	0.38	0.14	113	0.39	0.061
D00155528	Soil	0.80	224.41	7.04	116.6	512	22.1	15.6	1685	3.64	5.1	0.8	1.1	0.4	33.7	0.89	0.52	0.14	101	0.52	0.143
D00155529	Soil	1.03	41.76	4.61	54.4	233	26.2	12.5	346	4.66	5.4	0.4	1.8	1.1	34.4	0.22	0.36	0.09	140	0.48	0.150

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

CERTIFICATE OF ANALYSIS VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
D00155509	Soil	6.7	84.2	0.76	82.3	0.058	2	2.44	0.007	0.05	0.1	5.4	0.05	<0.02	81	0.3	0.02	8.0	1.56	<0.1	<0.02
D00155510	Rock	<0.5	0.6	11.20	1.9	<0.001	<1	0.02	0.002	<0.01	<0.1	<0.1	<0.02	<0.02	<5	0.5	<0.02	<0.1	0.06	<0.1	<0.02
D00155511	Soil	9.0	62.7	1.02	109.5	0.070	2	2.23	0.011	0.06	0.1	7.1	0.05	0.03	47	0.2	0.02	6.5	1.67	<0.1	0.02
D00155512	Soil	7.2	38.1	0.35	65.5	0.046	1	1.57	0.006	0.04	0.1	1.2	0.05	0.02	62	0.2	<0.02	6.0	1.65	<0.1	<0.02
D00155513	Soil	5.7	41.1	0.42	66.3	0.075	1	1.92	0.008	0.04	0.1	3.2	0.04	<0.02	66	0.2	0.03	5.9	0.78	<0.1	0.03
D00155516	Soil	7.9	30.4	0.43	49.2	0.110	2	1.36	0.007	0.04	<0.1	3.4	0.03	<0.02	36	<0.1	<0.02	7.4	2.12	<0.1	0.05
D00155517	Soil	4.3	92.2	1.46	64.0	0.067	2	2.91	0.007	0.05	0.1	5.9	0.04	0.03	95	0.4	<0.02	9.4	2.40	<0.1	<0.02
D00155520	Pulp	29.5	68.1	1.23	378.2	0.335	4	2.07	0.200	1.18	2.3	7.2	0.70	0.34	11	1.3	0.26	8.1	9.49	0.2	0.31
D00155521	Soil	7.3	54.1	0.68	69.1	0.094	2	2.03	0.006	0.04	0.1	4.0	0.04	<0.02	42	0.2	<0.02	9.3	2.40	<0.1	0.03
D00155522	Soil	3.2	56.3	1.16	66.0	0.124	3	3.88	0.006	0.04	<0.1	10.7	0.03	0.03	163	0.4	0.03	11.9	3.25	<0.1	0.07
D00155525	Soil	5.8	39.3	0.86	50.8	0.093	3	2.61	0.009	0.05	0.1	6.1	0.03	<0.02	148	0.2	<0.02	7.0	4.39	<0.1	0.05
D00155526	Soil	4.9	42.4	0.54	74.1	0.115	2	1.57	0.009	0.04	0.2	3.8	0.04	<0.02	31	0.2	0.02	6.5	1.18	<0.1	0.06
D00155527	Soil	10.0	42.4	0.56	62.7	0.115	5	1.96	0.007	0.04	0.1	4.4	0.04	<0.02	35	<0.1	<0.02	8.5	3.27	<0.1	0.05
D00155528	Soil	14.5	65.4	0.54	89.0	0.045	1	2.24	0.007	0.04	<0.1	12.0	0.05	0.04	83	0.5	<0.02	6.5	8.30	<0.1	<0.02
D00155529	Soil	5.6	63.8	1.07	76.2	0.146	3	2.66	0.008	0.04	0.2	5.4	0.04	<0.02	74	0.2	0.02	9.3	1.58	<0.1	0.08

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	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
D00155509	Soil	0.65	8.6	0.3	<0.05	1.0	2.47	12.9	0.03	<1	0.3	13.3	<10	2
D00155510	Rock	<0.02	0.3	<0.1	<0.05	<0.1	0.24	0.7	<0.02	<1	<0.1	0.8	<10	<2
D00155511	Soil	0.50	9.0	0.3	<0.05	0.8	11.46	12.0	0.02	<1	0.6	11.8	<10	<2
D00155512	Soil	0.76	8.2	0.4	<0.05	0.7	2.43	13.8	<0.02	<1	0.2	7.6	<10	<2
D00155513	Soil	0.83	7.4	0.3	<0.05	1.5	2.56	11.1	<0.02	<1	0.3	10.3	<10	<2
D00155516	Soil	0.92	8.9	0.5	<0.05	2.0	2.66	15.4	<0.02	<1	0.1	6.3	<10	<2
D00155517	Soil	0.80	7.1	0.3	<0.05	0.8	3.30	8.6	0.03	<1	0.3	15.3	<10	<2
D00155520	Pulp	0.31	134.6	2.4	<0.05	7.9	16.58	60.3	0.04	2	0.5	30.6	<10	<2
D00155521	Soil	1.68	7.0	0.7	<0.05	1.2	2.07	14.3	0.02	<1	0.2	11.7	<10	<2
D00155522	Soil	1.04	4.3	0.6	<0.05	3.0	3.49	7.3	0.04	<1	0.6	25.5	<10	<2
D00155525	Soil	0.60	6.5	0.3	<0.05	2.3	4.67	11.9	0.03	<1	0.5	15.4	<10	<2
D00155526	Soil	0.83	9.2	0.3	<0.05	2.5	3.36	9.8	<0.02	<1	0.2	9.1	<10	<2
D00155527	Soil	1.49	7.7	0.5	<0.05	2.3	4.71	19.3	0.03	<1	0.5	17.2	<10	<2
D00155528	Soil	1.01	7.6	0.5	<0.05	0.7	26.50	22.5	0.03	<1	0.9	20.8	<10	<2
D00155529	Soil	1.31	6.5	0.4	<0.05	3.9	3.38	11.0	0.02	<1	0.3	14.7	<10	<2

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

QUALITY CONTROL REPORT VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
D00155491	Soil	0.81	83.99	5.66	52.9	494	18.5	12.3	1215	2.53	6.6	1.3	2.8	0.4	62.9	0.92	0.50	0.12	72	1.72	0.239
REP D00155491	QC	0.82	84.59	5.67	53.4	481	18.5	12.3	1198	2.51	6.5	1.4	2.1	0.4	64.2	0.93	0.49	0.12	72	1.73	0.238
D00155520	Pulp	98.12	2742.76	7.54	70.5	435	57.7	14.1	390	3.90	22.7	4.5	207.3	18.1	60.4	0.12	1.19	0.63	112	0.99	0.091
REP D00155520	QC	99.09	2758.22	7.74	72.6	452	58.7	14.3	395	3.94	23.6	4.7	211.3	18.4	61.9	0.12	1.26	0.65	113	0.99	0.092
Reference Materials																					
STD BVGEO01	Standard	10.61	4342.22	178.35	1725.3	2611	166.4	25.3	708	3.72	114.7	3.6	207.3	13.5	54.4	6.10	2.27	23.04	74	1.26	0.071
STD DS11	Standard	14.45	144.31	126.65	343.9	1755	80.7	14.2	1027	3.24	43.1	2.4	77.1	7.2	65.7	2.30	6.93	10.66	47	1.05	0.068
STD OREAS262	Standard	0.66	117.10	54.11	150.6	482	65.3	28.8	553	3.37	36.0	1.2	51.6	8.8	34.7	0.62	3.28	0.96	22	3.12	0.039
STD OREAS262	Standard	0.64	114.65	53.23	148.5	469	64.9	28.3	550	3.29	35.2	1.1	48.5	8.6	34.0	0.61	3.02	0.92	22	2.87	0.038
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD BVGEO01 Expected		11.2	4415	187	1741	2530	163	25	733	3.7	121	3.77	219	14.4	55	6.5	3.39	25.6	73	1.3219	0.0727
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	0.02	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	0.2	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
Prep Wash																					
ROCK-VAN	Prep Blank	0.66	3.15	0.78	27.2	6	0.8	3.4	449	1.65	0.6	0.4	0.4	2.1	15.3	0.01	0.03	<0.02	20	0.48	0.038

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

QUALITY CONTROL REPORT VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
D00155491	Soil	11.3	47.7	0.51	110.4	0.021	2	1.87	0.010	0.06	<0.1	2.7	0.05	0.12	150	1.1	<0.02	5.0	7.63	<0.1	0.06
REP D00155491	QC	11.4	47.6	0.52	111.4	0.022	2	1.87	0.009	0.06	0.1	2.7	0.05	0.12	184	1.1	<0.02	5.1	7.60	<0.1	0.06
D00155520	Pulp	29.5	68.1	1.23	378.2	0.335	4	2.07	0.200	1.18	2.3	7.2	0.70	0.34	11	1.3	0.26	8.1	9.49	0.2	0.31
REP D00155520	QC	30.5	70.3	1.23	391.4	0.345	4	2.08	0.198	1.18	2.4	7.2	0.72	0.35	14	1.4	0.25	8.2	9.74	0.2	0.33
Reference Materials																					
STD BVGEO01	Standard	24.7	177.5	1.33	210.7	0.230	4	2.28	0.192	0.89	4.5	5.9	0.60	0.69	85	4.5	0.98	7.0	7.13	0.1	0.35
STD DS11	Standard	17.1	60.1	0.85	339.0	0.089	7	1.15	0.075	0.40	2.7	3.2	4.66	0.27	247	2.3	4.75	4.9	2.77	<0.1	0.07
STD OREAS262	Standard	15.2	44.5	1.17	240.9	0.003	5	1.29	0.070	0.30	0.2	3.2	0.45	0.26	152	0.5	0.23	3.8	2.45	<0.1	0.28
STD OREAS262	Standard	15.6	44.4	1.21	238.4	0.003	4	1.33	0.070	0.31	0.1	3.2	0.44	0.27	169	0.5	0.23	3.9	2.52	<0.1	0.28
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD BVGEO01 Expected		25.9	187	1.2963	260	0.233	3.8	2.347	0.1924	0.89	5.3	5.97	0.62	0.6655	100	4.84	1.02	7.37	7.36	0.15	0.32
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
Prep Wash																					
ROCK-VAN	Prep Blank	5.4	2.7	0.45	39.0	0.064	2	0.72	0.062	0.06	<0.1	2.2	<0.02	<0.02	<5	<0.1	<0.02	3.2	0.16	<0.1	0.12

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: September 30, 2021

QUALITY CONTROL REPORT VAN21002674.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
D00155491	Soil	0.46	7.2	0.3	<0.05	1.5	14.36	15.5	<0.02	<1	0.5	9.0	<10	<2
REP D00155491	QC	0.48	7.2	0.3	<0.05	1.6	14.63	15.6	<0.02	<1	0.5	9.1	<10	<2
D00155520	Pulp	0.31	134.6	2.4	<0.05	7.9	16.58	60.3	0.04	2	0.5	30.6	<10	<2
REP D00155520	QC	0.32	133.7	2.4	<0.05	8.2	16.86	61.6	0.04	2	0.5	30.9	<10	<2
Reference Materials														
STD BVGEO01	Standard	0.18	95.3	5.3	<0.05	10.4	14.46	50.2	0.44	4	0.7	20.3	141	171
STD DS11	Standard	1.48	34.2	1.7	<0.05	3.2	7.96	34.4	0.24	48	0.7	22.9	95	169
STD OREAS262	Standard	<0.02	18.3	0.5	<0.05	11.9	11.00	29.9	0.03	<1	1.1	17.1	<10	<2
STD OREAS262	Standard	<0.02	18.8	0.5	<0.05	11.8	10.85	30.7	0.03	<1	1.1	16.9	<10	<2
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD BVGEO01 Expected		0.3	95	5.64		9.1	14.5	53	0.47	4	0.69	21.4	134	182
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
Prep Wash														
ROCK-VAN	Prep Blank	0.13	1.7	0.3	<0.05	3.2	8.14	11.2	<0.02	<1	0.2	1.3	<10	<2

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	September 30, 2021
Analysis Start:	November 12, 2021
Report Date:	December 28, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21003308.1

CLIENT JOB INFORMATION

Project:	Mt. Milligan
Shipment ID:	MTM21-Rock_03
P.O. Number	M27463
Number of Samples:	10

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP80-250	9	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	1	Sort, label and box pulps			VAN
FA430	10	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
MA200	10	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN
CV400	10	Hg by 0.5g/10ml Aqua Regia, CVAA	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC: Mt. Milligan Data Distribution List

BRITISH COLUMBIA CERTIFIED ASSAYER
Marcus Lau
MARCUS LAU
Production Manager

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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.

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299 Victoria Street, Suite 200
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Project: Mt. Milligan
Report Date: December 28, 2021

CERTIFICATE OF ANALYSIS VAN21003308.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
D00155531	Rock	2.04	0.006	2.2	88.8	2.7	83	<0.1	152.7	44.3	1442	7.40	5	0.4	0.6	395	0.2	1.7	<0.1	262	6.13
D00155532	Rock	1.92	0.016	1.9	80.3	3.0	84	<0.1	142.8	41.6	1412	7.72	2	0.4	0.8	377	0.1	0.6	<0.1	262	6.19
D00155537	Rock	1.33	0.005	2.6	47.3	3.6	22	<0.1	4.4	4.8	387	2.97	4	2.4	4.4	628	<0.1	1.1	<0.1	77	2.43
D00155541	Rock	2.15	0.011	2.9	106.3	11.1	139	0.2	115.3	47.3	1859	8.83	9	0.4	0.9	197	0.8	3.7	<0.1	362	4.66
D00155558	Rock	2.57	<0.005	1.3	41.5	2.8	50	<0.1	43.4	22.9	967	4.52	4	0.3	0.5	319	0.1	4.4	<0.1	200	4.54
D00155559	Rock	1.70	0.007	2.0	44.3	5.6	71	<0.1	15.3	15.7	936	4.17	5	1.3	2.5	568	0.1	3.1	<0.1	140	3.17
D00155560	Rock Pulp	0.13	0.239	99.9	2873.4	28.1	93	0.7	25.3	11.0	421	3.65	13	4.4	15.3	240	0.3	4.4	1.4	80	1.97
D00155561	Rock	2.72	0.006	0.8	117.6	5.0	102	<0.1	31.1	41.2	1398	8.70	10	0.5	1.4	832	0.1	11.3	<0.1	388	5.69
D00155578	Rock	3.58	0.007	1.0	111.6	3.9	88	<0.1	29.1	33.3	1345	7.25	2	0.6	1.0	775	0.2	1.0	<0.1	338	6.42
D00155580	Rock	1.51	<0.005	<0.1	0.6	1.2	4	<0.1	<0.1	0.2	139	0.13	<1	<0.1	<0.1	42	<0.1	0.4	<0.1	1	21.57

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299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: December 28, 2021

CERTIFICATE OF ANALYSIS VAN21003308.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
D00155531	Rock	0.107	4.7	363	6.27	622	0.490	8.12	1.915	2.08	0.2	24.3	10	0.6	13.2	2.1	0.1	<1	35	25.3	0.8
D00155532	Rock	0.128	5.6	248	6.41	628	0.520	7.77	1.695	1.88	0.2	30.6	11	0.6	14.5	3.1	0.2	<1	33	31.7	0.4
D00155537	Rock	0.065	19.3	9	0.58	1321	0.344	9.32	4.017	3.76	0.6	92.7	35	1.1	17.7	18.8	1.1	2	4	7.3	<0.1
D00155541	Rock	0.146	7.4	295	6.60	30	0.747	7.29	1.459	2.05	0.6	17.2	16	1.0	19.6	4.0	0.2	1	48	29.4	1.9
D00155558	Rock	0.060	3.6	109	2.96	709	0.268	4.34	1.524	0.94	0.2	11.3	7	0.4	8.7	1.3	<0.1	<1	25	14.0	<0.1
D00155559	Rock	0.119	10.1	30	1.48	599	0.343	9.16	5.717	1.70	0.3	70.6	21	0.8	13.6	5.2	0.4	<1	11	5.1	<0.1
D00155560	Rock Pulp	0.096	40.7	48	0.91	918	0.418	8.34	2.380	3.45	10.0	67.8	77	5.1	17.1	12.1	1.0	3	10	55.6	0.4
D00155561	Rock	0.178	10.2	47	3.69	1614	0.626	8.87	3.352	2.00	0.5	33.1	20	0.8	17.0	3.8	0.2	<1	38	27.0	<0.1
D00155578	Rock	0.141	7.7	65	3.24	751	0.623	8.61	2.853	1.35	0.2	37.3	16	0.8	18.1	3.9	0.2	<1	32	12.5	0.1
D00155580	Rock	0.002	0.5	1	12.63	5	0.003	0.05	0.010	0.02	<0.1	0.3	<1	<0.1	0.3	<0.1	<0.1	<1	<1	1.7	<0.1

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Report Date: December 28, 2021

CERTIFICATE OF ANALYSIS VAN21003308.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	CV402
	Analyte	Rb	Hf	In	Re	Se	Te	Tl	CVHg
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5	0.01
D00155531	Rock	46.4	0.9	<0.05	<0.005	<1	<0.5	<0.5	0.02
D00155532	Rock	32.4	1.0	<0.05	<0.005	<1	<0.5	<0.5	0.02
D00155537	Rock	90.3	2.7	<0.05	<0.005	<1	<0.5	<0.5	<0.01
D00155541	Rock	63.3	0.7	0.05	<0.005	1	<0.5	<0.5	0.03
D00155558	Rock	16.6	0.5	<0.05	<0.005	<1	<0.5	<0.5	<0.01
D00155559	Rock	27.3	1.9	<0.05	<0.005	<1	<0.5	<0.5	0.08
D00155560	Rock Pulp	174.8	2.0	0.08	0.045	2	<0.5	0.9	0.02
D00155561	Rock	29.6	1.3	0.06	<0.005	<1	<0.5	<0.5	<0.01
D00155578	Rock	34.1	1.4	0.06	<0.005	<1	<0.5	<0.5	0.03
D00155580	Rock	0.8	<0.1	<0.05	<0.005	<1	<0.5	<0.5	<0.01

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: December 28, 2021

QUALITY CONTROL REPORT VAN21003308.1

	Method	WGHT	FA430	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.005	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
Reference Materials																					
STD OREAS263	Standard		0.206																		
STD OREAS45H	Standard			1.6	800.8	13.0	41	<0.1	472.0	99.4	433	21.60	17	1.7	7.5	30	<0.1	0.9	0.2	284	0.15
STD OREAS501D	Standard			96.2	2780.7	26.5	91	0.6	21.8	10.5	395	3.42	10	4.2	14.6	225	0.3	2.6	1.3	75	1.88
STD OREAS623	Standard																				
STD OREAS620	Standard																				
STD OXG140	Standard		1.005																		
STD OXN155	Standard		7.628																		
STD OXN155 Expected			7.776																		
STD OREAS263 Expected			0.214																		
STD OXG140 Expected			1.019																		
STD OREAS623 Expected																					
STD OREAS620 Expected																					
STD OREAS45H Expected				1.55	767	12.2	39.7	0.147	451	92	405	20.4	16.9	1.68	7.6	28		0.63	0.17	275	0.135
STD OREAS501D Expected				95	2720	25.2	90	0.664	21	9.57	370	3.37	15.1	3.88	14	212	0.3	2.25	1.26	71	1.85
BLK	Blank		0.006																		
BLK	Blank		<0.005																		
BLK	Blank																				
BLK	Blank			<0.1	0.2	<0.1	<1	<0.1	<0.1	<0.2	4	<0.01	<1	<0.1	<0.1	<1	<0.1	0.5	<0.1	<1	<0.01
Prep Wash																					
ROCK-VAN	Prep Blank		0.005	1.6	3.4	2.7	32	<0.1	1.8	4.1	654	2.16	3	1.4	3.2	221	<0.1	0.9	<0.1	36	1.58

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: December 28, 2021

QUALITY CONTROL REPORT VAN21003308.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
	Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Reference Materials																					
STD OREAS263	Standard																				
STD OREAS45H	Standard	0.024	13.7	722	0.27	353	0.945	8.62	0.102	0.23	0.9	124.5	25	2.0	9.8	14.1	0.9	1	62	14.4	<0.1
STD OREAS501D	Standard	0.090	38.4	45	0.87	1043	0.393	8.05	2.276	3.33	9.7	66.1	76	4.8	16.4	11.9	1.0	3	10	52.0	0.4
STD OREAS623	Standard																				
STD OREAS620	Standard																				
STD OXG140	Standard																				
STD OXN155	Standard																				
STD OXN155 Expected																					
STD OREAS263 Expected																					
STD OXG140 Expected																					
STD OREAS623 Expected																					
STD OREAS620 Expected																					
STD OREAS45H Expected		0.023	13.3	660	0.2575	342	0.878	8.2	0.09	0.215	0.9	126	24.3	1.93	10.4	13.8	1	1.09	59	13.9	
STD OREAS501D Expected		0.087	34.8	45.4	0.827	993	0.359	7.69	2.07	3.01	8.56	62	73	4.86	15.7	12.2	1.09	2.65	9.47	51	0.38
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	0.002	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
Prep Wash																					
ROCK-VAN	Prep Blank	0.043	15.7	6	0.57	841	0.216	7.49	3.779	1.76	0.3	49.9	26	0.8	16.3	5.6	0.4	<1	7	2.3	<0.1

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: December 28, 2021

QUALITY CONTROL REPORT VAN21003308.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	CV402
	Analyte	Rb	Hf	In	Re	Se	Te	Tl	CVHg
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.1	0.1	0.05	0.005	1	0.5	0.5	0.01
Reference Materials									
STD OREAS263	Standard								
STD OREAS45H	Standard	23.7	3.4	0.10	<0.005	2	<0.5	<0.5	
STD OREAS501D	Standard	163.1	2.0	0.08	0.043	2	<0.5	0.9	
STD OREAS623	Standard								0.77
STD OREAS620	Standard								2.23
STD OXG140	Standard								
STD OXN155	Standard								
STD OXN155 Expected									
STD OREAS263 Expected									
STD OXG140 Expected									
STD OREAS623 Expected									0.79
STD OREAS620 Expected									2.14
STD OREAS45H Expected		22.5	3.42	0.1		2.02			
STD OREAS501D Expected		164	2	0.086	0.049			0.91	
BLK	Blank								
BLK	Blank								
BLK	Blank								<0.01
BLK	Blank	<0.1	<0.1	<0.05	<0.005	<1	<0.5	<0.5	
Prep Wash									
ROCK-VAN	Prep Blank	32.7	1.6	<0.05	<0.005	<1	<0.5	<0.5	<0.01

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	September 30, 2021
Analysis Start:	November 04, 2021
Report Date:	November 10, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21003309.1

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Soil_02
P.O. Number	M27463
Number of Samples:	8

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	7	Dry at 60C sieve 100g to -80 mesh			VAN
PRP70-250	1	Crush, split and pulverize 250 g rock to 200 mesh			VAN
AQ252_EXT	8	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

JEFFREY CANNON
Geochemistry Department Supervisor

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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.

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: November 10, 2021

CERTIFICATE OF ANALYSIS VAN21003309.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155564	Soil	0.91	68.34	6.66	120.0	603	47.9	10.4	337	3.41	5.4	1.5	3.1	1.2	35.8	0.26	0.47	0.18	73	0.42	0.121
D00155566	Soil	0.65	40.44	5.78	113.6	420	43.2	12.0	673	3.16	5.2	0.9	3.0	1.6	42.8	1.12	0.64	0.12	71	0.70	0.090
D00155567	Soil	1.20	149.53	8.82	129.6	637	67.5	25.0	791	5.40	9.2	1.1	3.5	2.2	57.6	0.57	0.53	0.17	169	0.87	0.163
D00155568	Soil	3.30	87.87	7.85	79.3	746	34.7	18.0	620	3.09	3.3	1.2	4.3	0.6	51.5	0.51	0.31	0.15	109	0.87	0.138
D00155569	Soil	1.55	145.89	5.74	87.9	1148	62.9	9.7	308	3.04	3.3	1.5	3.4	1.1	55.8	0.96	0.43	0.15	61	1.25	0.215
D00155570	Rock	0.04	0.41	1.10	<0.1	8	<0.1	0.6	142	0.12	<0.1	<0.1	0.7	<0.1	38.1	0.02	<0.02	<0.02	<1	21.28	0.002
D00155571	Soil	0.94	30.67	4.68	92.4	218	35.1	12.3	347	3.53	10.4	0.3	20.2	1.5	22.9	0.38	0.62	0.07	96	0.40	0.191
D00155572	Soil	10.70	2319.78	5.76	43.7	602	10.8	12.7	386	5.01	14.4	0.5	340.6	1.1	108.1	0.20	0.41	0.16	195	1.65	0.127

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: November 10, 2021

CERTIFICATE OF ANALYSIS VAN21003309.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
D00155564	Soil	12.7	67.1	0.86	261.9	0.035	3	3.34	0.009	0.13	0.1	7.7	0.16	<0.02	130	0.5	0.05	9.5	1.62	<0.1	<0.02
D00155566	Soil	10.7	49.4	0.71	217.9	0.067	3	2.05	0.012	0.13	0.1	7.2	0.11	<0.02	45	0.5	0.03	6.1	1.04	<0.1	0.04
D00155567	Soil	13.2	102.5	1.96	252.3	0.180	3	3.20	0.008	0.22	0.2	9.1	0.11	<0.02	66	0.4	0.06	10.2	1.72	<0.1	0.07
D00155568	Soil	7.6	57.7	0.64	189.5	0.056	2	2.08	0.008	0.09	0.1	4.5	0.09	0.04	83	0.5	0.03	7.9	1.51	<0.1	0.02
D00155569	Soil	11.1	64.5	0.68	305.6	0.039	4	3.75	0.011	0.15	0.1	10.1	0.16	0.12	136	1.3	0.03	8.1	1.49	<0.1	0.10
D00155570	Rock	<0.5	0.8	11.52	3.5	<0.001	<1	0.02	0.004	0.02	<0.1	<0.1	<0.02	<0.02	<5	0.4	<0.02	<0.1	0.06	<0.1	<0.02
D00155571	Soil	6.1	41.5	0.59	108.7	0.068	2	2.02	0.008	0.06	0.2	4.6	0.06	<0.02	39	0.3	0.03	5.4	0.64	<0.1	0.07
D00155572	Soil	7.5	19.8	0.75	200.5	0.113	24	1.18	0.090	0.19	0.4	4.0	<0.02	0.27	53	2.7	0.06	8.0	0.96	0.3	0.21

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299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: November 10, 2021

CERTIFICATE OF ANALYSIS VAN21003309.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
		MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
D00155564	Soil		0.95	14.0	0.7	<0.05	0.7	7.83	25.6	0.04	<1	0.8	21.3	<10	<2
D00155566	Soil		0.77	11.6	0.5	<0.05	1.4	8.74	19.4	0.02	1	0.6	14.3	<10	<2
D00155567	Soil		1.90	21.9	0.6	<0.05	3.0	12.40	20.6	0.03	<1	1.0	24.4	<10	<2
D00155568	Soil		1.09	13.5	0.5	<0.05	1.1	4.99	15.6	0.03	1	0.4	14.8	<10	<2
D00155569	Soil		1.28	14.6	0.5	<0.05	3.0	11.40	20.7	0.05	3	1.1	15.1	<10	<2
D00155570	Rock		<0.02	0.4	<0.1	<0.05	<0.1	0.27	0.9	<0.02	<1	<0.1	1.0	<10	<2
D00155571	Soil		0.57	6.6	0.2	<0.05	2.7	4.36	12.7	0.02	<1	0.5	14.2	<10	3
D00155572	Soil		0.06	8.3	0.9	<0.05	5.5	10.24	14.3	0.05	38	0.6	10.4	25	<2

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Project: MAX
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QUALITY CONTROL REPORT VAN21003309.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
D00155567	Soil	1.20	149.53	8.82	129.6	637	67.5	25.0	791	5.40	9.2	1.1	3.5	2.2	57.6	0.57	0.53	0.17	169	0.87	0.163
REP D00155567	QC	1.21	151.64	9.40	128.7	650	67.2	25.1	804	5.41	9.5	1.2	4.3	2.3	61.1	0.59	0.51	0.18	172	0.86	0.159
Reference Materials																					
STD DS11	Standard	14.96	146.53	135.40	336.2	1722	77.1	13.1	1036	3.10	44.6	2.6	76.5	8.0	68.0	2.49	8.55	11.81	47	1.06	0.080
STD OREAS262	Standard	0.72	114.19	56.73	153.2	474	62.6	26.3	547	3.31	38.2	1.2	62.1	9.8	36.1	0.68	5.19	1.07	22	3.05	0.043
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	0.02	0.02	0.4	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
Prep Wash																					
ROCK-VAN	Prep Blank	0.72	2.12	0.85	28.1	8	0.7	3.2	438	1.66	1.0	0.4	4.7	2.1	16.4	0.02	0.04	<0.02	20	0.54	0.047

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: November 10, 2021

QUALITY CONTROL REPORT VAN21003309.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
D00155567	Soil	13.2	102.5	1.96	252.3	0.180	3	3.20	0.008	0.22	0.2	9.1	0.11	<0.02	66	0.4	0.06	10.2	1.72	<0.1	0.07
REP D00155567	QC	13.3	109.0	1.96	264.6	0.181	3	3.19	0.008	0.22	0.2	9.3	0.11	<0.02	72	0.4	0.05	10.2	1.72	<0.1	0.07
Reference Materials																					
STD DS11	Standard	18.0	54.1	0.85	385.0	0.084	7	1.14	0.073	0.39	3.0	3.7	4.95	0.27	266	2.1	4.59	4.8	2.88	<0.1	0.08
STD OREAS262	Standard	18.1	40.2	1.19	255.4	0.003	4	1.32	0.068	0.32	0.2	3.7	0.48	0.26	154	0.4	0.24	3.9	2.79	<0.1	0.29
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
Prep Wash																					
ROCK-VAN	Prep Blank	6.1	2.7	0.44	48.9	0.068	1	0.72	0.071	0.07	<0.1	3.0	<0.02	<0.02	<5	<0.1	<0.02	3.4	0.17	<0.1	0.12

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: November 10, 2021

QUALITY CONTROL REPORT VAN21003309.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
D00155567	Soil	1.90	21.9	0.6	<0.05	3.0	12.40	20.6	0.03	<1	1.0	24.4	<10	<2
REP D00155567	QC	1.87	23.1	0.6	<0.05	3.0	12.63	21.2	0.03	<1	1.0	24.8	<10	<2
Reference Materials														
STD DS11	Standard	1.79	31.8	2.1	<0.05	3.0	8.56	38.8	0.23	43	0.6	25.1	97	173
STD OREAS262	Standard	<0.02	19.1	0.5	<0.05	11.7	11.32	38.2	0.03	<1	1.3	18.9	<10	<2
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	0.3	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
Prep Wash														
ROCK-VAN	Prep Blank	0.22	2.1	0.7	<0.05	2.9	9.01	13.0	<0.02	<1	0.2	1.6	<10	<2

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	September 30, 2021
Analysis Start:	November 04, 2021
Report Date:	November 15, 2021
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN21003310.1

CLIENT JOB INFORMATION

Project:	Mt. Milligan
Shipment ID:	MTM21-Soil_03
P.O. Number	M27463
Number of Samples:	29

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	26	Dry at 60C sieve 100g to -80 mesh			VAN
PRP70-250	1	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	2	Sort, label and box pulps			VAN
AQ252_EXT	29	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

JEFFREY CANNON
Geochemistry Department Supervisor

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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.

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: November 15, 2021

CERTIFICATE OF ANALYSIS VAN21003310.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
D00155533	Soil	1.27	186.67	5.39	90.7	421	44.6	17.5	1254	3.34	23.6	7.5	7.4	0.9	70.2	0.62	1.38	0.08	98	1.53	0.155
D00155534	Soil	1.42	106.07	6.16	84.9	683	33.7	15.3	1196	3.98	8.2	1.1	4.6	0.6	53.5	0.47	0.59	0.14	106	0.83	0.140
D00155535	Soil	0.51	58.74	3.66	37.4	117	27.7	15.4	507	3.32	6.4	0.5	258.8	1.1	42.9	0.13	0.64	0.04	100	0.64	0.105
D00155536	Soil	0.95	87.93	6.08	77.7	446	28.8	15.6	832	3.30	5.9	0.8	3.7	0.7	47.3	0.56	0.43	0.13	90	0.82	0.117
D00155538	Soil	2.49	93.35	14.14	56.1	180	38.7	30.2	775	7.46	15.7	0.3	5.9	1.0	19.8	0.36	0.86	0.19	129	0.23	0.108
D00155539	Soil	0.90	47.12	6.59	52.0	137	27.5	17.8	424	3.79	5.7	0.4	5.3	2.3	29.7	0.21	0.42	0.08	93	0.27	0.120
D00155540	Pulp	89.35	2622.33	7.60	68.9	440	55.8	13.8	371	3.60	24.1	5.1	213.4	20.8	59.5	0.26	1.97	0.68	103	0.92	0.097
D00155542	Soil	0.48	94.37	4.85	31.9	504	20.4	10.6	239	3.35	3.9	0.3	2.9	1.4	40.6	0.17	0.38	0.07	76	0.40	0.316
D00155543	Soil	0.65	34.32	4.49	48.4	494	27.8	15.8	671	3.19	2.4	0.2	1.7	0.8	37.2	0.22	0.43	0.06	97	0.34	0.119
D00155544	Soil	0.32	91.42	2.23	80.0	161	183.6	46.4	1244	6.75	7.1	0.2	0.7	0.4	27.6	0.08	1.90	<0.02	210	0.28	0.120
D00155545	Soil	1.64	445.53	12.12	120.5	1824	69.1	42.7	2914	4.41	6.4	0.9	8.7	1.0	49.7	3.18	0.68	0.14	76	0.95	0.130
D00155546	Soil	0.82	58.71	4.43	48.7	179	28.6	16.2	402	3.68	5.0	0.4	7.1	1.4	37.5	0.24	0.44	0.05	96	0.37	0.120
D00155547	Soil	0.58	65.91	4.26	63.5	171	39.5	19.9	485	4.18	5.5	0.4	4.5	1.3	44.5	0.16	0.44	0.05	122	0.51	0.084
D00155548	Soil	0.57	47.61	6.94	48.0	325	30.3	21.5	738	4.48	2.9	0.2	4.3	1.6	33.5	0.12	0.34	0.15	122	0.34	0.063
D00155549	Soil	1.23	297.03	6.10	62.6	881	28.2	12.2	1039	3.24	12.9	1.8	4.2	0.7	43.3	0.36	0.73	0.15	140	0.94	0.170
D00155550	Soil	1.23	308.32	6.19	63.8	958	28.8	12.6	1035	3.28	12.9	1.9	3.7	1.5	43.9	0.35	0.77	0.16	144	0.98	0.181
D00155551	Soil	0.75	50.63	4.63	65.4	367	30.2	13.9	505	3.98	7.2	0.4	7.0	0.9	54.4	0.21	0.67	0.08	116	0.54	0.070
D00155552	Soil	0.72	60.15	4.11	47.2	321	25.4	12.0	337	3.35	7.5	0.4	7.8	0.8	36.8	0.16	0.46	0.08	94	0.44	0.058
D00155553	Soil	0.75	90.12	5.40	66.7	362	24.6	11.0	676	3.06	4.9	0.6	4.9	0.6	41.8	0.27	0.41	0.13	84	0.68	0.074
D00155554	Soil	0.88	37.32	3.80	46.0	129	23.4	10.3	319	3.75	7.5	0.6	5.3	1.0	34.6	0.26	0.51	0.05	103	0.42	0.084
D00155555	Soil	0.82	35.71	4.54	53.5	426	18.5	8.9	365	3.02	4.9	0.5	2.7	2.1	29.0	0.24	0.39	0.09	81	0.34	0.110
D00155556	Soil	0.54	32.62	3.44	44.6	96	19.7	8.3	322	2.50	3.7	0.4	3.7	0.9	44.3	0.12	0.34	0.05	74	0.61	0.060
D00155557	Soil	1.12	29.92	4.49	52.4	127	21.6	9.6	490	2.46	4.9	0.8	3.0	1.0	48.7	0.19	0.31	0.08	71	0.73	0.083
D00155562	Soil	2.05	103.20	4.76	84.9	378	64.9	23.7	967	6.46	9.2	0.3	0.7	0.6	31.7	0.21	1.58	0.05	160	0.17	0.196
D00155574	Pulp	9.71	2222.58	5.24	38.2	557	10.2	12.8	348	4.48	12.8	0.4	263.1	0.9	106.6	0.20	0.39	0.15	172	1.51	0.109
D00155575	Soil	0.94	53.56	4.89	63.9	343	42.3	17.2	466	5.18	6.1	0.4	0.3	1.9	44.9	0.15	0.67	0.08	151	0.30	0.192
D00155576	Soil	1.64	75.22	8.20	93.9	296	26.0	14.5	493	5.41	20.8	0.7	7.1	1.5	32.4	0.20	1.73	0.07	102	0.30	0.301
D00155577	Soil	0.91	42.43	4.84	48.6	344	17.2	10.6	294	3.17	2.9	0.6	2.7	1.5	38.3	0.16	0.36	0.10	94	0.32	0.103
D00155579	Rock	0.01	0.31	0.35	2.5	<2	<0.1	0.1	118	0.11	0.7	<0.1	<0.2	<0.1	46.5	<0.01	<0.02	<0.02	<1	20.66	0.002

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CERTIFICATE OF ANALYSIS VAN21003310.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
		MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
D00155533	Soil		8.6	136.6	0.90	57.3	0.051	3	2.04	0.008	0.05	<0.1	9.1	0.13	0.09	249	1.5	0.03	6.0	4.89	<0.1	0.07
D00155534	Soil		16.2	62.7	0.74	171.6	0.038	<1	3.21	0.008	0.08	0.1	4.6	0.07	0.04	107	0.7	0.03	7.5	2.52	<0.1	<0.02
D00155535	Soil		6.8	43.9	0.84	69.8	0.074	2	1.71	0.011	0.08	0.2	5.1	0.05	<0.02	37	0.3	0.03	4.4	0.80	<0.1	0.04
D00155536	Soil		10.3	54.3	0.75	117.6	0.056	2	2.24	0.009	0.07	0.1	5.7	0.07	0.03	58	0.4	0.04	6.7	2.26	<0.1	<0.02
D00155538	Soil		5.8	108.9	1.27	47.6	0.114	<1	2.27	0.004	0.05	0.1	5.5	0.05	0.05	53	1.5	0.10	8.3	0.87	<0.1	0.02
D00155539	Soil		7.9	63.9	0.83	70.9	0.108	<1	2.24	0.007	0.06	0.1	5.5	0.06	<0.02	42	0.1	0.04	6.7	1.61	<0.1	0.05
D00155540	Pulp		32.1	65.5	1.14	381.3	0.317	2	1.89	0.185	1.10	2.4	6.6	0.73	0.31	16	1.3	0.23	7.9	9.19	0.1	0.20
D00155542	Soil		6.2	68.3	0.62	43.1	0.082	<1	1.60	0.005	0.06	0.1	3.1	0.04	<0.02	63	0.5	<0.02	5.8	2.06	<0.1	0.05
D00155543	Soil		4.2	105.0	0.99	49.8	0.171	<1	1.69	0.006	0.05	0.2	3.4	0.07	<0.02	35	0.3	<0.02	7.9	1.42	<0.1	0.03
D00155544	Soil		1.5	559.1	4.70	102.6	0.070	2	4.43	0.004	0.13	<0.1	9.8	0.11	<0.02	144	0.1	<0.02	11.4	8.42	<0.1	<0.02
D00155545	Soil		16.2	98.3	1.02	161.6	0.054	1	2.45	0.009	0.05	0.1	10.1	0.18	0.05	300	1.4	0.05	7.0	1.99	<0.1	0.03
D00155546	Soil		5.4	77.0	1.06	63.5	0.142	1	2.36	0.007	0.05	0.2	5.0	0.05	<0.02	64	0.3	0.03	6.3	1.85	<0.1	0.04
D00155547	Soil		6.3	98.5	1.69	53.4	0.148	2	2.78	0.008	0.08	0.1	7.8	0.06	<0.02	48	0.5	<0.02	7.9	2.01	<0.1	0.03
D00155548	Soil		5.1	74.1	1.28	122.4	0.096	1	2.91	0.006	0.08	0.1	7.9	0.07	<0.02	50	0.3	<0.02	8.9	1.53	<0.1	<0.02
D00155549	Soil		22.4	119.9	0.77	122.8	0.023	1	2.40	0.007	0.05	<0.1	8.7	0.12	0.06	324	1.1	0.03	7.4	8.90	<0.1	0.04
D00155550	Soil		22.9	121.0	0.78	125.2	0.024	1	2.49	0.007	0.06	<0.1	8.6	0.12	0.07	370	1.5	<0.02	7.8	9.30	<0.1	0.10
D00155551	Soil		7.7	66.7	1.17	65.2	0.120	2	2.42	0.009	0.07	0.1	5.3	0.05	<0.02	63	0.5	<0.02	8.1	3.30	<0.1	0.04
D00155552	Soil		7.2	59.9	0.76	42.6	0.108	1	1.67	0.009	0.06	0.1	3.9	0.05	<0.02	48	0.4	0.04	6.0	1.05	<0.1	0.03
D00155553	Soil		12.3	56.6	0.59	92.1	0.061	2	1.94	0.008	0.06	<0.1	4.6	0.06	<0.02	77	0.4	0.02	6.7	4.99	<0.1	0.02
D00155554	Soil		6.7	45.3	0.67	64.3	0.121	1	2.22	0.009	0.05	0.1	4.3	0.04	<0.02	73	0.5	0.02	6.0	0.85	<0.1	0.04
D00155555	Soil		9.0	38.3	0.50	64.6	0.096	1	2.21	0.008	0.06	0.2	4.2	0.05	<0.02	64	0.3	0.04	5.9	0.83	<0.1	0.03
D00155556	Soil		7.5	36.2	0.58	84.9	0.097	4	1.61	0.010	0.05	0.1	3.5	0.04	<0.02	41	0.2	0.02	5.2	0.74	<0.1	0.03
D00155557	Soil		10.0	38.8	0.56	109.5	0.066	<1	1.70	0.009	0.07	<0.1	4.7	0.06	<0.02	55	0.4	0.03	5.0	0.80	<0.1	0.02
D00155562	Soil		4.3	201.6	1.61	68.4	0.039	<1	2.99	0.007	0.03	0.1	10.1	0.04	<0.02	66	0.4	0.04	10.4	2.05	<0.1	<0.02
D00155574	Pulp		6.9	20.0	0.68	161.0	0.095	21	1.01	0.085	0.17	0.3	3.1	<0.02	0.25	50	2.3	0.05	6.7	0.86	0.2	0.11
D00155575	Soil		5.9	137.8	1.25	54.6	0.122	2	2.86	0.006	0.06	0.1	8.0	0.05	<0.02	75	0.5	0.02	10.5	6.53	<0.1	0.04
D00155576	Soil		7.0	58.4	0.76	64.9	0.053	3	2.94	0.007	0.08	0.2	4.3	0.05	<0.02	101	0.6	0.03	7.1	2.50	<0.1	0.02
D00155577	Soil		8.3	38.2	0.81	70.6	0.109	3	2.85	0.007	0.06	0.1	6.1	0.05	0.02	103	0.6	0.02	8.7	2.46	<0.1	0.03
D00155579	Rock		<0.5	0.6	10.83	2.5	<0.001	<1	0.02	0.002	0.03	<0.1	1.0	<0.02	<0.02	<5	<0.1	<0.02	<0.1	0.05	<0.1	<0.02

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BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-serv

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: November 15, 2021

CERTIFICATE OF ANALYSIS VAN21003310.1

		Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
		MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
D00155533	Soil		0.60	12.2	0.3	<0.05	1.4	22.66	11.4	0.03	<1	0.8	16.2	30	3
D00155534	Soil		0.54	12.3	0.6	<0.05	0.6	18.72	24.6	0.03	<1	0.8	15.0	<10	2
D00155535	Soil		0.19	7.3	0.2	<0.05	1.1	6.96	18.4	0.02	<1	0.4	8.8	<10	3
D00155536	Soil		0.64	14.8	0.5	<0.05	0.6	10.38	17.8	0.03	<1	0.4	12.6	<10	<2
D00155538	Soil		1.31	8.3	0.4	<0.05	1.1	4.52	13.8	0.03	<1	0.2	11.0	<10	<2
D00155539	Soil		0.59	13.9	0.5	<0.05	2.8	3.46	15.1	0.02	<1	0.3	16.2	<10	<2
D00155540	Pulp		0.64	122.6	2.4	<0.05	4.6	16.26	63.4	0.04	1	0.5	31.4	17	<2
D00155542	Soil		0.75	19.7	0.3	<0.05	1.3	3.81	11.4	<0.02	<1	0.3	5.7	<10	2
D00155543	Soil		0.57	18.0	0.3	<0.05	1.0	2.60	8.4	<0.02	<1	0.1	8.3	<10	4
D00155544	Soil		0.03	9.8	0.2	<0.05	0.4	1.77	6.6	0.03	<1	0.4	49.6	<10	6
D00155545	Soil		0.91	12.0	0.5	<0.05	1.1	22.62	29.6	0.03	<1	0.7	17.4	27	3
D00155546	Soil		0.70	12.1	0.3	<0.05	2.1	3.76	10.9	<0.02	<1	0.3	13.6	<10	<2
D00155547	Soil		0.49	10.1	0.3	<0.05	1.4	5.08	12.3	0.03	<1	0.3	19.2	<10	3
D00155548	Soil		0.64	24.6	0.3	<0.05	0.8	3.04	10.8	0.04	<1	0.2	18.9	<10	4
D00155549	Soil		0.77	10.4	0.5	<0.05	1.2	51.49	22.3	0.04	<1	1.2	18.7	23	<2
D00155550	Soil		0.76	10.9	0.6	<0.05	2.5	51.41	22.8	0.02	<1	1.0	18.6	13	<2
D00155551	Soil		0.73	9.0	0.4	<0.05	1.5	4.49	14.9	0.03	<1	0.2	16.1	<10	2
D00155552	Soil		0.72	12.0	0.3	<0.05	1.2	4.87	14.0	<0.02	<1	<0.1	14.0	<10	<2
D00155553	Soil		0.66	17.6	0.5	<0.05	0.7	13.44	20.4	<0.02	<1	0.5	13.2	<10	<2
D00155554	Soil		0.64	5.8	0.3	<0.05	1.7	5.20	13.0	<0.02	<1	0.4	12.1	<10	<2
D00155555	Soil		0.84	9.0	0.4	<0.05	1.3	4.30	17.2	<0.02	<1	0.4	11.9	<10	<2
D00155556	Soil		0.43	7.1	0.3	<0.05	0.8	5.17	15.9	<0.02	<1	0.2	10.4	<10	<2
D00155557	Soil		0.40	9.1	0.2	<0.05	0.7	7.48	19.7	<0.02	<1	0.2	11.4	<10	<2
D00155562	Soil		0.20	5.7	0.3	<0.05	0.7	4.28	8.9	0.03	<1	0.7	13.1	<10	4
D00155574	Pulp		0.04	7.4	0.9	<0.05	3.0	9.06	12.5	0.03	32	0.6	9.2	16	<2
D00155575	Soil		0.62	10.9	0.5	<0.05	1.9	2.98	11.5	0.03	<1	0.3	16.7	<10	<2
D00155576	Soil		0.56	13.1	0.3	<0.05	0.7	3.55	13.9	0.03	<1	1.1	17.1	<10	<2
D00155577	Soil		1.34	8.2	0.6	<0.05	1.4	3.69	16.0	0.03	<1	0.2	14.6	<10	<2
D00155579	Rock		<0.02	0.4	<0.1	<0.05	<0.1	0.23	0.8	<0.02	<1	<0.1	0.8	<10	<2

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: November 15, 2021

QUALITY CONTROL REPORT VAN21003310.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
D00155549	Soil	1.23	297.03	6.10	62.6	881	28.2	12.2	1039	3.24	12.9	1.8	4.2	0.7	43.3	0.36	0.73	0.15	140	0.94	0.170
REP D00155549	QC	1.26	301.04	6.23	62.8	915	28.8	12.9	1060	3.27	12.7	1.9	3.4	0.7	44.7	0.40	0.76	0.15	142	0.93	0.176
Reference Materials																					
STD DS11	Standard	13.89	142.18	127.40	329.1	1600	77.6	13.9	985	2.99	40.9	2.5	59.5	7.9	69.2	2.07	8.89	11.15	47	1.01	0.068
STD OREAS262	Standard	0.63	112.65	53.58	147.9	443	63.0	27.3	522	3.10	34.5	1.2	63.3	8.8	37.0	0.60	4.81	1.04	21	2.84	0.038
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
Prep Wash																					
ROCK-VAN	Prep Blank	0.65	2.53	0.77	24.5	5	1.0	3.2	423	1.57	0.9	0.4	2.9	2.4	20.6	0.04	0.07	0.03	21	0.57	0.038

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: November 15, 2021

QUALITY CONTROL REPORT VAN21003310.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
D00155549	Soil	22.4	119.9	0.77	122.8	0.023	1	2.40	0.007	0.05	<0.1	8.7	0.12	0.06	324	1.1	0.03	7.4	8.90	<0.1	0.04
REP D00155549	QC	23.4	121.1	0.78	126.9	0.024	<1	2.42	0.007	0.05	<0.1	8.4	0.12	0.06	399	1.3	0.03	7.6	9.29	<0.1	0.06
Reference Materials																					
STD DS11	Standard	18.1	57.3	0.82	356.3	0.089	8	1.09	0.071	0.38	2.9	3.3	4.52	0.26	236	2.3	4.44	4.7	2.78	<0.1	0.06
STD OREAS262	Standard	17.0	42.6	1.12	239.7	0.003	5	1.27	0.065	0.30	0.2	3.3	0.45	0.25	159	0.5	0.27	3.9	2.75	<0.1	0.18
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
Prep Wash																					
ROCK-VAN	Prep Blank	6.2	2.7	0.46	48.2	0.069	2	0.67	0.060	0.06	<0.1	2.4	<0.02	<0.02	9	<0.1	<0.02	3.2	0.17	0.1	0.10

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: Mt. Milligan
Report Date: November 15, 2021

QUALITY CONTROL REPORT VAN21003310.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
D00155549	Soil	0.77	10.4	0.5	<0.05	1.2	51.49	22.3	0.04	<1	1.2	18.7	23	<2
REP D00155549	QC	0.73	10.7	0.6	<0.05	1.3	52.62	23.2	0.03	<1	1.1	18.9	25	2
Reference Materials														
STD DS11	Standard	1.55	31.8	1.7	<0.05	2.1	7.77	35.8	0.22	36	0.3	21.4	111	157
STD OREAS262	Standard	<0.02	18.6	0.6	<0.05	7.5	10.69	33.7	0.03	<1	0.6	16.5	<10	<2
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
Prep Wash														
ROCK-VAN	Prep Blank	0.16	1.8	0.4	<0.05	2.2	8.48	12.9	0.03	<1	0.2	1.2	<10	<2

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	December 13, 2021
Analysis Start:	February 08, 2022
Report Date:	March 02, 2022
Page:	1 of 3

CERTIFICATE OF ANALYSIS VAN21004332.2

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Till_02
P.O. Number	M27463
Number of Samples:	59

SAMPLE DISPOSAL

RTRN-PLP	Return 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.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS230	50	Dry at 60C sieve 100g to -230 mesh			VAN
SLBHP	9	Sort, label and box pulps			VAN
AQ252_EXT	59	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Version 2 : Results included for reweigh 6 stds with two up and down samples from each of the stds.

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
Marcus Lau
MARCUS LAU
Production Manager

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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 MINERAL LABORATORIES Canada

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

CERTIFICATE OF ANALYSIS VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
MAX21TD-001	Till	1.36	84.34	5.83	73.0	60	36.8	17.3	662	3.78	9.8	0.4	5.5	2.7	48.7	0.11	0.71	0.11	97	0.73	0.105
MAX21TD-002	Till	1.18	61.41	5.68	51.4	147	32.8	14.2	586	3.13	9.1	0.5	7.1	2.8	41.8	0.12	0.66	0.09	80	0.55	0.102
MAX21TD-003	Till	0.80	280.98	11.93	142.7	136	37.5	44.4	1522	7.74	1.7	0.4	1.1	0.9	34.8	0.24	0.12	0.07	226	1.54	0.138
MAX21TD-004	Till	2.19	117.99	6.28	76.9	133	40.2	24.7	828	4.63	11.1	0.5	8.6	2.6	63.7	0.17	0.69	0.08	122	0.97	0.110
MAX21TD-005	Till	1.81	90.47	6.82	75.4	69	39.8	22.1	841	4.07	12.2	0.5	6.0	2.9	48.3	0.17	0.65	0.09	96	0.76	0.098
MAX21TD-006	Till	1.63	81.22	6.07	65.5	153	37.1	18.8	742	3.50	11.0	0.5	7.5	2.3	58.4	0.21	0.68	0.08	94	0.71	0.097
MAX21TD-007	Till	1.83	73.91	5.69	59.1	82	34.8	20.2	705	3.57	10.6	0.4	8.3	1.8	57.8	0.19	0.55	0.07	89	0.69	0.102
MAX21TD-008	Till	1.89	85.35	7.18	82.2	149	52.2	20.0	923	3.72	12.7	0.4	9.1	2.7	47.9	0.45	0.80	0.13	87	0.75	0.093
MAX21TD-009	Till	2.21	109.13	5.25	67.7	209	33.3	26.9	779	4.48	12.8	0.4	6.7	1.9	68.5	0.11	0.52	0.10	113	0.89	0.123
MAX21TD-010	Till	2.63	100.54	6.48	74.0	341	44.3	22.4	938	4.04	13.9	0.5	6.1	2.5	60.8	0.29	0.70	0.10	102	0.93	0.104
MAX21TD-011	Till	4.47	313.72	5.72	93.1	186	38.7	44.2	1174	7.04	26.7	0.6	21.1	1.7	72.0	0.07	0.69	0.10	254	0.90	0.192
MAX21TD-012	Till	1.91	183.12	2.57	78.8	124	37.1	48.9	1003	5.26	10.5	0.3	3.2	1.0	290.6	0.07	0.34	0.05	151	1.28	0.092
MAX21TD-013	Till	3.79	115.67	2.18	59.0	123	25.9	30.9	801	7.42	6.9	0.3	9.7	0.9	52.4	0.05	0.23	0.05	152	0.67	0.185
MAX21TD-014	Till	5.39	101.63	5.59	47.9	127	12.7	15.4	576	5.64	14.5	0.3	11.4	0.6	236.9	0.02	0.29	0.18	135	0.88	0.194
MAX21TD-015	Till	2.60	108.46	5.99	61.6	140	35.6	28.9	623	4.73	17.3	0.4	9.7	1.6	82.3	0.15	0.92	0.12	132	0.75	0.147
MAX21TD-016	Pulp	11.96	153.39	272.67	200.6	106	76.3	47.5	264	1.47	9.4	0.4	36.3	3.2	33.2	0.59	0.21	0.12	22	0.56	0.053
MAX21TD-017	Till	1.38	269.28	4.57	87.4	225	183.3	65.2	1175	6.79	3.0	0.5	14.3	1.8	53.4	0.02	0.09	<0.02	187	1.43	0.226
MAX21TD-018	Till	3.54	125.55	22.64	85.5	172	59.6	37.0	682	6.19	17.3	0.4	11.1	1.5	70.7	0.14	0.40	0.29	171	0.66	0.121
MAX21TD-019	Pulp	0.54	22.20	1.98	19.4	20	16.9	5.9	243	1.33	1.2	0.4	0.8	3.0	29.2	0.04	0.06	<0.02	20	0.61	0.056
MAX21TD-020	Till	3.41	150.54	5.15	64.5	164	38.9	32.2	746	5.28	19.4	0.4	8.4	1.6	120.3	0.12	0.39	0.08	153	1.02	0.161
MAX21TD-021	Till	2.65	132.39	6.14	49.1	481	33.8	23.1	779	3.87	14.4	0.6	12.9	2.7	75.4	0.27	0.57	0.08	109	0.91	0.101
MAX21TD-022	Till	3.42	107.36	7.37	80.3	219	51.3	21.9	977	3.94	16.0	0.6	5.3	2.6	49.5	0.37	0.84	0.10	94	0.90	0.108
MAX21TD-023	Till	2.31	90.95	7.56	92.6	173	60.1	20.7	989	3.72	13.1	0.5	5.7	2.8	44.6	0.48	0.96	0.11	83	0.83	0.096
MAX21TD-024	Till	1.28	82.31	5.96	66.6	163	46.0	16.5	707	3.39	10.8	0.5	8.5	2.7	45.7	0.17	0.79	0.09	87	0.77	0.103
MAX21TD-025	Till	0.98	81.94	5.36	59.7	94	37.8	16.7	667	3.48	9.7	0.5	7.9	2.5	44.6	0.18	0.68	0.08	88	0.79	0.116
MAX21TD-026	Till Pulp	1.05	80.62	5.14	60.2	101	38.7	15.9	625	3.42	9.8	0.5	6.3	2.5	43.0	0.16	0.72	0.08	85	0.70	0.104
MAX21TD-027	Till	0.90	84.00	6.40	66.5	122	44.8	19.0	764	3.56	10.5	0.5	8.0	3.2	56.9	0.26	0.70	0.09	90	0.85	0.130
MAX21TD-028	Till	0.95	78.59	6.44	61.3	112	42.8	17.2	726	3.40	11.5	0.5	6.6	3.2	55.8	0.28	0.80	0.09	85	0.82	0.121
MAX21TD-029	Pulp	0.60	21.14	1.88	19.6	28	16.7	5.6	250	1.35	1.0	0.4	1.5	3.2	30.9	0.02	0.05	<0.02	21	0.63	0.054
MAX21TD-030	Till	1.62	70.40	6.69	62.0	256	42.1	17.2	676	3.69	11.1	0.5	5.2	3.0	56.7	0.12	0.67	0.07	94	0.70	0.092

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BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

CERTIFICATE OF ANALYSIS VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
MAX21TD-001	Till	10.5	49.6	1.03	155.2	0.117	2	2.03	0.024	0.24	0.3	8.3	0.17	<0.02	93	0.2	0.04	6.3	1.31	<0.1	0.19
MAX21TD-002	Till	10.8	47.7	0.70	145.8	0.101	1	1.74	0.020	0.07	0.6	7.4	0.08	<0.02	79	0.2	0.03	5.1	0.86	<0.1	0.10
MAX21TD-003	Till	3.1	75.7	3.60	250.9	0.221	<1	3.94	0.046	2.44	0.4	18.1	0.52	<0.02	11	0.2	<0.02	14.9	3.15	0.3	0.34
MAX21TD-004	Till	10.1	59.5	1.32	183.4	0.173	1	2.56	0.036	0.31	0.4	9.7	0.18	<0.02	116	0.3	0.05	8.2	1.45	0.2	0.16
MAX21TD-005	Till	11.3	54.9	0.98	144.0	0.134	3	2.23	0.024	0.22	0.2	10.3	0.15	<0.02	74	0.3	0.06	6.6	1.23	<0.1	0.12
MAX21TD-006	Till	10.1	53.1	0.85	155.1	0.121	2	1.96	0.024	0.15	0.5	8.7	0.13	<0.02	88	<0.1	0.05	6.0	1.08	<0.1	0.13
MAX21TD-007	Till	9.2	50.7	0.91	136.6	0.132	1	2.03	0.025	0.16	0.4	5.6	0.10	<0.02	34	0.4	0.07	6.2	0.98	0.1	0.05
MAX21TD-008	Till	11.1	55.6	0.86	138.4	0.102	2	1.86	0.022	0.17	0.3	9.1	0.12	<0.02	123	0.2	0.06	6.0	1.21	<0.1	0.12
MAX21TD-009	Till	8.0	48.4	1.25	110.0	0.189	3	2.52	0.033	0.29	0.7	7.9	0.13	<0.02	39	0.3	0.10	8.1	1.27	0.1	0.10
MAX21TD-010	Till	10.8	61.3	1.01	173.3	0.121	2	2.23	0.030	0.20	0.6	9.2	0.13	<0.02	75	0.2	0.05	6.9	1.30	<0.1	0.05
MAX21TD-011	Till	6.1	50.9	2.23	112.4	0.196	1	4.09	0.037	0.78	0.8	8.9	0.43	0.02	24	1.0	0.35	12.9	2.41	0.1	0.07
MAX21TD-012	Till	6.2	63.0	2.02	251.0	0.218	2	4.07	0.045	0.94	0.7	7.8	0.33	<0.02	11	0.2	0.16	9.6	2.40	0.1	0.08
MAX21TD-013	Till	2.4	68.4	1.86	60.0	0.232	1	2.76	0.018	0.41	0.6	8.0	0.15	0.13	10	1.8	0.35	6.8	1.34	0.2	0.12
MAX21TD-014	Till	3.4	16.6	1.66	150.3	0.282	2	3.21	0.034	0.85	0.6	4.8	0.29	0.33	20	0.9	0.31	7.5	1.57	0.1	0.17
MAX21TD-015	Till	6.1	62.7	1.25	127.1	0.175	4	2.77	0.020	0.30	0.7	5.7	0.11	<0.02	28	0.3	0.11	8.6	1.36	<0.1	0.09
MAX21TD-016	Pulp	25.4	30.7	0.48	60.6	0.069	7	0.80	0.086	0.11	<0.1	3.0	0.08	0.04	21	<0.1	0.02	2.8	1.08	0.1	0.20
MAX21TD-017	Till	7.4	164.1	5.71	88.0	0.188	3	4.53	0.009	1.89	0.2	2.8	0.37	<0.02	8	<0.1	0.09	13.2	8.72	0.2	0.10
MAX21TD-018	Till	4.5	94.8	2.15	137.4	0.229	3	3.48	0.024	0.55	0.4	6.2	0.16	<0.02	27	0.2	0.12	10.6	2.34	<0.1	0.13
MAX21TD-019	Pulp	15.2	26.6	0.45	54.1	0.068	4	0.74	0.077	0.10	<0.1	2.7	0.05	<0.02	12	<0.1	<0.02	2.6	0.33	<0.1	0.11
MAX21TD-020	Till	6.1	65.5	1.84	117.6	0.208	4	3.23	0.035	0.48	0.9	7.1	0.14	<0.02	29	0.3	0.11	9.8	1.76	0.1	0.09
MAX21TD-021	Till	9.9	51.6	0.97	102.2	0.154	3	2.08	0.036	0.23	1.1	7.8	0.10	<0.02	63	0.2	0.05	5.9	0.98	<0.1	0.10
MAX21TD-022	Till	11.6	58.0	0.98	157.8	0.117	3	2.04	0.028	0.19	0.4	10.0	0.13	<0.02	97	0.2	0.06	6.6	1.33	0.1	0.08
MAX21TD-023	Till	11.9	60.4	0.92	171.6	0.100	4	1.95	0.023	0.13	0.2	9.4	0.14	<0.02	121	0.2	0.06	6.2	1.33	<0.1	0.14
MAX21TD-024	Till	11.3	57.5	0.76	166.5	0.096	<1	1.71	0.029	0.11	0.7	8.4	0.10	<0.02	86	0.2	0.04	5.7	1.16	<0.1	0.07
MAX21TD-025	Till	10.7	50.6	0.84	160.3	0.103	<1	1.77	0.030	0.13	0.3	7.7	0.10	<0.02	75	<0.1	0.04	5.7	1.34	<0.1	0.08
MAX21TD-026	Till Pulp	10.4	50.4	0.75	155.3	0.100	3	1.59	0.028	0.11	0.2	7.6	0.10	<0.02	73	<0.1	0.04	5.4	1.22	0.1	0.07
MAX21TD-027	Till	12.1	53.0	0.89	167.8	0.113	2	1.78	0.031	0.14	0.5	8.3	0.12	<0.02	83	<0.1	0.03	5.7	1.15	<0.1	0.15
MAX21TD-028	Till	12.0	51.6	0.84	158.1	0.105	3	1.64	0.026	0.12	0.3	7.7	0.10	<0.02	75	0.1	<0.02	5.0	1.12	<0.1	0.20
MAX21TD-029	Pulp	15.3	25.6	0.46	54.6	0.071	4	0.78	0.080	0.11	<0.1	2.8	0.06	<0.02	34	<0.1	<0.02	2.6	0.33	<0.1	0.16
MAX21TD-030	Till	11.8	60.0	0.85	169.6	0.132	3	2.22	0.022	0.10	0.6	8.0	0.09	<0.02	86	0.1	0.04	6.7	0.92	<0.1	0.13

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Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

CERTIFICATE OF ANALYSIS VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
MAX21TD-001	Till	0.15	18.0	0.3	<0.05	7.2	10.56	19.2	<0.02	<1	0.4	11.1	<10	2
MAX21TD-002	Till	0.23	6.0	0.3	<0.05	5.1	8.80	22.4	<0.02	<1	0.5	9.7	<10	<2
MAX21TD-003	Till	0.04	115.9	0.3	<0.05	12.6	9.00	6.7	0.03	<1	1.3	43.6	<10	9
MAX21TD-004	Till	0.25	21.9	0.3	<0.05	7.7	11.23	19.1	<0.02	<1	0.5	13.6	<10	3
MAX21TD-005	Till	0.24	16.3	0.4	<0.05	6.4	9.58	24.7	0.02	<1	0.5	11.7	<10	2
MAX21TD-006	Till	0.29	11.7	0.3	<0.05	5.3	9.24	20.7	<0.02	<1	0.4	10.4	<10	<2
MAX21TD-007	Till	0.60	13.4	0.3	<0.05	2.5	7.42	21.6	<0.02	<1	0.3	12.4	<10	2
MAX21TD-008	Till	0.18	10.9	0.4	<0.05	5.3	10.50	21.8	0.03	1	0.3	12.4	<10	3
MAX21TD-009	Till	0.51	20.4	0.4	<0.05	4.6	7.53	18.3	<0.02	<1	<0.1	15.0	<10	3
MAX21TD-010	Till	0.46	13.8	0.4	<0.05	2.8	10.01	21.5	0.03	<1	0.4	13.3	<10	2
MAX21TD-011	Till	0.39	63.2	0.3	<0.05	3.1	7.05	14.1	0.02	<1	1.7	16.4	<10	4
MAX21TD-012	Till	0.11	62.6	0.3	<0.05	3.8	6.10	12.7	<0.02	<1	0.5	18.5	<10	3
MAX21TD-013	Till	0.48	28.0	0.2	<0.05	4.2	3.98	6.4	<0.02	1	0.5	16.9	<10	8
MAX21TD-014	Till	0.45	45.4	0.4	<0.05	4.5	3.82	8.5	<0.02	1	0.5	9.6	<10	<2
MAX21TD-015	Till	0.95	23.3	0.5	<0.05	3.4	4.93	12.3	<0.02	2	0.4	17.0	<10	5
MAX21TD-016	Pulp	0.62	6.5	2.5	<0.05	4.9	5.14	41.8	0.05	<1	0.3	7.5	38	20
MAX21TD-017	Till	0.08	91.0	0.3	<0.05	3.5	5.58	13.4	<0.02	<1	0.6	30.6	14	7
MAX21TD-018	Till	0.48	39.4	0.4	<0.05	5.0	4.58	9.2	0.02	<1	0.6	22.0	<10	<2
MAX21TD-019	Pulp	0.29	5.8	0.4	<0.05	4.4	5.09	26.5	<0.02	<1	0.1	6.3	<10	3
MAX21TD-020	Till	0.82	30.8	0.4	<0.05	4.5	6.18	12.4	<0.02	<1	0.7	19.8	<10	4
MAX21TD-021	Till	0.68	15.5	0.4	<0.05	4.8	9.71	22.6	<0.02	2	0.6	19.2	<10	<2
MAX21TD-022	Till	0.39	12.9	0.4	<0.05	5.0	11.20	23.6	0.02	<1	0.2	14.1	<10	3
MAX21TD-023	Till	0.25	9.0	0.4	<0.05	6.9	11.29	24.6	0.03	<1	0.3	13.0	<10	2
MAX21TD-024	Till	0.25	7.8	0.4	<0.05	4.4	9.52	21.7	0.02	<1	0.5	10.6	<10	<2
MAX21TD-025	Till	0.20	10.2	0.3	<0.05	4.3	9.21	20.3	0.02	<1	<0.1	10.6	<10	<2
MAX21TD-026	Till Pulp	0.21	9.0	0.3	<0.05	4.5	8.78	19.9	0.02	<1	0.4	11.3	<10	3
MAX21TD-027	Till	0.15	10.0	0.4	<0.05	6.2	9.89	23.1	0.03	<1	0.3	11.8	<10	<2
MAX21TD-028	Till	0.12	8.6	0.4	<0.05	7.0	9.38	23.2	0.02	<1	0.3	11.3	<10	<2
MAX21TD-029	Pulp	0.25	6.0	0.4	<0.05	5.7	5.14	26.5	<0.02	3	0.1	6.3	<10	<2
MAX21TD-030	Till	0.43	7.8	0.5	<0.05	6.4	9.57	23.0	0.03	<1	0.6	12.6	<10	<2

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Project: MAX
Report Date: March 02, 2022

CERTIFICATE OF ANALYSIS VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
MAX21TD-031	Till	0.86	80.61	6.42	64.4	86	43.0	16.0	706	3.67	10.5	0.5	5.8	3.5	56.1	0.15	0.71	0.14	92	0.74	0.115
MAX21TD-032	Till	0.86	83.61	6.03	65.5	110	39.7	14.8	656	3.48	11.5	0.4	5.5	2.8	48.8	0.15	0.74	0.10	93	0.79	0.097
MAX21TD-033	Till	0.98	85.45	5.19	66.3	92	38.4	15.1	648	3.56	10.2	0.5	7.7	2.6	57.7	0.21	0.71	0.08	99	1.09	0.122
MAX21TD-034	Till	1.13	82.41	6.57	79.2	151	46.5	16.2	718	3.74	11.7	0.5	18.9	3.0	50.4	0.25	0.78	0.10	101	0.82	0.097
MAX21TD-035	Till	1.16	79.75	7.75	84.3	140	54.3	19.8	874	3.78	12.4	0.5	4.6	3.7	68.2	0.38	0.97	0.09	94	1.10	0.114
MAX21TD-036	Till	1.27	76.24	7.79	80.8	209	54.9	20.7	876	3.75	11.6	0.5	5.4	3.7	67.7	0.33	0.88	0.10	87	1.11	0.103
MAX21TD-037	Pulp	0.61	21.03	1.90	18.9	20	17.0	5.7	245	1.34	0.8	0.4	1.2	3.1	29.1	0.04	0.05	<0.02	21	0.63	0.053
MAX21TD-038	Till	1.10	83.72	8.09	83.6	121	56.6	20.3	929	3.67	11.6	0.5	4.4	3.4	68.6	0.37	0.89	0.09	85	1.22	0.102
MAX21TD-039	Till	1.12	77.50	8.26	83.3	119	57.1	19.7	922	3.75	11.9	0.5	2.3	3.5	64.4	0.32	0.87	0.09	87	1.06	0.109
MAX21TD-040	Till Pulp	1.24	82.07	7.89	89.8	126	58.7	20.1	885	3.78	12.7	0.5	2.8	3.2	58.5	0.30	0.86	0.11	93	1.06	0.100
MAX21TD-041	Till	1.40	81.30	7.71	81.1	162	55.6	20.3	916	3.76	12.1	0.5	14.4	3.1	54.7	0.26	0.80	0.11	95	0.77	0.107
MAX21TD-042	Till	1.26	81.18	7.82	87.3	147	54.7	20.3	957	3.75	13.1	0.4	19.2	3.2	56.1	0.35	0.86	0.11	95	0.96	0.098
MAX21TD-043	Till	1.42	84.65	7.88	90.9	107	56.8	20.6	980	3.82	12.8	0.5	3.7	3.0	52.0	0.37	0.83	0.10	95	0.85	0.107
MAX21TD-044	Till	1.19	82.59	7.18	82.6	170	52.0	19.3	857	3.57	12.2	0.5	4.8	3.2	58.7	0.44	0.82	0.10	93	1.19	0.105
MAX21TD-045	Till	1.06	79.58	7.57	82.6	153	52.4	19.1	895	3.72	11.9	0.6	3.6	3.6	73.2	0.37	0.85	0.08	90	1.59	0.111
MAX21TD-046	Till	1.19	83.92	7.62	78.4	199	53.0	19.8	834	3.77	12.4	0.5	14.9	3.9	67.5	0.25	0.85	0.09	94	0.90	0.105
MAX21TD-047	Pulp	12.01	154.76	278.99	210.6	105	78.9	51.2	268	1.55	10.1	0.4	36.1	3.8	36.6	0.52	0.19	0.05	23	0.57	0.056
MAX21TD-048	Till	0.91	100.97	6.26	67.8	65	44.8	21.4	794	4.22	10.7	0.5	7.3	2.9	73.3	0.15	0.59	0.06	111	0.85	0.128
MAX21TD-049	Till	0.87	101.35	6.56	68.8	87	46.8	19.5	819	4.04	12.2	0.4	6.0	3.1	75.8	0.25	0.74	0.07	104	0.86	0.124
MAX21TD-050	Till	0.98	76.27	6.30	69.5	33	42.1	17.5	700	3.46	10.6	0.5	8.9	3.1	45.9	0.21	0.66	0.07	92	0.60	0.123
MAX21TD-051	Till	1.55	82.72	6.48	66.0	133	45.0	18.2	794	3.49	11.2	0.5	18.0	3.5	52.9	0.30	0.66	0.08	92	0.75	0.125
MAX21TD-052	Till	1.37	82.85	6.57	67.1	169	42.0	17.3	750	3.46	11.4	0.7	8.9	2.9	52.9	0.28	0.66	0.08	93	0.79	0.122
MAX21TD-053	Till	1.98	105.65	7.37	80.7	183	47.6	23.2	902	4.33	15.8	0.7	10.4	3.3	74.7	0.32	0.82	0.08	108	0.95	0.123
MAX21TD-054	Till	0.91	80.19	7.00	72.8	134	46.3	18.2	770	3.49	12.7	0.5	5.1	3.0	58.8	0.34	0.71	0.08	85	0.92	0.113
MAX21TD-055	Pulp	12.02	156.05	274.49	205.9	98	83.5	51.1	265	1.54	10.3	0.5	37.1	3.8	35.3	0.51	0.23	0.06	22	0.56	0.054
MAX21TD-056	Till	0.99	68.40	6.76	57.1	143	39.5	15.8	755	3.33	10.3	0.5	8.3	3.3	54.0	0.28	0.71	0.07	83	0.76	0.112
MAX21TD-057	Till	0.98	73.98	6.98	66.3	138	41.7	16.8	769	3.45	10.1	0.5	8.8	3.3	56.8	0.32	0.79	<0.02	87	0.83	0.113
MAX21TD-058	Till Pulp	1.11	80.98	7.01	75.0	140	43.1	18.0	770	3.49	11.2	0.5	4.7	3.1	53.5	0.39	0.73	0.08	94	0.81	0.114
MAX21TD-059	Till	0.96	77.87	5.52	61.8	114	42.2	16.7	717	3.47	10.1	0.5	6.3	2.5	53.2	0.24	0.65	0.11	95	0.82	0.109

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BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

CERTIFICATE OF ANALYSIS VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
MAX21TD-031	Till	11.9	54.1	0.81	165.7	0.110	3	1.92	0.024	0.11	0.2	8.6	0.09	<0.02	131	<0.1	0.04	5.6	1.09	<0.1	0.15
MAX21TD-032	Till	11.7	53.2	0.76	169.5	0.102	2	1.80	0.027	0.10	0.3	9.0	0.10	<0.02	136	<0.1	0.05	5.7	1.07	<0.1	0.15
MAX21TD-033	Till	10.3	50.0	0.92	175.5	0.119	<1	1.82	0.031	0.15	0.2	8.1	0.11	<0.02	87	<0.1	0.05	6.1	1.30	<0.1	0.18
MAX21TD-034	Till	11.2	60.5	0.90	198.6	0.099	2	2.05	0.028	0.13	0.2	9.5	0.12	<0.02	104	0.2	0.05	6.2	1.19	<0.1	0.20
MAX21TD-035	Till	13.1	58.4	1.04	210.8	0.134	5	2.10	0.031	0.16	0.3	9.9	0.13	<0.02	104	<0.1	0.04	6.7	1.23	<0.1	0.33
MAX21TD-036	Till	12.6	60.2	1.02	210.6	0.114	4	2.00	0.030	0.14	0.3	9.0	0.14	<0.02	111	0.3	0.03	6.3	1.20	<0.1	0.21
MAX21TD-037	Pulp	14.8	25.6	0.45	50.8	0.067	6	0.76	0.079	0.11	<0.1	2.6	0.05	<0.02	12	<0.1	0.04	2.5	0.32	<0.1	0.18
MAX21TD-038	Till	12.4	58.2	1.02	201.3	0.101	3	1.93	0.028	0.12	0.2	8.6	0.12	<0.02	107	0.3	0.04	5.8	1.25	<0.1	0.23
MAX21TD-039	Till	12.8	59.9	1.01	199.8	0.105	3	2.02	0.028	0.12	0.2	9.4	0.12	<0.02	128	<0.1	0.03	5.8	1.22	<0.1	0.25
MAX21TD-040	Till Pulp	12.7	60.9	1.02	208.1	0.105	<1	2.04	0.030	0.14	0.2	9.7	0.14	<0.02	110	0.3	0.04	6.8	1.43	<0.1	0.24
MAX21TD-041	Till	12.0	59.7	0.95	193.9	0.114	2	1.96	0.031	0.13	0.4	9.5	0.13	<0.02	113	<0.1	0.04	6.4	1.33	<0.1	0.25
MAX21TD-042	Till	12.5	60.0	1.00	201.7	0.108	<1	2.00	0.029	0.13	0.2	9.4	0.13	<0.02	120	0.1	0.04	6.1	1.44	0.1	0.26
MAX21TD-043	Till	12.5	55.5	0.97	198.5	0.107	<1	2.07	0.030	0.14	0.3	9.4	0.13	<0.02	119	0.3	0.06	6.5	1.35	<0.1	0.23
MAX21TD-044	Till	12.3	56.1	0.96	195.2	0.117	1	1.98	0.030	0.15	0.3	9.6	0.14	<0.02	119	0.1	0.05	6.0	1.34	<0.1	0.22
MAX21TD-045	Till	12.2	56.7	1.04	197.9	0.107	4	2.01	0.031	0.15	0.2	9.5	0.13	<0.02	110	0.4	0.04	6.3	1.20	<0.1	0.20
MAX21TD-046	Till	13.1	63.4	1.04	216.5	0.112	4	2.10	0.031	0.15	0.3	9.9	0.13	<0.02	98	<0.1	0.02	6.5	1.17	<0.1	0.20
MAX21TD-047	Pulp	26.5	32.0	0.48	61.5	0.075	4	0.82	0.088	0.11	0.1	3.3	0.08	0.04	15	0.1	<0.02	2.7	1.17	0.1	0.21
MAX21TD-048	Till	11.5	62.6	1.26	197.1	0.146	3	2.48	0.027	0.30	0.3	9.5	0.15	<0.02	78	<0.1	0.04	7.1	1.36	<0.1	0.19
MAX21TD-049	Till	11.5	55.1	1.03	196.9	0.129	3	2.24	0.029	0.23	0.2	9.1	0.13	<0.02	100	0.3	0.03	7.0	1.24	<0.1	0.12
MAX21TD-050	Till	12.6	58.3	0.80	165.1	0.142	<1	2.00	0.020	0.14	0.3	8.1	0.12	<0.02	100	<0.1	0.02	6.2	1.34	<0.1	0.17
MAX21TD-051	Till	12.6	55.7	0.84	158.9	0.104	<1	1.66	0.025	0.14	0.3	8.6	0.11	<0.02	100	0.1	0.05	5.3	1.30	<0.1	0.16
MAX21TD-052	Till	12.4	57.9	0.78	159.7	0.110	<1	1.71	0.025	0.13	0.3	8.7	0.11	<0.02	80	0.1	0.04	5.4	1.20	<0.1	0.07
MAX21TD-053	Till	11.9	60.3	1.13	182.6	0.140	3	2.28	0.028	0.23	0.3	9.8	0.15	<0.02	76	0.2	0.04	7.1	1.29	<0.1	0.19
MAX21TD-054	Till	11.5	49.0	0.90	171.4	0.098	4	1.76	0.024	0.15	0.2	8.0	0.11	<0.02	99	0.2	0.02	5.4	1.05	<0.1	0.15
MAX21TD-055	Pulp	26.4	30.8	0.47	62.4	0.077	3	0.81	0.088	0.11	0.1	3.5	0.09	0.04	<5	<0.1	<0.02	2.9	1.14	<0.1	0.21
MAX21TD-056	Till	12.1	50.1	0.78	145.3	0.103	2	1.76	0.023	0.12	0.4	8.0	0.10	<0.02	82	0.1	0.02	5.2	0.90	<0.1	0.14
MAX21TD-057	Till	12.1	53.3	0.83	153.5	0.121	1	1.85	0.026	0.14	0.3	8.0	0.11	<0.02	79	0.2	0.04	5.1	1.02	<0.1	0.18
MAX21TD-058	Till Pulp	12.8	55.4	0.82	170.0	0.127	<1	1.85	0.028	0.15	0.3	9.6	0.11	<0.02	93	0.1	0.05	5.9	1.21	<0.1	0.23
MAX21TD-059	Till	11.0	54.4	0.86	143.0	0.112	3	1.76	0.034	0.13	0.2	8.0	0.10	<0.02	75	<0.1	0.03	5.4	1.04	<0.1	0.15

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BUREAU VERITAS
MINERAL LABORATORIES
Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

CERTIFICATE OF ANALYSIS VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
MAX21TD-031	Till	0.12	7.8	0.4	<0.05	6.3	10.33	22.7	0.03	2	0.7	11.8	<10	<2
MAX21TD-032	Till	0.12	7.5	0.3	<0.05	7.2	9.55	22.2	0.02	<1	0.3	10.4	<10	2
MAX21TD-033	Till	0.11	10.4	0.3	<0.05	7.2	9.23	20.6	0.03	<1	0.5	12.5	<10	<2
MAX21TD-034	Till	0.08	9.2	0.4	<0.05	8.5	10.72	22.0	0.03	<1	0.3	13.8	<10	<2
MAX21TD-035	Till	0.11	10.5	0.4	<0.05	11.0	11.56	25.3	0.02	<1	0.4	14.2	<10	<2
MAX21TD-036	Till	0.08	9.3	0.4	<0.05	8.6	10.63	23.8	0.02	1	0.5	14.6	<10	<2
MAX21TD-037	Pulp	0.26	5.7	0.4	<0.05	5.1	4.80	25.5	<0.02	<1	<0.1	6.2	<10	<2
MAX21TD-038	Till	0.07	8.9	0.4	<0.05	8.0	10.62	26.2	0.03	<1	0.5	14.5	<10	<2
MAX21TD-039	Till	0.08	8.5	0.4	<0.05	8.7	10.70	24.7	0.02	1	0.3	14.2	<10	<2
MAX21TD-040	Till Pulp	0.06	9.8	0.3	<0.05	9.5	10.76	26.2	0.03	<1	0.3	16.1	11	<2
MAX21TD-041	Till	0.08	9.7	0.4	<0.05	9.7	10.82	25.3	0.02	<1	0.7	14.2	<10	<2
MAX21TD-042	Till	0.06	10.1	0.4	<0.05	9.7	11.34	25.4	0.03	<1	0.2	14.3	<10	<2
MAX21TD-043	Till	0.05	10.5	0.4	<0.05	8.9	11.41	25.5	0.02	<1	0.4	13.5	<10	2
MAX21TD-044	Till	0.05	10.4	0.4	<0.05	9.5	10.90	25.2	0.02	<1	0.8	13.8	<10	2
MAX21TD-045	Till	0.05	8.8	0.4	<0.05	8.0	11.07	24.6	<0.02	<1	0.6	14.5	<10	<2
MAX21TD-046	Till	0.07	9.6	0.4	<0.05	8.6	10.97	25.6	0.03	1	0.3	15.0	<10	2
MAX21TD-047	Pulp	0.60	6.9	2.5	<0.05	6.8	5.65	43.4	0.02	<1	0.2	8.4	45	25
MAX21TD-048	Till	0.12	18.9	0.3	<0.05	7.0	10.32	21.2	0.03	<1	0.6	14.2	<10	2
MAX21TD-049	Till	0.13	14.8	0.4	<0.05	5.7	10.49	22.5	0.03	<1	0.5	13.4	<10	<2
MAX21TD-050	Till	0.29	11.5	0.3	<0.05	8.3	8.43	25.8	<0.02	<1	0.7	11.8	<10	<2
MAX21TD-051	Till	0.12	10.9	0.3	<0.05	7.1	10.60	25.5	<0.02	<1	0.4	11.5	<10	<2
MAX21TD-052	Till	0.33	10.1	0.3	<0.05	4.0	10.67	24.3	0.02	<1	0.3	11.7	<10	<2
MAX21TD-053	Till	0.25	14.7	0.4	<0.05	7.2	10.93	22.7	0.02	<1	0.6	13.2	<10	3
MAX21TD-054	Till	0.07	9.1	0.3	<0.05	6.0	9.43	23.0	<0.02	<1	0.4	11.9	<10	<2
MAX21TD-055	Pulp	0.54	7.0	2.6	<0.05	6.4	5.59	45.0	<0.02	<1	0.2	8.5	46	22
MAX21TD-056	Till	0.23	8.0	0.4	<0.05	6.2	9.63	23.1	0.02	<1	0.5	10.7	<10	<2
MAX21TD-057	Till	0.29	8.8	0.3	<0.05	8.4	10.55	23.6	0.03	<1	0.6	11.9	<10	6
MAX21TD-058	Till Pulp	0.21	10.4	0.3	<0.05	8.7	10.80	25.5	<0.02	<1	0.9	12.4	<10	3
MAX21TD-059	Till	0.17	9.6	0.3	<0.05	7.6	10.28	21.2	0.02	<1	0.4	11.1	<10	<2

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

www.bvna.com/mining-laboratory-services

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

QUALITY CONTROL REPORT VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
MAX21TD-003	Till	0.80	280.98	11.93	142.7	136	37.5	44.4	1522	7.74	1.7	0.4	1.1	0.9	34.8	0.24	0.12	0.07	226	1.54	0.138
REP MAX21TD-003	QC	0.81	279.24	11.36	140.3	141	37.8	46.2	1487	7.37	1.9	0.4	1.7	0.8	34.0	0.23	0.12	0.07	214	1.50	0.135
MAX21TD-036	Till	1.27	76.24	7.79	80.8	209	54.9	20.7	876	3.75	11.6	0.5	5.4	3.7	67.7	0.33	0.88	0.10	87	1.11	0.103
REP MAX21TD-036	QC	1.13	80.37	7.69	84.9	209	55.9	20.1	875	3.75	11.5	0.5	4.2	3.7	70.7	0.31	0.91	0.06	90	1.14	0.114
Reference Materials																					
STD BVGEO01	Standard	10.77	4290.55	171.88	1776.2	2673	159.2	25.0	702	3.65	122.8	3.6	220.9	14.7	51.0	6.85	2.98	22.82	71	1.30	0.074
STD DS11	Standard	15.67	156.98	129.43	353.3	1823	84.4	15.1	1069	3.20	47.9	2.6	80.9	8.1	61.6	2.59	7.56	10.79	45	1.08	0.077
STD DS11	Standard	14.81	145.44	127.91	332.4	1647	79.4	14.4	1024	3.14	40.4	2.3	63.2	7.2	67.8	2.33	7.15	10.95	49	1.07	0.070
STD DS11	Standard	14.42	145.44	142.16	340.1	1788	80.3	14.0	1027	3.12	45.5	2.7	85.7	8.5	70.0	2.42	7.76	11.97	44	1.06	0.074
STD OREAS262	Standard	0.70	114.62	54.33	158.9	471	62.3	28.2	527	3.23	39.1	1.2	57.3	9.5	33.0	0.71	4.24	0.91	21	2.82	0.039
STD OREAS262	Standard	0.69	117.81	54.06	153.6	458	65.3	28.3	524	3.27	38.4	1.2	60.3	9.3	31.1	0.71	4.25	0.90	18	2.97	0.037
STD OREAS262	Standard	0.63	112.93	51.60	146.6	447	62.8	27.4	530	3.20	33.2	1.1	51.5	8.4	34.1	0.62	3.61	0.93	22	2.99	0.040
STD OREAS262	Standard	0.59	113.54	58.85	154.9	480	64.1	28.1	537	3.32	37.1	1.2	53.1	9.7	36.0	0.62	4.19	1.02	19	2.91	0.043
STD BVGEO01 Expected		11.2	4415	187	1741	2530	163	25	733	3.7	121	3.77	219	14.4	55	6.5	3.39	25.6	73	1.3219	0.0727
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.3	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001

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BUREAU VERITAS
MINERAL LABORATORIES
Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

QUALITY CONTROL REPORT VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
MAX21TD-003	Till	3.1	75.7	3.60	250.9	0.221	<1	3.94	0.046	2.44	0.4	18.1	0.52	<0.02	11	0.2	<0.02	14.9	3.15	0.3	0.34
REP MAX21TD-003	QC	3.0	73.9	3.54	241.7	0.209	<1	3.87	0.043	2.40	0.4	17.5	0.50	<0.02	13	0.4	<0.02	14.6	3.12	0.2	0.32
MAX21TD-036	Till	12.6	60.2	1.02	210.6	0.114	4	2.00	0.030	0.14	0.3	9.0	0.14	<0.02	111	0.3	0.03	6.3	1.20	<0.1	0.21
REP MAX21TD-036	QC	13.3	60.4	1.04	219.7	0.128	5	2.03	0.031	0.14	0.3	9.0	0.14	<0.02	122	<0.1	<0.02	6.1	1.30	<0.1	0.29
Reference Materials																					
STD BVGEO01	Standard	24.9	182.2	1.28	315.6	0.216	2	2.28	0.199	0.89	5.3	6.4	0.61	0.68	101	4.8	1.06	7.5	7.57	0.2	0.29
STD DS11	Standard	17.8	61.9	0.87	373.6	0.089	8	1.21	0.081	0.41	2.8	3.5	5.06	0.28	269	2.3	4.57	5.4	3.14	<0.1	0.06
STD DS11	Standard	17.5	60.1	0.86	346.8	0.094	7	1.19	0.079	0.40	2.7	3.2	4.69	0.27	246	2.3	4.69	4.9	2.70	<0.1	0.07
STD DS11	Standard	18.3	58.8	0.85	366.8	0.091	8	1.15	0.074	0.39	2.7	3.2	4.81	0.27	291	2.1	4.57	4.9	2.77	<0.1	0.06
STD OREAS262	Standard	16.8	42.8	1.16	260.9	0.003	3	1.31	0.068	0.31	0.2	3.6	0.46	0.25	169	0.5	0.22	4.1	2.85	<0.1	0.29
STD OREAS262	Standard	17.3	44.9	1.15	252.6	0.003	3	1.29	0.070	0.32	0.2	3.3	0.46	0.25	169	0.5	0.24	4.1	2.93	<0.1	0.29
STD OREAS262	Standard	16.5	43.7	1.16	231.1	0.003	4	1.33	0.069	0.31	0.2	3.1	0.44	0.25	145	0.5	0.22	3.8	2.45	<0.1	0.27
STD OREAS262	Standard	16.3	42.8	1.15	256.1	0.003	6	1.27	0.069	0.31	0.2	3.2	0.45	0.25	152	0.2	0.16	4.0	2.34	<0.1	0.25
STD BVGEO01 Expected		25.9	187	1.2963	260	0.233	3.8	2.347	0.1924	0.89	5.3	5.97	0.62	0.6655	100	4.84	1.02	7.37	7.36	0.15	0.32
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02

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

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 02, 2022

QUALITY CONTROL REPORT VAN21004332.2

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
MAX21TD-003	Till	0.04	115.9	0.3	<0.05	12.6	9.00	6.7	0.03	<1	1.3	43.6	<10	9
REP MAX21TD-003	QC	0.04	113.7	0.3	<0.05	11.7	8.60	6.6	0.03	<1	0.9	41.9	<10	6
MAX21TD-036	Till	0.08	9.3	0.4	<0.05	8.6	10.63	23.8	0.02	1	0.5	14.6	<10	<2
REP MAX21TD-036	QC	0.10	9.7	0.4	<0.05	10.2	11.03	25.9	0.03	<1	0.3	15.2	<10	<2
Reference Materials														
STD BVGEO01	Standard	0.28	93.1	5.5	<0.05	9.9	13.94	51.0	0.46	2	0.5	21.3	155	196
STD DS11	Standard	1.56	36.2	1.8	<0.05	2.9	8.14	36.2	0.26	47	0.5	21.9	109	182
STD DS11	Standard	1.56	33.8	1.7	<0.05	3.2	8.36	34.9	0.23	46	0.7	24.7	100	160
STD DS11	Standard	1.52	32.8	1.9	<0.05	2.9	7.96	36.4	0.22	50	1.0	24.8	102	174
STD OREAS262	Standard	<0.02	20.3	0.5	<0.05	10.5	10.95	34.5	0.02	1	1.3	16.8	<10	<2
STD OREAS262	Standard	<0.02	19.7	0.6	<0.05	9.8	10.78	34.6	0.03	<1	1.2	16.6	<10	<2
STD OREAS262	Standard	<0.02	19.1	0.5	<0.05	12.1	10.96	33.0	0.03	1	1.1	18.2	<10	<2
STD OREAS262	Standard	<0.02	17.4	0.6	<0.05	8.7	10.19	32.5	0.03	<1	0.8	16.9	<10	<2
STD BVGEO01 Expected		0.3	95	5.64		9.1	14.5	53	0.47	4	0.69	21.4	134	182
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
BLK	Blank	<0.02	<0.1	<0.1	<0.05	0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2

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

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	December 20, 2021
Analysis Start:	February 25, 2022
Report Date:	March 04, 2022
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN22000034.1

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Till_03
P.O. Number	M27463
Number of Samples:	19

SAMPLE DISPOSAL

RTRN-PLP	Return 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.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS230	17	Dry at 60C sieve 100g to -230 mesh			VAN
SLBHP	2	Sort, label and box pulps			VAN
AQ252_EXT	18	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC: Mt. Milligan Data Distribution List

BRITISH COLUMBIA CERTIFIED ASSAYER
Marcus Lau
MARCUS LAU
Production Manager

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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.

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 04, 2022

CERTIFICATE OF ANALYSIS VAN22000034.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
MAX21TD-060	Till	3.29	161.14	8.58	78.0	219	43.4	27.1	830	4.91	11.0	0.7	11.5	2.2	74.4	0.30	0.73	0.17	129	0.85	0.115
MAX21TD-061	Till	1.87	202.56	7.23	59.6	125	28.0	26.6	914	4.64	11.5	0.5	20.0	1.7	74.0	0.19	0.63	0.11	126	0.91	0.130
MAX21TD-064	Till	6.83	328.98	11.27	67.6	840	33.5	49.7	891	5.40	11.3	1.0	52.3	1.2	93.0	0.38	0.60	0.12	123	1.00	0.142
MAX21TD-067	Till	6.05	450.99	11.01	151.9	425	22.7	33.4	2609	7.53	24.4	1.2	22.2	1.5	33.9	0.34	1.22	0.17	261	0.80	0.187
MAX21TD-068	Till	3.79	365.12	6.55	60.5	184	27.4	43.9	1205	8.96	23.1	0.4	28.3	0.5	84.4	0.14	0.92	0.13	245	0.99	0.191
MAX21TD-070	Pulp	0.56	20.94	1.84	19.6	30	15.8	5.4	249	1.34	0.2	0.4	2.1	2.4	27.4	0.02	0.06	0.03	20	0.64	0.045
MAX21TD-071	Till	2.09	178.36	7.54	80.6	97	37.0	35.1	1017	5.02	11.3	0.4	13.8	1.4	64.4	0.35	0.65	0.12	132	0.78	0.140
MAX21TD-072	Till	7.52	326.99	55.74	579.7	196	52.7	54.7	3714	9.90	30.3	1.3	23.3	1.5	63.2	2.73	1.02	0.19	403	0.94	0.186
MAX21TD-073	Till	18.87	789.38	4.79	187.9	222	33.5	113.2	2300	9.98	68.0	0.6	114.1	0.9	94.8	0.89	0.58	0.27	281	1.02	0.185
MAX21TD-075	Till	3.63	272.91	18.15	121.3	300	17.4	31.5	1158	6.99	21.4	0.9	13.5	1.1	54.7	0.23	0.63	0.32	256	1.16	0.133
MAX21TD-076	Till	3.32	326.79	11.70	57.7	149	51.3	66.7	2016	8.37	11.3	0.4	4.5	1.0	62.0	0.19	0.62	0.17	307	0.75	0.159
MAX21TD-077	Till	2.15	102.26	7.70	76.9	75	43.0	20.0	724	4.20	10.6	0.5	10.8	2.2	53.8	0.21	0.71	0.15	107	0.69	0.091
MAX21TD-078	Till	3.36	124.17	8.00	81.5	105	43.2	24.1	882	4.56	10.7	0.4	8.9	2.0	73.4	0.24	0.57	0.16	124	1.07	0.110
MAX21TD-079	Till	3.08	126.18	8.35	85.4	114	45.2	25.0	950	4.76	10.3	0.5	9.4	2.1	77.7	0.25	0.59	0.16	128	1.16	0.122
MAX21TD-080	Till Pulp	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
MAX21TD-081	Till	2.69	255.78	5.14	206.3	90	107.0	52.2	963	6.31	4.8	0.3	5.9	0.6	38.0	0.25	0.28	0.06	177	0.82	0.099
MAX21TD-082	Till	2.28	111.32	9.12	71.6	159	32.0	22.5	825	4.19	10.3	0.4	10.6	1.8	60.5	0.26	0.58	0.15	120	0.73	0.128
MAX21TD-083	Till	6.51	1112.18	9.78	152.1	493	99.2	74.2	1137	7.64	9.5	0.5	37.9	1.3	53.7	0.42	0.51	0.26	152	1.16	0.115
MAX21TD-084	Till	7.40	365.07	23.98	121.1	169	36.0	54.6	1443	7.47	17.4	0.5	31.2	1.4	93.6	0.37	0.74	0.38	227	1.00	0.180

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 04, 2022

CERTIFICATE OF ANALYSIS VAN22000034.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
MAX21TD-060	Till	10.7	68.6	1.17	175.6	0.209	4	2.92	0.023	0.17	0.8	9.8	0.12	0.03	45	0.7	0.12	8.0	1.10	<0.1	0.16
MAX21TD-061	Till	9.0	49.1	1.05	133.9	0.170	3	2.23	0.014	0.10	0.4	8.2	0.08	<0.02	33	0.4	0.10	6.5	0.74	<0.1	0.06
MAX21TD-064	Till	10.2	57.7	1.04	92.8	0.147	3	3.33	0.027	0.11	0.9	9.2	0.09	0.06	112	1.0	0.12	6.6	1.32	<0.1	0.04
MAX21TD-067	Till	9.6	39.7	2.40	46.6	0.141	3	3.06	0.004	0.33	2.0	6.5	0.27	0.13	54	1.3	0.36	13.6	2.00	0.2	0.03
MAX21TD-068	Till	3.2	94.6	1.99	116.5	0.248	3	2.97	0.005	0.11	1.0	13.5	0.10	<0.02	30	0.8	1.00	9.3	0.84	<0.1	0.07
MAX21TD-070	Pulp	13.2	24.5	0.46	45.1	0.074	3	0.75	0.078	0.10	<0.1	2.4	0.05	<0.02	<5	<0.1	<0.02	2.2	0.30	<0.1	0.16
MAX21TD-071	Till	7.7	53.3	1.16	94.0	0.188	4	3.09	0.013	0.13	0.3	7.1	0.08	<0.02	31	0.7	0.10	7.6	0.85	<0.1	0.06
MAX21TD-072	Till	7.9	147.5	4.28	46.3	0.353	2	3.41	0.009	1.44	0.3	28.2	1.10	<0.02	109	1.9	0.37	14.4	6.70	0.4	0.25
MAX21TD-073	Till	6.5	68.5	2.98	53.3	0.142	1	3.49	0.015	0.09	0.5	15.3	0.11	0.03	15	1.9	0.25	12.9	0.59	<0.1	0.04
MAX21TD-075	Till	5.3	26.0	2.96	53.5	0.255	2	3.22	0.014	0.69	0.4	11.3	0.49	<0.02	26	1.0	0.16	12.9	4.78	0.2	0.19
MAX21TD-076	Till	4.2	96.1	3.24	58.0	0.256	1	4.54	0.014	0.31	0.7	27.6	0.19	<0.02	20	0.9	0.17	13.0	2.14	0.1	0.07
MAX21TD-077	Till	10.9	66.5	1.11	158.3	0.152	3	2.62	0.021	0.18	0.2	9.4	0.14	<0.02	85	0.3	0.08	7.0	1.23	<0.1	0.08
MAX21TD-078	Till	9.5	64.1	1.30	147.5	0.176	3	2.52	0.032	0.35	0.3	10.2	0.16	<0.02	52	0.3	0.10	7.9	1.38	<0.1	0.12
MAX21TD-079	Till	10.0	67.8	1.42	161.5	0.188	3	2.62	0.035	0.40	0.3	10.9	0.18	<0.02	50	0.3	0.08	8.1	1.52	0.1	0.17
MAX21TD-080	Till Pulp	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
MAX21TD-081	Till	6.7	328.6	3.25	187.7	0.362	3	4.56	0.011	0.81	0.3	5.0	0.32	<0.02	19	2.0	0.11	10.4	4.58	0.2	0.07
MAX21TD-082	Till	8.4	54.3	1.07	108.0	0.175	3	2.52	0.026	0.20	0.6	6.5	0.12	<0.02	28	0.6	0.10	6.6	1.17	<0.1	0.09
MAX21TD-083	Till	6.1	244.9	3.25	265.3	0.293	2	3.49	0.019	0.54	0.3	12.2	0.20	0.05	39	0.9	0.15	9.5	3.47	0.1	0.14
MAX21TD-084	Till	6.8	103.3	2.62	155.8	0.309	2	3.56	0.013	0.44	0.7	10.8	0.26	<0.02	25	1.6	0.26	10.5	3.34	0.2	0.14

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BUREAU VERITAS
MINERAL LABORATORIES
Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 04, 2022

CERTIFICATE OF ANALYSIS VAN22000034.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
MAX21TD-060	Till	0.46	12.2	0.5	<0.05	7.5	11.07	19.6	0.03	<1	0.7	16.8	<10	3
MAX21TD-061	Till	0.40	7.9	0.6	<0.05	3.0	9.02	19.0	0.02	<1	0.6	14.3	<10	3
MAX21TD-064	Till	1.33	10.5	0.4	<0.05	1.6	16.57	25.1	0.02	2	0.9	28.1	<10	3
MAX21TD-067	Till	0.83	25.6	0.4	<0.05	1.8	12.88	25.6	0.03	2	1.8	35.6	<10	<2
MAX21TD-068	Till	0.08	7.9	0.2	<0.05	2.6	6.88	8.3	<0.02	<1	0.7	23.7	<10	7
MAX21TD-070	Pulp	0.32	5.5	0.4	<0.05	4.9	4.84	24.6	<0.02	<1	0.2	6.1	<10	<2
MAX21TD-071	Till	1.12	10.3	0.5	<0.05	2.8	7.01	16.2	0.02	<1	0.5	19.4	<10	3
MAX21TD-072	Till	0.16	121.4	0.5	<0.05	8.2	19.19	17.0	0.06	1	4.6	89.6	<10	8
MAX21TD-073	Till	0.40	7.2	0.7	<0.05	1.9	6.88	13.1	0.05	<1	1.1	26.1	10	6
MAX21TD-075	Till	0.28	67.2	0.6	<0.05	7.9	12.02	10.5	0.02	<1	1.7	45.4	<10	2
MAX21TD-076	Till	0.34	24.8	0.5	<0.05	3.4	7.76	11.5	0.05	<1	1.4	40.6	<10	8
MAX21TD-077	Till	0.35	14.1	0.4	<0.05	4.7	9.87	20.3	0.03	<1	0.6	15.9	<10	<2
MAX21TD-078	Till	0.22	26.2	0.4	<0.05	5.9	10.34	17.7	0.03	<1	0.7	15.9	<10	3
MAX21TD-079	Till	0.14	29.1	0.6	<0.05	8.0	10.67	18.6	0.03	<1	0.7	16.2	<10	3
MAX21TD-080	Till Pulp	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
MAX21TD-081	Till	0.46	45.1	0.7	<0.05	2.9	5.08	11.3	<0.02	<1	1.0	39.9	11	9
MAX21TD-082	Till	0.74	15.9	0.5	<0.05	4.4	7.21	18.0	0.02	<1	0.5	14.3	<10	2
MAX21TD-083	Till	0.39	32.3	0.4	<0.05	6.5	9.42	12.1	0.02	1	0.5	30.1	33	11
MAX21TD-084	Till	0.34	38.5	0.5	<0.05	5.7	9.52	15.1	0.02	<1	0.9	30.2	<10	6

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BUREAU VERITAS
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Canada

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 04, 2022

QUALITY CONTROL REPORT VAN22000034.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
MAX21TD-060	Till	3.29	161.14	8.58	78.0	219	43.4	27.1	830	4.91	11.0	0.7	11.5	2.2	74.4	0.30	0.73	0.17	129	0.85	0.115
REP MAX21TD-060	QC	3.30	161.84	8.62	78.7	218	43.8	27.3	787	5.05	11.4	0.7	17.5	2.1	77.4	0.30	0.79	0.17	130	0.82	0.117
Reference Materials																					
STD DS11	Standard	14.64	147.19	133.18	354.0	1715	81.8	14.1	1031	3.14	42.8	2.5	103.4	7.4	66.8	2.30	8.08	11.32	45	1.07	0.071
STD OREAS262	Standard	0.67	114.49	56.32	153.9	477	64.4	29.4	556	3.42	36.4	1.2	59.9	9.2	35.4	0.62	4.44	0.98	19	3.03	0.040
STD DS11 Expected		14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	0.2	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 04, 2022

QUALITY CONTROL REPORT VAN22000034.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
MAX21TD-060	Till	10.7	68.6	1.17	175.6	0.209	4	2.92	0.023	0.17	0.8	9.8	0.12	0.03	45	0.7	0.12	8.0	1.10	<0.1	0.16
REP MAX21TD-060	QC	10.1	68.2	1.13	171.9	0.210	4	2.70	0.024	0.17	0.7	9.7	0.12	0.03	55	0.7	0.13	8.1	1.10	<0.1	0.17
Reference Materials																					
STD DS11	Standard	18.3	59.8	0.85	384.8	0.097	7	1.16	0.073	0.39	3.0	3.2	4.80	0.27	306	2.3	4.75	4.7	2.71	<0.1	0.07
STD OREAS262	Standard	17.8	43.9	1.17	253.5	0.003	5	1.33	0.069	0.31	0.2	3.2	0.47	0.26	161	0.5	0.23	3.7	2.57	<0.1	0.30
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08	0.06
STD OREAS262 Expected		15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8		0.27
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02

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

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: March 04, 2022

QUALITY CONTROL REPORT VAN22000034.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
MAX21TD-060	Till	0.46	12.2	0.5	<0.05	7.5	11.07	19.6	0.03	<1	0.7	16.8	<10	3
REP MAX21TD-060	QC	0.50	12.5	0.5	<0.05	8.0	11.11	19.1	0.03	1	0.7	17.0	<10	<2
Reference Materials														
STD DS11	Standard	1.72	34.1	1.7	<0.05	3.0	8.10	35.9	0.23	45	0.7	24.0	95	170
STD OREAS262	Standard	<0.02	19.1	0.5	<0.05	12.3	11.12	34.8	0.03	<1	1.1	18.2	<10	<2
STD DS11 Expected		1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected			18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Submitted By:	Mt. Milligan Notification List
Receiving Lab:	Canada-Vancouver
Received:	December 20, 2021
Analysis Start:	January 18, 2022
Report Date:	January 25, 2022
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN22000035.1

CLIENT JOB INFORMATION

Project:	MAX
Shipment ID:	MAX21-Rock_02
P.O. Number	M27463
Number of Samples:	6

SAMPLE DISPOSAL

RTRN-PLP	Return After 90 days
RTRN-RJT	Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP80-250	1	Crush, split and pulverize 250 g rock to 200 mesh			VAN
PUL85	5	Pulverize to 85% passing 200 mesh			VAN
AQ252_EXT	6	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Thompson Creek Metals
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8
Canada

CC: Mt. Milligan Data Distribution List

CLAIRE HO
Special Projects Coordinator

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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.

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PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: January 25, 2022

CERTIFICATE OF ANALYSIS VAN22000035.1

	Method	WGHT	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01
MAX21TD-062	Rock	1.46	0.85	287.98	1.72	44.8	398	16.4	26.9	594	5.01	8.2	0.2	22.1	0.4	177.7	0.15	1.98	0.07	201	1.70
MAX21TD-063	Rock Chip	0.12	1.37	243.84	1.99	35.1	145	16.6	21.3	443	3.58	5.9	0.2	3.7	0.4	227.5	0.31	0.71	0.02	118	1.76
MAX21TD-065	Rock Chip	0.15	2.18	191.71	3.87	85.3	206	17.2	32.6	842	4.83	6.8	0.6	23.8	1.2	199.0	0.14	1.13	<0.02	148	1.43
MAX21TD-066	Rock Chip	0.23	1.09	166.37	1.47	68.2	34	34.4	30.4	780	4.78	5.4	0.2	5.8	0.5	176.8	0.23	0.53	0.03	173	1.51
MAX21TD-069	Rock Chip	0.19	0.71	125.99	1.50	38.1	116	21.2	21.4	781	5.28	7.0	<0.1	12.4	0.2	235.9	0.07	0.88	<0.02	206	1.37
MAX21TD-074	Rock Chip	0.14	2.80	339.80	1.14	129.7	145	25.2	54.0	1000	6.36	3.6	0.5	4.9	1.2	155.6	0.60	0.24	0.03	184	1.55

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: January 25, 2022

CERTIFICATE OF ANALYSIS VAN22000035.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm
	MDL	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1
MAX21TD-062	Rock	0.078	2.0	19.4	1.26	64.7	0.162	6	2.11	0.052	0.22	0.3	4.8	0.02	0.04	11	0.2	0.46	6.3	0.13	<0.1
MAX21TD-063	Rock Chip	0.135	2.5	75.6	1.59	19.2	0.193	4	2.14	0.087	0.05	0.5	5.8	<0.02	<0.02	15	0.2	0.03	7.0	0.13	0.1
MAX21TD-065	Rock Chip	0.132	5.6	49.4	1.55	50.9	0.210	3	2.23	0.070	0.14	0.4	6.2	0.03	<0.02	6	0.3	0.14	8.4	0.29	0.1
MAX21TD-066	Rock Chip	0.078	2.3	128.1	2.71	37.7	0.205	4	3.12	0.038	0.31	0.2	8.0	0.16	<0.02	9	0.2	0.06	7.9	0.94	<0.1
MAX21TD-069	Rock Chip	0.108	1.8	73.1	1.61	143.2	0.221	4	2.26	0.049	0.16	0.5	7.7	0.04	<0.02	7	<0.1	0.10	6.6	0.21	<0.1
MAX21TD-074	Rock Chip	0.125	7.4	63.7	2.68	50.3	0.210	1	3.11	0.088	0.09	0.7	12.6	0.03	0.08	<5	0.3	0.04	10.6	0.19	<0.1

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: January 25, 2022

CERTIFICATE OF ANALYSIS VAN22000035.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Hf	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
MAX21TD-062	Rock	0.09	0.07	7.0	0.2	<0.05	2.5	4.16	4.2	<0.02	<1	0.3	15.2	128	19
MAX21TD-063	Rock Chip	0.14	0.38	2.1	0.3	<0.05	3.9	5.94	5.5	<0.02	<1	0.2	13.7	18	5
MAX21TD-065	Rock Chip	0.12	0.29	5.8	0.5	<0.05	2.9	8.13	10.9	<0.02	<1	0.3	14.2	<10	5
MAX21TD-066	Rock Chip	0.08	0.15	20.8	0.2	<0.05	2.3	5.06	4.9	<0.02	<1	0.6	34.5	<10	4
MAX21TD-069	Rock Chip	0.10	0.03	5.6	0.2	<0.05	2.4	5.07	4.1	<0.02	<1	0.2	17.1	<10	6
MAX21TD-074	Rock Chip	0.24	0.10	3.7	0.3	<0.05	9.6	8.65	13.8	0.03	<1	0.6	16.9	<10	4

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: January 25, 2022

QUALITY CONTROL REPORT VAN22000035.1

	Method	WGHT	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01
Pulp Duplicates																					
MAX21TD-062	Rock	1.46	0.85	287.98	1.72	44.8	398	16.4	26.9	594	5.01	8.2	0.2	22.1	0.4	177.7	0.15	1.98	0.07	201	1.70
REP MAX21TD-062	QC		0.88	287.00	1.75	45.8	404	16.7	27.3	605	5.07	8.5	0.2	17.2	0.4	184.1	0.14	2.16	0.07	204	1.73
Reference Materials																					
STD DS11	Standard		14.43	145.77	125.30	330.0	1760	79.3	13.6	1037	3.08	41.7	2.4	71.7	7.2	66.5	2.24	7.59	10.38	49	1.07
STD OREAS262	Standard		0.65	114.06	51.82	147.7	452	64.2	27.9	548	3.19	35.0	1.1	49.9	8.5	35.0	0.64	4.21	0.91	22	3.03
STD DS11 Expected			14.6	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	8.74	12.2	50	1.063
STD OREAS262 Expected			0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	5.06	1.03	22.5	2.98
BLK	Blank		<0.01	<0.01	<0.01	<0.1	2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01
Prep Wash																					
ROCK-VAN	Prep Blank		1.23	15.66	0.80	29.4	12	3.7	6.3	476	2.25	0.8	0.3	1.3	2.0	35.6	0.03	0.03	<0.02	43	0.87

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Project: MAX
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QUALITY CONTROL REPORT VAN22000035.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm
	MDL	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1
Pulp Duplicates																					
MAX21TD-062	Rock	0.078	2.0	19.4	1.26	64.7	0.162	6	2.11	0.052	0.22	0.3	4.8	0.02	0.04	11	0.2	0.46	6.3	0.13	<0.1
REP MAX21TD-062	QC	0.080	2.0	19.5	1.26	66.2	0.174	6	2.16	0.057	0.23	0.4	4.9	0.04	0.04	7	0.3	0.47	6.5	0.13	<0.1
Reference Materials																					
STD DS11	Standard	0.067	17.6	60.2	0.85	345.7	0.095	7	1.18	0.077	0.40	2.8	3.2	4.89	0.28	248	2.2	4.61	4.8	2.69	<0.1
STD OREAS262	Standard	0.038	16.0	45.1	1.19	228.2	0.003	4	1.37	0.070	0.32	0.1	3.2	0.45	0.26	170	0.4	0.22	3.9	2.43	<0.1
STD DS11 Expected		0.0701	18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	3.4	4.9	0.2835	260	2.2	4.56	5.1	2.88	0.08
STD OREAS262 Expected		0.04	15.9	41.7	1.17	248	0.0027	4	1.3	0.071	0.312	0.2	3.24	0.47	0.253	170	0.4	0.23	4.1	2.8	
BLK	Blank	<0.001	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1
Prep Wash																					
ROCK-VAN	Prep Blank	0.038	5.3	10.1	0.65	45.9	0.103	1	1.41	0.155	0.08	<0.1	2.7	<0.02	<0.02	<5	<0.1	<0.02	4.3	0.11	<0.1

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Client: **Thompson Creek Metals**
299 Victoria Street, Suite 200
Prince George British Columbia V2L 5B8 Canada

Project: MAX
Report Date: January 25, 2022

QUALITY CONTROL REPORT VAN22000035.1

	Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
	Analyte	Hf	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates															
MAX21TD-062	Rock	0.09	0.07	7.0	0.2	<0.05	2.5	4.16	4.2	<0.02	<1	0.3	15.2	128	19
REP MAX21TD-062	QC	0.10	0.07	7.5	0.2	<0.05	2.6	4.28	4.2	<0.02	<1	0.3	15.5	132	21
Reference Materials															
STD DS11	Standard	0.08	1.71	33.7	1.7	<0.05	3.3	8.07	35.2	0.23	43	0.7	22.0	89	157
STD OREAS262	Standard	0.29	<0.02	19.1	0.5	<0.05	12.7	10.83	31.2	0.03	<1	1.1	16.6	<10	<2
STD DS11 Expected		0.06	1.53	33.6	1.8		3.1	7.82	37	0.24	50	0.67	23.3	100	172
STD OREAS262 Expected		0.27		18.6	0.5		11.7	11.2	32	0.033		1.14	17.8		
BLK	Blank	<0.02	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
Prep Wash															
ROCK-VAN	Prep Blank	0.14	0.09	1.9	0.3	<0.05	3.8	8.22	10.5	<0.02	<1	0.1	1.2	<10	<2

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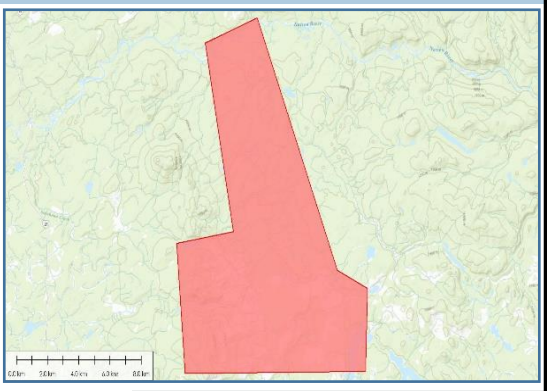
Appendix G - *Eagle Mapping LiDAR and Orthoimagery Report*

EAGLE MAPPING REPORT

EM #: 21-093

MT MILLIGAN 2021

Client Name:	Thompson Creek Metals Company Inc.
Client Address:	Suite 200 - 299 Victoria Street Prince George, BC V2L 5B8



Specifications:

LiDAR:	8 pulses/m²
Imagery:	15 cm

AOI: ~126 sq. km

MAP PROJECTION

Projection:	UTM 10N
Horizontal Datum:	NAD83(CSRS)
Vertical Datum:	CGVD28
Geoid:	HTv2.0
Units:	meters

EPSG: 3157

PRODUCT DELIVERABLES

Product	Resolution/Type	Delivered As	File Format
Point Cloud	grd+unclass	prj tiles	LASv1.4 (.las)
DEM & DSM	0.50 m	prj tiles	ASCIIGrid (.asc)
BE Hillshade	0.50 m	prj file	GeoTIFF (.tif)
Model Key Points		prj tiles	Textfile (.xyz)
Contours	1.00 m	prj file	Shapefile (.shp) & DWG (.dwg)
Orthophoto	0.15 m	prj tiles	GeoTIFF (.tif)
Bnd & Tile-layout	1000 m	prj file	Shapefile (.shp)

ACQUISITION DETAILS

Flight Date(s):	October 22, 2021
Aircraft:	PA31 Piper Navajo
Flight Altitude:	1350 m AGL
Flight Speed:	150 knots

Sensor Settings

LiDAR Unit:	Riegl LMS-Q1560	**Camera Unit:**	Trimble IQ180
Scan Rate:	800 kHz	**Simultaneous:**	yes
Field of View:	58°	**Forward-lap**	60%
Overlap:	55%	**Side-lap**	55%

Eagle Mapping Ltd.
420 - 20178 96 Ave
Langley City, BC. Canada
V1M 0B2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
www.eaglemapping.com

Report

TRAJECTORY PROCESSING

INS-GNSS:	Applanix POS AV610 (IMU 57)		
Processing Software:	POSPac MMS v 8.6		
Processing Mode:	Trimble RTX	**Ref. Station:**	None

	Satellites		**PDOP**		**RMSE (m)**	
(Combined) Results:	**Min:**	10	**Range:**	1.1 - 1.9	**X, Y:**	0.014
	Max:	17	**Mean:**	1.4	**Z:**	0.037

WAVEFORM ANALYSIS

Extraction & Registration Software:	RiPROCESS v 1.8.8
Calibration Software:	BayesStripAlign v 2.20
Quality Control Software:	LAStools v 200304

	Avg. Pulse Density	**Passing Cells**
Results:	12 ppm	92%

Pulse Density verification is conducted using a 5m grid covering the entire project using last and only returns. Initial noise classes are excluded from the calculation as well as any acceptable data voids such as waterbodies. The quality routine identifies cells containing the required project pulse density and those which did not. A visual grid is output showing cells that pass as green and those that fail as red.

POSITIONAL ACCURACY

LiDAR	
Number of GCP:	N/A
Average Dz:	
Minimum Dz:	
Maximum Dz:	
Avg. Magnitude:	
Std. Deviation	
IMAGERY	
Number of GCP:	N/A
Avg. Magnitude:	

RMS(95%)	N/A

No control was available to verify the absolute accuracy of the dataset. However, data was tied to previously flown projects of the AOI which used control. Visual inpsection of the rectified imagery determined the orthophoto is accurate to within ± 2 pixels.

Eagle Mapping Ltd.
420 - 20178 96 Ave
Langley City, BC. Canada
V1M 0B2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
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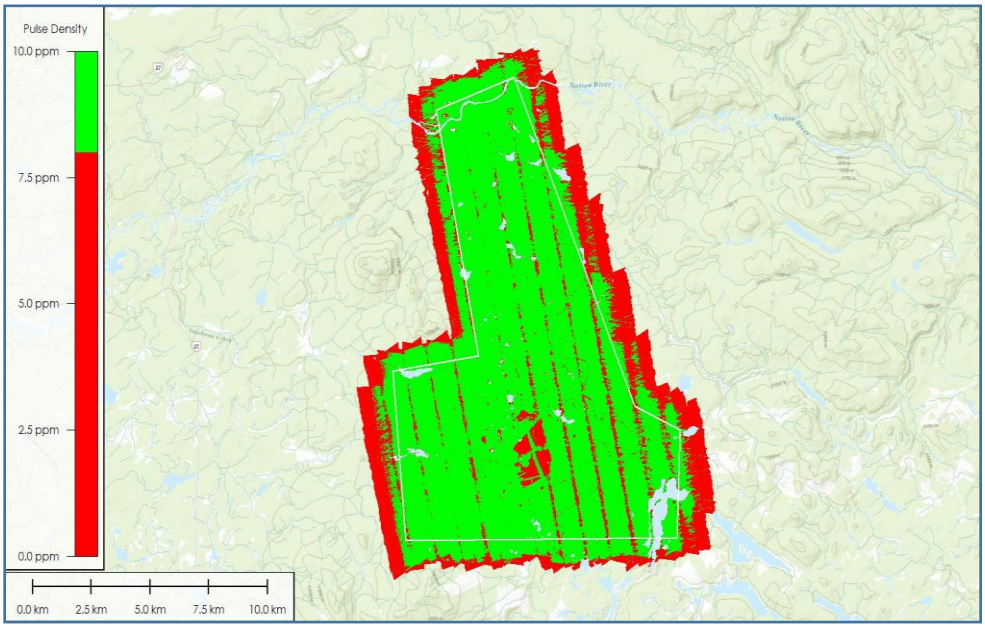
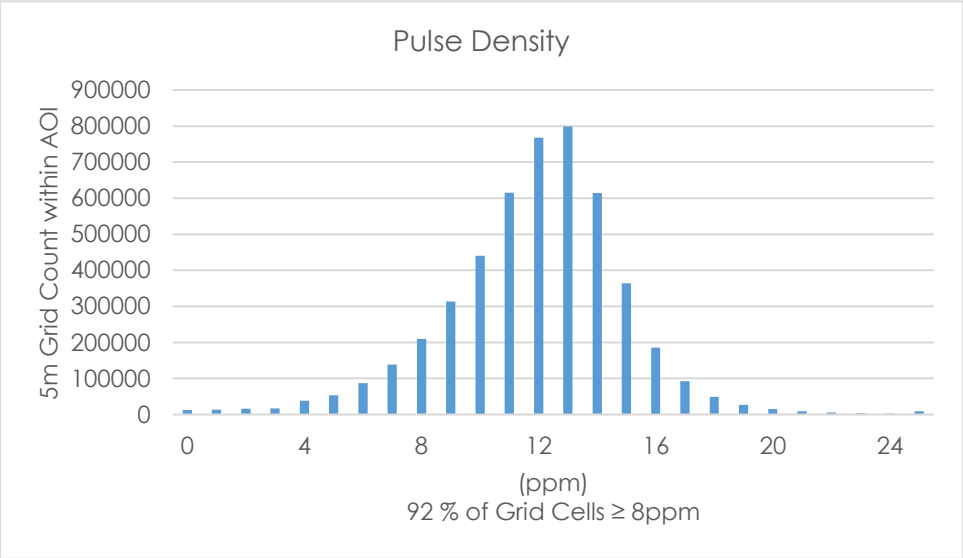
Report

PULSE DENISTY - LAST &ONLY RETURNS





Eagle Mapping Ltd.
420 - 20178 96 Ave
Langley City, BC. Canada
V1M 0B2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
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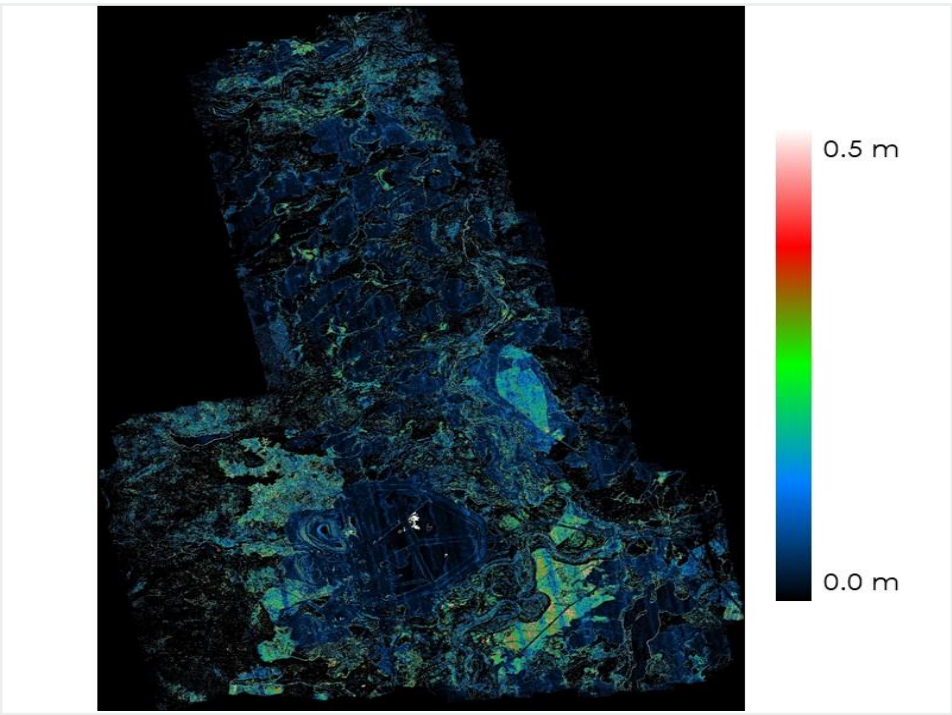
Report

CALIBRATION RESULTS

ELEVATION DIFFERENCES AFTER CALIBRATION



CORRECTIONS APPLIED (m)								
Mean (X, Y, Z)			StdDev (X, Y, Z)			RMS (X, Y, Z)		
+0.011	-0.003	-0.201	0.027	0.024	0.021	0.052	0.097	0.203

ELEVATION DIFFERENCE (m)			
Dataset	StdDev	RMS	
Input	0.032	0.038	
Registered	0.018	0.018	

Eagle Mapping Ltd.
420 - 20178 96 Ave
Langley City, BC. Canada
V1M 0B2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
www.eaglemapping.com

LiDAR EXTRACTION & CALIBRATION PROCEDURES

Process:	Trajectory Solution
Software:	Applanix POSPac MMS
Description:	

GNSS post processing is performed using Applanix POSPac MMS software. Here the aircraft GNSS and IMU data is coupled together to provide adjusted positions for the aircraft in latitude, longitude, height, roll, pitch and yaw. The final trajectory is then smoothen and exported in .pos format for use in LiDAR processing. The resulting flight path is commonly referred to as a Smoothed Best Estimate of Trajectory (SBET).

Process:	Extract & Register LiDAR Point Cloud
Software:	Riegl RiPROCESS
Description:	

Riegl RiPROCESS is used to extract and register point cloud data using calibrated scanner parameters calculated from a boresight mission. Target extraction is performed to digitize the echo signals and transform range and scan-angle data into the Scanner's Own Coordinate System (SOCS). The result is a point cloud data-set where each point contains descriptors such as timestamp and intensity values. The SBET is then applied to transform the point cloud data from the SOCS to a real world coordinate system. The LiDAR data is then exported in LAS format with the proper projection and geoid applied.

Process:	LiDAR Swath Calibration
Software:	BayesStripAlign
Description:	

LiDAR data is calibrated using BayesStripAlign software. This software registers overlapping LiDAR swaths and corrects both relative and absolute geometric errors. It uses a rigorous time-dependent approach to reduce discrepancies between strips due to IMU attitude and positional errors. Once aligned, results are inspected and manual cross-section checks are performed to verify the automatic results. If control is present, elevation comparison reports are generated and data is visually examined to identify systematic positioning errors which could be compensated for with further calibration.

Report

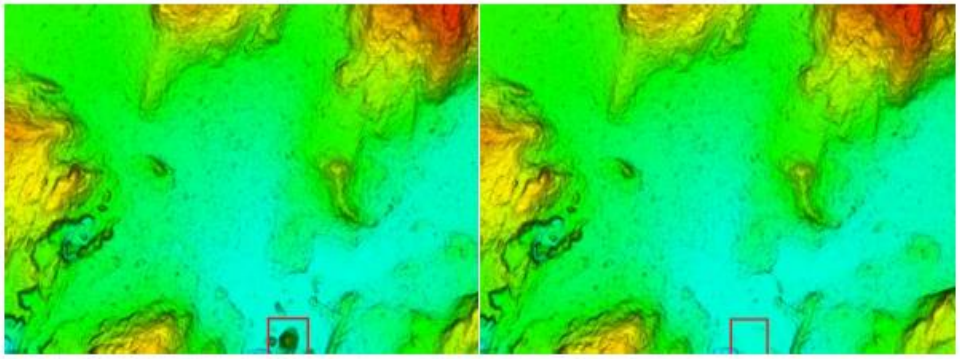
LiDAR CLASSIFICATION & DELIVERABLE PROCEDURES

Process:	LiDAR Classification
Software:	TerraScan
Description:	

TerraScan software is used for LiDAR classification. Calibrated swath data is imported into project tiles with the appropriate source ID values for swath identification. Point cloud data is then cleaned by classifying any low or high noise using an isolated point algorithm and via manual cross-section cleaning. Once cleaned, proprietary classification macros are run to generate Digital Elevation Models (DEMS). These models are then visually checked for inconsistencies in the ground surface and any outliers are flagged and then manually corrected in TerraScan. Then if available, the ground surface is compared against survey check-points to ensure positional accuracy. Once a final ground class has been identified, algorithms are then run to classify any additional project classifications such as vegetation, buildings or water features and automatic results are again visually inspected and manually corrected in TerraScan.

Process:	Deliverables
Software:	TerraScan, LASTools & Global Mapper
Description:	

Once the point cloud has been classified and quality control checks have been satisfied, The LiDAR data is exported in LAS format. Project deliverables such as DEMs and DSMs are generated at the project required grid spacing and all outputs are examined by LiDAR technicians ensure each product is correctly clipped to the project boundary and in the correct format. Metadata for each deliverable type is viewed to confirm units, projection, min/max elevation ranges, and covered area. Lastly, a file count is performed to ensure consistency between final deliverable products. The data is then archived for shipping.



DEM artifact from erroneous ground classified point. DEM after manual correction

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420 - 20178 96 Ave
Langley City, BC. Canada
V1M 0B2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
www.eaglemapping.com

Report

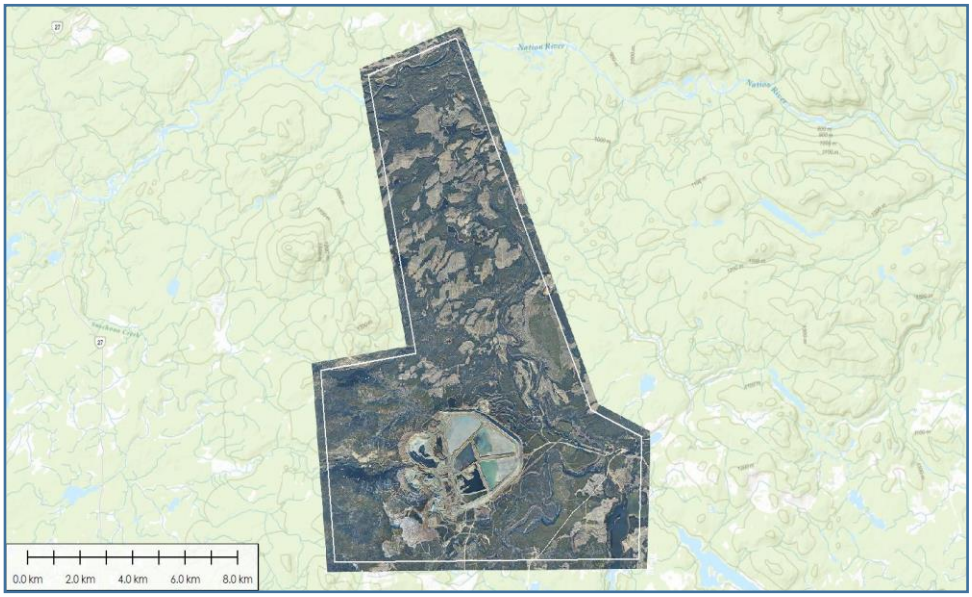
ORTHOPHOTO PROCEDURES

Process:	Photo Orientation & Aerial Triangulation
Software:	Leica Aerial Triangulation Mensuration & Match AT
Description:	

Imagery is first reviewed for any issues that may inhibit the accuracy or resolution, such as cloud cover. The Airborne GNSS/IMU data is then extracted to provide an initial photo orientation. The orientation data is then further refined by incorporating Aerial Triangulation (AT). This involves tying all photos to each adjacent frame photogrammetrically using tie-points, as well as surface model data, LiDAR intensity, calibrated camera parameters and control if available. AT tie-points as well as Airborne GNSS/IMU data is then run through a least-squares adjustment package to provide the best possible orientation solution.

Process:	Orthorectification & Mosaicing
Software:	Inpho Ortho Processing & Global Mapper
Description:	

The Orientation data is then used in the orthophoto rectification process, along with the LiDAR DEM. First, Imagery is colour balanced to provide even tones with the best radiometry. Then each frame is rectified to eliminate distortions caused by undulations of the terrain utilizing the central portion of the image to lessen the radial distortion. The rectified frames are then mosaicked together using care in the placement of seamlines. Tiles are then extracted from the overall mosaic and visually inspected by a technician before being exported into the final delivery format.



Eagle Mapping Ltd.
420 - 20178 96 Ave
Langley City, BC. Canada
V1M 0B2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
www.eaglemapping.com

Appendix H – *Standardization and evaluation of historical soil and till geochemical data on the Max*

470 Granville Street, Suite 630, Vancouver, BC V6C 1V5
Tel: 604-629-9075 | www.pecg.ca

Standardization and evaluation of historical soil and till geochemical data on the Max claims, central British Columbia

Palmer Project #
1902409

Prepared For
Thompson Creek Metals Company Inc.

December 15, 2021

December 15, 2021

Thompson Creek Metals Company Inc.
299 Victoria Street
Suite 200
Prince George, BC V2L 5B8

c/o Cheyenne Sica, M.Sc., P.Geo.
Exploration Manager, Brownfield – British Columbia
Centerra Gold Services Inc.

Dear Cheyenne:

Re: Standardization and evaluation of historical soil and till geochemical data on the Max claims, central British Columbia
Project #: 1902409

Palmer is pleased to submit the enclosed report to Thompson Creek Metals Company Inc. presenting our evaluation of the soil geochemistry data set within the Max claims, central British Columbia. This report identifies several exploration target areas derived from a property-scale data set using single and multivariate analyses. The target areas are ranked based on their prospectivity, and recommendations for subsequent exploration initiatives are provided.

Should you have any questions, please do not hesitate to contact Dave Sacco (778-689-2721, dave.sacco@pecg.ca).

Yours truly,

Dave Sacco, M.Sc.
Senior Surficial Exploration Manager

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1. Introduction

Palmer understands that Thompson Creek Metals Company Inc. (TCMC) is interested in identifying and refining mineral exploration targets for drill testing on the Max claims (Max) in central British Columbia (Figure 1). Max is located ~20 km south of the Mount Milligan Mine, where copper-gold mineralization occurs within a porphyry system. Additional economic mineralization may occur in the region; however, exploration is hindered by thick assemblages of surficial deposits that obscure bedrock and complicate surficial exploration initiatives. To de-risk exploration and improve the reliability of surficial exploration data, Palmer has worked with TCMC to develop a strategy that leverages a detailed understanding of the surficial geology to gain new insights from the existing data, identify optimal exploration methods, plan new surveys, and ultimately improve the reliability of the resulting exploration targets.

Palmer previously completed detailed surficial geology mapping and a preliminary inventory and assessment of the available historical geochemical data for the Max and Mount Milligan claims (Palmer, 2021). This exercise revealed that the soil geochemistry data set includes results from numerous sediment types and analytical methods, and that not all anomalies can be confidently attributed to bedrock mineralization. A comprehensive evaluation of the B-horizon soil data within the detailed surficial framework was recommended to help refine targets. Specifically, sample genesis should be attributed using the detailed mapping, and samples collected from subglacial till, which has a predictable relationship to bedrock, should be used to depict more accurate clastic dispersal patterns. TCMC endorsed the recommended evaluation, and this document provides the results.

The evaluation identifies exploration target areas within Max based on analytical results from B-horizon soil and drill-supported till and bedrock sampling campaigns. Soil samples were collected from 1988-1991 and during 2013. Till and bedrock samples were collected during a helicopter-supported reverse circulation (RC) drilling program in 2019. The robust evaluation identifies anomalies in several single and multivariate metrics based on elevated concentrations of individual pathfinder elements related to porphyry- and epithermal- style mineralization, and how closely the geochemical composition matches multi-element deposit signatures. Exploration target areas were delineated from the anomalies based on a detailed understanding of sediment transport, and recommendations for follow-up surveys are made based on these results.

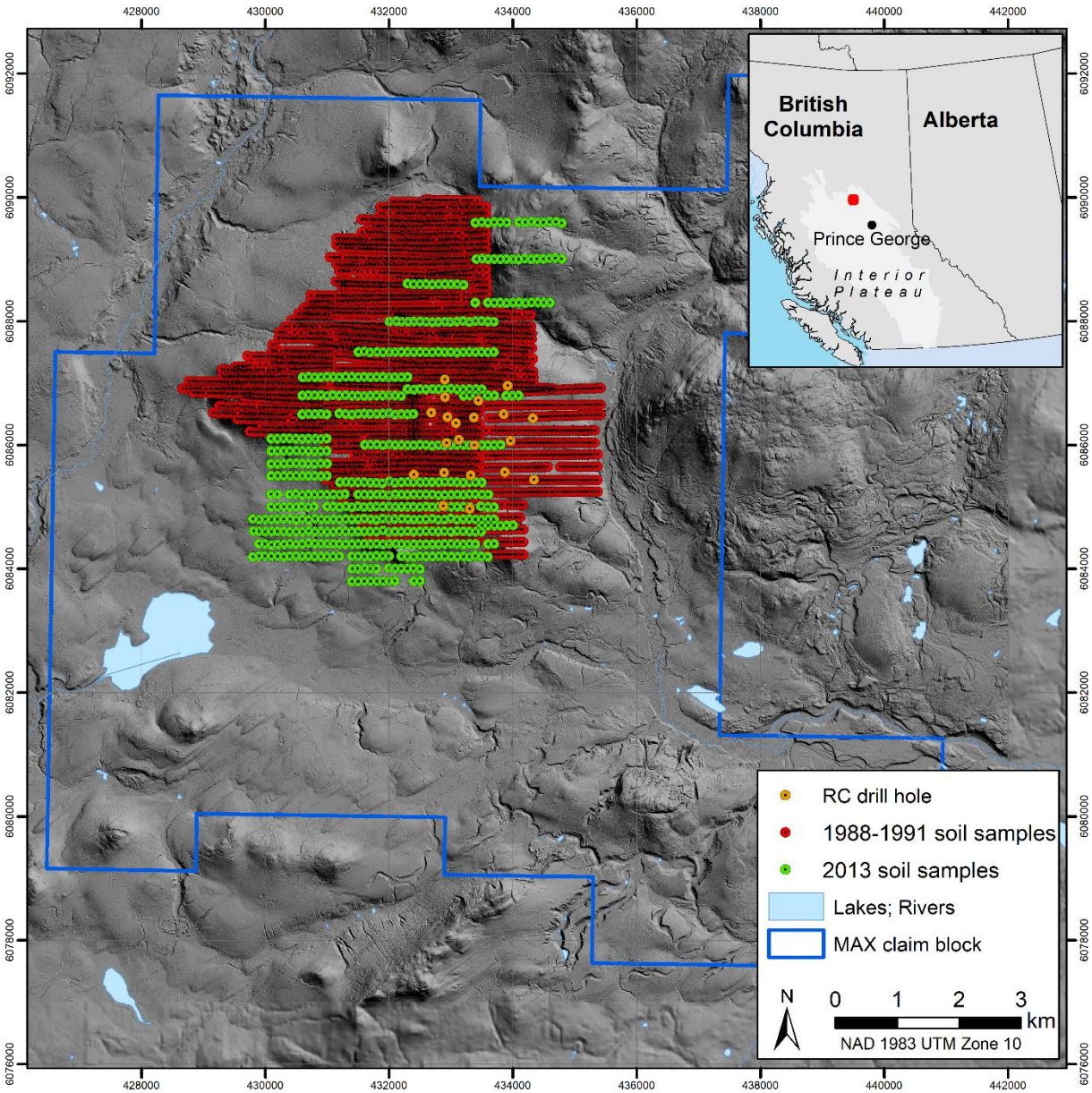


Figure 1. Max claim block and historic soil and drill-supported sediment and bedrock sampling locations.

2. Data sources

This evaluation used B-horizon soil geochemistry compiled from surveys completed from 1988-1991 (Rio-Algom data) and 2013 (Aztec data) and was supplemented with sediment and bedrock geochemistry from samples collected with an RC drill in 2019 (Table 1) (Figure 1).

Table 1. Details for the geochemical data sets used in this evaluation.

Source	Collection dates	Sample type	Number of samples evaluated	Analytical methods
Rio Algom	1988-1991	B-horizon soil	3501	ICP; Au by AAS
Aztec Metals Corp.	2013	B-horizon soil	504	ICP-ES; Au by fire assay and ICP-ES
TCMC's Max heli-supported RC program	2019	Undifferentiated sediment	235	ICP-ES/MS after 4-acid digestion; Au by fire assay
	2019	Bedrock	97	ICP-ES/MS after 4-acid digestion; Au by fire assay

All soil samples were collected from the B-horizon along transects with sample spacing ranging from 50-200 m. There is potential for inaccuracy of the Rio Algom sample locations, as they were digitized from field maps over 20 years after their collection. All soil samples were processed by Acme Analytical Labs Ltd. (Vancouver), sieved to the -80 mesh-size fraction, and treated with an aqua-regia digestion. A 0.5 g aliquot was analysed. The Rio Algom samples were analyzed for 25 elements by inductively coupled argon plasma methods (ICP); however, some of these samples only have results available for 11 analytes. Ten-gram aliquots were analysed for gold by atomic absorption spectroscopy (AAS). The spectroscopy method for measuring element concentrations was not listed in the assessment report. The Aztec data were analyzed for 33 elements by Inductively coupled plasma atomic emission spectroscopy (ICP-ES) and for gold by fire assay fusion and ICP-ES using a 30-gram sample. Minimum detection limits are unavailable for the older soil data set, except for gold, which was stated as 1 ppb. See Table 2 for analytes and minimum detection limits for the Aztec data set. The degree to which soil data from different analytical methods are comparable is discussed in Section 2.1.

Table 2. Analytes and minimum detection limits (MDL) for the 2013 soil geochemical data set.

Analyte	Unit	MDL
Au	ppb	2
Mo	ppm	1
Cu	ppm	1
Pb	ppm	3
Zn	ppm	1
Ag	ppm	0.3
Ni	ppm	1
Co	ppm	1
Mn	ppm	2
Fe	%	0.01
As	ppm	2
Th	ppm	2

Analyte	Unit	MDL
Sr	ppm	1
Cd	ppm	0.5
Sb	ppm	3
Bi	ppm	3
V	ppm	1
Ca	%	0.01
P	%	0.001
La	ppm	1
Cr	ppm	1
Mg	%	0.01
Ba	ppm	1
Ti	%	0.001

Analyte	Unit	MDL
B	ppm	20
Al	%	0.01
Na	%	0.01
K	%	0.01
W	ppm	2
S	%	0.05
Hg	ppm	1
Tl	ppm	5
Ga	ppm	5
Sc	ppm	5

Sediment and bedrock chip samples were collected using an RC drill in 2019. Samples were collected at regular intervals from 22 RC drill holes. To date, 349 intervals have been sampled from the RC drill holes. Of these, 235 intervals were identified as sediment and 97 as bedrock samples. Both were analyzed for Au by fire assay and an additional 55 elements by ICP-ES/MS (Table 3).

Table 3. Analytes and minimum detection limits (MDL) for the 2019 overburden and bedrock geochemical data set.

Analyte	Unit	MDL
Au	ppm	0.005
Mo	ppm	0.1
Cu	ppm	0.1
Pb	ppm	0.1
Zn	ppm	1
Ag	ppm	0.1
Ni	ppm	0.1
Co	ppm	0.2
Mn	ppm	1
Fe	%	0.01
As	ppm	1
U	ppm	0.1
Th	ppm	2
Sr	ppm	1
Cd	ppm	0.1
Sb	ppm	0.1
Bi	ppm	0.1
V	ppm	1

Analyte	Unit	MDL
Ca	%	0.01
P	%	0.001
La	ppm	0.1
Cr	ppm	1
Mg	%	0.01
Ba	ppm	1
Ti	%	0.001
Al	%	0.01
Na	%	0.001
K	%	0.01
W	ppm	0.1
Zr	ppm	0.1
Ce	ppm	1
Sn	ppm	0.1
Y	ppm	0.1
Nb	ppm	0.1
Ta	ppm	0.1
Be	ppm	1

Analyte	Unit	MDL
Sc	ppm	1
Li	ppm	0.1
S	%	0.1
Rb	ppm	0.1
Hf	ppm	0.1
In	ppm	0.05
Re	ppm	0.05
Se	ppm	1
Te	ppm	0.5
Tl	ppm	0.5

2.1 Data treatment and standardization

Data were standardized to address variability in geochemical concentrations related to different material geneses and analytical methods, and to confirm their suitability for mathematical evaluation. This ensured that incompatible data were appropriately divided into subpopulations of comparable data, and anomalies (*i.e.*, contrast in the data set) could be more confidently attributed to mineralization. Preliminary subpopulations were created based on differences in material geneses and analytical protocols and their comparability was assessed by plotting their data distributions on single probability plots and histograms to identify divergence. Comparable data were recombined for evaluation. The treated data used for this evaluation are provided in Appendix A.

The entire soil data set was first attributed with a parent-material type (*i.e.*, genesis) based on the sample location in relation to the detailed surficial geology mapping (Palmer, 2021). This genetic attribution is a critical component of the evaluation because soils develop differently on different parent materials, and the soil samples were collected without consideration for material type. As such, material type will have a significant effect on the spatial patterns of the geochemical data. The detailed surficial mapping provides a means to determine sample genesis; however, the diversity of a landscape at a sample-site scale cannot be captured at the map-polygon scale and there is some inherent error associated with this attribution.

The surficial geology mapping and the available drill logs were used to determine the genesis of the samples collected using the RC drill. Seventeen samples were removed from the RC data set because their genesis could not be determined or was unsuitable for evaluation (*e.g.*, sorted sediments, boulders). The remaining sample data were divided into subpopulations of bedrock and till and used to facilitate the determination of pathfinder elements and deposit signatures.

To improve suitability for mathematical evaluation, the subpopulation data distributions were de-skewed through transformation, and censored data was substituted. Every element in the soil data sets showed improved normality after a log-transformation. De-skewed elements in the RC data set include: Au, Ag, Cu, Pb, Zn, As, Ba, Bi, Co, Cr, Fe, K, Mg, Mn, Mo, Ni, Sb, Ti, V, W, Be, and Cd. Most elements showed significant improvement in the normality of their data distributions, except for Na, P, Sr, Al, and Ca. Censored data distributions are artificially skewed due to data points that occur below detection limits. Data points below the detection limit were substituted with half of the lower detection limit for elements with less than 1% censored data. Data points below the detection limit were substituted with predicted values based on linear regression coefficients for elements with greater than 1% censored data (Figure 2).

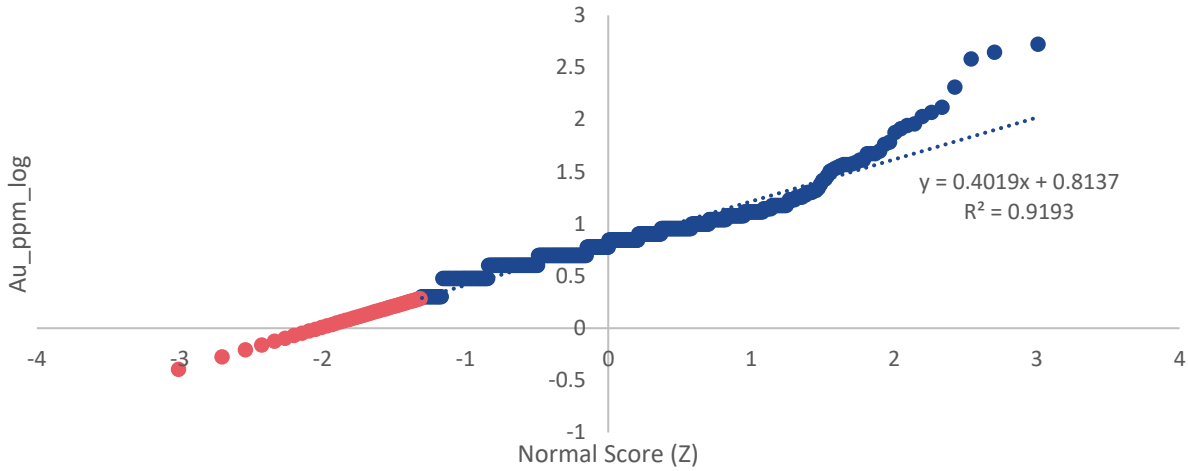


Figure 2. Example of substitution for Au data below the lower detection limit in the 2013 Aztec soil data collected over till. The resulting distribution shows improved normality making it more suitable for statistical analysis.

B-horizon soil samples collected from till blankets (Tb) in the Rio Algom and Aztec data sets were compared to address variation resulting from analytical methods. Samples from till blankets were used because: 1) there are many of them, providing a statistically significant data set; 2) till is a first derivative of bedrock, so the variability in the compositions of these soils should better reflect the variations in the local bedrock; and 3) geochemical concentrations in the soil over till is less likely to be affected by post-depositional processes due to the low permeability of this material. Most key pathfinder elements had significant differences in ranges and measures of central tendencies amongst the Rio Algom and Aztec, likely due to the different Au determination methods and possibly different spectroscopy methods. As such, the Rio Algom and Aztec data sets remained separate for anomaly threshold determinations.

Genetic subpopulations were created from the Rio Algom and Aztec data sets using the surficial map units. All till populations (*i.e.*, streamlined till and till veneers and blankets) were sufficiently similar to be combined for each soil data set. Samples collected from veneers showed slightly elevated concentrations in some elements than the thicker blankets and streamlined deposits. At a property scale, these differences are inconsequential; however, the differences should be considered if these data are evaluated at a dispersal scale. A second genetic category was created for soils overlying glaciofluvial material, and a third for the remaining material types. The number of samples in the second and third categories was too low for the Aztec data set to be statistically relevant or to be evaluated on their own, so they were necessarily recombined with the Rio Algom data. This is considered acceptable, because the differences identified in the soil-over-till data were not as obvious in the soil-over-glaciofluvial data. Furthermore, the data from these genetic categories was not heavily weighted in this evaluation.

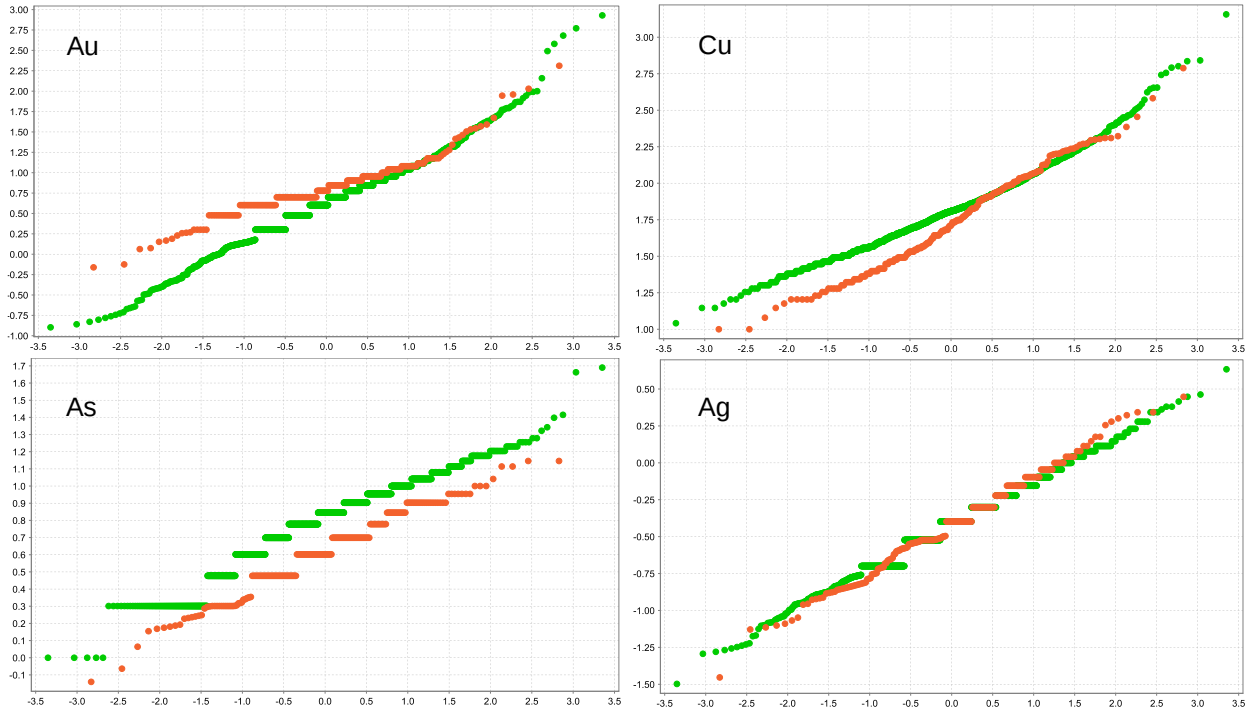


Figure 3. Probability plots comparing the data distributions of the Rio Algom (orange symbols) and Aztec (green symbols) data sets. Normal score is plotted on the x-axis and logged element concentrations on the y-axis.

The standardization resulted in the creation of six working subpopulations (Table 4). The RC data set was split into till and bedrock subpopulations. The B-horizon soils data set was split into till subpopulations for the Rio Algom and Aztec data sets. The remaining Rio Algom and Aztec data were recombined and split into *Glaciofluvial* and *Other* genetic subpopulations.

Table 4. Sub-populations used in the evaluation Max geochemical data.

Sub-population code	Description	Number of samples
RC till	Till samples collected in 2019 using an RC drill	235
RC Bedrock	Bedrock samples collected in 2019 using an RC drill	97
Aztec till	B-horizon soil samples collected in 2013 from soils overlying areas mapped as subglacial till (*e.g.,* **Tb, Ts, Tv**)	475
Rio Algom till	B-horizon soil samples collected from 1988-1991 from soils overlying areas mapped as subglacial till (*e.g.,* **Tb, Ts, Tv**)	3120
Glaciofluvial	B-horizon soil samples collected in 2013 and from 1988-1991 from soils overlying areas mapped as glaciofluvial material (*e.g.,* **GFc, GFv.Tb-RW**)	239
Other	B-horizon soil samples collected in 2013 from soils overlying areas not mapped as till or glaciofluvial material (*e.g.,* **O, Cv.Ap, Er/Tb**)	171

** Detailed descriptions of surficial material types can be found in Palmer, 2021.*

3. Methods

The primary goal of this evaluation was to re-assess the soils data set within a detailed surficial framework to help focus exploration efforts. This was accomplished by standardizing the data, defining key pathfinder elements and deposit signatures, determining anomaly thresholds specific to each subpopulation's variables, and identifying anomalous samples and associated target areas using an understanding of landscape morphology. For an area to be considered a viable target, several of its variables had to be anomalous.

3.1 Determination of pathfinder elements and relative importance signatures

The evaluation used pathfinder elements and multivariate relative importance signatures (RISs) that characterize the geochemical signatures of potential mineralization. Pathfinder elements were determined from spatial and numerical correlations with Au and Cu in the till and bedrock data, and from published descriptions of porphyry and epithermal deposits (*e.g.,* Lefebure and Jones, 2020). Correlations in the soil data were spurious and it was interpreted that they could not provide reliable element associations related to mineralization.

Three RIS were used in the evaluation. A local-Au RIS was established from the existing Max RC till and rock chip geochemical data. The other two RISs were established from regional drill core geochemistry, mined from assessment reports associated with porphyry and epithermal deposits (Sacco *et al*., 2018). All RISs were determined through robust principal component analyses (PCA) on subsets of geochemical data. Robust PCAs reduce the influence of outlier samples from the results, providing more accurate correlations. Elements that are not typically related to gold mineralization or that have few results over the minimum detection limit were excluded from the PCAs to simplify the calculations and reduce their influence on the results. Resulting components from the PCAs with high Au and Cu loadings were identified, and commonly occurring element loadings were averaged to determine the geochemical signatures. The averaged element loadings were then converted to weights to produce the RIS. Table 3 defines the loading categories used to determine the RIS.

Table 5. Conversion factors from the element loadings calculated during principal component analyses (PCAs) to relative importance used for the weighted sums analysis.

Element loading	Relative importance (- or +)
0 – 0.2	0
0.21 – 0.4	1
0.41 – 0.6	2
0.61 – 0.8	3
0.81 – 1	4

The RISs were used to complete a weighted mean sums (WMS) calculation that produces a numerical value representing how close the sample composition is to the ideal composition (*i.e.*, the signature of Au-Cu mineralization). Two WMS calculations were carried out for each RIS to account for samples lacking select analytes. The first WMS calculation only used the analytes common to every soil sample. The second

WMS calculation included every analyte in the RISs and was only performed on soil samples that had results available for every analyte.

3.2 Data evaluation

Identifying exploration targets from the soils data sets requires determination of appropriate anomaly thresholds that illustrate clustered, contrasting data, and an understanding of sediment transport, to identify potential source regions for the anomalies.

3.2.1 Anomaly threshold determination

The data subpopulations were identified based on differences in geochemical data distributions. Each subpopulation, therefore, requires different anomaly thresholds to highlight contrasts within the unique data ranged and distributions. This method of anomaly threshold determinations provides a basic levelling of the data subpopulations and allows them to be visually evaluated together.

As a starting point, preliminary anomaly thresholds were set to define six anomaly classes. Fewer classes were used for variables with small data ranges. Preliminary classes were based on standard progressive percentile classification because most results approximated a normal distribution. The thresholds were then adjusted for each subpopulation based on: 1) the location of inflection points in probability plots, which indicates a departure from the normal distribution (*i.e*., anomalousness); 2) consideration of the number of samples in each anomaly group, which should generally decrease with increasing anomalousness; and 3) clustering of anomalous samples, as appropriate anomaly thresholds should result in spatial clustering of anomalies. Due to the spurious nature of the soil data in consideration of spatial distribution, clustering of samples was weighted less in the anomaly threshold determinations.

3.2.2 Data visualization and anomaly identification

The Rio Algom and Aztec data sets were symbolized based on the anomaly classes using coloured, proportional dot-plots. Soil samples from till were visually evaluated together. Polygons were used to delineate clusters of anomalous samples from each pathfinder element and RIS indices. Anomalies were only delineated where a cluster of anomalous samples occurred to avoid being misled by spurious values resulting from drainage networks, small occurrences of other materials that could not be captured in the surficial geology mapping, or other post-depositional modification that could not be identified. Each anomaly polygon was characterized based on the strength and continuity of the anomaly (Table 6) and labelled based on the variable being evaluated. Anomalies were identified with consideration for sediment transport (*i.e.*, expectation of elongation with ice flow direction).

Table 6. Definitions for characteristics used to identify anomalies.

Rating	Strength definition	Continuity definition
Low	Mostly consist of samples with anomaly levels of 2 and 3	Mix of anomalous and barren samples
Mod	Mostly consist of samples with anomaly levels of 3 and 4	Varying anomaly levels
High	Mostly consist of samples with anomaly levels of 5 and 6	Dominantly one anomaly level

3.2.3 Target delineation

Target areas were identified using standard ellipses where numerous anomalies from different variables overlapped. Target areas were generally identified slightly up-ice of the anomaly clusters to account for glacial transport of the sediment. The locations considered sediment thickness as a proxy for sediment transport. For example, thicker sediments were assumed to have undergone farther transport. Potential transport distances and anomaly strength were considered when defining the size of the target areas. Each target was characterized in terms of the contributing anomalous variables. A dominant signature was defined that consisted of variables that were highly anomalous, while a second and third signature was included for anomalies that were moderately or weakly anomalous, respectively. Target areas were then ranked based on the strength and number of variables comprising the contributing anomalies, with higher rankings given to targets with strong primary pathfinder variable signals (*e.g.,* Au, Cu, As). Ranking of target areas did not consider other exploration data such as geophysics or structural controls.

4. Results and discussion

4.1 Pathfinder elements and relative importance signatures

Individual pathfinder elements selected for use in this evaluation include Ag, As, Au, Ba, Bi, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sb, V, W and Zn. Aside from spatial and numerical correlations with Au and Cu, contributing factors for the choice of these elements was their availability throughout the data subpopulations and their reported significance in published literature. Summary statistics for these pathfinder elements and minerals are included in Appendix A. Bi, Cr and Ni were only used as components in the RISs.

Table 4 provides the RIS used to represent porphyry and epithermal mineralization, and the RIS associated with Au derived from the RC drilling (Local Au) on the Property. The components used for the Local Au were those with the highest Au loadings, which were generally not the primary components, indicating that the strongest element associations in the data set were not related specifically to gold mineralization, but rather bedrock lithology. It is important to note that the data used for the PCAs likely contain variations in mineralization styles and scavenging of element associations from one component to another will occur. As such, the signature defined for the Property is considered the best available representation of a local mineralization signature but could be improved with additional bedrock data and an improved understanding of the represented mineralization.

Table 7. Relative importance signatures (RISs) determined through principal component analyses (PCAs) of bedrock from the RC drill program, and from Sacco et al., (2018). Six RIS indices were used, three with and three without the additional analytes that were not analysed for select soil samples in the 1988-1991 data set.

RIS	Au	Ag	Cu	Pb	Zn	As	Bi	Co	Cr	Fe	K	Mn	Mo	Ni	Sb	V	W	Ba	P
Local Au	2	1	2			1			-1		1			-1			1		1
Porphyry	3	4	3	3	2.5	2.5	3	1.5		-0.5		-1	1.5	-1	2.5	1		0.5	
Epithermal	3.5	3	2.5	1.5		3	1.5	0.5				-1	1.5		2.5	-1		-0.5	

4.2 Anomaly and target identification

4.2.1 Geochemical anomalies

Anomalies delineated from the standardized data set generally form an elongated shape in the direction of ice-flow. This is interpreted to be a result of sediment transport and indicates that displacement from source needs to be considered when interpreting potential target areas. The grid-style sampling strategy used during the soil surveys is beneficial because it limits bias associated with sample distribution; however, the spatial inconsistency of the associated results form dispersal patterns without sharp edges, complicating the determination of discrete targets. Figure 5 shows the delineated Cu anomalies and demonstrates the occurrence of highly anomalous samples interspersed closely with samples with very low concentrations.

This is common in soil data sets for a variety of reasons including the propensity for post-depositional element mobility in the upper 30-50 cm of sediment, the lateral inconsistency of soil profile formation, and the high potential for different parent materials to have been sampled. Attempts were made to mitigate material heterogeneity, but issues introduced by the other variables cannot be reconciled. Anomalies that are relatively low or have only moderate continuity should not be overlooked due to the inherent inconsistencies associated with B-horizon soil geochemistry in glaciated terrain (McMartin and McClenaghan, 2001).

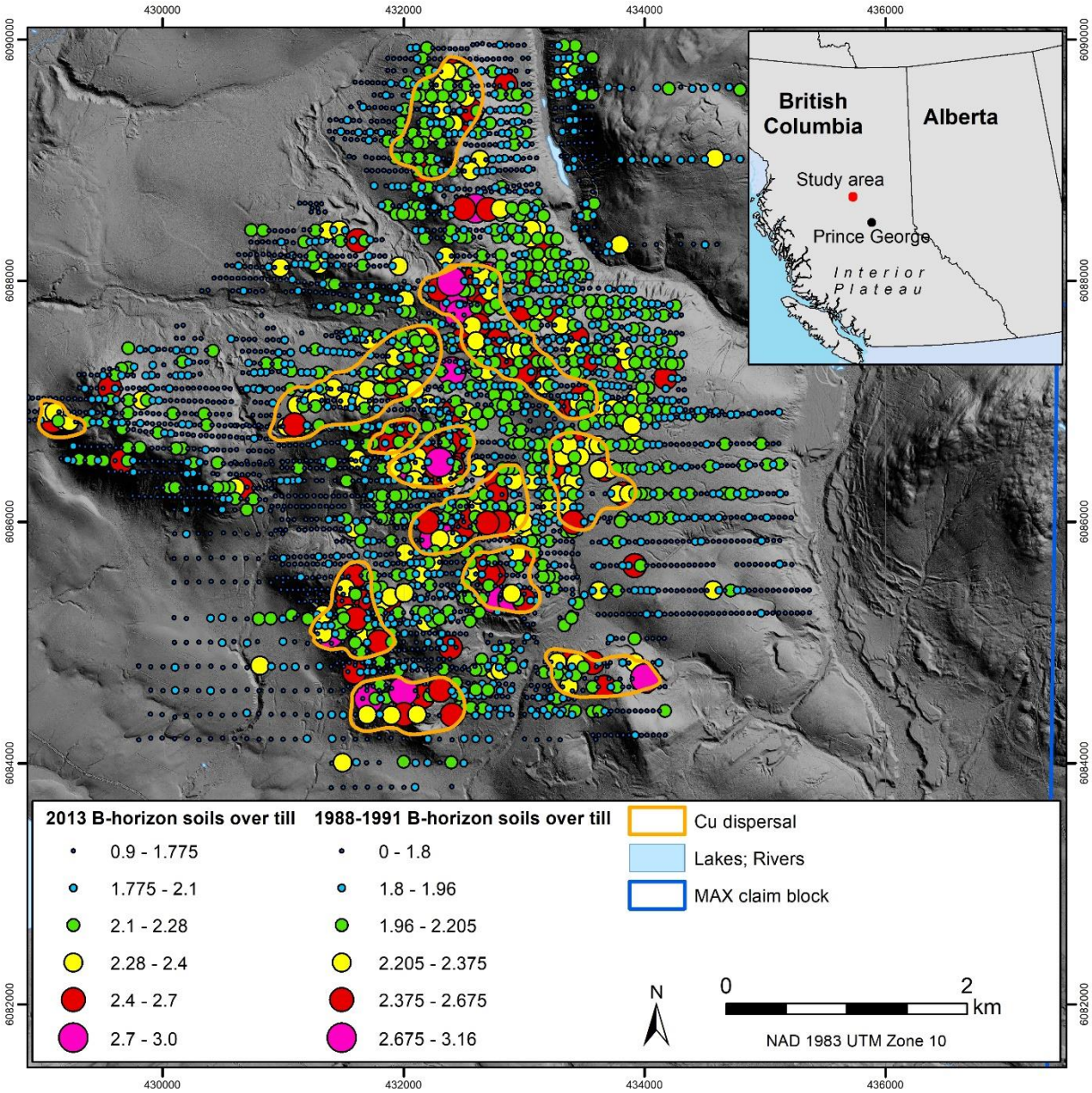


Figure 4. Cu anomalies identified from the treated B-horizon soil data set. Values are expressed as logged concentrations in ppm and samples are symbolized using coloured, proportional dots. As with most variables in the Max data set, the data exhibit good contrast but a wide range of concentrations within the dispersal patterns.

In total, 218 discrete anomalies were identified (Appendix B). Table 8 provides a summary description of anomalies from each variable. Overall, anomalies have better contrast in the south and west compared to in the northeast, where it appears dispersal patterns may overlap. This overlap may yield higher background values and less sharpness to the potential dispersal patterns. These patterns likely indicate sub-cropping mineralization clusters more closely in the northeast than in the south or west, but they do not necessarily indicate greater potential for more extensive or strongly mineralized bedrock. Establishing anomaly thresholds specific to the northeastern areas where background values are higher may improve the sharpness of dispersals.

Although the general continuity of anomalies was low, As, Cu, Ba, Co, and to a slightly lesser extent Sb and Mo formed the most discernible dispersal patterns. Conversely, Au and Ag showed general clustering associated with dispersals in other variables, but the most anomalous Au and Ag values were not clustered. Their almost even distribution makes it difficult to identify specific target areas from these variables. The concentrations of some elements, such as Fe, V and Mn, appear to correlate with topographic highs and thin drift. This could be related to a difference in dilution when compared to thicker material and may not necessarily mean that the anomalies are related to mineralization. It does appear, however, that most anomalies begin up-ice, and extend down-ice beyond topographic highs, suggesting that drift thickness is not a primary factor in apparent anomalousness. Nevertheless, highly anomalous soil samples collected from topographic highs that do not have an associated down-ice component may be spurious.

The use of multivariate metrics helps overcome the inherent inconsistencies within the soil data set. The RIS values generally show good contrast and improved clustering of high-level anomalies as compared to the individual elements, although background values were still quite high in the northeast. As is the case for the other data in this region, re-evaluating the multivariate metrics with anomaly thresholds specifically determined for the northeast may improve the differentiation of dispersal patterns. Regardless, the improved clustering within the multivariate indices was beneficial in determining specific target areas.

Table 8. Characteristics of the anomalies from elements used in this evaluation.

Element	Number of discrete anomalies	Description
Ag	6	Poor definition and generally large; many isolated high anomalies amongst background levels; general trends apparent but limited discrete sources identified; poor metric for indicating discrete targets on its own.
As	11	Relatively continuous and discrete anomalies; some areas show minor elevations in concentration over larger areas that are more likely a result of changes in lithology than discrete mineralized zones. Appears to be relatively effective at indicating discrete targets.
Au	12	General trends apparent; discrete patterns difficult to discern; poor metric for indicating discrete targets on its own.
Ba	16	Numerous discrete anomalies coincident with ice flow; relation to mineralization unknown; large highly anomalous region in centre; not considered a primary pathfinder but may indicate alteration or favourable lithologies.
Co	19	Relatively continuous and discrete anomalies likely a good indication of changes in geology and metallic mineralization.
Cu	12	Relatively continuous and sharp anomalies that appear to indicate discrete target regions; good pathfinder element.

Element	Number of discrete anomalies	Description
Fe	16	Dispersals are discrete in some areas, but patterns are difficult to discern in other areas; some anomalies may be affected by drift thickness as they are concentrated over topographic highs; delineated with respect to local contrast rather than absolute value as many are extensive areas of low-moderate anomalies, likely reflecting bedrock lithology.
Mn	14	Only a few discrete dispersals identified; most are large and ambiguous and more likely related to bedrock lithology or drift thickness than to mineralization; poor pathfinder element on its own.
Mo	19	Some anomalies are discrete while others appear to represent larger targets with numerous overlapping dispersals; contrast is good from background, but dispersal patterns lack sharp outlines making it difficult to identify small targets; good pathfinder element.
Pb	14	Forms discrete anomalies with good contrast; dispersal patterns not all consistent with glacial transport; may be overlapping dispersals or distribution may be affected by a different mechanism (*e.g.,* drainage); good secondary pathfinder, but post-depositional migration should be considered.
Sb	12	Good contrast from background but low concentrations result in poor continuity and difficulty determining specific targets; better association with target trends than individual target areas; good secondary pathfinder and required corroboration from other variables to discern targets.
V	16	Good contrast in data set; anomalies form discrete dispersals in southwest, but become increasingly difficult to differentiate in the northeast, potentially related to change in bedrock lithology; some anomalies may be affected by drift thickness; numerous dispersals are unlikely to all be related to mineralization.
W	5	A few weak anomalies, but mostly low concentrations with no discernable patterns of significance; poor pathfinder element.
Zn	17	Contrast is high within the data set but low for individual dispersals; patterns appear heavily influenced by drift thickness; poor metric for mineralization as a single pathfinder element.
Local Au RIS	10	Contrast is good in the southern and western parts of the property, indicating several discrete targets; in the northeast, background values increase, but general target areas still apparent; good metric for mineralization.
Epithermal RIS	7	Contrast is good in the southern part of the property, indicating several discrete targets; in the northeast, background values increase, but general target areas still apparent; good metric for mineralization.
Porphyry RIS	13	Contrast is good in the southern and western parts of the property, indicating several discrete targets; in the northeast, background values increase, but general target areas still apparent; good metric for mineralization.

4.2.2 Exploration target areas

Anomalies from 15 elements and three multivariate signatures were overlain to identify 17 potential target areas (Figure 5; Appendix B). Targets were identified at or near the up-ice termination of the anomaly or where the concentrations abruptly increased within the anomaly. Each target is presented in Figures 6-25, which includes a description of the primary and secondary geochemical signature associated with the target and a priority ranking based on strength and continuity of the anomalies and the occurrence of primary pathfinder elements (*e.g.*, Au, Cu). In general, targets were identified more confidently in the south and west due to lower background concentrations in these areas.

Potential drill targets have also been identified that are intended to provide a general location that would be suitable to test the target (Appendix B). The locations of these drill targets were determined based on local clusters of highly anomalous samples. Considering the spurious nature of B-horizon soil samples, these targets are considered estimates and their locations can be moved if supported by other data.

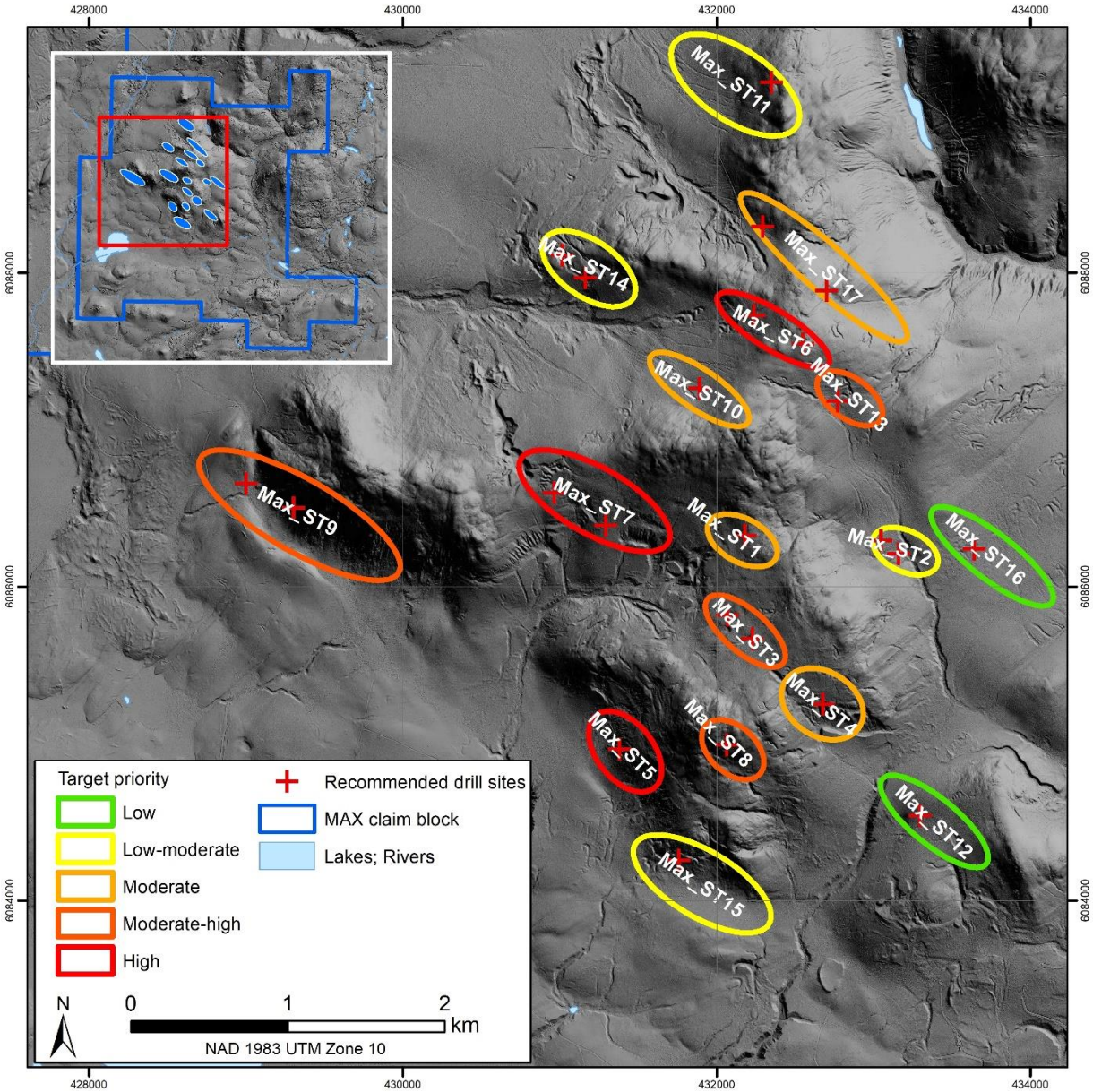
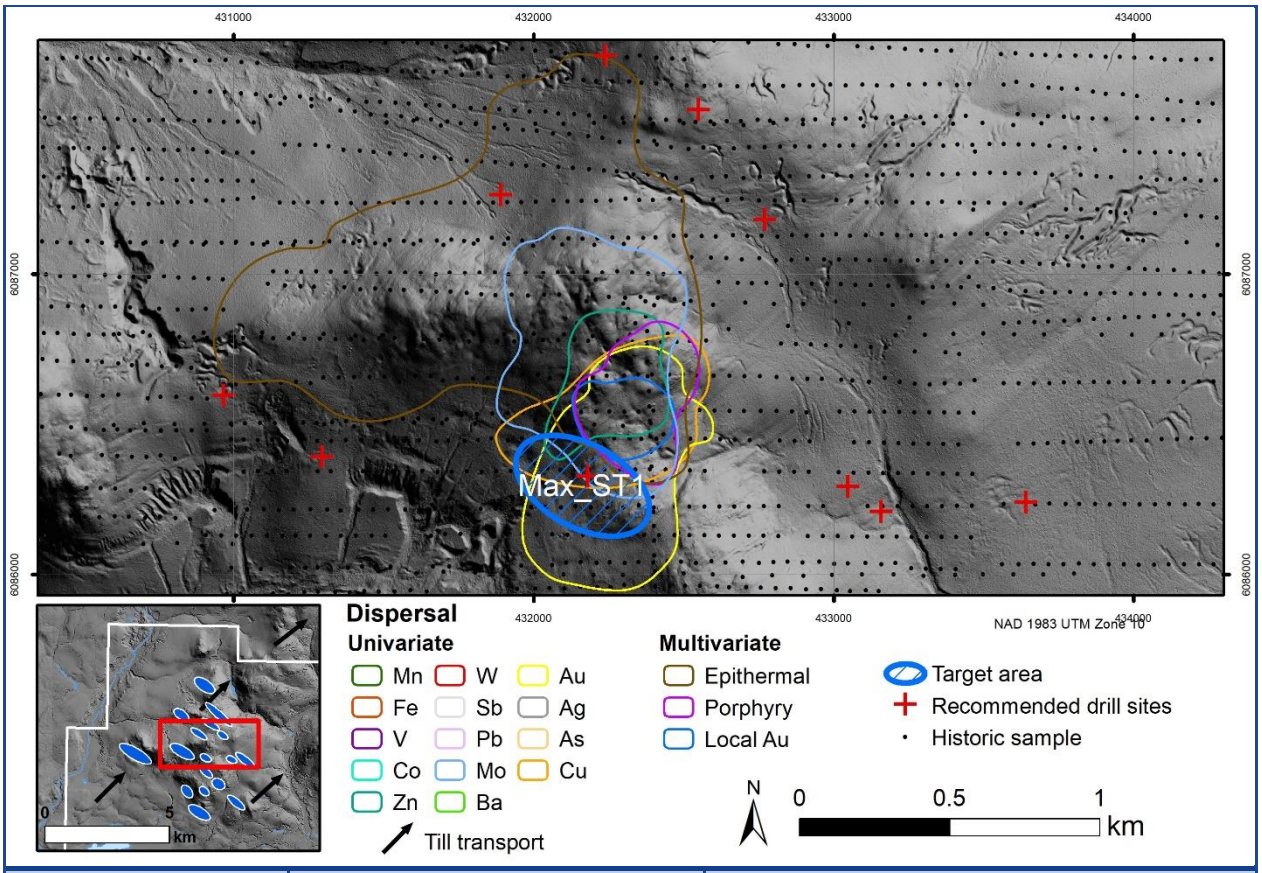
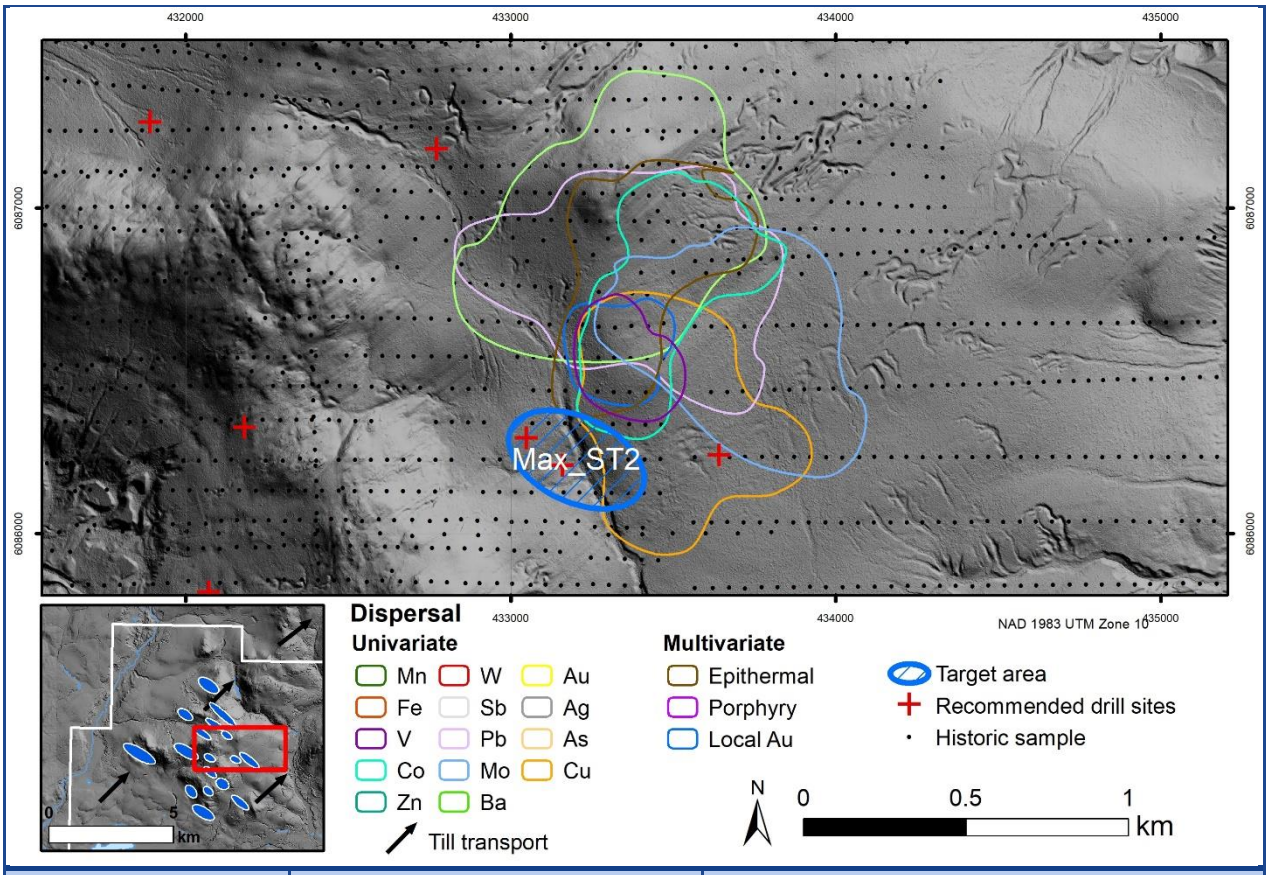


Figure 5. Target areas and recommended drill-test sites on the Max claims, derived from soil geochemistry.



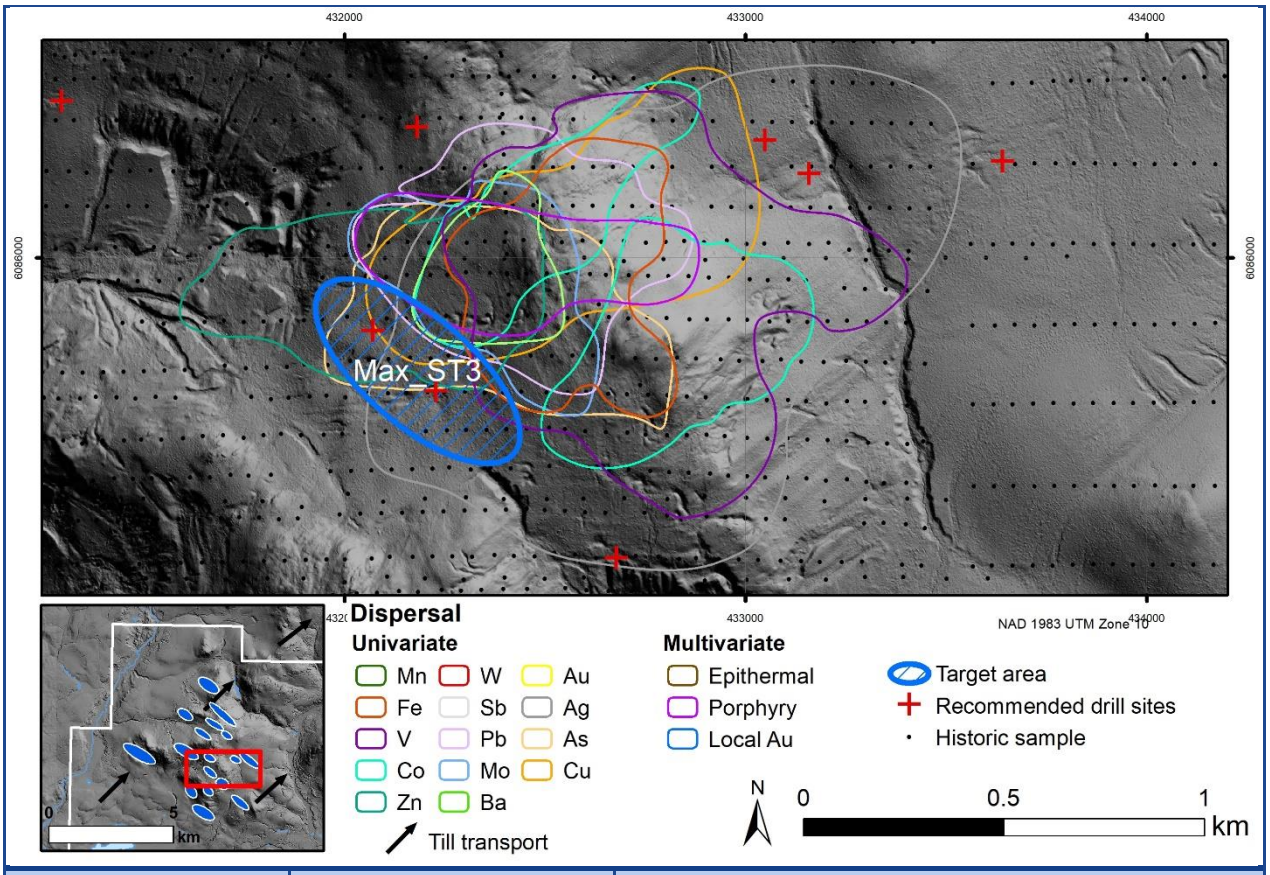
Target ID: Max_ST1 **Priority:** Moderate	**Primary signature:** Cu, Mo, Sb, Zn	**Secondary signatures:** Au, Cr
Comments: Correlative anomalies in many primary pathfinder elements.		

Figure 6. Characteristics of Target 1 and associated anomalies.



Target ID: Max_ST2 **Priority:** Low-moderate	**Primary signature:** Cu	**Secondary signatures:** Co, V, Ag
Comments: Relatively few anomalous samples but multivariate signatures present.		

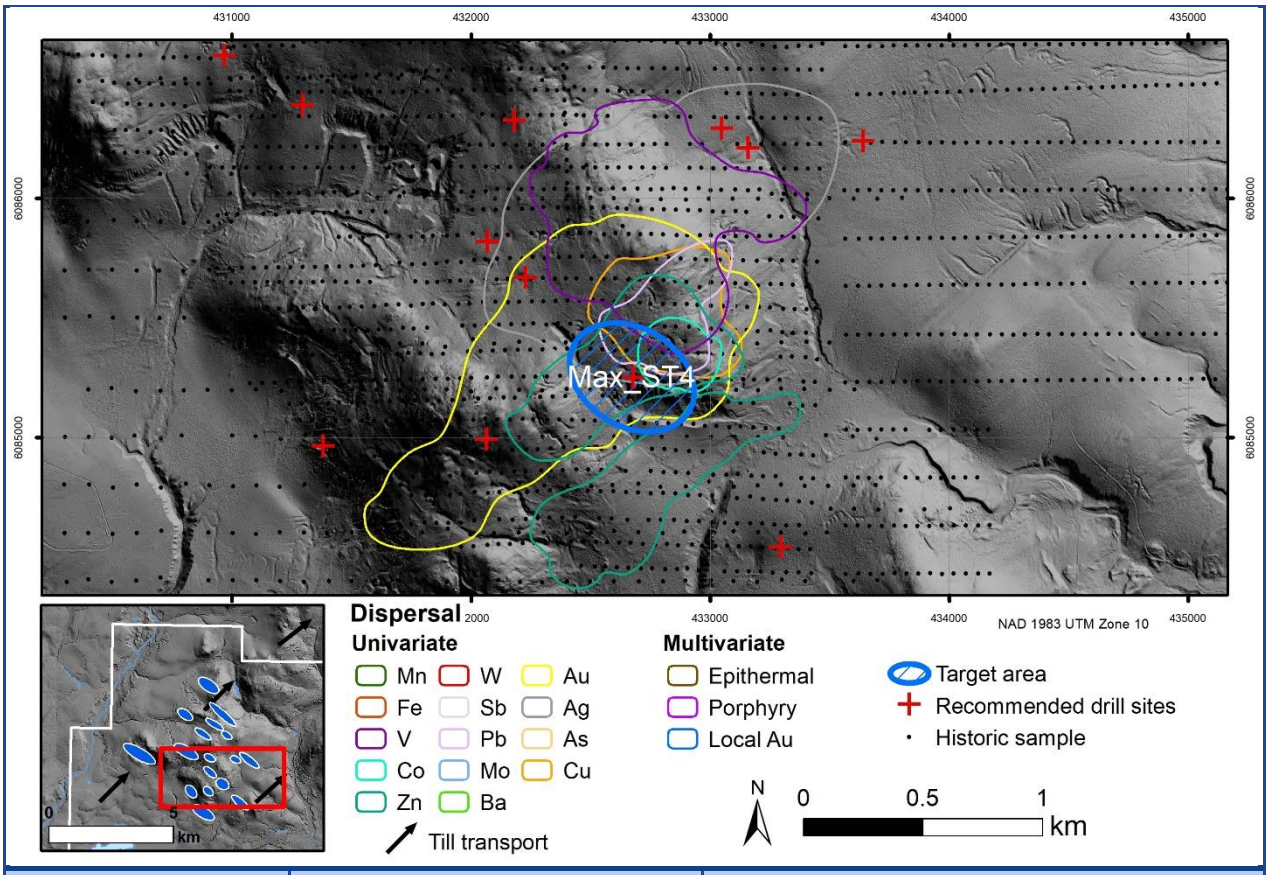
Figure 7. Characteristics of Target 2 and associated anomalies.



Target ID: Max_ST3 Priority: Moderate-high	Primary signature: As, Co, Cr, Cu, Fe, Mo, Pb, V, Zn	Secondary signatures: Ag, Sb

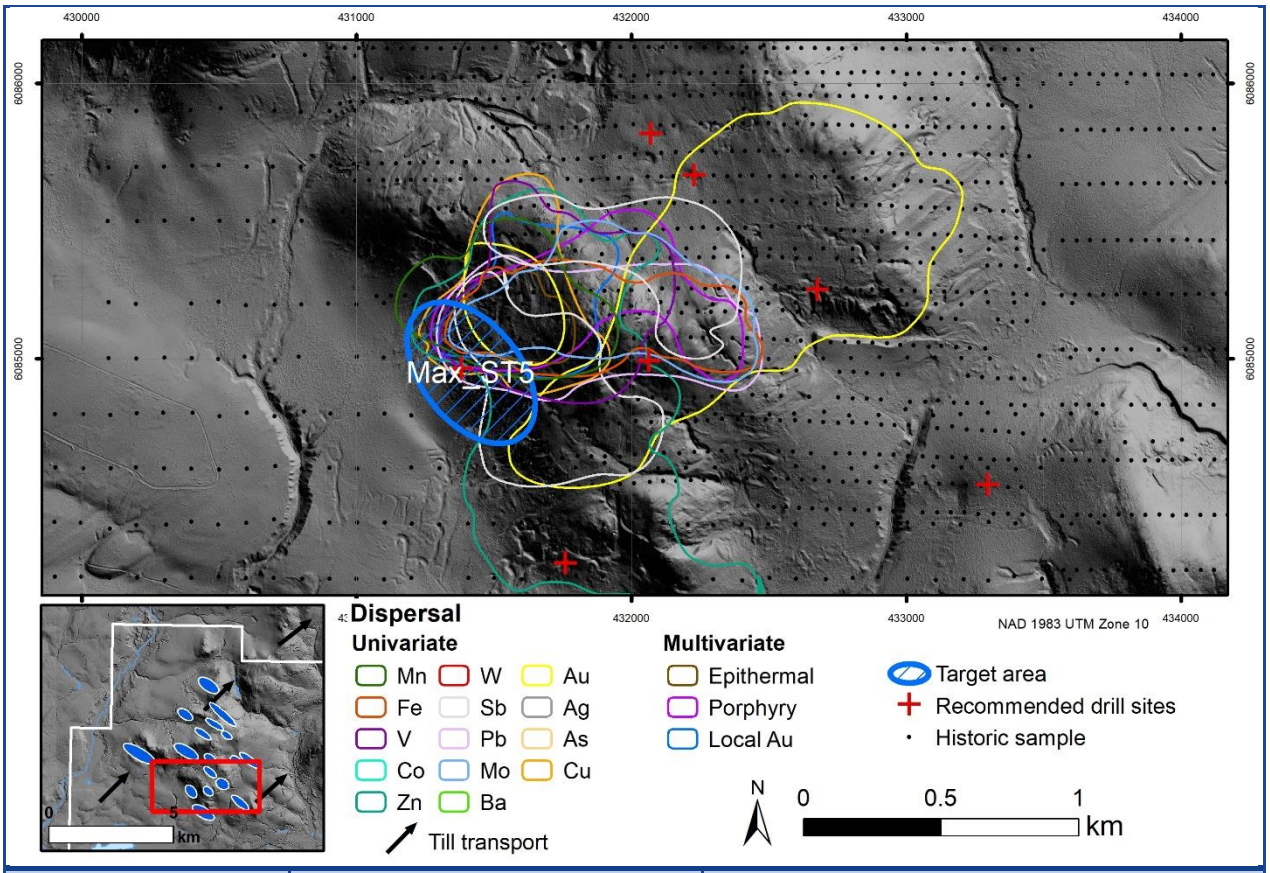
Comments: Several anomalous metrics with small footprints; target would have limited potential for glacial entrainment.

Figure 8. Characteristics of Target 3 and associated anomalies.



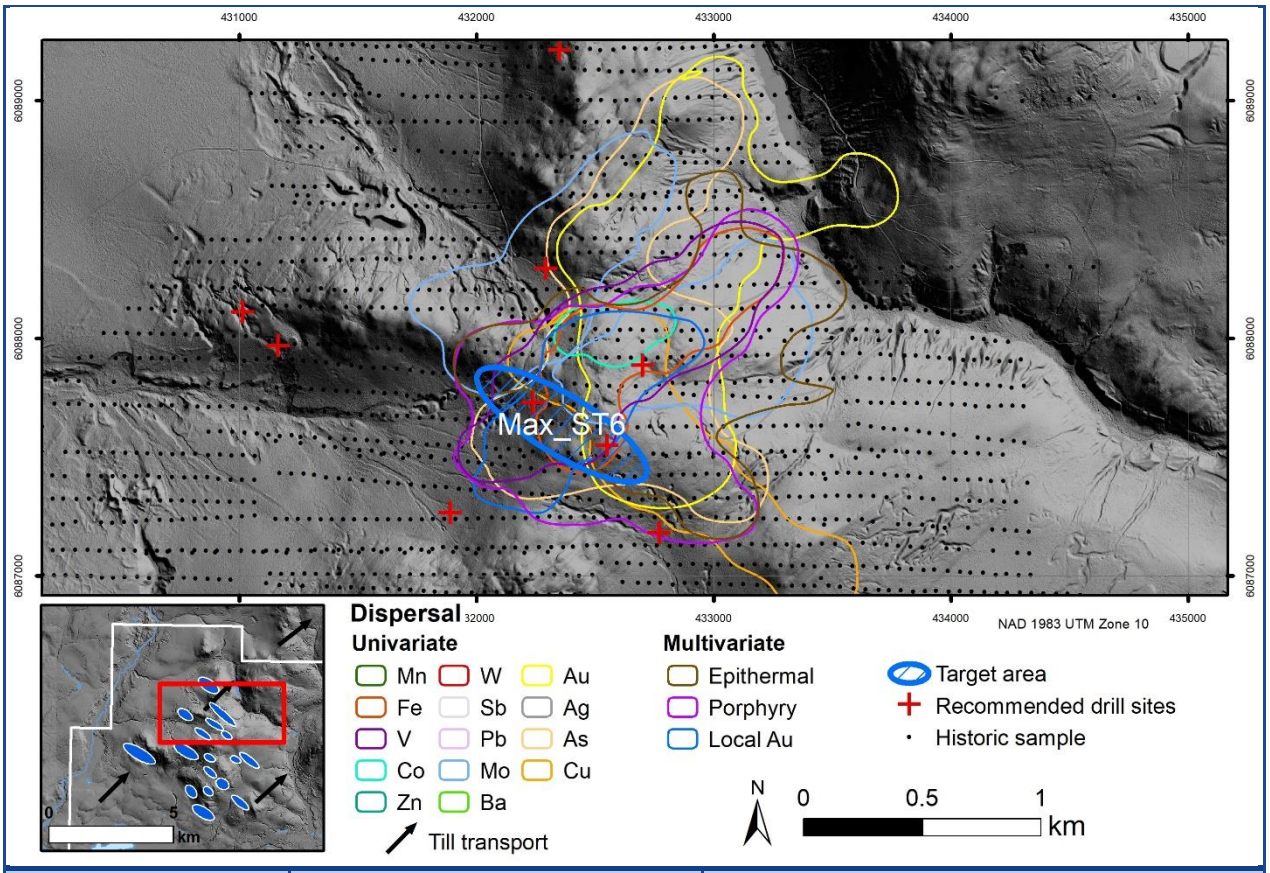
Target ID: Max_ST4 **Priority:** Moderate	**Primary signature:** Cr, Cu, Pb, Zn	**Secondary signatures:** Ag, Au, V
Comments: Concentration of anomalous samples within larger anomaly.		

Figure 9. Characteristics of Target 4 and associated anomalies.



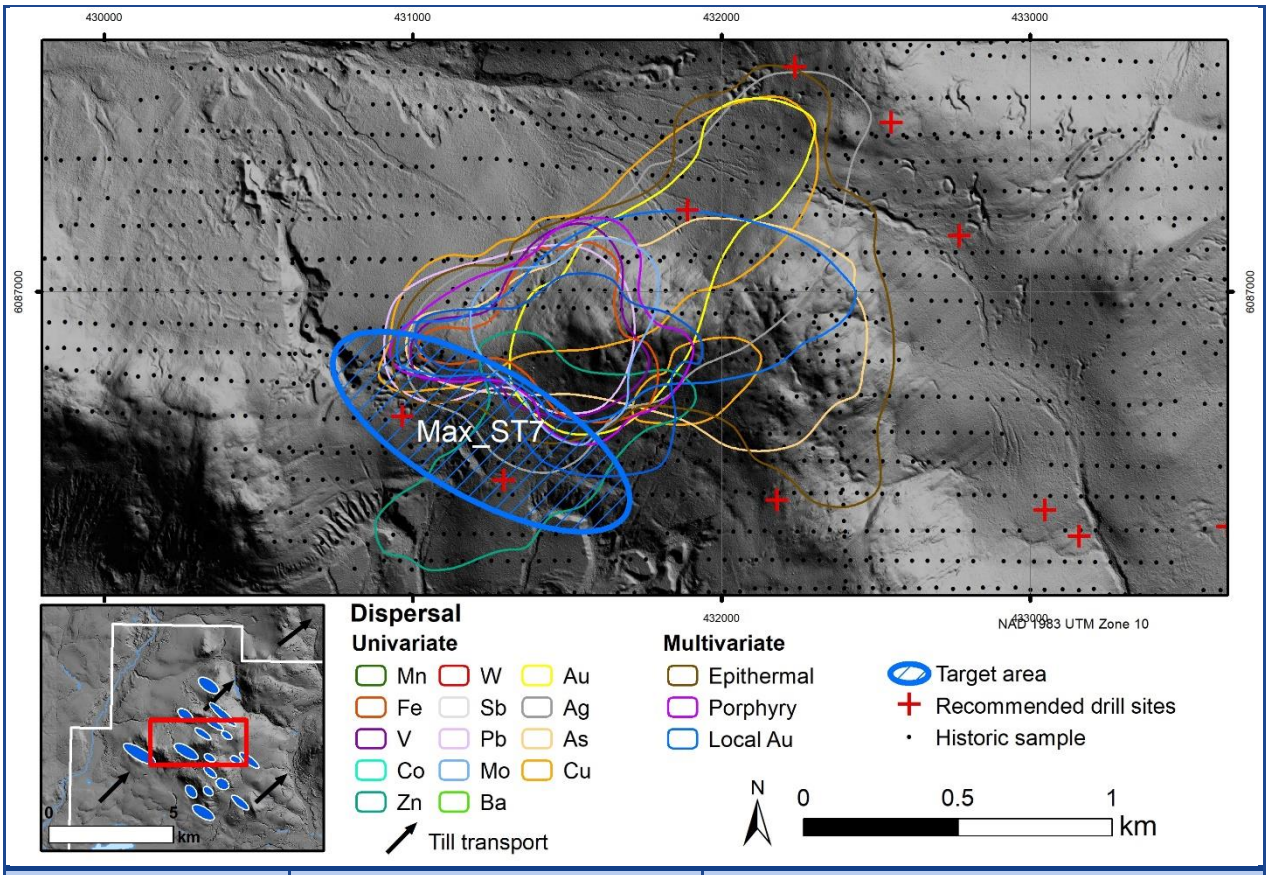
Target ID: Max_ST5 **Priority: High**	**Primary signature:** Au, Bi, Co, Cr, Cu, Fe, Pb, V, Zn	**Secondary signatures:** Mo, Sb, Ag
Comments: Strongly correlative multi-metric dispersals.		

Figure 10. Characteristics of Target 5 and associated anomalies.



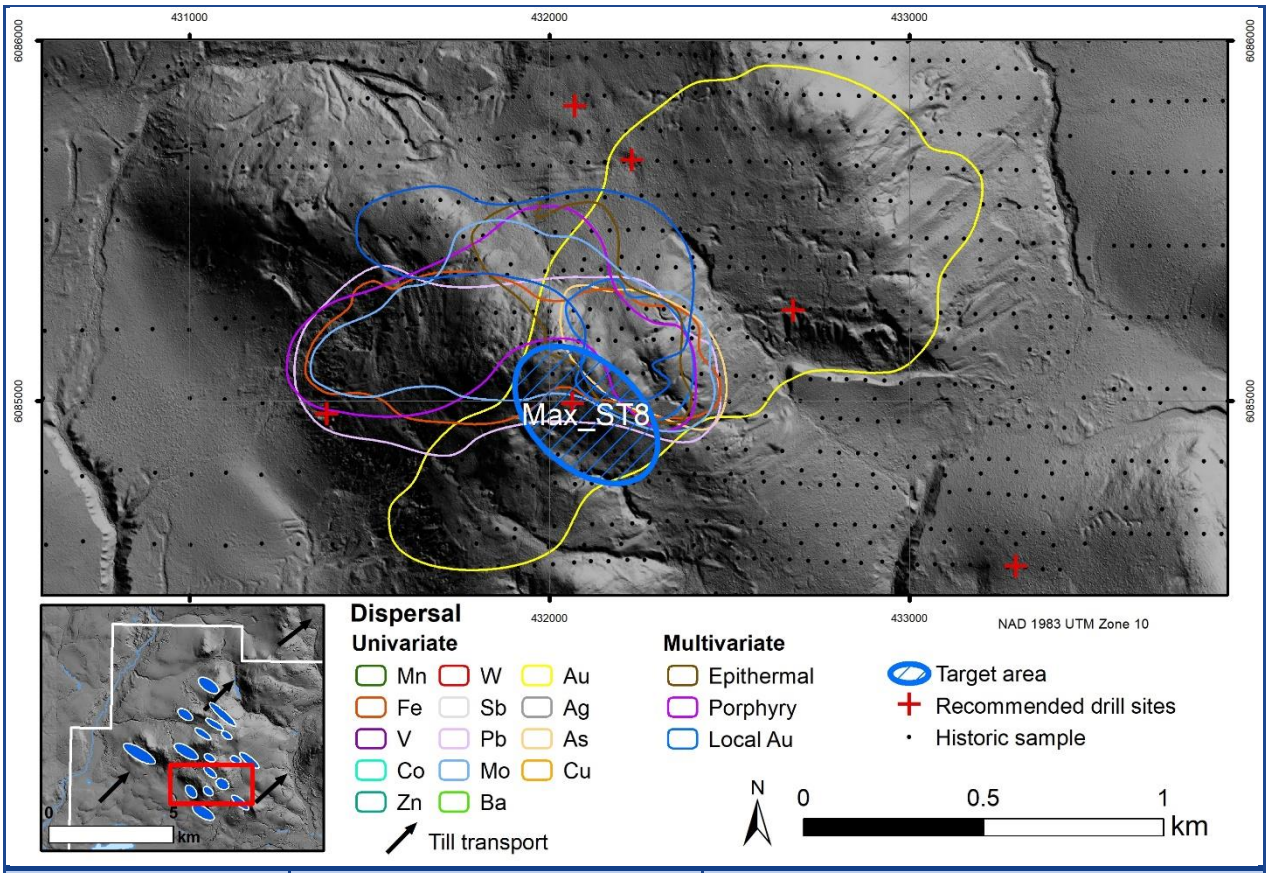
Target ID: Max_ST6 **Priority: High**	**Primary signature:** Ag, As, Cu, Fe, Mo, Pb, V	**Secondary signatures:** Au Co, Zn
Comments: Anomalous in several primary pathfinders.		

Figure 11. Characteristics of Target 6 and associated anomalies.



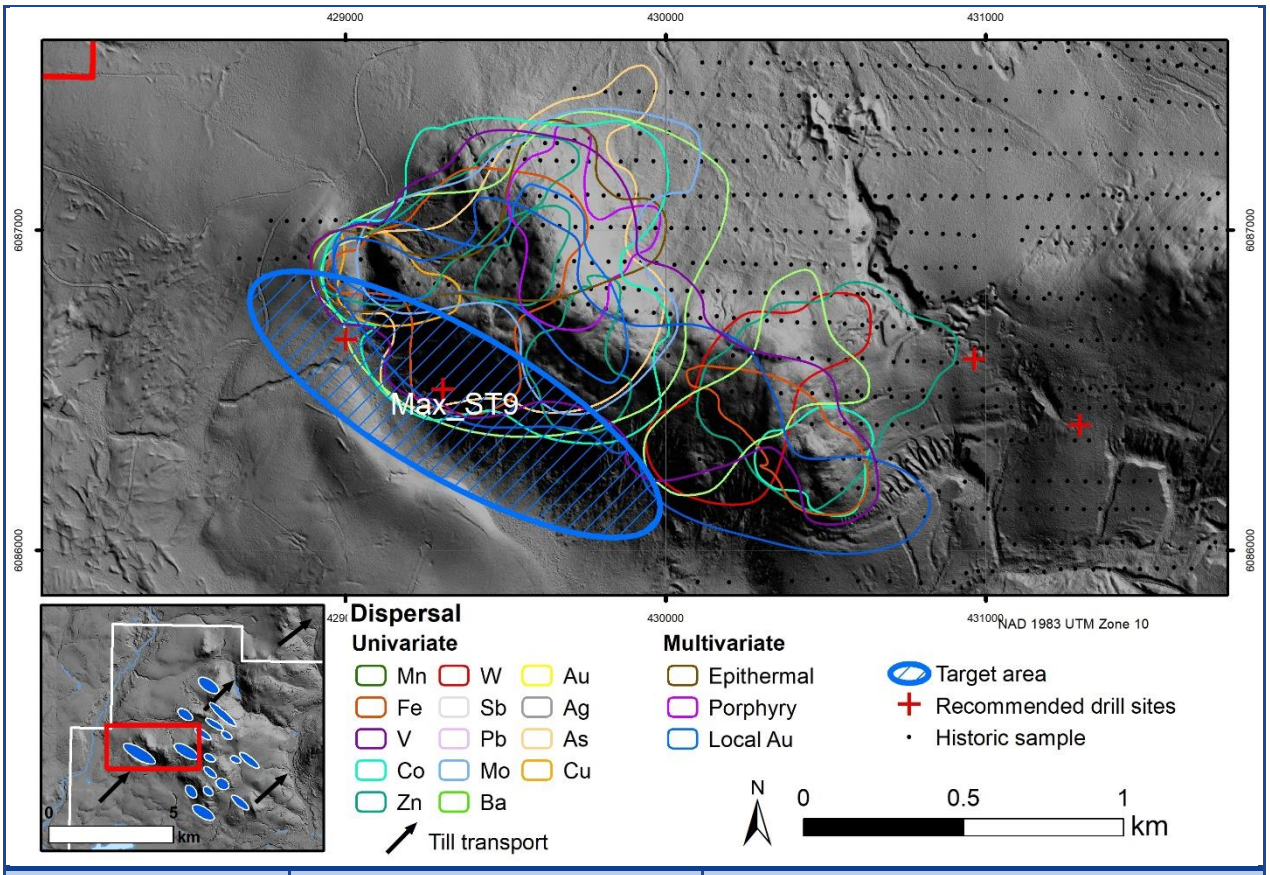
Target ID: Max_ST7 **Priority: High**	**Primary signature:** Ag, As, Au, Fe, Mo, V	**Secondary signatures:** Bi, Cu, Pb, Sb, Zn
Comments: Appears to be the up-ice extent of a large dispersal; down-ice signal may be overlapping dispersals from several sources. Anomalous Au, Bi further up-ice as well.		

Figure 12. Characteristics of Target 7 and associated anomalies.



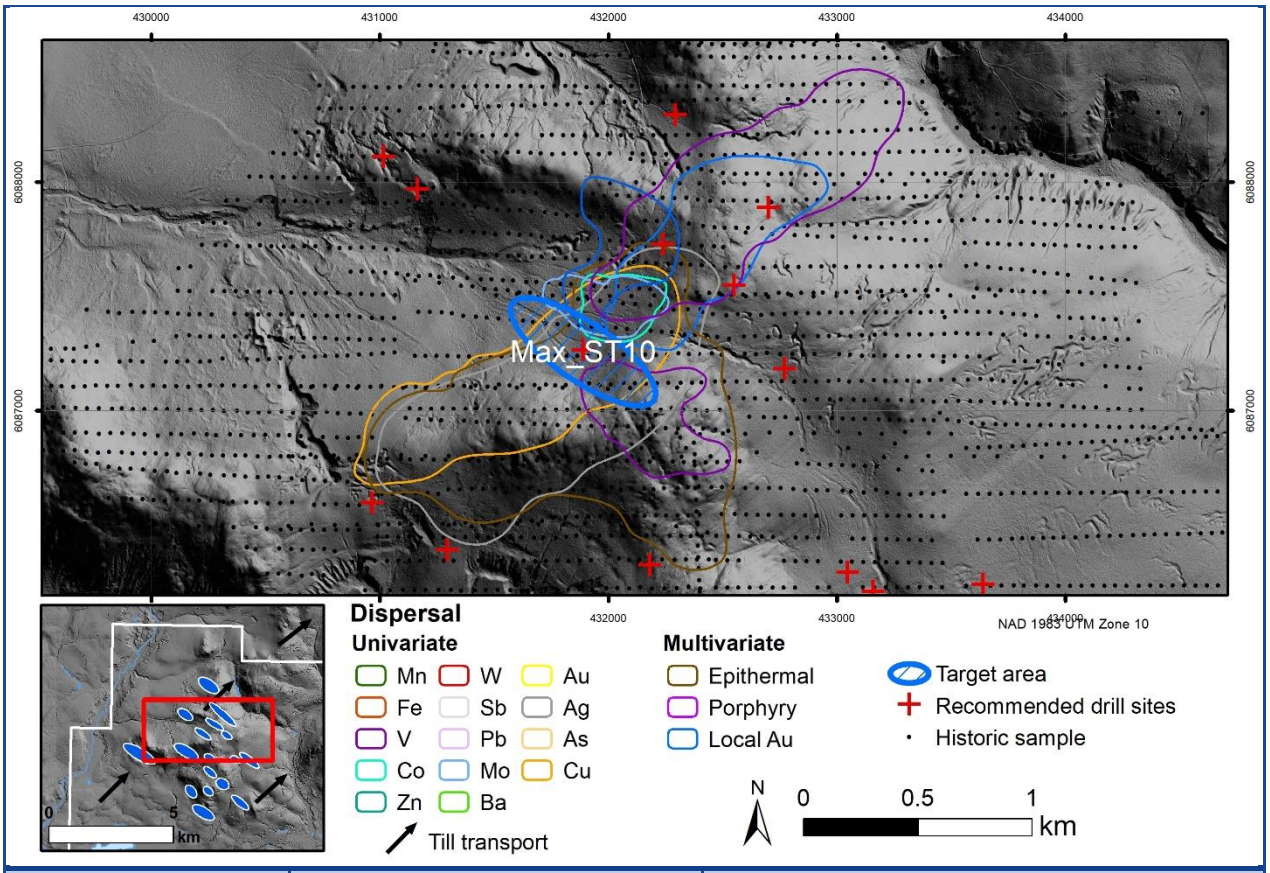
Target ID: Max_ST8 **Priority:** Moderate-high	**Primary signature:** As, Au, Bi, Cr, Fe, Pb	**Secondary signatures:** Mo
Comments: Dispersal pattern may be influenced by higher element concentrations over thin drift; target could be further up ice.		

Figure 13. Characteristics of Target 8 and associated anomalies.



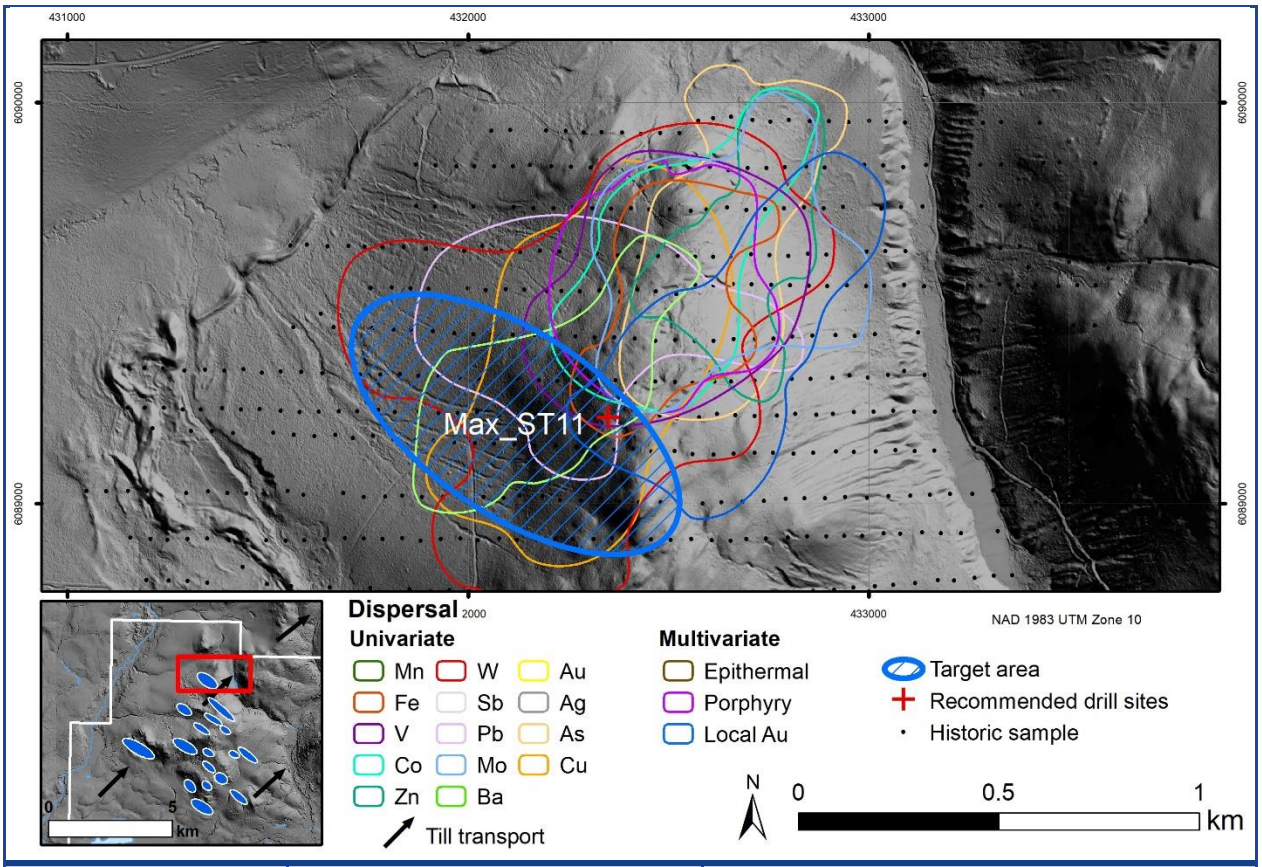
Target ID: Max_ST9 **Priority:** Moderate-high	**Primary signature:** As, Co, V, Zn	**Secondary signatures:** Au, Cr, Cu, Fe, Sb, Mo
Comments: Moderate signals appears stronger toward the northern part of target area.		

Figure 14. Characteristics of Target 9 and associated anomalies.



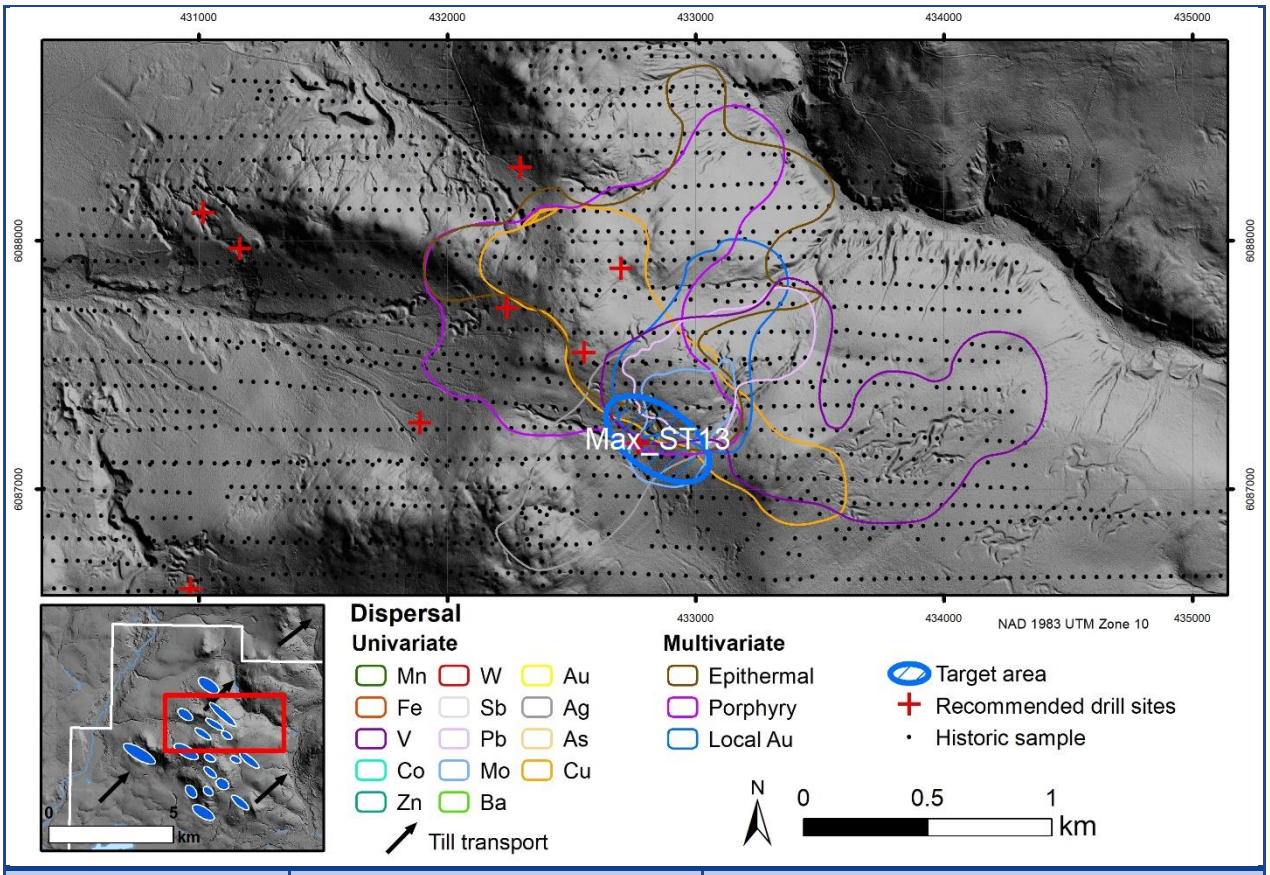
Target ID: Max_ST10 Priority: Moderate	**Primary signature:** Ag, V	**Secondary signatures:** Cu, Zn
Comments: Possible recharge area of large dispersal here.		

Figure 15. Characteristics of Target 10 and associated anomalies.



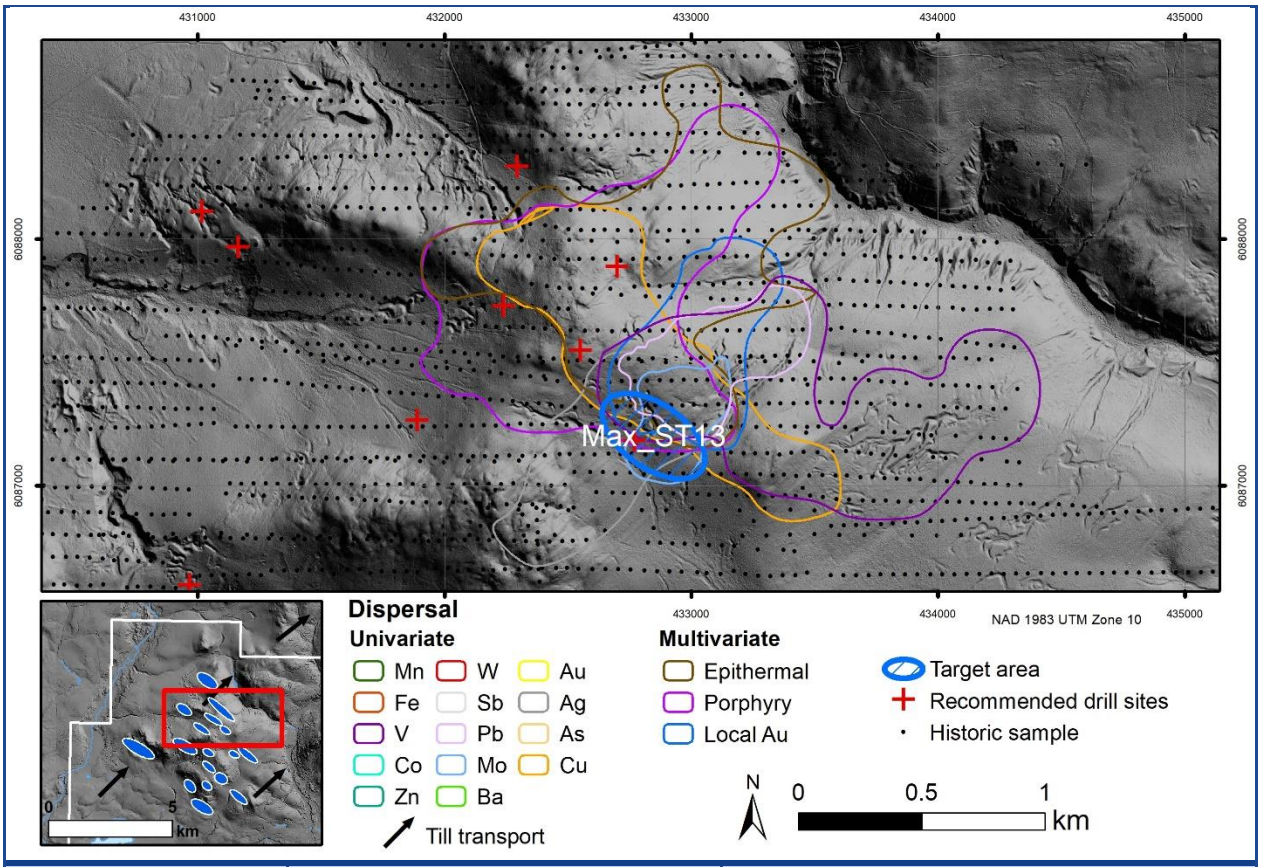
Target ID: Max_ST11 Priority: Low-moderate	**Primary signature:** Bi, Co, Fe, V	**Secondary signatures:** As, Au, Cu, Pb, Sb, Zn
Comments: Generally weak signal but repeated in many metrics.		

Figure 16. Characteristics of Target 11 and associated anomalies.



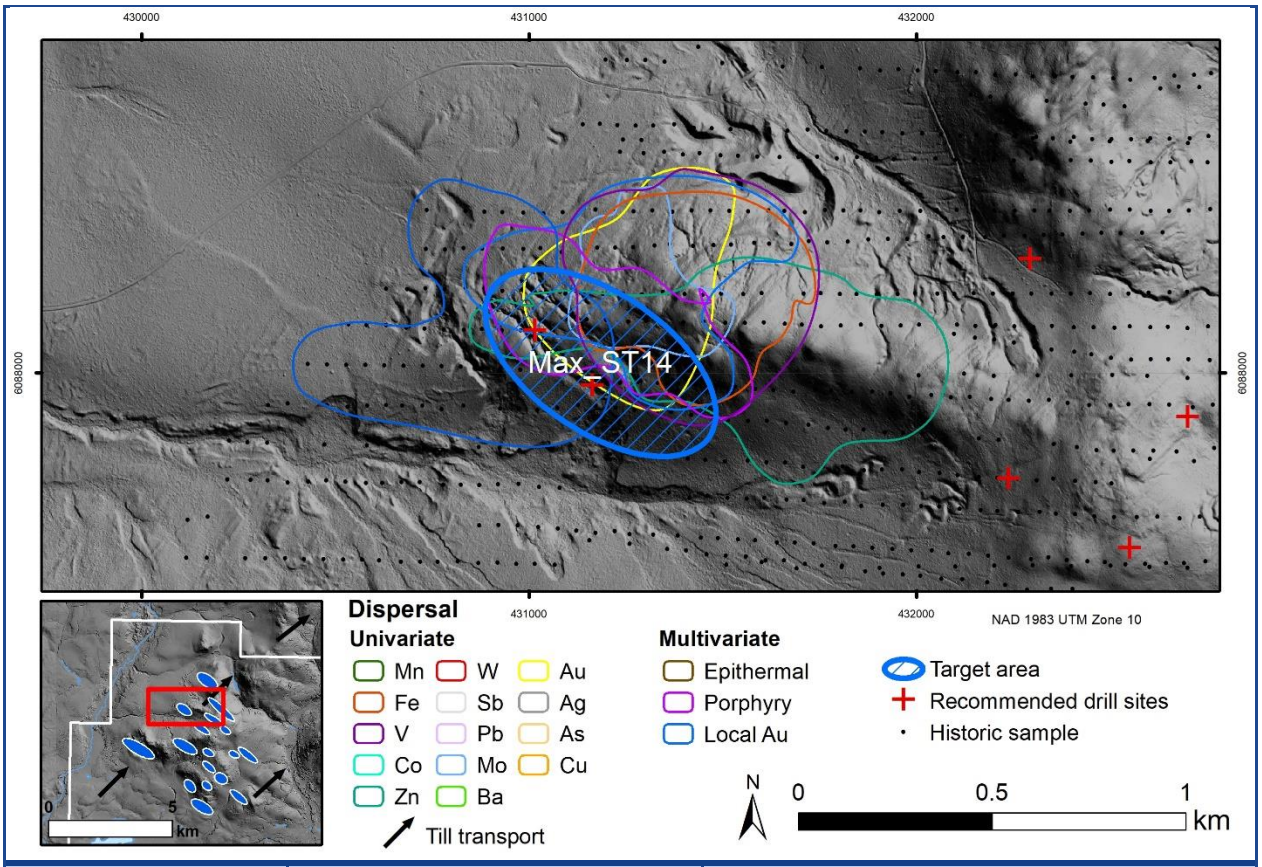
Target ID: Max_ST12 Priority: Low	Primary signature: Cr, Pb, Sb, Zn	Secondary signatures: Ag, Co, Mo, V, Fe
Comments: Generally weak signal but repeated in several metrics.		

Figure 17. Characteristics of Target 12 and associated anomalies.



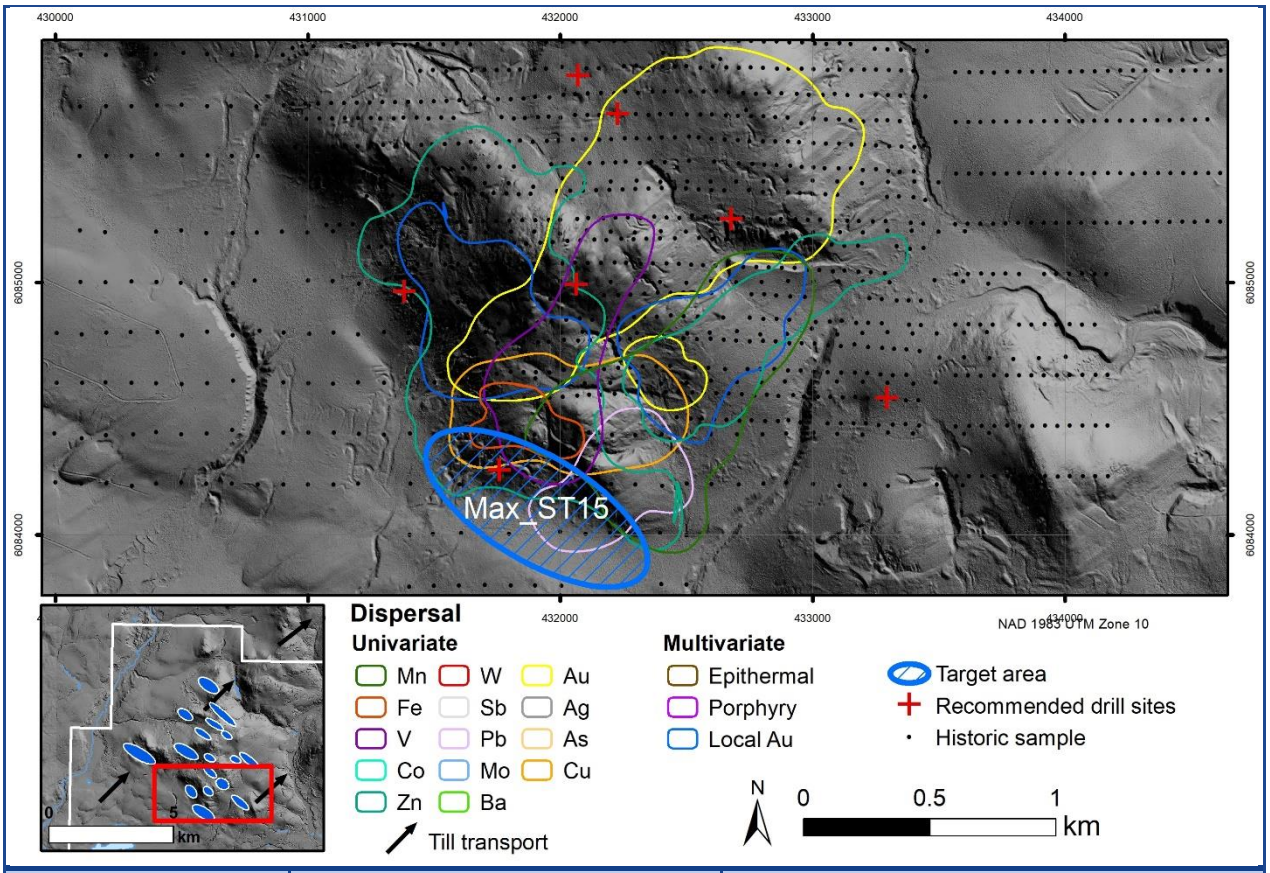
Target ID: Max_ST13 **Priority:** Moderate-high	**Primary signature:** Bi, Cu, V	**Secondary signatures:** Ag, Co, Zn
Comments: Relatively small contributing anomalies but occurs in many metrics.		

Figure 18. Characteristics of Target 13 and associated anomalies.



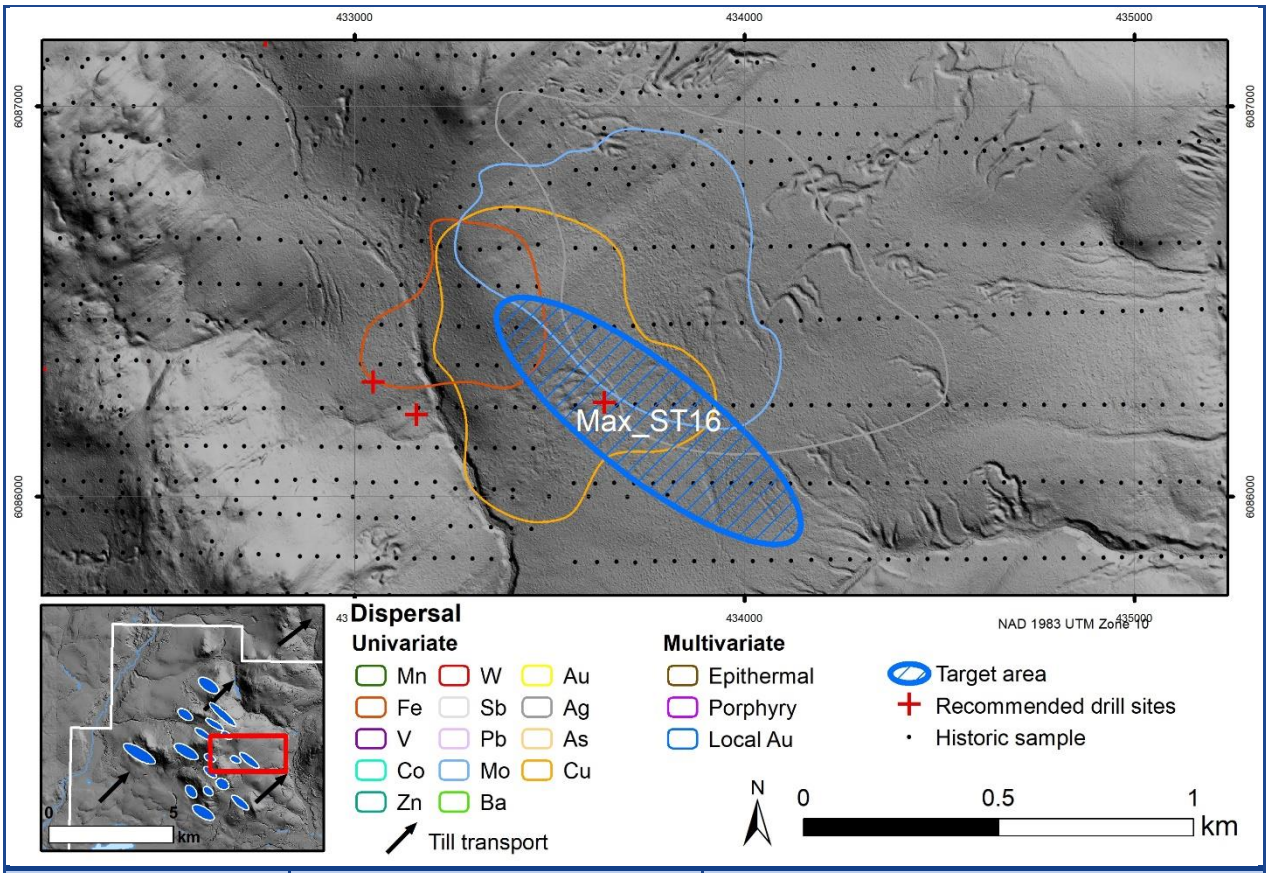
Target ID: Max_ST14 **Priority:** Low-moderate	**Primary signature:** Bi, Mo, V, Zn	**Secondary signatures:** Au, Co, Fe, Ag, Cr, Cu
Comments: Generally weak anomalies but repeat in several metrics.		

Figure 19. Characteristics of Target 14 and associated anomalies.



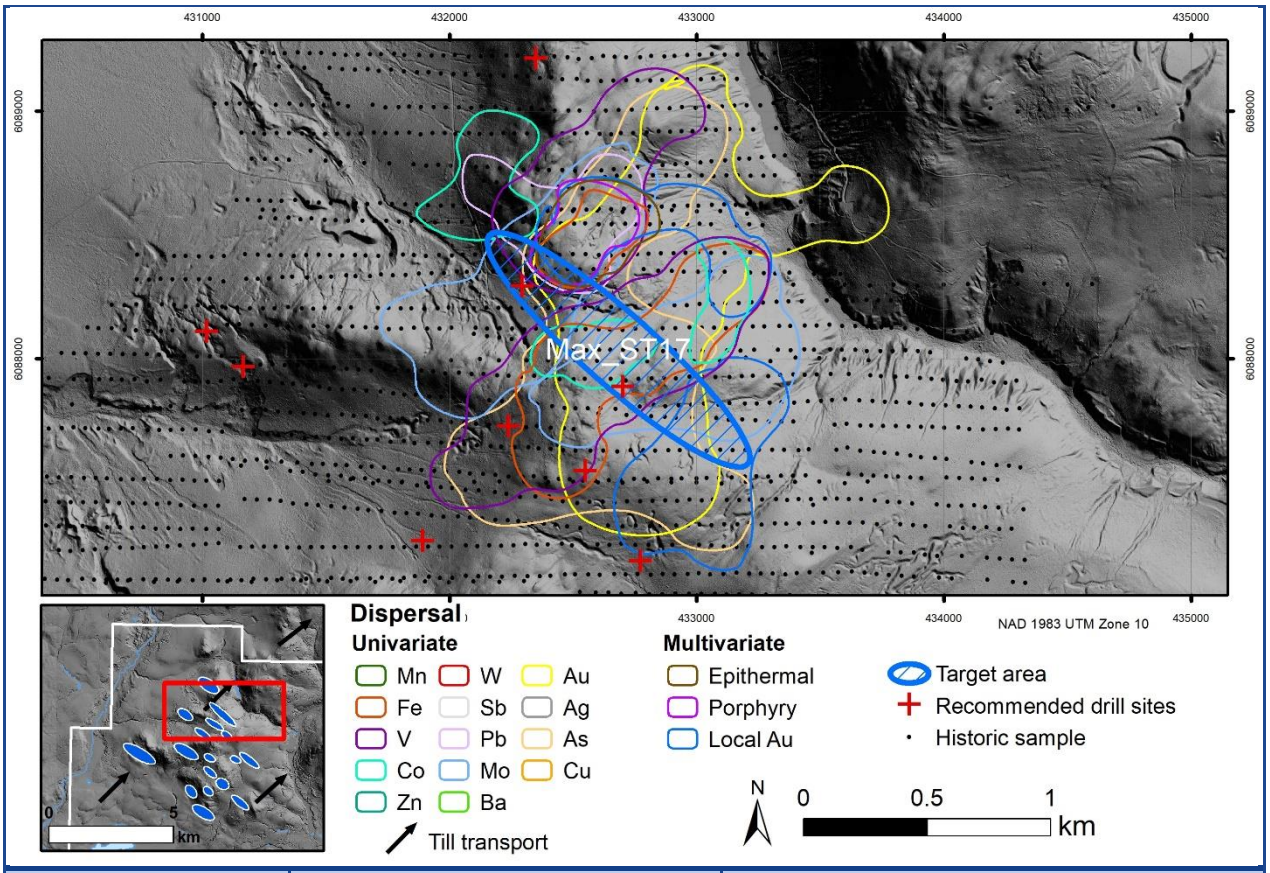
Target ID: Max_ST15 **Priority:** Low-moderate	**Primary signature:** Ag, Co, Cr, Cu, Zn	**Secondary signatures:** Fe, Pb, V, Au
Comments: Relatively weak anomalies and poor spatial correlation.		

Figure 20. Characteristics of Target 15 and associated anomalies.



Target ID: Max_ST16 Priority: Low	Primary signature: Ag, Sb	Secondary signatures: Mo, Cu, Fe
Comments: Weak anomalies in several primary pathfinder elements.		

Figure 21. Characteristics of Target 16 and associated anomalies.



Target ID: Max_ST17 Priority: Moderate	Primary signature: As, Bi, Co, Mo, V	Secondary signatures: Au, Cr, Fe, Zn
Comments: Several highly anomalous down-ice samples, but signal not consistent in all down-ice samples; Contributing anomalies appear to correlate best in central and northern portions of target.		

Figure 22. Characteristics of Target 17 and associated anomalies.

5. Conclusions and recommendations

A soil sediment and bedrock geochemistry data set was compiled for the Max property from several sources. This data set contains internal variability associated with analytical methods and parent material. Some of this variability was reduced through the development of comparable subpopulations; however, it is difficult to mitigate the variance in soil geochemistry related to inconsistent soil development and post-depositional migration of elements. Although the results are not spatially consistent (*i.e.*, highly anomalous samples with interspersed with samples with background concentrations), the standardized data set shows spatially accordant patterns that are most likely attributed to underlying geology and mineralization.

Numerous anomalies were identified from individual elements and multivariate metrics. The anomalies generally form elongated patterns aligned with ice flow, suggesting clastic transport. As such, target areas were identified at or near the up-ice extent of the anomalies. In general, the multivariate metrics produced sharper anomalies than the individual elements and had more influence on the location of suggested drill-testing sites. Some primary pathfinders such as Au, Ag and Sb exhibited inconsistent anomalies and did not heavily contribute to the definition of target areas as individual variables.

Seventeen target sites were identified and ranked based on the strength and continuity of the contributing anomalies, and the number of primary pathfinders (*e.g.,* Au, Cu). The accuracy of some target areas, especially in the northeast, could benefit from a more focussed evaluation designed to improve data contrast. Recommended test-drilling sites are provided, but these are based on the soil geochemistry that can be misleading. There is flexibility to alter these locations, especially if there is additional information such as bedrock geometry or geophysics that specify another location. If resources allow, it is recommended that these targets are corroborated with other more reliable data such as C-horizon till sampling of ground geophysics. In addition, the target locations can be compared to the previously provided drift thickness mapping (Palmer, 2021) to identify specific locations where bedrock mapping and sampling programs are most likely to be effective. Soil gas sampling may also be effective at refining these drill-testing locations, but is likely only applicable where drift is at least a few metres thick.

6. Certification

This report was prepared, reviewed and approved by the undersigned:

Prepared By:

Cam Knox, B.Sc., GIT
Quaternary Geologist

Prepared and Reviewed By:

Dave Sacco, M.Sc.
Senior Surficial Exploration Manager

Approved By:

Robin McKillop, M.Sc., P.Geo.
Vice President, Principal Surficial Geologist

7. References

Lefebure, D.V., and Jones, L.D., (compilers) 2020. British Columbia Geological Survey mineral deposit profiles, 1995 to 2012. British Columbia Ministry of Energy, Mines and Low Carbon Innovation, British Columbia Geological Survey GeoFile 2020-11, 580p.

McMartin, I and McClenaghan, M.B.. (2001). Till geochemistry and sampling techniques in glaciated shield terrain: A review. 10.1144/GSL.SP.2001.185.01.02.

Palmer, 2021. Surficial geology mapping and an inventory of surficial exploration data around the Mount Milligan Mine, BC. Palmer Project #1902404. Prepared for Thompson Creek Metasl Company Inc.

Sacco, D., Lett, R., Jackaman, W., Elder, B., 2018. Advanced processing of the TREK Project geochemical data: Identifying and Enhancing geochemical anomalies in the TREK project area using sediment transport modelling combined with multimedia and multivariate data analysis. Geoscience BC, Report 2018-07, 99 p.

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Appendix A

Max standardized geochemical database and summary statistics

Provided separately as:
Max_SoilGeochemistryEvaluation_Palmer15Dec2021_AppendixA_GeochemData.xlsx

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Appendix B

Max soil anomalies and mineral exploration targets (spatial data)

Max_SoilGeochemistryEvaluation_Palmer15Dec2021_AppendixB_AnomaliesAndTargets.zip

Appendix I – *Surficial geology mapping and an inventory of surficial exploration data around the Mount Milligan Mine, BC*

470 Granville Street, Suite 630, Vancouver, BC V6C 1V5
Tel: 604-629-9075 | www.pecg.ca

Surficial geology mapping and an inventory of surficial exploration data around the Mount Milligan Mine, BC

Palmer Project #
1902404

Prepared For
Thompson Creek Metals Company Inc.

April 20, 2021

April 20, 2021

Thompson Creek Metals Company Inc.
299 Victoria Street
Suite 200
Prince George, BC V2L 5B8

c/o Cheyenne Sica, M.Sc. P.Geo.
Exploration Manager, Brownfield – British Columbia
Centerra Gold Services Inc.

Dear Cheyenne,

Re: Surficial geology mapping and an inventory of surficial exploration data around the Mount Milligan Mine, BC
Project #: 1902404

Palmer is pleased to submit the enclosed report to Thompson Creek Metals Company Inc., presenting the results of our 1:20 000-scale surficial geology mapping, derived till sampling suitability and drift thickness, and preliminary assessment of existing surficial exploration data for the Mount Milligan and Max mineral claims. The results of this work provide the foundation necessary to develop a data-driven surficial exploration strategy to develop and refine reliable mineral exploration targets.

Should you have any questions, please do not hesitate to contact Dave Sacco (778-689-2721, dave.sacco@pecg.ca).

Yours truly,

Dave Sacco, M.Sc.
Senior Surficial Exploration Specialist

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Appendix A. Mount Milligan surficial geology map sets
Appendix B. Mount Milligan surficial geology spatial data

1. Introduction

Palmer is pleased to provide Thompson Creek Metals Company Inc. (TCMC) the results from our 1:20 000-scale surficial geology mapping and preliminary assessment of existing surficial exploration data for an area of interest within the Mount Milligan (MtM) and Max claim blocks (the Property), British Columbia (Figure 1). This scope of work provides a surficial framework that will inform a surficial exploration strategy for the Property and determine the effort required to standardize the existing geochemical data for evaluation within this framework. This is the first component of a surficial exploration program that is designed to identify and refine brownfield exploration targets on the Property. The next phases of this program include an evaluation of the existing data and the development of a reliable, property-wide base layer of surface sediment geochemical data that will be used to develop a series of mineral exploration targets that can be prioritized, refined and advanced to the drilling stage.

Included in this report is a summary of the surficial geology and glacial history and their implications for exploration. The results of the surficial geology mapping were used to derive till sampling suitability (TSS) and drift thickness maps. These derivative products provide information on what methods of exploration are suitable within different areas of the Property. Recommendations are provided for the next phases of exploration based on this information. The surficial geology, TSS and drift thickness maps are provided in Appendix A. An Esri geodatabase is provided in Appendix B that contains all the spatial data and the Geological Survey of Canada (GSC) style and font files that can be used to symbolize the surficial geology mapping.

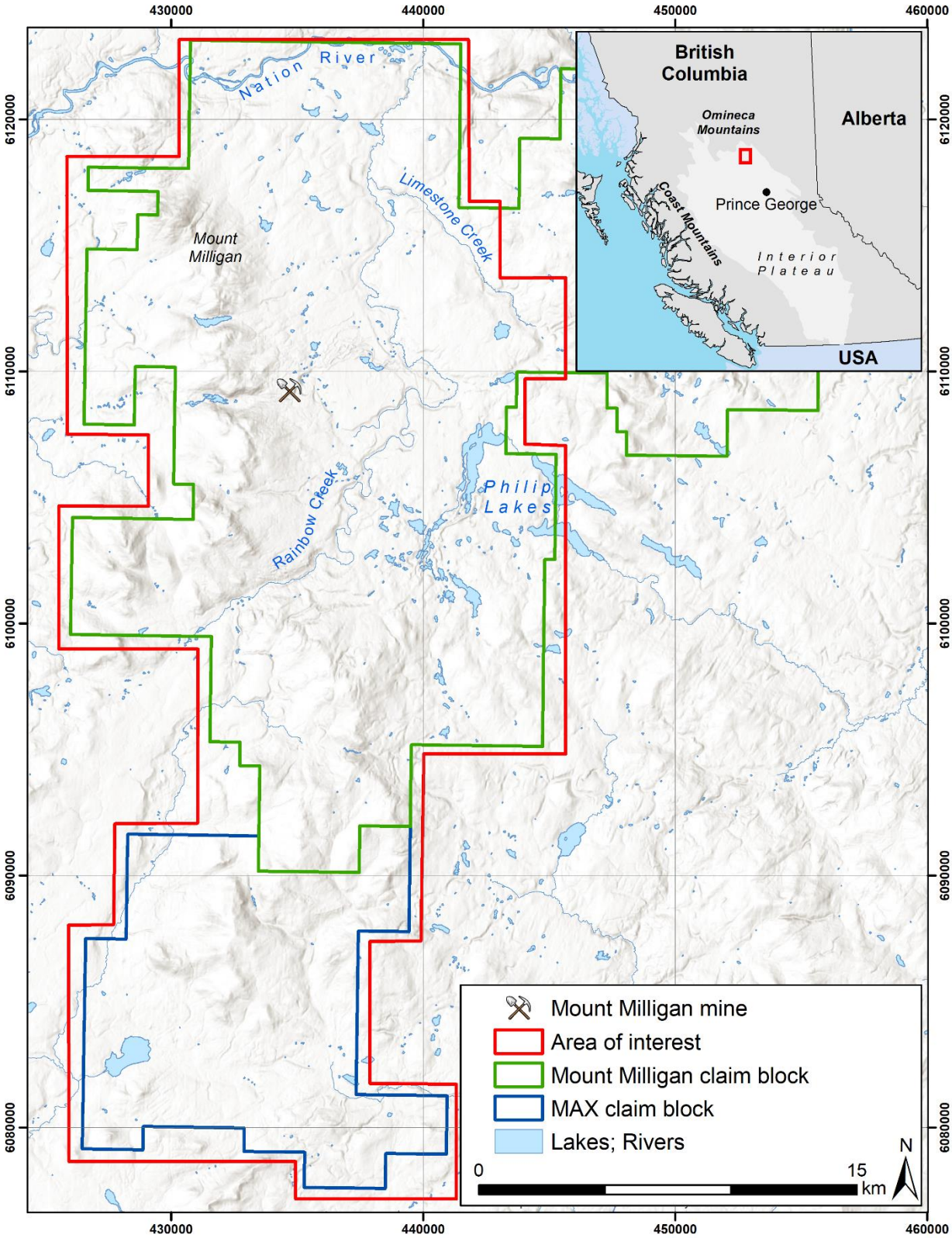

Figure 1. Study area encompassing a portion of the Mount Milligan and Max claims.

2. Previous research and regional glacial history

The Interior Plateau of British Columbia has high potential for porphyry-style mineralization. Specifically, the Mount Milligan porphyry copper-gold deposit and surrounding area has attracted multiple property- to regional-scale studies, by industry, government, and academia, focused on the geology, geochemistry, and geophysics of the area. These datasets are robust and commonly benefit from a detailed understanding of the surficial geology in which they can be evaluated. This understanding of surficial geology can also be used to determine applicable exploration methodologies. Regional surficial geology mapping has been conducted by Kerr (1991), Plouffe, (2000) and McGregor and Sacco (in press). From these maps and the associated research (*e.g.,* Kerr and Bobrowski, 1991; Sacco *et al.*, 2017), a regional glacial history has been established.

At the onset of the last glaciation, ice accumulated and advanced southward towards the Property from source areas in the Omineca Mountains (Maynard and Ryder, 1991; Sacco *et al.*, 2017). Eventually, these glaciers coalesced with glaciers sourced from the northern and southern Coast Mountains, resulting in a dominantly northeastward flow across the norther Interior Plateau that continued throughout the glacial maximum (*e.g.*, Plouffe, 2000; Sacco *et al*., 2017). Regional surficial geology mapping indicates that till is the dominant surficial material on the Property (Kerr, 1991; Plouffe, 2000; McGregor and Sacco, in press). Kerr and Sibbick (1992) describe the till as a commonly drumlinized, dense, very poorly sorted diamicton composed of angular to well-rounded pebbles and cobbles in a sand-silt-clay matrix. Soil-forming processes have modified the till to an average depth of ~50 cm (Sibbick *et al.*, 1997). The dominant sediment transport direction is to the northeast; however, advance- and deglacial-phase variations in ice-flow direction likely result in local differences. Till displacement from the bedrock source is a function of the ice-flow history, unit thickness and topographic position. On topographic highs, till is generally thin and short-travelled in the direction of the most recent ice-flow. Plateaus are commonly covered with farther-travelled, thick mantles of till. The provenance of till within these thicker till units may change throughout the profile.

During deglaciation, the ice margin retreated in a general westward to southwestward direction as indicated by the orientation of ice-marginal meltwater channels. Localized shifts in ice-flow to the east and north occurred throughout the northern Interior Plateau (Plouffe, 2000; Blais-Stevens and Clague, 2007; Sacco *et al.*, 2017). Ice stagnated in many valleys, causing the formation of glacial lakes where drainage was impeded, and large proglacial outwash landforms where drainage systems were open. Ablation till was commonly deposited by the stagnating ice. Valley-fill sediment sequences are typically capped with glaciofluvial sediments and ablation till, underlain by glaciolacustrine units and till (Plouffe, 2000; Sacco *et al.,* 2017; Palmer, 2020). Preglacial sediments and glacial materials from previous glaciations are sometimes preserved in paleovalleys that were protected from glacial erosion. These valley-fill sequences are commonly incised by Holocene streams. Drift thickness is highly variable, ranging from less than 1 metre on rocky uplands, to over 100 metres thick in the lowlands directly east of the Mount Milligan Mine (Palmer, 2020). Bedrock outcrop is sporadic in this region, so most mineral exploration programs rely heavily on a combination of geophysics and surficial data to derive targets.

3. Methods

3.1 Surficial geology

The surficial geology was interpreted at a scale of 1:20 000 for the ~680 km^2 Property to characterize and identify the distribution of sediments, landforms, and geomorphological processes. The surficial geology was interpreted from a combination of high-resolution stereo imagery and LiDAR data acquired in 2018, 2019, and 2020. Imagery and LiDAR resolution ranged from 10 cm to 20 cm. High-resolution hillshades were derived from LiDAR and were invaluable to distinguish subtle changes in the landscape that were otherwise obscured by vegetation. Mapping was completed using DAT/EM's Summit 3D mapping software and Esri's ArcGIS. Field verification has not yet been completed.

Map units (polygons) were delineated based on surface material and expression using the most recent, standardised surficial geology mapping guidelines from the GSC (Deblonde *et al.*, 2018). Under these protocols, up to two surficial materials can be identified in each polygon as either a primary and secondary material or represented as a stratigraphic relation. Polygons are symbolised based on the primary surficial material. Materials that occupy less than 10% of the polygon area may be omitted from the map unit label. Subglacial macroform ice-flow indicators (*e.g.*, drumlins, crag-and-tails, fluted bedrock or drift) were represented using lines oriented along the long axis of the feature. Meltwater features such as eskers and meltwater channels were symbolized with a single centreline. Indications of paleo-flow direction were included if they could be reliably determined. Overlays were used to symbolize areas where till has been extensively reworked by meltwater, colluvial or modern processes. Point symbols were used to identify landforms too small to delineate as polygons at the map scale (*e.g.,* kames, kettles, or bedrock outcrop). Cartographic symbology is based on the GSC style guide, for which style files and fonts are provided in Appendix B.

3.2 Till sampling suitability

Till sampling suitability mapping aids in the design and execution of till sampling programs by identifying areas with high potential for *in-situ* subglacial till suitable for mineralogical or geochemical analysis. Subglacial till is widely considered the optimal sample media for mineral exploration in glaciated terrain (*cf.* Schilts, 1993; Levson, 2001). It is predominantly a first derivative of bedrock, its transport history can be determined using the local ice-flow history, and it provides a detectible anomaly footprint that is areally more extensive and consistent than those in other sample media. Anomalies in subglacial till are reliable, can be confidently traced back to a source region, and can be detected with significantly fewer samples than are required for other sample media. The methodology is scalable, such that the same approach can be applied at any stage of exploration and continued at higher resolution to advance the development of exploration targets.

Till sampling suitability was derived by classifying the 1:20 000-scale surficial geology map units based on the spatial and genetic association of subglacial till with other surficial materials, their depositional environments and post-depositional modification. The TSS classifications defined for this project area consider both the likelihood of till occurring at surface and buried beneath other materials (Table 1). Optimally, subglacial till occurs at surface and can be sampled using hand tools or a lightweight, shallow-drilling system; however, the extensive cover of deglacial sediments within parts of the project area

necessitates consideration of deeper sampling strategies. As such, the TSS is divided into surface and subsurface categories.

Surface sampling is faster and requires fewer resources than subsurface sampling, so it ranks highest on the suitability scale. Surface till sampling is recommended where unmodified subglacial till accounts for more than ~30% of the polygon (TSS classes 1 to 3). Classes 4 to 7 represent areas where little to no subglacial till occurs at surface and subsurface sampling strategies will be necessary. The suitability of these polygons is based on the depth of overlying sediments and the potential for subglacial till to occur beneath the surface material. Where till is buried under relatively thin deposits (*i.e.*, <2 m) and the overlying material is fine-grained, a lightweight, shallow drilling system may be suitable for sample collection. Thicker, coarser deposits will require a more robust drilling system. The potential for till to occur at depth is a function of the depositional environment of the overlying material. For example, glaciolacustrine sediments and ablation till are deposited in passive environments and commonly overlie subglacial till. Conversely, erosion is common prior to glaciofluvial deposition and the likelihood for subglacial till preservation is reduced. Classes 8 and 9 indicate areas where till sampling is not recommended. Class 8 is assigned where bedrock is interpreted at surface and can be directly evaluated, and Class 9 indicates areas where alternative exploration strategies will be required. TSS maps provide users with a comprehensive understanding of the methods and resource allocations required to explore specific areas to improve target prioritization and program planning.

Table 1. Till sampling suitability (TSS) classifications for the Mount Milligan AOI.

TSS	Description	Surficial map unit examples	Implications for exploration
1	Entirely subglacial till	Tb, Ts	Surface sediment is composed entirely of subglacial till suitable for sampling or veneers of subglacial till punctuated by minor outcrop. New sampling can be planned throughout the majority of polygon.
2	Primarily subglacial till with a secondary component	Tv.R, Ts.O, Tb.Cv	Majority of polygon is composed of subglacial till suitable for sampling, with smaller areas of other surficial materials. Some scrutiny will be required to ensure till is sampled.
3	Secondary subglacial till	GLv.Ts, Cv.Tb, R.Tv	Includes polygons dominantly composed of another material, but within which suitable till can be located. Exercise caution when sampling and interpreting data from units to ensure the material sampled is till.
4	Subglacial till is interpreted to occur beneath a veneer of fine-grained material	GLv/Tb; Ev/Tb	Subglacial till is likely to be present below less than 2 m of material that a lightweight, shallow-drill system may be able to penetrate and sample beneath. Overlying materials must be cohesive enough for the drill hole to stay open while drill tooling is pulled out and replaced with sampling tooling. Surface sampling may be possible in some areas, especially where deep road or stream cuts occur.

TSS	Description	Surficial map unit examples	Implications for exploration
5	Subglacial till is interpreted to occur more than 2 m below surface, or below coarse-grained material	GLb/Tb; Tu	Subglacial till is likely present at depths greater than 2 m, or less than 2 m but overlain by material unsuitable for lightweight, shallow drilling systems. A more robust drill is required that can penetrate coarse, non-cohesive sediments, and to depths up to 100 m to ensure bedrock can also be sampled.
6	Subglacial till potentially occurs beneath a veneer of fine-grained material	Tv-RW; GFv/Tv	Surface materials are interpreted to be thin (less than 2 m), but the preservation of subglacial till below surface is uncertain. In some situations, bedrock may be encountered before suitable till is reached (*e.g.*, reworked till veneers); in other cases, subglacial till may have been eroded during or prior to the deposition of the overlying material (*e.g.,* GFv/Tv). Areas of interest should be evaluated prior to sampling.
7	Subglacial till potentially occurs more than 2 m below surface	GFp; O/GFt	Subglacial till may occur buried at depths greater than 2 m. An evaluation of the specific area of interest should be completed to determine if till sampling is suitable or if other methods need to be considered.
8	Drift is shallow and subglacial till is unlikely to occur	R.Tv; Cv.R	Subglacial till may occur but is likely too thin and/or weathered to be suitable for sampling. Direct bedrock or talus evaluations are a likely alternative to till sampling.
9	Drift is thick and subglacial till is unlikely to occur	Cz; H	Till sampling is not suitable and other methods should be considered.

3.3 Drift thickness mapping

Drift thickness mapping is derived from the 1:20 000-scale surficial geology interpretations and is designed to inform several aspects of mineral exploration. It guides bedrock mapping and prospecting programs by distinguishing areas where bedrock is exposed at surface or can be accessed with hand tools from those where mechanical assistance may be required to access bedrock. The mapping also identifies areas where deep-till sampling may be necessary or can provide additional information for drift-based exploration programs, and it can be used in comparison with other exploration datasets (*e.g.*, geophysics or soil geochemistry) to assess the potential influence of drift thickness on the results.

Drift thickness estimations are based on the interpreted surface expression of map units (polygons) and the potential for preserved stratigraphic sequences (Table 2). Stratigraphic sequences are assumed where depositional environments were non-erosional and pre-existing materials are likely preserved (*e.g.*, beneath glaciolacustrine sediments and ablation till). The interpretations have not been calibrated with known depths to bedrock. Drift thickness classes 1 to 3 are the most accurate because indications of bedrock depth can be observed in the surface expression. Class 4 and 5 represent sediments that are thick enough to obscure variations in the bedrock topography. These classifications are based on typical landform genesis relationships and not all exceptions can be identified or included in the drift thickness determination algorithm.

Table 2. Drift thickness classifications for the Mount Milligan Property.

Drift thickness class	Description	Surficial map unit examples	Implications for exploration
1	Bedrock is dominant surface material.	R; R.Tv	Bedrock occurs at surface; optimal target for bedrock mapping and sampling programs.
2	Bedrock is minor surface material, otherwise overlain by a veneer <2 m) of sediment.	Tv.R	Bedrock occurs at surface in less than half of drift thickness Class 2 units. Bedrock mapping and sampling programs should target up-ice topographic highs where bedrock is most common. Bedrock may also be exposed in streams and meltwater channels where modern or glacial watercourses have eroded drift. Bedrock can typically be accessed in hand-dug pits on topographic highs where veneers are thinner, but deeper excavations are required in concavities.
3	Bedrock is overlain by a continuous veneer <2 m) of sediment with minor outcrop occurrences.	Tv	Bedrock may be exposed in streams and meltwater channels where modern or deglacial watercourses have eroded drift. Bedrock may be accessible in hand-dug pits on the up-ice side of topographic highs where veneers are thinner, but deeper excavations are required in concavities and down-ice of topographic highs.
4	Bedrock is likely overlain by a continuous blanket (>2 m) of sediment.	GLv/Tb	Bedrock is unlikely to occur at surface; may be accessed with a small excavator on some topographic highs, but deeper excavations or drilling will be required in concavities. May be suitable for drill-supported till sampling where till does not occur at surface, or where profile sampling is desired.
5	Bedrock is likely overlain by thick constructional landforms and/or multiple stratigraphic sediment units.	GFc; GLb/Tb	Bedrock does not occur at surface. Minimum drift thicknesses of 5 m are expected. Deep excavations or drilling will be required to reach bedrock. Optimal locations for drill-supported till sampling where till does not occur at surface, or where profile sampling is desired.

3.4 Compilation and preliminary assessment of existing surficial exploration data

Surficial exploration data was compiled to gain an understanding of the spatial coverage and the methodological and analytical variability in the existing dataset. The results of the compilation inform the evaluation of these data and help focus the collection of new data. Existing surficial exploration data was provided to Palmer by TCMC and supplemented with publicly available data from various regional geochemical surveys (RGS), including drainage, soil and till surveys. Assessment reports were recovered, and important information regarding methodologies used in historic sampling programs was extracted where available.

A database was developed that contained entries for all datasets. First, data were separated based on sample media (*e.g.,* soil, stream, rock, etc.). Details such as analytical methods, number of samples and locational data were tabulated (Table 3). A type of survey was assigned to each dataset based only on sample spacing. Sample spacing greater than 1 km is considered regional, between 200 m and 1 km is considered property-scale and less than 200 m is considered target scale. The compiled information was used to determine the value of the data and whether it would be used in the subsequent evaluation.

Table 3. Attributes used to describe the compiled existing surficial mineral exploration dataset.

Attribute	Definition
File name	Original filename
Sample media	Target survey material
Type of survey	Purpose of survey: regional (>1 km sample spacing); property scale (< 1 km sample spacing); target scale (<200 m sample spacing); pilot or target specific (small area for proof-of-concept study or to evaluate specific anomaly)
Location	Indicates if sample locations are included with analytical results
Number of Samples	Total number of samples in a data file
Number of samples In AOI	Number of samples occurring within the area of interest
Digestion Method	The digestion method used to treat the sample material
Analytical Method	The methodology used to measure geochemical concentrations
Laboratory	The laboratory and location that conducted the original analysis
Additional information	Summary of information specific to data file, typically from assessment reports

4. Results and discussion

4.1 Surficial geology and implications for drift prospecting

4.1.1 Surficial materials, landforms, and processes

The surficial geology presented in this map series identifies the distribution of surficial materials and geomorphological processes that have affected them, and potentially, their geochemical and mineralogical compositions. Simplified surficial mapping is presented in Figure 2 and the detailed PDF map sets are provided in Appendix A. The surficial map unit definitions and areal extents are provided in Table 4. A fundamental purpose of this mapping is to understand the genesis of existing geochemical data and support the planning of future surveys. Standard soil sampling does not discriminate sample media, and as a result, variations in the analytical results related to material genesis obscure the variations related to mineralization. This reduces the reliability of exploration targets determined from soil samples. In addition, typical evaluation of soil samples does not consider clastic transport of the material and the potential for displacement from source. The high-resolution surficial mapping provides a means to determine the genesis if existing samples, improve the comparability of the data, understand the potential displacement of the material and target optimal media in future surveys.

Subglacial till is the most common material at surface, occurring as the dominant material in 49% of the mapping polygons. Roughly 27% of the till has been modified by meltwater or modern processes. Subglacial till distribution is relatively even and continuous at Max where it mantles the rolling topography and is only absent at surface in relatively narrow sections of the valleys. Subglacial till similarly mantles the rolling hills in the north, within the MtM claims; however, the subglacial till has been replaced, or is overlain by deglacial sediments in extensive regions throughout the centre, west and north (Figure 2). Reworking generally occurs within discrete meltwater channels or in topographic lows where proglacial meltwater was concentrated. More expansive regions of reworking occur peripheral to the extensive ice-contact glaciofluvial and ablation till deposits, which indicate where large ice masses down-wasted. The large proportion of subglacial till on the property is beneficial for mineral exploration as it is a preferred sample media.

Ablation till is rare, covering only 4% of the Property. Ablation till typically occurs in association with ice-contact glaciofluvial deposits and the differentiation of these materials can be difficult. Ablation till was commonly remobilized by meltwater but is sporadically preserved in, and peripheral to, lowlands that are dominated by glaciofluvial materials. In the field, ablation till can be differentiated from subglacial till based on its undulating to hummocky surface expression, sandy-diamict composition, and lack of compaction and consolidation. Ablation till should be avoided for mineral exploration sampling because its transport history is largely unknown, its composition was altered by meltwater, and the analytical results are not comparable to subglacial till.

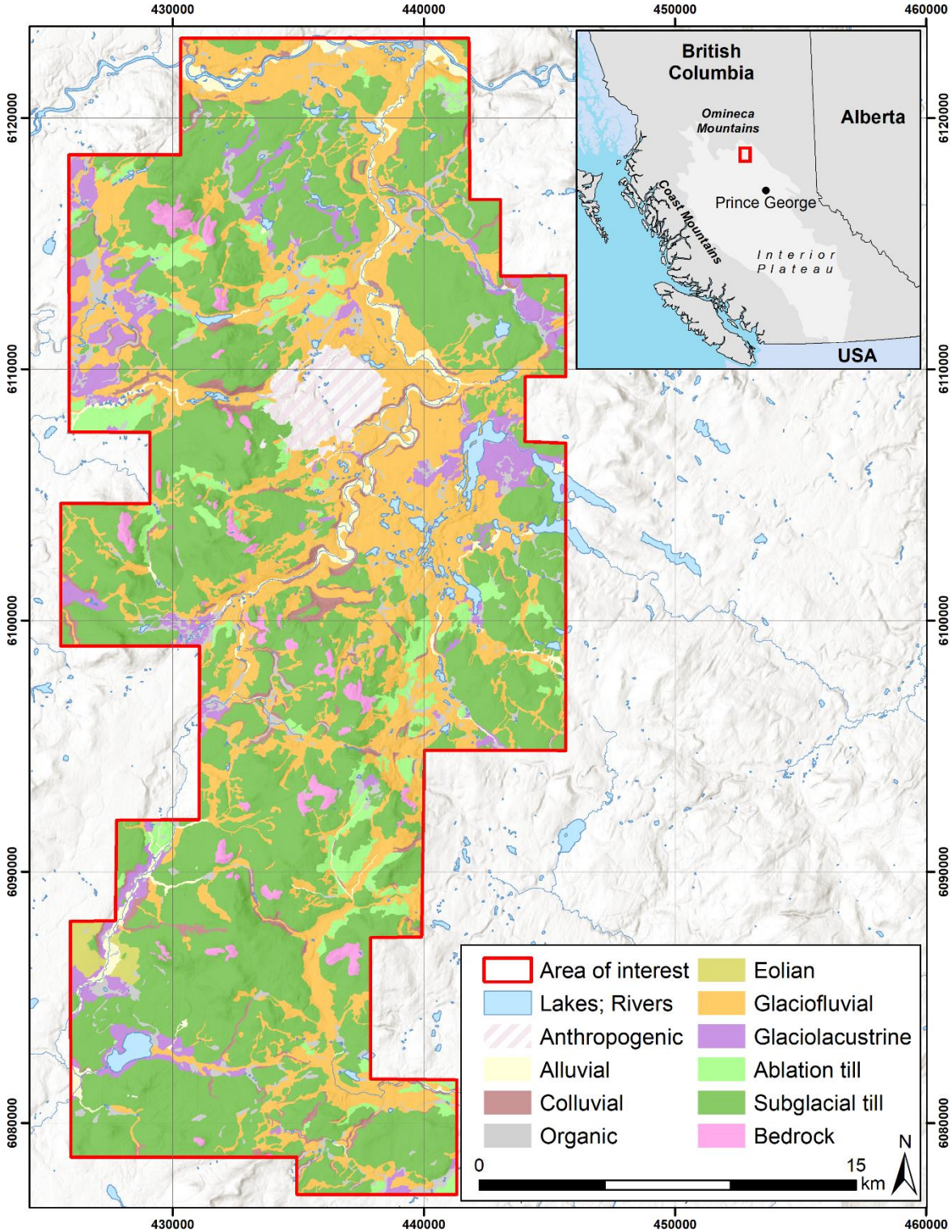

Figure 2. Simplified surficial geology based on dominant surficial materials interpreted at a scale of 1:20 000. See Table 2 for surficial material definitions and Appendix A for detailed surficial geology map sets.

Table 4. Surficial map units identified within the Property and their areal extent and percent coverage based on the dominant material in the map unit. Remaining area is occupied by water bodies.

Map unit	Surficial material	Description	Area (km^2)	Percent of study area
H	Anthropogenic deposits	Variable thickness; flat to steeply sloping deposits emplaced by human activity, or excavations; typically near mine sites or along service roads; composed of mine tailings, rubble, diamicton, sand and gravel.	13.7	2
O	Organic deposits; undifferentiated	Variable thickness; relatively flat-lying deposits composed of live and decaying plant material in bogs, marshes, fens, and swamps.	28.7	4.2
Af	Alluvial sediment; fan	Variable thickness; fan-shaped features with convex upper surface and wedge-shaped profile; deposited by modern drainage systems where streams exit a confined channel into a valley bottom or floodplain; typically composed of stratified sand and gravel and may contain debris flow diamicton or buried organic material.	1	0.2
Ap	Alluvial sediment; plain	Variable thickness; flat-lying materials deposited by modern drainage systems typically in valley bottoms; composed of sorted sands, gravels, and minor silts; prone to flooding.	13.8	2
At	Alluvial sediment; terrace	Variable thickness; gently sloping to flat-lying deposits perched above modern streams; composed of sorted sands, gravels, and minor silts; may include minor organic deposits.	2.6	0.4
Ca	Colluvial sediment; talus	Aprons and coalescing fan deposits forming below cliffs; composed of poorly sorted diamicton and rubble derived from local bedrock and sediments.	0.8	0.1
Cv	Colluvial sediment; veneer	<2 m thick; gravity-induced deposits forming discontinuous cover; occurs on moderate to steep slopes; composed of poorly sorted diamicton and rubble derived from local bedrock and sediments.	15.6	2.3
Cb	Colluvial sediment; blanket	>2 m thick; gravity-induced deposits forming continuous cover; occurs on moderate to steep slopes; composed of poorly sorted diamicton and rubble derived from local bedrock and sediments.	1.7	0.2
Cz	Colluvial sediment; landslide deposits	Chaotic and hummocky accumulations of variable thicknesses generally >2 m; diamicton and rubble typically occurring on lower slopes and valley floors originating from larger-magnitude landslide events; includes inactive and potentially active landslides.	0.2	<0.1
Ev	Eolian sediment; veneer	<2 m thick; well sorted sand and silt transported and deposited by wind; may be discontinuous; may include poorly formed dune structures; commonly occurs overlying or adjacent to glaciofluvial or glaciolacustrine deposits.	0.9	0.1
Er	Eolian sediment; dunes	Variable thickness generally >2 m; well sorted sand and silt transported and deposited by wind; forms transverse, parabolic, or poorly formed dune structures; commonly overlying or adjacent to glaciofluvial or glaciolacustrine deposits.	2.6	0.4
GLb	Glaciolacustrine sediment; blanket	>2 m thick; forms continuous mantle that subdues surface expression of underlying topography; composed of stratified to massive, well sorted, sand, silt, and clay; prone to gullying and gravity-induced slope failures.	1.9	0.3
GLp	Glaciolacustrine sediment; plain	>2 m thick; flat to gently sloping deposits that obscures the surface expression of underlying topography; composed of stratified to massive, well sorted sand, silt, and clay; prone to gullying and gravity-induced slope failures.	5.5	0.8
GLv	Glaciolacustrine sediment; veneer	<2 m thick; thin to discontinuous, stratified to massive sand, silt and clay deposited within glacial lakes; mantles underlying topography; prone to gullying.	23.7	3.5
GFc	Glaciofluvial sediment; ice-contact	Variable thickness; complex of glaciofluvial landforms deposited in association with glacial ice; composition can include poorly sorted coarse sand and gravel with minor diamicton and lenses of fine sand and silt to sorted and stratified sand and gravel.	27.9	4.1

Map unit	Surficial material	Description	Area (km^2)	Percent of study area
GFf	Glaciofluvial sediment; fan	Variable thickness; fan-shaped features with convex upper surface and wedge-shaped profile; deposited by meltwater in front of or adjacent to glaciers; generally found at the lower ends of meltwater channels; composed of stratified gravel, sand, and minor diamicton beds.	2.9	0.4
GFh	Glaciofluvial sediment; hummock	Variable thickness; deposited by meltwater in an ice stagnation setting or in association with buried ice blocks; generally composed of weakly-stratified, poorly- to moderately-sorted sand and gravel with minor diamictons.	20.9	3.1
GFp	Glaciofluvial sediment; plain	>2 m thick; flat to gently sloping materials deposited by meltwater in front of or adjacent to glaciers; typically composed of fining upward sequences of stratified, moderately- to well-sorted sand and gravel; may contain kettle holes.	26.4	3.9
GFr	Glaciofluvial sediment; esker	Variable thickness; material forming a single ridge or complex of ridges deposited by meltwater within tunnels, on the surface of, or beneath glacial ice; composed of stratified sand and gravel.	7.6	1.1
GFt	Glaciofluvial sediment; terrace	>2 m thick; flat to gently sloping materials deposited by meltwater in front of or adjacent to glaciers; generally perched above modern streams or alluvial deposits; composed of fining upward sequences of stratified, moderately- to well-sorted sand and gravel.	32.4	4.7
GFv	Glaciofluvial sediment; veneer	<2 m thick; materials deposited directly by glacial meltwater forming thin to discontinuous cover; composed of well- to poorly sorted sand and gravel.	58.6	8.6
Tb	Glacial sediments; blanket	>2 m thick; subglacial till deposited by lodgment or melt-out processes at the base of glacier; subdues surface expression of underlying bedrock; typically a dense, silty-sand to sandy-silt, matrix-supported diamicton containing pebbles, cobbles and boulders.	237.4	34.8
Th	Glacial sediments; hummocky till	Variable thickness generally >2 m; moderate- to steeply-sloping hillocks and hollows deposited in association with stagnating glaciers and meltwater; typically a sand-rich diamicton that can be clast or matrix supported composed of ablation material from within or on top of the glacier; may interfinger with glaciofluvial deposits; commonly occurs in valley bottoms where ice stagnated and overlies lodgement till; not generally sampled in till geochemical or mineralogical surveys.	7.8	1.1
Tm	Glacial sediments; moraine complex	Variable thickness; series of sub-parallel ridges the form at the margins of retreating glaciers; composed of sandy diamicton and poorly sorted gravels with minor sand and diamicton lenses; generally avoided in geochemical or mineralogical surveys.	0.8	0.1
Ts	Glacial sediments; streamlined and fluted till	Variable thickness; but commonly thinner in the up-ice direction; subglacial till deposited by lodgement processes at the base of glacier; represents flutings, drumlins, and the sediment portion of crag and tails; typically, a dense, silty-sand to sandy-silt, matrix-supported diamicton containing pebbles, cobbles and boulders; hollows may contain minor amounts of glaciofluvial or alluvial material.	35.9	5.3
Tu	Glacial sediments; undulating till	Variable thickness generally between 1-3 m; gently sloping hillocks and hollows deposited in association with stagnating glaciers or detached ice blocks and meltwater; typically, a sand-rich diamicton that can be clast or matrix supported composed of ablation material from within or on top of the glacier; may interfinger with glaciofluvial deposits; commonly occurs at the margins of stagnating ice and overlies lodgement till; not generally sampled in till geochemical or mineralogical surveys.	21.5	3.1
Tv	Glacial sediments; till veneer	<2 m thick; thick; subglacial till deposited by lodgment or melt-out processes at the base of glacier; follows surface expression of underlying bedrock; may include minor bedrock outcrop; typically, a dense, silty-sand to sandy-silt, matrix-supported diamicton containing pebbles, cobbles and boulders. Deposits less than 1 m in thickness are commonly weathered.	65	9.5
R	Bedrock, undifferentiated	Gently to steeply sloping exposures of bedrock; commonly occurs in upland areas or as a result of deep meltwater incision; lithology varies across the map area; may include minor till or colluvial veneers.	11.4	1.7

Glaciofluvial sediments are the second most common material on the Property, occurring as the dominant material in ~26% of the mapping polygons. Within the Property, glaciofluvial materials typically form linear landform assemblages consisting of esker systems, terraces, plains, and fans. The relief of some glaciofluvial complexes is subdued due to the formation of glacial lakes and subsequent sediment deposition over the glaciofluvial features and their reworking by waves and/or currents. Two large glaciofluvial systems developed during deglaciation: one flowing northeast through the headwater area of Rainbow Creek valley, and the other flowing north along the eastern periphery of Max (Figure 2). These systems flowed independent of topography, indicating their subglacial origin. The two systems converge southeast of the Mount Milligan mine. The upper-Rainbow Creek system forms a large fan complex that overlies parts of the eskers deposited by the north-flowing system, indicating the eskers were deposited first. This large complex of glaciofluvial landforms east and southeast of the mine is the largest hinderance to exploration on the Property. The glaciofluvial system continues north down the Rainbow Creek Valley to the Nation River Valley. Glaciofluvial landforms along the Rainbow Creek and the Nation River are mostly plains and terraces indicating proglacial deposition. Holocene drainage follows many of these deglacial systems and the fluvial incision has formed numerous terraces.

Organic and glaciolacustrine deposits commonly occur together and comprise ~4% and 3% of the Property, respectively. Most of the organic deposits likely overlie glaciolacustrine sediments, which in turn, typically overlie subglacial till. Organic accumulations have developed in most poorly drained concavities; however, they are generally only identified in a map unit where they are sufficiently thick to inhibit access to the underlying sediments. Glacial lakes developed where the westward-retreating ice margin impeded drainage. As such, glaciolacustrine deposits are most common on west-facing slopes and valleys such as around the Philip Lakes and the west side of Mount Milligan. Glaciolacustrine deposits occur in association with eolian sediments on the west side of Max. The eolian material occupies less than 1% of the Property and was remobilized from the glaciolacustrine deposits after the glacial lake drained. Eolian activity likely continued until vegetation was able to colonize the recently deglaciated landscape and material may have travelled beyond the extent of its source (*cf.* Sacco *et al.*, 2017). It is likely that glacial lakes inundated more of the Property than is represented in the mapping; however, due to short-lived ponding or relatively insignificant sediment influx, deposition of glaciolacustrine sediment was minimal in some areas.

Bedrock is exposed in less than 2% of the Property, and as a result, mineral exploration relies heavily on surficial and geophysics strategies. Bedrock outcrops exclusively on topographic highs that trend roughly north-south through the Property (Figure 3), and where meltwater or modern streams have eroded through the overlying sediments. On topographic highs, the bedrock is commonly associated with thin, discontinuous veneers of till and colluvium.

Alluvial, colluvial, and anthropogenic deposits each occupy ~2% of the Property. Alluvial deposits most commonly occur within the glaciofluvial systems. Colluvial deposits occur on topographic highs but are most common where fluvial or glaciofluvial incision has created steep slopes that are prone to colluviation. Opportunities to collect till samples may occur where these slopes are actively failing, exposing fresh till. These opportunities are especially important in areas where the surface is largely composed of deglacial sediments, but drainage has incised the underlying till, providing rare till exposures.

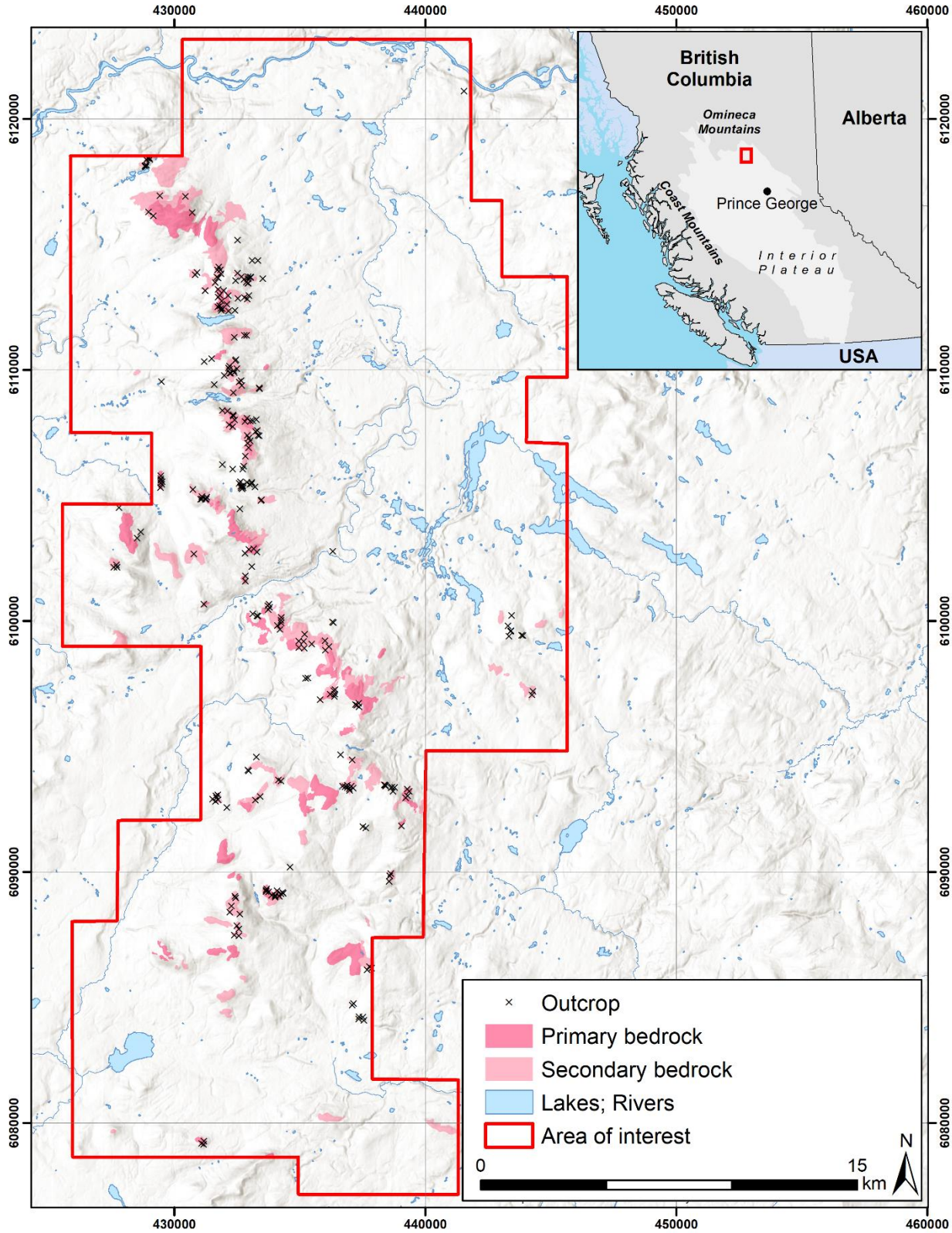

Figure 3. Distribution of bedrock outcrop.

Discrete landforms identified within the Property includes eskers, meltwater channels, spillways, drumlins, crag-and-tails, fluted bedrock and drift, kettles, kames, and outcrop (Table 5). Meltwater features such as eskers, kames and channels occur throughout the Property, but are more concentrated in the MtM claims that were more heavily affected by deglacial processes. The orientation of linear meltwater features can indicate deglacial variations in ice-flow direction, or ice margin locations, which provide data to determine the style and pattern of deglaciation. In general, these meltwater features should be avoided during mineral exploration surveys as they are typically associated with reworking or remobilization of till. However, some meltwater channels incise the till, which can provide valuable sampling opportunities.

Table 5. Discrete surficial landforms identified on the Property, their definitions and symbology.

Landform	Symbol	Description
Esker	>>>>>>>> ><><><><	Ridge of glaciofluvial material; paleoflow direction known or unknown; formed during sub-, en- or surpraglacial drainage.
Meltwater channel	+++++++> +++++++	Channel carved into substrate by subglacial or proglacial meltwater; paleoflow direction known or unknown.
Spillway	^^^^^^➢ ^^^^^^	Spillway from glacial lake; paleoflow direction known or unknown; identifies minimum water surface elevation of glacial lake.
Drumlin	——•——)	Large drumlin feature.
Streamlined bedform	| ↑	Fluted drift or bedrock with no indication of direction.
Crag-and-tail	——•——→	Bedrock knob and tail of till in the down-ice direction.
Kettle	Ⓚ	Depression in glaciofluvial or glaciolacustrine material caused by the melting or buried glacial ice blocks.
Kame	✳	Glaciofluvial mound or hummock.
Outcrop	x	Bedrock outcrop.

Streamlined bedforms (*e.g.*, drumlins, crag-and-tails, fluted bedrock and drift) develop in the direction of ice-flow, and thus, they represent till transport directions. Streamlined landforms are common throughout the Property, especially down-ice of thin drift where near-surface bedrock initiated the development of till "tails." It appears streamlined till units (Ts) may be composed of thinner drift than till blankets (Tb). The effect of multiple ice-flow directions can be observed in several areas where smaller streamlined features are superimposed on larger features (Figure 4). The length of these streamlined features may provide a relative estimate of ice velocity and sediment transport distance. Longer streamlined features indicate faster travelling ice with the potential to transport sediment further.

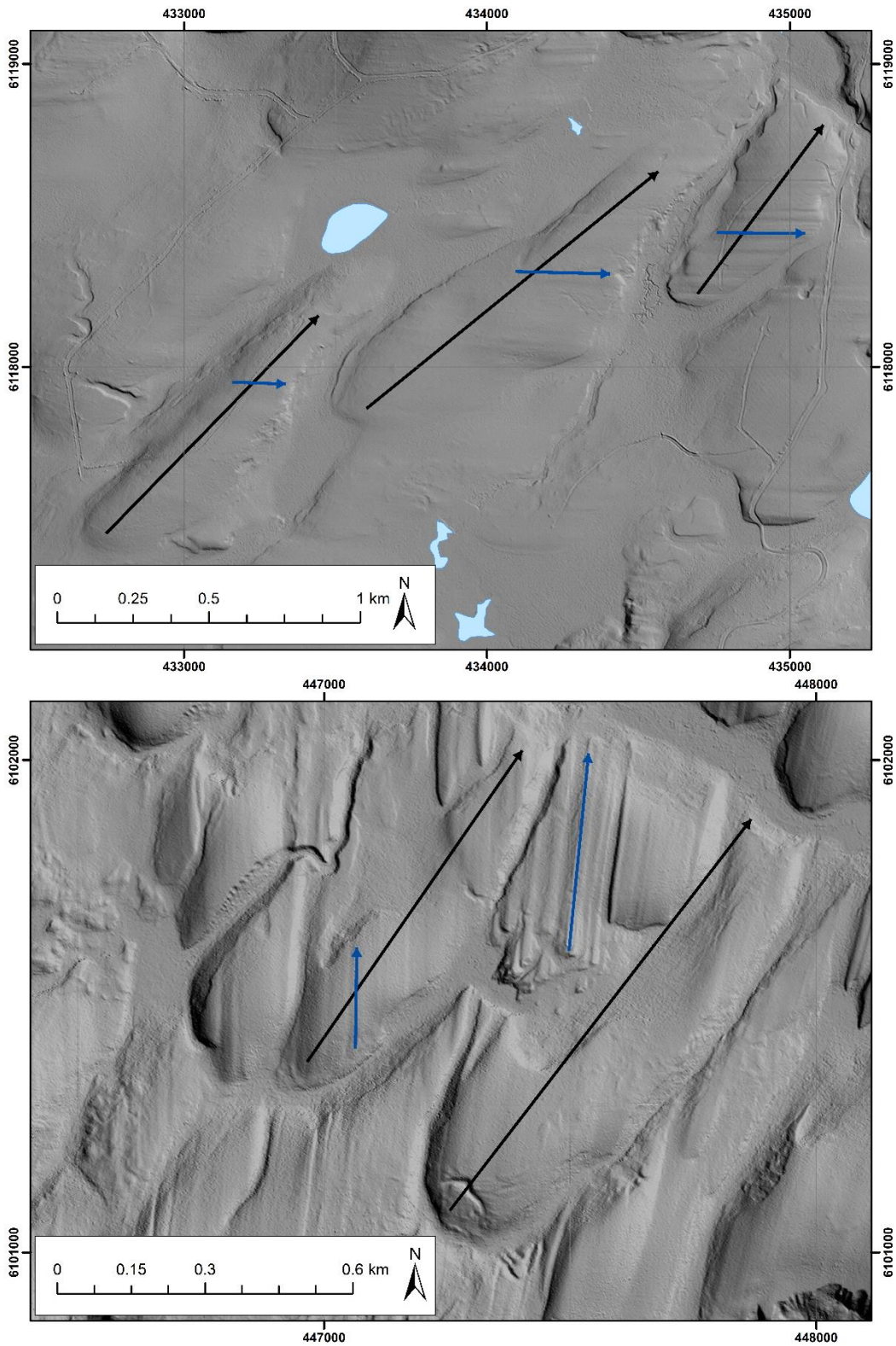

Figure 4. Hillshade derived from LiDAR showing superimposed streamlined bedforms; flow direction during the glacial maximum shown in black and flow direction during deglaciation shown in blue. Deglacial ice-flow transitioned to the east in the northern part of MtM (top), and to the north in the southeast (bottom) part of MtM.

Reworking of till was identified as a geomorphological process as it has implications for till sampling. Reworking may be a function of meltwater, colluvial or modern drainage processes. The composition of reworked till may be altered, and it may be displaced from its original depositional location. As such, reworked sediment should be avoided during till sampling for mineral exploration. Reworked sediments occur throughout the study area. Reworking is generally a result of ice-marginal processes on slopes throughout areas of rolling topography, whereas flatter areas are affected by proglacial outwash. Unmodified till likely occurs beneath reworked areas where the deposits are sufficiently thick.

4.1.2 Landscape evolution and glacial history

Preglacial sediments are likely rare in this area because there are few places where they would be protected from glacial erosion. Preglacial fluvial and advance-phase glaciofluvial and glaciolacustrine sediments were identified in borehole logs from the Rainbow Creek valley (Palmer, 2020). These sediments occur within a deep, fault-controlled bedrock paleovalley (Paleo-Rainbow Creek). Borehole logs, geophysics data and the current land surface suggest the upper reaches of the Paleo-Rainbow Creek valley may extend south into the Philip Lakes area, and the course to the Nation River may have continued northwest as opposed to the current northern diversion toward the confluence with Limestone Creek (Palmer, 2020).

At the onset of the last glaciation, ice likely advanced southward onto the property as suggested by the regional glacial framework. This advance would have impeded drainage into the Nation River valley through the Paleo-Rainbow Creek, impounding the lake responsible for the advance-phase glaciolacustrine sediments identified in the borehole logs (Palmer, 2020). It is unknown how far into the Property this southward advance extended. Eventually, ice masses from the Coast Mountains reached the Property, and the ice-flow direction transitioned to the northeast. The ubiquitous northeast orientation of streamlined macroforms throughout the Property suggests the northeast ice-flow direction persisted through the glacial maximum (Figure 5). The dominant sediment transport direction is likely to the northeast.

The orientation of ice-marginal channels and eskers indicates that a northwest-southeast-trending ice margin initially retreated southwest over the Property. Borehole data reveals retreat-phase glaciolacustrine sediments overlain by a second, thinner till unit in the Limestone Creek and Rainbow Creek valleys (Palmer, 2020), indicating a glacial readvance. The extent of eastward streamlined features superimposed over the larger northeast-trending features suggest the readvance flowed east down the Nation River Valley and the ice mass extended as far south as the Mount Milligan mine area (Figure 4). Where ice readvanced over glaciofluvial sediments, till may contain higher proportions of sand and gravel, whereas till deposited from ice that readvanced over glaciolacustrine sediments likely contains higher proportions of silt and clay.

In the southeast corner of the MtM claims, north-oriented deglacial streamlined bedforms are superimposed on the larger northeast-oriented features (Figure 4; Figure 5). The regional topography and setting suggest that this northern deviation is likely the result of topographic influence on a thinning ice sheet, as opposed to a readvance. It is possible that there will be variations in the provenance of till throughout the till column due to the variations in ice-flow at MtM. In thick till deposits, the lowest portion may have undergone southward transport, shifting to northeast transport throughout the middle, and eastward or northern transport in the upper portion, depending on the location. Thinner deposits may only be affected by the later ice-flow directions. The observed macroforms throughout Max are oriented to the northeast, suggesting this area was not affected by the late-glacial changes in ice-flow direction and sediment transport was relatively consistent throughout glaciation.

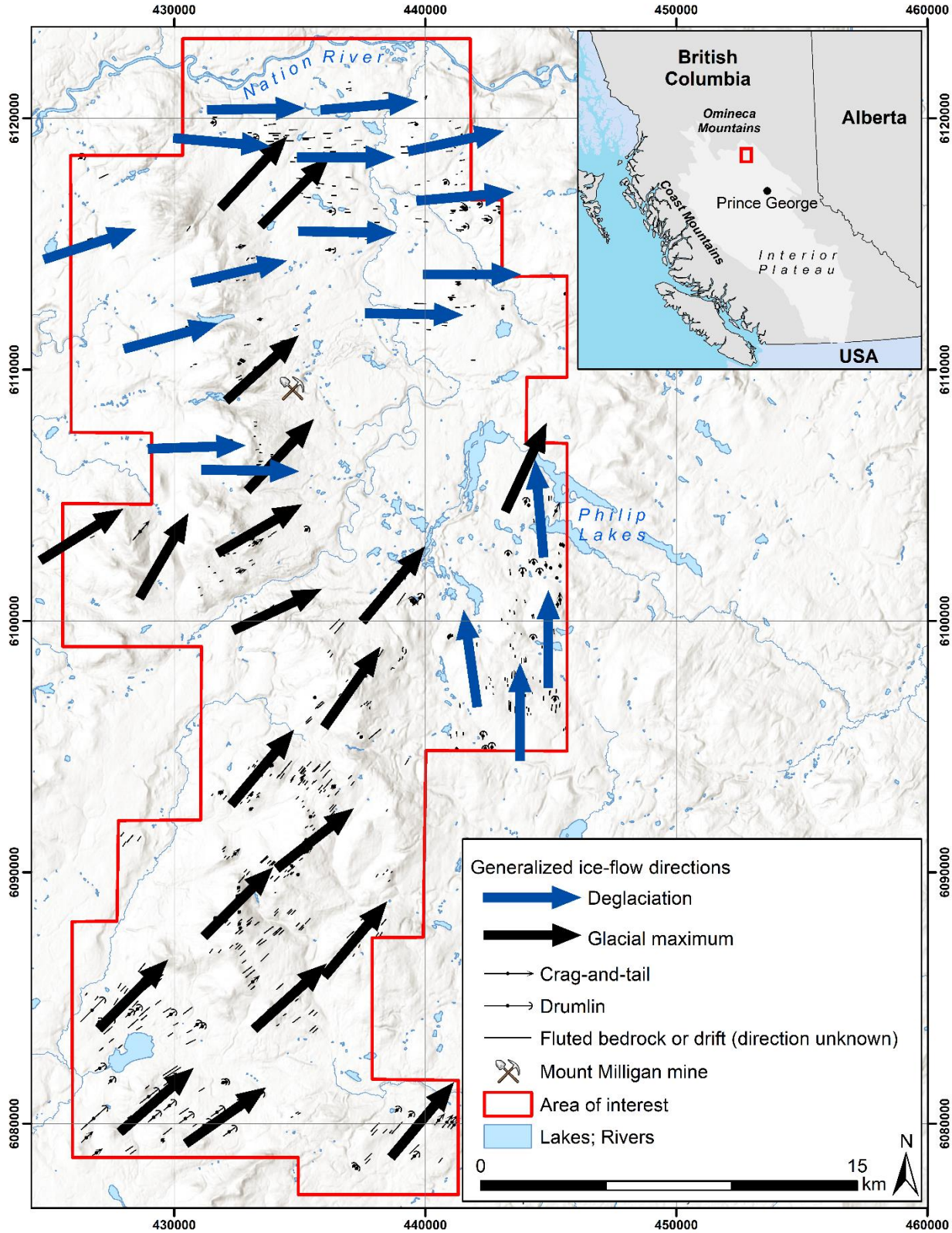

Figure 5. Ice-flow indicators and generalized ice-flow throughout the Property.

Deglacial processes affected the landscape at MtM more than at Max. The Nation River and Rainbow Creek are surrounded by extensive outwash deposits and terraces, indicating these valleys were major deglacial drainage corridors. Till preservation beneath these features may be inconsistent. The northwest-trending portion of upper Rainbow Creek incises a large glaciofluvial fan that aggraded into a glacial lake that inundated the Philip Lakes area. The two northwest-southeast-trending Philips Lakes were spillways for this glacial lake. Till is likely preserved under the fan and glaciolacustrine sediments in this area, although distinguishing till from subaqueous diamicts within the fan may be difficult in drill cuttings. South of Rainbow Creek, an extensive ice-contact glaciofluvial complex consisting of chaotic eskers and hummocky gravels indicates the location of stagnating glacial ice. Preservation of till below these deposits is likely sporadic. Preservation potential decreases under well-developed channel features such as eskers but increases beneath undulating or hummocky features that may have a more passive depositional history. A large deglacial lake was impounded against the western flank of Mount Milligan. Glaciofluvial channels that appear to be the result of repeated strong meltwater pulses suggest a portion of this lake may have been subglacial. As a result, the deposition of glaciolacustrine material was not entirely controlled by elevation and may be inconsistent. Till is likely to occur beneath most glaciolacustrine deposits in this area.

The effects of deglaciation at Max are more systematic in relation to topography. As the ice retreated to the southwest, deglacial meltwater flowed through two northward-trending systems on the west and east side of the claims (Figure 2). These systems are interpreted to be dominantly subglacial as they flow upslope in several areas. As the ice retreated, a proglacial lake formed within the upslope portions of the western system, following the ice margin back. The substrate has been incised, indicating that subglacial erosion occurred prior to the formation of the lakes, so little till was likely preserved beneath these glaciolacustrine deposits. A mantle of glaciolacustrine sediment occurs beyond the southern extent of this valley. Silt and fine sand were remobilized from this mantle by katabatic winds coming off the glacier, and a system of eolian dunes and veneers developed that extends in a northeast direction. It is likely that till occurs beneath these glaciolacustrine and eolian deposits.

Extensive till reworking has occurred on the southwest-facing slopes in the area overlapping the southeast portion of MtM and the northeast portion of Max. Subglacial meltwater was forced up the slope, discharged at the ice margin, and then a combination of ponding and draining peripherally across and downslope caused most of the reworking. This drainage pattern continued as the ice margin retreated across Max leaving southwest-facing slopes reworked by meltwater and overlain by discontinuous veneers of glaciolacustrine material. Spillways and meltwater channels incised the north-facing slopes when the ice margin was high enough to cause drainage over the topographic divide. As the ice margin retreated downslope, drainage occurred along the margin, cutting lateral channels into the slope sides.

Ice eventually retreated from the property leaving an unstable landscape. Steep slopes were prone to colluviation and eolian activity continued until vegetation stabilized the landscape. Through the Holocene, streams continued to incise the landscape, undercutting slopes and causing them to fail. Currently, the landscape is generally stable with most of the geomorphological activity being related to stream meandering. Streams that developed over glaciolacustrine deposits generally have increased meander belts relative adjust course more rapidly than streams in glaciofluvial material that typically meander in a more confined pattern.

4.2 Till sampling suitability

The TSS mapping for the Property is provided in Appendix A and summarized in Figure 6. TSS class definitions are specific to the Property and defined in Table 1. TSS mapping indicates the likelihood of till to occur and provides a recommended sampling method. Optimally, till occurs at the surface and can be collected with hand tools or using a shallow-drilling system (*i.e.*, TSS classes 1-4). In other settings, till is buried beneath another material and drilling or excavation will be required (*i.e.,* TSS classes 4-7). TSS classes 8 and 9 are not suitable for till sampling. TSS attribution is automated based on typical landform and sediment associations, and it is recommended that the applicability of the suggested methods is verified for specific areas of interest during the survey planning stage.

The areal extent of the TSS classes is provided in Table 6. Roughly 40% of the Property is attributed as TSS classes 1 to 3, in which till can likely be collected from surface. Another 11% of the property is attributed as TSS class 4. Many TSS class 4 map units consist of till that has been reworked by meltwater, which generally only affects the material to a depth of ~1 m, or till is interpreted to be overlain by shallow, fine-grained materials. In both scenarios, a shallow-drilling system may be sufficient to collect till samples. TSS Class 5 comprises ~15% of the Property and is attributed where till is likely preserved but buried deeply. TSS classes 6 and 7 are attributed to <2% and ~24% of the Property, respectively. These classes are assigned where the preservation potential of till is lower. TSS Class 6 is attributed where materials that potentially overlie till are thin, and TSS Class 7 where the overlying materials are thick. Many of the map units that are attributed with TSS Class 7 represent thick glaciofluvial sediments where the preservation potential of underlying till is hypothetically low but may vary between similar map units. As a result, TSS Class 7 attributions may be overgeneralized and specific areas of interest within this class should be evaluated to ensure correct exploration decisions are made. TSS classes 8 and 9 each represent ~2.5% of the Property and the remaining area is either anthropogenically affected or occupied by modern lakes.

Table 6. Areas and percent coverage of the till sampling suitability (TSS) for the Property.

Till sampling suitability (TSS)	Area (km^2)	Percent of study area
1	217.6	31.9
2	30.1	4.4
3	27.9	4.1
4	79.3	11.6
5	99.8	14.6
6	12.2	1.8
7	166.3	24.4
8	18.1	2.6
9	17.2	2.5
Lakes; Rivers	13.2	1.9

In general, the Property is moderately- to well-suited to till sampling. The distribution of greens and darker blues in Figure 6 roughly depicts the extent of the Property in which till sampling can be used to determine the prospectivity. Till samples provide an indication of the bedrock composition up to several kilometres up-ice of the sample location, so bedrock underlying narrow occurrences of unsuitable material can still be represented in the till data. Max is well-suited to till sampling. Surface sampling is possible throughout most of the claims. MtM has a moderate till sampling suitability. Most of the claims can be assessed using till sampling; however, drill-support is likely required.

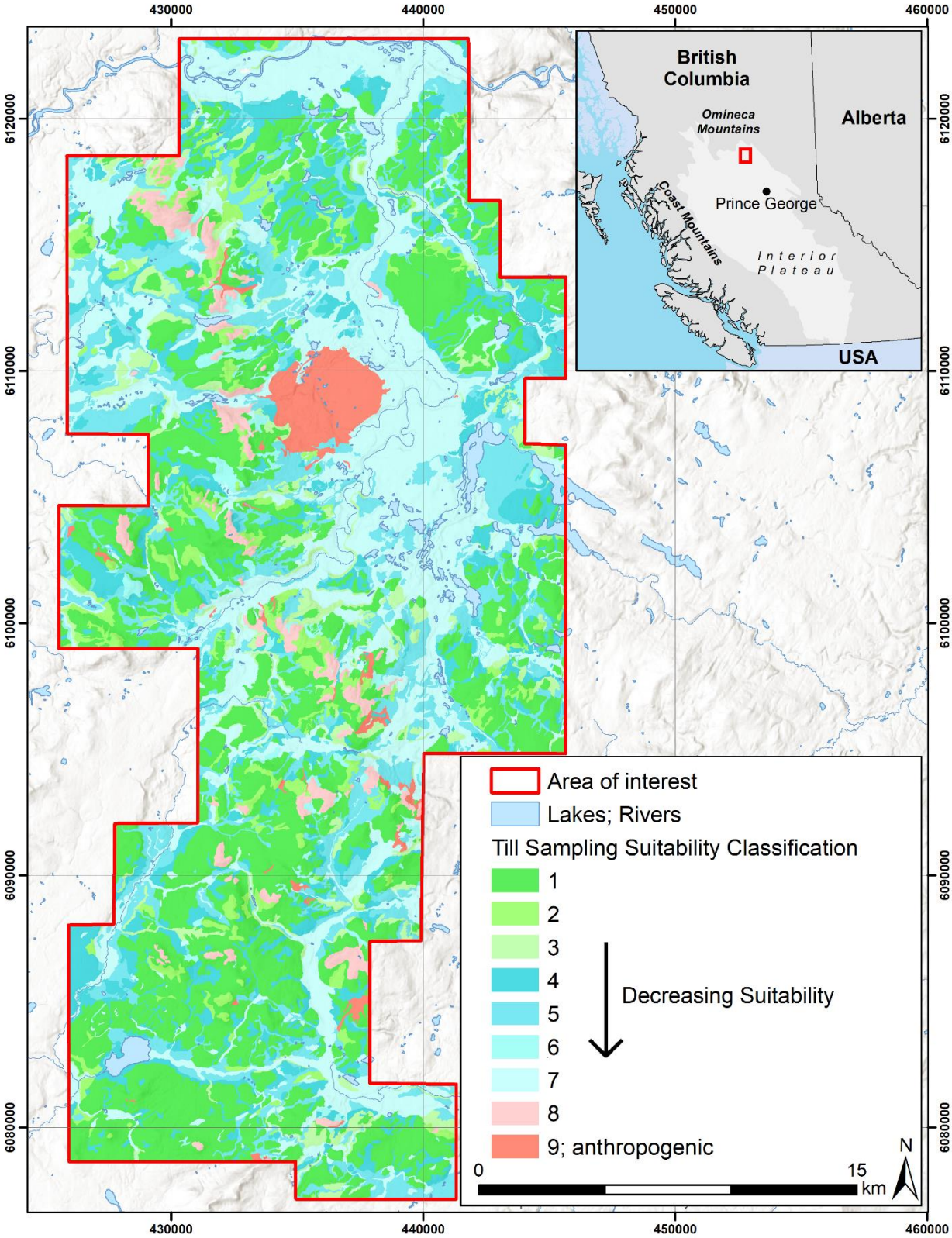

Figure 6. Till sample suitability for the Property derived from the 1:20 000-scale surficial geology interpretations. Surface sampling is possible in green areas and subsurface sampling is recommended in blue areas.

4.3 Drift thickness mapping

The results of the drift thickness mapping predictably estimate thinner drift on topographic highs as compared to on slopes and in valleys (Figure 7). Drift thickness classes 1-3 indicate areas where bedrock is most likely to occur at surface or be accessible by hand tools or shallow trenching. These areas of shallow drift follow a roughly northwest-southeast trend through the Property. In general, the thickest and thinnest sediments occur at MtM. Max is more consistently of moderate drift thickness with less extensive areas of thinner and thicker drift.

The accuracy of drift thickness estimates is reduced where glaciofluvial and alluvial plains are mapped at surface because the processes that form these landforms can be both erosive and aggregational. In addition, these features generally form in pre-existing valleys that may be underlain by thick sediment packages. Even though a fluvial system may have incised the substrate, the underlying drift could still be considerably thicker than on the surrounding valley sides. For example, the sediments in the Rainbow Creek Valley exceed 100 m in thickness, but they are generally not indicated as being thicker than the mantles of material on the valley sides that are only 10's of metres thick. The specific setting of each mapped polygon on the Property could not be assessed in this exercise, so these estimations should be used as a framework. Additional evaluations of drift thickness should be considered in classes 4 and 5 if knowledge of the maximum potential drift thickness is required.

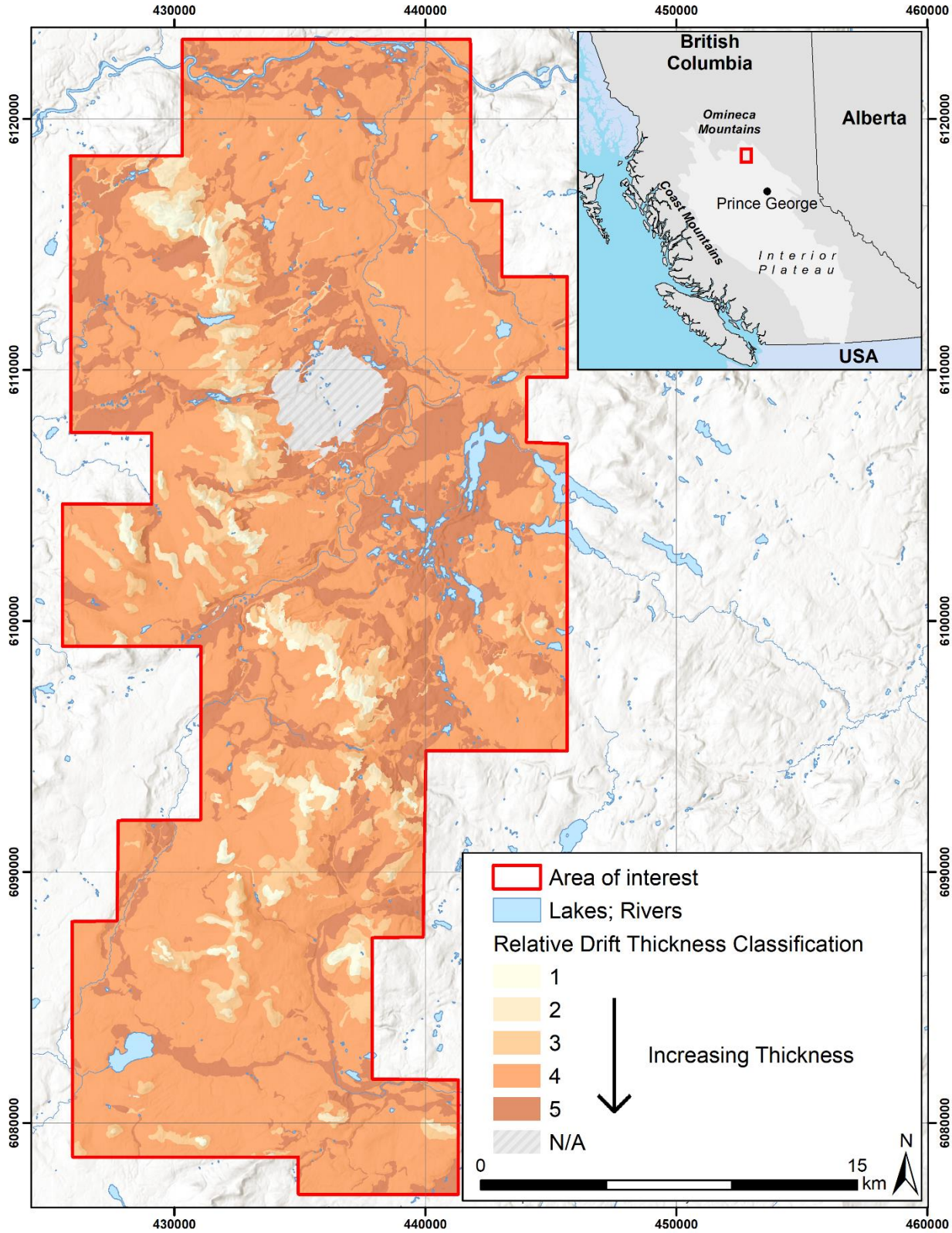

Figure 7. Relative drift thickness of the Property derived from the 1:20 000-scale surficial geology interpretations.

4.4 Compilation and preliminary assessment of existing surficial exploration data

The compilation and preliminary assessment of existing surficial exploration data identifies datasets that can be evaluated immediately and are likely to provide reliable exploration targets, and data gaps that exist on the Property. This informs the scoping of a comprehensive evaluation of the existing data and the development of a surficial exploration strategy for the Property. The package of historical surficial exploration data provided by TCMC was compiled into a master database containing 187 unique data file entries that represent geochemical datasets produced from various sampling and analytical protocols. Numerous data files were removed because they were duplicated, or because they were results from regional government surveys from which archive material has since been reanalyzed. Previously completed compilations that did not include details for sampling and analytical protocols were removed because they compare geochemical concentrations without considering these factors. Instead, original data files and assessment report data were substituted, where available. The original data package was filtered to 65 data files, which were then described based on variables that help determine their utility in defining reliable exploration targets (Table 3). The utility is largely based on the completeness and comparability of the data. Datasets using analytical methods or sample media that are incongruent with other datasets, or do not provide adequate spatial coverage to identify exploration targets, are not recommended to be included in the upcoming evaluation of historical data.

Geochemical datasets include analytical results from till, undifferentiated sediment and soil (Table 7; Figure 8); drainage samples (Table 8; Figure 9); and talus fines, pan concentrates (stream), rock, and lodgepole pine bark (Table 9; Figure 10). Aside from rock (assuming bedrock was sampled and not clasts found in the surficial materials) and possibly biogeochemical samples, most data should not be considered direct detection, and evaluations must consider the potential for clastic dispersion and some level of displacement from source. In general, geochemical data that has been extracted from RGS's are more complete, including a full description of sampling and analytical methods and associated QA/QC data. These data are the most reliable; however, the sample densities are generally low, and targets defined from these data will require refinement through additional sampling. Most other datasets are missing QA/QC data or some information about specific sampling or analytical protocols. These data will need to be assessed and standardized by mathematical levelling or the derivation of data subpopulations that are evaluated separately using unique anomaly thresholds.

Within the historical data package, analytical results for till, undifferentiated sediment, and soil samples are anticipated to be the most useful for identifying exploration targets (Table 7; Figure 8), and it is recommended that most of these data are included in the subsequent comprehensive evaluation. The analytical results from till samples collected in 2020 as part of Geoscience BC's Central Interior Copper-Gold Research initiative are still pending. Till samples were all collected during RGS programs that targeted depths below soil development. Geochemical concentrations within these samples are, therefore, minimally affected by soil-forming processes and post-depositional element mobility, so variations in the dataset (*i.e.,* anomalies) can more confidently be attributed to geology and mineralization. The current spatial coverage of the till dataset is insufficient. Till geochemistry can reliably indicate prospectivity and focus exploration efforts with fewer samples than would be required from other media, so improving the property-wide coverage of till samples should be a priority. The undifferentiated sediment samples were collected using a reverse circulation drill in an area dominated by till. It is anticipated that most of these samples are till, which will be confirmed using the surficial geology mapping.

Sampling and analytical methods for the soil samples are variable (Table 7). Most soil samples were collected from B-horizon soils, but some are from the A-horizon or an unspecified horizon. Most soil sample data are still recommended for evaluation, however, because data derived from comparable methods extend over a large enough area to provide statistically significant results. Soil samples are commonly clustered in discrete grids, so the only cover a fraction of the Property despite the high number of samples (Figure 8).

Some data may be excluded from the evaluation because of incompatible or ineffective analytical protocols. For example, the effectiveness of mobile metal ion (MMI) analysis was previously tested in a pilot experiment and performed poorly (Heberlein, 2010), so the results of the MMI survey from 2012 will be assessed but may not be used to derive exploration targets. Results from pilot experiments should be reviewed to determine the efficacy of different methods, and the data from the studies should be included in target identification where the methods are consistent with surrounding surveys.

All soils data must be standardized based on sample material and analytical methods prior to evaluation to ensure comparability. Primary data subpopulations should be created based on material type, with further subdivision based on sampling (*e.g.,* soil horizon) or analytical (*e.g.,* digestion) protocols. The data distributions of the subpopulations must then be assessed to determine if the data are congruent, can be mathematically levelled, or require evaluation as individual subpopulations. The assessment reports for some dataset will need to be reviewed to extract additional protocol information that could not be determined during this preliminary assessment. For example, analytical results are available for 1596 samples for which there is no associated locational data.

Table 7. Summary of data files for till, soil, and undifferentiated sediment surveys.

Material	Source	Publication or collection year	Type of survey	Number of samples within the AOI	Analytical methods	Inclusion in evaluation	Comment
Till	British Columbia Geological Survey (GeoFile 2017-09)	2017	RGS	95	ICP-MS and INAA	yes	Original data sources and analytical protocols available in compilation.
	Geoscience BC (Report 2021-xx)	2021	RGS	19	ICP-MS, ICP-ES, INAA and LECO	possible	Results pending; may not be released prior to evaluation.
Undifferentiated sediment	2019 MAX heli supported RC program	2019	Property scale	252	Available but currently unknown	yes	Samples collected from 21 reverse circulation drill holes; no discrimination of material type.
Soil (various horizons)	BP Minerals Limited. (ARIS #11951)	1983	Target scale	296	Gold by AAS, Unspecified for other analytes	possible	Only five analytes and no indication of sample horizon; will include if possible.
	BP Minerals Limited. (ARIS #12912)	1984	Target scale	2007	Multi-element ICP and gold by AAS	yes	Soil horizon sampled currently unknown; assumed to be B-horizon.
	BP Minerals Limited. (ARIS #13508)	1984	Target scale	63	Multi-element ICP and gold by AAS	yes	
	BP Minerals Limited. (ARIS #13891)	1985	Target scale	222	Multi-element ICP and gold by AAS	yes	
	BP Minerals Limited. (ARIS #14377)	1985	Target scale	193	Multi-element ICP and gold by AAS	yes	Assessment reports and data files are not in agreement for all details regarding sample numbers and locations.
	BP Minerals Limited. (ARIS #17860)	1988	Target scale	107	Multi-element ICP and gold by AAS	yes	Soil horizon sampled currently unknown; assumed to be B-horizon.
	HLX Resources Ltd. (ARIS #19396)	1989	Target scale	43	Multi-element ICP and gold by AAS	possible	Glaciofluvial soil samples with limited areal extent; unlikely to provide useful results.
	BP Minerals Limited. (ARIS #20280)	1990	Target scale	245	Multi-element ICP and gold by AAS	yes	
	Continental Gold Corp. (ARIS #20227)	1990	Target scale	733	Multi-element ICP and gold by AAS	yes	
	Golden Rule Resources Ltd. (ARIS #20853)	1990	unknown	unknown	Multi-element ICP	possible	1553 samples reported with no locational data; further investigation required.
	BGM Diversified Energy Inc. (ARIS #22011)	1991	Target scale	148	Multi-element ICP and gold by AAS	yes	Only Au and copper available in table format; 29 other analytes available from assessment reports; narrow spatial extent.
	MAX Claim Block Rio samples	1988-1991	Target scale	3501	N/A	yes	Further details may be available in assessment reports that have not yet been located.
	2008 Terrane (unpublished)	2008	Pilot	97	SGH, MMI	possible	May be used to assess utility of analytical protocols; unlikely to provide or contribute to new exploration target.

Material	Source	Publication or collection year	Type of survey	Number of samples within the AOI	Analytical methods	Inclusion in evaluation	Comment
	BCGold Corp. (ARIS #31446)	2009	Property scale	32	ICP-MS	possible	Too few samples to be useful unless comparable with other datasets and can be evaluated together.
	2009 Terrane (unpublished)	2009	Target scale	700	ICP-MS	yes	
	Terrane (ARIS #31930)	2010	Target scale	605	ICP-MS	yes	
	Geoscience BC (Report 2010-08)	2010	Pilot	39	ICP-MS, ICP-OES, AAS, SGH, MMI	possible	Several methods tested along transect; methods comparable to other data sources will be included in subsequent evaluation.
	BCGold Corp. (ARIS #33981)	2012	Target scale	175	MMI	possible	Non-standard analytical method; performed poorly in pilot experiments (*e.g.*, Geoscience BC Report 2012-80).
	MAX Claim Block	2013	Target scale	506	N/A	yes	Lacking details on analytical methods but assumed to be internally consistent.
	Equity Exploration Consultants ltd. (ARIS #35023)	2014	Target scale	261	ICP-MS	Possible	Composed of three grids, two of which are outside of the specified study area.

Acronyms: ICP – inductively coupled plasma; MS – mass spectroscopy; ES – emission spectroscopy; OES – optical emission spectroscopy; AAS – atomic absorption spectroscopy; INAA - instrumental neutron activation analysis; SGH – spatiotemporal geochemical hydrocarbon ; MMI – mobile metal ion.

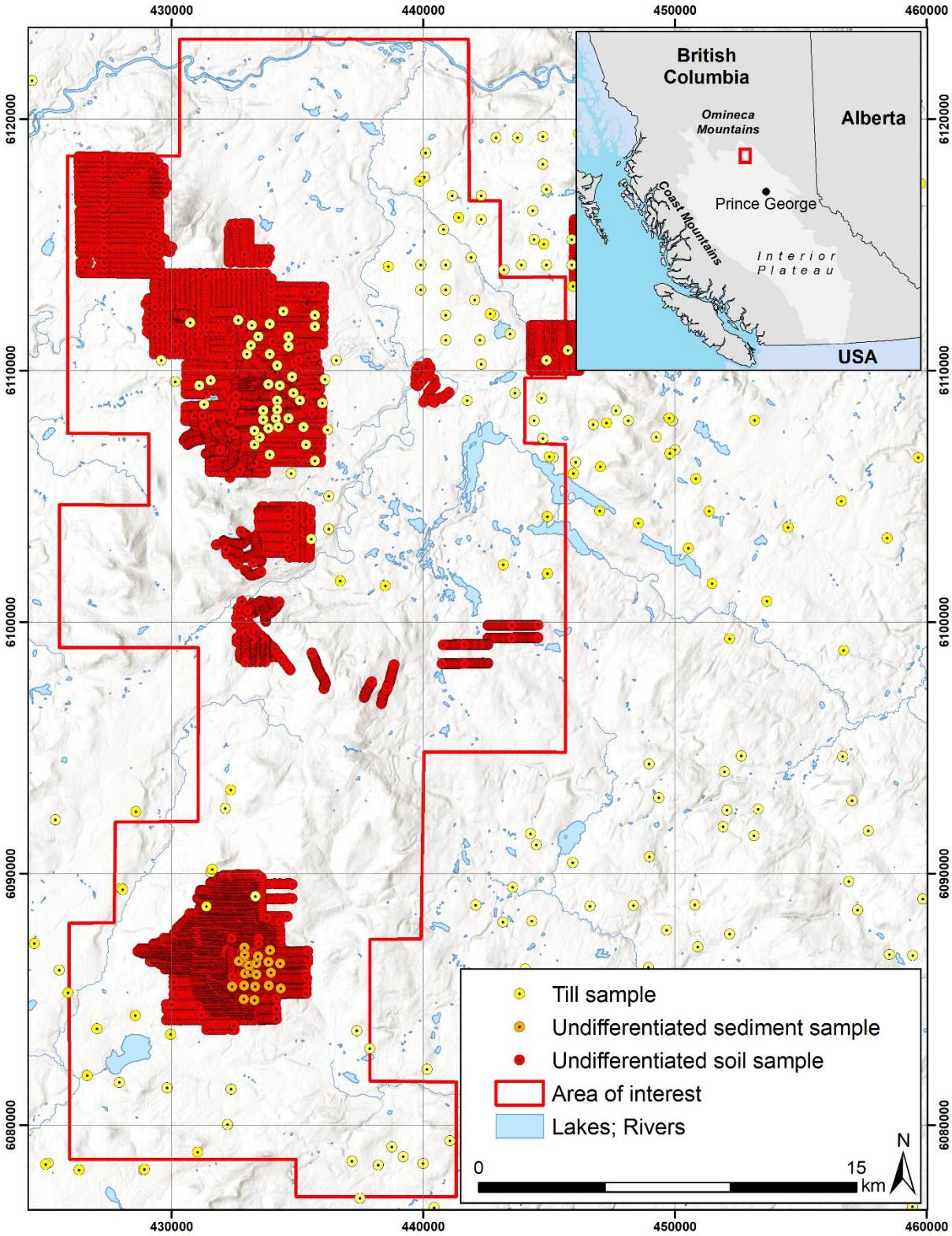

Figure 8. Locations of soil samples and regional-scale till samples for the Property. Regional till data was extracted from Bustard et al. (2017).

Drainage samples typically provide a basin-scale understanding of prospectivity. In glaciated terrain, sediments may be derived from till, and the potential that they can cross catchment basins must be considered. Data from 271 drainage samples are available for the Property and include lake and stream sediment and water samples (Table 8; Figure 9). It is recommended that select drainage data be included in the subsequent evaluation to focus future exploration efforts.

Analytical methods used in the analysis of stream sediment data include INAA, bulk leach extractable gold (BLEG), and variations of ICP methods. A small percentage of stream sediment samples contains results for loss on ignition (LOI), fluoride, pH and uranium. An assessment of the sample media and analytical methods will be required to ensure data comparability prior to evaluation. During stream sediment sampling programs, 76 relevant water samples were collected and analysed by ICP-MS and ICP-AES. Water samples provide acceptable coverage for the central portion of the AOI. Due to the low number of samples, however, overall coverage is poor (Figure 9). Sixty-two lake sediment samples have been collected from the Property. The best lake sediment sample coverage is over the central portion of the study area, and the poorest coverage is in the south.

Table 8. Summary of data files for drainage samples.

Material	Source	Publication or collection year	Type of survey	Number of samples within the AOI	Analytical methods	Inclusion in evaluation	Comments
Water	Placer Dome Inc. (ARIS #28210)	2005	Property-scale	30	ICP-MS and ICP-AES	Yes	Located around current mine site; may provide reference signature of mineralization for water samples.
	2008 Terrane (unpublished)	2008	RGS	43	ICP-MS	Yes	
	British Columbia Geological Survey (GeoFile 1999-05)	1999	RGS	3	ICP-MS and pH	Yes	
Lake sediments	Geoscience BC (Report 2008-05)	2008	RGS	56	ICP-MS and INAA	Yes	Includes reanalysis of GSC archive samples.
Stream sediments	Geoscience BC (Report 2008-03)	2008	RGS	19	ICP-MS	Yes	
	Geoscience BC (Report 2008-07)	2008	RGS	3	ICP-MS and INAA	Yes	
	Geoscience BC (Report 2009-11)	2009	RGS	7	ICP-MS and INAA	Yes	
	Geoscience BC (Report 2013-06)	2013	RGS	7	INAA	Yes	
	BP Minerals Limited. (ARIS #13508)	1984	Target scale	27	Multi-element ICP and gold by AAS	Yes	Closely spaced samples; may not provide significant results.
	Continental Gold Corp. (ARIS #20227)	1990	RGS to Property scale	16	Multi-element ICP and gold by AAS	No	Insignificant results and no differentiation between pan concentrates and silt samples
	BGM Diversified Energy Inc. (ARIS #22011)	1991	RGS	1	Multi-element ICP and gold by AAS	Possible	Single sample; will be used if analytical methods are comparable with other data.
	Placer Dome Inc. (ARIS #28210)	2005	Property scale	34	ICP-MS and ICP-AES	Yes	Located around current mine site; collected with water samples from same source.
	British Columbia Geological Survey (GeoFile 2006-9)	2006	RGS	7	Multi-element ICP and gold by AAS	Yes	
	2008 Terrane (unpublished)	2008	RGS	42	ICP-MS	Yes	Collected with water samples from same source.
	BCGold Corp. (ARIS #31446)	2009	Target scale	6	ICP-MS	Yes	Closely spaced samples may not provide significant results.
	Placer Dome Inc. (ARIS #28210)	2005	RGS	34	BLEG	Yes	Few analytes; additional analysis run on samples from same source.
	2008 Terrane (unpublished)	2008	RGS	46	BLEG	Yes	Few analytes; additional analysis run on samples from same source.
Moss Mat sediment	BP Minerals Limited. (ARIS #17860)	1988	6	6	Multi-element ICP and gold by INAA	No	Insufficient data.

Acronyms: ICP – inductively coupled plasma; MS – mass spectroscopy; AES – atomic emission spectroscopy; AAS – atomic absorption spectroscopy; INAA - instrumental neutron activation analysis; BLEG – bulk leach extract gold.

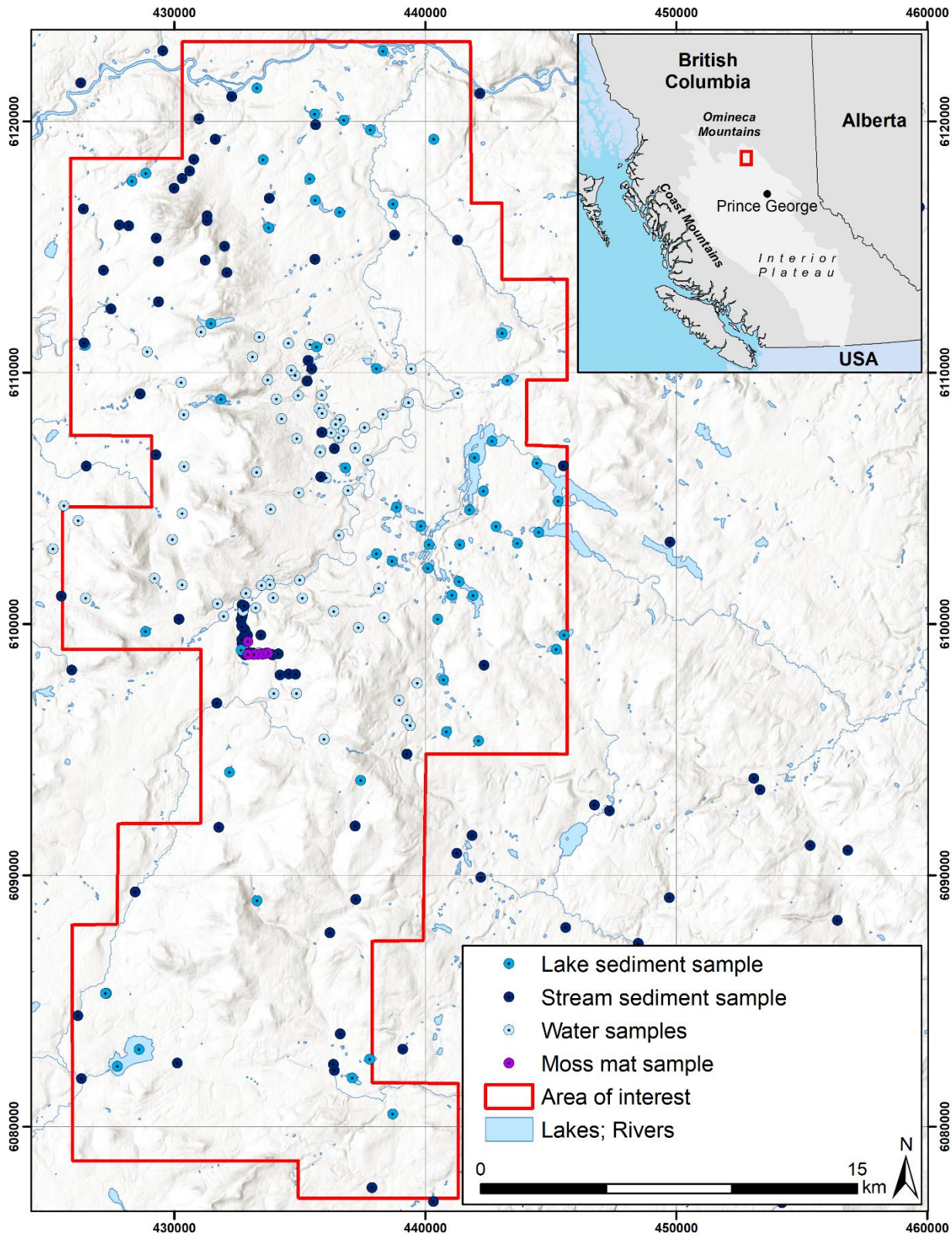

Figure 9. Locations of drainage samples from the historical dataset. Regional lake and stream sediment data from recent compilation by Han and Rukhlov (2020).

The remaining analytical results in the historical data package are from Lodgepole pine bark, talus fines, pan concentrates, rock and boulders (Table 9; Figure 10). None of these data are recommended to be included in the evaluation of historical data at this time. Most data provide limited coverage to be useful (*e.g.,* talus fines and pan concentrates), or they are not current priorities for the surficial program (*i.e.,* rock samples). Biogeochemical data from lodgepole pine may provide important reference data if biogeochemical surveys are considered for areas where till sampling is not possible. Evaluation of the rock samples may also be considered in the future; however, it will be necessary to identify which samples were collected from outcrop, and which samples were from clasts or boulders taken from drift before any evaluation of these data is completed.

Table 9. Summary of data files for Lodgepole pine bark, talus fines, pan concetrates, and rock.

Material	Source	Publication or collection year	Type of survey	Number of samples within the AOI	Analytical method	Inclusion in evaluation	Comment
Lodgepole pine outer bark	Geological Survey of Canada (Open File 3290)	1996	Pilot/property scale	96	ICP-AES and INAA	Possible	Method may be considered in areas not suitable for till sampling
Talus fines	BP Minerals Limited. (ARIS #12912)	1984	Target scale	2	Multi-element ICP and gold by AAS	No	
Pan concentrate	Continental Gold Corp. (ARIS #20227)	1990	Pilot	5	Multi-element ICP and gold by fire assay	No	
Rock (outcrop or float)	BP Minerals Limited. (ARIS #11951)	1983	Target/property scale	20	unknown	No	Five analytes.
	BP Minerals Limited. (ARIS #13508)	1984	Target/property scale	5	Multi-element ICP and gold by AAS	No	
	BP Minerals Limited. (ARIS #14377)	1985	Target/property scale	32	N/A	No	
	BP Minerals Limited. (ARIS #17860)	1988	Target/property scale	7	Multi-element ICP and gold by INAA	No	
	HLX Resources Ltd. (ARIS #19396)	1989	Target/property scale	9	Multi-element ICP	No	
	BP Minerals Limited. (ARIS #20280)	1990	Target/property scale	4	Multi-element ICP and gold by INAA	No	
	Continental Gold Corp. (ARIS #20230)	1990	Target/property scale	9	ICP-AES	No	
	Continental Gold Corp. (ARIS #20227)	1990	Target/property scale	22	Multi-element ICP and gold by fire assay	No	
	Golden Rule Resources Ltd. (ARIS #20853)	1990	Target/property scale	6	Multi-element ICP and gold by AAS	No	
	BGM Diversified Energy Inc. (ARIS #22011)	1991	Target/property scale	12	Multi-element ICP and gold by fire assay	No	
	Grasswood Geoscience ltd. (unpublished)	1996	Target/property scale	292	Multi-element ICP and gold by AAS	No	
	Placer Dome Inc. (ARIS #28209)	2005	Target scale	0	Whole rock XRF	No	
	2007 Terrane (unpublished)	2007	Target/property scale	51	ICP-AES	No	
	2008 Terrane (unpublished)	2008	Target/property scale	40	ICP-AES	No	

Material	Source	Publication or collection year	Type of survey	Number of samples within the AOI	Analytical method	Inclusion in evaluation	Comment
	BCGold Corp. (ARIS #31446)	2009	Target/property scale	20	ICP-MS	No	
	BCGold Corp. (ARIS #33981)	2012	Target/property scale	7	Multi-element ICP	No	
	Equity Exploration Consultants ltd. (ARIS #35023)	2014	Target/property scale	0	Multi-element ICP and gold by AAS	No	
Rock (trench)	BP Minerals Limited. (ARIS #14377)	1985	Target scale	479	Multi-element ICP	No	
	Placer Dome Inc. (unpublished)	1990	397 Target scale	397	N/A	No	
	Placer Dome Inc. (unpublished)	1991	Target scale	214	N/A	No	
Rock (RC hole)	2019 MAX reverse circulation overburden and bedrock sampling program	2019	Property scale	98	N/A	Possible	May be able to compare with till results to estimate anomaly displacement

Acronyms: ICP – inductively coupled plasma; MS – mass spectroscopy; AES – atomic emission spectroscopy; AAS – atomic absorption spectroscopy; INAA - instrumental neutron activation analysis.

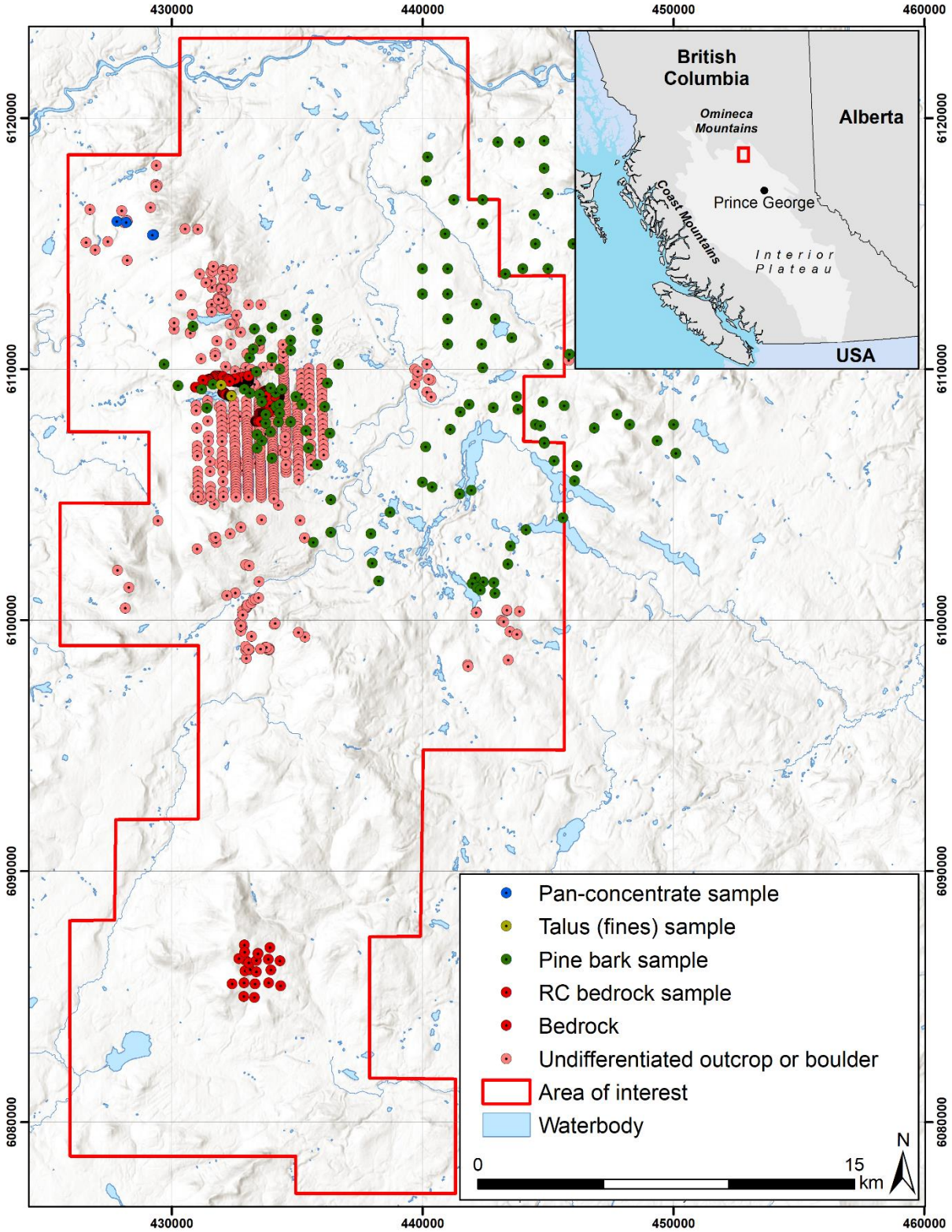

Figure 10. Locations of rock, talus fines, pan concentrate, and biogeochemical samples for the AOI, showing approximate coverage.

5. Conclusions and recommendations

5.1 Surficial geology and implications for drift prospecting

The surficial geology was interpreted at a scale of 1:20 000 from stereo imagery and LiDAR-derived elevation data. Based on these interpretations and the regional context provided by previous studies, the following information and implications for exploration were determined:

- Till is the dominant surficial material on the Property.
- Deglacial sediments (*e.g.,* glaciofluvial and glaciolacustrine material and ablation till) are the second most common materials.
- Bedrock is exposed in less than 2% of the Property.
- Glacial lakes developed during the advance and retreat phases of the last glaciation. Sediment from these events and glaciofluvial activity is common in valley fill sequences, which are locally very thick.
- Dominant ice-flow and till transport direction is to the northeast on the Property.
- A late-stage glacial readvance occurred in the northern part of the MtM claims that may have caused secondary eastern transport of near-surface till in that area.
- A late-stage ice-flow direction shift to the north in the southeastern part of MtM claims may have caused secondary northern transport of near surface till in that area.
- The ice-flow direction on Max was consistent to the northwest and no secondary transport directions are expected.
- Ice generally retreated to the southwest and deglacial lakes and meltwater reworking are common on southwest-facing slopes and valleys.

5.2 Till sampling suitability

Till sampling suitability was derived from the 1:20 000-scale surficial geology interpretations based on the potential for till to occur in a polygon and the effort required to collect samples. The following was determined about the till sampling suitability of the Property:

- Overall, the Property is moderately- to well-suited to till sampling and the prospectivity of most of the property can be determined using till data.
- Till sampling suitability was divided into surface sampling and subsurface sampling categories due to the extensive cover of deglacial sediments overlying till.
- Subsurface sampling categories will likely require reverse circulation drill support; till may be accessed with an excavator in some areas.
- Any areas where mechanical assistance is required to sample till should be specifically evaluated to ensure methods are appropriate.
- Max is well suited to till sampling and till can mostly be collected at surface.

- MtM is only moderately suited to till sampling because subsurface sampling will be required to collect till samples where extensive deglacial sediments occur east and south of the mine site.

5.3 Drift thickness

Drift thickness mapping was derived from the 1:20 000-scale surficial geology interpretations. The following findings were revealed from the drift thickness mapping:

- In general, drift thickness is predictably related to topography, with thin drift on topographic highs, moderate drift thicknesses on slopes and valley sides, and thick drift in valley bottoms.
- Estimations of drift thickness are most accurate in thinner classes (classes 1-3).
- Drift thickness is most difficult to estimate for landforms created by processes that can be erosive or depositional (*e.g.* glaciofluvial plains).
- Drift thickness in valley bottoms can be deceptively thick because most advance- and retreat-phase sedimentation occurs within these valleys and materials can be shielded from glacial erosion.

5.4 Compilation and preliminary assessment of surficial exploration data

The existing data were compiled and assessed to develop a better understanding of the data coverage and the internal variability with the data sets related to sampling and analytical protocols. This information is required to determine appropriate evaluation criteria and strategies for continued surficial exploration. The preliminary assessment of the surficial dataset revealed:

- Geochemical data are available for moss mat sediments, talus fines, pan concentrates, rock samples, lake sediment, stream sediment, soil, till, water samples and lodgepole pine bark.
- 185 data files were provided in the original historical data compilation.
- The historical data compilation was filtered to 65 data files by removing duplicates, analytical results from samples that have since been reanalysed, and analytical results missing spatial reference.
- RGS data are generally the most complete and reliable; however spatial distribution is poor.
- Most assessment report and non-published data are lacking QA/QC information and some aspects of sampling or analytical protocols which will complicate their evaluation.
- The existing till data are of good quality, but spatial coverage requires improvement.
- Soils data are of moderate quality and coverage is concentrated on discrete target areas. Standard geochemical results from B-horizon soil data will likely provide potential exploration targets for the limited areas they cover.
- Drainage samples provide general coverage over the Property and may provide a basin-scale understanding of prospectivity.

5.5 Recommendations for further surficial exploration

Based on our understanding of TCMC's exploration priorities and the results of this study, the following exploration activities are recommended:

- Complete an evaluation of the Max soils data as soon as possible to inform 2021 drilling initiatives. Data must be standardized in terms of sample media and analytical methods prior to evaluation, multivariate approaches should be used, and displacement potential must be considered.
- Complete an evaluation of the MtM soils data to develop or refine targets on the MtM claims. Data must be standardized in terms of sample media and analytical methods prior to evaluation, multivariate approaches should be used, and displacement potential must be considered.
- Complete an evaluation of the existing till and drainage sediment data to develop a property-scale understanding of prospectivity and highlight specific areas of interest. Multi-vector displacement histories must be considered when evaluation drainage sediments.
- Develop a standard, reliable surficial exploration approach to identifying and developing exploration targets. Till provides an optimal base-layer of data to determine prospective areas of the Property because each sample represents a large area of bedrock and can be built upon using the same sampling and analytical strategies. Initial sample spacing of ~1-2 km would provide adequate base-layer coverage. Stepwise increases in density are recommended around existing and newly developed exploration targets. TSS mapping will facilitate data-driven survey designs and indicate sampling strategies for specific areas.
- Complete a multivariate evaluation of till data to identify and characterize an inventory of potential exploration targets for the Property, and to make claim staking and dropping decisions.
- Prioritize targets and increase till sample density in priority areas using till sampling suitability mapping until ground-based geophysics, trenching or drilling targets are achieved.
- Continue iterations through inventory of exploration targets.

6. Certification

This report was prepared and reviewed by the undersigned:

Prepared by:

Cam Knox, B.Sc., GIT
Quaternary Geologist

Prepared and reviewed by:

Dave Sacco, M.Sc.
Senior Surficial Exploration Specialist

Approved by:

Robin McKillop, M.Sc. P.Geo.
Principal, Surficial Geologist

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Appendix A

Mount Milligan surficial geology map set

Provided separately as:
Palmer_Appendix_A _MtM_SurficialMapSets_PDF.zip

Appendix B

Mount Milligan surficial geology spatial data

Provided separately as: Palmer_AppendixB_MtM_SurficialGeology_SpatialData.zip

Appendix J - *Talon Till Sampling Logistics Report*

470 Granville Street, Suite 630, Vancouver, BC V6C 1V5
Tel: 604-629-9075 | www.pecg.ca

Field Report

Date: January 7, 2021

Project #: 1902414

To: Cheyenne Sica, Thompson Creek Metals Company Inc.

From: Lindsay Nelson and Dave Sacco

cc: Bonnie Spence

Re: Field report for the till sampling program at the Max property, British Columbia

1. Introduction

This document provides Thompson Creek Metals Company Inc (TCMC) with the results of Palmer's 2021 till sampling program at the Max property (Max), British Columbia. This program was initiated in the fall of 2021 and designed to further investigate target zones that were delineated using soil geochemistry (Palmer, 2021a) and airborne geophysics. The goal of the program is to further delineate dispersal patterns that will help identify potential source regions for these anomalies and improve diamond drill targeting. Following the protocols developed on other properties in the region, the Talon shallow-drilling system was used to collect till samples at strategic locations up- and down-ice from key anomalies to identify and refine the exploration targets. This methodology has not previously been applied during winter conditions at high elevations.

The proposed sampling plan focused on two of the 17 target areas identified from soil geochemistry (Palmer, 2021a). Max_ST9 and Max_ST6 (Figure 1) were selected from the geochemistry targets in consultation with TCMC based on corroborating geophysics and access. Before field mobilization, optimized sample locations and access routes were determined by Palmer using the surficial geology mapping and LiDAR data. Access routes were cleared of brush and deadfall for safety by Minconsult Exploration Services Ltd (Minconsult).

A total of 67 till samples and six rock samples were collected from the target areas during two field programs completed in November and December (Figure 2 and Figure 3). Included within this field report is a summary of the drilling and sampling results with recommendations for future programs. Sample descriptions, locations, and photographs of the samples and sample sites were collected using TCMC's data collection and management system (Survey123) and have already been provided.

2. Program Maps

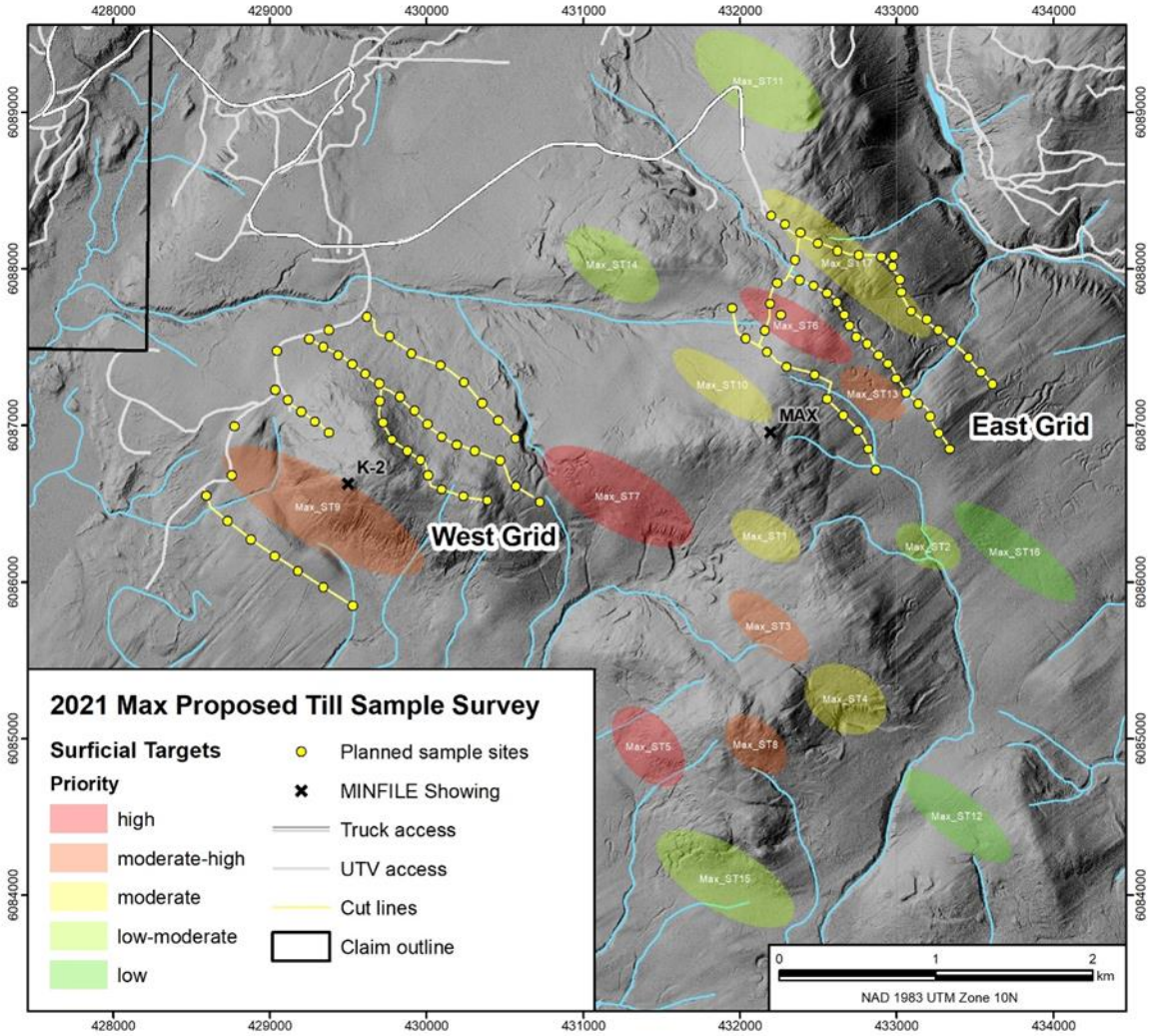

Figure 1. Prioritized target zones and planned sample grids.

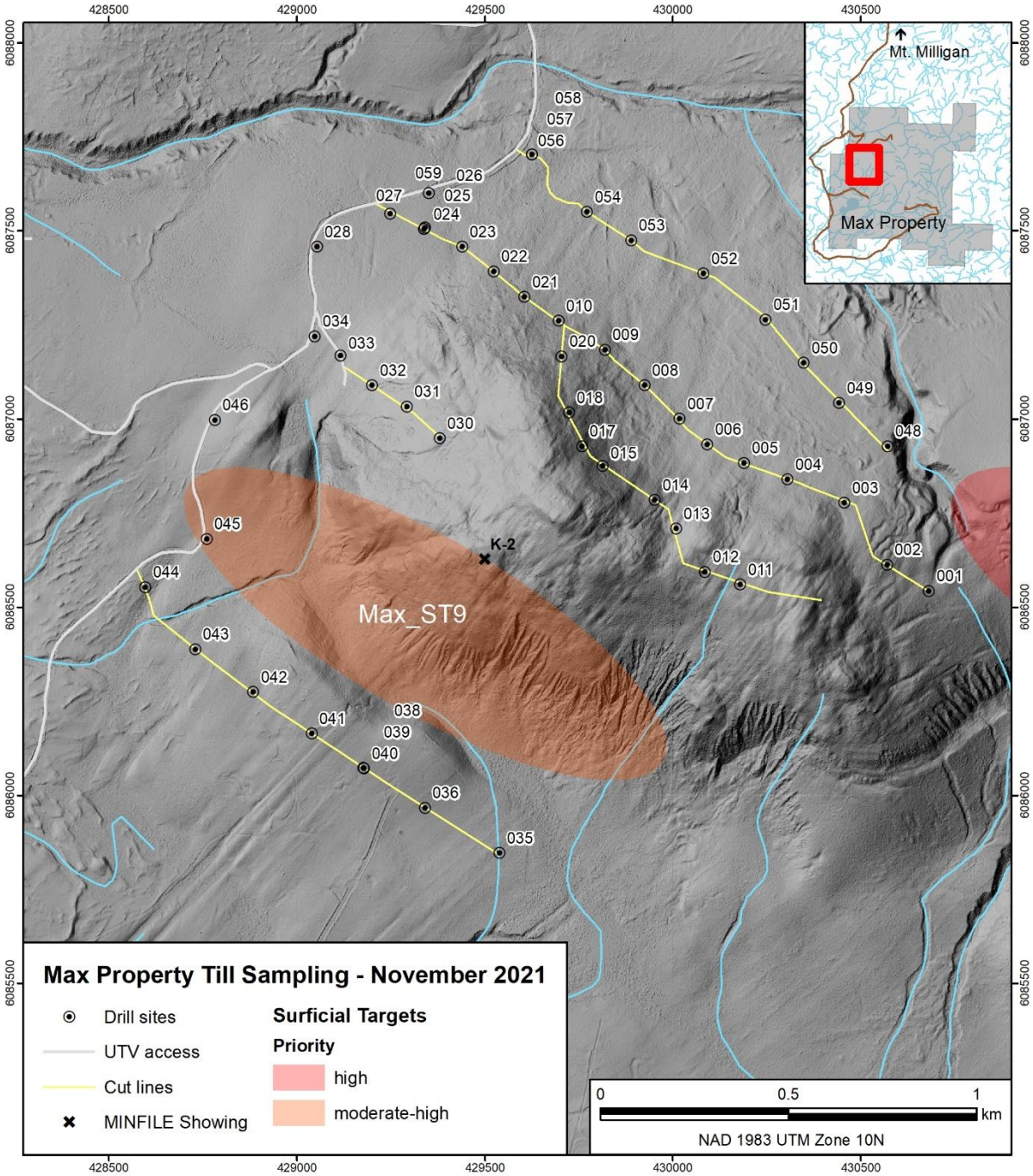

Figure 2. West grid till sample site locations. Details of the Phase I (west grid) sampling are provided in section 5.1.

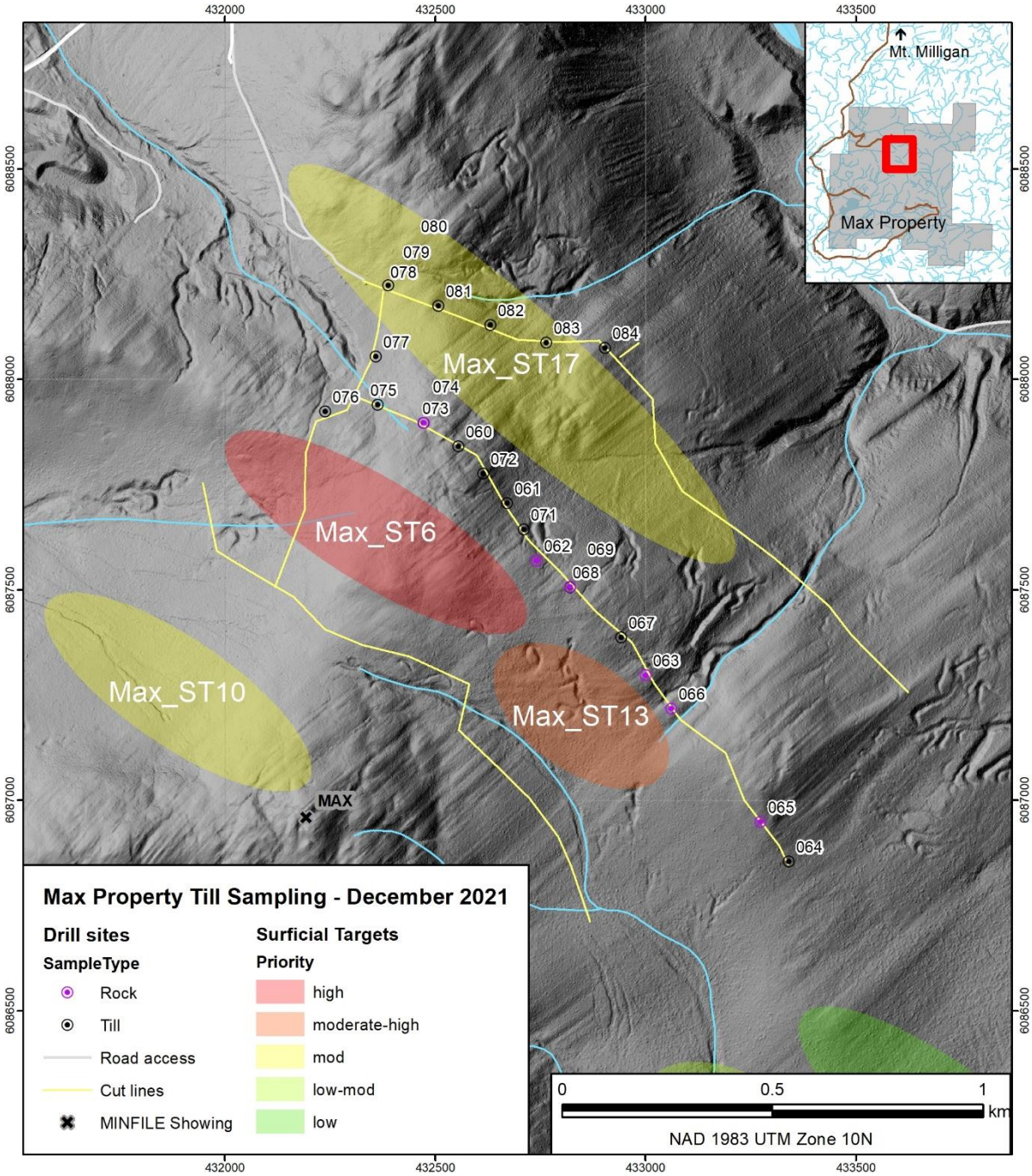

Figure 3. East grid sample locations. Details of the Phase II (east grid) sampling are in section 5.2.

3. Operations

For both phases, Palmer staff flew from Vancouver to Prince George, where they were met by Jim Donaldson of Minconsult. The crew had accommodations at the Mt. Milligan mine site for the duration of the programs. Access within the Property was through a combination of truck and utility terrain vehicle (UTV) in November and truck and snowmobile in December. Food, water, and fuel were provided onsite. Miscellaneous PPE such as spare gloves and hardhat liners were made available by the exploration department at the mine.

The first 11-day program was completed from November 8-18, 2021, including travel. Temperatures ranged from -1 to -10°C and there was between 10-30 cm of snow on the ground, depending on location. For Palmer personnel, the total person-hours for the November program are 240.5. This includes travel to and from the field site as well as 10.5 hours of management time. Minconsult recorded a total of 124 hours during the till sampling, including an additional mobilization day on November 7. When on-site, sampling was conducted every day. The field crew was typically working 10-11 hours per day.

The second 10-day program was completed from December 6-15, 2021, including travel. The temperature ranged from -5 to -20°C and in the work area there was 50-100 cm of snow. For this program, total person-hours for Palmer personnel is 183.5, including travel. Minconsult recorded a total of 104 hours from December 6-15. Despite being on-site for eight days, there were only five sampling days. One day was lost due to a site-wide safety concern, one full day was spent breaking in an access trail to the grid, and at the end of the program, one day was lost due a component on the drill that broke due to cold temperatures and that could not be replaced within the remaining two days of the program.

3.1 Personnel and Equipment

The following personnel completed both phases of the field program:

- Robert Janzen Geologist
- Lindsay Nelson Geologist
- Jim Donaldson Field support

The following equipment was used, along with sampling accessories and consumables:

- Talon portable shallow drilling system
- 1 kW Honda generator
- Truck (Minconsult supplied)
- Phase I: UTV (Minconsult supplied)
- Phase II: two Tundra LT550F snowmobiles (Ron’s Rental)
- Phase II: three pair snowshoes (Minconsult supplied)
- Three handheld VHF radios (Minconsult supplied)
- One Garmin inReach

3.2 Health and Safety

A total of 17 hazards were identified and controlled for during the till sampling programs:

- Driving conditions
- Logging roads
- Muscle strains
- Steep and snowy terrain
- Trip hazards
- Wildlife
- Plants/deadfall
- Weather
- Pinch points
- Moving parts
- Noise
- Equipment failure
- Grease/chemicals
- Wires
- Heavy equipment
- Short daylight hours
- Remote work with limited access

The field crew conducted daily safety meetings to review the hazards that may be encountered and associated safety measures. The equipment was also inspected daily. This includes vehicle walkarounds, measuring fluid levels, checking safety equipment (*e.g.,* safety glasses, ear protection, gloves, helmets), and inspecting the drill and components for damage or wear. While in the field, the crew used an inReach or cell phone (where coverage was available) to check in with mine site personnel every two hours.

The field crew routinely discussed the day's activities and any hazards or concerns on the commute back to the mine at the end of the field day. Any issues that arose were resolved before starting work the next day. The most common observation was that the crew was becoming sore and tired from moving the drilling gear along difficult traverses. The crew was stretching every morning to mitigate the cumulative effects of the physical work and to prevent injury. Communication and assisted or two-person lifts also helped to improve the ergonomics of moving the equipment.

No incidents occurred during Phase I of the program. During Phase II of the program, there were three incidents requiring attention:

On December 7, the crew was unloading the gear in the field when they were called back to the mine by the supervisor as there was a report of armed men near the work area, the crew remained in camp the rest of the day. After a risk assessment, it was determined that returning to work the next day was low-risk due to the low probability of encountering the men. As the men were never apprehended, the check-in frequency was increased to once every hour for the remainder of the program.

On December 11, a crew member was struck in the arm by the handle of the hand-winch that is used to retrieve the drill string from the borehole. The drill string had become stuck, and the winch was put under high tension in the attempt to retrieve the rods. The operator released the safety catch on the winch to lower the drill and re-square the mast before trying to pull again. When the safety catch was released, the operator's hand slipped off the winch handle, which then spun around and struck the operator's arm. No medical attention or lost time was necessary; however, an incident report was written, and a new protocol was implemented stating that one crew member holds the drill handle in both hands while the second crew member releases the catch when the winch is under high tension.

On December 13, during routine drilling, a small spring that controls the winch lock mechanism broke. The thin metal likely became brittle due to the cold temperatures. The winch can potentially unspool and the drill can fall without this locking mechanism, so the drill could no longer be used safely. Extra springs are being sourced, and options for a heavier gauge spring that is less likely to break are being explored. The proposed

program only had a few days remaining, no replacement part was immediately available, temperatures were projected to drop below -20 °C, and Minconsult was concerned for the safe return of their staff due to extreme weather across the province, so the program was ended at this time.

4. Methods

4.1 Sample Locations

Target areas were generated through standardization and evaluation of historical soil and till geochemical data on the Max claims (Figure 1) (Palmer, 2021a). Two sampling grids, oriented perpendicular to the northeastward ice-flow direction, were designed to capture the northeastward dispersal of mineralized bedrock. Specific sample locations were preselected based on the previously completed surficial geology mapping, till sampling suitability mapping, drift thickness mapping, and high-resolution imagery and elevation data.

The West grid is designed to investigate Max_ST9, a large moderate-high priority target with elevated As, Co, V, and Zn forming the main anomaly signature. This target is coincident with the K-2 showing (093K 086), a brecciated quartz-carbonate vein with chalcopyrite and minor malachite. Significant rock samples from K-2, collected in 2007 and 2019, contain anomalous levels of either or both silver and copper (Thompson Creek Metals Company Inc., 2019).

The East grid is designed to investigate a cluster of targets, Max_ST6, ST13, and ST17. Of these, Max_ST6 is the highest priority, with a primary anomaly signature of Ag, As, Cu, Fe, Mo, Pb, and V. This grid is also entirely down-ice of the Max showings (093K 020), which consist of chalcopyrite and malachite-bearing carbonate veins and local breccias (Thompson Creek Metals Company Inc., 2019).

Grid transects are spaced 200-500 m apart. The steepness of the terrane limited the possible line locations, especially in the West grid. Proposed sample locations are spaced approximately 100 m apart along the lines immediately down-ice from the targets. The lines furthest from the targets have a wider proposed sample spacing of 150-200 m. The southwestern lines in the grids also have a wider sample spacing as these lines are up-ice of the major targets and designed to ensure the up-ice termination point of the anomaly has been accurately determined.

4.2 Sampling and Data Collection Protocols

Till samples were collected using the Talon drill, tooled with custom bits and samplers. A specialized, tungsten-carbide-tipped auger bit was used to reach depths below the influence of soil development, bioturbation, or anthropogenic disturbance. A custom sampler was then attached to retrieve *in-situ* material from the bottom of the drill hole, from which the genesis could be verified. Approximately 500 g of till matrix was collected and sealed in polyethylene bags. The detailed protocols applied during the till sampling program are available in (Palmer, 2021b).

Sampled material was described and the data were captured using Esri's Survey123 application forms provided by TCMC. These data were uploaded directly into TCMC's master database when internet access became available. Photographs were taken of each sample and sample site. Each sample was labelled on an external and internal tag using a multi-part labelling system consisting of project reference, sampling year, sample type, and sample number (*e.g.,* MAX21TD-001: MAX – "Max property"; 21 – year collected; TD – "Talon drill"; and 001 – sample number). Tracklogs and additional notes for sample sites and other points of interest were recorded in Avenza.

Samples were prepared for shipment and stored in buckets at the mine until the end of the program. The contents of the buckets were verified, and a 30 g aliquot of each Oreas 46 and Oreas 47 reference standard was added for every block of 20 geochemistry samples. Each block of 20 samples included a field duplicate and space in the sequence for an analytical duplicate that is split from the field duplicate. At the end of the program, samples were delivered to a TCMC staff member at Mt. Milligan and shipped following TCMC's protocols.

5. Results

5.1 Phase I

Till sampling was completed November 9-17. A total of 59 samples were recorded including three sets of duplicates, and six reference standards (three of OREAS 46 and three of OREAS 47). All till samples were collected using the drill. Potential sites for opportunistic sampling along roadcuts were not visible due to snow. On average, the crew completed 5.5 sample locations per day. The rate of sampling ranged from 3-8 samples per day (not including standards). Active sampling time ranged between 30-60 minutes per site.

All material sampled was till, most of which was considered high-quality. At the end of one of the lines, two samples were missed due to bedrock being very shallow and not wanting to risk the drill getting stuck in the rock. Some subsequent samples near this area (Figure 2, site 011) are of more oxidized and rocky material than is ideal. All sample irregularities were recorded within the Survey123 digital sample card.

5.2 Phase II

Sampling was completed December 9-13. A total of 19 till samples, including one set of duplicates, one reference standard (OREAS 46), and six rock samples were collected from 20 sites. Only one primary sample was collected at most sites; however, at two of the sites both till and rock samples were collected due to both types of material being available (Figure 3). All samples were collected using the drill, except for one grab sample from the regolith below B-horizon soil in a pit (MAX21TD-062). The rate of sampling ranged from 2-7 per day, on full sampling days. The average active sampling time was approximately 60

minutes. This increased time was largely a function of very thin till on topographic highs and the associated sub-optimal sampling conditions that could not be identified and avoided due to the snow.

Where till is thin, boulder concentrations at the surface are typical and could not be avoided. Several attempts on a single drill pad were commonly required to locate an optimal position absent of boulders. Ideal till for sampling is less common on these topographic highs, and the till is more typically composed of poorly consolidated material with many angular coarse fragments ranging from pebbles to boulders. Rock was present at shallow depths, and where possible, a rock sample was collected where suitable till was not encountered. Due to the deep snow, it was not possible to determine whether the rock was a boulder or bedrock; however, the colour and characteristics of all the rock chips are similar and could represent a single lithology. Additionally, the till is known to be shallow, so it is interpreted that bedrock was sampled. The one grab sample collected is a felsic intrusive with propylitic alteration that is thought to be representative of the dominant rock type.

Table 1. Summary of Samples Collected

Sample Type	Number of Samples
Till total	**67**
West grid	47
West grid field duplicate	3
East grid	16
East grid field duplicate	1
Rock (East Grid only)	**6**
Standard	**7**
Program Total	**84**

6. Program Review and Recommendations

6.1 Logistics

In general, the planning of the programs ran smoothly, with good communication between project managers, Mt. Milligan mine site personnel, Palmer, and Minconsult. The accommodations at Mt. Milligan were comfortable and there was space for thawing, cleaning, and storing gear when needed. The on-site contacts in the exploration department were very helpful and supportive of the program. Having an experienced Minconsult person that was familiar with the site as field support was very important to the success of the programs as there was insufficient time to complete a proper reconnaissance program.

Sample lines were brushed before the snowfall. The line brushing was considerably more difficult than anticipated, even with Minconsult's prior experience on the property. Based on initial line-brushing rate estimations, the survey was designed to include four grids, but the slow brushing progress necessitated a reduction to two grids. As a result, a disproportionately large amount of money was allocated to line brushing. In addition, the lines were originally intended for snowmobile access; however, the thick vegetation and rough terrain made this impractical, and the programs were dominantly completed with foot traverses. Due to these factors, access and physically moving the equipment along the lines were the most

difficult components of the program and contributed to lower-than-expected sampling rates, especially during the December program.

In the December program, the deep snow meant that a full day was needed to create a snowmobile trail along unplowed roads to the starting point of the grid. In future winter programs, it is recommended that trails be broken in advance of the arrival of the drill crew. Having additional support on days when the gear is being moved long distances along lines would also increase efficiency. For programs based at Mt. Milligan, having intermittent field support from an exploration team member is an option that would eliminate added mobilization and demobilization costs.

6.2 Till Sampling

During both programs, the Talon drill was effective at penetrating below surface soil layers to be able to sample materials from >1 m depths. Despite the difficulties in the December program, sampling speeds are good and no major modifications to the drilling procedure are required, except for minor modifications already mentioned in the health and safety section. Daily sampling rates were lower than anticipated due to access limitations as opposed to procedures.

The drilling equipment could be carried along the lines by three people with the use of a sled for items that did not fit in backpacks. This was physically demanding but effective. In December, moving between sites was less efficient because of the deep snow. Even with snowshoes, the footing was unstable and pre-packed trails would have been beneficial for transporting the equipment. In some areas, branches were blocking the path because the brushing crew could not reach high enough to compensate for the snowpack. In future programs, a reconnaissance crew breaking trails could also clear additional brush as required.

Optimal operating temperatures for the Talon drill are greater than -10°C. Small differences in temperature (5 degrees) and windchill had more effect on sampling efficiency than anticipated when below -10°C. The lower cut-off for Talon drill operation is -20°C, and even this is not considered sustainable over longer periods without additional heat sources and shelter. The reduced efficiency in these low temperatures and increased stress on staff and equipment are safety concerns. Issues arising when working in temperatures near the optimal limit include rod connectors freezing closed, sediment rapidly freezing to the drill string and sampling tools which makes cleaning difficult and increases the risk of cross-contamination, and at the coldest temperatures, metal and some plastic components become fragile and susceptible to breaking. Battery life, however, was not an issue, spare batteries were kept in insulated bags with hand warmers, and batteries were recharged in the field, which was effective. Additionally, the heavy silicone grease used during Phase I was replaced in Phase II by a lower viscosity grease rated for freezing temperatures that performed well.

6.3 Survey Design and Protocols

Samples were collected near the predetermined sample locations with some adjustments to avoid localized reworking and small deposits of other materials. Flexibility to adjust the sample locations by a few metres is especially important in areas with thin till veneers (*i.e.,* ~1 m) to avoid outcrop or boulder-rich areas that are not suited to the drilling with the Talon. Modifying sample locations was easily accomplished during the November program and contributed to the successful collection of high-quality samples. During the December program, however, local-scale site selection was impossible due to the deep snow.

Consequently, there were issues with the drill immediately hitting boulders or shallow bedrock, or becoming stuck when boulders shifted against the drill rods. In many cases three or more attempts were made on a single pad. Where relatively deeper till was encountered, drilling and sampling were straightforward and ran smoothly. In winter conditions with deep snow, areas of thin till where local-scale site selection would benefit sample quality should be avoided.

For Phase II, the use of a plastic pan for sample inspection before bagging the sample was stopped. During Phase I, till material was freezing to the pan and was difficult to clean. The plastic also cracked due to the cold temperaturs. Instead, the sample tube was emptied directly into a clean sample bag where its characteristics were determined, eliminating any chance of cross-contamination. In Phase II some compromises were made to the sampling protocols due to the thin till. C-horizon subglacial till was not always available as some thin deposits were weathered through the entire profile to bedrock. In these areas, B-horizon material was necessarily sampled, and the protocol change was recorded on the field cards. Many of the samples are under the 500 g target sample weight due to the increased clast content and weathering in these thin deposits. Rock samples were collected where possible when sufficient surficial material was not present. The current sampler is not designed for bedrock sampling, but it can typically collect a small amount of rock chips (*i.e.,* 100-200 g). A bedrock sampling procedure will be developed for subsequent programs where thin till is expected.

7. Conclusions

This program was the first Talon drill till sampling completed in November-December on the Max Property and presented unique challenges, some of which were anticipated, and others that were only able to be identified while in the field. The November program was very successful; the sample grid was completed within the budgeted timeframe and sample quality is high. The December program was less successful in this respect; however, it provided important information about protocols for using Talon drill during winter programs, and what logistical and survey design considerations need to be made for winter operations. The combination of considerably higher than anticipated line-brushing costs and low daily sample rates during the December program resulted in a higher cost per sample than was anticipated. A reconnaissance program would have provided information critical to the planning of this program and many of these unforeseen circumstances could have been avoided by altering the methodology. Nonetheless, the samples collected during both programs will help to narrow the identified geochemical targets and aid in the planning of future exploration programs.

Lindsay Nelson, G.I.T.
Geoscientist

Dave Sacco, M.Sc.
Senior Surficial Exploration Specialist

8. References

Palmer. (2021a). *Standardization and evaluation of historical soil and till geochemical data on the Max claims, central British Columbia.* Prepared for Thompson Creek Metals Company Inc.

Palmer. (2021b). *Protocols for the spring 2021 Talon drill-supported till sampling program at the Lucas Lake Property, British Columbia.* Prepared for Thompson Creek Metals Company Inc.

Thompson Creek Metals Company Inc. (2019). *2019 Geological, Geochemical, and Drilling Report on the Max Project.* BC Geological Survey Assessment Report 38569.

Appendix K - *Airborne Magnetics Logistics Report*

A LOGISTICS REPORT

ON

AIRBORNE MAGNETIC SURVEYING

MAX PROPERTY
FT. ST. JAMES AREA, BRITISH COLUMBIA

OMINECA M.D.
54° 57.505' N, 123° 57.642' W
NTS 093J/13,093K/16,093N/01,093O/04

Claims:
521189,521198-521200,521202-521205,521208-521210
524891,524892,532542,532635,551895,678524,678527,
678536,678564,678583,578588,678603,1076910-1076917

Work Dates:
October 13th-15th, 2020
March 25th-29th, 2021

FOR

THOMPSON CREEK METALS CO INC.

A Subsidiary of Centerra Gold

PRINCE GEORGE, BRITISH COLUMBIA

BY

ALEXANDER WALCOTT
PETER E. WALCOTT & ASSOCIATES LIMITED
Coquitlam, British Columbia

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APPENDIX I

Personnel Employed on Survey

ACCOMPANYING MAPS

Claim Location Map	Scale 1: 50,000
Contours of Total Field Intensity (nT) 2020-2021 Combined	Scale 1: 50,000
Contours of Calculated Vertical Derivative 2020-2021 Combined	Scale 1: 50,000

INTRODUCTION.

Between October 12th and 16th, 2020, and between March 24th-30th, 2021, Peter E. Walcott & Associates Limited undertook a heli-borne magnetic surveying over parts of the Max mineral property, for Thompson Creek Metals Co Inc.

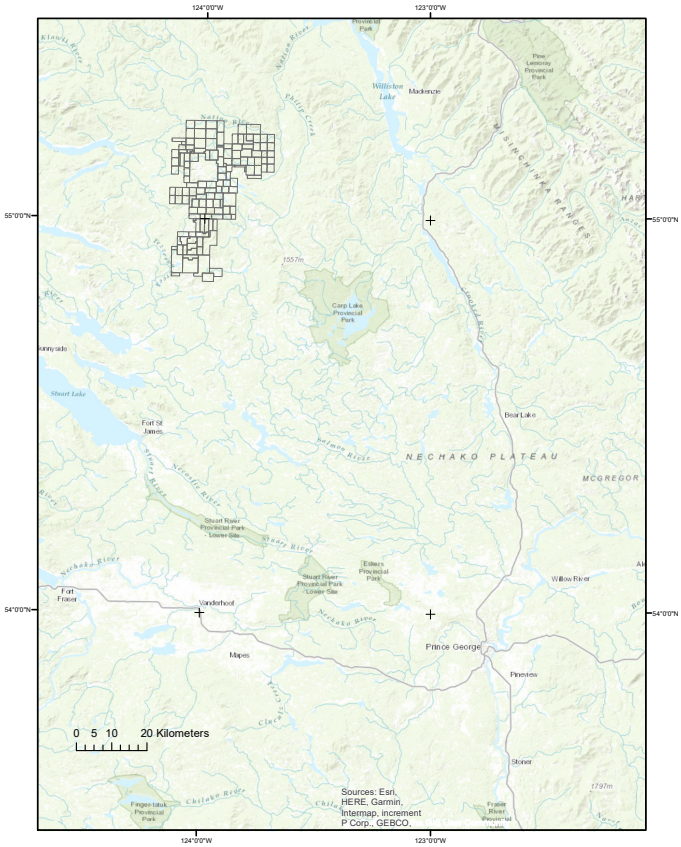
The surveys consisted of some 963 and 1546-line kilometers for each of the respective programs of airborne magnetics. The surveys were flown on east-west orientated lines flight lines with a nominal line spacing of 100 meters, with orthogonal tie lines with a nominal line spacing of 1000 meters.

PROPERTY LOCATION AND ACCESS

The Max-K2 property is in the Omineca Mining Division of British Columbia some 57 kilometres northeast of the settlement of Fort St. James. It consists of the following claims:

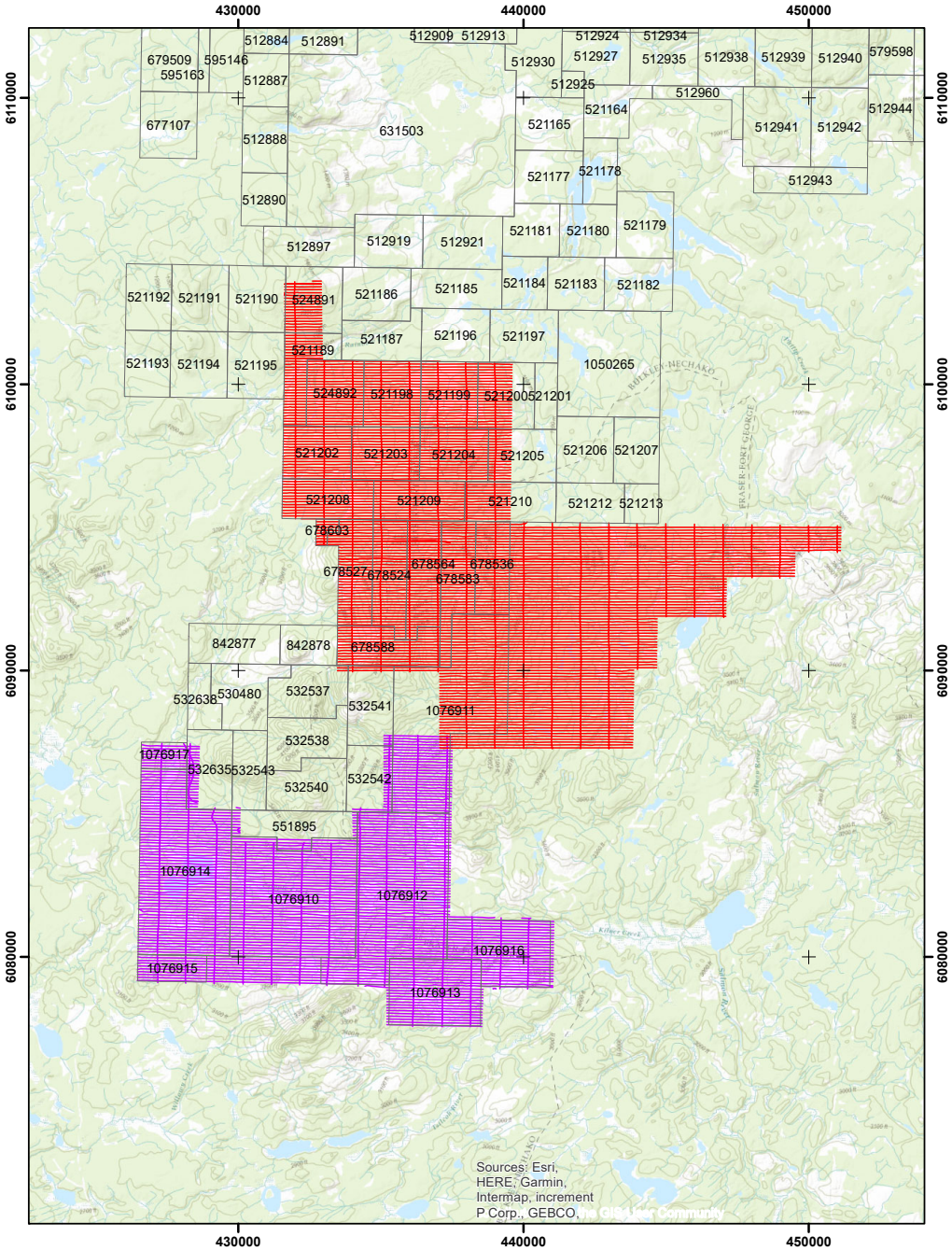
Access to the property is readily obtainable by active and old resource roads off the Rainbow forest service road, which is in turn accessed from the North Road.

Access to the grid was obtained from the Blue Stain camp, and Vanderhoof by helicopter for the respective programs carried out in the fall of 2020, and subsequent program in the spring 2021



Property Location Map

PROPERTY LOCATION AND ACCESS con't



Claim and Line Location Map
Purple 2020, Red 2021 Surveys

SURVEY SPECIFICATIONS.

The Airborne Magnetic Survey.

The airborne magnetic survey was conducted using a stinger type system mounted on an ASTAR helicopter operated by Silver King Helicopters Ltd of Smithers, British Columbia.

The stinger unit consists of three main components – C-824 Cesium Magnetometer manufactured by Geometrics San Jose, California, Bartington Mag-03 Fluxgate, and Optilogic RS-400 Laser Range Finder

The C-824 Cesium Magnetometer is an extremely sensitive magnetic sensor capable of providing sensitivity up to 0.01 nT and sampling rates up to 1000 Hz. On this survey a sampling rate of 50 Hz was employed.

The Mag-03 was connected to a Kana8 24-bit digitizer inside the helicopter, where the analog output from the X, Y, and Z components where digitized and synchronized to a GPS timing signal.

The respective digital outputs, were connected to a logging computer where the respective input was synchronized to an NTP time server, utilizing a GPS timing signal.

Flight line navigation data and helicopter height data was obtained using Hemisphere R330 GNSS receiver and Optilogic RS400 later range finder with a 10 Hz update rate.

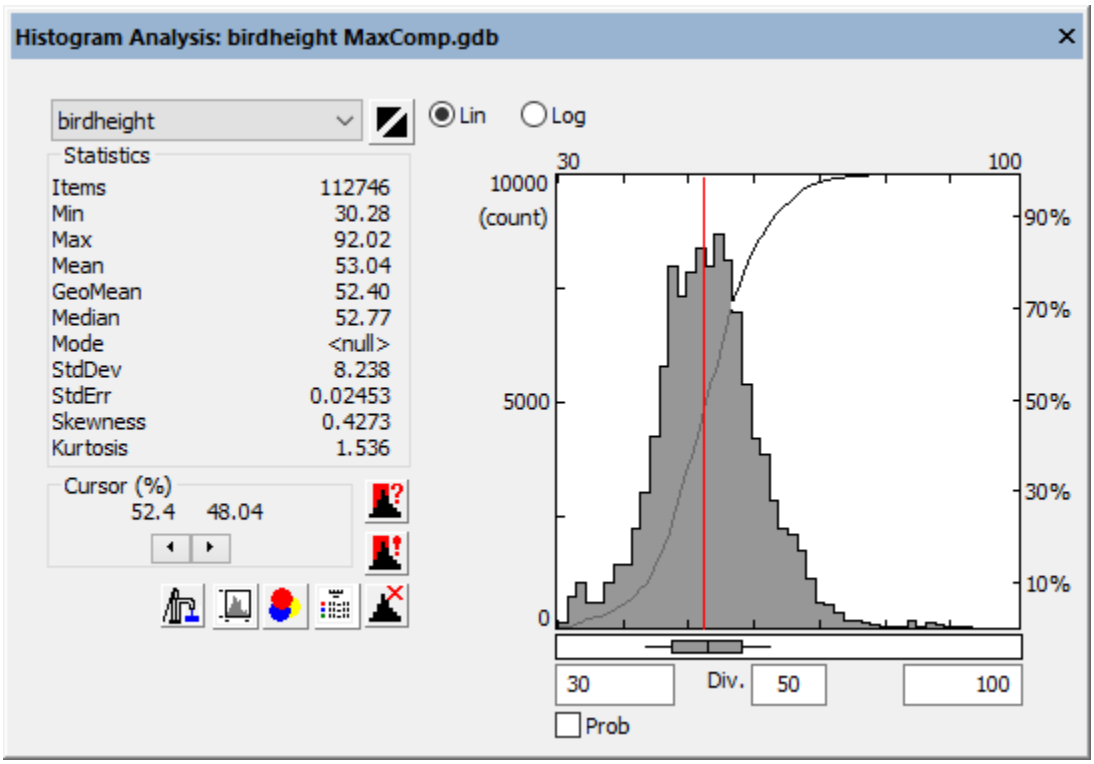
Data logging and navigation were carried out utilizing Picoenviotech ANAV software on a Panasonic CF-19 Toughbook computer with a secondary 7" daylight viewable pilot navigation monitor.

In addition to the airborne unit the survey also utilized two GSM 19 overhauser magnetometer manufactured by GEM Instruments of Richmond Hill, Ontario as base magnetometers. These instruments measure variations in the total intensity of the earth's magnetic field to an accuracy of plus or minus one nanotesla.

SURVEY SPECIFICATIONS cont'd

The surveys were carried out with a mean bird height of some 52 meters.

Survey Area	# of Lines	# of Tie Lines	Total Distance
Max South	137	16	963 km
Max North - 2021	166	20	1546 km



DATA PROCESSING AND PRESENTATION.

The data was first exported from MagLogPro, where the various sensor inputs were merged into Geosoft compatible ascii files. This merged dataset was then loaded into Geosoft Oasis Montaj for data reduction and processing.

The data was first corrected for diurnal magnetic drift, utilizing the magnetic base stations. The data was then lag corrected to account for positioning errors due to instrument delay and other positional errors. Tie line levelling was then undertaken prior to gridding.

Gridding was then undertaken on the levelled line data utilizing Geosoft's Bigrid algorithm using a 12.5 meter cell size.

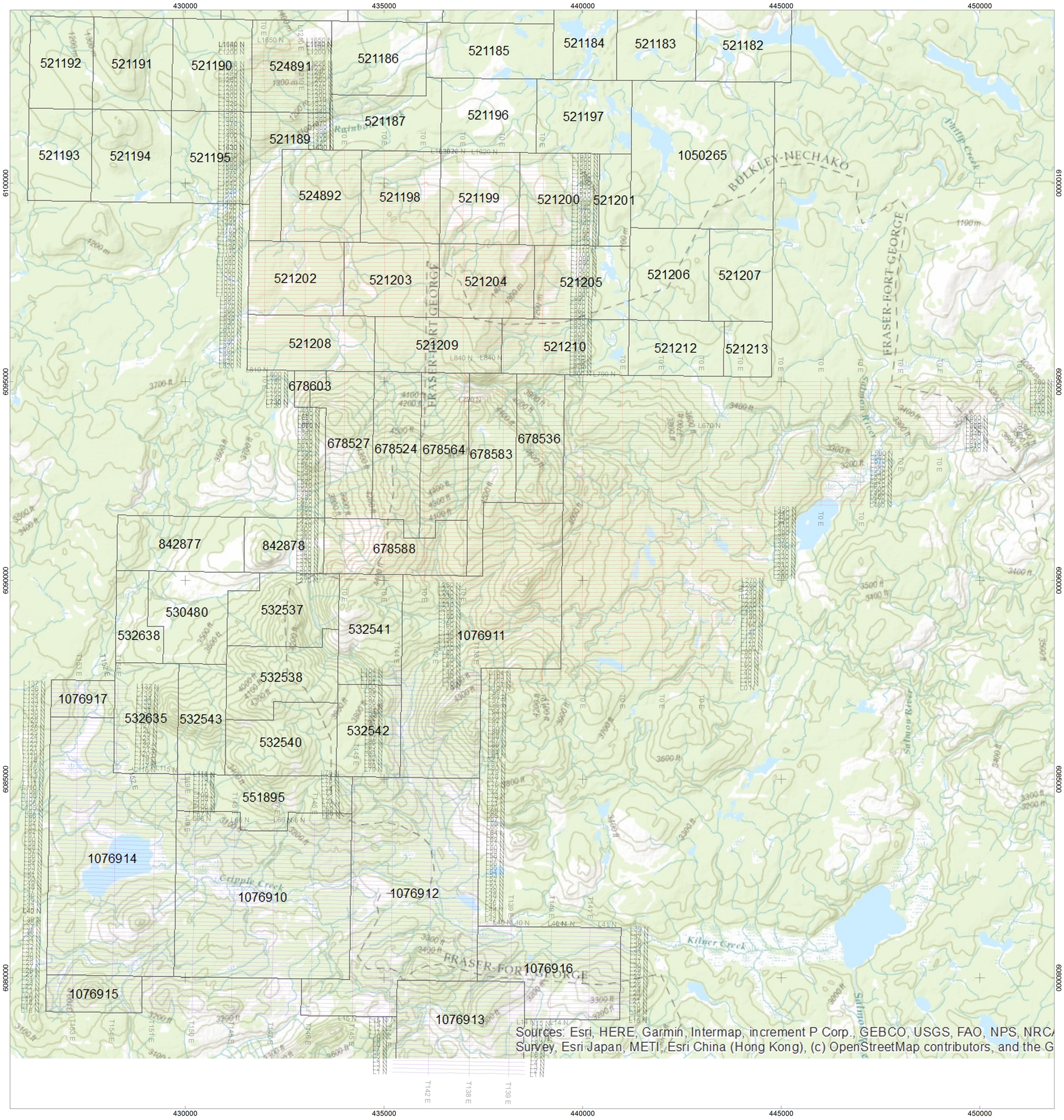
The reduced and leveled data set was then subject to several filtering techniques using the Geosoft MagMap module for evaluation and presentation.

The magnetic data for each of the respective blocks presented in this report is Contours of Total Magnetic Intensity, and Contours Calculated First Vertical Derivative.

APPENDIX I

PERSONNEL EMPLOYED.

Name	Occupation	Address	Dates
Alex Walcott	Geophysicist	Unit 111- 17 Fawcett Rd. Coquitlam, B.C. V3K 6V2	
Tom Kocan	Geophysical Operator		March 25th-29th, 2021
Matt Magee	“		“
Brent Doram	“		October 13th-15th, 2020
Pierre Bernier	Pilot	Silver King Helicopters	October 13th-15th, 2020
Chad Goddyn	:	“	March 25th-29th, 2021



Scale 1:50000

1000 0 1000 2000 3000

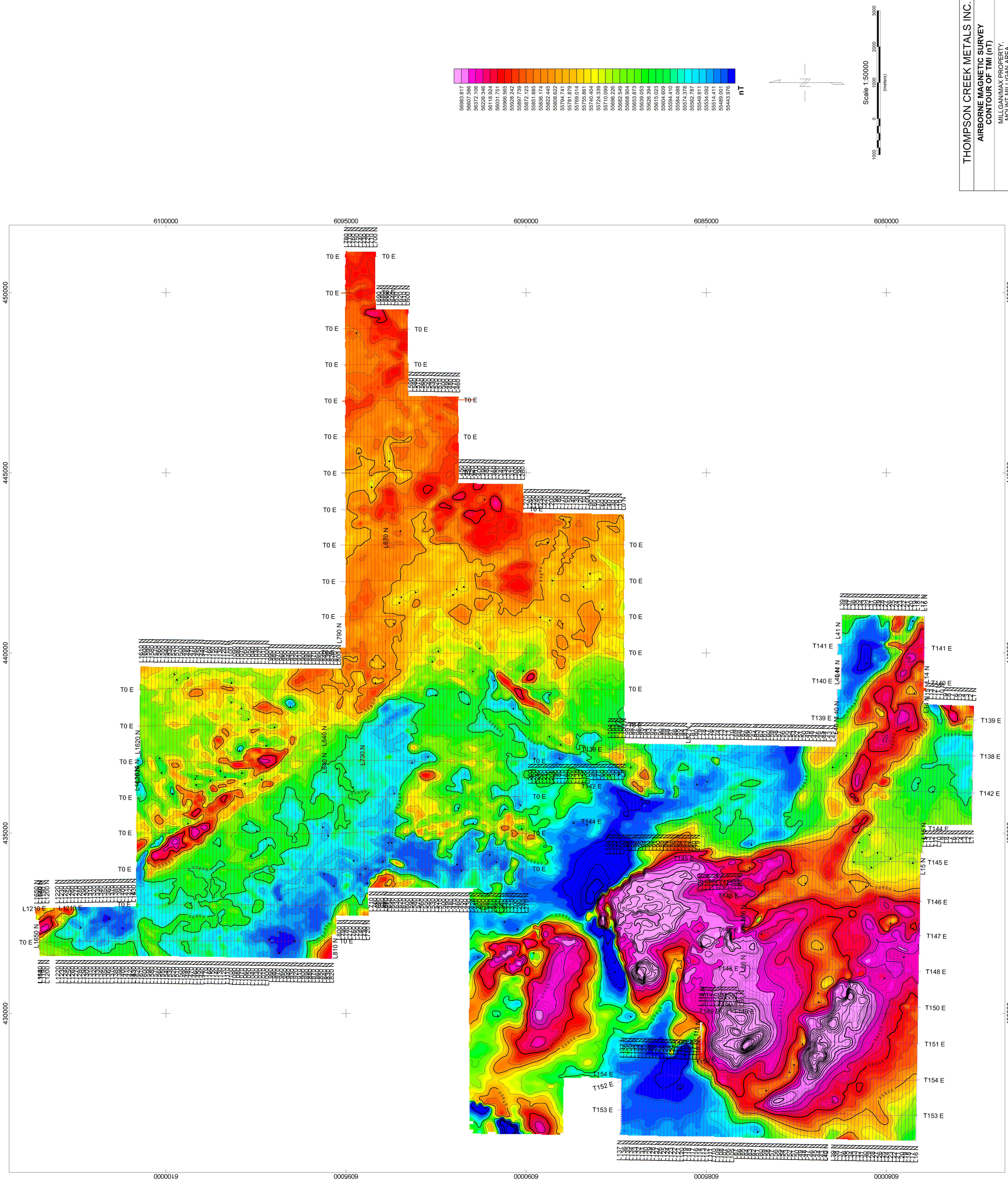
(meters)

THOMPSON CREEK METALS INC.

AIRBORNE MAGNETIC SURVEY
CLAIM AND LINE LOCATION MAP

MILLGAN/MAX PROPERTY,
MOUNT MILLIGAN AREA,
BRITISH COLUMBIA
FALL 2020/SPRING 2021

PETER E. WALCOTT & ASSOCIATES LIMITED

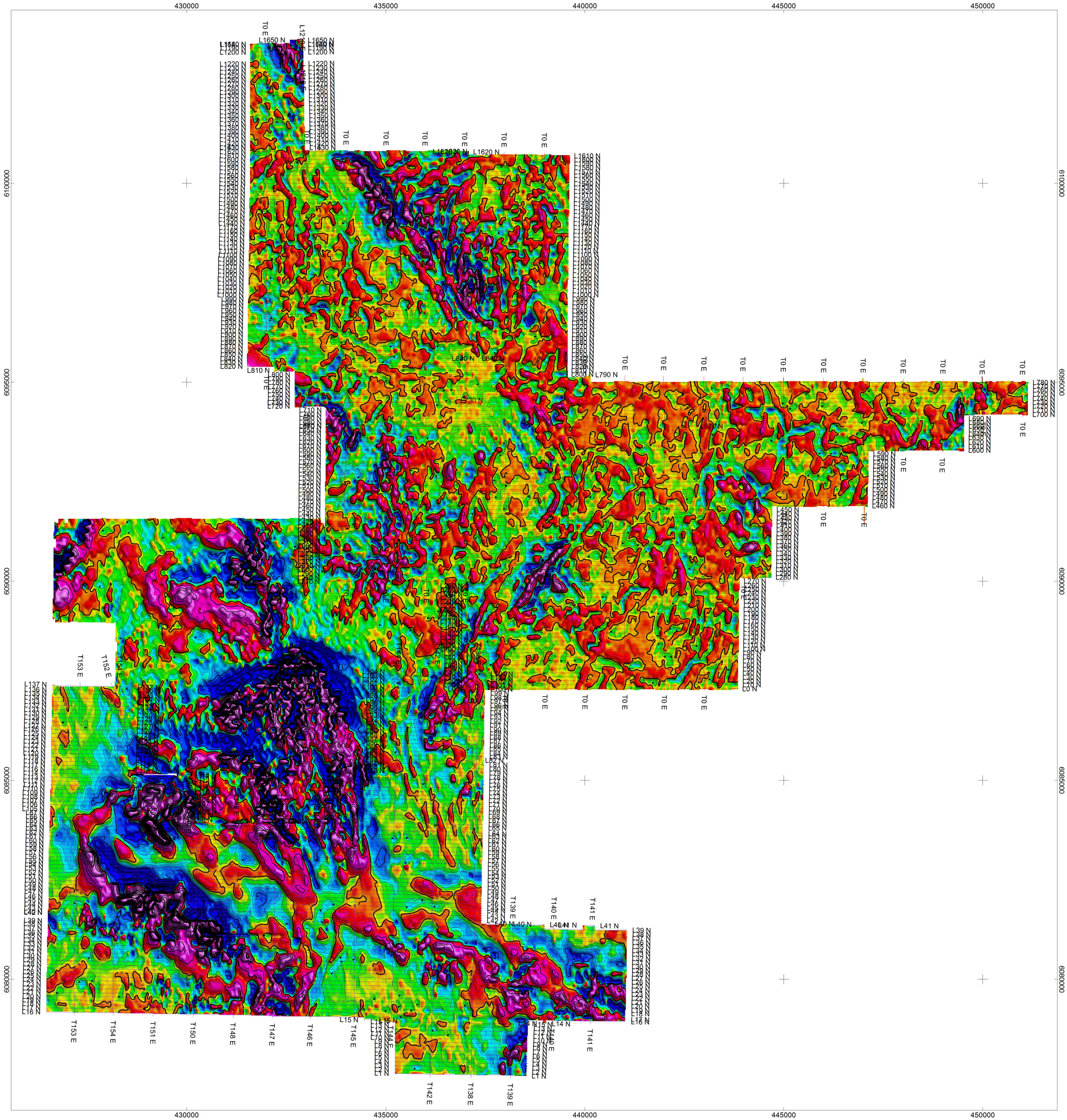


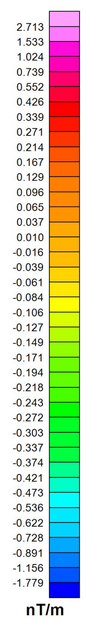
THOMPSON CREEK METALS INC.

AIRBORNE MAGNETIC SURVEY
CONTOUR OF TMI (nT)

MILLGAN/MAX PROPERTY,
MOUNT MILLIGAN AREA,
BRITISH COLUMBIA
FALL 2020/SPRING 2021

PETER E. WALCOTT & ASSOCIATES LIMITED





Scale 1:50000

1000 0 1000 2000 3000

(meters)

THOMPSON CREEK METALS INC.

AIRBORNE MAGNETIC SURVEY
CONTOUR OF 1VD OF TMI (nT/m)

MILLGAN/MAX PROPERTY,
MOUNT MILLIGAN AREA,
BRITISH COLUMBIA
FALL 2020/SPRING 2021

PETER E. WALCOTT & ASSOCIATES LIMITED

Appendix L - *Induced Polarization Logistics Reports*

A LOGISTICS REPORT

ON

INDUCED POLARIZATION SURVEYING

Max-K2 Property
Fort St. James Area,
Omineca M.D. , B.C.
54° 56'N, 124° 02' W
NTS: 93N/16

CLAIMS:

531635,532543,551895,1076914

Survey Dates: May 26th – June 4th, 2021
October 23rd – 30th, 2021

FOR

THOMPSON CREEK METALS INC.

Prince George, B.C.

BY

PETER E. WALCOTT & ASSOCIATES LIMITED

Coquitlam, B.C.

FEBRUARY 2022

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Introduction	3
Property Location & Access	4
Survey Specifications	7

APPENDIX I

ACCOMPANYING MAPS	MAP POCKET
Claim and Line Location Map	Scale 1: 10,000
IP Pseudo-Sections Line 4400N, 6000N, 6400N,6800N,7200N	Scale 1: 10,000
2D DC/IP Inversions Line 4400N, 6000N, 6400N,6800N,7200N	Scale 1: 10,000

INTRODUCTION.

Between May 26th – June 4th, 2021 and again from October 23rd – 30th, 2021, Peter E. Walcott & Associates Limited undertook line establishment and induced polarization surveying over portions of the Max property for Thompson Creek Metals Inc.

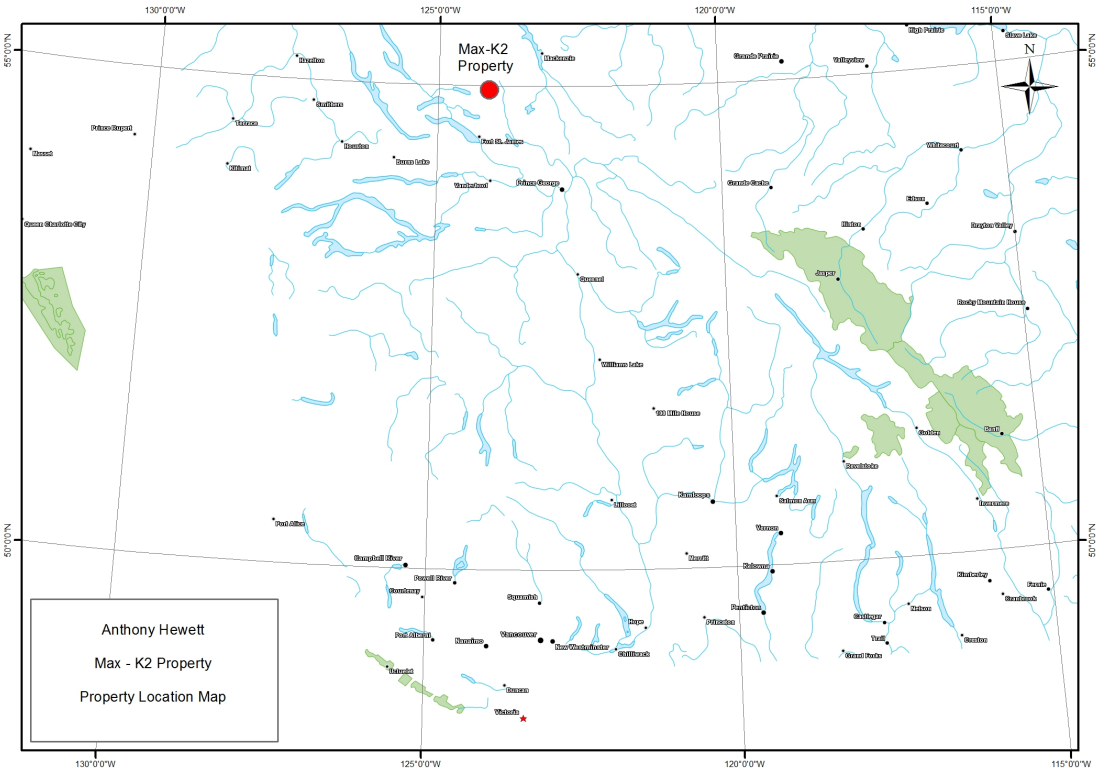
The line establishment and induced polarization survey consisted of some 14 -line kilometers, carried out on 5 east-west traverses. Access to the southern portion of the grid hampered production.

PROPERTY, LOCATION & ACCESS.

The Max-K2 property is located in the Omineca Mining Division of British Columbia some 57 kilometres northeast of the settlement of Fort St. James. It consists of the following claims:

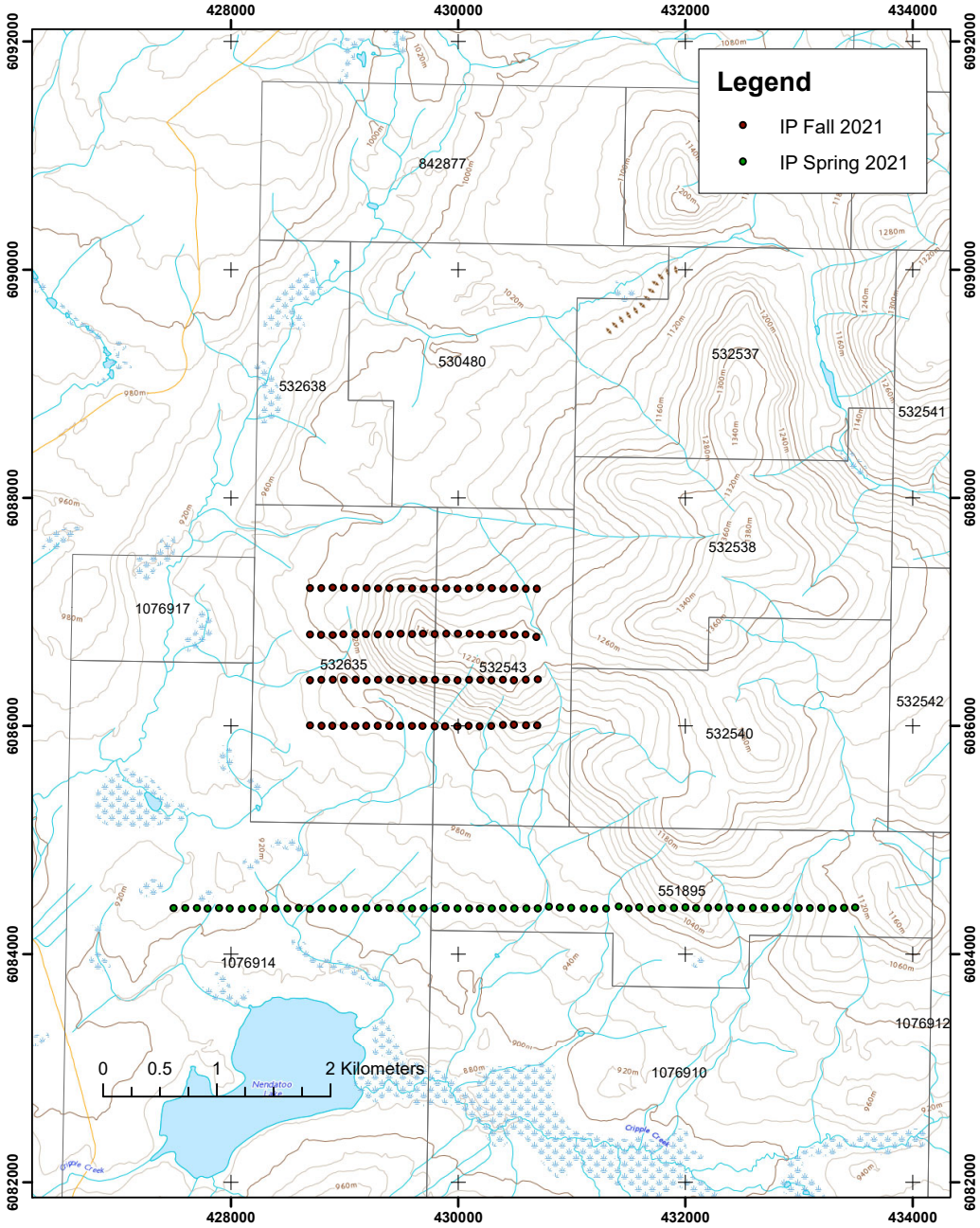
Access to the property is readily obtainable by active and old resource roads off the Rainbow forest service road, which is in turn accessed from the North Road.

PROPERTY, LOCATION & ACCESS cont'd.



Property Location Map

PROPERTY, LOCATION & ACCESS cont'd.



Claim and Line Location Map

SURVEY SPECIFICATIONS.

The Induced Polarization Survey.

The induced polarization (IP) survey was conducted using a pulse type system, the principal components of which were manufactured by Walcer Geophysics Ltd. of Enniskillen, Ontario, and by Iris Instruments of Orleans, France.

The system consists basically of three units, a receiver (Iris), transmitter (Walcer) and a motor generator (Honda). The transmitter, which provides a maximum of 9.0 kw dc to the ground, obtains its power from a 20 kw 60 cps alternator driven by a Honda 24 hp gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C_1 and C_2, the primary voltages (V) appearing between any two potential electrodes, P_1 through P_7, during the "current-on" part of the cycle, and the apparent chargeability, (M_a) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor – the sample window is actually the total of twenty individual windows of 50 millisecond widths.

The apparent resistivity (ρ_a) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C_1, and the potential electrodes, P_1 through P_{n+1}, are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C_2, is kept constant at "infinity". The distance, "na" between C_1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse.

On this survey a 100 metre dipole was employed and first to eighth separations readings were obtained. In total some 14 line kilometres of surveying were completed.

SURVEY SPECIFICATIONS cont'd.

Horizontal and vertical control.

The horizontal position of the stations was recorded using a GPS/GLONASS equipped Garmin C66 handheld GPS receiver.

Data Presentation.

The data are presented as individual pseudo section plots of apparent resistivity and apparent chargeability at a scale of 1:10,000 generated using Geosoft Oasis Montaj. In addition, data was subjected to 2D inversion and presented as sections at a scale of 1: 10,000.

APPENDIX I

PERSONNEL EMPLOYED ON SURVEY.

Name	Occupation	Address	Dates Worked
A. Walcott	Geophyicist	Peter E. Walcott & Associates Limited 111-17 Fawcett Rd., Coquitlam, B.C.	
T. Kocan	Geophysical Operator	"	May 26th – Jun 4th, 2021
P Hospodka	"	"	“
B. Jones	“	"	"
B. Lajeunesse	"	"	‘ “
A. Smith	Geophysicist	"	“
P. Hospodka	Geophysical Operator	"	"
D. Stephanson	Geophysical Helper	"	May 26th – Jun 4th, 2021 Oct 23rd – 30th, 2021
O. Kucera	Geophysical Operator	"	Oct 23rd – 30th, 2021
J. Vezina	"	"	"
K. Martin	Geophysical Helper	"	"
K. Francois	"	"	"
A. Blazevic	“	“	“

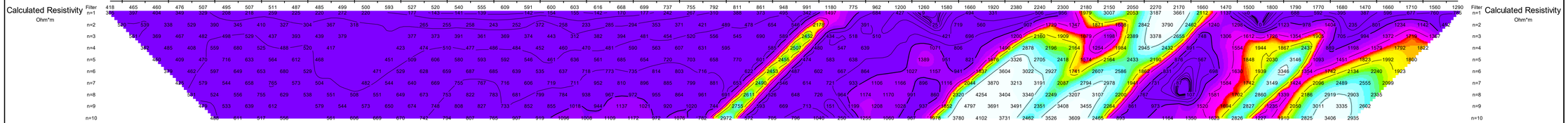
ACCOMPANYING MAPS

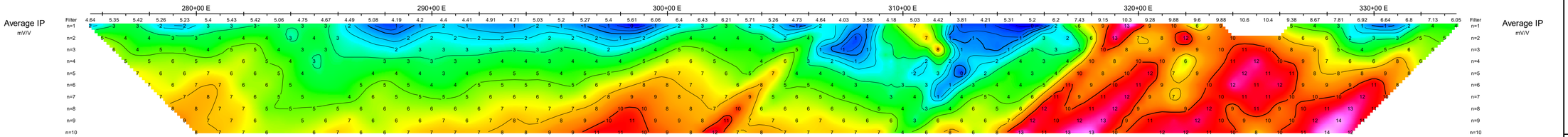
THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVYE
CLAIM AND LINE LOCATION MAP

MAX PROPERTY
FT. ST. JAMES AREA,B.C.
SPRING AND FALL 2021

PETER E. WALCOTT & ASSOCIATES LIMITED

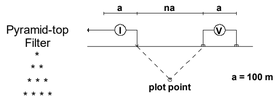




Pseudo Section Plot

44+00 N

Pole-Dipole Array



Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVEY

MAX PROJECT

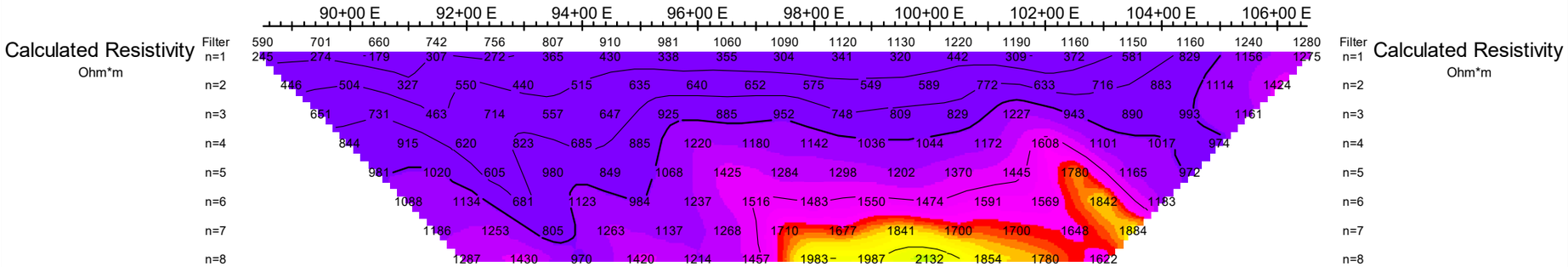
FT. ST. JAMES AREAS

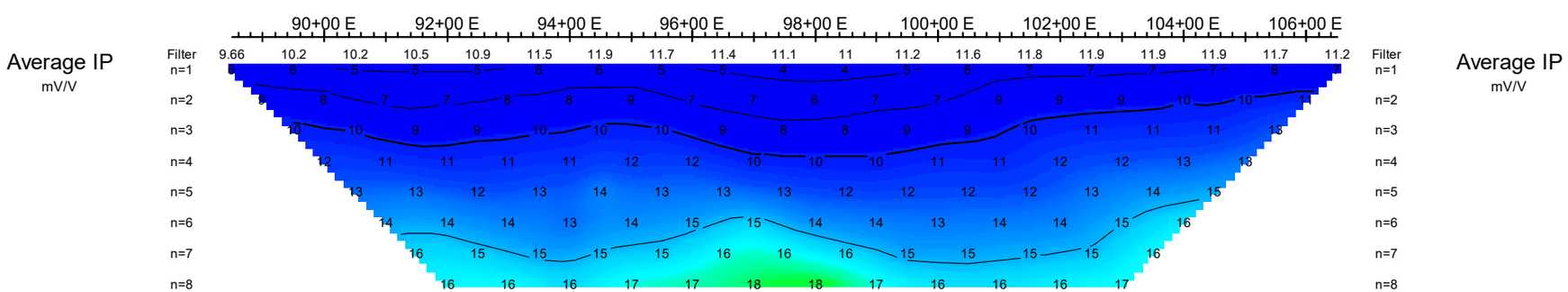
Date: SPRING 2021

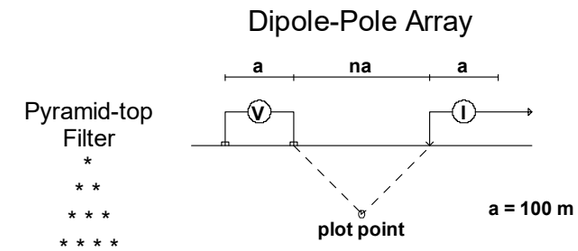
PETER E. WALCOTT & ASSOCIATES LIMITED

Pseudo Section Plot

60+00 N







Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVEY

MAX PROJECT

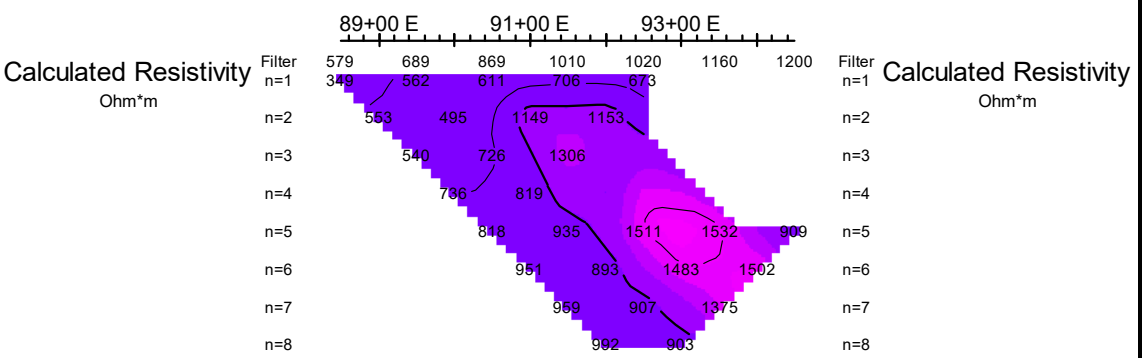
FT. ST. JAMES AREAS

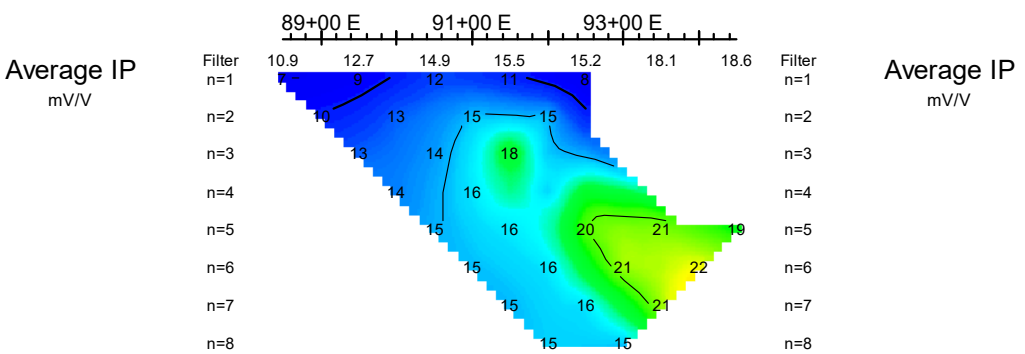
Date: FALL 2021

PETER E. WALCOTT & ASSOCIATES LIMITED

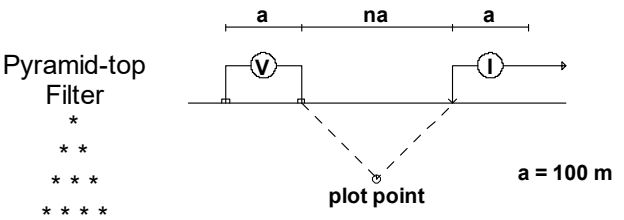
Pseudo Section Plot

64+00 N



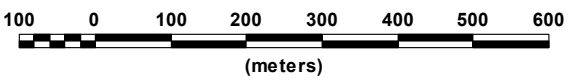


Dipole-Pole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVEY

MAX PROJECT

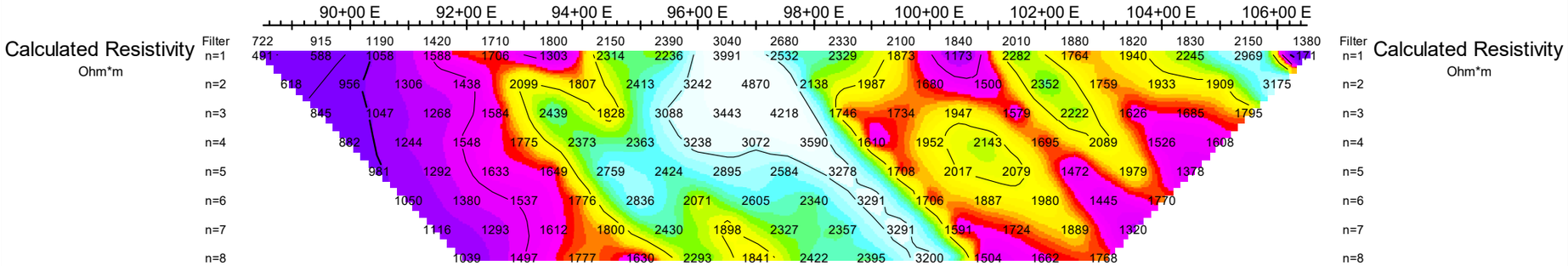
FT. ST. JAMES AREAS

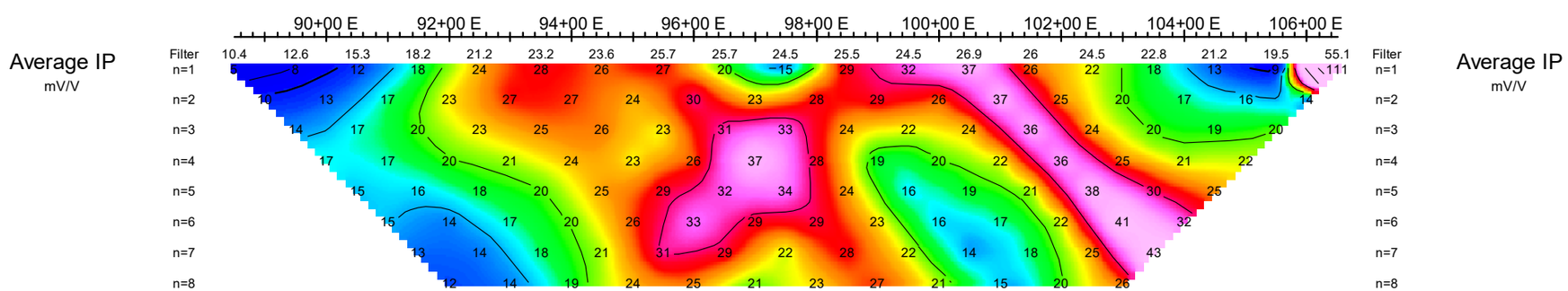
Date: FALL 2021

PETER E. WALCOTT & ASSOCIATES LIMITED

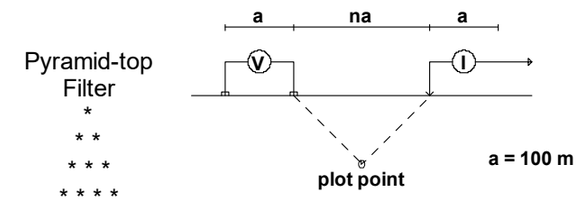
Pseudo Section Plot

68+00 N





Dipole-Pole Array



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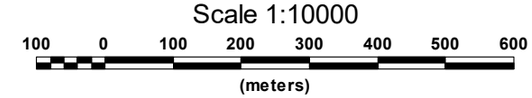
Scale 1:10000



THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVEY

MAX PROJECT

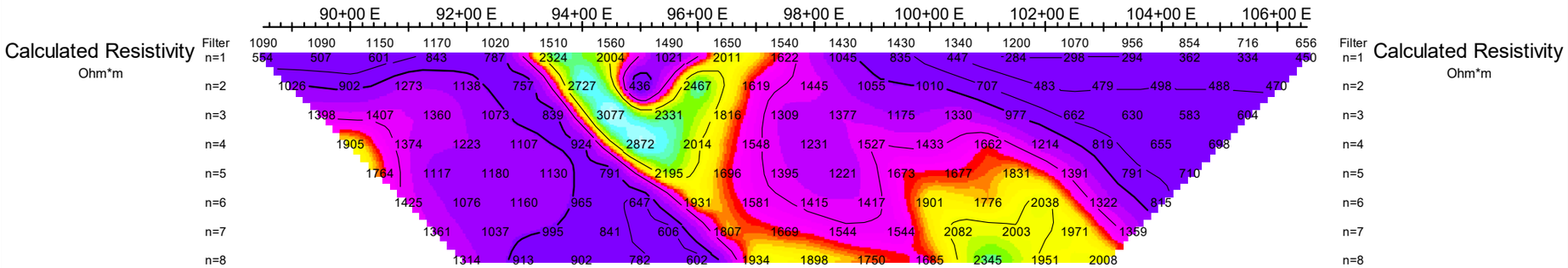
FT. ST. JAMES AREAS

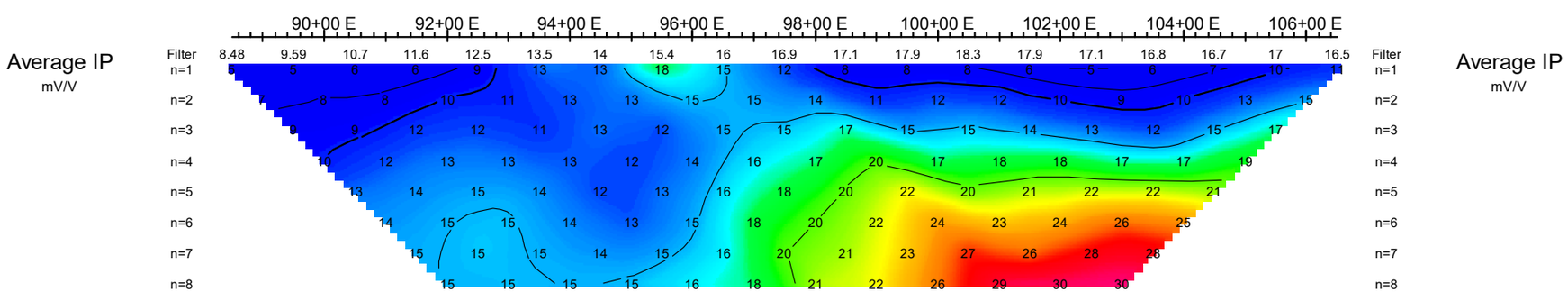
Date: FALL 2021

PETER E. WALCOTT & ASSOCIATES LIMITED

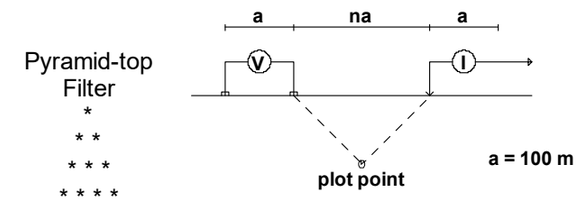
Pseudo Section Plot

72+00 N





Dipole-Pole Array



Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVEY

MAX PROJECT

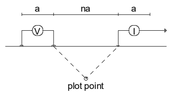
FT. ST. JAMES AREAS

Date: FALL 2021

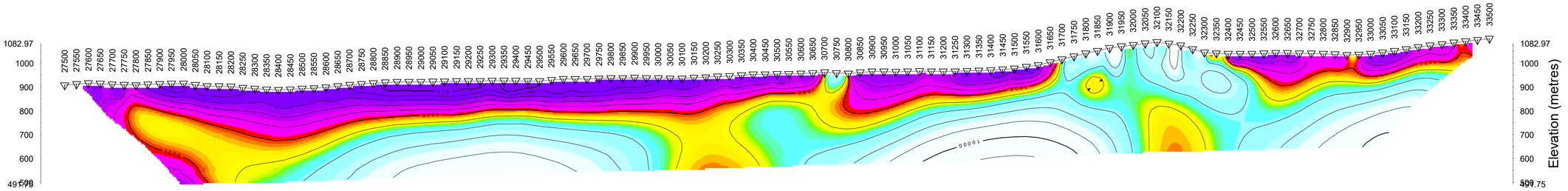
PETER E. WALCOTT & ASSOCIATES LIMITED

Line 4400

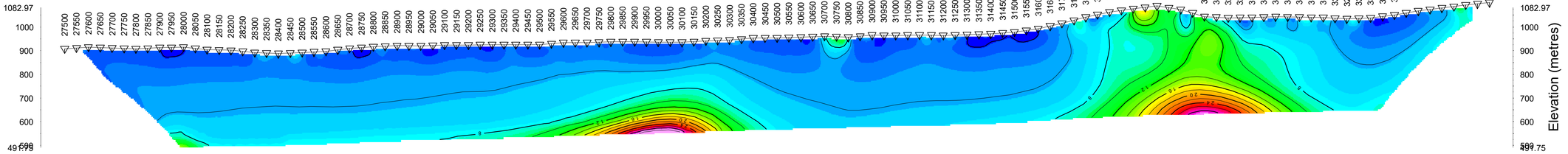
Dipole-Pole Array

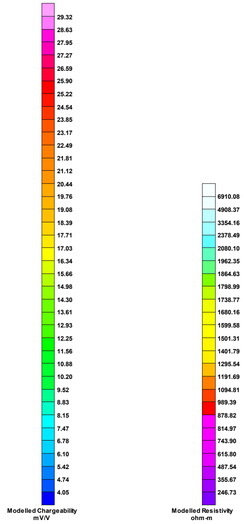


Modelled Resistivity (Ohm-m)



Modelled Chargeability (mV/V)





Scale 1:10000

200 0 200 400 600

(meters)

THOMPSON CREEK METALS INC.

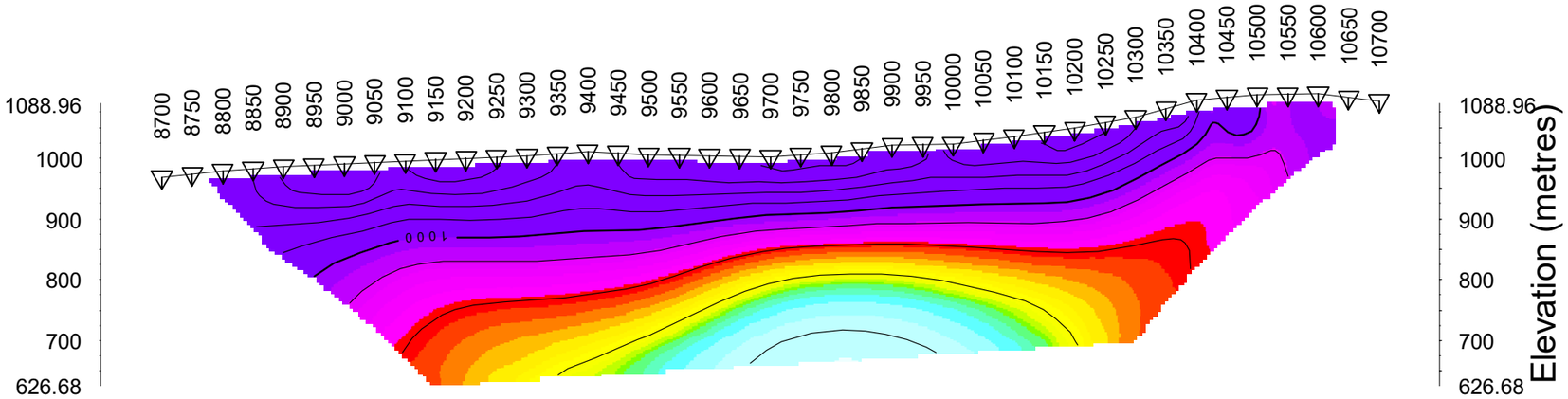
INDUCED POLARIZATION SURVEY
MAX PROJECT
BRITISH COLUMBIA

Date: SPRING 2021
RES2DINV

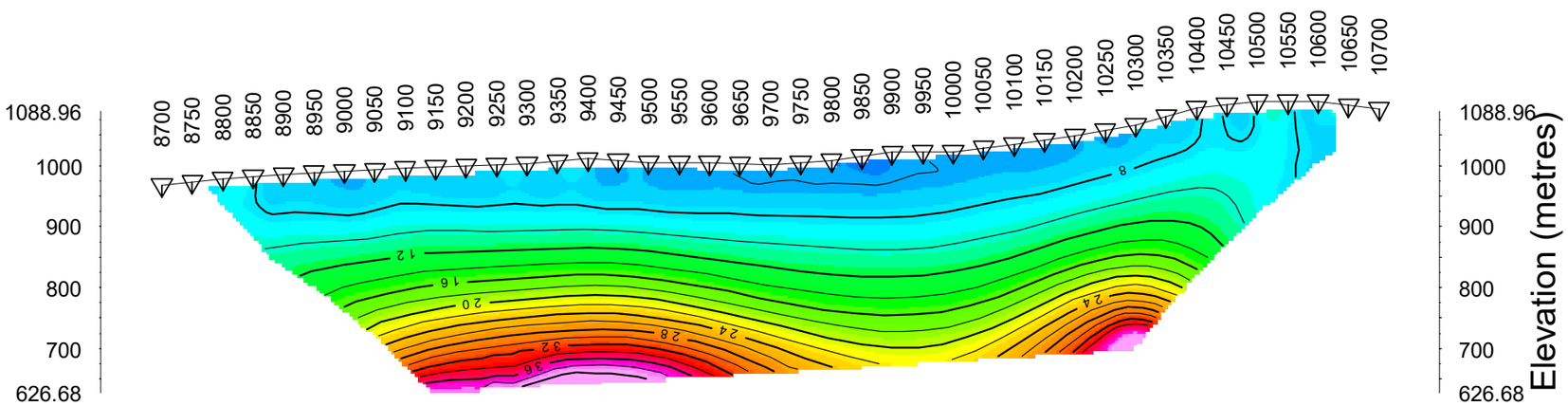
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 6000

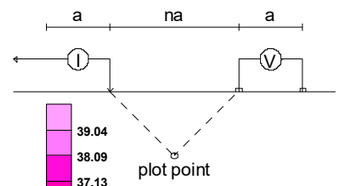
Modelled Resistivity (Ohm-m)

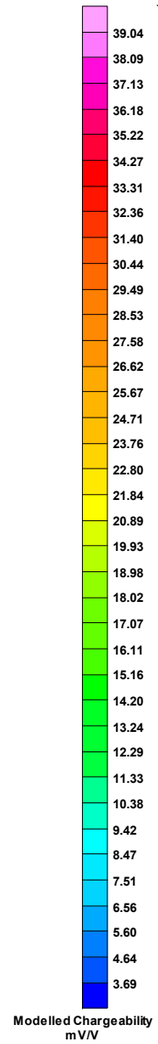


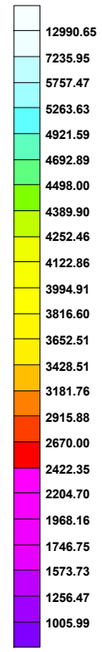
Modelled Chargeability (mV/V)



Pole-Dipole Array







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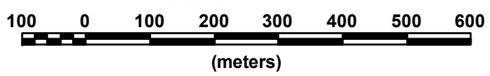


THOMPSON CREEK METALS

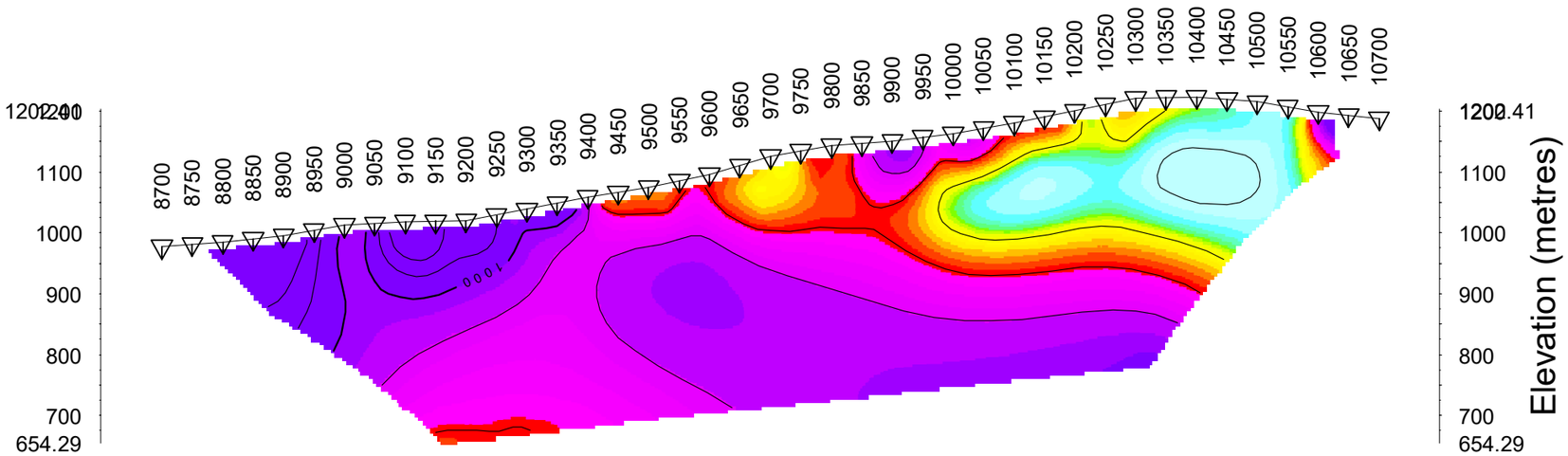
INDUCED POLARIZATION SURVEY
MAX PROJECT - K2 AREA
BRITISH COLUMBIA

Date: Fall 2021
RES2DINV

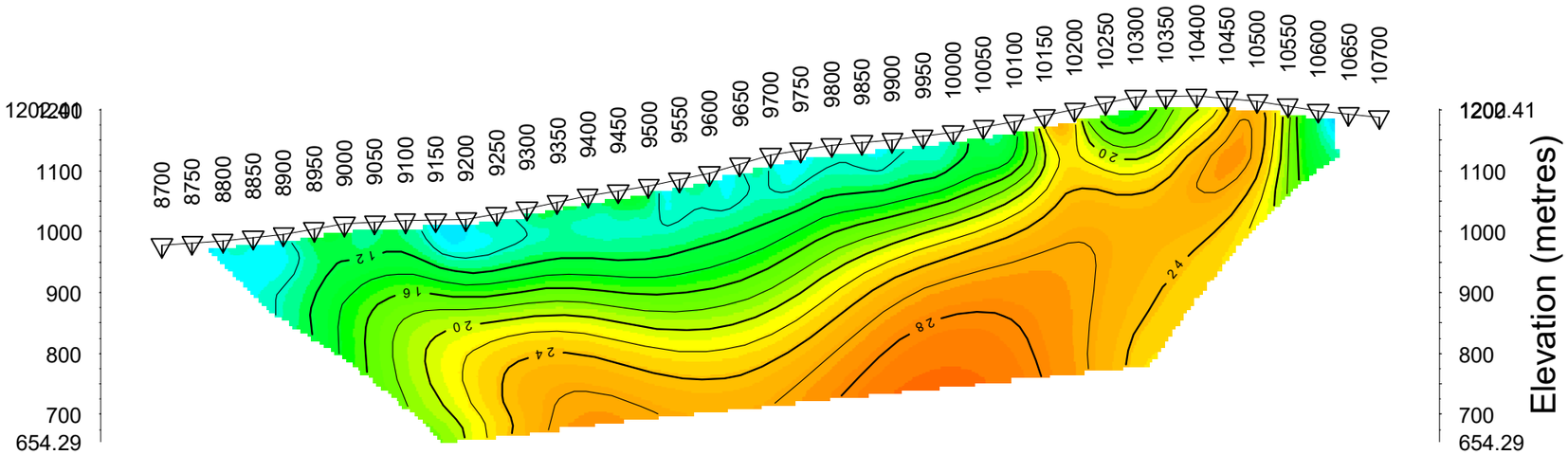
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 6400

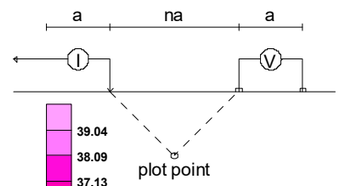
Modelled Resistivity (Ohm-m)

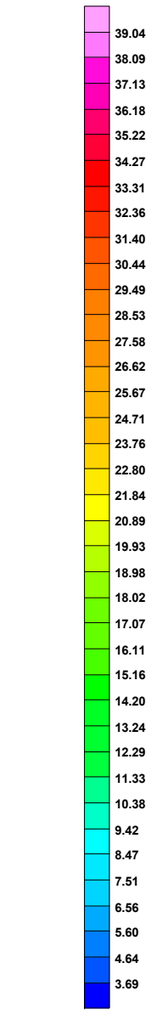


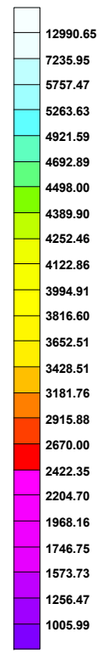
Modelled Chargeability (mV/V)



Pole-Dipole Array







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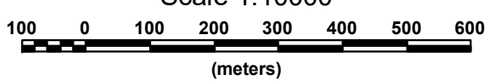


THOMPSON CREEK METALS

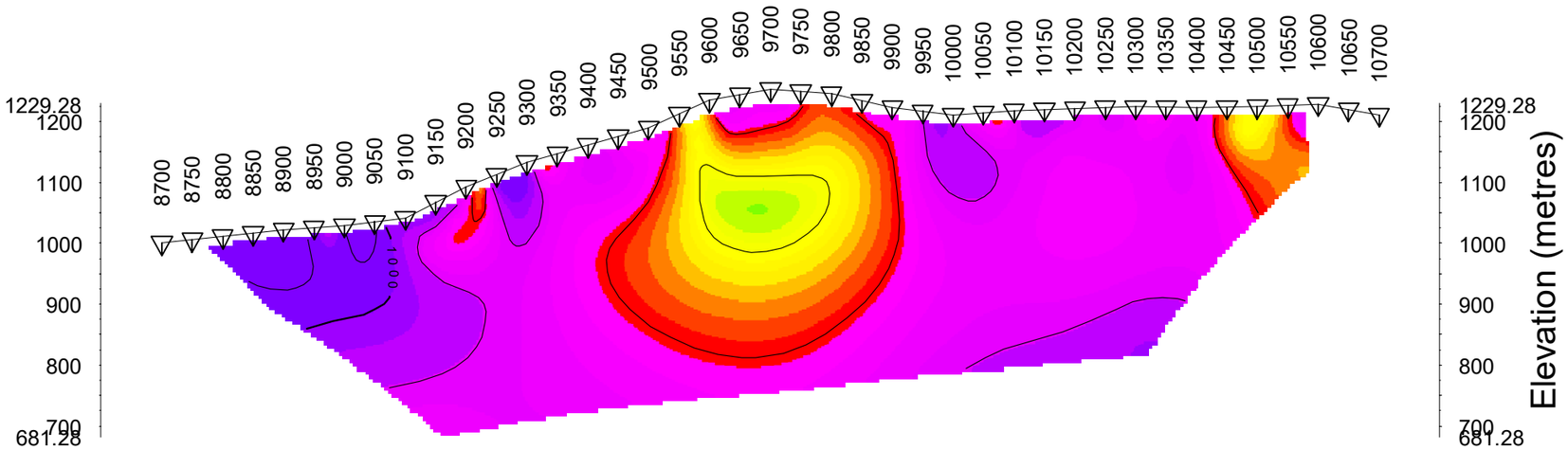
INDUCED POLARIZATION SURVEY
MAX PROJECT - K2 AREA
BRITISH COLUMBIA

Date: Fall 2021
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 6800

Modelled Resistivity (Ohm-m)



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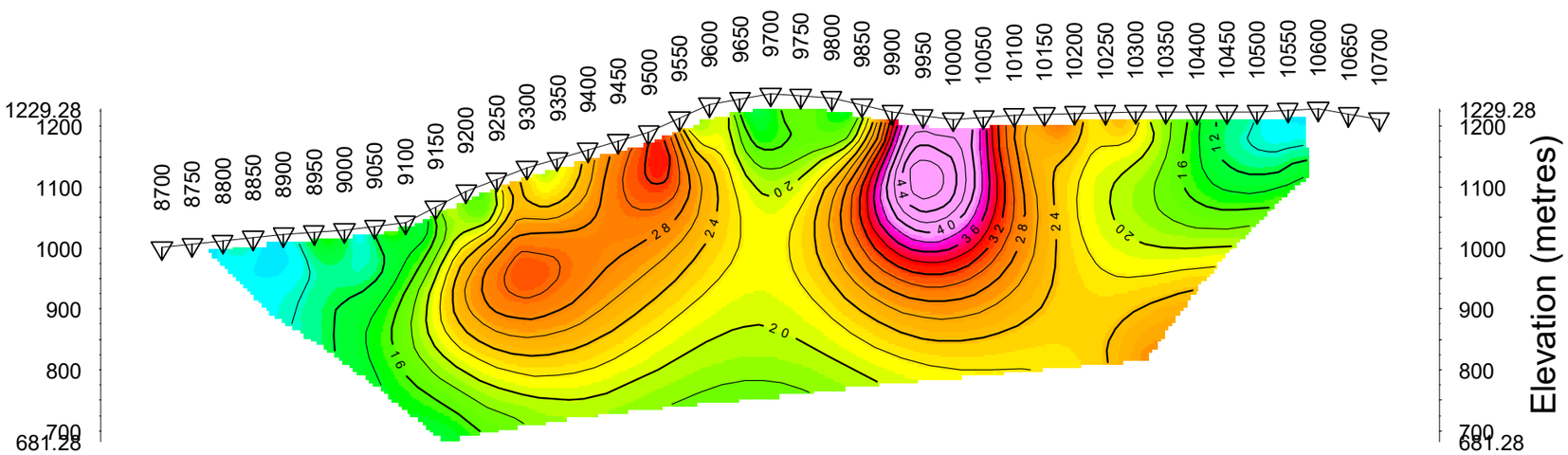
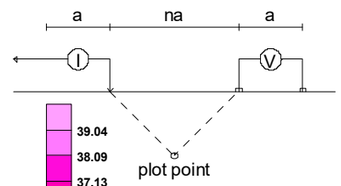
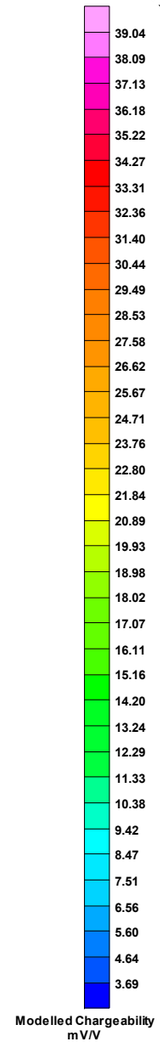
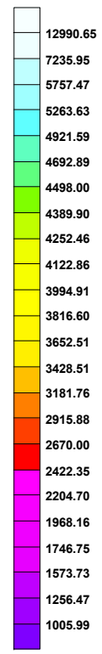


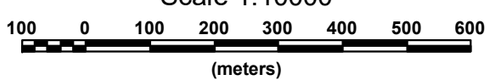
Pole-Dipole Array







Scale 1:10000



THOMPSON CREEK METALS

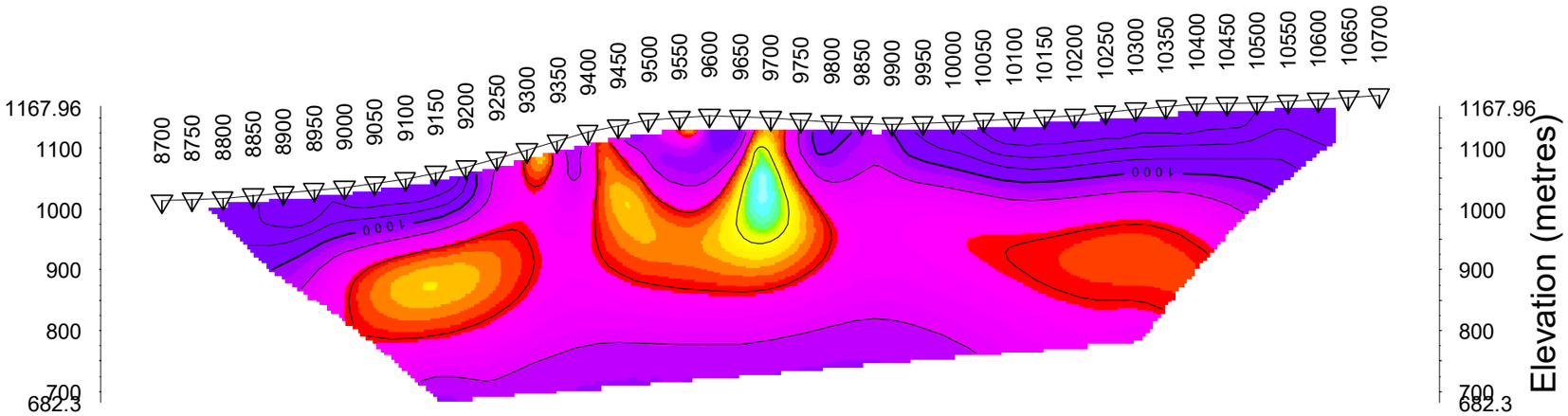
INDUCED POLARIZATION SURVEY
MAX PROJECT - K2 AREA
BRITISH COLUMBIA

Date: Fall 2021
RES2DINV

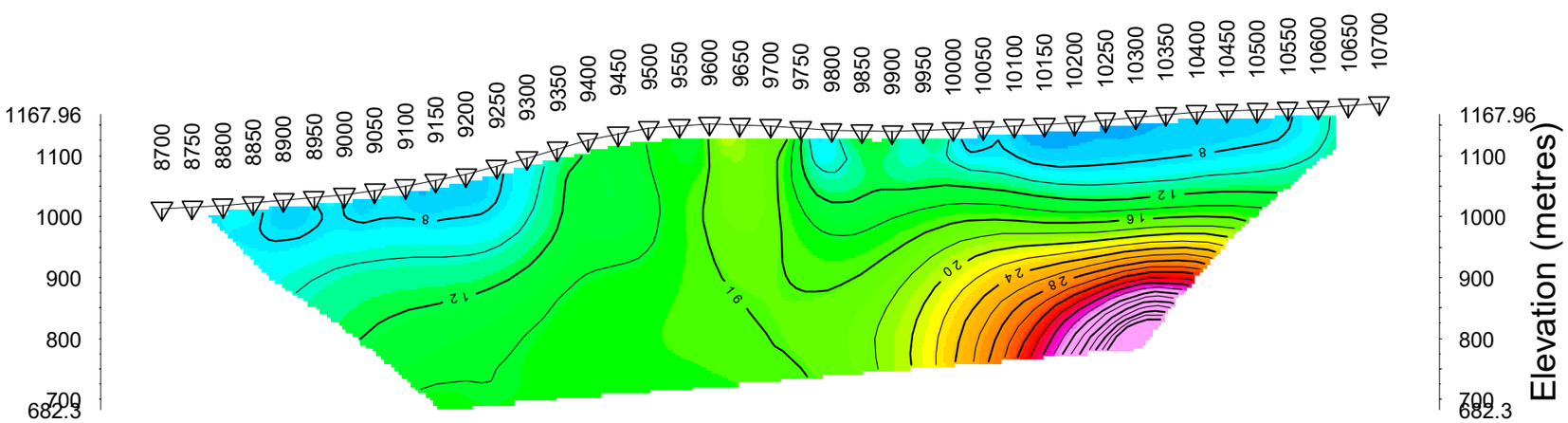
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 7200

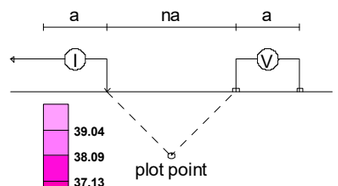
Modelled Resistivity (Ohm-m)

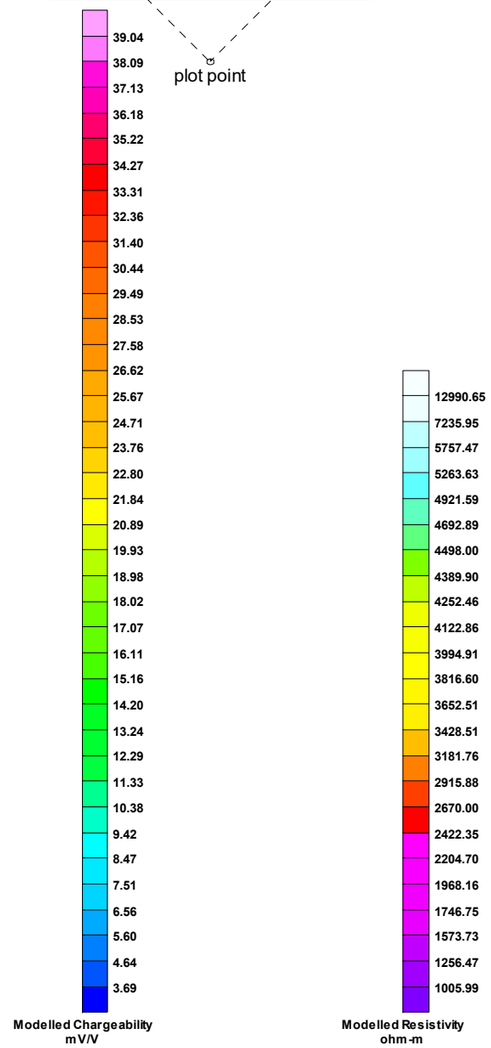


Modelled Chargeability (mV/V)



Pole-Dipole Array





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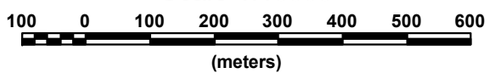

THOMPSON CREEK METALS

INDUCED POLARIZATION SURVEY
MAX PROJECT - K2 AREA
BRITISH COLUMBIA

Date: Fall 2021
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

A LOGISTICS REPORT

ON

INDUCED POLARIZATION SURVEYING

Sentinel Property
Fort St. James Area,
Omineca M.D. , B.C.
55° 01.5'N, 123° 58.5' W
NTS: 93O/04

CLAIMS:

521198-521200,521203-521205,521209,521210

Survey Dates:
October 22nd – November 23rd , 2021

FOR

THOMPSON CREEK METALS INC.

Prince George, B.C.

BY

PETER E. WALCOTT & ASSOCIATES LIMITED

Coquitlam, B.C.

FEBRUARY 2022

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Property Location & Access	4
Survey Specifications	7

APPENDIX I

ACCOMPANYING MAPS	MAP POCKET
Claim and Line Location Map	Scale 1: 10,000
IP Pseudo-Sections Line 6400N,6800N,7200N	Scale 1: 10,000
2D DC/IP Inversions Line 6400N,6800N,7200N	Scale 1: 10,000

INTRODUCTION.

Between October 22nd and November 23rd, 2021, Peter E. Walcott & Associates Limited undertook line establishment/brushing, access brushing and induced polarization surveying over portions of the Sentinel property for Thompson Creek Metals Inc.

The line establishment of some 33.4 kilometers 9 east-west traverses and some 10.6 line kilometers of induced polarization surveying on 3 traverses.

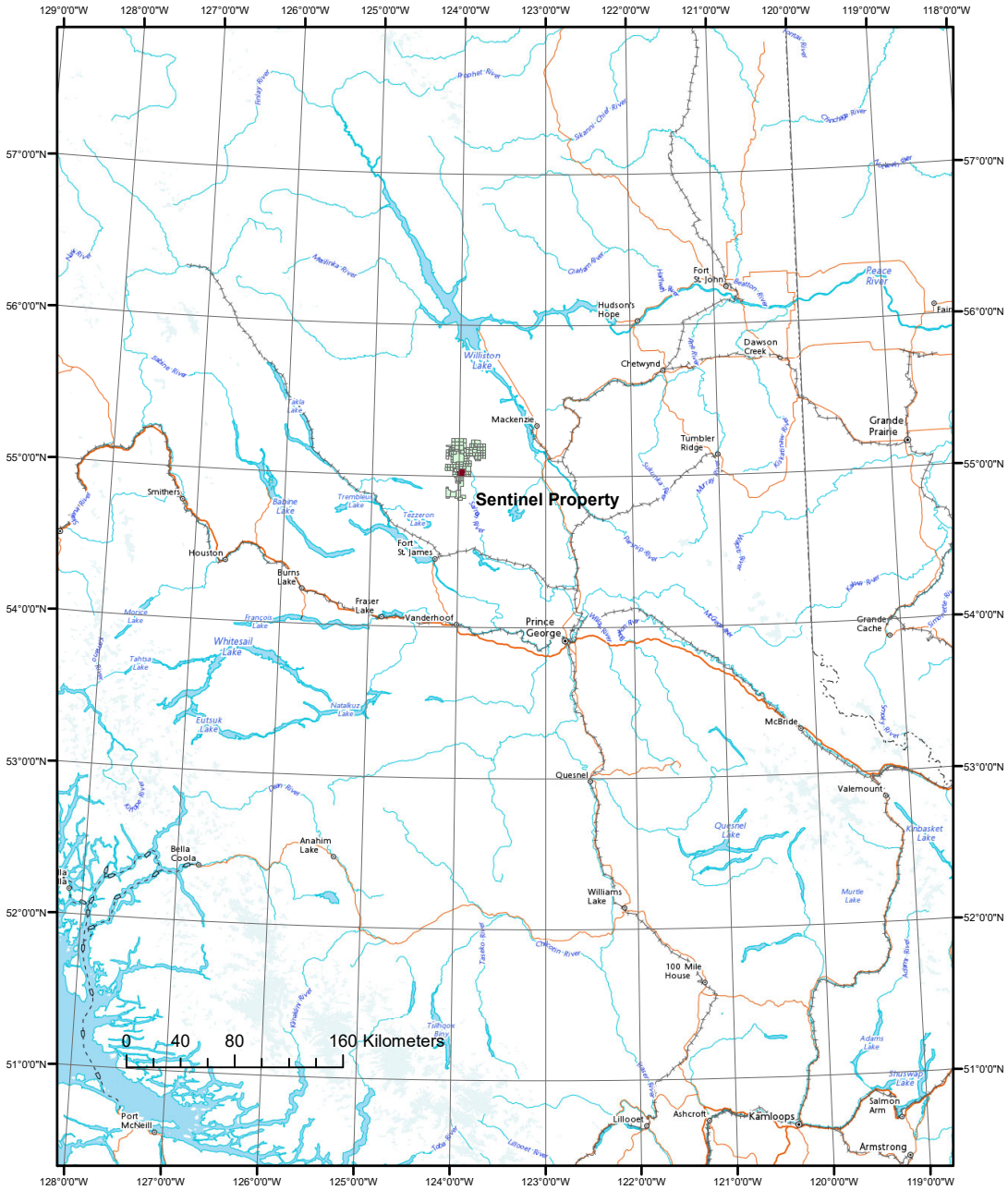
Access to the grid was hampered due to poor weather conditions and inability for the helicopter to fly. Due to this only the three most southern lines of IP were completed.

PROPERTY, LOCATION & ACCESS.

The Sentinel property is located in the Omineca Mining Division of British Columbia some 67 kilometres north-northeast of the settlement of Fort St. James. The property is continuous to the Mt. Milligan Mine.

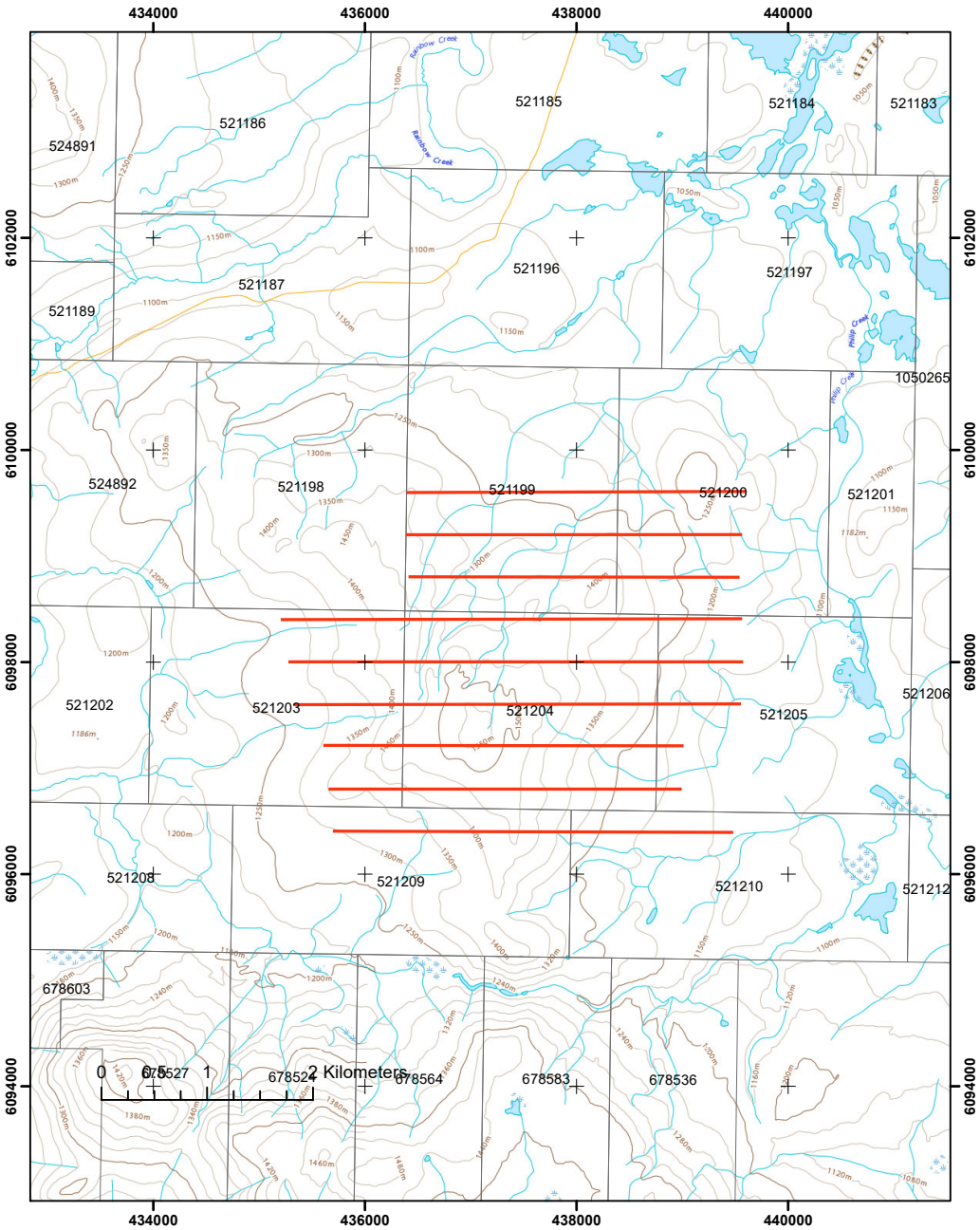
Access to the property is readily obtainable by active and old resource roads off the Rainbow forest service road, which is in turn accessed from the North Road. A helicopter was used to access the grid area.

PROPERTY, LOCATION & ACCESS cont'd.



Property Location Map

PROPERTY, LOCATION & ACCESS cont'd.



Claim and Line Location Map

SURVEY SPECIFICATIONS.

The Induced Polarization Survey.

The induced polarization (IP) survey was conducted using a pulse type system, the principal components of which were manufactured by Walcer Geophysics Ltd. of Enniskillen, Ontario, and by Iris Instruments of Orleans, France.

The system consists basically of three units, a receiver (Iris), transmitter (Walcer) and a motor generator (Honda). The transmitter, which provides a maximum of 9.0 kw dc to the ground, obtains its power from a 20 kw 60 cps alternator driven by a Honda 24 hp gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C_1 and C_2, the primary voltages (V) appearing between any two potential electrodes, P_1 through P_7, during the "current-on" part of the cycle, and the apparent chargeability, (M_a) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor – the sample window is actually the total of twenty individual windows of 50 millisecond widths.

The apparent resistivity (ρ_a) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C_1, and the potential electrodes, P_1 through P_{n+1}, are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C_2, is kept constant at "infinity". The distance, "na" between C_1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse.

On this survey a 100 metre dipole was employed and first to eighth separations readings were obtained. In total some 10.6 line kilometres of surveying were completed.

SURVEY SPECIFICATIONS cont'd.

Horizontal and vertical control.

The horizontal position of the stations was recorded using a GPS/GLONASS equipped Garmin C66 handheld GPS receiver.

Data Presentation.

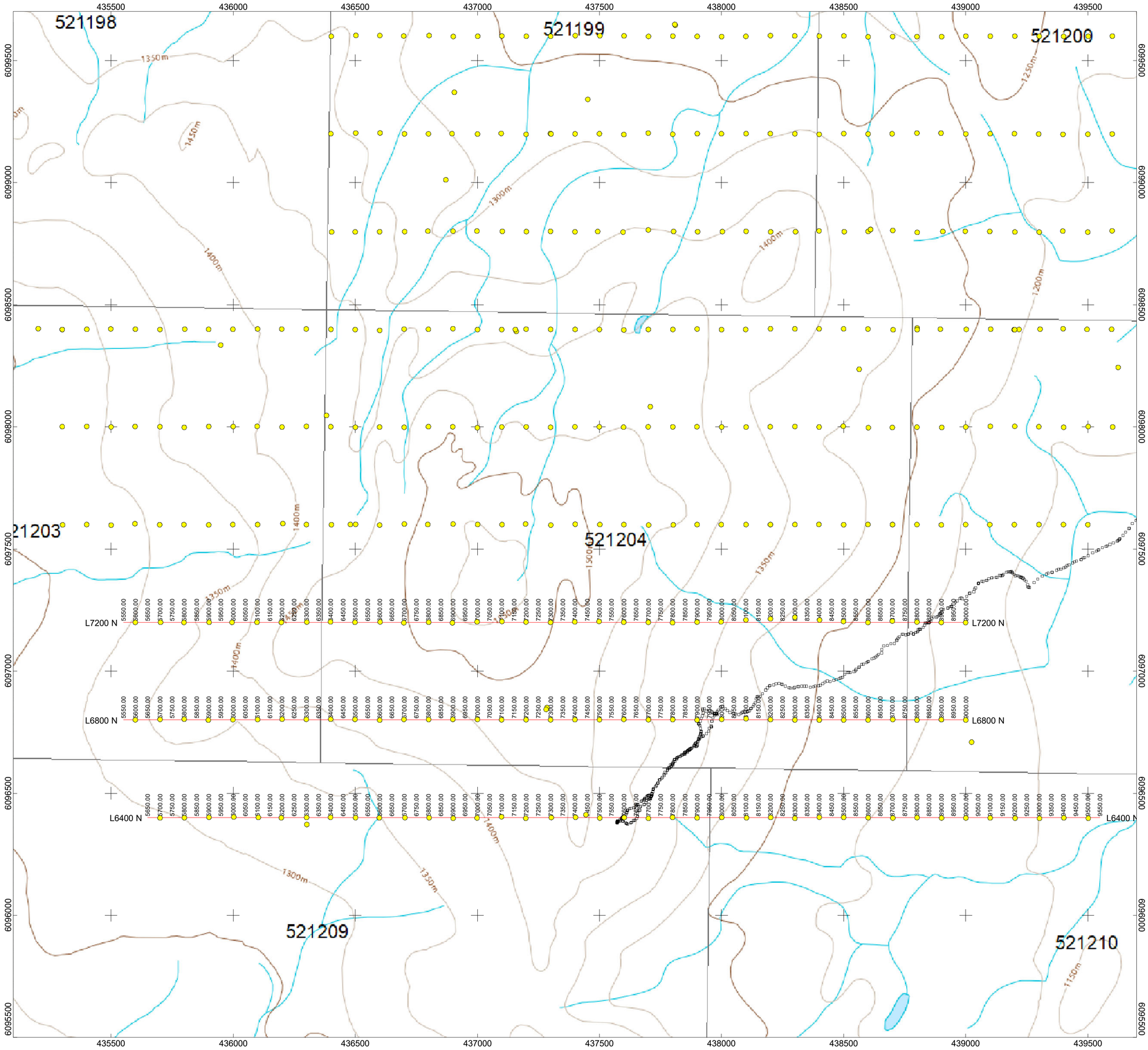
The data are presented as individual pseudo section plots of apparent resistivity and apparent chargeability at a scale of 1:10,000 generated using Geosoft Oasis Montaj. In addition, data was subjected to 2D inversion and presented as sections at a scale of 1: 10,000.

APPENDIX I

PERSONNEL EMPLOYED ON SURVEY.

Name	Occupation	Address	Dates Worked
A. Walcott	Geophyicist	Peter E. Walcott & Associates Limited 108-17 Fawcett Rd., Coquitlam, B.C.	
O. Kucera	Geophysical Operator	"	Nov 2nd -23rd , 2021
J. Vezina	"	"	Nov 2nd -23rd , 2021
M. Magee	"	"	Oct 22nd - 8th , 2021
K. Martin	Geophysical Helper	"	Nov 2nd -23rd , 2021
T. Sam	"	"	Nov 2nd -23rd , 2021
D. Stephenson	"	"	Nov 2nd -23rd , 2021
K. Francois	"	"	Nov 2nd -18th, 2021
K. Marko	"	"	Nov 19th-23rd, 2021
M. Gamelin	"	"	Oct 22nd -18th, 2021
C. Jack	"	"	Oct 22nd - 8th , 2021
C. Morin	"	"	Oct 22nd - 8th , 2021

ACCOMPANYING MAPS



Scale 1:10000

200 0 200 400 600

(meters)

NAD83(CSRS) / UTM zone 10N

THOMPSON CREEK METALS INC.

INDUCED POLARIZATION SURVEY
CLAIM AND LINE LOCATION MAP

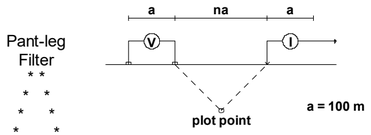
SENTINEL GRID
FT. ST. JAMES AREA, B.C.
FALL 2021

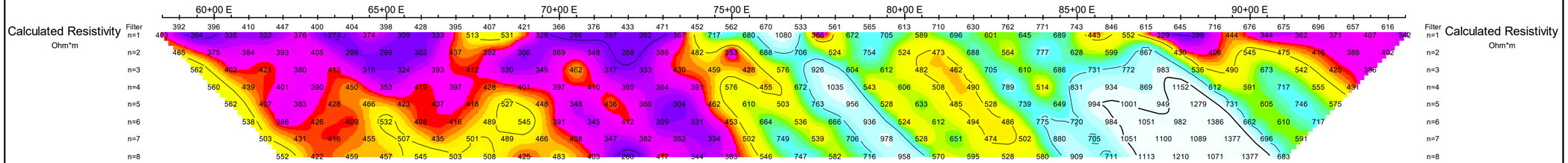
PETER E. WALCOTT & ASSOCIATES LIMITED

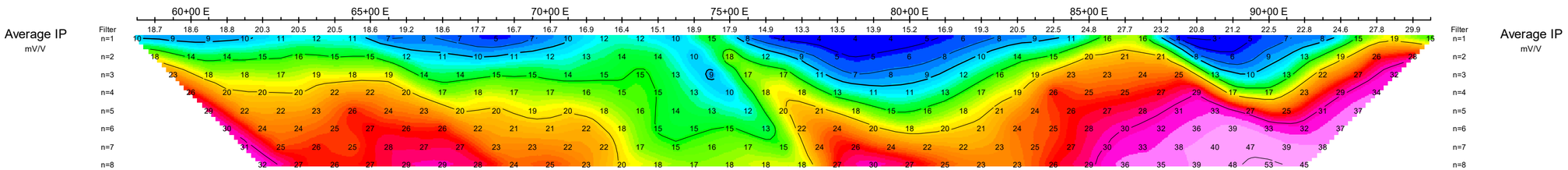
Pseudo Section Plot

64+00 N

Dipole-Pole Array







Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

THOMSON CREEK MINING

INDUCED POLARIZATION SURVEY

SENTINEL GRID

FT. ST. JAMES AREA, B.C.

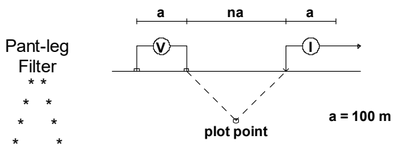
Date: FALL 2021

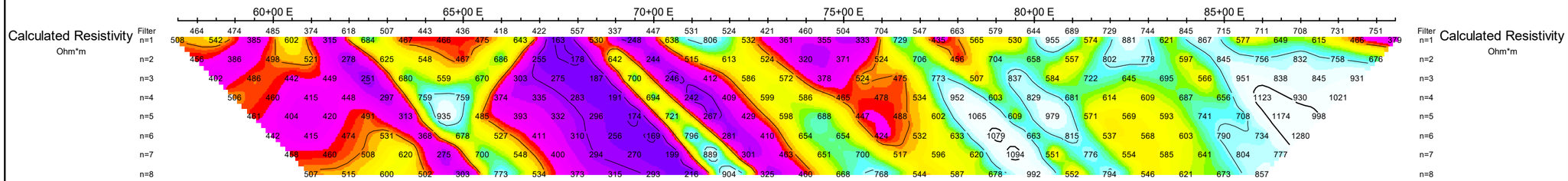
PETER E. WALCOTT & ASSOCIATES LIMITED

Pseudo Section Plot

68+00 N

Dipole-Pole Array





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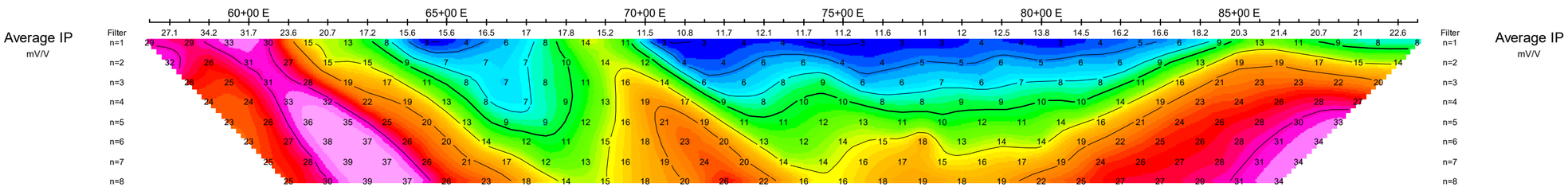


Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

THOMSON CREEK MINING

INDUCED POLARIZATION SURVEY

SENTINEL GRID

FT. ST. JAMES AREA, B.C.

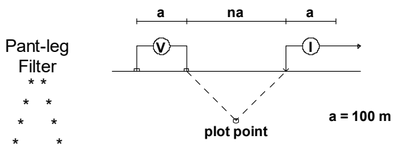
Date: FALL 2021

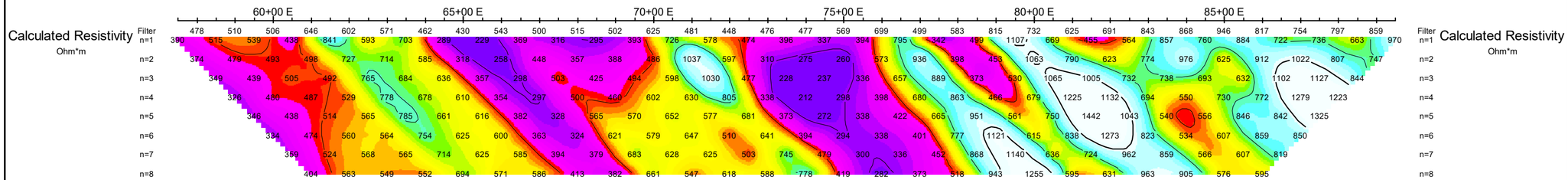
PETER E. WALCOTT & ASSOCIATES LIMITED

Pseudo Section Plot

72+00 N

Dipole-Pole Array





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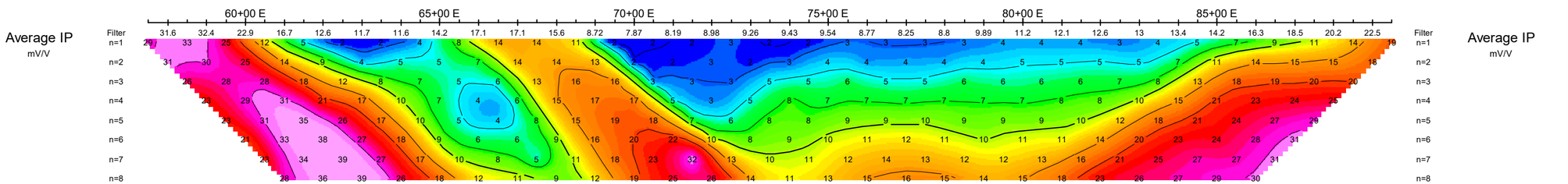


Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

THOMSON CREEK MINING

INDUCED POLARIZATION SURVEY

SENTINEL GRID

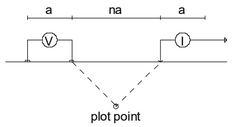
FT. ST. JAMES AREA, B.C.

Date: FALL 2021

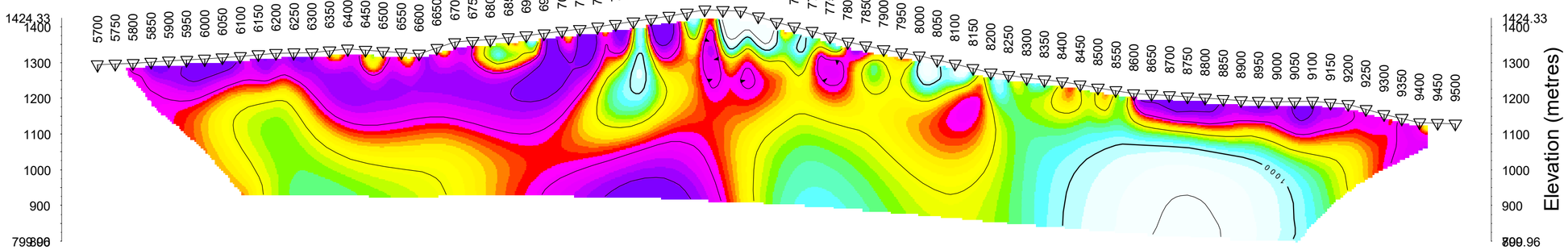
PETER E. WALCOTT & ASSOCIATES LIMITED

Line 6400

Dipole-Pole Array



Modelled Resistivity (Ohm-m)



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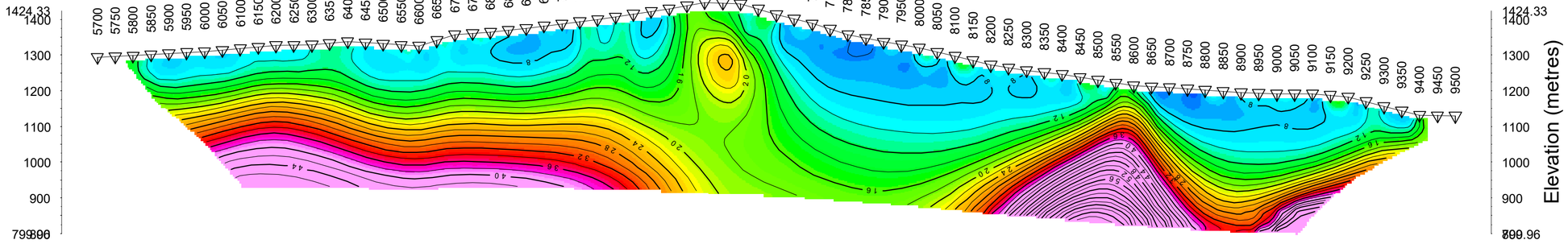
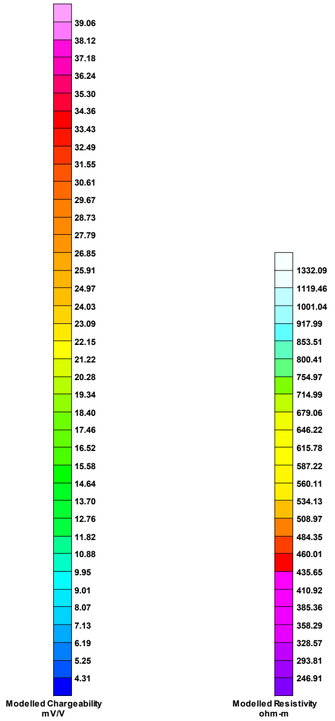




Scale 1:10000

200 0 200 400 600

(meters)

THOMPSON CREEK METALS INC.

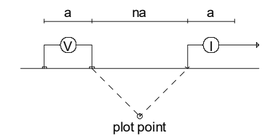
INDUCED POLARIZATION SURVEY
SENTINEL PROJECT
BRITISH COLUMBIA

Date: FALL 2021
RES2DINV

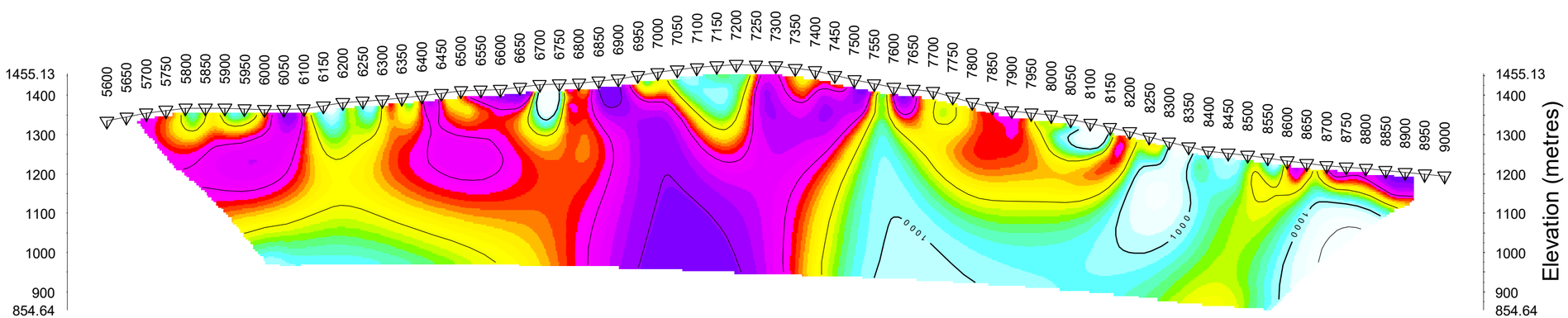
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 6800

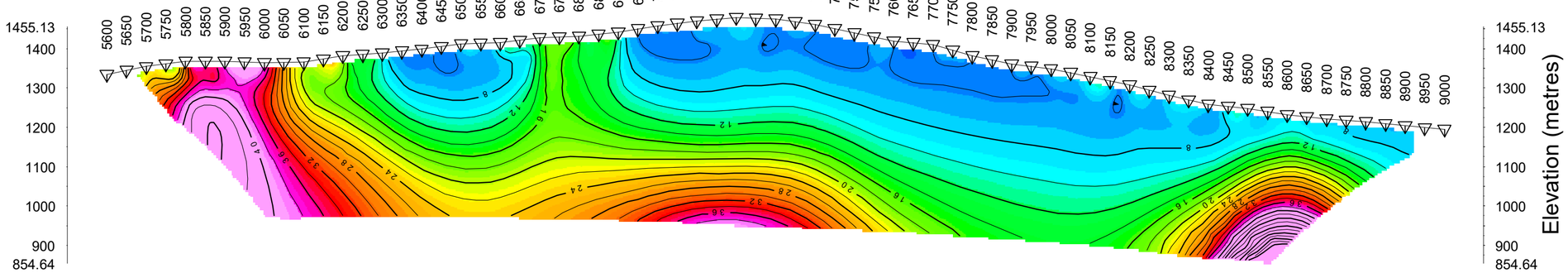
Dipole-Pole Array

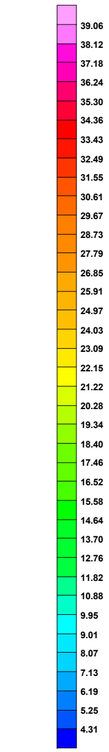


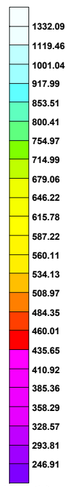
Modelled Resistivity (Ohm-m)



Modelled Chargeability (mV/V)







Scale 1:10000

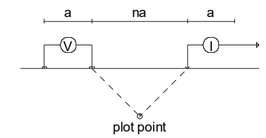
200 0 200 400 600

(meters)

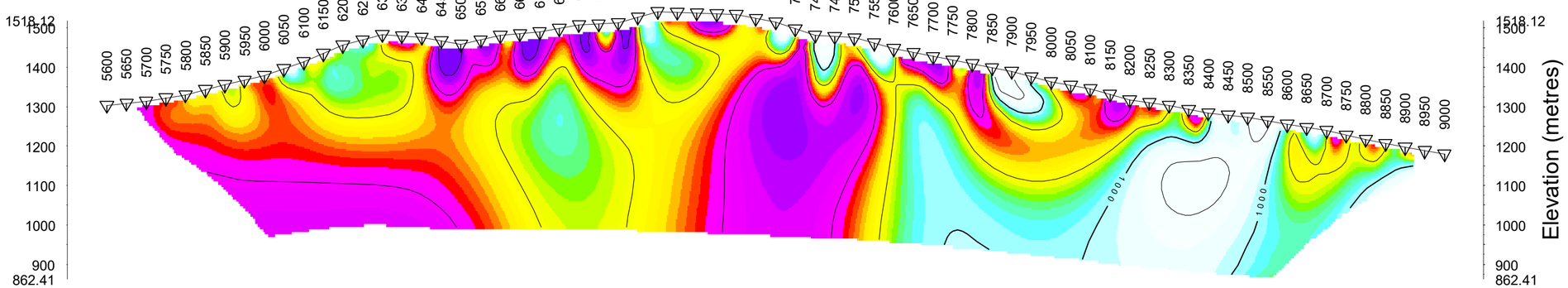
THOMPSON CREEK METALS INC.
INDUCED POLARIZATION SURVEY SENTINEL PROJECT BRITISH COLUMBIA
Date: FALL 2021 RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 7200

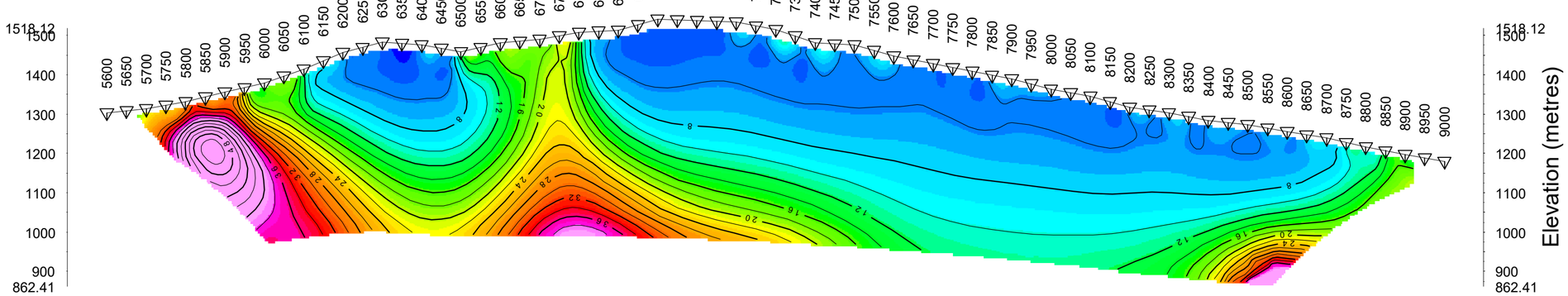
Dipole-Pole Array

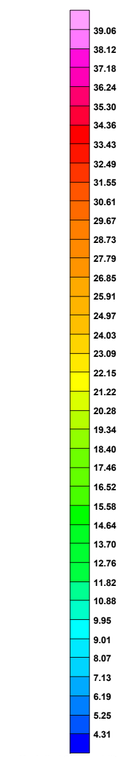


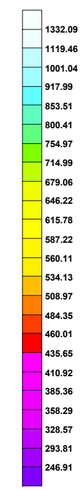
Modelled Resistivity (Ohm-m)



Modelled Chargeability (mV/V)







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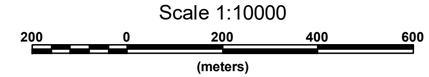

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