

# 2020 YMEP Target Evaluation #20-096 Final Report on the Ultra Project, Yukon

Telluride & Silver Creek Area, Whitehorse Mining District  
NTS 115B/16

Lat. 60°54' N • Long. 138°15' W

Grouping Certificate: HW07773 (Pending)

#### GRANT NUMBERS

YC18433 - YC18436  
YC19001 - YC19030  
YC19079, 81, 83  
YC19098 - YC19133  
YC19376  
YC25938 - 943  
YC19398 - YC19405  
YC19406 - YC19409

YC25938 - YC25943  
YC26106 - YC26115  
YC26239 - YC26285  
YC26288, 289, 292, 293, 295, 297,  
302, 304, 306, 308  
YC26323 - YC26341

#### CLAIM NAME

ELI 11 - ELI 14  
ULTRA 1 - ULTRA 30  
GAB 35, 37, 39  
ULTRA 37 - ULTRA 72  
ULT 1  
ULT 2 - ULT 7  
ULTRA 73 - ULTRA 80  
TELL 1 - TELL 4

ULT 2 - ULT 7  
ULTRA 81 - ULTRA 90  
ULT 21 - ULT 67  
ULT 70, 71, 74, 75, 77, 79,  
84, 86, 88, 90  
ULT 105 - ULT 123

#### GRANT NUMBERS

YC26359 - YC26372  
YC26373 - YC26383  
YC26408 - YC26447  
YC26448 - YC26449  
YC40233 - YC40248  
YC53937 - YC53948  
YE69101 - YE69163  
YE69701 - YE69768  
YE69770 - YE69789  
YE69899 - YE69902  
YE69919 - YE69959  
YE69974 - YE69976  
YE69977 - YE69980  
YF45969 - YE45986  
YE33717 - YE33787

#### CLAIM NAME

ULT 8 - ULT 21  
ULT 142 - ULT 152  
JEN 1 - JEN 40  
JEN 120, 251  
ULT 177 - ULT 192  
VMS 1 - VMS 12  
UM 1 - UM 63  
UZ 1 - UZ 68  
UZ 70 - UZ 89  
UZ 199 - UZ 202  
UZ 219 - UZ 259  
UM 39 - UM 41  
UM 62 - UM 65  
UZE 1 - UZE18  
OUTPOST 1 - 71

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## Summary

This report summarizes the 2020 Target Evaluation program on the Ultra project, following the recommendations made in the YMEP proposal. The 2020 work program took place from August 2<sup>nd</sup> to August 8<sup>th</sup>, and consisted of 35 man-days of geological mapping, rock sampling, MMI soil sampling, heavy mineral concentrate sampling for indicator minerals and prospecting based on recommendations from the YMEP application by TruePoint Exploration. Longford Exploration Services Ltd provided management and personnel for the work program on behalf of Group Ten Metals Inc. with assistance by two TruePoint Exploration geologists.

The Ultra project is comprised of 536 mineral claims (10,077 ha) owned or optioned 100% by Group Ten Metals Inc. and is located 42 km northwest of Haines Junction and 201 km west of Whitehorse, Yukon Territory. The property is centered at a latitude of 60° 54'N and a longitude of 138° 15'W on NTS mapsheet 115B/16, UTM Zone 7, in the Whitehorse Mining District. The work crew was based out of Haines Junction with access to the claims available via helicopter.

The Ultra property is underlain by the Alexander Terrane to the southwest and Wrangell Terrane to the northeast, juxtaposed by the Duke River thrust fault, together comprising the accreted Insular Super Terrane. The Denali fault abuts the Wrangell Terrane with the overlap Bear Creek Assemblage to the east. The Alexander Terrane, west of the Duke River fault, is primarily composed of clastic and calcareous sedimentary rocks. Minor volcanics include meta-basalt to greenschist of the Silurian to Devonian Bullion Formation. The Devonian to Upper Triassic Icefield Formation is composed of mainly clastic and carbonate sedimentary units with some greenschist volcanics. The Late Triassic Kluane mafic to ultramafic Suite and Maple Creek Gabbro intrusions and sills are seen in both the Alexander and Wrangell Terranes on the Ultra property, especially proximal to the major Duke River and Denali faults. The Main Sill, of high economic interest, lies 1000 m to the west of the Duke River fault.

There are four main types of Ni-Cu-PGE mineralization in the Kluane Ultramafic Belt that have potential to occur on the Ultra property and include: basal accumulations of massive sulphides; disseminated sulphides at the gabbro-ultramafic contact in each intrusion; PGE and Au+Cu rich zones associated with hydrothermal quartz-carbonate alteration at the edges of the sills and extending into the country rock; and disseminated and lesser net textured or massive sulphides in the ultramafic core of each sill. The Ultra property covers the Telluride, Nunatak and Boulder volcanogenic massive sulphide showings, the nickel-copper-PGE Frohberg and Main Sill showings, the UZE and Kul nickel-copper-PGE prospect, the Jesse anomaly, the Outpost occurrence, and the Jennifer copper-silver vein/stockwork showing. Four of these showings are official MINFILE occurrences and include Outpost (115B 007), Telluride (115B 008), Kul (115B 012), and Jennifer (115B 013).

The Main Sill and associated Frohberg showing have been known for years to be prospective for Ni-Cu-PGE's. Detailed work in 2019 has led to a much deeper geological and structural understanding of the main sill. The 2020 proposal recommended bedrock-interface probe sampling in areas of glacial cover or talus, as well as along margins of the sill, especially the footwall. Unfortunately, the geoprobe was in use on other TruePoint Exploration projects and was not available. The geoprobe work is still recommended in upcoming programs, in order to set the groundwork for establishing future drill targets.

The highly prospective Outpost claims were recently acquired by Group Ten Metals, which consolidated the Ultra claim package. The Outpost claims host consistently anomalous nickel soil assays along a 2.5 km strike length that appears to be correlative with a strong magnetic high trending northwest-southeast.

The 2020 YMEP-funded Target Evaluation program was deemed successful and included Mobile Metal Ion geochemistry, heavy mineral concentrate sampling, prospecting and detailed geological mapping. A total of \$85,716.26 was spent over the duration of the program, with \$43,392.05 eligible for YMEP reimbursement. In summary, the exploration program included:

- Testing the effectiveness of Mobile Metal Ion (MMI) geochemistry for the presence of buried precious and base metal mineralization. 136 samples were collected in four separate areas including Outpost Sill, Boutellier West, Boutellier East and Uze.
- Collection of five heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
- Several prospecting traverses in the Frohberg-Telluride-Main Sill area.
- The Telluride Prospect was revisited and sampled, confirming previous potentially economic grades.
- Detailed sampling and geological mapping at 1:2500 scale in the Outpost Sill area to extend and further refine previous mapping.
- 84 rock samples collected and assayed, including 10 for overlimit Cu, Ni and Pb.

Although no new significant Ni-Cu-PGE mineralization was located during the 2020 field program, evidence of other types of mineralization were indicated by two less commonly used exploration methods on the Ultra property. Mobile Metal Ion geochemistry is now widely used in areas of cover to search for buried mineral deposits. The technology measures metal ions that travel upward from mineralization to unconsolidated surface materials such as soil, till, etc. After interpretation, MMI data can indicate anomalous areas. Indicator minerals, including ore, accessory and alteration minerals, recovered from heavy mineral concentrate (HMC) samples, are now used to explore for kimberlite, lode gold, magmatic Ni-Cu-PGE, metamorphosed VMS, porphyry Cu, Mississippi Valley-type Pb-Zn and rare metals.

MMI geochemistry was carried out in four areas with small grids to test the effectiveness of the technique to indicate buried mineralization. The MMI soil program was successful in indicating multi-sample precious and base metal anomalies, with the best apparent success within the small test grids over Boutellier East and West, where the MMI analysis has pointed to signs of gold mineralization, coincident with anomalous gold results obtained from conventional soil sampling in 2018. From 2020 sampling, there is a lone anomalous Pd which should be considered significant as it is the highest Pd response ratio of all four areas. Literature notes that Pd (+Bi, Cr, Sn and Ta) possess very low mobility in the surficial/secondary environment and any MMI-M analysis for Pd that is > lower detection limit should be reviewed with care for its overall significance in the survey.

Although the indicator minerals within the heavy mineral concentrate analyses did not point to strong evidence for Ni-Cu-PGE mineralization, the high number of gold grains retrieved from sample **2064303** accompanied by pyrite and a trace of cinnabar are highly indicative of gold mineralization upstream/up-

ice. Of the 48 gold grains retrieved from the creek on the far west edge of the Ultra property, 27% were pristine grains, indicating a potential gold source nearby. 73% modified and reshaped gold grains indicate a possible gold source some distance from the sample site. Cinnabar, HgS, was also present and is an indicator for both gold and mercury. Anomalous barite, also present in 2064303, is an indicator mineral that has been linked to propylitic alteration zones around epithermal gold (Averill, 2007). The combination of sphalerite, gold, pyrite, barite and spessartine garnet are common indicators of both VMS and sediment-hosted lead-zinc deposits. There is good evidence that further exploration is warranted up the West Outpost Creek, up to the headwaters.

A summary of recommendations for the 2021 field season and beyond include:

- Apply for a Class 3 Exploration permit. The previous Class 3 Exploration permit, LQ00443 expired March 14<sup>th</sup>, 2021. The new permit should include the Outpost claims which are a recent addition to the Grouping Certificate (HW007773).
- Re-assess the previous geophysical survey over the Frohberg area to determine if an IP or EM survey is required to better delineate drill targets. (2005 VLF and magnetic survey – Hildes, 2006)
- Contingent on results from this work, a first pass fly-RC/diamond drill program is recommended on both Frohberg/Main Sill and Telluride. Frohberg is the priority target with the 2019 assays returning up to 4.6% Cu, 48.2 g/t Pt, 19.1 g/t Pd and 1361 ppm Ni (sample 3249063).
- Pautler (2014) noted that a favourable drill pad site is located along the ridgetop above the Telluride showing. Three 250-300m holes could be fanned from one setup and an additional 400m hole to further test the down dip extent of the massive sulphide horizon and associated stockwork zones would be contingent on the results of the first three holes.
- Follow up of heavy mineral concentrate sample 2064303 including a more detailed survey of the Far West Outpost drainage including stream sediment sampling to further define a possible source area of the gold mineralization in combination with prospecting.
- It is recommended that a more comprehensive analysis of the 2020 MMI geochemistry data be carried out: calculate response ratios for more of the 53 elements (chromite was missed in the first pass calculations of response ratios), including REE's. Consider calculating a Spearman-Rank Correlation Coefficient Matrix for the dataset to help determine significant element associations. The correlations could help to define better metal associations that could be used in subsequent plots to define anomalies or anomalous trends (Fedikow, 2010).
- The Boutellier East MMI soil grid should be extended to the north, west and east. A strong linear aeromagnetic anomaly extends across the upland from Silver Creek to Telluride Creek, and outlines a Kluane Suite mafic/ultramafic sill that has pyritic breccia with spotty chalcopyrite in the hanging wall (Davidson, 2019). Due to depth of cover and muted response in soils from 2018 on the east and west side of Boutellier Creek, Mobile Metal Ion soil geochemistry was performed in 2020 and found to reveal anomalies in gold, cobalt, copper and minor palladium. The elevated gold responses from the Boutellier East grid may be related to the 2018 highly anomalous gold in conventional soil sampling, 1 km east that returned up to 554 ppb Au and 7 samples assaying >50 ppb Au.

- Investigation of the magnetic anomaly on the north end of West Outpost Creek is recommended to help determine if the magnetic anomaly may be a sill-like intrusion. If the cover is extensive, mobile metal ion soil geochemistry may be an option. The north edge of the claim boundary does not extent very far north of the edge of the detailed mapping area.
- Further investigation and mapping along Silver Creek West should be warranted to map the extent of a gabbro unit (uTg) and possible prospecting around the magnetic anomaly along Silver Creek West. Further east of Silver Creek West, historic grab samples returned anomalous Ni and Cr values from documented gabbro and ultramafic float samples (along Silver Creek and East Silver Creek).
- Follow up of the mineralized boulders located 300 metres northeast of the Frohberg showing (samples 2064214 and 2064215 assayed up to 2.471% copper, 1.760% lead, 40.5 g/t silver and 1681 ppm zinc).
- Further prospectivity needs to be confirmed with bedrock-interface probe sampling in areas of glacial cover or talus, as well as to test the margins of the ultramafic sills on the Ultra property, especially the footwall. Although the probe was not available for the 2020 field season, the recommendations from the 2020 YMEP proposal for geoprobe work should be followed which may help set the groundwork for future drilling of these targets.



## 1 Introduction

This report summarizes the 2020 Target Evaluation program on the Ultra project. This work program aimed to build on the successful YMEP-funded Target Evaluation that was completed in 2019 (#19-082) by Longford Exploration Services Ltd. on behalf of Group Ten Metals Inc., which expanded known areas of mineralization and refined exploration targets. Longford Exploration Services Ltd provided management and personnel for the work program on behalf of Group Ten Metals Inc. with assistance by two TruePoint Exploration geologists.

The Ultra project is comprised of 536 mineral claims (10,077 ha) and is located 42 km northwest of Haines Junction and 201 km west of Whitehorse, Yukon Territory. The property is centered at a latitude of 60° 54'N and a longitude of 138° 15'W, in the Whitehorse Mining District. The Ultra project comprises the Eli, Ultra, Gab, Ult, Tell, Jen, Um, Uz, UZE, and VMS claims, owned 100% by Group Ten Metals Inc. Included in the project are the recently added, adjoining Outpost property, consisting of 71 claims.

In summary, the 2020 exploration program included:

- Testing the effectiveness of Mobile Metal Ion (MMI) geochemistry for the presence of buried precious and base metal mineralization. 136 samples were collected in four separate areas including Outpost Sill, Boutellier West, Boutellier East and Uze.
- Collection of five heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
- Several prospecting traverses in the Frohberg-Telluride-Main Sill area.
- Detailed sampling and geological mapping at 1:2500 scale in the Outpost Sill area to extend and further refine previous mapping.
- 84 rock samples collected and assayed, including 10 for overlimit Cu, Ni and Pb.

This report largely relies on information compiled by Longford Exploration Services Ltd. who have performed work on the property for Group Ten Metals Inc. from 2017 to 2020, including the current year's exploration program. The present report has been written to support and fulfill the 2020 YMEP funding requirements. The report is supplemented by **Appendix I** (YMEP Final Submission Form), **Appendix II** (Statement of Expenditures), **Appendix III** (Supplementary Work History Tables), **Appendix IV** (MMI SGS Minerals Technical Bulletins), **Appendix V** (MMI Soil Descriptions and Assays), **Appendix VI** (MMI Soil Response Ratios and Charts), **Appendix VII** (Heavy Mineral Concentrate Description and Analysis), **Appendix VIII** (Rock Descriptions and Assays), **Appendix IX** (Rock Geochem Plots), and **Appendix X** (Assay Certificates). A total of \$85,716.26 was spent over the duration of the program, with \$43,392.05 eligible for YMEP reimbursement.

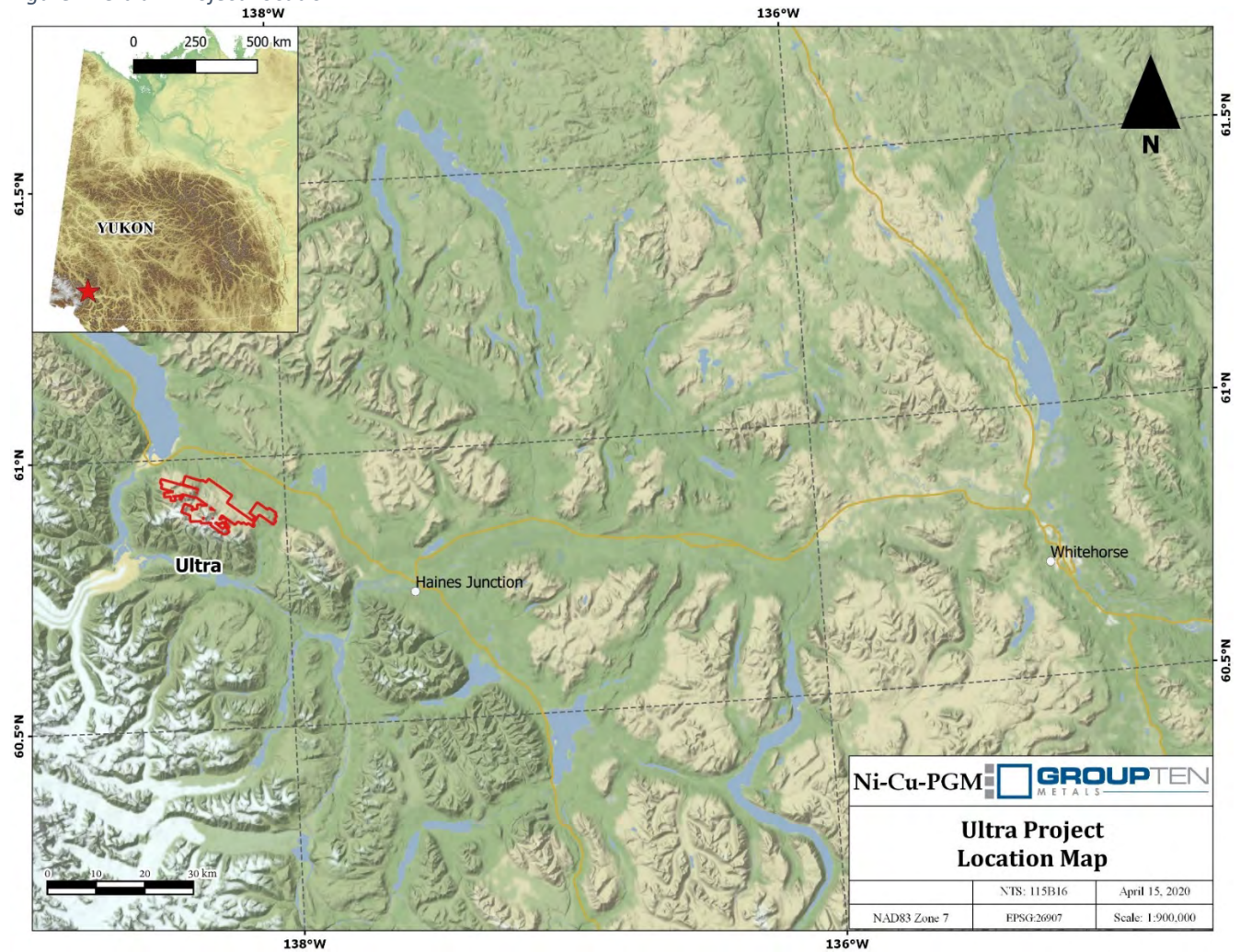
### 1.1 Project Location and Access

The Ultra property is located in southwest Yukon and is centered approximately 40 km northwest of Haines Junction, Yukon within NTS map sheet 115B/16 at 60° 54' N and 138° 15' W (see **Figure 1**, page 6). The project sits along the western margin of the Shakwak Valley in the Kluane Front Ranges of the St. Elias Mountains north of the Jarvis River. The property is located along a prominent ridge of peaks that includes Mt. Cairnes, which is the highest point on the property. From the centre of the property, Ultra lies approximately 17 km to the southeast of the southern edge of Lake Kluane. The claims are bounded to the south and southwest by the Kluane National Park and are bounded by the Jarvis River to the southwest and southeast, Slims River to the northwest, and Shakwak Valley to the northeast. The claim block encompasses the Telluride and Silver Creek drainages.

The Alaska Highway is located in the Shakwak Valley and runs parallel 10 km to the northeast of the project area. The Haines Highway extends south from Haines Junction ~300 km to the deep-water port of Haines, Alaska. A narrow off-road trail extends 11.5 km from the Alaska Highway at the Christmas Creek crossing to Telluride Creek on the southeast margin of the project area and an ATV trail extends up Boutellier Creek at the northeast end of the claims. Both trails have been used for access during previous exploration programs.

Airstrips are located at Haines Junction and Silver City with charter helicopter and fixed wing services available at Haines Junction and seasonally from Silver City. Commercial accommodation is available in Haines Junction and Silver City, with the former remaining the best venue for staging exploration in the project area with most of the support that early-stage exploration requires. Similar to the 2018 and 2019 field seasons, helicopter flights were staged out of Haines Junction to the claim block during the 2020 program.

Figure 1: Ultra – Project Location



## 1.2 Underlying Agreements and Land Tenure

The Ultra property consists of 536 contiguous quartz claims which encompass 10,077 hectares, all of which are owned 100% by Group Ten Metals Inc. Mineral tenure of the 536 claims which are under Grouping Certificate HW07773 and subject of this Report can be seen in **Table 1** (page 8) and **Figure 2** (page 10). The Class III permit (LQ00443) recently expired on March 14<sup>th</sup>, 2021. Application for a new Class III permit has begun and will include the Outpost claims.

The property is also subject to an underlying royalty interest whereupon the original vendor of the property, Tom Morgan, is entitled to receive a royalty equal to 2% of the net smelter return of which half can be purchased at any time for \$1,000,000. It is intended that the royalty shall run with and form part of the property and not be merely contractual in nature.

## 1.3 Physiography and Climate (after Davidson, 2020)

The Ultra property lies along the west margin of the Shakwak Valley in the Kluane Ranges of the St. Elias Mountains north of the Jarvis River. The Shakwak Valley is a deep northwest-southeast oriented depression reaching for several hundred kilometers from northwestern British Columbia to Alaska. In the Jarvis River area, the valley is 8 to 10 km wide, bounded on the west side by the rugged Kluane Ranges which rise to 2588 m. The property is located along a prominent ridge of mountain peaks including Mt. Cairnes, a high alpine area with valley glaciers on its northeast face and covering an upland plateau north of the peaks extending to lower lying areas of the Shakwak Valley. Elevations on the property range from 880 m to 2500 m ASL on the slopes of Mt. Cairnes. Typical topography encountered at the Ultra property can be seen in **Photo Plate 1** (page 9). Slopes are steep with long talus slopes below. Forest cover is sparse in the area, with the majority of the claims above treeline (~1200 m). On the lower portions of the claim block where vegetation is present, black and white spruce, poplar, and balsam are the dominant species, with alder willow present also above treeline. Wildlife in the area is plentiful, and the entire property is encompassed by the Kluane Wildlife Sanctuary.

The area is affected by coastal weather systems, with a combination of moisture and temperature conditions influenced by the mountainous terrain and close proximity to the Pacific Coast (approx. 150 km). The property lies at the border of the Kluane Mountain Ranges which is characterized by a dry and cold continental climate, lying in the rain-shadow of the St. Elias Mountains. The southern limits of the Kluane Ranges have a strong maritime influence and experiences higher temperatures and increased precipitation.

The Ultra property itself experiences elevated amounts of precipitation year-round, especially high in the mountains where local weather systems prevail. Snow begins to accumulate in the high alpine areas in late August or early September and begins to melt in late May to early June. Glacial cover is present over some areas of the property. Fieldwork can often be started at lower elevations by June, but at higher elevations a narrow window exists in August with minimum snow conditions. Summer temperatures range up to 30° Celsius and winter temperatures down to -50° Celsius.

Table 1: Claims summary table

GRANT NUMBERS	CLAIM NAME	OWNER	STAKE DATE	EXPIRY DATE
YC18433 - YC18436	ELI 11 - ELI 14	Group Ten Metals Inc. - 100%	2000-02-22	2025-02-11
YC19001 - YC19030	ULTRA 1 - ULTRA 30	Group Ten Metals Inc. - 100%	2000-12-06	2025-02-11
YC19079, 81, 83	GAB 35, 37, 39	Group Ten Metals Inc. - 100%	2001-02-09	2025-02-11
YC19098 - YC19105	ULTRA 37 - ULTRA 44	Group Ten Metals Inc. - 100%	2001-02-07	2025-02-11
YC19106 - YC19119	ULTRA 45 - ULTRA 58	Group Ten Metals Inc. - 100%	2001-02-08	2025-02-11
YC19120 - YC19133	ULTRA 59 - ULTRA 72	Group Ten Metals Inc. - 100%	2001-02-08	2025-02-11
YC19376	ULT 1	Group Ten Metals Inc. - 100%	2001-09-05	2025-02-11
YC25938 - YC25943	ULT 2 - ULT 7	Group Ten Metals Inc. - 100%	2003-05-06	2025-02-11
YC19398 - YC19405	ULTRA 73 - ULTRA 80	Group Ten Metals Inc. - 100%	2001-10-10	2025-02-11
YC19406 - YC19409	TELL 1 - TELL 4	Group Ten Metals Inc. - 100%	2001-10-03	2025-02-11
YC26106 - YC26115	ULTRA 81 - ULTRA 90	Group Ten Metals Inc. - 100%	2003-11-24	2025-02-11
YC26239 - YC26285	ULT 21 - ULT 67	Group Ten Metals Inc. - 100%	2004-02-09	2025-02-11
YC26288, 289, 292, 293, 295, 297, 302, 304, 306, 308	ULT 70, 71, 74, 75, 77, 79, 84, 86, 88, 90	Group Ten Metals Inc. - 100%	2004-02-09	2025-02-11
YC26323 - YC26341	ULT 105 - ULT 123	Group Ten Metals Inc. - 100%	2004-02-09	2025-02-11
YC26359 - YC26372	ULT 8 - ULT 21	Group Ten Metals Inc. - 100%	2004-02-09	2025-02-11
YC26373 - YC26383	ULT 142 - ULT 152	Group Ten Metals Inc. - 100%	2004-02-12	2025-02-11
YC26408 - YC26447	JEN 1 - JEN 40	Group Ten Metals Inc. - 100%	2004-02-12	2025-02-11
YC26448, 449	JEN 120, 251	Group Ten Metals Inc. - 100%	2004-02-12	2025-02-11
YC40233 - YC40248	ULT 177 - ULT 192	Group Ten Metals Inc. - 100%	2005-09-11	2025/26-02-11
YC53937 - YC53948	VMS 1 - VMS 12	Group Ten Metals Inc. - 100%	2006-09-01	2026-02-11
YE69101 - YE69135	UM 1 - UM 35	Group Ten Metals Inc. - 100%	2011-08-01	2025/26-02-11
YE69701 - YE69768	UZ 1 - UZ 68	Group Ten Metals Inc. - 100%	2011-08-16	2025-02-11
YE69770 - YE69789	UZ 70 - UZ 89	Group Ten Metals Inc. - 100%	2011-08-16	2026-02-11
YE69899 - YE69902	UZ 199 - UZ 202	Group Ten Metals Inc. - 100%	2011-08-16	2026-02-11
YE69919 - YE69959	UZ 219 - UZ 259	Group Ten Metals Inc. - 100%	2011-08-17	2025/26-02-11
YE69974 - YE69976	UM 39 - UM 41	Group Ten Metals Inc. - 100%	2011-08-16	2025-02-11
YE69977 - YE69980	UM 62 - UM 65	Group Ten Metals Inc. - 100%	2011-08-16	2025-02-11
YF45969 - YF45986	UZE 1 - UZE 18	Group Ten Metals Inc. - 100%	2017-08-08	2025-02-11
YE33717 - YE33787	Outpost 1-71	Group Ten Metals Inc. - 100%	2011-05-11	2025-02-11

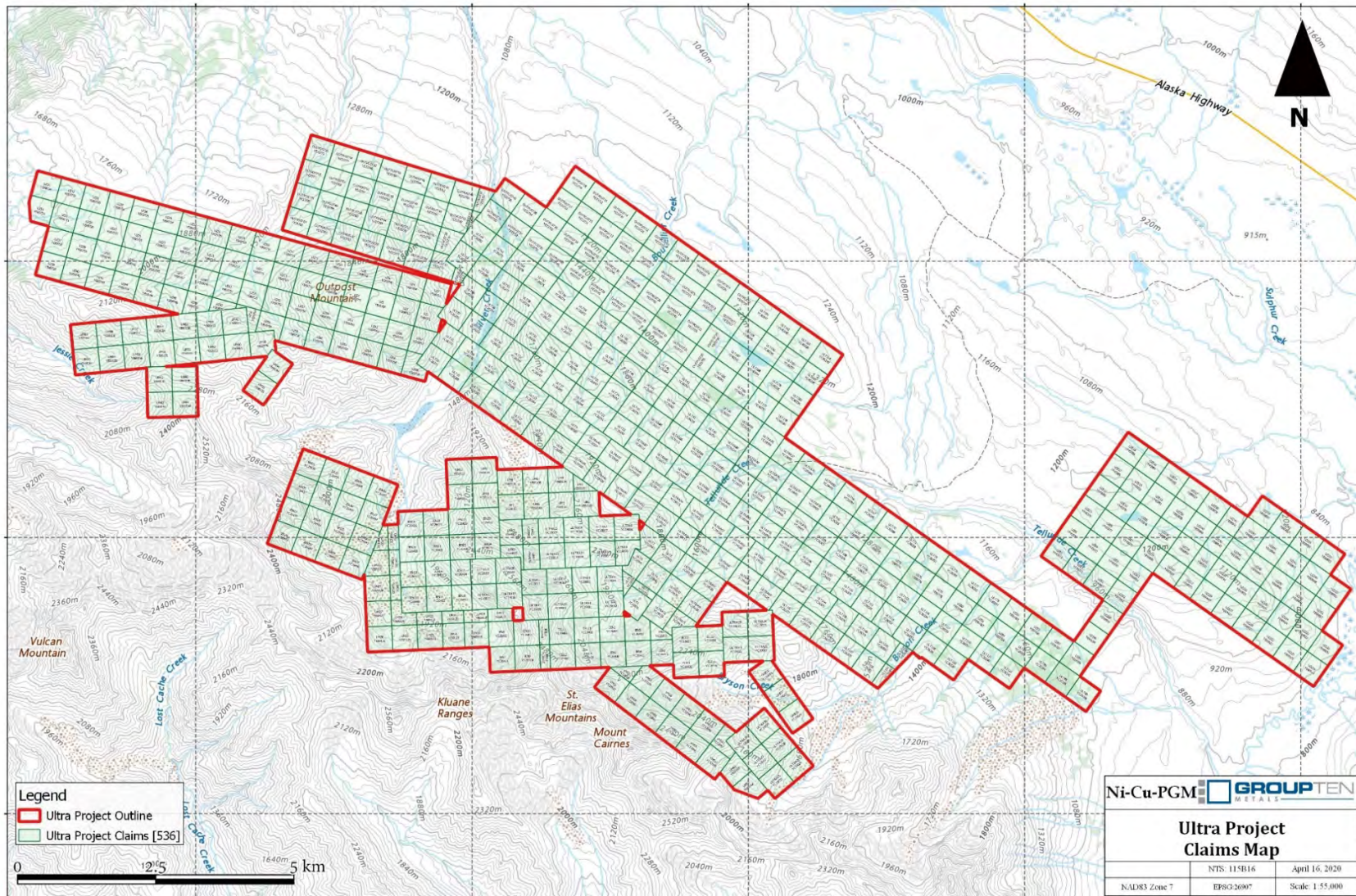




*Photo Plate 1: View from above the Telluride showing towards the north-northwest showing the typical topography of the region. Kluane Lake can be seen in the distance.*



Figure 2: Claim map of the Ultra project area



## 2 Property History (after Davidson, 2020)

The Ultra property (at its current claim extent) covers the Telluride, Nunatak and Boulder volcanogenic massive sulphide showings, the nickel-copper-PGE Frohberg and Main Sill showings, the UZE and Kul nickel-copper-PGE prospect, the Jesse anomaly, the Outpost occurrence, and the Jennifer copper-silver vein/stockwork showing. Four of these showings are official MINFILE occurrences and include Outpost (115B 007), Telluride (115B 008), Kul (115B 012), and Jennifer (115B 013; Deklerk, 2009).

The project area has been intermittently explored since 1892 when Jack Dalton and E.J. Glaven made an overland trip with packhorses from the Chilkat River to Kluane Lake over a foot path which the Chilkat First Nations had used for the past two centuries as a trading route to the interior of the Yukon. Placer mining was the initial economic activity performed in the area, on Telluride and Kimberly Creeks downstream of the present-day Ultra property. Placer miners first noticed massive sulphide boulders in glacial till at the mouth of Telluride Creek in 1904.

Initial exploration located the Telluride and Frohberg showings in 1955 & 1958 at the headwaters of Telluride Creek high in the cirque face and below on a glacial moraine. Early work on the Telluride banded massive-sulphide showing by Gaymont Prospecting Syndicate included claim staking, prospecting, mapping and geophysical surveys in 1956. Several syndicates continued ground exploration and preliminary drilling work primarily in the lower valley in 1964 (Coranex Syndicate), in 1965-67 (Coranex and partners), and in 1969 (Dynasty Exploration and partners). Exploration continued on the showings in the 1970's during a regional exploration program by Archer Cathro & Associates who staked the Ultra 1-22 claims at the headwaters of Telluride Creek in 1975. Limited diamond drilling, geochemistry and ground geophysical surveys were undertaken over the following years. The prospect was re staked in 2004 by the Kluane Joint Venture, and later by prospectors Tom Morgan and Vern Matkovich who initiated several exploration campaigns which consisted of airborne and ground geophysical surveys, blast trenching and geochemical sampling that targeted massive sulphides, Ni-Cu-PGE and Au mineralization within the Ultra claim block. A database of geochemical samples, airborne and ground geophysics, and geological mapping was compiled in 2013-2014 by Ashburton Ventures Inc. and documented by J. M. Pautler, P. Geo. in a Technical Report on the Ultra Project in 2014 and in a Geochemical and Geophysical Assessment Report in 2015.

The most significant showing on the Ultra property is the Telluride volcanogenic massive sulphide showing (Pautler J., 2015), "which appears to be consistent with the Cypress type deposit model. The Telluride massive sulphide horizon trends 130-140°/ 45-70°S, ranges from 0.5 to 4 m wide, has been traced for 200m and remains open along strike. The central portion overlies a 35m stockwork zone. The showing itself contains values of 3.23% Cu, 6.75% Zn, 17.8 ppm Ag, 0.15 ppm Au over 4m with selected values of 13.4% Cu, 6.75% Zn, 56 ppm Ag, 0.25 ppm Au. The system has been traced 6 km to the southeast and appears to continue beneath glacier cover to the northwest. The Nunatak Zone, a bedded massive sulphide lense and associated stockwork zone, was discovered 3 km southeast of the Telluride showing with rock sample results of 11.54% Cu, 1514 ppm Zn and 7.2 g/t Ag over 3 m. One kilometre south of the Nunatak



Zone, an occurrence of semi massive pyrite with sulphide bearing quartz veins and pyrite chalcopyrite stockwork type mineralization is exposed along a rugged north facing slope with highly anomalous values including 2.34% Cu, 50.9 g/t Ag over 2m. A glacier obscures the northwestern strike extent of the Telluride showing.”

The Boulder showing consists of massive sulphide boulders in a tributary of Telluride Creek and saw periodic exploration programs from 1955-2014 including approximately 440m of drilling in 8 holes (4 of which were lost), hand/blast trenching, rock, soil and silt geochemistry, mapping, prospecting, minor petrography, a 1977 airborne electromagnetic survey, a 2004 airborne total magnetic field and electromagnetic survey, rock geophysical properties analysis, and assorted small ground electromagnetic and magnetic geophysical surveys. The massive sulphide boulders at the Boulder showing appear to have originated from the Telluride showing, although dating suggests a younger age (Pautler, J., 2015). A strong EM conductor identified at lower elevation by ground EM surveys (Redball Grid) was originally thought to have been the source of the massive sulphide boulders and was tested by the early drilling programs. The drill holes did not reach bedrock and the EM conductor coincidental with an MMI soil geochemical anomaly on the Redball Grid is a possible source of the massive sulphide boulders and provides a potential drill target.

A summary of the work completed in proximity to and on the Ultra property by various operators over the years can be seen in **Table 2** (below). This data was comprehensively compiled by Pautler (2015) in combination with the Yukon MINFILE publications (Deklerk, 2009), various Yukon Geological Survey publications, Geological Survey of Canada reports, and company assessment reports throughout the years. **Appendix III** contains supplementary historic data for geochemistry, geophysics, trenching, and drilling. **Figures 3-5** (pages 16-18) present some of the geophysical data products generated that have aided exploration. Section 2.1 provides detailed highlights of the most recent YMEP-funded Target Evaluation program performed on the property in 2019.

*Table 2: Exploration history of the Ultra Property (after Pautler, 2015)*

Period	Summary
1903-04	Placer gold first mined at Silver Creek and Telluride Creek and discovery of “crushed copper-pyrite zones” near junction of Cub Creek with Telluride Creek by placer miners (GSC, 1905).
1955-1958	Resistivity, magnetic and gravity surveys, diamond drilling of 108m in 3 holes in 1956 (failed to reach bedrock) on Boulder showing (Clark, 1956) and discovery of Frohberg Ni-Cu-PGE showing in 1958 by Gaymont Prospectors Syndicate, which included Teck Exploration Company Limited and Iso Uranium.
1961-1962	Turam electromagnetic survey outlined several conductors (Watson, 1961) which were tested by 116m of rotary drilling in two holes in 1962 on Boulder showing by Canadian Exploration Limited, which were reported to contain some disseminated native copper (Woodcock, 1967).
1964	Staked by Meridian Syndicate but no work conducted.



Period	Summary
1965-67	Turam electromagnetic survey, outlining several conductors in Boulder showing area (Bosschart, 1966), soil sampling and geological mapping conducted by Coranex Limited (Woodcock, 1967).
1970	Program of electromagnetic surveying, soil sampling, geological mapping and diamond drilling of 216m in 3 holes on Boulder showing by Atlas Exploration Limited under option. Conductor explained by coal seams and marcasite in porous sedimentary unit (Coates, 1970).
1977	Scintrex airborne electromagnetic survey, Maxmin orientation survey, mapping, prospecting on Boulder and Frohberg showings with discovery of the Telluride massive sulphide showing by Aquitaine Oil Co. (Abbott and Cathro, 1977).
1983-84	Prospecting, silt geochemistry and geological mapping by Noranda returned anomalous copper, silver, zinc, and lead in silts and rocks southeast of Outpost Mountain (Kul showing) and discovery of Jennifer copper-silver-(gold) showing (Reid, 1985).
1984	Geological mapping and prospecting of Jennifer showing by S. J. Hill, with values of 1344 g/t Ag, 0.62 g/t Au and 22.5% Cu, with 7.8 g/t Au previously reported (Rogers, 1985).
1987	Geological mapping, prospecting and soil and rock geochemistry on the Frohberg showing by Nordac Mining Corp. (Eaton, 1988a) and exploration of the adjacent ultramafic targets, and geological mapping of the area from the Telluride showing to the massive sulphide boulders at the mouth of Cub Creek was undertaken by the Reed Creek Joint Venture (Eaton, 1988b).
1988-89	Small trenching and sampling program on the Jennifer showing by Ron Stack returned values of 685 g/t Ag and 16% Cu (Stack, 1989).
2000-03	Programs by Cabin Creek Resources Management Inc. and/or Tom Morgan of geological and geochemical surveys in 2001 on Boulder and Frohberg showings (Brickner, 2002), re-sampling of the massive sulphide boulders in 2002 with values of 2.1% Cu, 5.1% Zn and 24.5 g/t Ag (Mann and O'Shea, 2006), horizontal loop electromagnetic, VLF-EM and magnetometer surveys identifying three conductors and a magnetic low anomaly proximal to the boulder occurrences (Casselmann, 2003), a blast trenching program on the Frohberg Showing, which returned sample values of 5.54 g/t Pt, 13.46 g/t Pd, 4.07 % Cu and 1.73% Ni in 2002, and extension of the HLEM survey (Jackson, 2003).
2004	Airborne total magnetic field and electromagnetic surveys (200 line-km) using the McPhar Hummingbird system, outlining 54 conductors, and a geological mapping and prospecting program by Klondike Gold Corporation (Casselmann, 2005).
2005-06	Programs by Klondike Star Mineral Corporation, under option, consisting of prospecting, line cutting, a VLF-EM and magnetic survey over the Frohberg Ni-Cu-PGM showing, delineating the continuation of the ultramafic body, and horizontal loop electromagnetic surveys on the Lake and Redball grids in the Boulder showing area, delineating conductors consistent with a volcanogenic massive sulphide model (Hildes, 2006 and Mann and O'Shea, 2006). Property-wide geological mapping and

Period	Summary
	geochemical sampling, detailed mapping of the Telluride, Frohberg, Redball and Silver Creek East areas, grid MMI soil surveys on the Lake, Redball and Silver Creek East grids, a beep mat geophysical survey over the Boulder showing, and trenching on the Telluride showing was conducted in 2006. The Telluride VMS horizon was traced for 6 km and returned a sample value of 3.23% Cu, 6.75% Zn, 17.8 g/t Ag, 0.15 g/t Au over 4m (Pautler, 2006).
2008	Detailed sampling of the Telluride volcanogenic massive sulphide horizon and Frohberg showing was conducted by Tom Morgan with rock sample results of 2.1% Ni, 2.06% Cu, 3.65 g/t Pd, and 630 ppb Pt and 2.56% Cu, 2.30% Ni, 1.85 g/t Pd, 220 ppb Pt and elevated rhodium (Rh) of 0.315 ppm from Frohberg. Also, gold values of 480 and 410 ppb in the footwall portion of the two massive sulphide lenses at the Telluride showing (Morgan, 2008).
2011	Mapping, prospecting, rock geochemical sampling, evaluation of nickel-copper-PGE potential, detailed examination of Frohberg showing and evaluation of gabbro-ultramafic body northeast of Jesse showing for Tom Morgan (Pautler, 2012a).
2012	Soil geochemical sampling and prospecting of a 2010 government aeromagnetic anomaly, with similar size and amplitude to that at the Wellgreen deposit, on the eastern UZ claims by Tom Morgan. Work was filed in 2013, following the option by Ashburton Ventures Inc., which partially funded the program. Results indicated copper, palladium, platinum enrichment along the inner edge of the magnetic high and zinc, copper, silver, nickel, ±molybdenum enrichment at the outer edges over almost 3 km, the latter centred approximately 1 km to the west (Morgan, 2013).
2013-14	Ashburton Ventures Inc. funded program of compilation and merging of historical geophysical data sets and petro-physical studies on property samples and lithological units, which indicated that the ultramafic units and one gabbro sample have a consistent and high magnetic susceptibility, with moderately high susceptibility in the massive sulphides, the Nikolai group and gabbroic samples, and the mineralized units all have a low resistivity signature coupled with high chargeability (Jackson, 2014).
2014	Aurora Geosciences completed a ground magnetometer and VLF survey (17km) on the UZ claims. J Pautler collected 1 soil and 16 rock samples on the Frohberg area, documented in a comprehensive report for Duncastle Gold Corp (Pautler, 2015).
2016	UAV mag survey (28.9km) by Longford Exploration Ltd. and Pioneer Exploration on the UZ claims for Group Ten Metals Inc. (Rogers, 2016).
2017	Longford Exploration field crews conducted prospecting traverses, geological surveys and soil geochemical sampling (12-man days) on the Outpost Claims from Aug. 16th to 19th, 2017 collecting 72 soil samples and a total of 32 rock samples were collected across the face of an ultramafic outcrop in a creek gully (now called the Outpost Sill). Geochemical results from soil sampling show the elevated values corresponding directly to the geophysical anomaly. Geochemical results from the panel sampling show consistent nickel mineralization over 33m associated with a dark grey fine-grained peridotite with trace pyrrhotite and moderate magnetism. On the UZ claims the 2017 work program collected 13 rock samples and 387 soil samples on soil lines targeting geochemical and geophysical anomalies. The 2017 exploration work on the

Period	Summary
	UZ claims identified soil geochemical anomalies in an area underlain by a quartz monzonite (EKK) intruding Bear Creek Assemblage metamorphic rocks with local pods of magnetite-epidote-actinolite skarn. (Davidson, 2018).
2018	Longford Exploration Services Ltd. carried out programs of soil geochemistry on the UZE claims, as well as other geophysical targets, and conducted geological mapping and XRF surveys over the Main Sill. During the 2018 work program a total of 402 soil samples were collected on soil lines targeting geochemical and geophysical anomalies on the UZE claims, a further 495 soil samples were collected on the northeast facing slope of Outpost Mountain over the ultramafic sill (Outpost Sill) and several contour soil lines were completed near Boutellier Creek, across the Nikolai Formation (Davidson, 2019).
2019	Longford Exploration Services Ltd. carried out detailed mapping and sampling at the Frohberg-Main Sill locale, generating a project-scale geological map. Rock sampling also occurred near the Nunatak showing and near Boutellier and Telluride Creeks targeting mafic and ultramafic rocks of the Kluane Suite. A soil sampling grid was completed on the UZE block to extend a previous grid.

Figure 3: Historical geophysical surveys and anomalies (after Davidson, 2020)

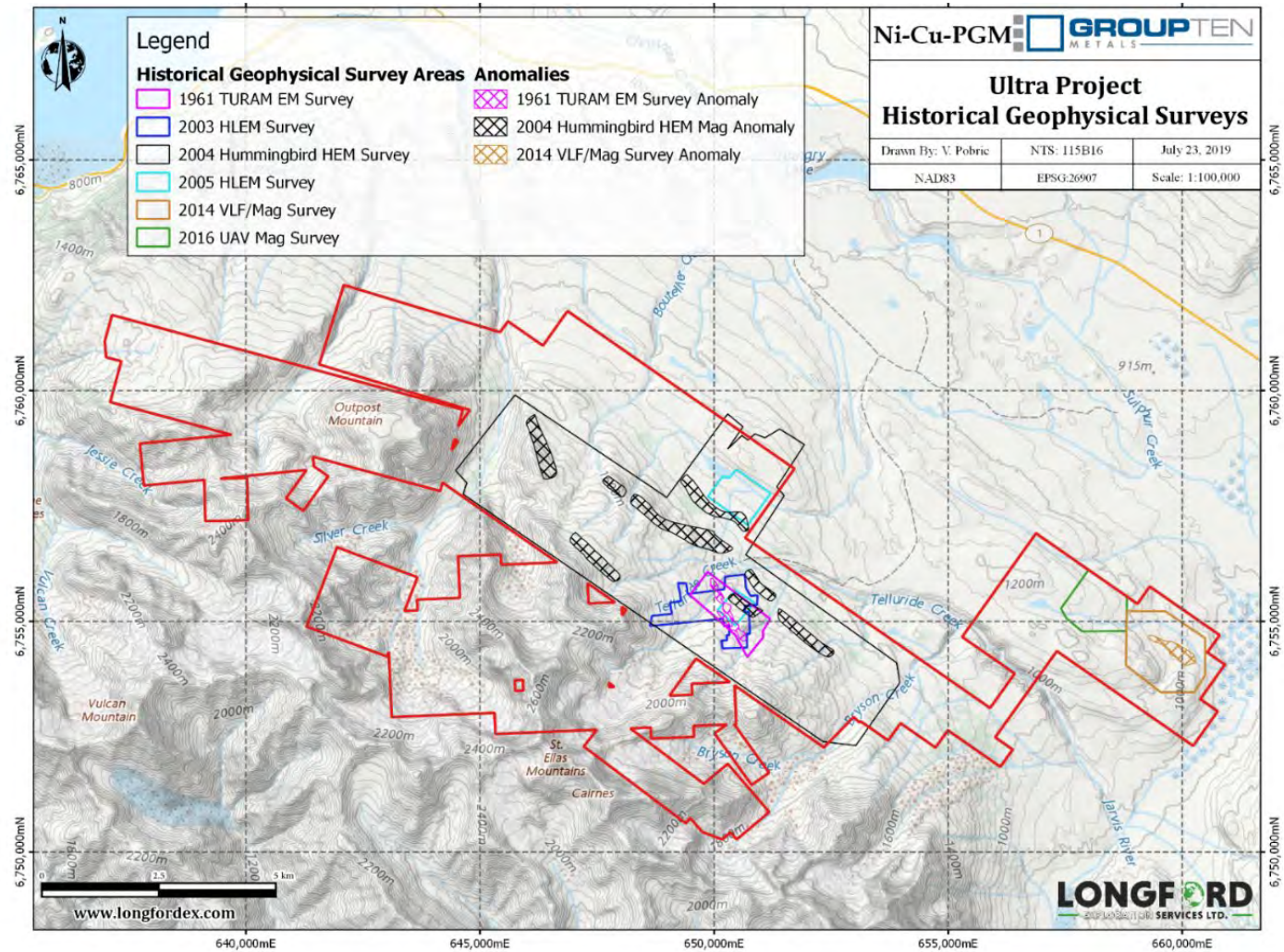


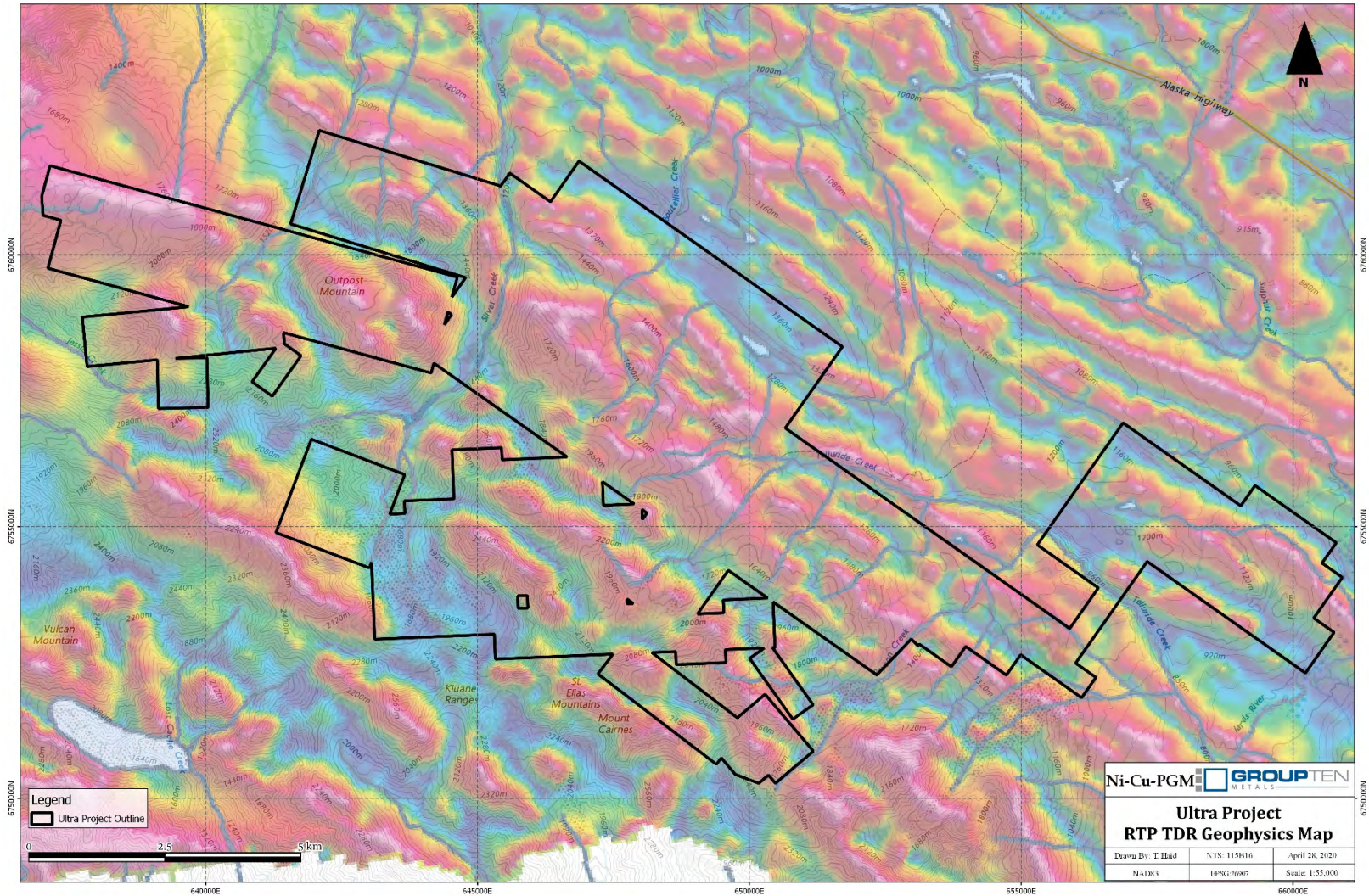


Figure 4: HLEM survey calculated apparent resistivity





Figure 5: Ultra Property regional geophysics reduced to pole tilt derivative (Open File 2017-33)



## 2.1 2019 Exploration Program – Highlights (after Davidson, 2020)

The 2019 work program on the Ultra property was a YMEP-funded Target Evaluation (#19-082) that was completed by Longford Exploration Services Ltd. on behalf of Group Ten Metals Inc., which expanded known areas of mineralization and refined exploration targets. Exploration was primarily focused on detailed mapping and sampling of the Frohberg showing and the proximal Main Sill showing, where complex folding from 3 deformation events was adequately mapped for the first time. Secondary work was focused on aeromagnetic anomalies and occurrences of ultramafic/mafic rocks of the Kluane Suite, where Cu-Ni-PGE mineralization has historically been found in the region. Detailed examination at the Frohberg showing outlined mineralization within a greenish siliceous volcanoclastic unit of the Icefield Formation. While unable to be identified in hand sample, samples from the Frohberg showing were collected for thin section during the 2006 field program and a possible protolith may be a lapilli tuff (primarily chlorite with minor amphibole needles and scapolite; Liverton, 2006). The extent of this showing is not known due to talus cover but exposed mineralization consists of pyrite, pyrrhotite and chalcopyrite along quartz-carbonate vein stockwork and is disseminated throughout the green siliceous volcanoclastic rock in some places. There are documented zones of intense malachite, azurite and limonite staining accompanied by open boxwork textures. Highly anomalous PGE-Cu values were obtained in rock samples grading up to 48.1 g/t Pt from outcrop southeast of the Frohberg showing which have been interpreted to be stratigraphically above the original occurrence.

Rock sample results from the Main Sill mafic/ultramafic rocks and elsewhere on the property targeting the margins of the sills resulted in weakly elevated nickel values (generally 1000-2000 ppm). Potential low-grade copper-nickel-PGE mineralization within or at the base of the Kluane Suite sills was not found by this sampling program. Alternative methods such as bedrock-interface sampling should be employed to properly test the Main Sill. The Kluane Suite is extensive and as has been concluded by previous writers requires ongoing investigation to evaluate the potential Cu-Ni-PGE mineralization with emphasis on a basal cumulate and feeder zone of the mafic/ultramafic rocks.

Along the Nunatak-Telluride trend, outcrops and cliffs of meta-basite and mafic volcanics were examined above the Bryson glacier and on steep ridges near Bryson Creek. Fault-bounded intervals of recessive meta-sediments occur within the massive volcanics which are intruded by light grey-green boudinaged diabase sills often with abundant quartz-carbonate veining, spotty pyrrhotite and trace chalcopyrite similar to the Frohberg occurrence. One grab sample of meta-basalt with 10% pyrite assayed >10,000 ppm Cu with background PGE+Au values.

Traverses across the upland area of Boutellier Creek located a mafic/ultramafic sill in outcrop along the creek bank which has a strong NW-SE linear aeromagnetic expression extending to the head of the Telluride Creek canyon. Hanging wall meta-volcanic rocks exhibit a pyritic breccia with spotty chalcopyrite, malachite and azurite seen at the base of several unnamed creek canyons and in outcrop at the top of the Telluride Creek canyon. No anomalous results were obtained from initial samples but the long sinuous aeromagnetic anomaly requires a more thorough examination and may possibly be accessed on existing trails by ATV.

The 2019 soil sample grid on the UZE block at the southeast end of the property was an extension to an area sampled in 2017-2018 targeting an aeromagnetic anomaly. Soil results show an association with skarn lenses at the periphery of a quartz monzonite (EKK) intrusion into Bear Creek metavolcanic - metasedimentary rocks and faults mapped through the area. The nickel response is linear in the northwest portion of the grid while copper results show an anomalous zone in the centre of the grid on the margin of the magnetic anomaly.



### 3 Regional and Property Geology (after Davidson, 2020 & Israel *et al.*, 2014)

#### 3.1 Regional Geology and Tectonic Setting

The Ultra property is underlain by the Alexander Terrane to the southwest and Wrangell Terrane to the northeast, stitched by the Duke River fault, together comprising the accreted Insular Super Terrane (**Figure 6**, page 23). The Denali fault stitches the Wrangell Terrane with the overlap Bear Creek Assemblage to the east. Just to the northeast of the property is the forearc basin Kluane Schist Terrane. The Alexander Terrane, west of the Duke River fault, is primarily composed of clastic and calcareous sedimentary rocks. Minor volcanics include meta-basalt to greenschist of the Silurian to Devonian Bullion Formation. The Devonian to Upper Triassic Icefield Formation is composed of mainly clastic and carbonate sedimentary units with some greenschist volcanics.

The Wrangell Terrane, bounded by the Duke River fault to the southwest and the Denali fault to the northeast, consists of Mississippian to Permian arc volcanic, clastic and platform carbonate rocks overlain by Triassic oceanic rift basalt and carbonate rocks and co-magmatic intrusions. These rocks include: the Late Triassic McCarthy Formation, composed of calcareous to carbonaceous mudstone and siltstone; the Late Triassic Nikolai Group of amygdaloidal basaltic, andesitic flows with local tuffs, volcanic breccia, thin bedded shale and minor bioclastic limestone; (in fault contact with) the Mississippian to Permian Skolai Group, consisting of volcanic and sedimentary strata of the Station Creek Formation and the overlying Hasen Creek Formation, which are primarily sedimentary rocks. The Station Creek Formation is a sequence of volcanic and volcanoclastic rocks with increasing sedimentary content in the upper half. In the upper 400m of the Station Creek Formation, shale siltstone, limestone and argillite are interbedded with fine grained tuff layers that decrease in abundance upwards. The contact with the overlying Hasen Creek Formation is gradual and is placed at the top of the tuff layers. The Hasen Creek Formation is a subaqueous sequence consisting of shale, cherty argillite, chert and siltstone grading up into limestone, conglomerate, greywacke and sandstone.

The easternmost portion of the Ultra property lies east of the Denali fault and is underlain by an overlap assemblage of Late Triassic volcanic and sedimentary rocks of the Bear Creek Assemblage. Intrusive rocks of the Kluane Ranges Suite, primarily biotite-hornblende granodiorite, quartz diorite, quartz monzonite and hornblende diorite locally intrude throughout the Wrangell Terrane, especially near Silver Creek and Boutellier Creek within the property. The Kluane Ranges Suite occurs more often as local dykes and small plugs within the Bear Creek Assemblage, southeast of the Denali fault. Older sills of the Late Triassic Kluane mafic/ultramafic Suite occur throughout the Kluane Ranges and are thought to be the subvolcanic feeder of the basic to mafic volcanic rocks of the Nikolai Formation. Paleocene to Oligocene Amphitheatre Group sediments and Miocene to Pliocene Wrangell Lavas overlie and intrude the older lithologies.

The dominant structural direction of the region is controlled by the major Duke River and Denali faults and ranges in orientation from 290° to 310°. Dextral strike-slip movement of the Wrangell Terrane northwards along the intercontinental Denali fault began in the Tertiary and continues today. The fault is steeply dipping and the order of displacement may be hundreds of kilometres. The Duke River fault is also near vertical and joins the Denali fault southwest of Haines Junction. Between the major faults small scale faulting is common and faults increase in abundance to the southeast. Major fold axes are oriented in the same dominant northwest direction. The folds are tight and inclined to the southwest. A

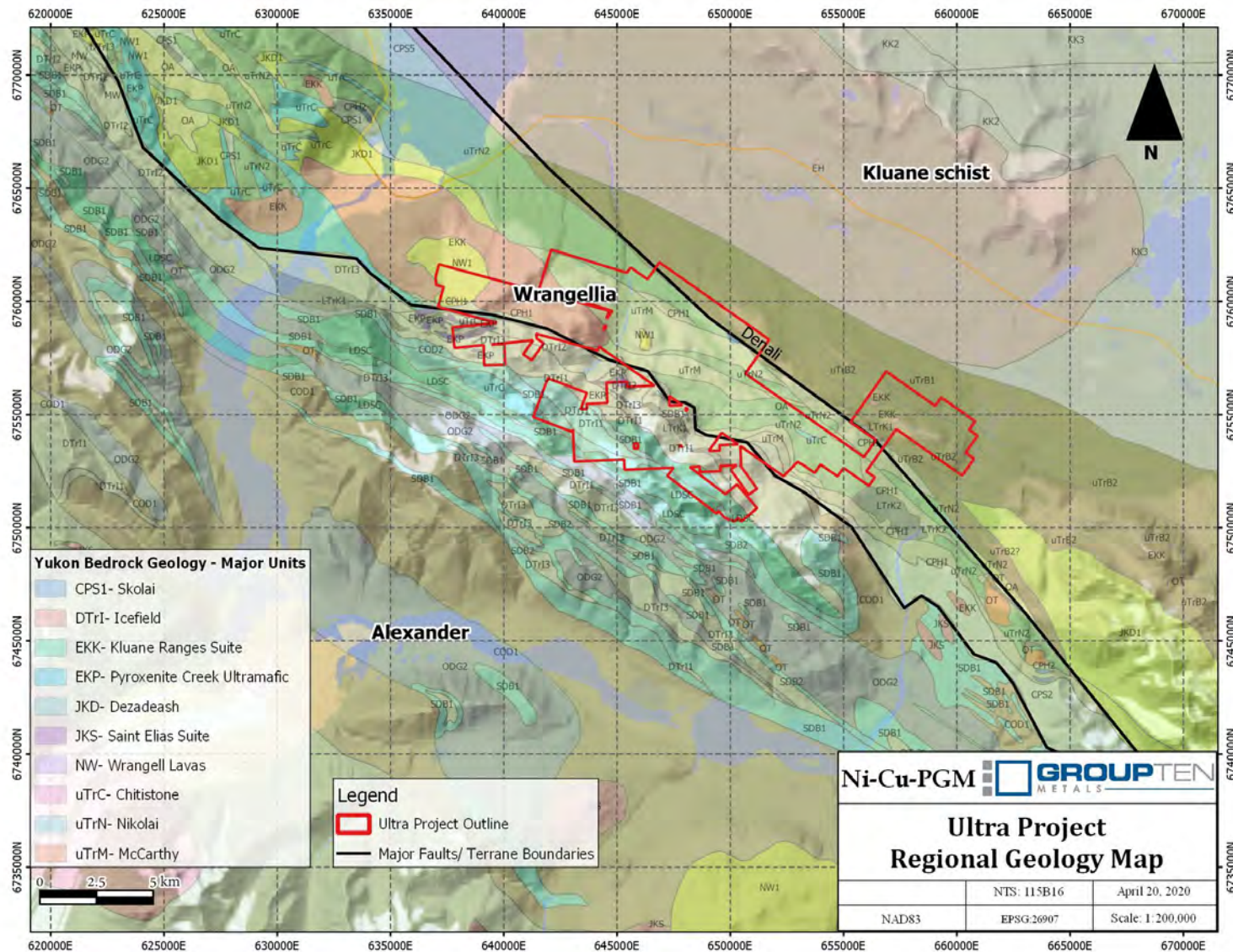
later folding episode has refolded the strata at right angles to the dominant direction along northeast axes (Carne, 2003).

The Duke River fault has been recently described by Cobbet *et al.* (2017): “In southwest Yukon, the boundary between the Alexander terrane and Wrangellia corresponds with the Duke River fault. Within these areas, the Duke River fault juxtaposes imbricated, pervasively foliated and folded greenschist-facies rocks of the Alexander terrane southwest of the fault against sub-greenschist-facies, less deformed rocks of Wrangellia. Multiple lines of evidence from this region indicate the Alexander terrane has been juxtaposed against Wrangellia along a southwest-dipping thrust fault.  $^{40}\text{Ar}/^{39}\text{Ar}$  dates from muscovite, which grew during faulting or have been reset by motion along the Duke River fault, range from 79 to 105 Ma, suggesting that ductile movement along the fault is at least as old as Cretaceous (Albian to Cenomanian). This phase of faulting is interpreted as the local expression of Cretaceous shortening, which has been documented along the length and width of the Cordillera. Cretaceous structures along the Duke River fault are overprinted by brittle deformation that affects rocks as young as Miocene (or Pliocene?). The Duke River fault appears to be accommodating present-day transgression through uplift and reactivation of the thrust fault.”

The Kluane Ultramafic Belt extends through the front ranges of the St. Elias Mountains that cross the Yukon-Alaska border and hosts sills of the Late Triassic Kluane Mafic/Ultramafic Suite, which have been identified on the property. These rocks are distinctively coloured (glossy black to dark brown or light green to pale grey when altered) and can generally be seen as linear topographical features from the air. The Kluane mafic/ultramafic sills are elongated cumulate bodies that locally host Ni-Cu-PGE mineralization (see Section 4 for more details). This suite is interpreted as layered intrusions with a thin rim of gabbro around the margins grading into an ultramafic core of peridotite and dunite (Hulbert, 1997). The sills range in width from less than 10 to 600 m and can cover up to 20 km in strike length. The sills intrude the older Skolai Group near the contact between the underlying Station Creek Formation and the overlying Hasen Creek Formation. Most of the sills are poorly exposed and some are deformed and altered by faults. Nickel and copper values have been seen to increase from east to west along the belt. In comparison with other Ni-Cu-PGE deposits worldwide, the Kluane Ultramafic Belt is known for having high concentrations of PGEs such as Osmium, Iridium, Ruthenium and Rhodium along with a high Platinum to Palladium ratio (James, 2017).

The Maple Creek Gabbro unit has been documented as sill-like gabbroic bodies and are included in the Kluane ultramafic/mafic Suite. These rocks are generally found higher in the sequence than the ultramafic sills and may be feeders to the Nikolai volcanics (see **Figure 9**, page 30). Maple Creek gabbros can be distinguished from Kluane gabbros because they do not grade into peridotite or dunite, can be finer grained and may display columnar jointing. They also are not associated with Ni-Cu-PGE mineralization, as they are believed to lie stratigraphically above the prospective units (James, 2017).

Figure 6: Regional geology of the Ultra Project



### 3.2 Property Geology

Mapping programs performed by Longford from 2017 to 2019 have built upon the 1:50,000-scale mapping of the Mt. Decoeli area as described in YGS Open File 2014-18 (Israel *et al.*, 2014). **Table 3** (page 24) lists and describes the formations that are present at the Ultra property, and **Figure 7** (page 27) presents a 1:50,000-scale geological map of the Ultra property. Mapping traverses continue to refine geological contacts.

Recent exploration focus has been on the anomalies present at the UZE claims on the eastern portion of the property, which is underlain by the Late Triassic Bear Creek (overlap) Assemblage (uTB). This unit generally outcrops on glaciated ridge tops as strongly foliated massive intermediate to mafic metavolcanics that are characteristically 'rust' weathered, along with lesser metaclastics, volcanoclastics, phyllite, and carbonate horizons. Intrusions of quartz monzonite, aplite, and pegmatitic sills and dykes of the Early Cretaceous Kluane Ranges Suites (EKK) can occur in this unit.

There is a second overlap assemblage on the eastern side of the Denali fault which has been mapped to the northwest and southeast of the property; namely the Upper Jurassic to Lower Cretaceous Dezadeash Formation (JKD). The Dezadeash Formation consists of dark buff-gray lithic greywacke, sandstone, siltstone, shale, argillite, phyllite and conglomerate beds (Israel *et al.*, 2014). This unit appears to be similar to the McCarthy Formation (uTM) which can often be seen in fault contact with Late Triassic mafic volcanics in stream beds. Quartz-filled veins and vugs have been observed in the Dezadeash pelites, but no associated sulphides.

Crossing west across the Denali fault into the Wrangell Terrane which is underlain by the Skolai Group. The Skolai Group consists of the Permian Station Creek volcanics (PS) and the Hasen Formation sediments (PH). These rocks are overlain by the Late Triassic Nikolai basalts (uTN) and McCarthy Formation (uTM) calcareous sediments. Intrusions by sills of the Kluane Ultramafic Suite (uTu), Maple Creek gabbro (UTmg) and Kluane Ranges Suite granitoids (EKK) occur throughout.

In the southwest portion of the property, west of the Duke River fault, lies the Alexander Terrane. The Alexander Terrane composed of the Devonian to Triassic Bullion Creek Assemblage (Dc, Dp, Dy) and the Icefield Formation (DTI). The Bullion Assemblage generally features massive beds and cliffs of light grey limestone to marble (Dc), with recessive argillite and phyllite (Dp) on talus slopes, and resistant cliffs and talus of dark green meta-basalt and greenschist (Dy). Coarse euhedral pyrite cubes and quartz-carbonate veins are common in the Bullion volcanics. The Icefield Formation is composed of both volcanoclastic and sedimentary rocks. Volcanoclastics include banded tuff, volcanoclastic sandstone, volcanic breccia, and agglomerate. Sedimentary units include lithic conglomerate, chert, argillite, phyllite, brecciated limestone, and massive gypsum. Mineralization at the Frohberg showing was found within what is believed to be a siliceous unit (pervasively chloritized tuff?) (DTIaf) of the Icefield Formation, capped by phyllite (DTIp), which may have acted as a fluid boundary to trap mineralization.

The Late Triassic Kluane mafic to ultramafic Suite and Maple Creek Gabbro intrusions and sills are seen in both the Alexander and Wrangell Terranes on the Ultra property, especially proximal to the major Duke River and Denali faults. The Main Sill, of high economic interest, lies 1000 m to the west of the Duke River fault. The Main Sill is an elongate peridotite body that was mapped extensively in 2019. Detailed mapping of the Main Sill and Frohberg showing can be seen in **Figure 8** (page 28).



The detailed mapping of the Main Sill and Froberg area led to the identification and establishment relative timing for three deformation and veining events. D<sub>1</sub> exhibits recumbent isoclinal tight folds, D<sub>2</sub> exhibits parasitic and kink folds often with shearing, and D<sub>3</sub> exhibits open undulatory vertical folds. V<sub>1</sub> is defined as multiphase and multi-deformed quartz ± limonite and hematite, V<sub>2</sub> as bull white quartz + chlorite ± sulphide clots, and V<sub>3</sub> as massive quartz with carbonate infill ± hematite and limonite. V<sub>3</sub> is parallel to the D<sub>3</sub> axial plane. Mineralization is believed to occur contemporaneously with V<sub>3</sub> and the emplacement of ultramafic sills + Cu + Ni + PGE. The sills were observed to only exhibit D<sub>3</sub> folding, as such can be relatively timed between D<sub>2</sub> and D<sub>3</sub>, perhaps related to regional NW shearing.

Table 3: Table of Formations (after Israel et al., 2014)

<b>Period</b>	<b>Description</b>
Q – Quaternary	Unconsolidated alluvium, colluvium and glacial deposits.
NW, Miocene to Pliocene Wrangell Lavas	NW1 - Extensive volcanic unit, volumetrically significant but not associated with mineralization. Occur on the southwest side of Wrangellia overlapping onto the Alexander Terrane. Abundant west of the Donjek River and typically form piles 400-1000m thick. Mafic to felsic volcanic rock with NW2 – volcanic conglomerate.
MW, Mid to late Miocene Wrangell Suite	MW - Youngest intrusions in the area. Related to the Wrangell Lavas. Felsic to mafic composition.
OA, Oligocene Amphitheatre Fm	OA-Pebble to cobble and locally boulder, clast supported conglomerate; clast types include well-rounded to subangular rock-types found in the immediate area including mafic to intermediate volcanic and intrusive rocks, fine grained clastics and marble.
EKK, EKP, Early Cretaceous Kluane Ranges Suite	EKK, EKP - medium to coarse-grained, biotite-hornblende granodiorite, quartz diorite, quartz monzonite and hornblende diorite. Minor diorite and gabbro. Pegmatite and porphyry dykes.
JKD, Early Cretaceous Dezadeash Formation	JKD - lithic greywacke, sandstone, siltstone, shale, argillite and conglomerate, rare tuff.
JKS, Jurassic, ST. Elias Suite	JKS - coarse grained hornblende-biotite granodiorite and quartz diorite.
uTM, Late Triassic McCarthy Fm.	uTM - Conformably overlies the Nikolai Group, varying in thickness from zero to several hundred metres. Argillaceous limestone and argillite; massive limestone, limestone breccia and well-bedded limestone, gypsum and anhydrite. (McCarthy, Chitistone and Nazina limestone).

<b>Period</b>	<b>Description</b>
uTu, Late Triassic Kluane Ultramafic Suite. (LTKp, g, d on Fig 8)	Preferentially intrudes at or near the Hasen Creek-Station Creek contact. uTu - peridotite, dunite and clinopyroxenite, layered intrusions, locally with gabbroic chilled margins. (Kluane-type mafic-Ultramafics Gabbro-Diabase Sills) uTmg - Maple Creek gabbro. Fine to coarse grained diabase and gabbro sills and dykes. Intrudes the Skolai Group and locally the Kluane ultramafic suite.
uTN, Late Triassic Nikolai formation	uTN3 – thinly bedded grey limestone and argillite. uTN – dark green to maroon amygdaloidal basalt and basaltic andesite flows, locally pyroxene and plagioclase phytic. (Nicolai Greenstone) uTN1 – light to dark green volcanic breccia, pillow lava and basal conglomerate.
uTB, Late Triassic Bear Creek Assemblage	uTBm - strongly foliated to massive intermediate to mafic metavolcanic rocks, lesser metaclastics, volcanoclastics and carbonate horizons uTBs – meta-siltstone, mudstone and sandstone; phyllitic to schistose, pyritic. uTBv – strongly foliated to intermediate to mafic metavolcanic rocks, greenschist.
PH, Mississippian to Permian Hasen Creek Fm.	PH – fine-grained clastic rocks. Lower part contains volcanoclastics, rare basalts, rare chert beds and chert-pebble conglomerate. PHc – limestone, locally fossiliferous, massive to bedded.
CS, Mississippian to Permian Station Creek Fm.	CS - dark green basalt flows, pillows, pillow breccia, local magnetite-rich jasper. CSvt – bedded to massive chert, tuff. CSv – interbedded volcanic breccia, volcanoclastics; minor basalt flow. CSvt – laminated volcanic tuff and volcanoclastic siltstone.
DTI, Devonian to Upper Triassic Icefields Formation	DTIq – quartzite, light orange. DTIl – limestone, light orange, calcite stockwork. DTIe – gypsum, white, cream, massive beds. DTIa – argillite with quartzite, cream, massive beds, pyrite. DTIaf – Frohberg siliceous unit, pale green, disseminated sulphides. DTIS – silicified schist, buff ± chlorite. DTIp – phyllite, dark grey, foliated. DTIv – metavolcanics, green to purple, volcanoclastics and flows.
Dp, Dc, Dv Devonian, Bullion Creek Assemblage	Dp – fine grained phyllite and calcareous phyllite Dc – light grey to cream marble, strongly deformed Dv – dark green meta-basalt, greenschist

Figure 7: Property Geology of the Ultra Project

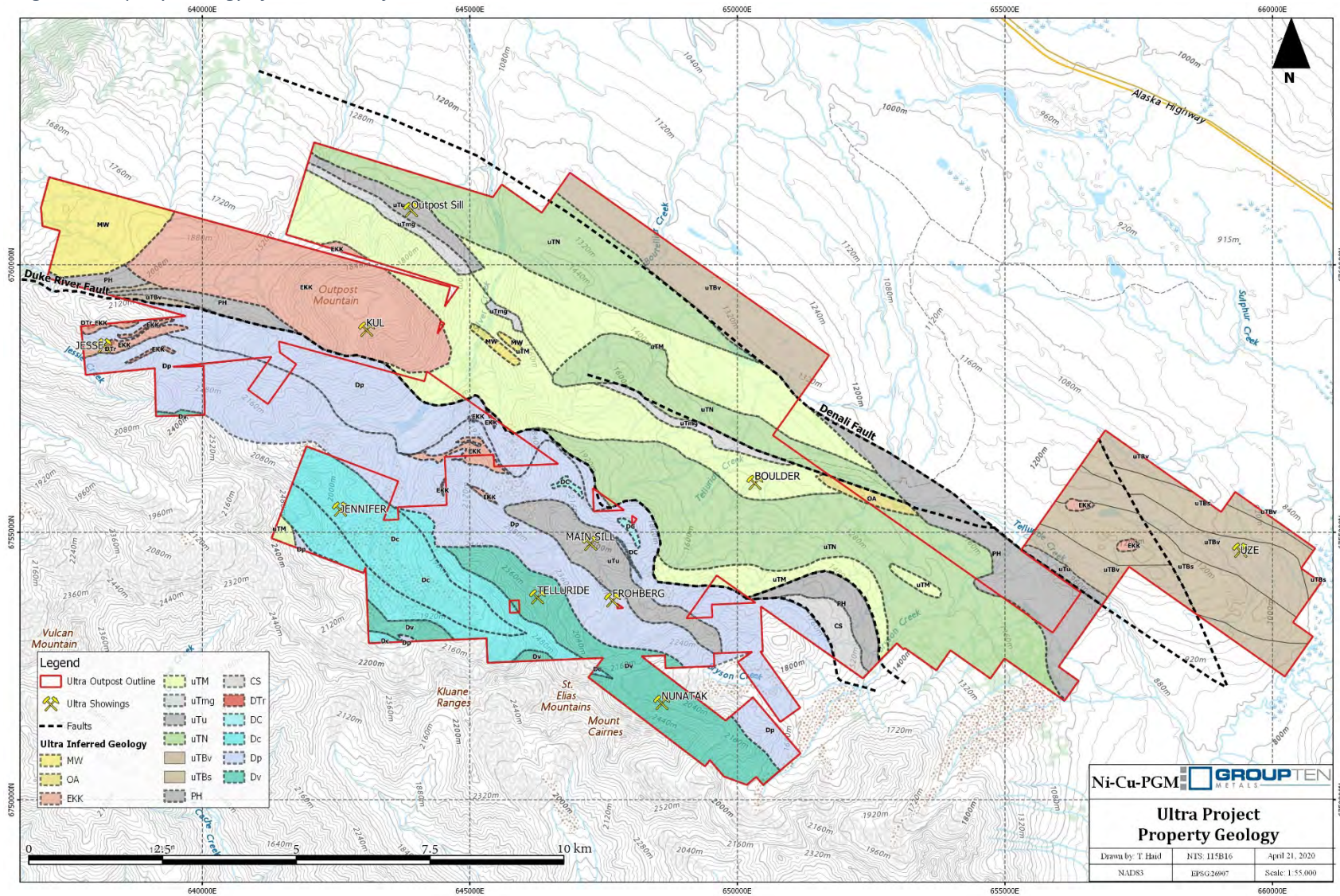
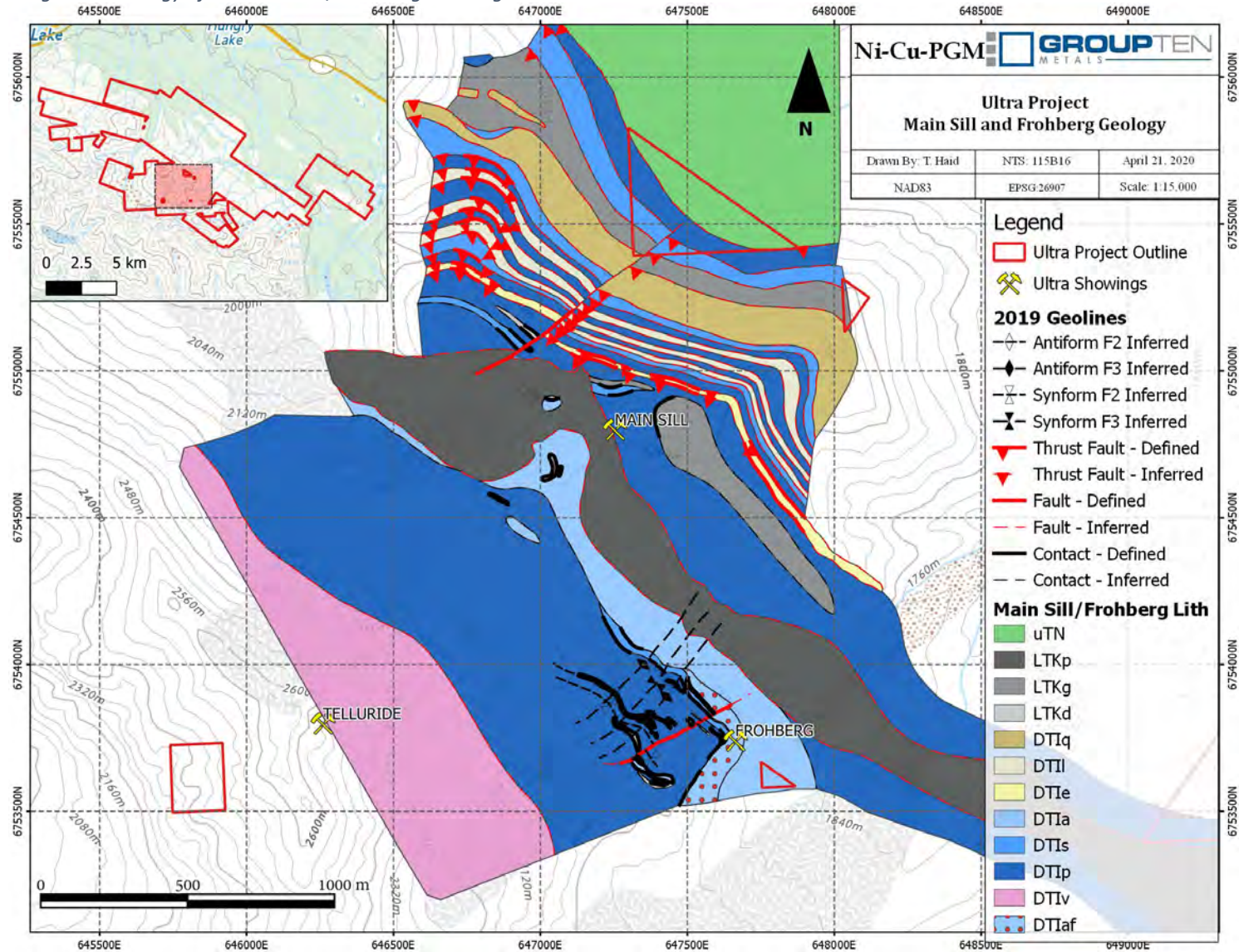




Figure 8: Geology of the Main Sill / Frohberg Showing





## 4 Target Rationale and Mineralization

### 4.1 Regional Mineralization

The Kluane Ultramafic Belt is a Triassic mafic-ultramafic intrusive complex which stretches 600 km from northern British Columbia to east-central Alaska and is host to a system of economic Ni-Cu-PGE deposits. The most notable deposit on trend to the northwest with the Ultra property is the Nickel Shāw deposit (formerly Wellgreen), which is owned by Nickel Creek Platinum Ltd. Approximately 200,000 tonnes of Ni-Cu-PGE ore was processed from this deposit in 1972 and 1973. A 2018 Mineral Resource of the deposit notes measured and indicated Mineral Resources of 323 million tonnes at 0.26% Ni, 0.16% Cu, 0.253 g/t Pt, 0.255 g/t Pd, and 0.046 g/t Au and an Inferred Mineral Resource of 108 million tonnes at 0.29% Ni, 0.15% Cu, 0.256 g/t Pt, 0.279 g/t Pd, and 0.040 g/t Au (Marek *et al.*, 2018). The Kluane Belt Ni-Cu-PGE occurrences are particularly enriched in the rarer platinum group elements osmium, iridium, ruthenium and rhodium in comparison with other global Ni-Cu-PGE occurrences.

Additionally, the Alexander Terrane and associated Bear Creek Assemblage are known to host to PGE-enriched VMS mineralization, similar to the Kloo MINFILE occurrence which lies 6 km southeast of the Ultra property on the Ellen property, also owned by Group Ten Metals. The Bear Creek Assemblage is known to be contemporaneous with the upper Hyde Group which is present along the Alaska-British Columbia border and is host to the Windy Craggy Cu-Co-Au VMS deposit. While now situated within a National Park, Windy Craggy has a Measured Reserve of 297,440,000 million tonnes grading 1.38 per cent copper (applying a 0.5 per cent copper cut-off), 0.2 gram per tonne gold, 3.83 grams per tonne silver and 0.069 per cent cobalt (Geddes Resources Ltd., Annual Report, 1991).

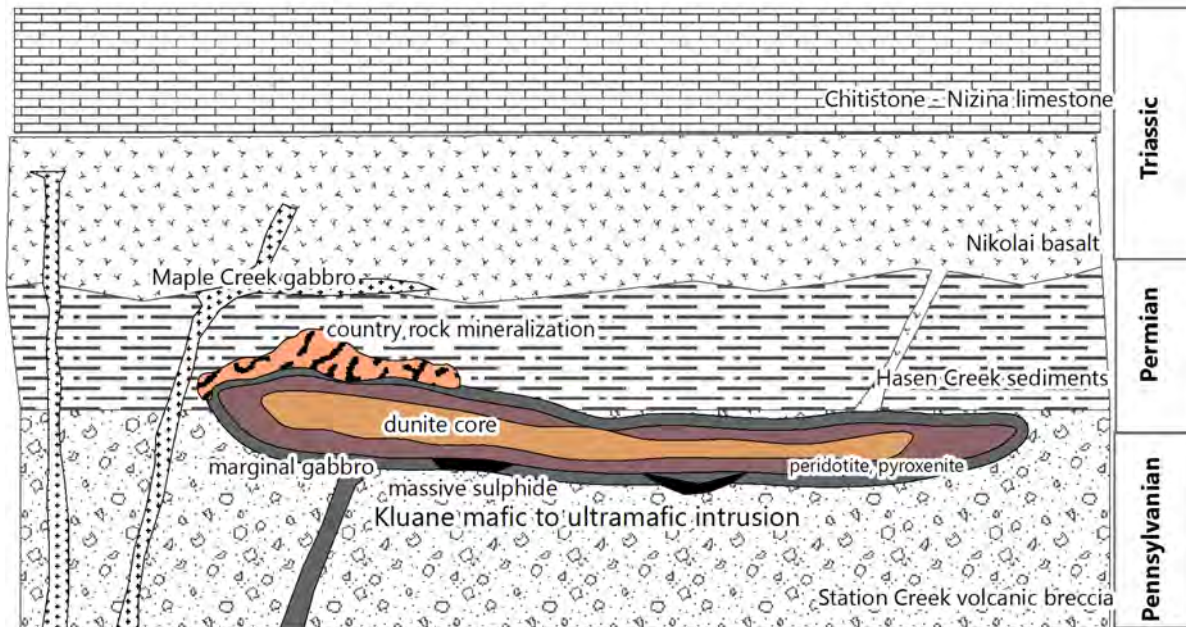
There are four main types of Ni-Cu-PGE mineralization in the Kluane Ultramafic Belt that have potential to occur on the Ultra property and are found in all the mineralized sills from southeast Alaska to northern B.C. (see **Figure 9**, page 30; Hulbert, 1997):

1. Basal accumulations of massive sulphides;
2. Disseminated sulphides at the gabbro-ultramafic contact in each intrusion;
3. PGE and Au+Cu rich zones associated with hydrothermal quartz-carbonate alteration at the edges of the sills and extending into the country rock; and
4. Disseminated and lesser net textured or massive sulphides in the ultramafic core of each sill.

Other types of mineralization present in the Kluane Ranges include (Hulbert, 1997):

1. Skarn ores developed in Permian carbonates;
2. Ni-rich ores within the footwall in the White River sill;
3. Cu-rich mineralization in shear zones and deformed intervals of Nikolai basalt; and
4. Cyprus-type volcanogenic massive sulphide (VMS) mineralization in mafic volcanic rocks.

Figure 9: Deposit model for the Kluane Belt ultramafic sills (modified from Hulbert, 1997)



#### 4.2 Property Mineralization (after Pautler, 2015)

The Ultra property covers the Telluride, Nunatak and Boulder volcanogenic massive sulphide showings, the nickel-copper-PGE Frohberg and Main Sill showings, the UZE and Kul nickel-copper-PGE prospect, the Jesse anomaly, the Outpost occurrence, and the Jennifer copper-silver vein/stockwork showing. Four of these showings are official MINFILE occurrences and include Outpost (115B 007), Telluride (115B 008), Kul (115B 012), and Jennifer (115B 013) (Deklerk, 2009). Locations of these showings can be seen above in **Figure 7** (page 27) and a description can be found below in **Table 4**.

Table 4: Ultra Project showings

Showing Name	UTM NAD83 Zone 7N,		Deposit Type
	Northing (mN)	Easting (mE)	
Telluride	6753800	646260	VMS
Boulder	6755980	650430	VMS
Nunatak	6751708	648715	VMS
Frohberg	6753718	647688	Flood Basalt Cu-Ni-PGE
Main Sill	6754800	647253	Flood Basalt Cu-Ni-PGE
UZE	6754000	659000	Cu-Ni-PGE, Cu-Ag Vein, Skarn
Kul	6758270	642475	Cu-Ni-PGE, Cu-Ag Vein, Skarn
Outpost	6759500	643300	Cu-Ni-PGE

Showing Name	UTM NAD83 Zone 7N,		Deposit Type
	Northing (mN)	Easting (mE)	
Outpost Sill	6761035	643903	Cu-Ni-PGE
Jesse	6758300	637930	Flood Basalt Cu-Ni-PGE
Jennifer	6755437	642576	Cu-Ag Vein

The **Telluride showing** consists of an upper 0.5- to 4m-wide zone of bedded massive sulphide, composed of fine-grained pyrite, lesser chalcopyrite, minor sphalerite and trace galena in a quartz-carbonate gangue, similar in appearance to the boulders at the Boulder showing. The massive sulphide horizon has been measured trending 130-140°/45-70°S and has been traced over a 200m strike extent which disappears under a glacier to the northwest and under talus and glacial till to the southeast. The showing itself has returned sample values of 3.23% Cu, 6.75% Zn, 17.8 g/t Ag, 0.15 g/t Au over 4m with select values of 13.4% Cu, 6.75% Zn, 56 ppm Ag, 0.48 ppm Au and >100 ppm Co. The massive sulphide horizon is underlain by a 35 m-wide cherty to silicified stockwork zone with pyrite and lesser chalcopyrite stringers. This horizon appears to be offset by ~35 m by a steeply dipping (possibly sinistral) strike-slip fault that parallels a gully near the centre of the exposure. The host rock consists of chloritized mafic pillow lavas near the contact with massive basalts, all believed to be Paleozoic in age (Ordovician) within the Alexander Terrane.

The **Nunatak Zone** is a bedded massive sulphide lens and associated stockwork zone discovered in 2006 and occurs 3 km southeast along strike of the Telluride showing with results of 11.54% Cu, 1514 ppm Zn and 7.2 g/t Ag over 3 m. One km further along strike (4 km from Telluride) pyrite (semi-massive) horizons, sulphide bearing quartz veins and pyrite-chalcopyrite stockwork mineralization have been exposed along a north facing slope.

Stockwork vein boulders have been noted in Bryson Creek, which may be sourced from this showing. Across the uplands to the east and downslope of the Telluride showing are massive sulphide boulders (Boulder showing) resting in the creek beds that appear to have originated from the Telluride showing, although dating suggests a younger age. The **Boulder showing** consists of numerous layered massive sulphide boulders, reportedly weighing up to 15 tons that occur in a terminal moraine along Cub Creek. The boulders consist of fine-grained pyrite with lesser sphalerite (which occurs as distinct bands), chalcopyrite and trace galena in a quartz-carbonate gangue. The host rock appears to be a chloritized mafic volcanic, of probable Mesozoic to Paleozoic age.

Below the Telluride showing is the **Frohberg showing**, which consists of mineralization in stockwork quartz-carbonate veins associated with gabbroic dykes and sills proximal to an elongated ultramafic Main Sill. Mineralization consists of pyrite, chalcopyrite, and pyrrhotite occurring as fracture fill, stringers, and as veinlets in quartz carbonate veins within tuffaceous Icefield Formation beds that are variably silicified and hornfelsed. The mineralized unit is capped by phyllite, which may have acted as a fluid boundary to trap mineralizing fluids. Zones of intense malachite, azurite, and limonite accompanied by open boxwork textures are also present. Sills at the Frohberg showing can be up to 5 m-wide and generally trend 140-170°/65-90°SW, while the dykes trend 050-60°/77°S. Historic sample values include 5.54 g/t Pt, 13.46 g/t Pd, 4.07% Cu and 1.73% Ni over 0.5m obtained from the southeast end of the

exposure in the 2002 trenching program. Sampling in 2008 returned 2.56% Cu, 2.30% Ni, 1.85 g/t Pd, and 220 ppb Pt, 0.315 ppm Rh over 0.25m along the gabbro footwall contact 200m to the northwest, towards the main peridotite body. 2019 assays returned up to 4.7% Cu, 48.2 g/t Pt, 19.8 g/t Pd, 35.5 g/t Ag, 2093 ppm Ni and 461 ppm Au (Davidson, 2020). Exploration potential exists for a buried deposit beneath boulder talus cover immediately north of the Frohberg showing where the dykes and sills coalesce into a larger gabbro to ultramafic body known as the Main Sill. The Main Sill contacts that are not covered by talus and glacial till are often gossanous with quartz-carbonate veining along with minor pyrite and chalcopyrite. Samples from the contacts of the Main Sill collected in 2019 have returned Ni values of 1137-1949 ppm.

The **UZE & Kul prospects** are skarn and vein occurrences associated with Kluane Range granitic intrusive (EKK) and Late Triassic metasedimentary rocks. Mineralization generally consists of pyrite-chalcopyrite veinlets and lenses in quartz-carbonate veining and skarn bands. No significant rock sample results have been documented from these occurrences.

The **Outpost occurrence** has little work completed on it but covers a prospective airborne geophysical anomaly coupled with anomalous stream sediment and soil (high Ni) geochemistry. The geophysical data suggests a large mafic/ultramafic intrusive body may underlie the Outpost claims. Grab samples include values of 7460 ppm Cu, 473 ppb Au, 134 ppb Au (no PGE's assayed). Note that the Outpost Minfile occurrence is located differently than the more recently discovered Outpost Sill, but is likely related.

The **Outpost Sill** was discovered in 2017 during follow up of an airborne magnetic anomaly (from Aurora Geosciences Ltd, 2017, Reprocessed geophysical imagery for map sheet 115B), targeting ultramafic/mafic rocks of the Kluane Ultramafic/Mafic Suite, and coincident with stream sediments elevated in Cu, Ni and Zn. The Outpost Sill is a prospective ultramafic sill and associated gabbro up to 72 m wide that outcrops in the tributary west of Silver Creek. Rock chip sampling across the width of the peridotite outcrop in 2017 (Davidson, 2018) returned consistent nickel mineralization over 33m associated with a dark grey fine-grained peridotite with trace pyrrhotite and moderate magnetism. In 2018, the sill was traced to the northwest and seen in outcrop in two creek gullies especially at a large outcrop along a creek bank at the west end of the claim block where a 100-metre-wide exposure of peridotite and gabbro occur. Several other narrow gabbro dykes were mapped upstream along the cliffs. The main sill was also followed to the southeast to the edge of the Silver Creek valley where it outcrops in several small gullies. Rock samples of the ultramafic/mafic sills collected across the claims produced fairly low nickel and copper values suggesting mineralization may have been remobilized by the extensive Outpost granodiorite intrusion.

The **Jesse anomaly** was discovered in 2005 after a soil sampling survey along the footwall contact of a 2 km x 300 m wide ultramafic sill returned values of 338 ppm Cu, 1379 ppm Ni, and 101 ppb Pd. It is recommended a magnetic survey be flown over the area to define the contact buried beneath talus and glacial till.

The **Jennifer prospect** features stockwork quartz-carbonate veining in volcanics, capped by limestone hosting disseminated and narrow bands of chalcopyrite, sphalerite, tetrahedrite, galena and pyrite mineralization. Vein widths are reported to be narrow with local values in silver and gold. Values are

reported up to 16% Cu, 751 g/t Ag, 8% Zn (Stack, 1989) and 0.62 g/t Au (Rogers, 1984). R.S. Rogers also reported a gold assay of 35.14 g/t, but there is no assay certificate to back up the claim. Highly anomalous epithermal gold pathfinder elements, antimony, mercury, cadmium and arsenic pathfinder elements were noted by W. Mann, 2006, in samples 281352 and 281396. Trench 89-1 contained anomalous nickel and a gabbro sill was noted north of the trench (Stack, 1989).

Rock sampling has occurred throughout the property over the past three seasons, with locations and results displayed in **Figures 10-12** (pages 35-37) for Cu, Ni, and combined Au+Pt+Pd (3E). Soil sampling locations and assay values from 2017 to 2019 are also documented in **Figures 13-15** (pages 38-40).

Three types of mineralization were sampled in 2019. These types included ultramafic sills with nickel, cobalt and copper (Main Sill), altered country rocks in contact with ultramafic sills containing platinum, palladium and gold with secondary nickel, cobalt and copper (Frohberg), and volcanic massive sulphide containing zinc, silver, copper (Boulder).

### 4.3 Target Potential

While the previous section outlined the mineralization and potential of all showings on the Ultra property, this section aims to focus on the areas of highest interest for exploration in 2020, which include the Main Sill/Frohberg showing, the Outpost showing in the northwest section of the property, and the UZE showing in the northeast section of the property.

The Main Sill and associated Frohberg showing have been known for years to be prospective for Ni-Cu-PGE's. Detailed work in 2019 has led to a much deeper geological and structural understanding of the main sill. Prior to 2019 the identification and establishment relative timing for three deformation and veining events. D<sub>1</sub> exhibits recumbent isoclinal tight folds, D<sub>2</sub> exhibits parasitic and kink folds often with shearing, and D<sub>3</sub> exhibits open undulatory vertical folds. V<sub>1</sub> is defined as multiphase and multideformed quartz ± limonite and hematite, V<sub>2</sub> as bull white quartz + chlorite ± sulphide clots, and V<sub>3</sub> as massive quartz with carbonate infill ± hematite and limonite. V<sub>3</sub> is parallel to the D<sub>3</sub> axial plane. Mineralization is believed to occur contemporaneously with V<sub>3</sub> and the emplacement of ultramafic sills + Cu + Ni + PGE. The sills were observed to only exhibit D<sub>3</sub> folding, as such can be relatively timed between D<sub>2</sub> and D<sub>3</sub>, perhaps related to regional NW shearing. In light of these map findings, further prospectivity needs to be confirmed with bedrock-interface probe sampling in areas of glacial cover or talus, as well as to test the margins of the sill, especially the footwall. This geoprobe work should set the groundwork for future drilling of these targets. The geoprobe was not available for the 2020 field program, but should be considered a tool to use in the future.

The highly prospective Outpost claims were recently acquired by Group Ten Metals, which consolidated the Ultra claim package. The Outpost claims host consistently anomalous nickel soil assays (see **Figure 16**, page 41) along a 2.5 km strike length that appears to be correlative with a strong magnetic high trending northwest-southeast. This target appears to have all the characteristics necessary to host a deposit of economic interest. The 2020 program proposal aimed to test the soil highs through bedrock-interface probe sampling and further mapping and prospecting. The geoprobe was unavailable, but the recommendations for the probing should be considered in the future. A more detailed magnetic survey

over the Outpost claims in future seasons would also allow for target refinement. As with the Main Sill, this work should be seen as a precursor to prepare for drill testing of these targets in future seasons.

At the UZE claims, geophysical surveys have delineated a strong magnetic signal trending northwest-southeast that corresponds with both mapped geology and a 4 km strike of anomalous soil geochemistry (Cu, Ni, Pt-Pd-Au; see **Figure 17**, page 42) at the UZE showing. As with the Outpost Sill target, this area appears to have all the ingredients necessary to host large scale Cu-Ni-PGE mineralization. The 2020 program proposal recommended testing this area of interest with both infill soils along the northern extent of the mag high and with bedrock-interface probe sampling. Due to the unavailability of the geoprobe, 2 test lines of MMI (mobile metal ion) soil geochemistry was carried out in 2020. RC and/or diamond drilling could follow on these targets in following seasons.

Group Ten Metals believes there is potential for the discovery of a Cu-Ni-PGE deposit analogous in size and economic potential to the Wellgreen deposit on the Ultra property. The prospective stratigraphy, structure, and geophysical signature all combine to provide several compelling targets that will be tested in 2020 and future years.



Figure 10: Copper assay values for 2017-2019 rocks collected at the Ultra Property

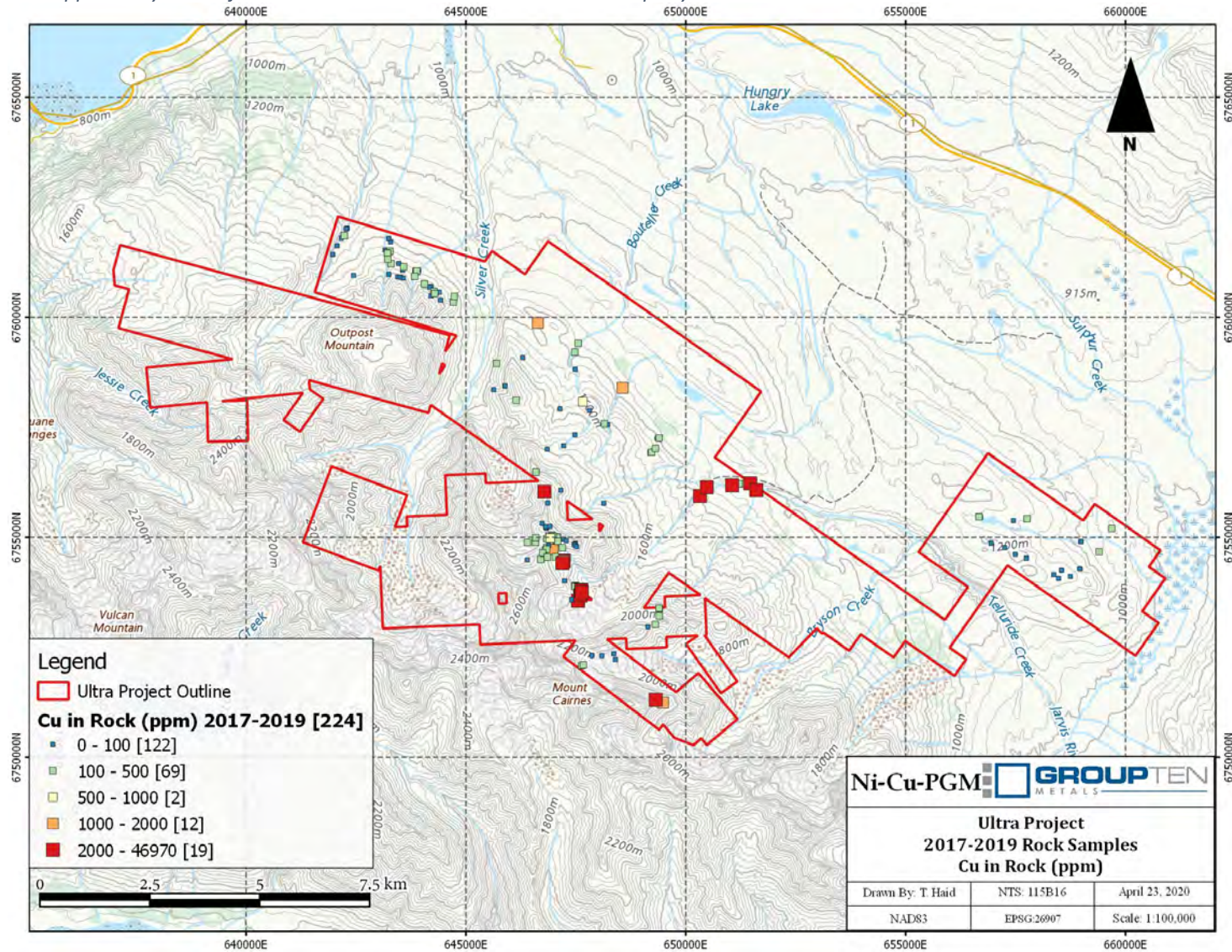




Figure 11: Nickel assay values for 2017-2019 rocks collected at the Ultra Property

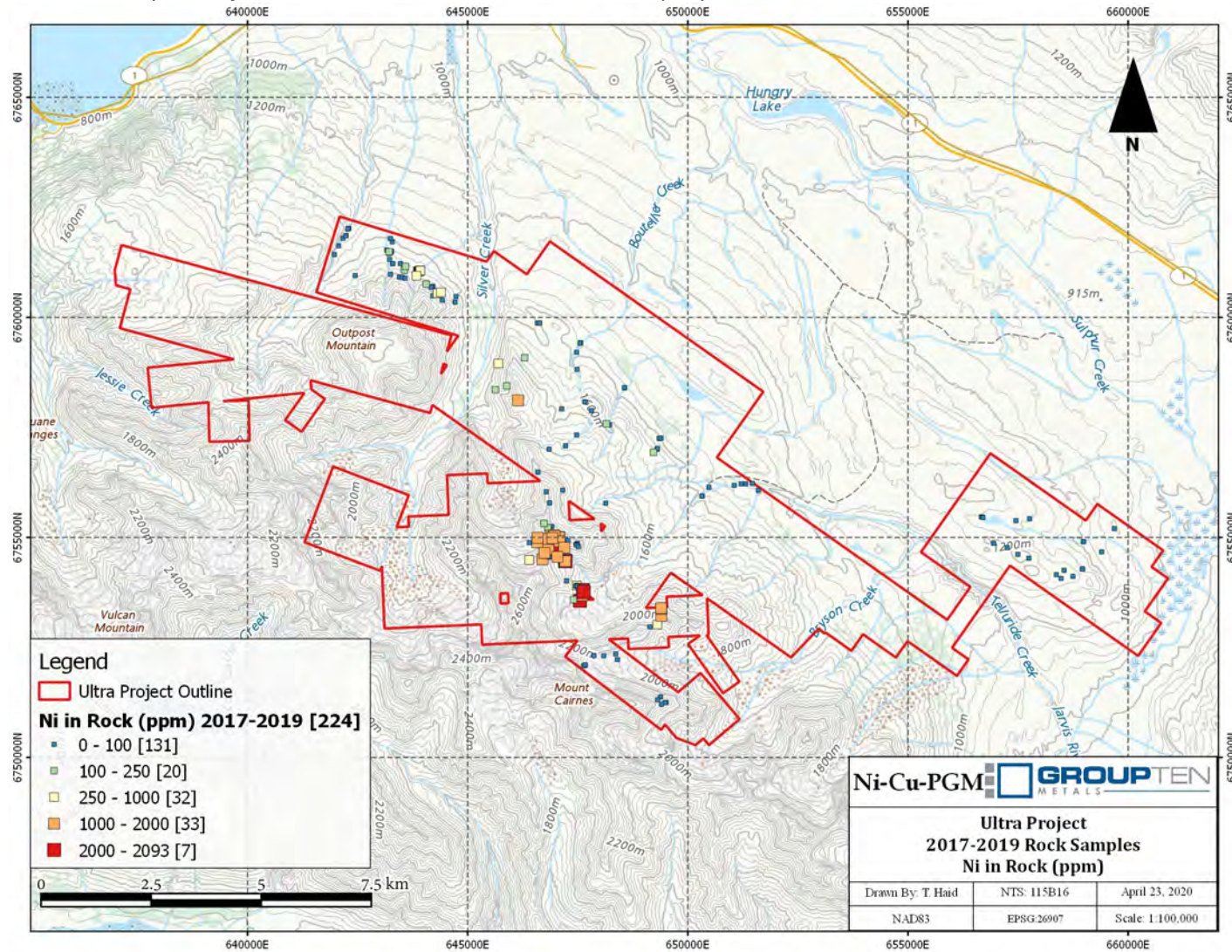




Figure 12: Combined gold, platinum, palladium assay values for 2017-2019 rocks collected at the Ultra Property

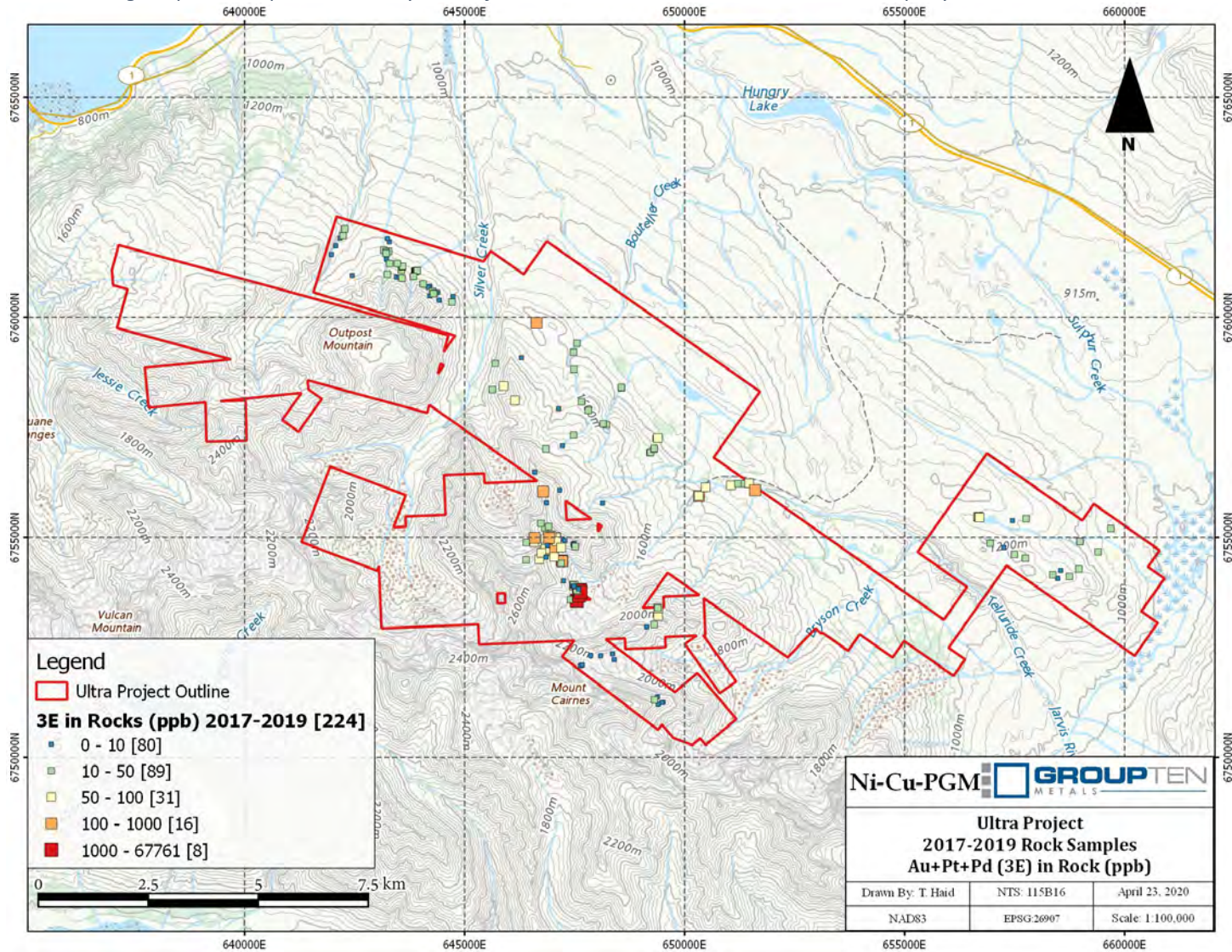




Figure 13: Copper assay values for 2017-2019 soils collected at the Ultra Property

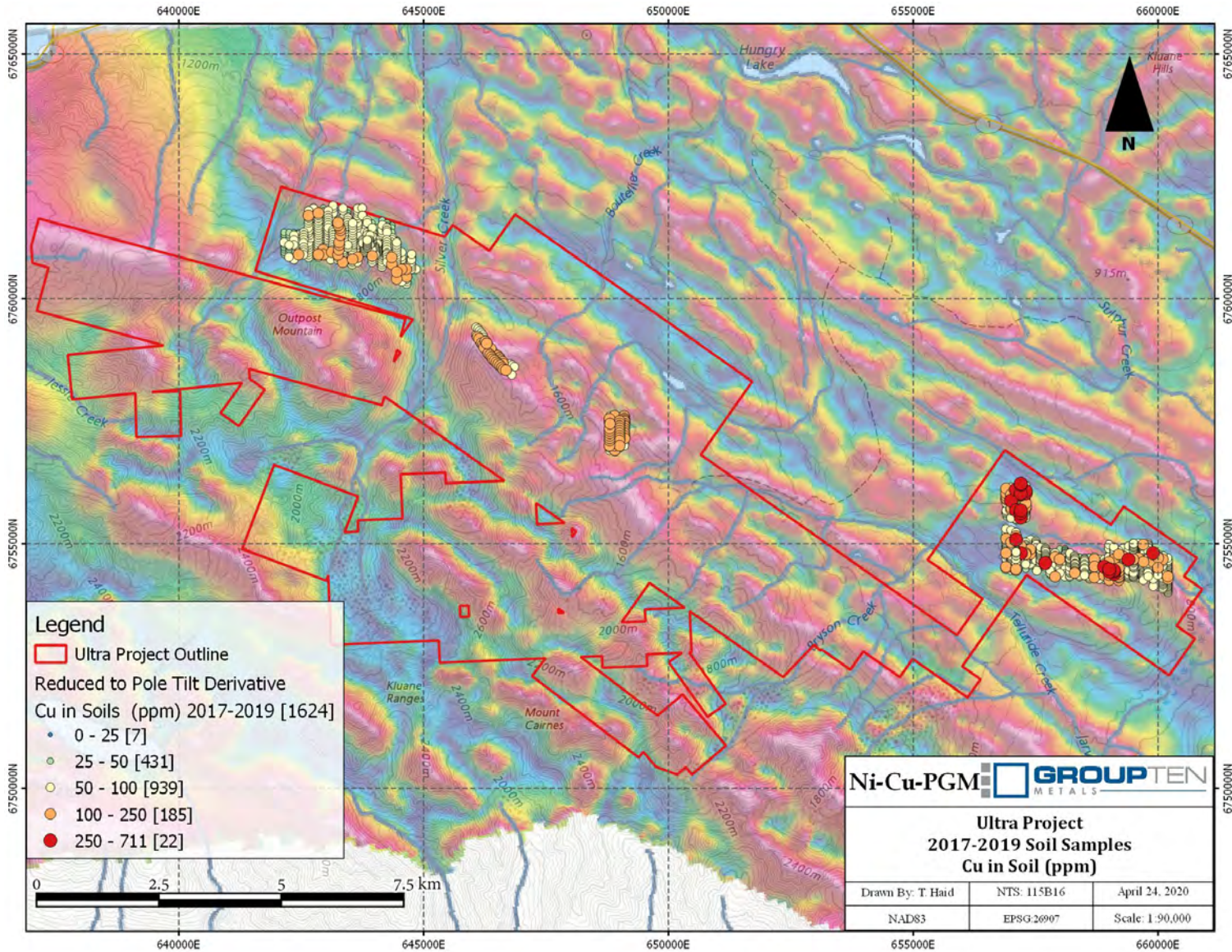




Figure 14: Nickel assay values for 2017-2019 soils collected at the Ultra Property

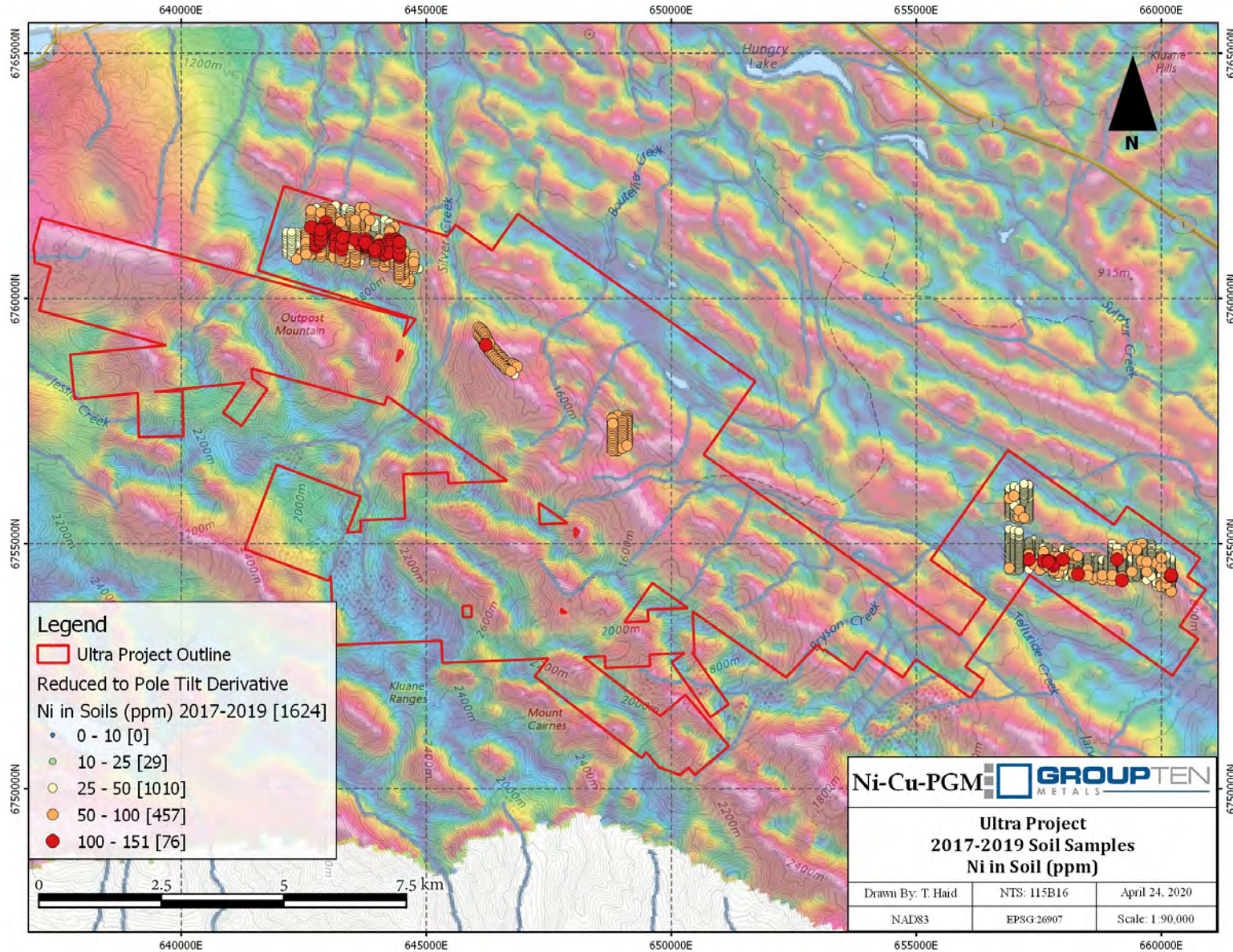




Figure 15: Combined gold, platinum, palladium assay values for 2017-2019 soils collected at the Ultra Property

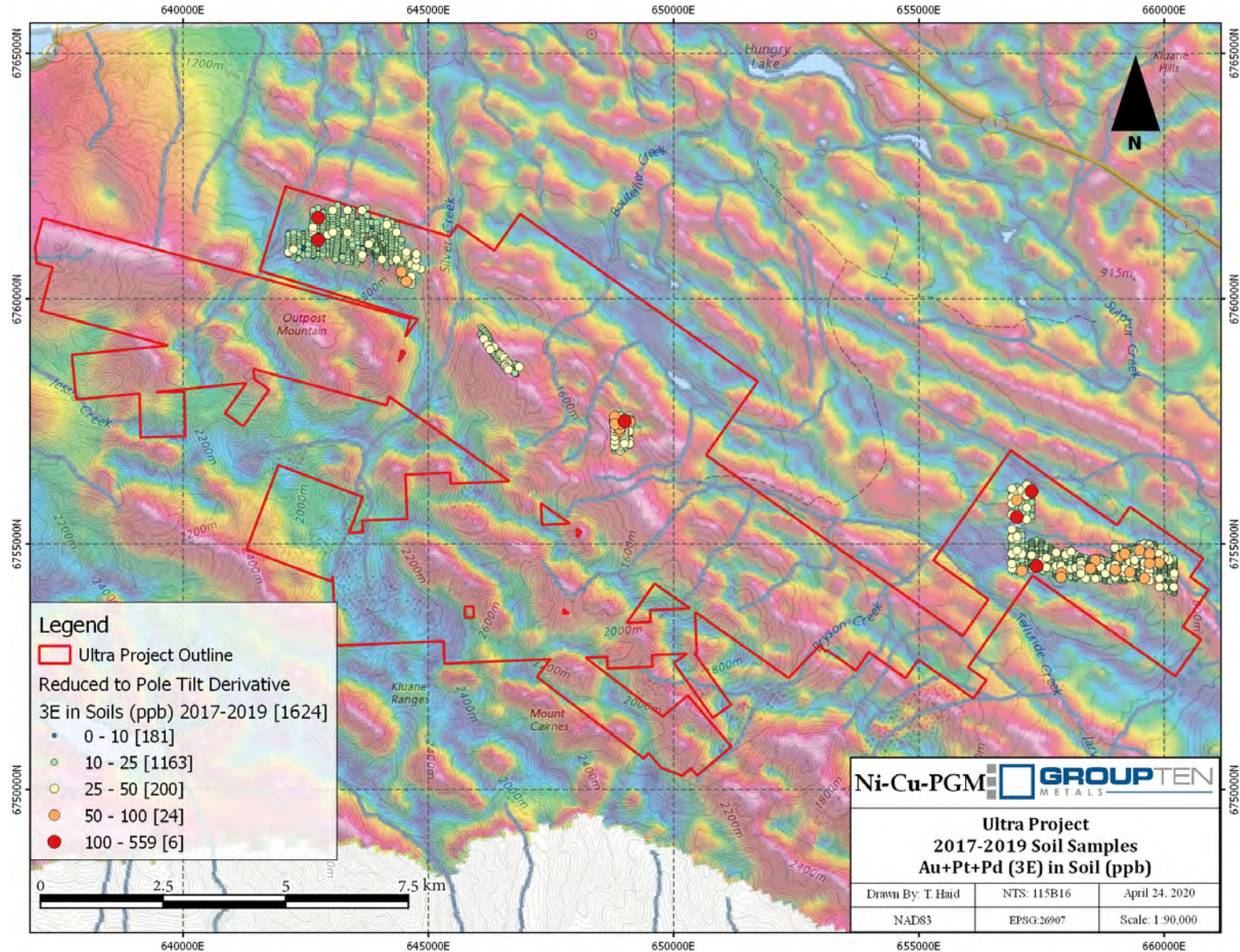




Figure 16.: Anomalous Ni soil assays and magnetic highs at the Outpost Showing. Values under 50 ppm removed for clarity.

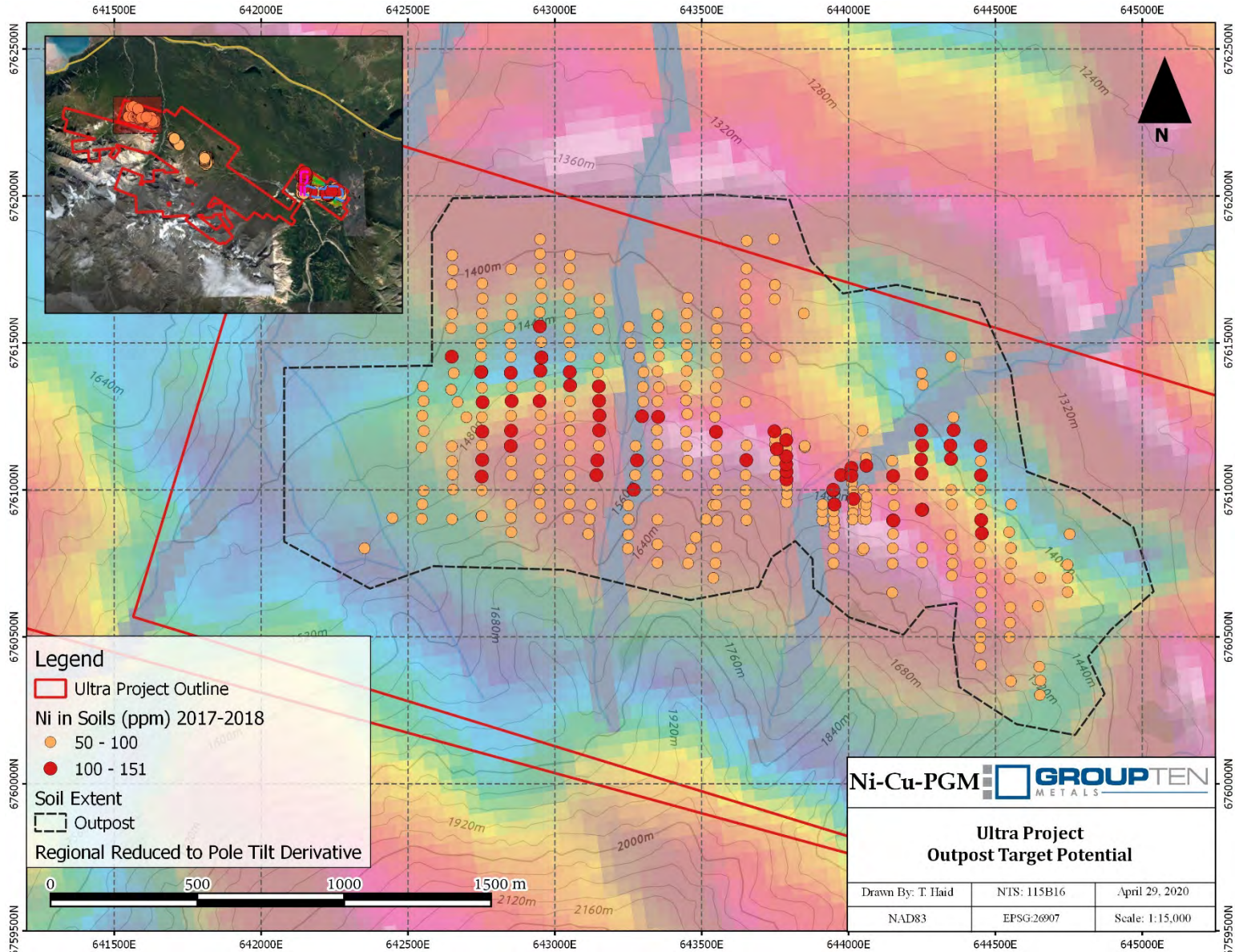
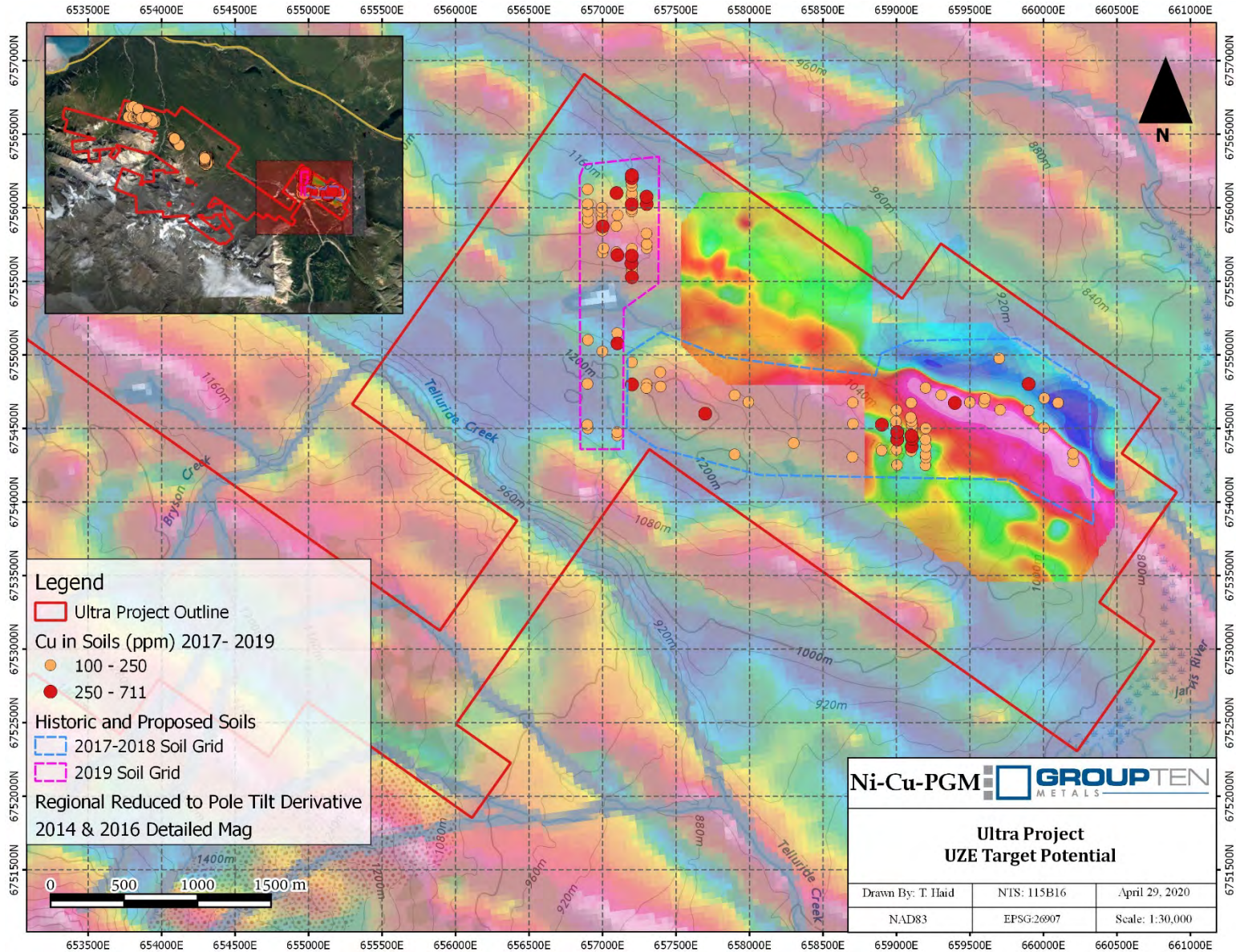




Figure 17: Anomalous Cu soils and magnetic highs at the UZE Showing. Values under 50 ppm removed for clarity.



## 5 2020 Work Program: Geological and Geochemical Surveys

A Longford Field Crew, joined by two TruePoint geologists conducted geological and geochemical exploration surveys on targeted areas of the Ultra claims from August 2 – 8, 2020. Field personnel included: project manager Ryan Versloot, geologists Graham Davidson, Linda Lewis (TruePoint), Povilas Grigutis (TruePoint) and junior geologist Aedan O'Brien. Field work was staged from Wanderer's Inn Backpacker's Hostel in Haines Junction and helicopter support was provided by Capital Helicopters based out of Haines Junction.

In summary, the exploration program included:

- Testing the effectiveness of Mobile Metal Ion (MMI) geochemistry for the presence of buried precious and base metal mineralization. 136 samples were collected in four separate areas including Outpost Sill, Boutellier West, Boutellier East and Uze.
- Collection of five heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
- Several prospecting traverses in the Frohberg-Telluride-Main Sill area.
- Detailed sampling and geological mapping at 1:2500 scale in the Outpost Sill area to extend and further refine previous mapping.
- 84 rock samples collected and assayed, including 10 for overlimit Cu, Ni and Pb.

**Figure 18** (page 44) depicts all the sample locations and area of detailed geological mapping in the Outpost Sill area.



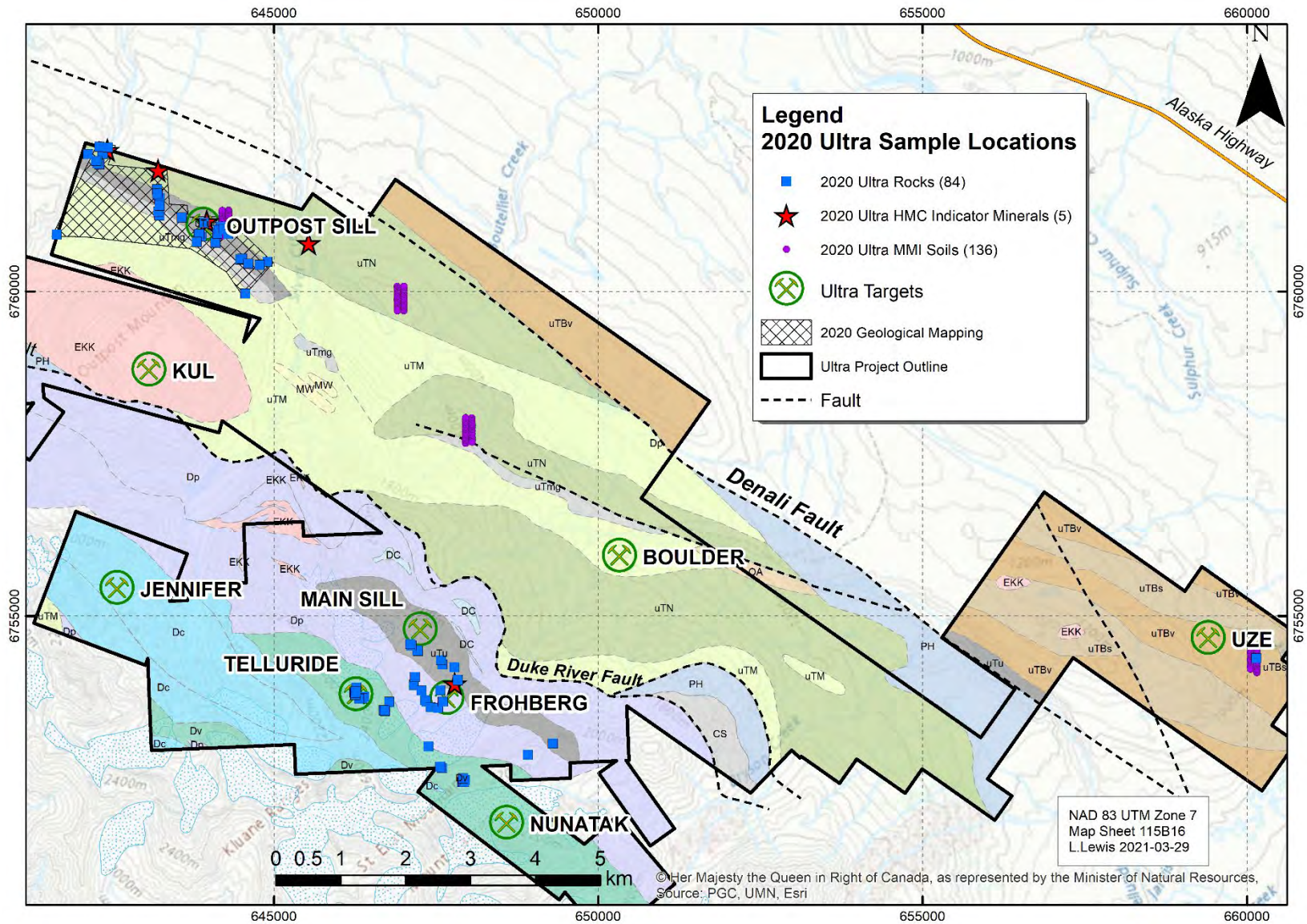


Figure 18: 2020 Sample and detail geological mapping location map.



## 5.1 Mobile Metal Ion (MMI) Soil Geochemistry

Mobile Metal Ion (MMI) soil sampling was carried out in four separate areas with the aim of determining the effectiveness of MMI geochemistry (in areas of known mineralization, where previous traditional soil sampling returned inconclusive results, and in till/fluvial transported soils). A total of 136 samples, including QA/QC samples were taken between August 3<sup>rd</sup> and 8<sup>th</sup> of 2020. The initial proposal was to complete bedrock-interface probing, but the instrument was unavailable at the time of the program. **Figure 19** (page 46) shows the areas of MMI soil sample collection.

The SGS Minerals website (<https://www.sgs.ca/en/mining/exploration-services/geochemistry/mobile-metal-ions-mmi>) summarizes the advantages of MMI geochemistry. SGS is the sole provider of MMI technology and geochemical exploration. MMI measures metal ions that are released from mineralized material that travel upward to unconsolidated surface material such as soil, till, sand, etc. With careful soil sampling techniques, specialized chemical ligands and ultra sensitive instrumentation, SGS is able to measure the ions. Following interpretation, MMI data can indicate anomalous areas.

Benefits to using MMI technology for soil geochemistry include:

- few false anomalies,
- focused, sharp anomalies,
- repeatability,
- definition of metal zones and association,
- detection of deeply buried mineralization,
- low background values i.e., low noise, and
- low limits of detection.

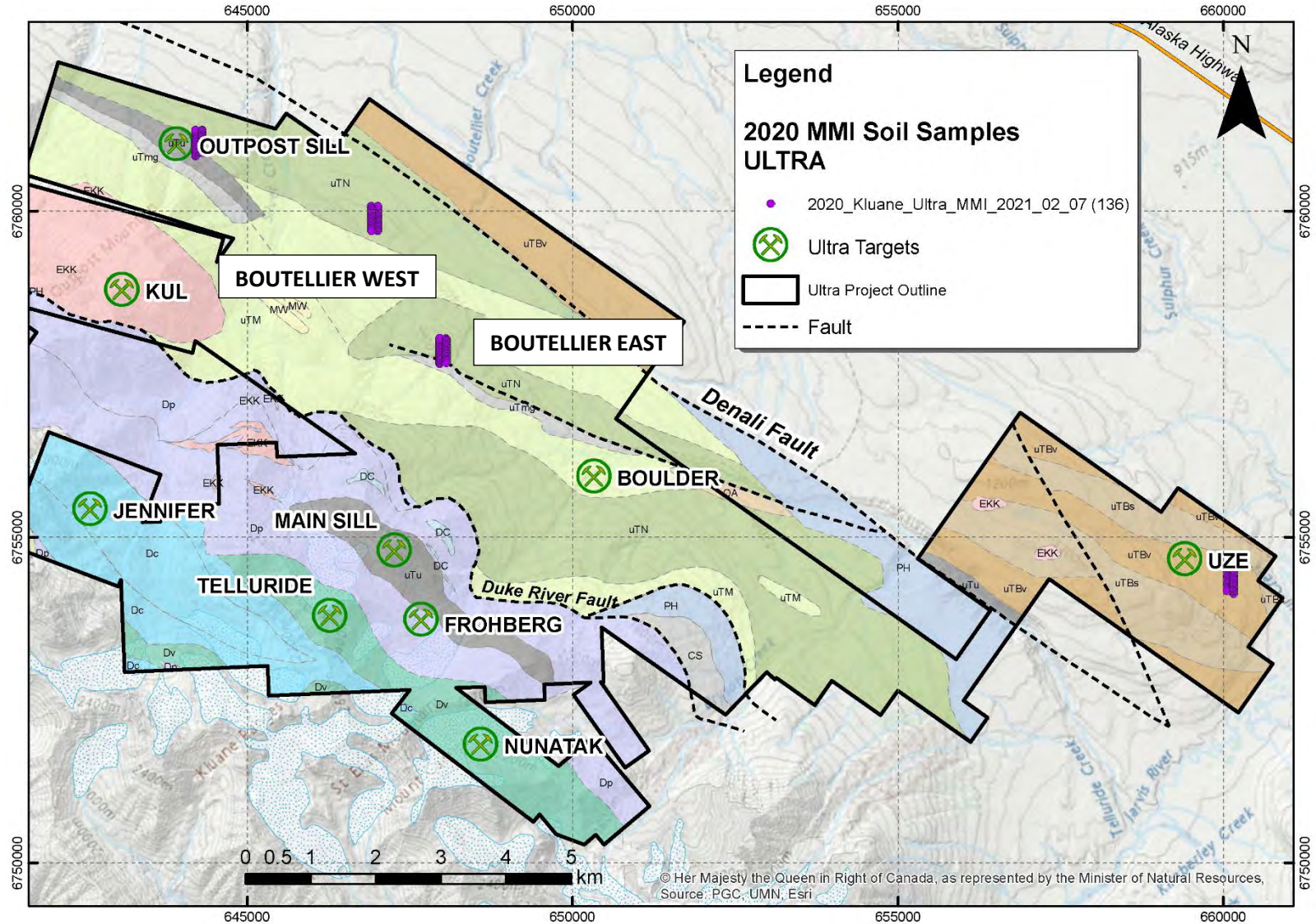


Figure 19: Location map for 2020 MMI soil samples, shown in purple. The areas sampled from west to east include Outpost Sill (34 samples), Boutellier West (34 samples), Boutellier East (33 samples) and Uze (35 samples).

### 5.1.1 MMI Soil Sampling Procedure and Analysis

Soil sampling at 25 m spacing was carried out following procedures recommended by SGS Minerals (SGS Minerals, 2017 in Appendix IV) and are summarized as follows. A clean, paint-free shovel was used to dig a pit to expose up to 30 cm of inorganic material (30 cm below the organic-soil interface). Consistent application for the sample target depth is the most significant component of survey as this depth provides the highest contrast and the most representative geochemical response. A clean plastic scoop was then used to collect the sample as a continuous composite sample below the organic-soil interface and placed into a clean labelled plastic Ziploc bag. SGS Minerals recommends a sample size of 200-300 grams. Samples collected in 2020 ranged from 330 – 1570 grams and averaged 1000 grams. Location, color, grain size, moisture content and the nature of the organic and inorganic material were recorded (Appendix V). Samples were sent to SGS Minerals Laboratory in Burnaby, BC for MMI-M analysis. The MMI-M is a pH-neutral extraction involving leaching of a representative subsample, followed by analytical finish for 53 elements by inductively coupled plasma-mass spectrometry (ICP-MS).

### 5.1.2 Data Treatment and Presentation

MMI results were processed according to suggested method of determining response ratios for select elements to compare, due to the partial extraction techniques used in analysis (SGS Minerals, 2005). First, any values less than the detection limit need to be included and are replaced with a value  $\frac{1}{2}$  of the lower detection limit. Next, the arithmetic mean of the lowest 25% is calculated to obtain a background value for said element. After obtaining background value, the results for a given sample are divided by the background value to get the response ratio. The larger number of samples used to obtain this background value, the more robust an estimate it would be. Due to the relatively small sample set here, future MMI analyses will assist in determining better range and suitability of background values across the Ultra property. In general, a sample with a response ratio of 2 or less, is considered low and is a background sample. Samples with response ratios greater than 5 could be considered significant. SGS Minerals (2005) notes that due to the greater contrast inherent in the MMI technique, response ratios in general need to be greater than 2-5 times background before being considered anomalous.

For the purpose of data processing, samples from the Uze prospect were treated separately from those of Boutellier East, Boutellier West and Outpost Sill. Reasoning for this is that the Uze prospect lies on the other side of the Denali fault and subsurface material and could vary from that on South side. This yields a relatively small number of samples used to calculate background values; however, this will be suitable for this preliminary MMI survey.

### 5.1.2 MMI Soil Sampling Results and Interpretation

Charts and response ratio tables for following discussion can be viewed in Appendix VI. Further examination of MMI results over areas of known mineralization is recommended in order to determine significance of response ratios, and more mobile elements that could serve in the future as successful pathfinder elements.

**Outpost Sill:** a total of 34 MMI samples were taken at Outpost Sill including 2 duplicates. **Figures 20-21** (page 48) display stacked plots of the response ratios for selected elements in addition to past soil sampling results. Two test lines infilling past traditional soil sampling were situated to cover the approximate northern contact of the Outpost Sill, coincident with the drop off in the magnetic response.



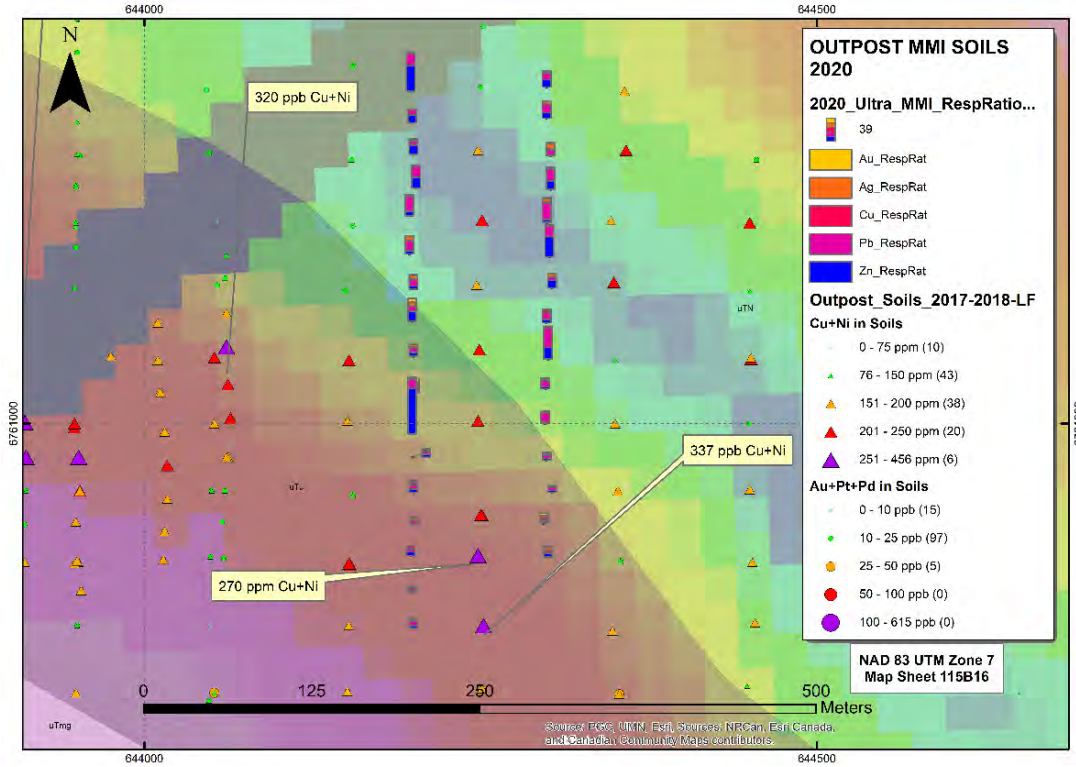


Figure 20: Outpost Sill area MMI stacked RR for Au, Ag, Cu, Pb and Zn, plus 2017-2018 soils.

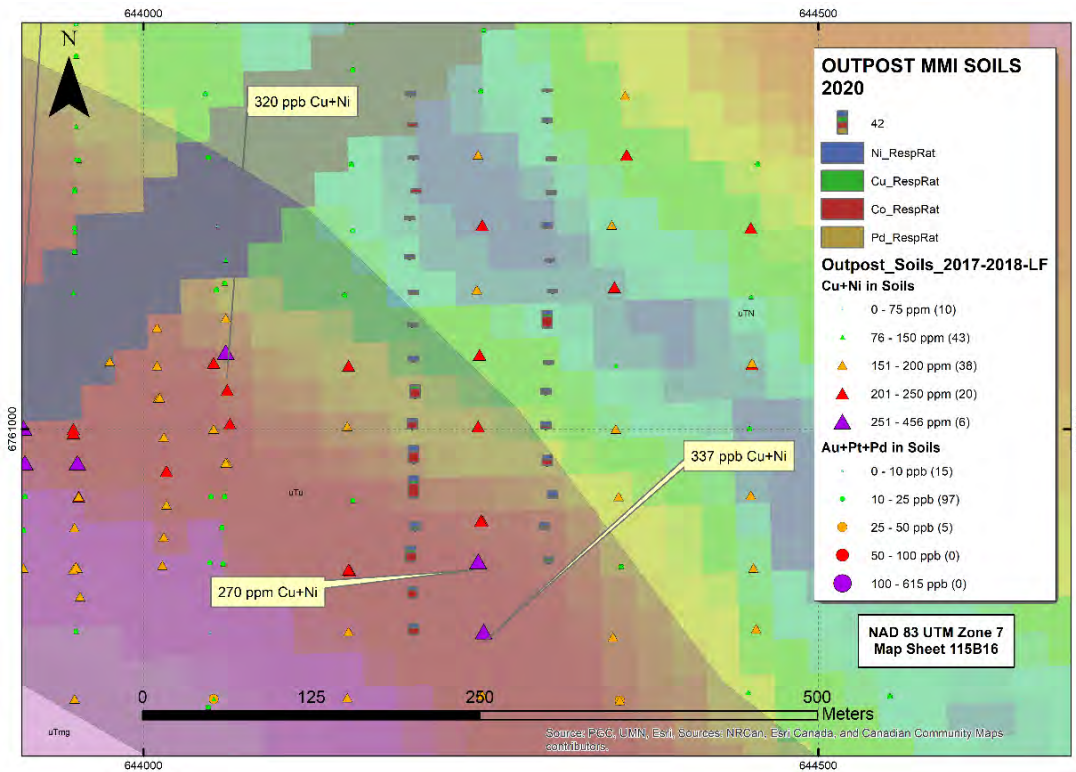


Figure 21: Outpost Sill area MMI stacked RR for Ni, Cu, Co and Pd, plus 2017-2018 soils.



MMI samples from the Outpost Sill are relatively enriched in Pb and Zn compared to other areas. A moderate combined Pb+Zn contrast response can be seen from samples 2064264-2064279 with Pb response ratios up to 34 and Zn response ratios up to 78. The elevated base metal response ratios roughly correspond to the Late Triassic Nikolai volcanics (uTN). A low to moderate contrast response for Co is observed from samples 2064251-2064258, with response ratios as high as 26. Surprisingly, Cu, Ni and Pd response ratios over the ultramafic sill (uTu) are at background to low levels, but are coincident with the relatively low values returned from the 2017-2018 traditional soil sampling program.

**Boutellier West:** A total of 33 MMI samples were taken. **Figures 22-24** (pages 50-52) display locations and vertical bar charts of the response ratios for selected elements in addition to past soil sampling results. The Boutellier West samples are distinguished by multiple moderate to high contrast cobalt responses (16 samples between 11-84RR). Note that a sample with a response ratio of 2 or less is considered low and is a background sample. Samples with response ratios greater than 5 could be considered significant, but in general, response ratios need to be greater than 2-5 times background before being deemed “anomalous” (SGS Minerals, 2005). The multi-sample Co anomaly occurs on the north half of both sample lines and is associated with elevated response ratios for Cu and Th. Samples from Boutellier West are relatively enriched in Co, Ni and Th compared to Boutellier East and Outpost Sill. The strong Co and moderate-strong Th anomaly occurs from 2064413-2064426, overlapping a low Ni and moderate Cu + Zn anomaly from 417-421. Of note are two elevated Mo response ratios of 12 and 20 coincident with elevated Co, Cu, Th, Zn and weakly elevated Pb and Sb. Inferred geology underlying the area is Late Triassic Nikolai Formation (uTN) which includes mainly amygdaloidal basalts and flows, as well as volcanic breccia, pillow lava and basal conglomerate. The geophysical signature underlying the area is an elongate aeromagnetic high, roughly parallel to stratigraphy. The Denali Fault is mapped approximately 650 metres north of the MMI soils.

**Boutellier East:** A total of 34 samples along 2 transects were taken including 1 duplicate. **Figures 22-23, 25** (pages 50-51, 53) display locations and vertical bar charts of the response ratios for selected elements in addition to 2018 traditional soil sampling results. Samples from Boutellier East are relatively enriched in Au and Cu compared to Outpost Sill and Boutellier West. Seven gold response ratios range between 10-84 and are generally coincident with moderate to strong copper response ratios (samples 2064531-2064359). The significant samples lie to the north of a northwest trending fault that roughly traces the assumed contact between the uTmg – Maple Creek gabbro to the south and the uTn Nikolai volcanics to the north. The gold-copper response ratios increase on the north side of the airborne magnetic signature. Of interest is the elevated gold (plus minor Pd) in the soils of 2018 approximately one kilometer east, where the highest gold returned was **554 ppb**. Gold plus minor platinum is also anomalous in samples surrounding the high 554 ppb. There is a lone anomalous Pd response ratio of 14 (sample 2064296) which should be considered significant as it is the highest Pd response ratio of all three areas. Literature notes that Pd (+Bi, Cr, Sn and Ta) possess very low mobility in the surficial/secondary environment and any MMI-M analysis for Pd that is > lower detection limit should be reviewed with care for its overall significance in the survey (Fedikow, 2010).

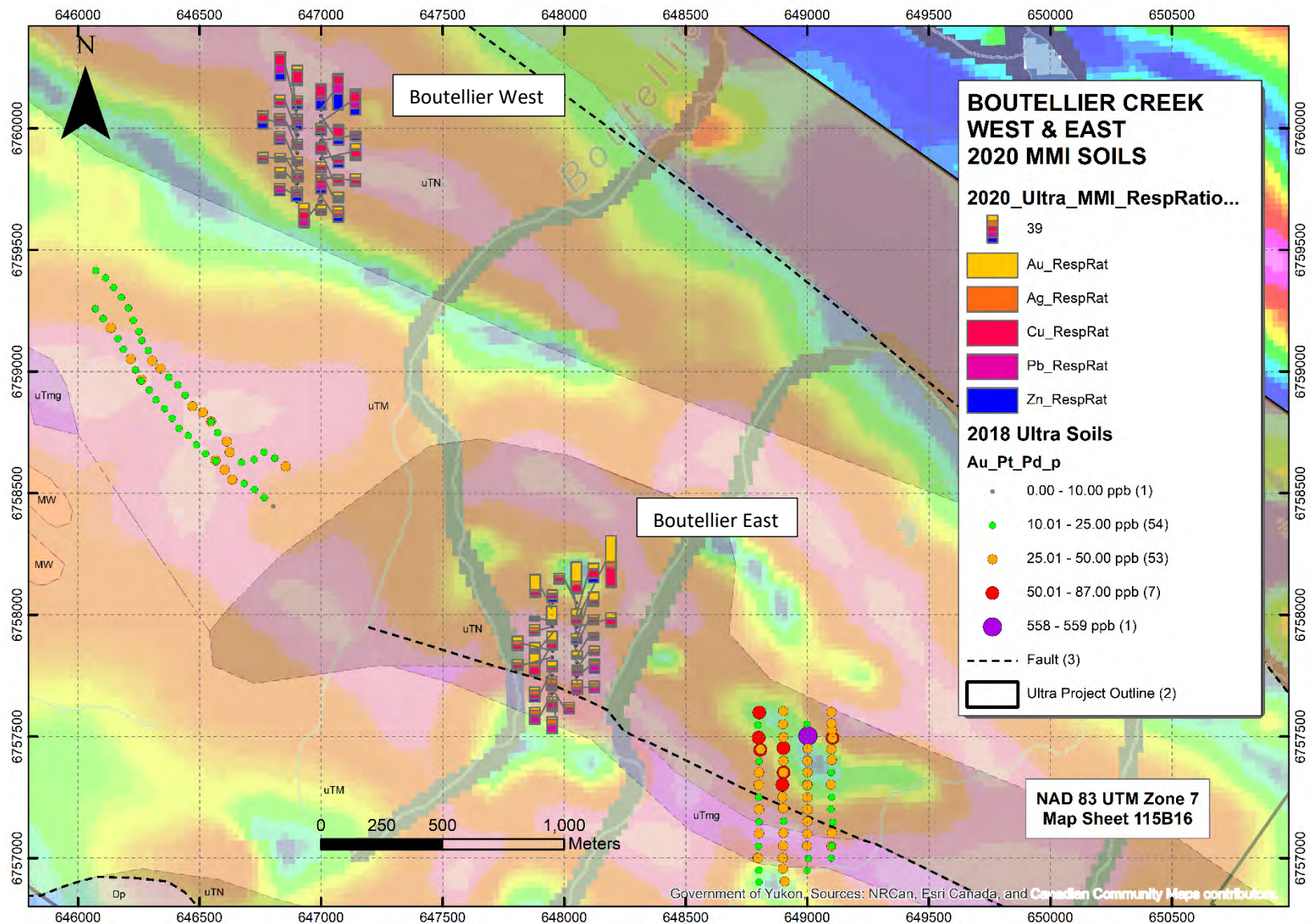


Figure 22: Boutellier East and West areas MMI stacked soil response ratios for Au, Ag, Cu, Pb and Zn, plus 2018 soil results.



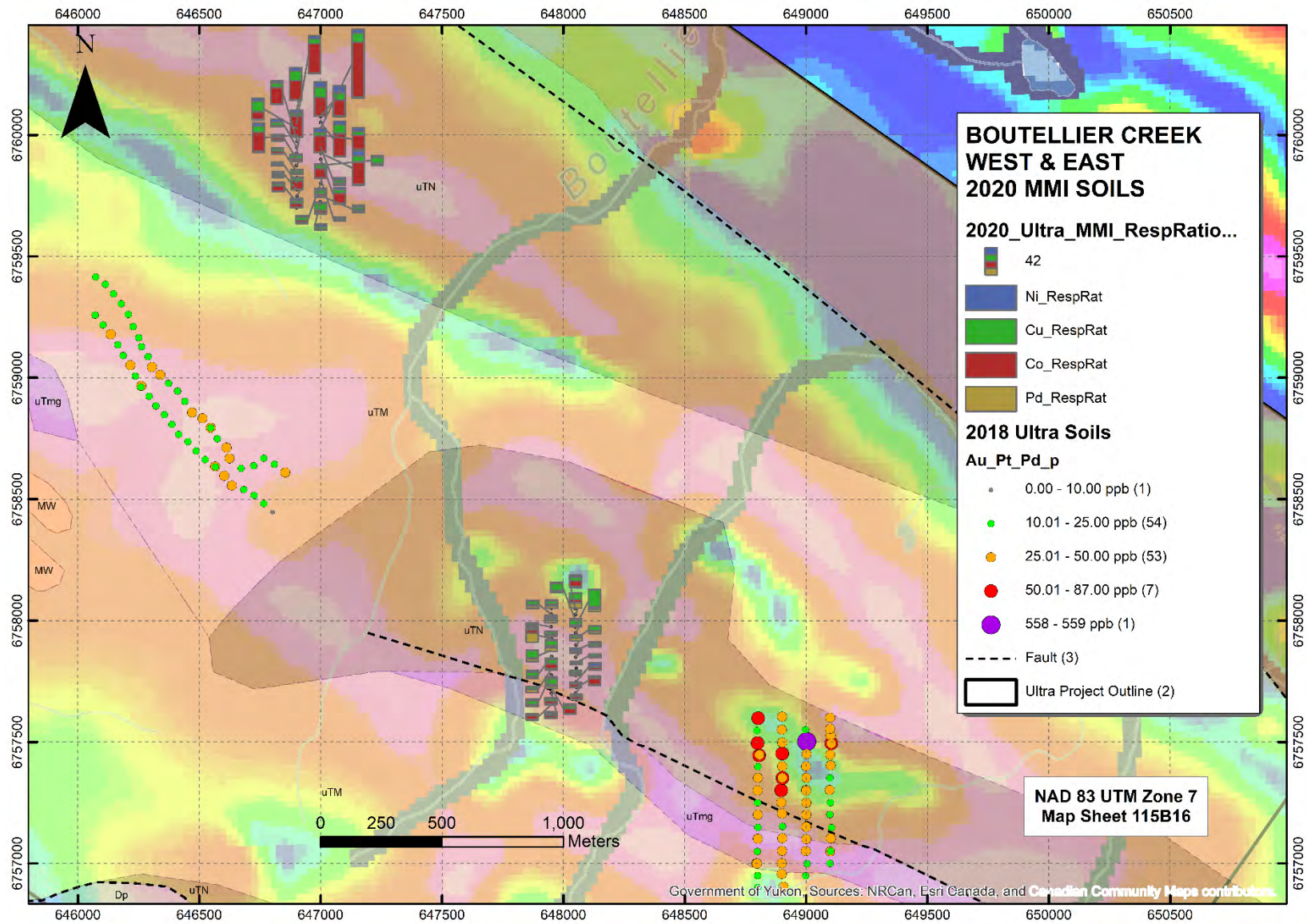


Figure 23: Boutellier East and West areas MMI stacked soil response ratios for Ni, Cu, Co and Pd, plus 2018 soil results.

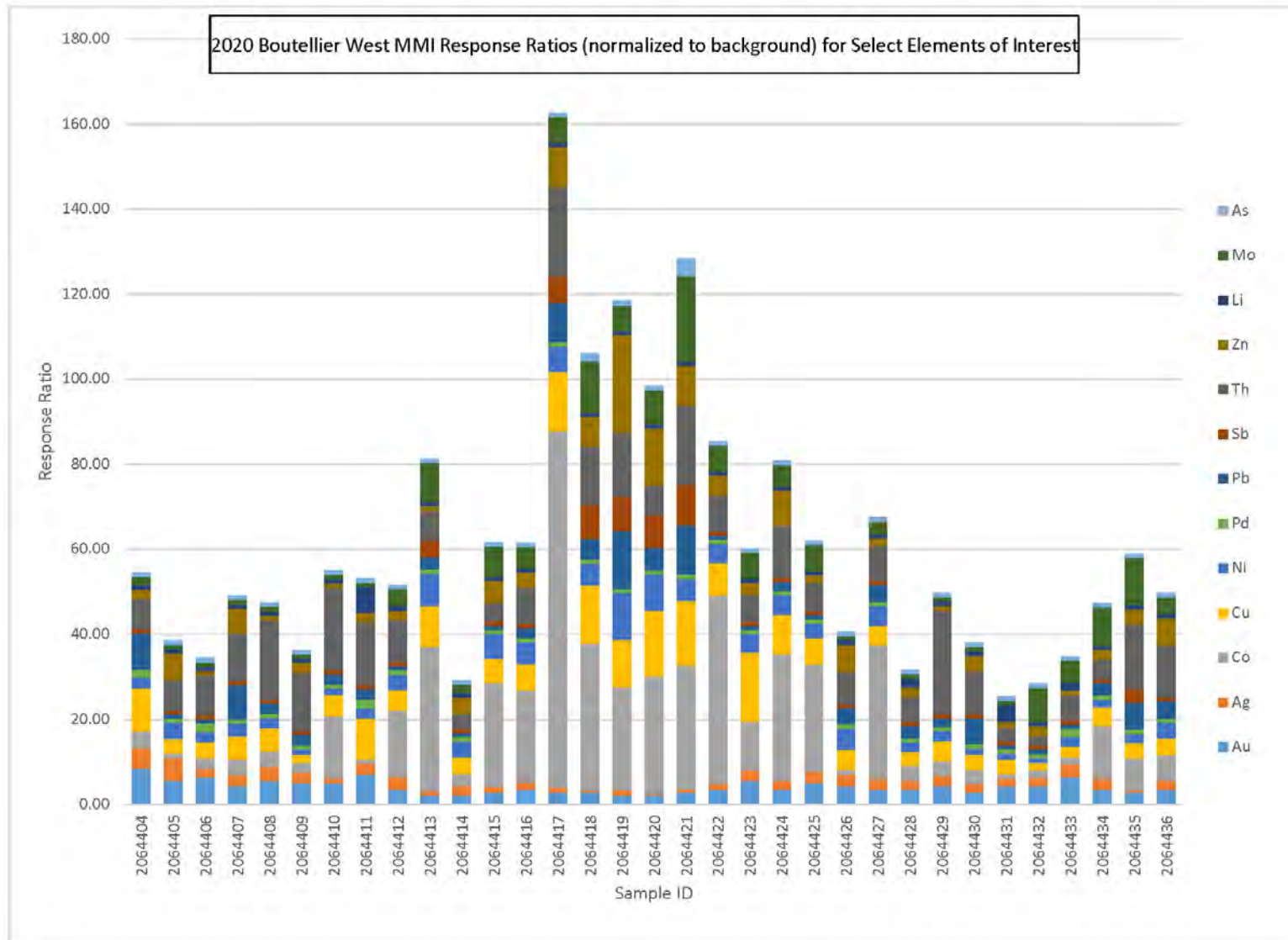


Figure 24: Boutellier West MMI response ratios for selected elements (normalized to background).



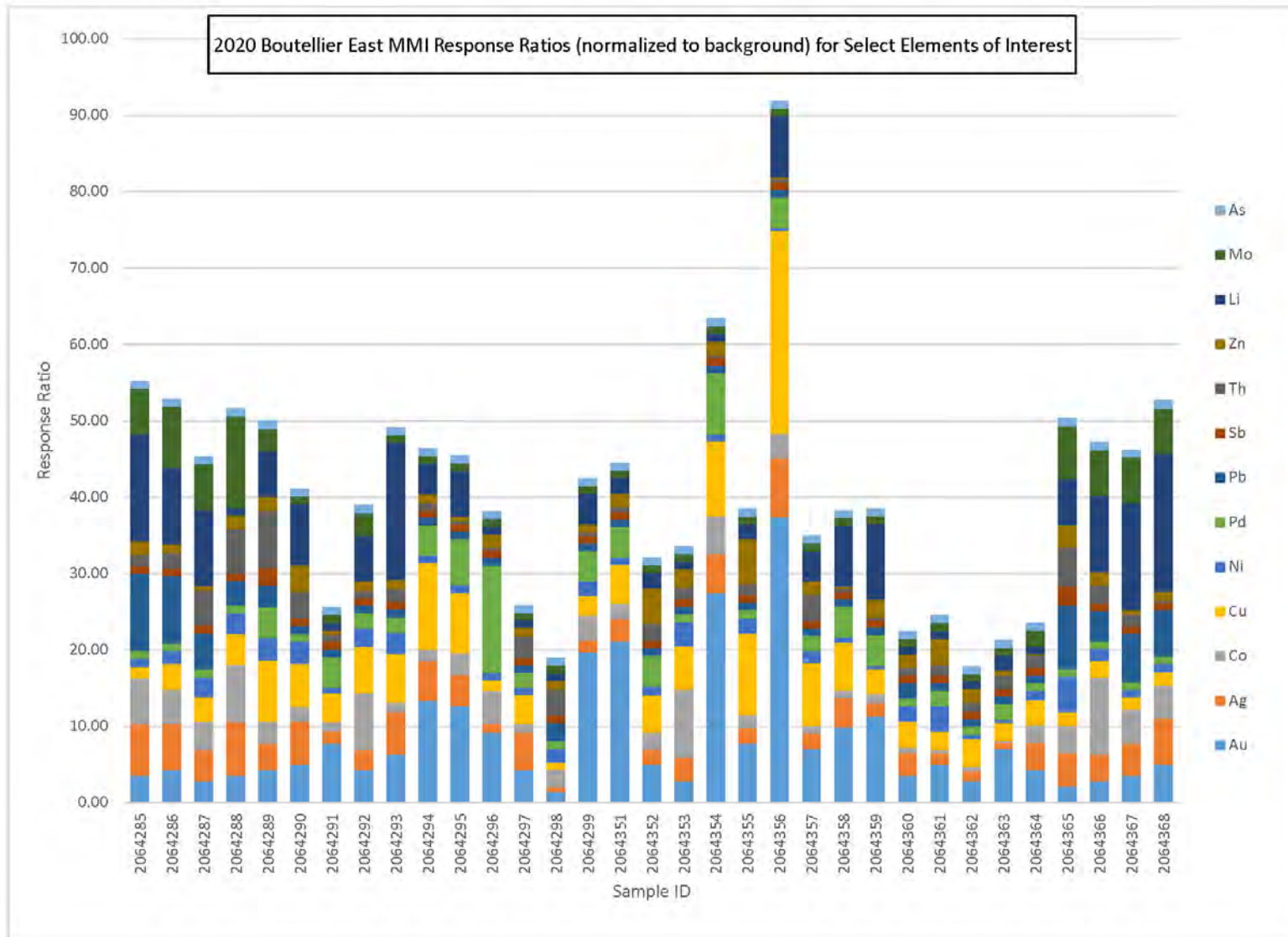


Figure 25: Boutellier East MMI response ratios for selected elements (normalized to background).

**Uze:** A total of 35 samples including 2 duplicates were taken at Uze. **Figures 26-28** (pages 55-56) display locations with vertical bar charts of the response ratios for selected elements in addition to 2018 traditional soil sampling results. The two sample lines were located at the east end of the 2018 soil grid, infilling where conventional sampling returned low values. The objective was to determine if MMI geochemistry would give any indication of metal enrichment over the northwest-trending linear magnetic anomaly outlined by aeromagnetic, ground magnetic and VLF-EM surveys. The Uze prospect lies to the north of the Denali Fault and is underlain by the Late Triassic Bear Creek Assemblage phyllites and quartz sericite schist (uTBs). Discontinuous dykes and lenses of fine-grained aplite and coarser pegmatite intrude the metamorphic rocks and a larger plug of pale-yellow quartz monzonite (EKK) outcrops and is outlined by the 2014 & 2016 magnetometer surveys. Several lenses of skarn with bands of magnetite, epidote and actinolite were located in outcrop at the contacts with the EKK intrusive rocks however no anomalous mineral values were obtained (Davidson, 2019). MMI soil sampling analysis in 2020 returned some low contrast single point anomalies, except for Mo which had 11 samples with response ratios between 10-26. The response ratios for Mo were not plotted on the map, but can be seen as the dark green bar of the stacked bar charts, **Figure 28** (page 56). The anomalous samples occur on the south half of the west line and along most of the east line. Besides molybdenum, no other broad trends or enrichments could be identified.

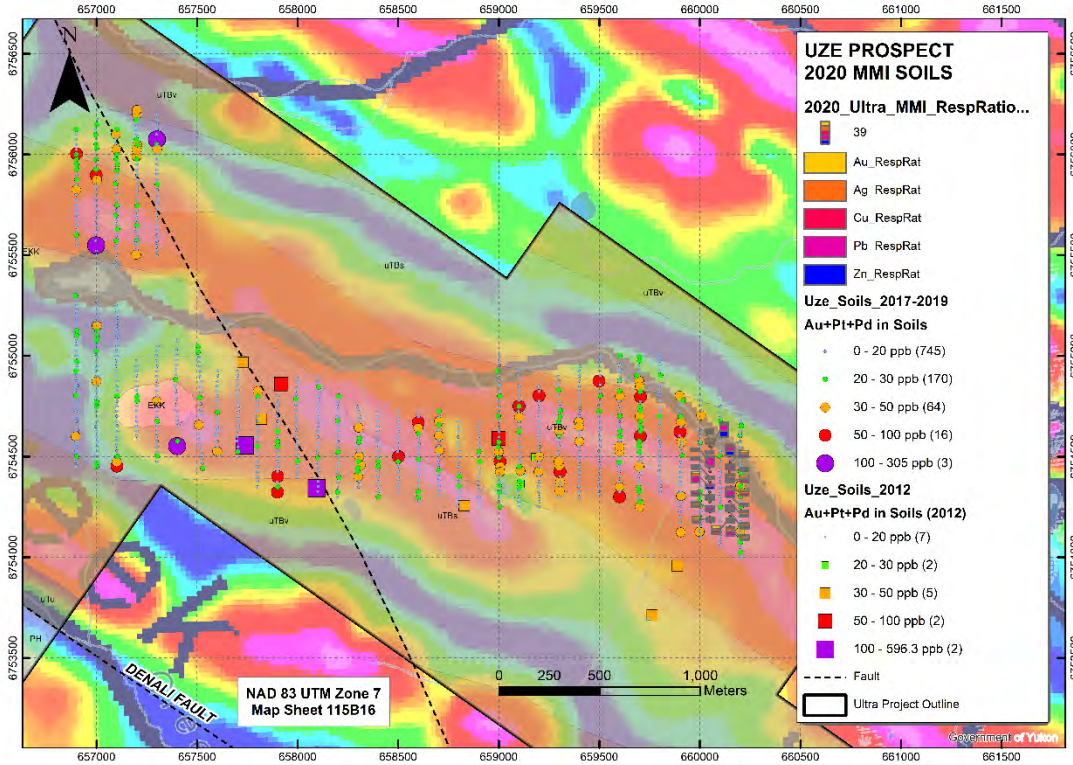


Figure 26: Uze area MMI stacked soil response ratios for Au, Ag, Cu, Pb and Zn plus previous years soil results.

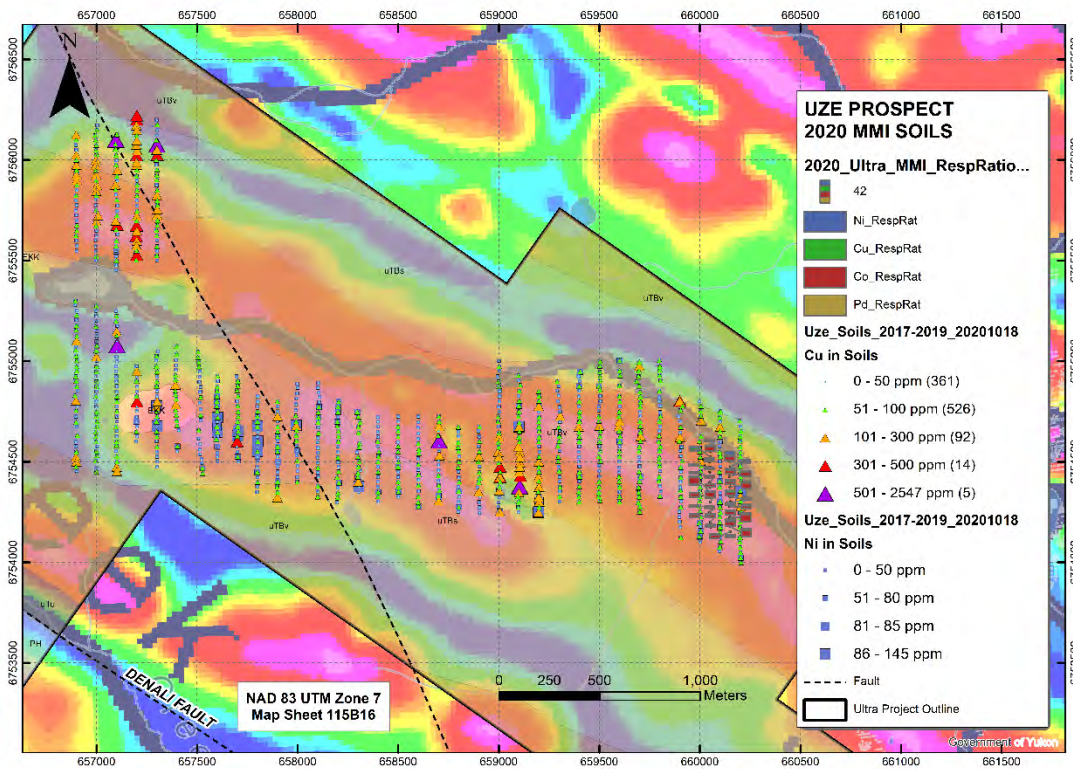


Figure 27: Uze area MMI stacked soil response ratios for Ni, Cu, Co, and Pd, plus previous years soil results.



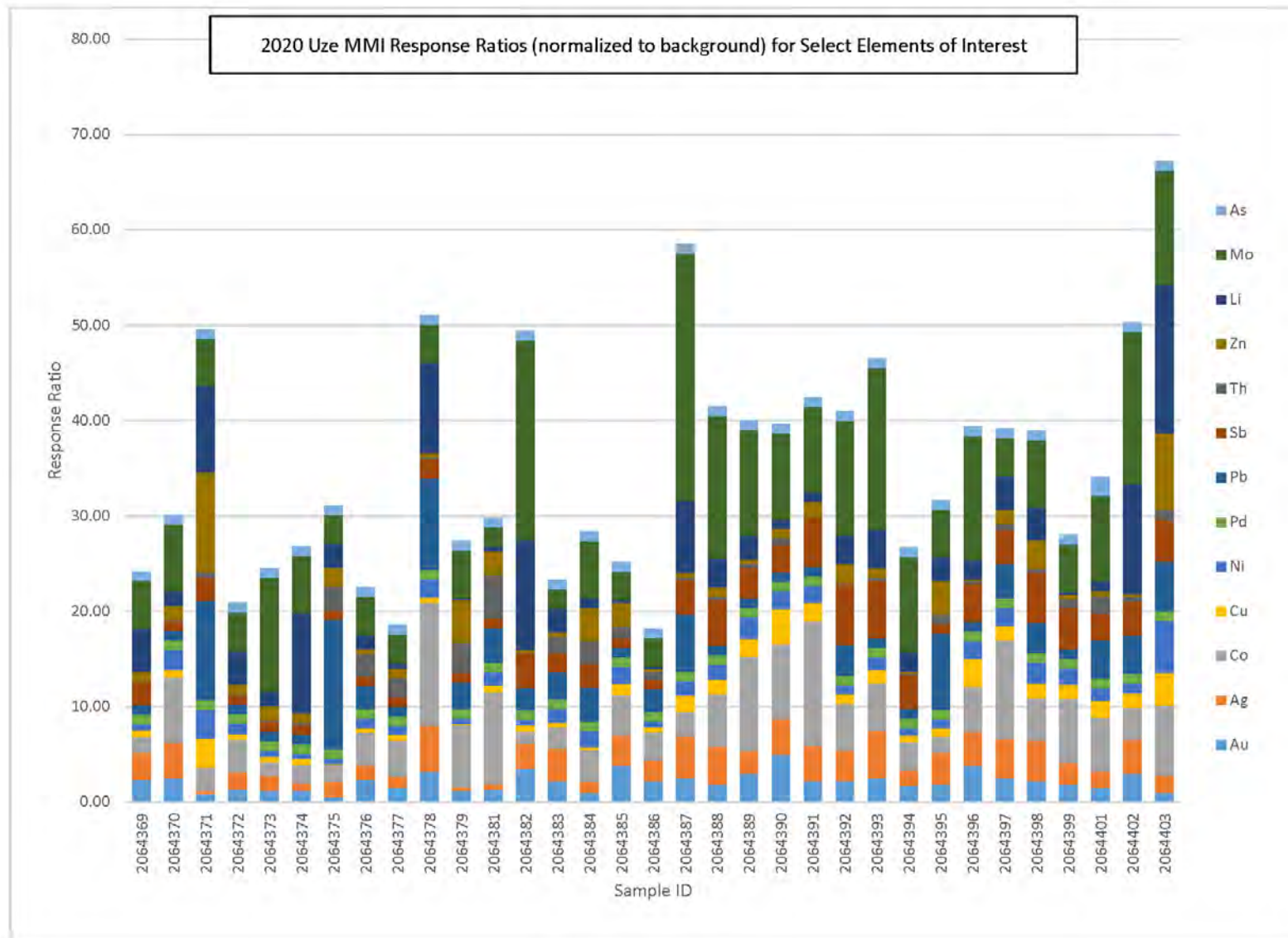


Figure 28: Uze area MMI response ratios for selected elements (normalized to background).

**In summary**, the MMI soil program was successful in indicating multi-sample precious and base metal anomalies, with the best apparent success within the small test grids over Boutellier East and West.

Inferred geology underlying Boutellier West area is Late Triassic Nikolai Formation (uTN) which includes mainly amygdaloidal basalts and flows, as well as volcanic breccia, pillow lava. Multiple moderate to high contrast cobalt responses (16 samples between 11-84RR) are concentrated on the north half of both sample lines and associated with elevated response ratios for Cu and Th. Surprisingly, samples from Boutellier West are relatively enriched in Co, Ni and Th compared to the Outpost Sill area. Of note are two elevated Mo response ratios of 12 and 20 coincident with elevated Co, Cu, Th, Zn and weakly elevated Pb and Sb. The geophysical signature underlying the area is an elongate aeromagnetic high, roughly parallel to stratigraphy. The Denali Fault is mapped approximately 650 metres north of the MMI soils.

Samples from Boutellier East are relatively enriched in Au and Cu compared to Outpost Sill and Boutellier West. Seven gold response ratios range between 10-84 and are generally coincident with moderate to strong copper response ratios and are situated north of a northwest trending fault at the contact between the uTmg – Maple Creek gabbro to the south and the uTn Nikolai volcanics to the north. The gold-copper response ratios increase on the north side of the airborne magnetic signature. Of interest is the coincidence of elevated gold (plus minor Pd) in the soils of 2018 approximately one kilometer east, where the highest gold returned from conventional soil sampling was **554 ppb**. Gold plus minor platinum was also anomalous in samples surrounding the high 554 ppb. From 2020 sampling, there is a lone anomalous Pd response ratio of 14 (sample 2064296) which should be considered **significant** as it is the highest Pd response ratio of all three areas. Literature notes that Pd (+Bi, Cr, Sn and Ta) possess very low mobility in the surficial/secondary environment and any MMI-M analysis for Pd that is > lower detection limit should be reviewed with care for its overall significance in the survey (Fedikow, 2010). Traditional soils from 2018 seemed effective in indicating gold enrichment as well as a weak platinum response. MMI in 2020 displayed elevated responses from gold and palladium, but not platinum, so it is difficult to say whether one method is more effective than the other in this location.

As the literature points out, the MMI process does not indicate the grade of mineralization response for the production of an MMI anomaly, nor does it indicate depth of the source, but in areas with extensive cover, patterns defined by partial extraction methods such as MMI can accurately reflect both ionic signals from underlying bedrock and hydromorphic dispersion along faults and seepages caused by groundwater movement (Heberlein, 2010).

It is recommended that a more comprehensive analysis of the 2020 data be carried out:

- calculate response ratios for more of the 53 elements that have been analyzed for, including REE's (chromite was missed in the first pass calculations of response ratios);
- consider calculating a Spearman-Rank Correlation Coefficient Matrix for the dataset to help determine significant element associations. The correlations could help to define better metal associations that could be used in subsequent plots to define anomalies or anomalous trends (Fedikow, 2010).

## 5.2 Heavy Mineral Concentrate – Indicator Mineral Sampling

Heavy mineral concentrate sampling was not planned in the original Ultra target evaluation proposal, but was proposed in the Focussed Regional Program on the Kluane Mafic-Ultramafic Belt (Davidson, G. and Versloot, R., 2020). Since the geoprobe was not available for the current program, the collection of bulk stream sediment samples for recovery of heavy minerals was undertaken from five drainages below mafic-ultramafic sills on the Ultra property with the goal of identifying indicator minerals indicative of magmatic Ni-Cu-PGE mineralization as well as possible indications of Cu-Au mineralization. Samples were sent to Overburden Drilling Management of Ottawa, Ontario for processing and analysis.

The application of indicator mineral methods to mineral exploration has developed significantly over the past several decades. They are used around the world to explore for a broad spectrum of commodities. Heavy mineral suites now exist for detecting a variety of ore deposit types including diamond, gold, Ni-Cu-PGE, porphyry Cu, massive sulphide, uranium, tungsten and are summarized in **Table 5** (page 59), (McClenaghan and Paulen, 2018).

Davidson and Versloot (2020) note that no platinum group element indicator mineral studies have been carried out in the Yukon although they are generally a well understood exploration tool for Ni-Cu-PGE's, thanks to the work of Overburden Drilling Management (ODM) and the GSC. Fedortchuk (2010) analyzed 5 Pt-Fe grains from a placer operation in Burwash Creek (approximately 75 km northwest of Ultra, along the known Kluane ultramafic-mafic trend) and found them to have a notable enrichment in large-ion lithophile elements suggesting an Alaska-Uralian-type mineralization rather than a relation to the Kluane ultramafic-mafic complex.

### 5.2.1 Heavy Mineral Concentrate Sampling and Sample Preparation

The ideal site for collecting bulk stream sediment -processed for the heavy mineral concentrate fraction, is a reasonably well-sorted, high-energy, mid-channel environment where there is sufficient gravel to permit the entire sample to be taken from the same hole dug into the streambed. Where possible, the upstream head of active longitudinal bars were preferentially selected. Three of the five sites chosen on Ultra were located downstream of the Outpost Ultramafic Sill on three neighbouring drainages, shown on **Figure 29** (page 60). Another sample was collected on Silver Creek, downstream of the YGS mapped gabbro (uTmg) and the final sample was collected downstream of the Frohberg showing, in the area of the Main Sill.

Roughly 12 – 15 kg of <3 mm stream sediment was collected by wet-sieving onsite into a plastic lined 5-gallon pail. A sample tag was inserted into the bag and closed with a tightfitting lid. The pails were labelled with the sample number and were directly shipped to ODM's laboratory in Ottawa for preparation and analysis.

The unmodified laboratory report produced by ODM is presented in **Appendix VII**. The <2.0 mm fraction of each sample was processed to produce a non-ferromagnetic heavy mineral concentrate, from which indicator minerals were identified, following the procedures outlined in **Figure 30** (page 61).



Deposit Type	Ore Elements	Indicator/ Pathfinder Elements	Common Indicator Minerals	Published Reviews and Examples
Kimberlite-hosted diamonds	C	Ba, Cr, K, LREE, Mg, Nb, Ni, P, Rb, Sr, Ta, Ti	Cr-pyrope, Cr-diopside, eclogitic garnet, Mg-ilmenite, chromite, diamond	McClenaghan et al. (2002a), McClenaghan and Kjarsgaard (2007), Nowicki et al. (2007)
Volcanogenic massive sulfide	Cu, Pb, Zn, Ag, Au	Ag, As, Au, Ba, Bi, Cd, Cu, Hg, In, Pb, S, Sb, Tl, Zn	Chalcopyrite, sphalerite, galena, pyrrhotite, gold, pyrite, gahnite, staurolite, cassiterite, spessartine, sillimanite, andalusite, beudantite, jarosite, barite, tourmaline, hogcomite, nigerite	Averill (2001), McClenaghan and Peter (2016), McClenaghan et al. (2015a,b)
Sediment-hosted lead-zinc	Ag, Cu, Pb, Zn	Ag, Cu, Pb, S, Zn	Chalcopyrite, sphalerite, galena, pyrite, barite, spessartine, smithsonite, anglesite, cerussite	Tarplee and Meer (2010), Paulen et al. (2011), Oviatt et al. (2015)
Gold	Au, Ag	Ag, As, Au, B, Ba, Bi, Cu, Co, Fe, Hg, Mn, Sb, Se, Te, U, W	Gold, scheelite, tourmaline, rutile, sulfides, tellurides, PGM, barite, cinnabar	Averill (2001), Sarala et al. (2009), McClenaghan and Cabri (2011)
Magmatic Ni-Cu-PGE	Ni, Cu, PGE	As, Au, Cr, Cu, Mg, Ni, PGE, S	Pentlandite, chalcopyrite, pyrite, millerite, platinum group minerals, chromite, Cr-diopside, enstatite, olivine, Cr-andradite	McClenaghan and Cabri (2011), Averill (2009, 2011), McClenaghan et al. (2011)
Rare metals	REE, Li, Nb, Ta, Zr	Be, Ce, Cl, F, Li, Nb, U, P, REE, Ta, Th, Y, Zr	Pyrochlore, columbite, Ta-minerals, allanite, zirconosilicates, apatite, monazite, fluorite, rhabdophane, arfvedsonite	Batterson and Taylor (2009), Lehtonen et al. (2015), Simandl et al. (2015); Mackay et al. (2015)
Porphyry Cu-Au-Mo	Cu, Mo, Au, Ag	Au, Ag, Cu, Mo, S	Chalcopyrite, chalcocite, pyrite, molybdenite, gold, silver, epidote, tourmaline, apatite, andradite, barite, monazite, rutile, titanite, zircon, jarosite, malachite	Averill (2011), Kelley et al. (2011), Hashmi et al. (2015), Plouffe et al. (2016)
Porphyry Sn-W	Sn, W, Mo	As, Ag, Be, Bi, Cd, Cu, F, In, Mo, Pb, S, Te, W, Zn	Cassiterite, scheelite, wolframite, molybdenite, chalcopyrite, Bi sulfides, sulfides, fluorite, topaz, tourmaline	Snow and Coker (1987a,b), McClenaghan et al. (2017a,b)
Uranium	U	As, Ba, Cu, F, La, Ni, P, Pb, Th, Ti, U, Y, Zn, Zr	Uraninite ( <sup>a</sup> pitchblende), thorianite, tourmaline, sulfides, monazite, allanite, zircon, baddeleyite, niccolite, U-Th anatase, U-Th rutile, brannerite, magnetite	Geddes (1982), Boyle (1982), Campbell (2009); Robinson et al. (2016)
<p>PGM, platinum group minerals; PGE, platinum group elements; REE, rare earth elements.  <sup>a</sup>Pitchblende—brown or black pitchy massive form of uraninite.            Data compiled from Boyle (1974), Rose et al. (1979), Levinson (1980), and Lehtonen et al. (2015).</p>				

Table 5: Selected mineral deposit types and corresponding common indicator minerals. These indicator minerals can be recovered from heavy mineral concentrates, and pathfinder + indicator elements can be analyzed for, in Application of Till Mineralogy and Geochemistry to Mineral Exploration (McClenaghan and Paulen, 2018).

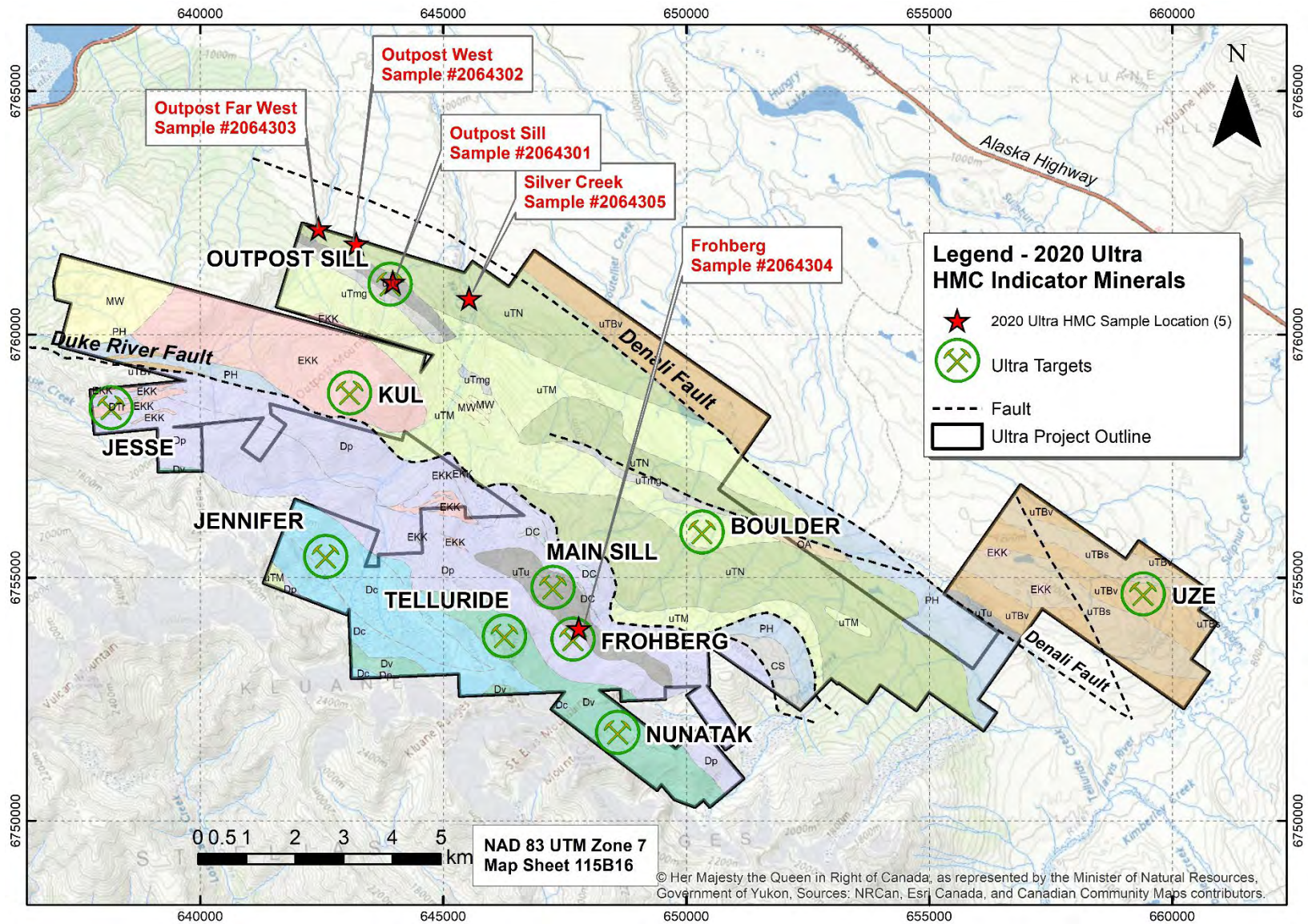


Figure 29: Location map for collection of heavy mineral concentrate for the recovery of indicator minerals.



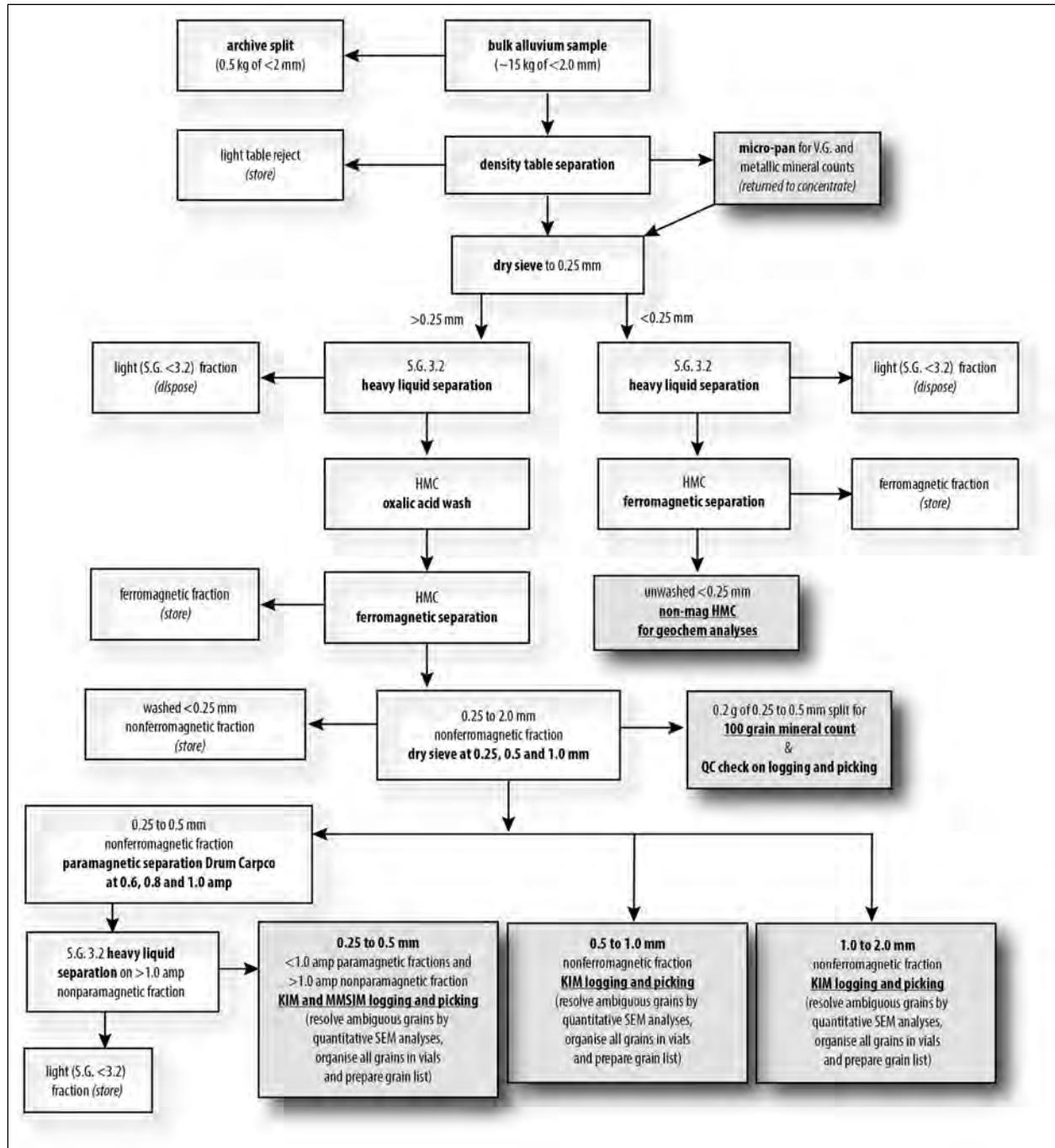


Figure 30: Standard bulk stream sediment processing flowsheet for indicator minerals in heavy mineral concentrates, grey boxes represent data generation stage, from Day, S.J.A., Paulen, R.C., Smith, I.R., and King, R.D., 2018. Samples from the Ultra samples were processed for gold and metamorphosed/magmatic massive sulphide indicator minerals (MMISIM).

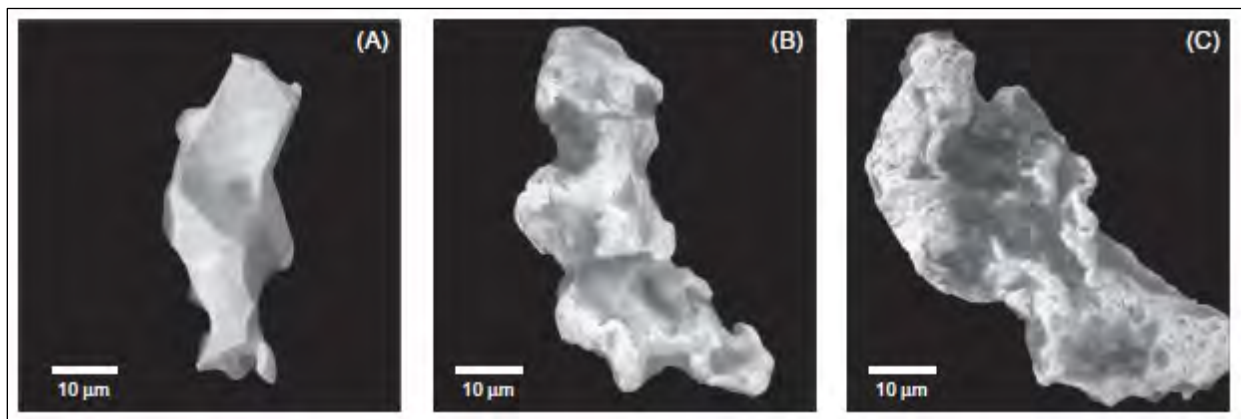
At Overburden Drilling Management (ODM) Limited, all samples were panned for gold, PGMs and fine-grained metallic indicator minerals. Shaking table concentrates were refined by heavy liquid separation at S.G. 3.2 to obtain heavy mineral concentrates (HMCs). 1.2-2.0, 0.5-1.0 mm and nonparamagnetic



0.25-0.5 mm HMC fractions were examined for scheelite by UV lamping. The various non-ferromagnetic fractions of each sample were examined under a binocular microscope by trained personnel at ODM. Indicator mineral grains were counted and a selection of grains verified with a scanning electron microscope (SEM).

### 5.2.2 Heavy Mineral Concentrate – Indicator Minerals Results and Interpretation

A note on gold grain classification: DiLabio (1990) of the GSC, devised a simple classification scheme for gold in till. Three main classes of shapes are recognized: pristine, modified, and reshaped, forming a progression from undamaged grains to ones that retain none of their original features (**Figure 31**). This sequence represents increasing distance from the bedrock source of the gold. In addition, the relative proportions of the three types should indicate nearness to the bedrock source, at least qualitatively. Averill (2013) suggests pristine gold grains have been transported approximately 100 metres, modified gold grains have been transported 500 metres and reshaped grains, >1000 to >10,000 metres.



*Figure 31: SEM images of gold grains showing examples of the three conditions used to classify gold grains recovered from till: (A) **pristine** gold grain with equant molds suggestive of former quartz-feldspar-carbonate-sulphide gangue; (B) **modified** gold grain with remnants of equant gangue molds and edges that are slightly curled; and, (C) **reshaped** gold grain showing pitted surfaces and well curled edges (McClenaghan and Paulen, 2018).*

The detailed gold grain data and grain counts for metamorphosed/magmatic massive sulphide indicator minerals are displayed in **Tables 6-7** (pages 63-64) below. The author is not an expert in the interpretation of heavy mineral indicator results, but some generalizations can be made about the data. In addition, many more samples would be required to plot trends, but the data reveals a glimpse into potential mineralization, although predicting the source location is problematic.

Detailed Gold Grain Data											
Sample Number & Location	Dimensions (µm)				Number of Visible Gold Grains				Nonmag HMC	Calculated V.G. Assay	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total	Weight*	in HMC		
<b>2064301</b>	8	C	25	50	1			1		2	Tr (~2000 grains) pyrite (25-250 µm).
643964_mE	10	C	25	75		1	1	2		8	
6761081_mN								3	38.4	9	
<b>2064302</b>	15	C	50	100		1		1		12	Tr (~2000 grains) pyrite (25-75 µm).
643213_mE	25	C	100	150	1			1		56	
6761866_mN								2	49.2	68	
<b>2064303</b>	3	C	15	15				4		<1	Tr (1 grain) cinnabar (25 µm). 5% pyrite (25-750 µm). Coarsest gold grain viald.
642431_mE	5	C	25	25		1	4	5		2	
6762178_mN	8	C	25	50	6	5		11		12	
	10	C	25	75		1	3	4		8	
	13	C	25	100	1			1		3	
	10	C	50	50	4	6	1	11		31	
	13	C	50	75	1	1	1	3		16	
	15	C	50	100	2	1		3		25	
	15	C	75	75	1			1		9	
	25	C	100	150		2		2		81	
	29	C	125	175		1		1		70	
	75	M	125	350		1		1		358	
	50	M	400	500	1			1		1090	
								<b>48</b>	<b>68.8</b>	<b>1704</b>	
<b>2064304</b>	3	C	15	15			1	1		<1	Tr (1 grain) arsenopyrite (75 µm). Tr (~2000 grains) pyrite (25-150 µm).
647787_mE	5	C	25	25		3		3		1	
6753956_mN	8	C	25	50		2		2		3	
	10	C	25	75	1			1		3	
	18	C	75	100	1			1		18	
								<b>8</b>	<b>53.6</b>	<b>25</b>	
<b>2064305</b>	8	C	25	50	1			1		1	5% pyrite (25-750 µm).
645533_mE	18	C	75	100	1			1		15	
6760744_mN	25	C	75	175	1			1		36	
	22	C	100	125	1			1		31	
								<b>4</b>	<b>67.2</b>	<b>83</b>	

Table 6: Detailed gold grain data. Gold grain data is derived from <2mm fraction of heavy mineral concentrate, as identified by trained personnel from Overburden Drilling Management, Ottawa, Ontario.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts																						
0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																						
Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals												Phosphates						
>1.0 amp			<1.0 amp	>1.0 amp										<1.0 amp		>1.0 amp		Remarks	Picked Grains			
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	% Red Rutil	% Ky	% Sil	% Tm	% St	% Sps*	Olivine % Fo	% Fay	% Opx	% Cr**	% Ap			% Mz		
2064301	Tr (1 gr)	Tr malachite (1 gr); 0.1 barite (~50 gr)	8 (~2000 gr)	60	0	Tr Mn-epidote (4 gr)	0	0	0	0	0	0	Tr	0	0	0	0	Tr (8 gr)	0	Tr	Goethite-augite-hematite/epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 1 malachite candidate = 1 malachite; and 8 chromite candidates = 8 chromite.	0.5-1.0 mm fraction: 6 barite 2 Mn-epidote 0.25-0.5 mm fraction: 1 chalcopyrite 1 malachite 10 representative barite 4 Mn-epidote 8 chromite
2064302	0	6 barite (~1000 gr)	8 (~1500 gr)	80	0	Tr Mn-epidote (1 gr)	0	0	0	0	0	0	Tr	0	0	0	0	Tr (10 gr)	0	0	Goethite-augite/epidote assemblage. 0.5-1.0 mm fraction contains 3% (~80 grains) barite.	1.0-2.0 mm fraction: 3 barite 0.5-1.0 mm fraction: 10 representative barite 1 chromite 0.25-0.5 mm fraction: 10 representative barite 1 Mn-epidote 10 chromite
2064303	Tr (5 gr)	Tr sphalerite (2 gr); 5 barite (~3000 gr)	40 (~25,000 gr)	40	0	Tr Mn-epidote (2 gr)	0	0	0	0	0	0	2	0	0	0	0	Tr (~30 gr)	0	Tr	Augite-goethite/epidote-pyrite-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 2 sphalerite candidates = 2 sphalerite; 2 arsenopyrite versus pyrite candidates = 2 pyrite; 4 barite candidates = 4 barite; and 5 fayalite versus siderite candidates = 5 siderite. One reshaped gold grain picked from 0.25-0.5 mm fraction (see detailed gold grain data). 0.5-1.0 mm fraction contains 1% (~80 grains) barite.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 3 chalcopyrite 10 representative barite 1 Mn-epidote 1 low-Cr diopside 2 chromite 0.25-0.5 mm fraction: 1 gold 5 chalcopyrite 2 sphalerite 2 pyrite resembling arsenopyrite 14 representative barite 2 Mn-epidote 5 siderite resembling fayalite 15 representative chromite
2064304	Tr (13 gr)	Tr malachite (1 gr); 0.2 barite (~40 gr)	70 (~10,000 gr)	5	0	Tr Mn-epidote (5 gr); Tr low-Cr diopside (1 gr)	0	0	0	0	0	0	0	0	0	0	0	Tr (12 gr)	0	0	Hematite/pyrite-leucoxene-diopside assemblage.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 1 chalcopyrite 8 barite 0.25-0.5 mm fraction: 13 chalcopyrite 1 malachite 10 representative barite 5 Mn-epidote 1 low-Cr diopside 12 chromite
2064305	Tr (11 gr)	Tr malachite/azurite (1 gr); 0.5 barite (~250 gr)	95 (~60,000 gr)	10	0	Tr low-Cr diopside (2 gr)	0	0	0	0	0	0	0	0	0	0	0	Tr (2 gr)	0	0	Hematite/pyrite assemblage. 0.5-1.0 mm fraction contains 0.5% (~30 grains) barite.	0.5-1.0 mm fraction: 2 chalcopyrite 10 representative barite 0.25-0.5 mm fraction: 11 chalcopyrite 1 malachite/azurite 10 representative barite 2 low-Cr diopside 2 chromite

Table 7: Detailed of metamorphosed/magmatic massive sulphide indicator mineral (MMSIM) counts. Reported by Overburden Drilling Management of Ottawa, Ontario.



**SAMPLE 2064301:** This heavy mineral concentrate sample was collected immediately downstream of the peridotite Outpost Sill and associated gabbro. At the time of sampling in early August, the creek bed (locally called Knife Creek) was dry. Comments in the description note that the sample was possibly “too close to the ultramafic sill?” Source rocks further upstream include Nicolai volcanics, mudstones and argillites of the McCarthy Formation (uTM), and granitic rocks of the Kluane Ranges Suite (EKK) covering the bulk of Outpost Mountain. Of the clasts >2.0 mm, the majority were classified as V/S, volcanics and/or sediments with minor granitic and quartz clasts. The matrix (<2.0 mm) was comprised entirely of grey, medium to coarse sand.

Three visible gold grains were picked from the concentrate, including 1 pristine, 1 modified and 1 reshaped. In addition to the gold grains, ~2000 metallic grains of pyrite were present, (marked as “trace”). Gold grains present, especially pristine grains indicate potentially a short transport distance from bedrock source. While just one pristine grain is not a strong indicator, it does suggest a possible nearby source. The single modified and lone reshaped gold grains both have both travelled some distance, which may be from up-ice or in this case, from up-slope. Barite and secondary minerals goethite-hematite, may be indicators of gold mineralization.

Of the Ni-Cu-PGE indicator minerals, gold and pyrite accompanied by traces of chromite and chalcopyrite were noted, but chromite may also be present in unmineralized ultramafic rocks. Ultramafic rocks are implied, but there is minimal evidence for associated mineralization.

Analysis of the metamorphosed/magmatic massive sulphide indicator mineral (MMSIM) counts noted a goethite-augite-hematite/epidote assemblage. Of the sulphide and related minerals, goethite made up 60%, with 8% pyrite, trace malachite, chalcopyrite and barite. Picked grains included barite, Mn-epidote, chalcopyrite, malachite and chromite. A trace of spessartine garnet was noted. The combination of chalcopyrite, pyrite, barite and spessartine point to a weak potential of VMS mineralization.

Porphyry copper indicator minerals (PIMS) were not analyzed for specifically, but the presence of Mn-epidote is interesting as it is an indicator mineral of distal porphyry-style propylitic alteration.

Overall, there is minor evidence for mineralization from sample 2064301.

**SAMPLE 2064302:** Collected just over 1 km to the northwest of the first sample, on what is locally known as Monument Creek; this sample was initially thought to be about 300 metres downstream from the ultramafic-mafic rocks, as depicted in **Figure 29** (page 60). Detailed mapping during 2020 failed to find the previously mapped ultramafic rocks exposed in the creek (**Figures 38-39, pages 89-90**) and the main lithologies are basalts and andesites of the Nicolai Formation and argillites of the McCarthy Formation. Further south, the granitic rocks form the majority of Outpost Mountain.

Overall, this sample appears very similar to 2064301, with similar clast composition and 2 visible gold grains (1 modified and 1 reshaped, inferring moderate to long transport distance). In addition to the gold grains, ~2000 metallic grains of pyrite were present, (marked as “trace”), similar to the previous sample, but the grain size smaller. Signs of Ni-Cu-PGE are sparse with traces of chromite the only

indicator. The sample lacked visible chalcopyrite. Notably, barite increase by 20 times, from 50 grains to 1000 grains. The author is uncertain of the significance of the barite increase.

**SAMPLE 2064303:** Of all the HMC samples collected, this sample contained the most significant indicator minerals. The third sample was collected 850 metres west-northwest of 2064302, along the creek locally called West Outpost Creek. The drainage area associated with this creek is significantly larger, approximately 1100 hectares. The lower reaches of the drainage near the sample site cover rocks of the Wrangellia Terrane, as seen in the previous two samples. South of the Kluane Ranges Suite intrusive (EKK), a narrow band of Hasen Creek Formation rocks (PH) are transected by the creek before crossing the Duke River Fault and into the Alexander terrane rocks consisting of Silurian to Devonian, Bullion Creek Assemblage (Dp, fine grained phyllites and calcareous phyllite). The Jesse anomaly is located one kilometer to the west-southwest of the height of land past the headwaters of the West Outpost Creek drainage.

The number of gold grains contained in the concentrate totalled **48**, including 13 pristine, 19 modified and 16 reshaped, with a calculated 1704 ppb visible gold in the HMC. The gold grains ranged from 15 x 15 µm up to 400 x 500 µm. Metallic minerals tabulated in the pan concentrate included 1 grain of cinnabar and 5% pyrite. The anomalous gold count, including 27% pristine grains indicate a potential gold source nearby. 73% modified and reshaped gold grains indicate a possible gold source some distance from the sample site. Cinnabar, HgS, is an indicator for both gold and mercury.

A trace of chalcopyrite and sphalerite grains were noted as well as ~3000 grains of barite (three times in sample 2064202). A trace of Mn-epidote, trace of chromite (30 grains) as well as 2% spessartine garnet were tabulated from the Mg/Mn/Al/Cr minerals within the nonferromagnetic heavy mineral fraction.

An augite-goethite/epidote-pyrite-diopside assemblage was noted in the remarks.

Anomalous barite is an indicator mineral that has been linked to alteration zones around epithermal gold (Averill, 2007).

The combination of sphalerite, gold, pyrite, barite and spessartine garnet are common indicators of both VMS and sediment-hosted lead-zinc deposits.

There are weak indicators of magmatic Ni-Cu-PGE mineralization with traces of chromite and Cr-diopside, but no platinum group minerals were recovered.

Historically, 1983-84 prospecting, silt geochemistry and geological mapping by Noranda returned anomalous copper, silver, zinc, and lead in silts and rocks southeast of Outpost Mountain (Kul showing). More recently, the Kul showing, on the southern flank of Outpost Mountain, has been described as a possible nickel-copper-PGE occurrence with malachite noted along mafic intrusive contacts and in narrow shears. Minor skarn mineralization was noted in the limestone in this area, peripheral to gabbroic dykes. Narrow polymetallic quartz±carbonate veins (copper±zinc±lead±silver) hosted by argillite and limestone also occur through this area, and further southwest. In 2014 prospecting of the Outpost granodiorite uncovered quartz, quartz-carbonate, epidote and albite veinlets to stockwork with

malachite associated with epidote veinlets (Out showing). Potential may exist for porphyry copper style mineralization (Pautler, 2015).

**SAMPLE 2064304:** This heavy mineral concentrate sample was collected below the Frohberg showing and Main Sill, where there is seasonal water flow. Of the clasts >2.0 mm, the majority were classified as V/S, volcanics and/or sediments, 10% quartz clasts and trace granitic clasts. The matrix (<2.0 mm) was comprised entirely of grey, medium to coarse sand. The field notes reported “below Frohberg and Main Sill, no vegetation, seasonal flow, shale, maroon volcanics and fine-grained peridotite”.

The number of gold grains contained in the concentrate was the second highest of the 5 samples, totaling 8, including 1 pristine, 5 modified and 2 reshaped gold grains. Metallic minerals tabulated in the pan concentrate included trace pyrite (~2000 grains) and trace arsenopyrite (1 grain).

Analysis of the metamorphosed/magmatic massive sulphide indicator mineral (MMSIM) counts noted a hematite/pyrite-leucosene-diopside assemblage. Picked grains included trace chalcopyrite (13 grains), 0.2% barite (40 grains), trace malachite (1 grain), trace Mn-epidote (5 grains), trace low-Cr diopside (1 grain) and trace chromite (12 grains).

The traces of chalcopyrite, low-chromium diopside and chromite grains accompanied by gold are weak evidence for Ni-Cu-PGE mineralization. but no platinum group minerals were recovered. This result seems unusual, given the fact that samples from the Frohberg showing assayed up to 48.2 g/t Pt, 19.8 g/t Pd (Davidson, 2020).

**SAMPLE 2064305:** The final HMC sample was collected on Silver Creek, near the north edge of the Ultra claim boundary, 1.6 km east of sample 2064301. The source rocks upstream from the sample site are similar to those described for sample 2064301, including Nikolai volcanics, mudstones and argillites of the McCarthy Formation (uTM), and granitic rocks of the Kluane Ranges Suite (EKK) in addition to sparse mafic-ultramafic rocks Kluane Ultramafic Suite. Of the clasts >2.0 mm, the majority were classified as V/S, volcanics and/or sediments, 10% quartz clasts and trace granitic clasts. The matrix (<2.0 mm) was comprised entirely of grey, medium to coarse sand. The field notes reported “maroon and green volcanics, intrusive, peridotite, wide valley with multiple stream flows”.

Four visible gold grains were picked from the concentrate, all reshaped, indicating transport some distance, which may be from up-ice or from up-slope. In addition to the gold grains, pyrite made up 5% of the metallic minerals in the pan concentrate.

Analysis of the metamorphosed/magmatic massive sulphide indicator mineral (MMSIM) counts noted a hematite/pyrite assemblage. Picked grains included trace chalcopyrite (11 grains), trace malachite-azurite (1 grain), 0.5% barite (250 grains), trace low-Cr diopside (2 grains) and trace chromite (2 grains).

The traces of chalcopyrite, low-chromium diopside and chromite grains accompanied by gold are weak evidence for Ni-Cu-PGE mineralization. but no platinum group minerals were recovered.

**In summary,** although the indicator minerals within the heavy mineral concentrate analyses did not point to strong evidence for Ni-Cu-PGE mineralization, the high number of gold grains retrieved from



sample 2064303 accompanied by pyrite and a trace of cinnabar are highly indicative of gold mineralization upstream/up-ice.

The number of gold grains contained in the concentrate totalled **48**, with a calculated **1704 ppb** visible gold in the HMC. The anomalous gold count, including 27% pristine grains indicate a potential gold source nearby. 73% modified and reshaped gold grains indicate a possible gold source some distance from the sample site. Cinnabar, HgS, is an indicator for both gold and mercury.

Anomalous barite is an indicator mineral that has been linked to alteration zones around epithermal gold (Averill, 2007).

The combination of sphalerite, gold, pyrite, barite and spessartine garnet are common indicators of both VMS and sediment-hosted lead-zinc deposits.

In spite of this drainage on the far west end of the Ultra property being prospected periodically since the 1980's, a source of gold has not been located. A more detailed survey of this drainage including stream sediment sampling to further define a possible source area of mineralization in combination with prospecting is recommended.

## 5.3 Prospecting and Geological Mapping

### 5.3.1 Rock Sampling and Geochemical Analysis

A total of 84 rock samples were collected during prospecting traverses and detailed geological mapping around the property. Rock descriptions and GPS coordinates were recorded for each sample and geological reference point then entered into an MS Excel spreadsheet (see Appendix VIII). Rock samples were packaged in numbered plastic bags, secured with plastic zap straps and packed into a rice bag for delivery to Bureau Veritas Laboratories in Whitehorse. Samples were crushed to less than 2mm after which a 250g split was pulverized to below 75µm (PRP70-250) and a 0.5g split was analyzed for 33 elements by Aqua Regia ICP-ES (AQ300) as well as a 30g split analyzed for Au, Pt, Pd by Fire Assay ICP-ES (FA330). Analytical certificates can be found in Appendix IX. Additional assays of 10 overlimit samples for Cu, Pb and Ni in ore were carried out using ICP AES following Aqua Regia Digestion (AQ370-X). Rock geochemistry plots for elements Ag, Au, Cu, Ni, Pb, Pd, Pt and Zn are located in **Appendix IX**.

Four prospecting traverses were carried out in the Telluride-Frohberg-Main Sill area. The purpose of the Telluride traverse was to prospect the steep slope leading up to the Telluride showing, with a goal of reaching and re-sampling the Telluride massive sulfide itself. The remaining three traverses aimed to focus on potential Cu-Ni-PGE mineralization in the vicinity of the historic Frohberg showing, associated with gabbro and peridotite sills of the Kluane Mafic/Ultramafic Intrusive complex.

A four-day mapping (1:2500) and prospecting program was undertaken to sample and map exposed outcrop on the north-facing flank of Outpost Mountain. Previous field excursions in the area have produced regional-scale maps of the known Outpost Sill and several other ultramafic and gabbroic intrusions. The goal of the 2020 field campaign was to further delineate the occurrence of these ultramafic and gabbroic intrusions and to contribute to the existing geochemical rock database, while adding to the overall geological knowledge of the area. Details of the geological mapping in Outpost Sill area are described in Section 5.4: Outpost Sill Geological Mapping.

### 5.3.2 Southern Ridge Bryson Creek Traverse

The purpose of the day trek was to prospect the southern ridgeline ~1.5 km across the valley and to the south of the Frohberg showing **Figure 32**. A helicopter drop-off just east of the Bryson glacier onto the Southern ridge was the starting point for the traverse. **Figure 32** outlines the route taken along the ridgeline as well as locations of grab samples. Sample coordinates and geochemical assay data is displayed in **Table 8** (page 70).

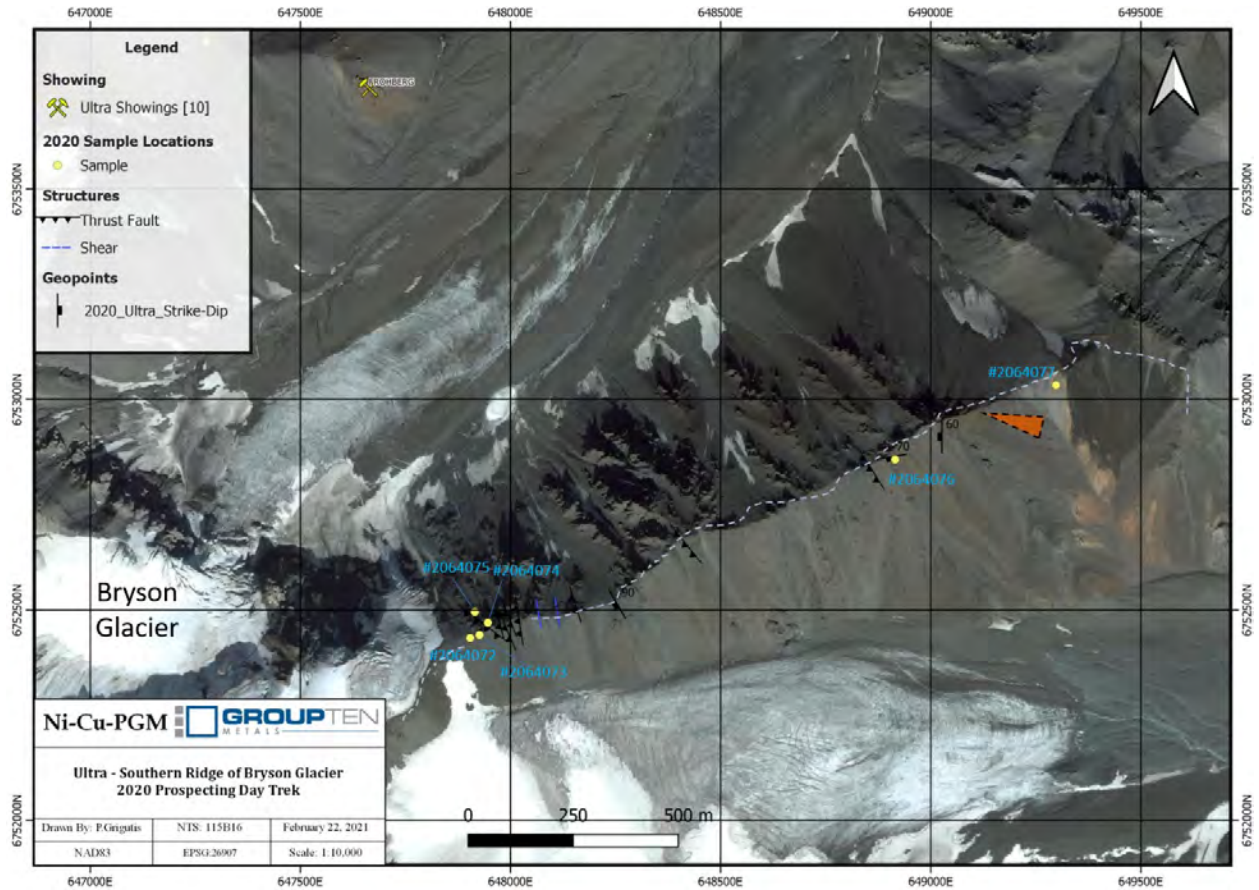


Figure 32: Southern ridge of Bryson Glacier Traverse. Route taken along the Southern ridgeline (light-purple dashed line) along with sample locations (yellow dots). Note, the location of the Frohberg showing to the NNE. The orange triangle depicts photo location and viewing direction (E-SE) of photo displayed in Photo Plate 4, page 73.

Table 8: Assay data for the Southern ridge grab samples.

Sample ID	Easting	Northing	Elevation (m)	Sample Type	Description	Ni (ppm)	Cr (ppm)	Fe (wt%)	Mg (wt%)
2064072	647904	6752434	2202	Grab	FG, BLACK SETS OF VEINS (160 SE, 040 SW) OVER ~2M INTERVAL (WIDTH). VERY DENSE, SILICIFIED, NON-MAGNETIC. COULD POTENTIALLY BE SMALL SILLS? OR JUST VFG, MAFIC VOLCANICS WITHIN VERY MAGNETIC DIORITE-HOST UNIT. QZ-EP VEINLETS CROSS-CUT BLACK MAFIC VOL VEINS.	40	134	4.41	2.56
2064073	647926	6752441	2202	Grab	SAMPLED THE SAME FG, MAFIC VOLCANIC UNIT JUST UP-STRIKE FROM SAMPLE #2064072. VERY DENSE, MASV, 3/5 MAGNETIC UNIT.	9	25	3.02	0.83
2064074	647946	6752470	2195	Grab	VFG, DENSE, MAFIC EXTRUSIVE? BLACK IN COLOUR. 3/5 MAGNETIC. DENSE SAMPLE. 3X3M OUTCROP.	14	14	6.04	1.30
2064075	647915	6752496	2183	Grab	GOSSONOUS MAFIC VOL VEIN (~1M WIDTH), LIGHT ORNG-BRWN COLOUR. STEEPLY DIPPING, CONTINUOUS NE-SW FOR ~100M TO THE NW. QUARTZ VEINLETS FOLP. UNIT WITHIN A PROPYLLITIC-ALTERED DIORITE? HOST. GOSSONOUS VEIN CROSS-CUTS DRK MAFIC VOL VEIN. TREND: 220 SW, 085 NW.	2	2	2.22	0.85
2064076	648915	6752857	2211	Grab	FG, MAFIC-ULTRAMAFIC, NON-MAGNETIC, DARK GREY-BLACK UNIT. TRENDS 080 NE, 070 SW (STRIKE, DIP). POSSIBLE GABBRO SURROUNDING ULTRAMAFIC PERIDOTITE SILL?	244	646	2.95	3.34
2064077	649298	6753034	2145	Grab	FG-MG, BLACK, MAGNETIC (4/5), VERY EXTENSIVE SILL? SEVERAL TENS OF METRES. LIKELY AN EXTENSION OF THE MAIN ULTRA SILL	862	451	8.11	12.17



The ridgeline traverse started off in a phaneritic, intermediate volcanic rock with cm-scale interlocked phenocrysts of hornblende, augite, plagioclase and/or bleached K-feldspar with minor quartz and biotite (**Photo Plate 2**). The rock is strongly propylitic-altered (chlorite and epidote replacement of mafic minerals) with minor argillic alteration (clays) of feldspar grains. The host-unit has been previously mapped as a medium- to coarse-grained, hornblende-pyroxene gabbro (Steel Creek Suite ca. 364 Ma) with minor intrusions of medium-grained gabbro-diorite and gabbro-pegmatite (Colpron et al., 2016). The intermediate mineral compositions resemble a dioritic intrusion over a more mafic gabbro composition. Although localized mafic sections could resemble a more gabbroic composition. Therefore, we refer to the intrusive host rock as a diorite (Steel Creek, Hbl-Pyr-Gabbro). The host diorite is cut by numerous mm- to cm-scale quartz-carbonate-epidote-bearing veinlets. Epidote also infills fractures with silica. Localized rusty patches with evident mm-scale oxidized pyrite exist. Fine- to medium-grained, black, mafic volcanic to gabbro-diorite veins have been observed to cross-cut the propylitic-altered diorite host rocks along the ridge (**Photo Plate 3**, page 72). These mafic veins can be locally iron-oxidized and cross-cut by mm- to cm-scale quartz-carbonate-epidote veinlets. They are several metres wide and highly-magnetic (3/5). These mafic volcanic to gabbro-diorite dykes were sampled (2064072-2064075; **Table 8**, page 70) but did not return relevant Ni-Cr-Fe-Mg or metal values. Late thrust structures trending relatively NW-SE are common among the ridgeline and seem to offset both the propylitic-altered diorite host as well as these mafic volcanic veins that intrude the host rocks.



*Photo Plate 2: The phaneritic, intermediate volcanic host rock interpreted as a diorite but previously mapped as a gabbro. Minerals include hornblende, augite, plagioclase and/or bleached K-feldspar  $\pm$  quartz and biotite. Rock is pervasively propylitic-altered (chlorite and epidote replacing mafic minerals)  $\pm$  argillic alteration (clay) of feldspars. Host diorite is cut by quartz-carbonate-epidote-bearing veinlets (mm- to cm-scale).*



*Photo Plate 3: Mafic volcanic to gabbro-diabase veins. Fine- to medium-grained, black, mafic volcanic to gabbro-diabase veins have been observed to cross-cut the propylitic-altered diorite host rocks (Photo Plate 2) along the ridge. These mafic veins can be locally iron-oxidized and cross-cut by mm- to cm-scale quartz-carbonate-epidote veinlets. They are several metres wide and highly-magnetic (3/5). Left: sample 2064075. Note how gossanous mafic vein cross-cuts a pre-existing mafic vein (margins). Right: sample 2064074.*

Propylitic alteration decreases as you traverse NE along the ridgeline, along with the occurrence of thrust structures, although shearing becomes more prominent. The intrusive host diorite encounters fine-grained, silicified argillite-siltstone-limestone-sequences interbedded with minor schist-phyllite (schistose) and basaltic (pillows evident) lenses - likely belonging to the Devonian to Upper Triassic Icefields Formation (DTI). Argillic sequences can show local iron-oxide staining and minor propylitic alteration, the latter decreasing eastward along the ridgeline. The Icefields Formation (DTI) was mapped as the dominant unit at the Frohberg showing and is interpreted to extend SE and mapped on the Southern ridge. The sedimentary argillic rocks (interpreted as DTI) are cross-cut by mafic- to intermediate-volcanic (basalt-andesite) porphyritic to non-porphyritic dykes, but some of which are semi-conformable to the bedding planes. Argillic sequences are also cross-cut by quartz-carbonate ± epidote stockwork veinlets. These intermediate volcanic dykes are also interpreted to be apart of the Icefields Formation (DTI) as basaltic-andesitic flows. Strike-dip of argillite bedding planes vary from striking 140-190° (SSE) and dipping 60° to nearly vertical. Difficult to get great strike-dip measurements due to the prominence of shearing and thrusting structures.

Fine- to medium-grained, grey-black, mafic volcanic units interbedded with highly sheared schist-phyllite beds surround the occurrence of a fine- to medium-grained, black, highly magnetic (4/5) ultramafic sill that is several tens of meters wide (pictured in **Photo Plate 4**, page 73) and trends relatively NW-SE. This ultramafic occurrence is likely the extension of the main Ultra sill exposed north of the Frohberg showing ~2.5 km away. **Photo Plate 4** (page 73) shows the dark-black ultramafic sill exposed on the Southern ridge.





*Photo Plate 4: The black, ultramafic Main Sill is shown in the left-hand corner of the photo. Photo was taken looking E-SE into the valley south of the ridge. Exact photo location and viewing-direction is depicted in Figure 32, page 69, by an orange triangle.*

### 5.3.2 Telluride Prospecting Traverse

A helicopter drop-off on a flat lying slope just 500m west of the Frohberg showing was the starting point of the >600m elevation gain traverse. The purpose of the day trek was to prospect the steep slope leading up to the Telluride showing, with a goal of reaching and re-sampling the Telluride massive sulfide itself. **Figure 33** (page 74) outlines the route taken up to the Telluride showing, as well as sample numbers, locations, and Cu ppm values associated with each sample. Sample coordinates and geochemical assay data is displayed in **Table 9** (page 75).



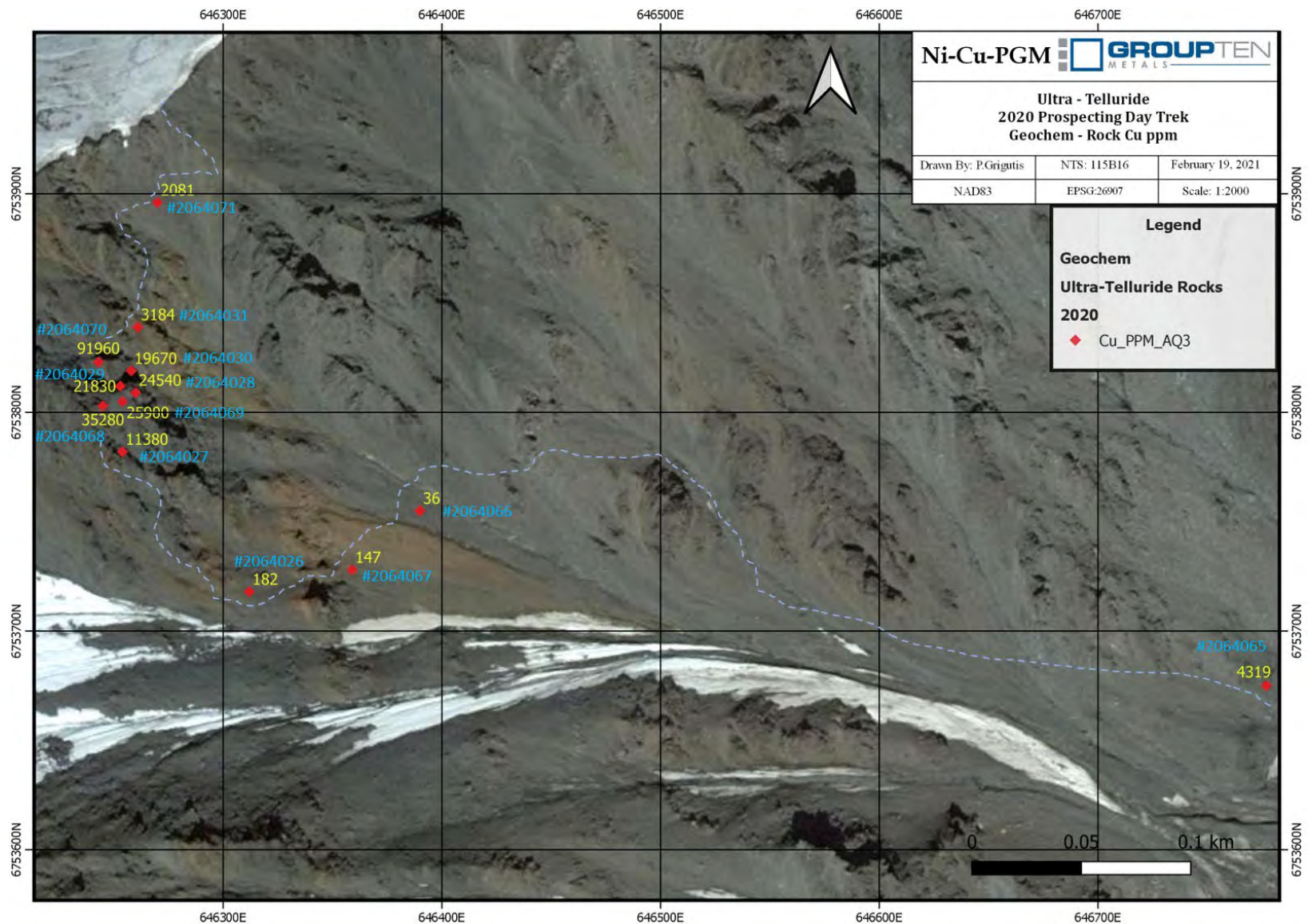


Figure 33: Route of Telluride prospecting traverse. Sample locations (red diamonds), sample numbers (blue) and associated Cu ppm assay values (yellow) are depicted.

Table 9: Assay data for Telluride rock samples.

Sample ID	Easting	Northing	Elevation (m)	Sample Type	Description	Au (ppb)	Cu (ppm)	Zn (ppm)	Ag (ppm)	Co (ppm)
2064065	646777	6753675	2253	Grab	CONCORDANT LENS OF MASV PY-SULFIDE STRINGERS W/ MALACHITE STAINING IN B/W STRONGLY FOLIATED CHLORITE-SERPENTINE ALTERED MAFIC VOLCANIS W/ ABUNDANT SEMI-CONFORMABLE QZ-CL-CARB VEINLETS.	147	4319	53	5.5	30
2064066	646390	6753755	2566	Grab	SAMPLED MAROON-RED, BOUDINED FE + MN-OXIDE PINCHED AND BOUDINED VOLCANIC? BEDS CONCORDANT TO HOST MAFIC VOLCANIC BEDS (120 SE, 040 SW). SULFIDE-RICH (PY) ZONE.	19	36	9	0.15	4
2064067	646359	6753728	2581	Grab	LIGHT-GREEN/BLUE (MAL + AZXU?) AROUND BOUDINED QZ+EP VEINLETS THAT ARE CONCORDANT, BUT PINCH AND SWELLED TO FG, MAFIC VOLCANIC BEDS. MAFIC VOLCANIC BEDS STAINED BY FE-OXIDES WITHIN ~5M. RADIUS OF QZ+EP VEINLETS.	5	147	129	0.15	25
2064068	646245	6753803	2617	Grab	MASV, GREY-SILVERY LOOKING SULFIDE, VERY DENSE AND HEAVY SAMPLES (MASV PYRITE) W/ POSSIBLE BORNITE STRINGERS (PURPLE) (CM-SCALE). ~3M WIDE MASV SULFIDE LENS SEEN ON TWO OUTCROPS ~10M APART (ON STRIKE WITH EO). MASV SULF LENS WITH ALTERNATING STRIKE DIRECTION - IN AND AROUND VERTICAL. FG, MAFIC VOLCANICS W/ PILLOW STRUCTURES?	150	35280	8410	19.2	459
2064069	646254	6753805	2616	Grab	MASV, GREY-SILVERY LOOKING SULFIDE, VERY DENSE AND HEAVY SAMPLES (MASV PYRITE) W/ POSSIBLE BORNITE STRINGERS (PURPLE) (CM-SCALE). POSSIBLE MASV ZINC? ~3M WIDE MASV SULFIDE LENS SEEN ON TWO OUTCROPS ~10M APART (ON STRIKE WITH EO). MASV SULF LENS WITH ALTERNATING STRIKE DIRECTION - IN AND AROUND VERTICAL. FG, MAFIC VOLCANIC PILLOWS.	219	25900	5245	16.1	358
2064070	646243	6753823	2616	Grab	SELECTIVE HIGH-GRADE SAMPLING OF PURPLE-TINGE SULFIDE VEIN THAT IS BORDERED BY SILVER-GREY SULFIDE (PY-RICH) ON EITHER SIDE. PY+BN+CCP MINERALIZATION. BN STRINGERS SEEN.	230	91960	7405	34.8	881
2064071	646270	6753896	2607	Grab	MALACHITE (LIGHT GREEN) AND AZURITE (LIGHT BLUE) STAIN IN/AROUND QZ-BT-CL-EP VEIN (CM-SCALE) IN FG, MAFIC VOLCANIC HOST (BASALT?) TRENDING 130 SE, 085 SW (STEEPLY DIPPING).	9	2081	507	2.1	56
2064026	646312	6753718	2467	4m. chip	Telluride zone, 5-10cm bands of massive sulphide in rusty foliated basalt, mostly pyrite, spotty chalcopyrite and bornite.	20	182	251	2.1	24
2064027	646254	6753782	2536	2m. chip	Telluride zone, bands of massive sulphide in brecciated basalt, mostly pyrite, spotty chalcopyrite and bornite.	80	11380	2536	11.7	158
2064028	646260	6753809	2540	4m. chip	Telluride showing, massive sulphide lense 3-4m wide in basalt, pyrite-zinc-cpy-bornite, grey & orange clay gouge intervals.	339	24540	6842	24.5	689
2064029	646253	6753812	2540	3m. chip	Telluride showing, massive sulphide lense 3-4m wide in basalt, pyrite-zinc-cpy-bornite, grey & orange clay gouge intervals.	240	21830	5760	19	519
2064030	646258	6753819	2543	2m. chip	Telluride showing, massive sulphide lense 2.5m wide in basalt, pyrite-zinc-cpy-bornite, grey & orange clay gouge & volcanic interval.	278	19670	3039	23.5	587
2064031	646261	6753839	2549	1.5m. chip	Telluride zone, 1.5m wide gouge and massive sulphide cobbles in basalt.	258	3184	524	5.4	76

The trek started off in strongly foliated, chlorite-serpentine-propylitic-altered mafic volcanic rocks that had abundant semi-conformable to cross-cutting quartz-chlorite-carbonate veinlets. Mafic volcanics ranged from non-magnetic to only weakly magnetic and were augite and/or hornblende-phyric. Local manganese-oxide and iron-oxide staining gives the rocks a purple/black and locally orange tinge. Concordant lenses of massive pyrite stringers with evident malachite staining occurred within the strongly foliated mafic volcanic augen shaped lenses; resembling pillow structures. Weight % copper levels were detected by PXRf and sampled (sample # 2064065). As the trek progressed up the slope, mafic volcanic units showed strong shearing and were locally interbedded with fine-grained, massive, mudstone lenses with evident manganese-oxide and iron-oxide staining. The mafic volcanic and interbedded mudstone beds were striking approximately 155° SE and dipping between 50-80° SW. Heavily iron-oxidized, abundant epidote-serpentine (previously chlorite?) -bearing quartz veinlets commonly cross-cut intensively propylitic-altered mafic volcanic units. As the Telluride showing was 50m away, gossanous mafic volcanic units were stained by iron-oxides and had abundant visible pyrite. **Photo Plate 5** (page 77) shows the location of sample # 2064027 which hosts pyrite ± copper-sulfides in gossanous mafic volcanics 25m away from the main Telluride showing. Abundance of epidote in quartz veinlets increases as you ascended towards the Telluride showing. The epidote-bearing quartz veinlets (mm- to cm- scale) continued to be conformable but also cross-cut mafic volcanic hosts.





*Photo Plate 5: Location of 2 metre chip sample # 2064027. Chip was taken due to the occurrence of massive sulfide bands (pyrite ± chalcopyrite-bornite) within highly gossanous and brecciated, iron-oxidized, mafic volcanic rocks (basalts). Pillows evident. Chip sample taken 25m. from main Telluride massive sulfide showing. Sample bag 2064026 (also pictured) was taken at another location just down-slope from this location (see Figure 33, page 74).*

The Telluride host rocks are described as, fine- to medium-grained, black to dark green-grey gossanous mafic volcanics (basalts) with evident pillow structures. Mafic hosts are cross-cut by numerous mm- to cm-scale quartz-carbonate altered veinlets consisting of epidote-chlorite-serpentine-iron oxides. Schistose and sheared mafic volcanics appear on HW contact to the Telluride massive sulfides. Mafic volcanics are locally magnetic. The massive-sulfide lens is seen on two outcrop faces (North-facing **Figure 34**, page 79; and South-facing **Figure 35**, page 80) that are along a 10m strike of one another, separated by a gully. The north-facing massive-sulfide lens is ~4m wide, and consists dominantly of silvery, dense, massive pyrite but with cm-scale stringers of a purple-coloured sulfide (possibly bornite). Local sphalerite, chalcopyrite, manganese- and iron-oxides also observed in the massive sulfide lens. The main, north-facing massive-sulfide lens is nearly vertically dipping. Two measurements taken are; 010 NE strike, 085° dip. 160 SW, 080° dip (dips are nearly vertical therefore strikes can be either/or direction). The massive sulfide lens seems to be offset by a possible cross-fault. Two chip samples were taken across the north-facing outcrop; a 4-metre chip across the top half of the sulfide lens and a 3-metre chip across the lower half of the outcrop (**Figure 34**, page 79). Three high-grade grab samples were also taken from the north-facing outcrop, and approximate locations are depicted in **Figure 34** (page 79).

**Figure 35** (page 80) depicts the south-facing massive sulfide lens which is ~2m wide, vertically-dipping and hosted within sheared, gossanous, mafic volcanic rocks with evident pillows. Evident mineralization is pyrite, chalcopyrite, sphalerite and minor bornite. Note, copper-oxides (dominantly malachite ± azurite) seen within several quartz-biotite-chlorite-epidote veinlets that cross-cut the fine-grained, mafic volcanic hosts proximal to the main massive sulfide occurrences. Possible hydrothermal leaching of copper into neighbouring hosts is hypothesized.



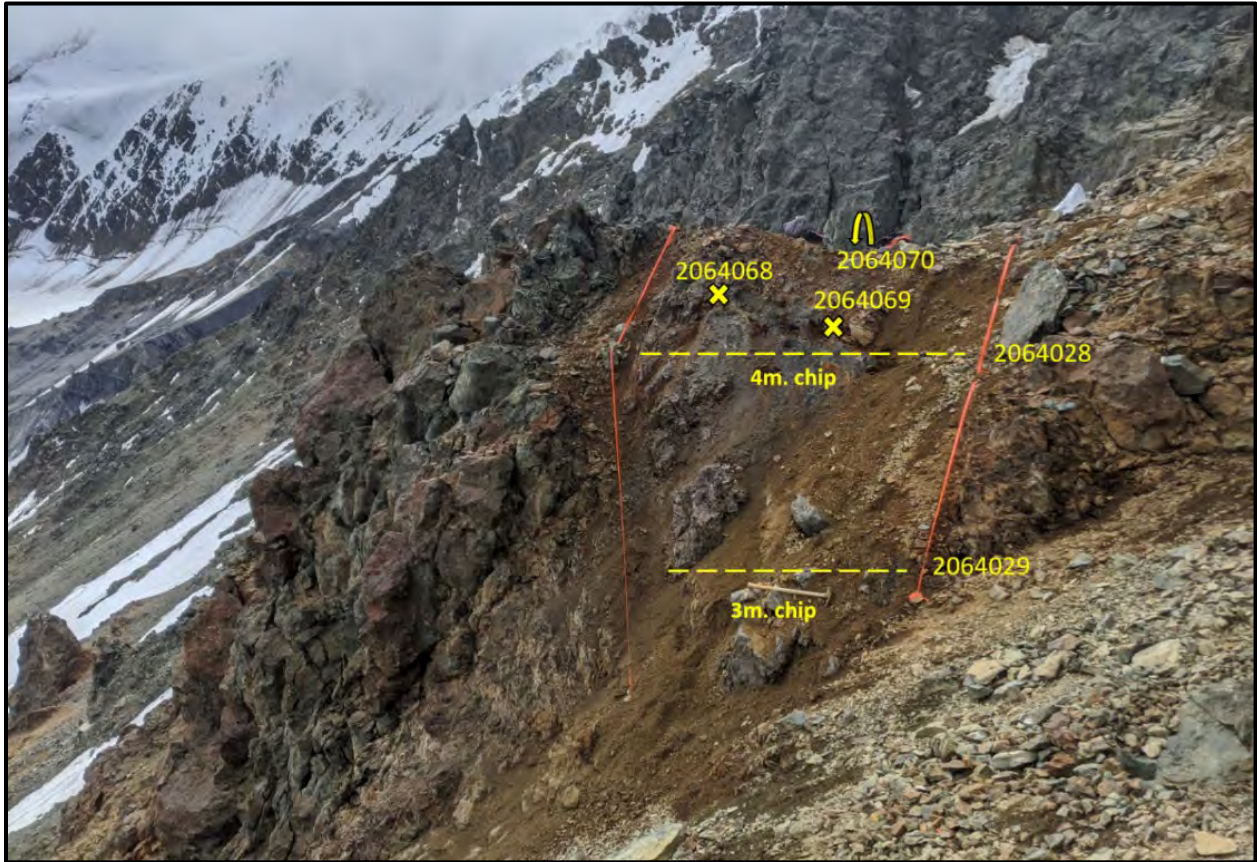


Figure 34: Sample locations from N-facing massive sulphide lens of the Telluride showing. Three high-grade grab samples (2064068-70) and two chip sample locations are plotted (2064028-29). Sample# 2064070 is taken on the other side of the outcrop. A 4m, massive sulfide lens hosted within Fe-oxidized, sheared mafic volcanics (basalts) with evident pillow structures. Note the geo-tool for scale.



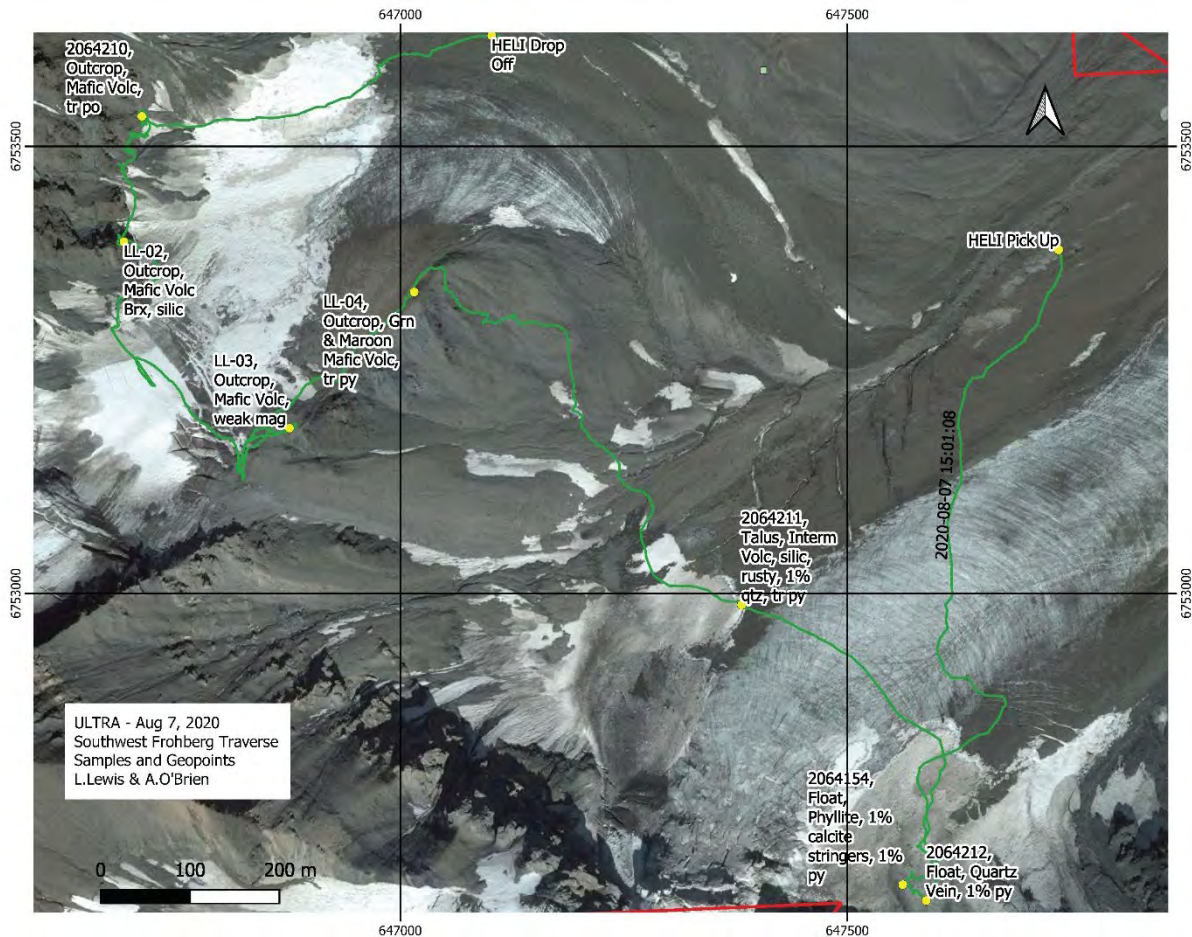


Figure 35: Nearly vertically-dipping, south-facing massive sulfide lens of the Telluride showing. Located 10m away and along strike from the north-facing outcrop (photograph taken standing on the north-facing outcrop). A 2m, massive sulfide lens hosted within Fe-oxidized, sheared mafic volcanics (basalts) with evident pillow structures.



### 5.3.3 Southwest Frohberg Traverse

The aim of the southwest Frohberg traverse was to scout for evidence of continuation of the mineralization seen at Telluride. The traverse started at the same location as the Telluride prospecting traverse, at the base of the steep slopes below the Telluride showing, and 500m west of the Frohberg showing. **Figure 36** (page 81) illustrates the traverse route and the geopoints, sample descriptions and assays are shown in **Table 10** (page 82).



*Figure 36: Southwest Frohberg traverse (shown in green). Yellow dots indicate sample locations with sample numbers or geopoints where geological data was collected. Sample descriptions and results are shown in Table 10, page 82.*

The outcrops encountered on the first half of the traverse were predominantly foliated mafic to intermediate volcanic rocks, non- to weakly magnetic, variably silicified and chlorite altered, containing less than 1% disseminated pyrite and pyrrhotite. The rocks in this area, situated south of the Duke River fault, places them within the Alexander Terrane, likely part of the Devonian to Upper Triassic Icefields formation. Traversing southward along the base of the cliffs revealed interlayered polymictic flow units within the more massive volcanic intervals (**Photo Plate 6**, page 83). The only anomalous assay was returned from float sample 2064153, collected immediately northwest of sample 2064210 which contained sphalerite in a massive sulfide bleb hosted in mafic volcanics (471 ppm Zn, 455 ppm As).

Table 10: Ultra Southwest Frohberg rock descriptions, assays and geopoints.

Sample ID	Type	Source	Easting	Northing	Description	Sampler	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ti %
2064210	Grab	Outcrop	646711	6753534	Light to medium green-grey, blocky weathering with patchy orange to red-brown oxides lining fractures and joints. Fg, med grey, siliceous mafic volcanic (?), weakly magnetic (1/5), weakly schistose; 0.5% disseminated py, 0.5% disseminated po. Downslope from Aedan's sample 2064153.	LL	5	68	59	1	0.586
2064211	Grab	Talus	647382	6752987	Intermediate Volcanic, float/talus sample from base of outcrop. Rusty weathering, blocky, fg, siliceous. 1% x-cutting qtz stringers with 0.5% py as disseminations and blebs.	LL	7	60	76	1	0.277
2064212	Grab	Talus	647589	6752656	Quartz Vein, talus sample, possibly from approx 150m up the rock face. Light orange-cream, coarse grained qz vein with dark green phyllitic rip-up clasts. 1% granular py as discontinuous stringers and along fractures; trace galena (?) as fg silvery metallic mineral.	LL	3	50	25	3	0.002
2064152	grab	outcrop	646688	6753544	vfg, dark rock, hematite rich, possible large lens of sphalerite / po. Foliation 160/40.	AO	7	13	2	1	0.005
2064153	grab	float	676708	6753540	massive sulphide bleb, rusty. Note that the location is estimated as no coordinates were recorded. Sample collected very near 2064210.	AO	6	3	471	455	0.0005
2064154	grab	float	647562	6752674	shale / phyllite, fine grained, calcite veining, disseminated pyrite (2-4%)	AO	2	69	44	1	0.425
Geopoint LL-02		outcrop	646691	6753393	Mafic Volcanic outcrop, similar to previous sample, but with layers to 30cm containing up to 30% subrounded, elongated fragments or clasts to 10cm, buff colored, fg with small black clasts to 2mm. Strongly siliceous, 2% qz-carb-epidote discontinuous stringers and fracture fill. No visible sulphides.	LL					
Geopoint LL-03		outcrop	646876	6753185	Mafic Volcanic / Basalt (Dv / DTlv?) outcrop, dark green, massive to blocky weathering, dark green, fg, predominantly mafics + plag. Almost granular looking, weakly magnetic (1/5). Glacier between LL-02 and LL-03.	LL					
Geopoint LL-04		outcrop	647015	6753337	Mafic Volcanic Outcrop, alternating dark green- and maroon-colored bands, fg, occasionally with clasts. Non-magnetic, trace cubic py to 1mm. 1% cc-epidote stringers.	LL					





*Photo Plate 6: Inset photo showing interlayered volcanic flow bands to 30 cm wide within predominantly massive intermediate to mafic volcanics of the Devonian to Upper Triassic Icefields formation described at geopoint LL-02.*

Continuing south and west, past geopoint LL-04, the glacier was traversed and several float samples collected including interesting quartz vein with phyllite rip-up clasts, but without anomalous values. To explore this area further, glacier and rock-climbing gear is recommended.

#### **5.3.4 North Frohberg Traverse**

The purpose of the traverse was to investigate the area northwest of the main nickel-copper-PGE Frohberg showing, targeting the approximate footwall contact of the Main Sill. The traverse began northwest end of the Frohberg showing which consists of mineralization in stockwork quartz-carbonate veins associated with gabbroic dykes and sills proximal to the ultramafic Main Sill which has been traced for 3km. **Figure 37** (page 84) illustrates the traverse route and the geopoints, sample descriptions and assays are shown in **Table 11** (page 85).

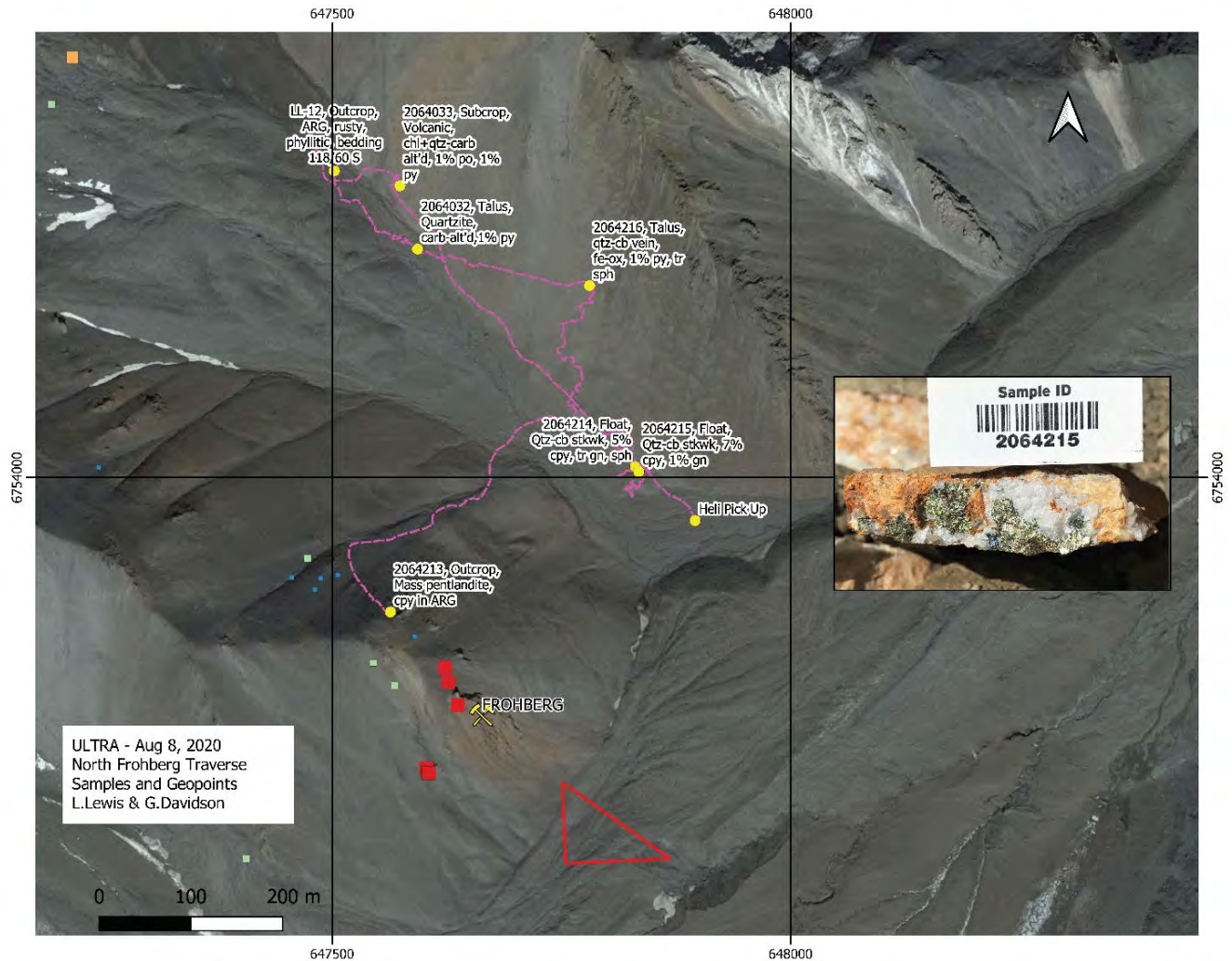


Figure 37: North Frohberg traverse (dashed purple line). Yellow dots indicate sample locations with sample numbers or geopoints where geological data was collected. Sample descriptions and results are shown in Table 11, page 85. The red squares indicate previous high-grade samples returned in 2018-2019 including up to 4.7% Cu, 48.2 g/t Pt, 19.8 g/t Pd, 35.5 g/t Ag, 2093 ppm Ni and 461 ppm Au.

Sample 2064213 was a re-sample of the previously discovered pentlandite-rich massive sulphide lense. The 15cm wide zone returned 4.291% nickel, 1760 ppm cobalt with associated anomalous copper and palladium. Downslope and northeast, the slope is heavily talus covered. Three hundred metres to the northeast, several mineralized, sub-angular boulders were discovered which contained chalcopyrite, galena and sphalerite in quartz-carbonate stringer / stockwork veining, 2mm – 15cm wide hosted in orange weathering, variably schistose, fine grained quartzite. Samples 2064214 and 2064215 assayed up to 2.471% copper, 1.760% lead, 40.5 g/t silver and 1681 ppm zinc. **Photo Plate 7** (page 86) depicts the boulder source and close-up of sample 2064215.



Table 11: Ultra North Frohberg rock descriptions, assays and geopoints.

Sample ID	Type	Source	Easting	Northing	Description	Au (ppb)	Pt (ppb)	Pd (ppb)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Ni (ppm)	Co (ppm)
2064032	Grab	Talus	647593	6754249	Quartzite subcrop with common quartz carbonate veining, trace pyrite, non magnetic.	11	1.5	3	16	1.5	19	0.15	47	7
2064033	Grab	Subcrop	647574	6754318	Mafic volcanic rock with quartz carbonate veining and minor sulphide minerals, magnetic (1).	9	1.5	6	70	1.5	43	0.15	93	26
2064213	Grab	Outcrop	647564	6753854	Massive Sulphide lense (pentlandite + cpy), northwest of the main Frohberg Showing. Weathers to dark red-brown. Fresh surface is massive pinkish-salmon colored pentlandite (up to 70%) with 1% cpy in bleached yellow to orange oxide stained, silicified fg argillite with scattered cu-oxide stain.	18	71	894	6805	22	26	1.8	4.291%	1760
2064214	Grab	Moraine	647831	6754012	Quartz-carbonate stringer / stockwork veining, 2mm-15cm wide with up to 5% cpy in veins and along fractures, 0.5% gn, tr-0.5% sph (?) in orange weathering boulders near base of moraine. Host appears to be fg quartzite (?), fg, light salmon-pink colored, variably schistose.	115	1.5	12	2.283%	1.760%	1618	40.5	200	25
2064215	Grab	Moraine	647834	6754007	Quartz-carbonate stringer / stockwork veining, similar to previous sample, 1 m downslope. 2mm-25cm wide with up to 7% cpy in veins and along fractures, 1% gn, sulphides in clots to 3 cm, in orange weathering boulders near base of moraine. Host appears to be fg quartzite (?), fg, light salmon-pink colored, moderately schistose.	170	1.5	5	2.471%	7118	1396	26.9	118	25
2064216	Grab	Talus	647781	6754209	Quartz-carbonate vein float from talus slope, composite grab over about 25m. Possibly from ridge outcrop above. Coarse grained, xtals up to 2cm, rusty orange oxides lining vugs and coating fractures. Trace - 1% py, possible trace sph (red-brown color). Main lithology on talus slope is dark green mafic volcanic.	8	1.5	3	53	10	33	0.15	33	34
Geopoint LL-12		Outcrop	647502	6754334	Argillite outcrop in creek bed, rusty, phyllitic sheen. Bedding 118/60.									





*Photo Plate 7: Boulder source of samples 2064215 and 2064215. Quartz-carbonate stockwork veining hosts clots of chalcopyrite, galena and minor sphalerite. Sample 2064214 assayed 2.283% copper, 1.760% lead, 1618 ppm zinc and 40.5 ppm silver. Sample 2064215 assayed 2.471% copper, 7188 ppm lead, 1396 ppm zinc and 26.9 ppm silver.*

Following discovery of the mineralized boulder, the remainder of the traverse headed up the drainage in hopes of locating the source. This area is postulated to be underlain by the peridotite Main Sill, but is covered by glacial moraine and talus. Mafic volcanic and phyllitic argillite outcrop was located and sampled approximately 500m northwest of the mineralized boulder, but returned low values. The source of the mineralization was not located and more detailed follow-up is recommended.

#### 5.4 Outpost Sill Geological Mapping

A four-day mapping and prospecting program was undertaken by TruePoint Exploration and Longford Exploration geologists. The scope of the field program was to sample and map exposed outcrop on the north-facing flank of Outpost Mountain. Previous field excursions in the area have produced regional-scale maps of the known Outpost Sill and several other ultramafic and gabbroic intrusions. The goal of the 2020 field campaign was to further delineate the occurrence of these ultramafic and gabbroic intrusions and to contribute to the existing geochemical rock database, while adding to the overall geological knowledge of the area.

Mapping of exposed outcrop, dominantly along (but not limited) three main creek gullies was undertaken. Traverses along the West Outpost, Monument and Knife Creeks were completed. Additionally, only a small area of the upper Silver Creek West was also traversed. Five field maps (1:2500 scale) with known outcrop occurrences, detailed structural measurements and field observations were created. Post-season field efforts focused on combining the five field maps and digitizing the lithology and location of known outcrop exposures **Figure 38** (page 90). Lithological unit and formation descriptions can be found in **Table 12** (pages 88-89). Dominant lithological units were Late Triassic McCarthy Formation argillites, argillaceous limestones and chemical sediments (uTM), in contact with Late Triassic Nikolai basalts and andesite flows (uTN) intruded by sills of the Late Triassic Kluane Ultramafic Suite (uTu) and gabbroic chilled margins (uTg). In addition, an interpreted geological map was created of the Outpost sill and neighbouring area (**Figures 39-40**, pages 91-92). Geological interpretations were supported by detailed outcrop mapping and geochemical whole rock assay data from the 2020 field season, with additional data compilation of historical assays and regional work.

Table 12: Table of formations (after Open File 2014-18, YGS)

Period	Units
Q – Quaternary	Unconsolidated alluvium, colluvium and glacial deposits.
NW, Miocene to Pliocene Wrangell Lavas	NW1 - Extensive volcanic unit, volumetrically significant but not associated with mineralization. Occur on the southwest side of Wrangellia overlapping onto the Alexander Terrane. Abundant west of the Donjek River and typically form piles 400-1000m thick. Mafic to felsic volcanic rock with NW2 – volcanic conglomerate.
MW, Mid to late Miocene Wrangell Suite	MW - Youngest intrusions in the area. Related to the Wrangell Lavas. Felsic to mafic composition.
OT, Oligocene Tkope Suite	OT-Homogeneous granite with lesser granodiorite, diorite and gabbro. Subvolcanic rhyolite, rhyodacite and dacite.
EKK, EKP, Early Cretaceous Kluane Ranges Suite	EKK, EKP - medium to coarse-grained, biotite-hornblende granodiorite, quartz diorite, quartz monzonite and hornblende diorite. Minor diorite and gabbro. Pegmatite and porphyry dykes.
JKD, Early Cretaceous Dezadeash Formation	JKD - lithic greywacke, sandstone, siltstone, shale, argillite and conglomerate, rare tuff.
JKS, Jurassic, ST. Elias Suite	JKS - coarse grained hornblende-biotite granodiorite and quartz diorite.
uTM, Late Triassic McCarthy Fm.	uTM - Conformably overlies the Nikolai Group, varying in thickness from zero to several hundred metres. Argillaceous limestone and argillite; massive limestone, limestone breccia and well-bedded limestone, gypsum and anhydrite. (McCarthy, Chitistone and Nazina limestone).
uTu, uTmg, LTKp, LTKg, LTKd Late Triassic Kluane Ultramafic Suite.	Preferentially intrudes at or near the Hasen Creek-Station Creek contact. uTu / LTKp - peridotite, dunite and clinopyroxenite, layered intrusions, locally with uTg / LTKg gabbroic chilled margins. LTKd – diabase. uTmg - Maple Creek gabbro. Fine to coarse grained diabase and gabbro sills and dykes. Intrudes the Skolai Group and locally the Kluane ultramafic suite.
uTN, Late Triassic Nikolai formation	uTN3 – thinly bedded grey limestone, gypsum and argillite. uTN – dark green to maroon amygdaloidal basalt and basaltic andesite flows, locally pyroxene and plagioclase phyrlic. (Nicolai Greenstone) uTN1 – light to dark green volcanic breccia, pillow lava and basal conglomerate.



Period	Units
uTB, Late Triassic Bear Creek Assemblage	uTBm - strongly foliated to massive intermediate to mafic metavolcanic rocks, lesser metaclastics, volcanoclastics and carbonate horizons uTBs – meta-siltstone, mudstone and sandstone; phyllitic to schistose, pyritic. uTBv – strongly foliated to intermediate to mafic metavolcanic rocks, greenschist.
PH, Mississippian to Permian Hasen Creek Fm.	PH – fine-grained clastic rocks. Lower part contains volcanoclastics, rare basalts, rare chert beds and chert-pebble conglomerate. PHc – limestone, locally fossiliferous, massive to bedded, gypsum.
CS, Mississippian to Permian Station Creek Fm.	CS - dark green basalt flows, pillows, pillow breccia, local magnetite-rich jasper. CSvt – bedded to massive chert, tuff. CSv – interbedded volcanic breccia, volcanoclastics; minor basalt flow. CSvt – laminated volcanic tuff and volcanoclastic siltstone.
DTI, Devonian to Upper Triassic Icefields Formation	DTIq – quartzite, light orange. DTII – limestone, light orange, calcite stockwork. DTIe – gypsum, white, cream, massive beds. DTLa - argillite with quartzite, cream, massive beds, pyrite. DTLaf – Frohberg siliceous unit, pale green, disseminated sulphides. DTLS – silicified schist, buff, +/- chlorite. DTLp – phyllite, dark grey, foliated. DTLv – metavolcanics, green to purple, volcanoclastics and flows.
Dp, Dc, Dv Silurian to Devonian, Bullion Creek Assemblage	Dp – fine grained phyllite and calcareous phyllite. Dc – light grey to cream marble, strongly deformed. Dv – dark green meta-basalt, greenschist.

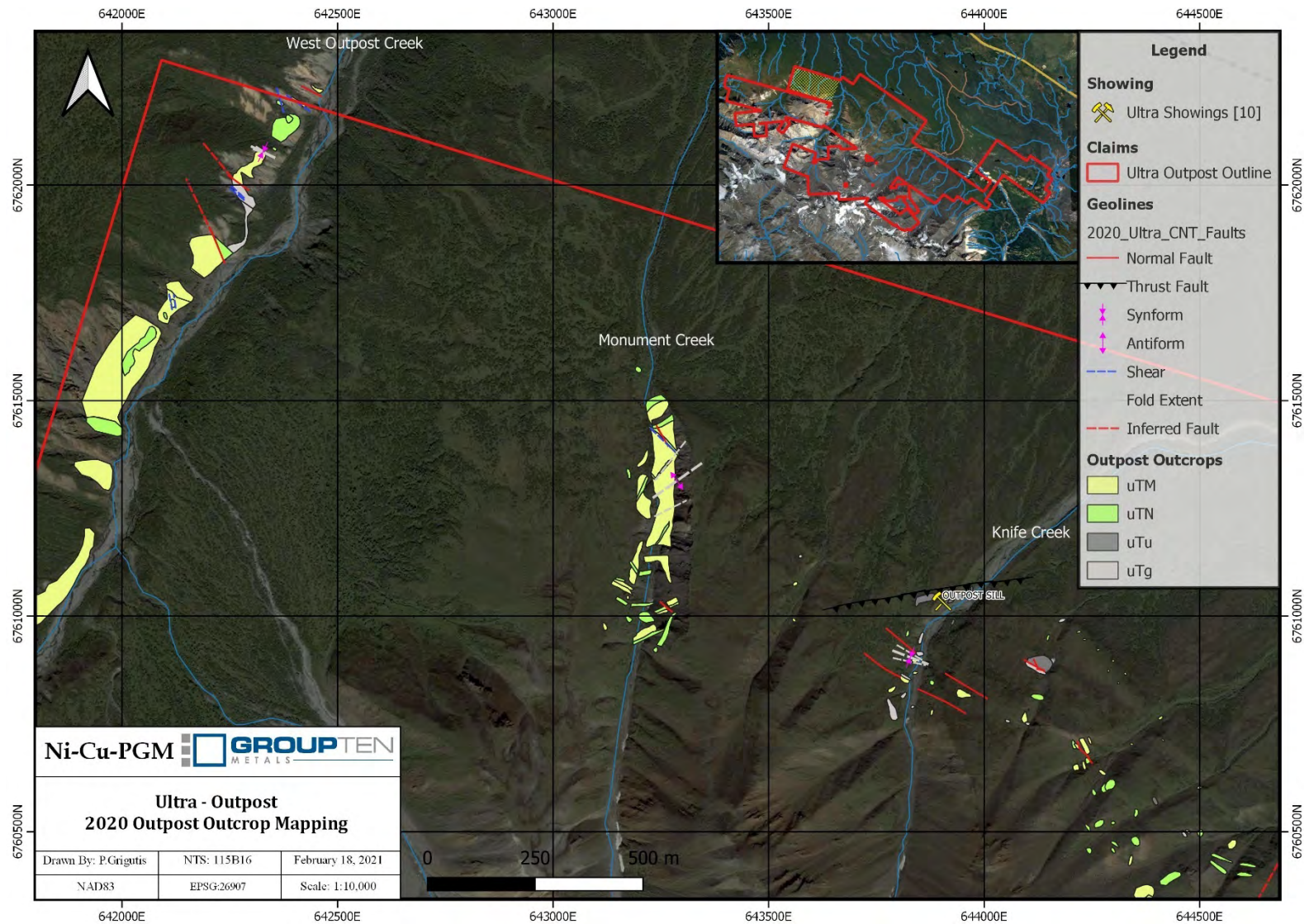


Figure 38: Ultra – Outpost outcrop mapping. The smaller map in the right-hand corner of the figure shows the general location of the 2020 Outpost mapping and prospecting campaign (yellow rectangle). The main figure shows the occurrence of mapped outcrop exposures. Most exposures are along creek gullies. Refer to Table 12 (page 88-89) for lithological unit and formation descriptions.



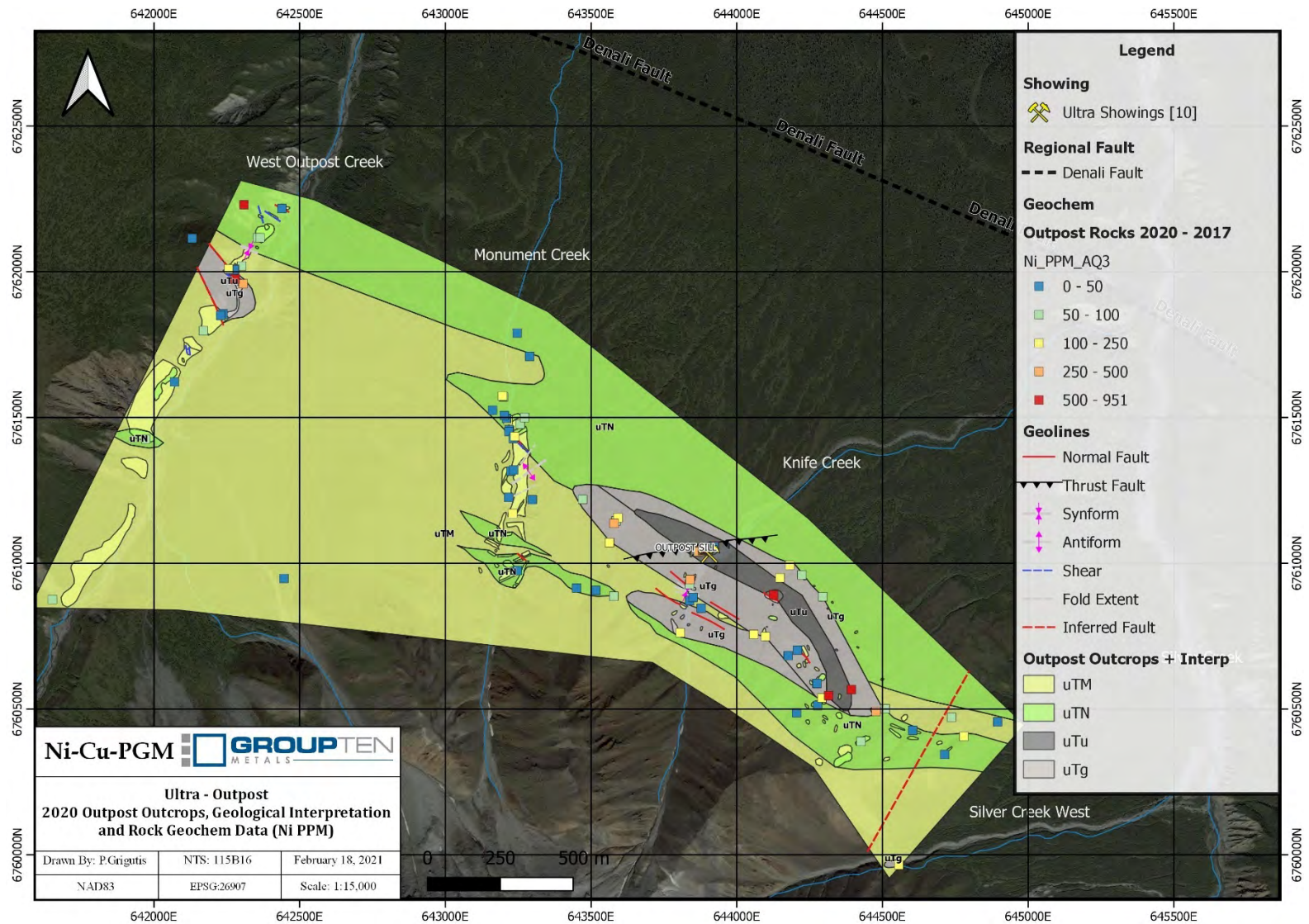


Figure 39: Interpreted geological map of the Outpost Sill and neighbouring area. Mapped outcrop occurrences from Figure 38 (page 90), as well as defined and inferred structures are presented. Geochemical whole rock Ni ppm values are overlain. Refer to Table 12 (pages 88-89) for lithological unit and formation descriptions.



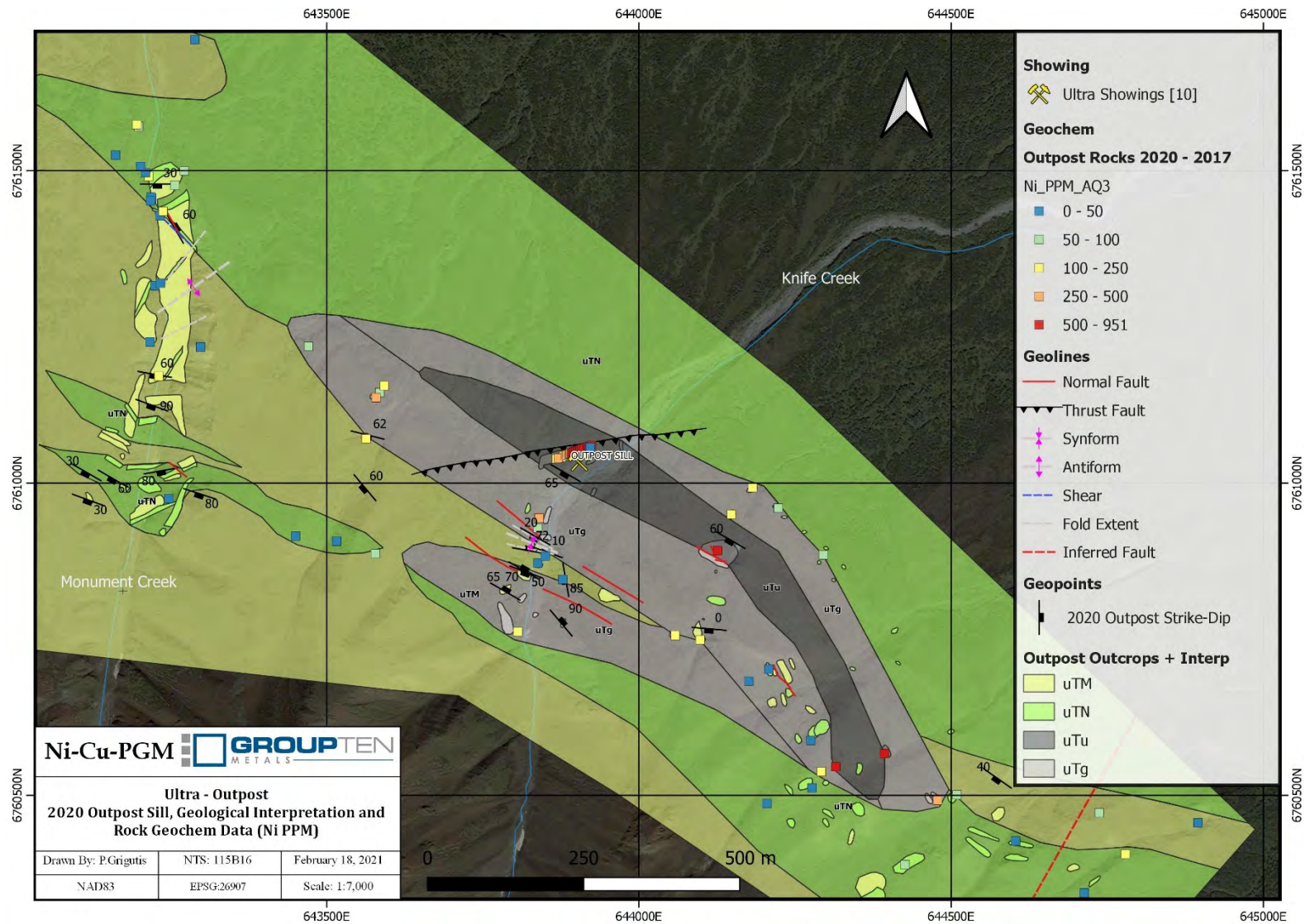


Figure 40: Mapped outcrop occurrences and the interpreted geological map of the Outpost Sill. Defined and inferred structures are presented as well as geochemical whole rock Ni ppm values. Note, no ultramafic sill has been found to outcrop along the mapping extents of Monument Creek. Note the possible secondary gabbro trend, previously interpreted as Maple Creek gabbro (uTMg). Refer to Table 12 (pages 88-89) for lithological unit and formation descriptions.

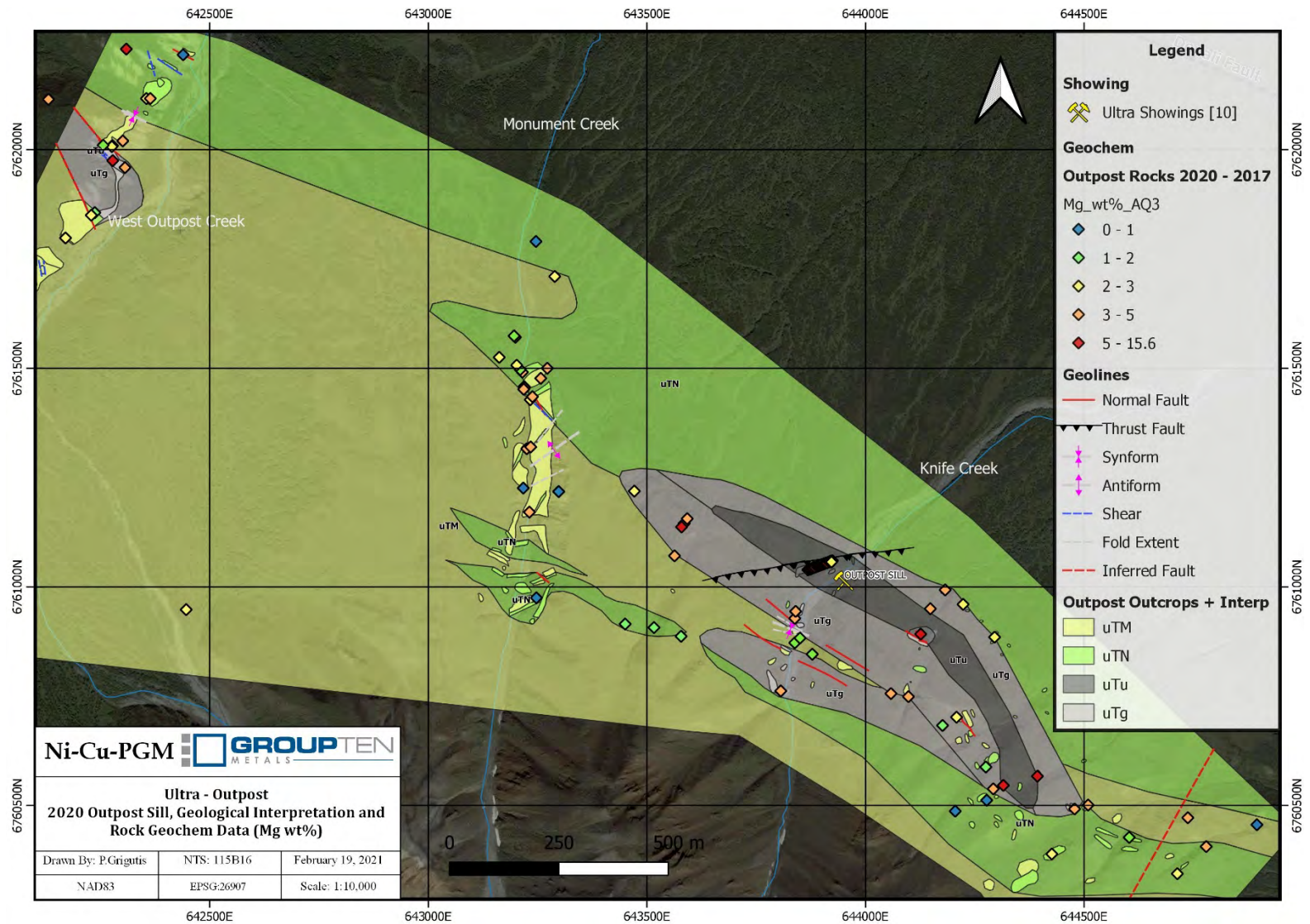


Figure 41: Mapped outcrop occurrences and the interpreted geological map of the Outpost Sill (with Mg wt%). Defined and inferred structures are presented. Note, similar Mg wt% compositions between Nikolai basalt packages (uTN) near the northern mapping extent of Monument Creek and the gabbroic rocks (uTg) around the Outpost sill at Knife Creek. Refer to Table 12 (pages 88-89) for lithological unit and formation descriptions



## 5.4.1 Geological Interpretations

### 5.4.1.1 Outpost Sill

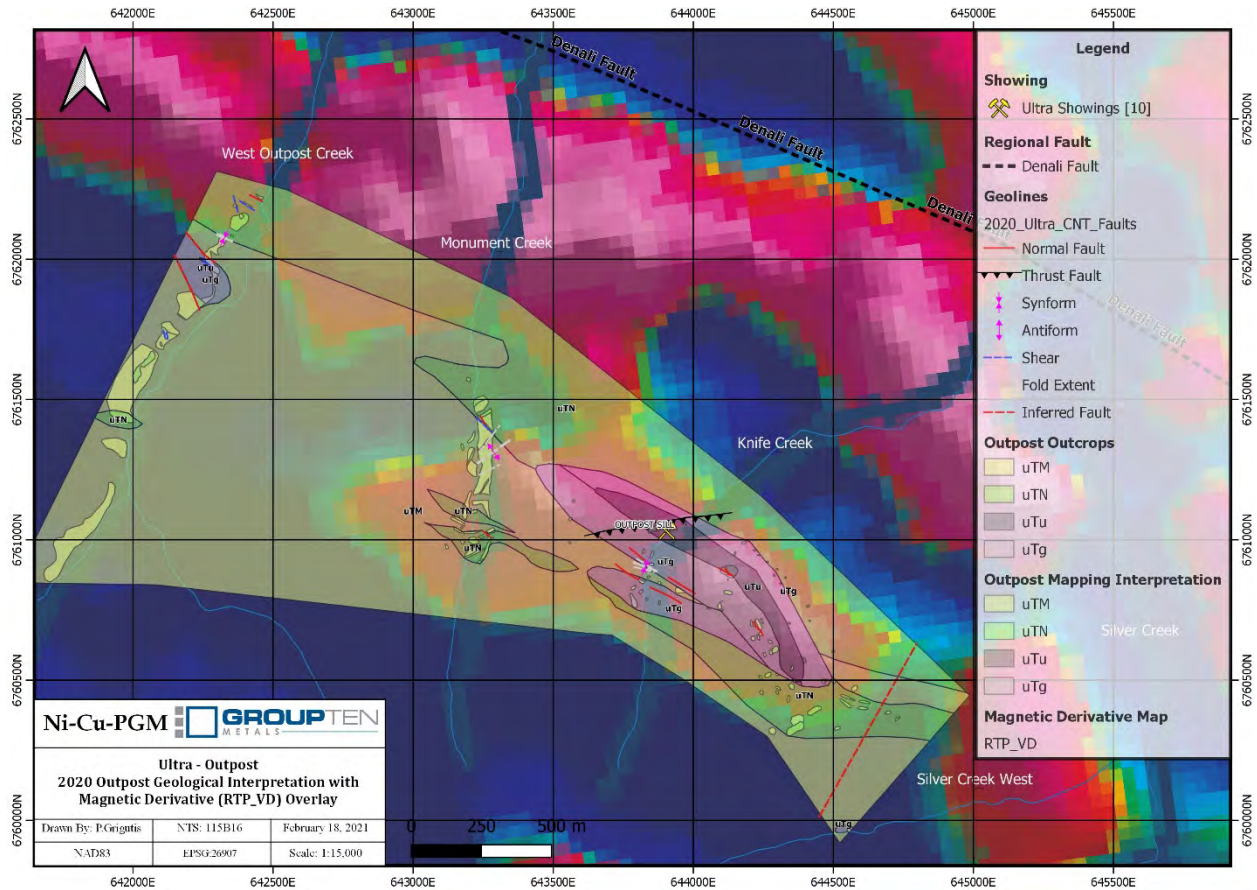
Sill-like gabbroic bodies of Maple Creek Gabbro (uTmg), included in the Kluane ultramafic/mafic Suite, are thought to be feeders to the Nikolai volcanics (Hulbert, 1997). Maple Creek gabbros are distinguished from Kluane gabbros because the latter do not grade into peridotite or dunite, can be finer grained, may display columnar jointing and are not associated with Ni-Cu-PGE mineralization (James, 2017). The lower gabbroic (uTg) and basalt (uTN) trend to the south of the main Outpost sill (**Figure 40**, page 92) may resemble a possible locality of such Maple Creek gabbros (uTmg). This trend has been previously identified as a possible secondary ultramafic sill body in historic mapping records. From field relationships and whole rock assay data, this trend does not currently contain an ultramafic sill occurrence nor significant Ni-Cu-PGE mineralization associated with such sills. However, several gabbro (uTg) and Nikolai volcanic (uTN) packages do comprise this NW-SE trend, which may extend as far as Monument Creek and potentially slivers identified at West Outpost Creek. Geochemical, mineralogical and geochronological studies indicate that the Maple Creek gabbro suite (uTMg) and Nikolai volcanic rocks (uTN) are coeval and related to Middle Triassic magmatism (Hulbert, 1997). These two units are closely related texturally and geochemically (similar Fe, Mg, Ni values), and thus it is difficult to distinguish one from the other purely from field relationships.

The Outpost sill (**Figure 40**, page 92) has been previously interpreted to be continuous along the property boundary, extending from Silver Creek West through to West Outpost Creek. Geological mapping, prospecting and geochemical whole rock assay data has not identified the occurrence of an ultramafic sill (uTu) in Monument Creek (**Figures 39-40**, pages 91-92). Monument Creek is dominantly comprised of argillite sequences (uTM) cross-cut by basaltic and andesite dykes of the Nikolai formation (uTn). Traversing north, and in the locality of the northern mapping extent, several thicker mafic volcanic packages exist. Although geochemical whole rock assay data returned lower Ni and Cr values (50-150ppm Ni, **Figure 40** (page 92); 50-200ppm Cr) in these mafic packages at Monument Creek compared to mafic volcanic and gabbro units in the vicinity of the Outpost sill on Knife Creek (50-350 ppm Ni, **Figure 40**, page 92; 50-600 ppm Cr). The same mafic packages at Monument Creek have similar Fe and Mg values (3-7 wt% Fe; 1-5 wt% Mg, **Figure 41**, page 93) compared to the mafic volcanic and gabbro units in the vicinity of Outpost sill on Knife Creek (3-8.5 wt% Fe; 2-6 wt% Mg, **Figure 41**, page 93). However, the Monument Creek mafic assemblages exhibit depleted Ni and Cr values and are interpreted to be slightly different than the higher Ni + Cr-bearing gabbros at Knife Creek. This could possibly suggest more than one pulse of a gabbroic (basaltic) intrusion during the evolution of Triassic magmas (Hulbert, 1997). Thus, the mafic packages at Monument Creek were interpreted as Nikolai mafic volcanics (uTN). It is still possible that the ultramafic Outpost sill (uTu) and associated chilled gabbroic margin (uTg) seen outcropping at Knife Creek may exist further north along Monument Creek, buried by thick sediments of the grassy lowlands and yet to be found.

However, magnetic derivative maps (RTP\_VD: First Vertical Derivative of the Reduced-to-Pole Magnetic Field) as shown in **Figure 42** (page 95), support geological interpretations that the Outpost sill likely pinches out and may not extend NW, towards West Outpost Creek, like previously interpreted. Additionally, the geophysical signature also shows a break to the SE of the Outpost sill, where an interpreted possible fault structure may truncate the Outpost sill. However, a gabbro unit (uTg) was mapped and sampled in the southeastern-most mapping extent, along Silver Creek West (**Figure 39**, page 91). Therefore, further investigation and mapping along Silver Creek West should be warranted to



map the extent of this gabbro unit (uTg) and possible prospecting around the magnetic anomaly along Silver Creek West (**Figure 42**, page 95). Further east of Silver Creek West, historic grab samples returned anomalous Ni and Cr values from documented gabbro and ultramafic float samples (along Silver Creek and East Silver Creek).



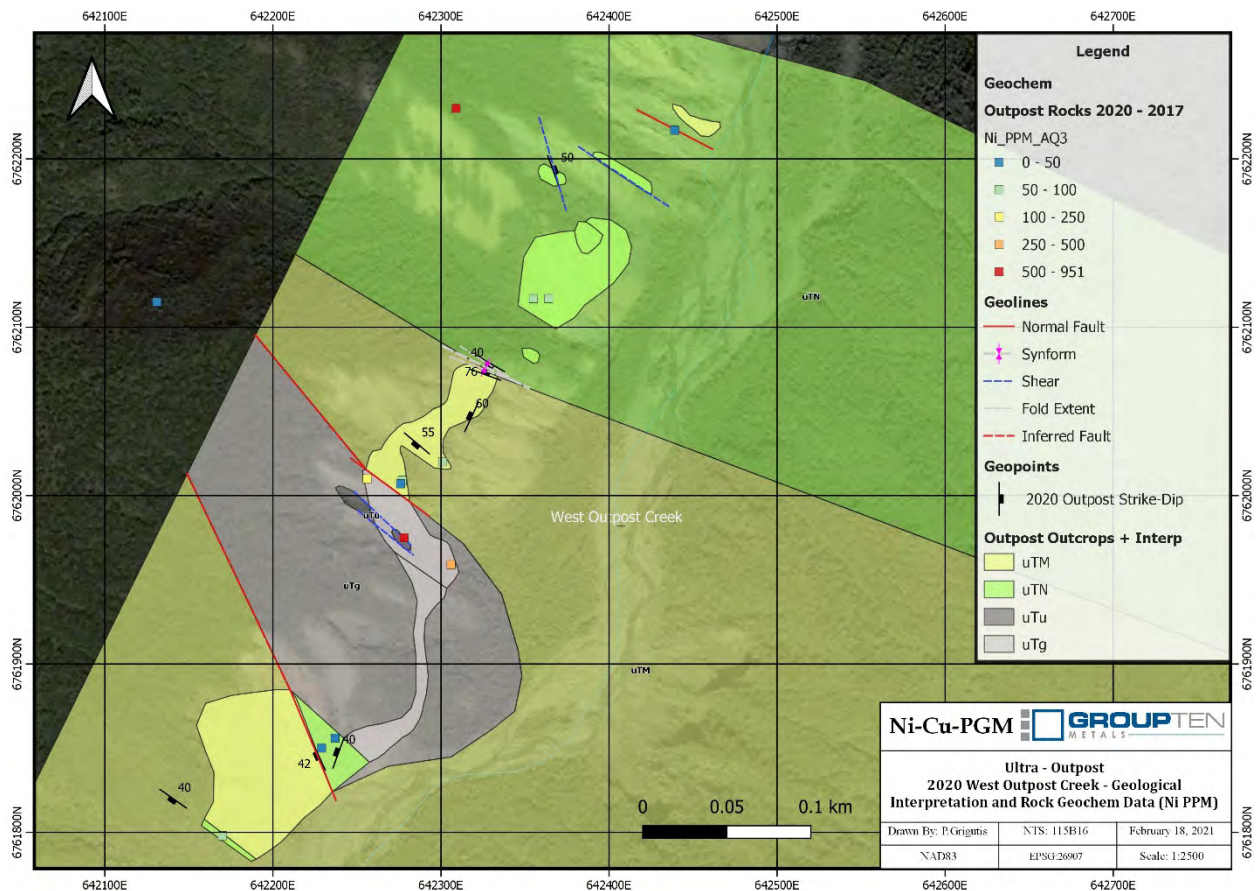
*Figure 42: Outpost geological interpretation with magnetic derivative overlay. The mapped outcrops (Figure 38, page 90) and interpreted geological map of the Outpost area (Figure 39, page 91) underlain by a magnetic derivative map (RTP\_VD). Defined and inferred structures are presented. Note the inferred geological fault to the SE of the Outpost sill. Refer to Table 12 (pages 88-89) for lithological unit and formation descriptions.*

#### 5.4.1.2 West Outpost Creek

West Outpost Creek is dominated by relatively E-W trending, ~45° dipping argillite and calcareous sediment sequences (uTm) cross-cut by Nikolai formation basaltic to andesitic dykes (uTN) in the southern portion of the mapping extent (**Figure 39**, page 91). Nikolai volcanic sequences (uTN) along with more mafic gabbros (uTg) occur in the northern mapping boundary (**Figure 43**, page 96). These mafic sequences were previously interpreted as ultramafic in composition but based on field observations and geochemical wholerock Ni and Cr values, these mafic sequences contain only up to 300ppm Ni and Cr. Although, the Mg-Fe compositions are similar to those mafic basaltic-gabbroic packages discussed earlier at Monument and Knife Creeks; 1-4 wt% Mg (**Figure 41**, page 93) and 2.5-6 wt% Fe. Therefore, upon detailed field observations and geochemical assay data, the West Outpost Creek (**Figure 43**, page 96) mafic package is primarily interpreted as gabbroic in composition (uTg).

Amongst the gabbroic package (uTg), a sheared, pinched and boudined ultramafic lens (up to ~1m) does occur (uTu) (**Figure 43**, page 96).

The basaltic (uTN) and gabbroic (uTg) ± ultramafic occurrence (uTu) at West Outpost Creek was previously interpreted to be an extension of the Outpost sill (Knife Creek) as it extended NW. Although the Fe-Mg compositions of basaltic-gabbroic rocks are similar between West Outpost and Monument/Knife Creek mafic outcrops, the sparsity of outcrops between West Outpost and Monument/Knife Creeks (**Figure 38**, page 90) hindered the ability to accurately interpret that the Outpost sill may indeed extend as far as West Outpost Creek. Additionally, the magnetic derivative maps (**Figure 42**, page 95) support the interpretation that the Outpost sill likely pinches out at/near Monument Creek and that the basaltic-gabbroic mafic packages of West Outpost Creek could be related to a possible intrusive anomaly that may be present further north, in the low-lands of West Outpost Creek (**Figure 42**, page 95). A peridotite float sample (#2064063 – 951 ppm Ni; 420 ppm Cr; 11.37 wt% Mg; 8.22 wt% Fe) found in the northwestern mapping boundary (**Figure 43**, page 96) may be an indication that the magnetic anomaly high (**Figure 42**, page 95) that cross-cuts West Outpost Creek to the north may be a sill-like intrusion and would warrant further investigation.



*Figure 43: West Outpost Creek geological interpretation and rock Geochem data (Ni ppm). Mapped outcrop occurrences and the interpreted geological map of the Nikolai volcanic (uTN) and gabbroic (uTg) ± ultramafic lens (uTu) on the northern mapping margin of West Outpost Creek. Defined and inferred structures are presented as well as geochemical whole rock Ni ppm values. Refer to Table 12 (pages 88-89) for lithological unit and formation descriptions.*

## 6 Conclusions and Recommendations for Future Work

The 2020 exploration work on the Ultra-Outpost property focussed on a multi-faceted approach to further explore for Ni-Cu-PGE mineralization related to the ultramafic/mafic rocks of the Kluane Ultramafic/Mafic Suite, as well as exploration for other precious and base metals related to VMS-type and potential gold mineralization.

- MMI geochemistry was carried out in four areas with small grids to test the effectiveness of the technique to indicate buried mineralization. The MMI soil program was successful in indicating multi-sample precious and base metal anomalies, with the best apparent success within the small test grids over Boutellier East and West. On the East grid, MMI analysis has indicated signs of gold mineralization, coincident with anomalous gold results obtained from conventional soil sampling in 2018 (up to 554 ppb Au). From 2020 sampling at Boutellier East, there is a lone anomalous Pd response which should be considered significant as it is the highest Pd response ratio of all four areas. Literature notes that Pd (+Bi, Cr, Sn and Ta) possess very low mobility in the surficial/secondary environment and any MMI-M analysis for Pd that is greater than the lower detection limit should be reviewed with care for its overall significance in the survey.
- Although the indicator minerals within the heavy mineral concentrate analyses in the Outpost Sill area did not point to strong evidence for Ni-Cu-PGE mineralization, the high number of gold grains retrieved from sample **2064303** accompanied by pyrite and a trace of cinnabar are highly indicative of gold mineralization upstream/up-ice. Of the 48 gold grains retrieved from West Outpost creek on the far west edge of the Ultra property, 27% were pristine grains, indicating a potential gold source nearby. 73% modified and reshaped gold grains indicate a possible gold source some distance from the sample site. Cinnabar, HgS, was also present and is an indicator for both gold and mercury. Anomalous barite, also present in 2064303, is an indicator mineral that has been linked to propylitic alteration zones around epithermal gold (Averill, 2007). The combination of sphalerite, gold, pyrite, barite and spessartine garnet are common indicators of both VMS and sediment-hosted lead-zinc deposits. There is good evidence that further exploration is warranted up the West Outpost Creek, and side drainages.
- The Telluride VMS showing was revisited and re-sampled with 3 chip samples taken across the massive sulphide zone in different locations, varying in width from 2-4 metres, confirming the potentially economic grades of up to 2.45% Cu, 6842 ppm Zn, 24.5 ppm Ag, 339 ppb Au and 689 ppm Co. Selective grabs of the massive sulphide zone assayed up to 9.2% Cu, 8410 ppm Zn, 34.8 ppm Ag, 230 ppb Au and 881 ppm Co.
- Prospecting traverse in the Frohberg-Main Sill area re-confirmed the extension of the ultramafic Main Sill approximately 2.5 km to the southeast, where it is tens of meters wide. Sampling from the SE extension of the ultramafic sill and possible gabbro surrounding the sill produced background values.
- Prospecting traverse to the northeast of the Frohberg showing discovered several mineralized, sub-angular cream to orange-colored boulders which contained chalcopyrite, galena and sphalerite in quartz-carbonate stringer / stockwork veining, 2mm – 15cm wide in quartzite and assayed up to 2.471% copper, 1.760% lead, 40.5 g/t silver and 1681 ppm zinc. Continued



traversing upslope did not reveal the source of the boulders. It is suggested that the host rocks may be of the Devonian to Upper Triassic Icefields Formation – unit DTIq (quartzite, light orange) or unit DTLa (argillite with quartzite, cream, massive beds, pyrite).

- Re-sampling of the massive sulphide pentlandite-rich lense, approximately 125 m northwest of the main Frohberg showing returned 4.2% Ni, 6805 ppm Cu, 1760 ppm Co and 894 ppb Pd. As has been recommended by many previous authors, exploration potential exists for a buried deposit beneath boulder talus cover north of the Frohberg showing where the dykes and sills coalesce into a larger gabbro to ultramafic body – Main Sill (Pautler, 2014).
- A four-day mapping and prospecting program in the Outpost Sill area further delineated the occurrence of the known ultramafic and gabbroic intrusions, as well as building on the existing geochemical rock database, and adding to the overall geological knowledge of the area. Post-season field efforts focused on combining the five field maps and digitizing the lithology and location of known outcrop exposures. Geological interpretations were supported by detailed outcrop mapping and geochemical whole rock assay data from the 2020 field season, with additional data compilation of previous outcrop mapping, historical assays and regional work.
- The Outpost ultramafic sill, previously interpreted to be continuous, extending from Silver Creek West through to West Outpost Creek, is now interpreted as pinching off prior to Monument Creek. Additionally, the magnetic derivative maps support the interpretation that the Outpost sill likely pinches out at/near Monument Creek and that the basaltic-gabbroic mafic packages of West Outpost Creek could be related to a possible intrusive anomaly that may be present further north, in the low-lands of West Outpost Creek. A peridotite float sample (#2064063 – 951 ppm Ni; 420 ppm Cr; 11.37 wt% Mg; 8.22 wt% Fe) found in the northwestern mapping boundary may be an indication that the magnetic anomaly high that cross-cuts West Outpost Creek to the north may be a sill-like intrusion and would warrant further investigation.

## 6.1 Recommendations for Future Work

In addition to recommendations resulting from the 2020 field season, recommendations from past years assessment reports are included, as many have merit, but have not been followed up. In order of priority, the recommendations for follow up include:

- Apply for a Class 3 Exploration permit. The previous Class 3 Exploration permit, LQ00443 expired March 14<sup>th</sup>, 2021. The new permit should include the Outpost claims which are a recent addition to the Grouping Certificate (HW007773).
- Re-assess the previous geophysical survey over the Frohberg area to determine if an IP or EM survey is required to better delineate drill targets. (2005 VLF and magnetic survey – Hildes, 2006)
- Contingent on results from this work, a first pass fly-RC/diamond drill program is recommended on both Frohberg/Main Sill and Telluride. Frohberg is the priority target with the 2019 assays returning up to 4.6% Cu, 48.2 g/t Pt, 19.1 g/t Pd and 1361 ppm Ni (sample 3249063).
- Pautler (2014) noted that a favourable drill pad site is located along the ridgetop above the Telluride showing. Three 250-300m holes could be fanned from one setup and an additional 400m hole to further test the down dip extent of the massive sulphide horizon and associated stockwork zones would be contingent on the results of the first three holes.

- Although the indicator minerals within the heavy mineral concentrate analyses did not point to strong evidence for Ni-Cu-PGE mineralization, the high number of gold grains (48 grains with a calculated 1704 ppb visible gold in the HMC) retrieved from sample 2064303 accompanied by pyrite and a trace of cinnabar are highly indicative of gold mineralization upstream/up-ice. 27% pristine grains indicate a potential gold source nearby. 73% modified and reshaped gold grains indicate a possible gold source some distance from the sample site. In spite of this drainage on the far west end of the Ultra property being prospected periodically since the 1980's, a source of gold has not been located. A more detailed survey of this drainage including stream sediment sampling to further define a possible source area of mineralization in combination with prospecting is a high priority.
- It is recommended that a more comprehensive analysis of the 2020 MMI geochemistry data be carried out: calculate response ratios for more of the 53 elements (chromite was missed in the first pass calculations of response ratios) including REE's. Consider calculating a Spearman-Rank Correlation Coefficient Matrix for the dataset to help determine significant element associations. The correlations could help to define better metal associations that could be used in subsequent plots to define anomalies or anomalous trends (Fedikow, 2010).
- The Boutellier East MMI soil grid should be extended to the north, west and east. A strong linear aeromagnetic anomaly extends across the upland from Silver Creek to Telluride Creek, and outlines a Kluane Suite mafic/ultramafic sill that has pyritic breccia with spotty chalcopyrite in the hanging wall (Davidson, 2019). Due to depth of cover and muted response in soils from 2018 on the east and west side of Boutellier Creek, Mobile Metal Ion soil geochemistry was performed in 2020 and found to reveal anomalies in gold, cobalt, copper and minor palladium. The elevated gold responses from the Boutellier East grid may be related to the 2018 highly anomalous gold in conventional soil sampling, 1 km east that returned up to 554 ppb Au and 7 samples assaying >50 ppb Au.
- Investigation of the magnetic anomaly on the north end of West Outpost Creek is recommended to help determine if the magnetic anomaly may be a sill-like intrusion. If the cover is extensive, mobile metal ion soil geochemistry may be an option. The north edge of the claim boundary does not extent very far north of the edge of the detailed mapping area.
- Follow up of the mineralized boulders located 300 metres northeast of the Frohberg showing (samples 2064214 and 2064215 assayed up to 2.471% copper, 1.760% lead, 40.5 g/t silver and 1681 ppm zinc).
- Further prospectivity needs to be confirmed with bedrock-interface probe sampling in areas of glacial cover or talus, as well as to test the margins of the ultramafic sills on the Ultra property, especially the footwall. Although the probe was not available for the 2020 field season, the recommendations from the 2020 YMEP proposal for geoprobe work should be followed which may help set the groundwork for future drilling of these targets.

Recommendations from past years that merit follow up as time and money permits:

- A detailed prospecting/mapping and rock sampling program is recommended to follow possible link between the massive sulphide trend between Telluride VMS showing and the Nunatak Zone

along strike to the southeast towards the Bryson Glacier where previous programs have located similar mineralization across a talus slope and in boulders. From Pautler (2014): The Nunatak Zone, a bedded massive sulphide lens and associated stockwork zone, occurs 3 km southeast along strike of the Telluride showing with results of 11.54% Cu, 1514 ppm Zn and 7.2 g/t Ag over 3m. Several drill holes could be fanned from one site above the Nunatak showing (Pautler, 2014). In 2006, one kilometer further along strike to the southeast of the Nunatak Zone, semi-massive pyritic horizons, sulphide bearing quartz veins and pyrite-chalcopyrite stockwork type mineralization were discovered along a rugged north facing slope with highly anomalous values including 2.34% Cu, 50.9 g/t Ag over 2m (Pautler, 2014). These values merit follow up as a moderate priority.

- A reconnaissance magnetic survey is recommended to follow up on the 2005 discovery of the Jesse copper-nickel-PGE soil anomaly at the footwall contact of a 2 km by 300m wide ultramafic sill to define the talus covered contact. The soil / oxidized rock from the sill's limonite altered footwall contact assayed 1379 ppm Ni, 338 ppm Cu, 101 ppb Pd. Follow up has not been undertaken on this target A test line should first be run across the exposed footwall contact to determine the usefulness of the survey. Hand trenching in areas of lower cover can then be undertaken to expose and sample the footwall contact zone (Pautler, 2014).
- In the Jennifer copper-silver vein/stockwork showing area, re-sampling of old trenches in 2005-06 found vein widths to be narrow, and significant values were not obtained from the hanging wall and footwall zones. As well, no anomalous gold values were obtained. Maximum values of 0.44 and 0.62 g/t Au are documented and a previous sample is rumoured to assay 7.8 g/t Au (Rogers, 1985). High levels of antimony, mercury, bismuth, cadmium and arsenic are associated with the copper-silver mineralization in this zone. If time permits, this would be a moderate priority target to re-assess as 1989 assessment reported up to 16% Cu, 2.4% Zn and 751 g/t Ag (Stack, 1989).
- The zinc showing 1 km north of the Jennifer showing does not contain notable values of base or precious metals over meaningful widths. However, Trench 89-1 returned anomalous nickel values. A gabbro sill occurs to the north of this showing, which was briefly examined in 2011, but no significant results were obtained from only two samples collected near and in the gabbro. This is a lower priority target to re-assess (Pautler, 2014).
- The Kul (Minfile 115B 012) on the southern flank of Outpost Mountain, is a possible nickel-copper-PGE occurrence with malachite noted along mafic intrusive contacts and in narrow shears. Minor skarn mineralization was noted in the limestone in this area, peripheral to gabbroic dykes. Narrow polymetallic quartz + carbonate veins (copper + zinc + lead + silver) hosted by argillite and limestone also occur through this area, and further southwest. In 2014 prospecting of the Outpost granodiorite uncovered quartz, quartz-carbonate, epidote and albite veinlets to stockwork with malachite associated with epidote veinlets. Pautler (2014) suggest that potential may exist for porphyry copper style mineralization. A further assessment of this area is a moderate priority.



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## 8 Statement of Qualifications

I, Linda Lewis, P.Geo, of Destruction Bay, Yukon Territory, do hereby certify that:

1. I am a graduate of the University of Regina with a B.Sc. Honours in Geology in 1987.
2. I am a Professional Geoscientist registered with Engineers and Geoscientists British Columbia, Licence #21125.
3. I have practiced my profession as a mineral exploration geologist with Bema Gold Corp., Northern Freegold Resources Ltd., Imperial Metals Corp., Comaplex Minerals Corp., Golden Predator Canada Corp., and as a geological consultant for 30 years, where I have been involved with the geological exploration of precious and base metal properties and deposits in a variety of capacities.
4. I am co-author of this report and participated as a senior geologist in the 2020 field program.
5. That I am an employee of TruePoint Exploration. (2020 - present). TruePoint is the exploration arm for Group Ten Metals Inc.
6. I consent to the use of this report by Group Ten Metals for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Vancouver, British Columbia this 6<sup>th</sup> day of April, 2021.

A handwritten signature in blue ink that reads "Linda Lewis".

Linda Lewis  
TruePoint Exploration  
112 Kluane Ave, General Delivery  
Destruction Bay, YT Y0B 1H0

I, Povilas Grigutis, of the City of Mississauga, in the Province of Ontario, HEREBY CERTIFY:

1. That I am hired as a contract geologist by TruePoint Exploration, currently fulfilling requirements towards a professional geologist designation. I worked on the Ultra property during the summer of 2020.
2. I am a graduate of Western University (B.Sc. Geology, 2017), and am presently fulfilling requirements for an M.Sc. Geology degree from Western University (*to be granted in 2021*).
3. I have worked in the field of geology and mineral exploration in Canada (ON, QC, MB, YT) part-time since 2015, including roles as; geological assistant/intern, production and exploration geologist.
4. That I am a contract employee of TruePoint Exploration (2020 - present). TruePoint is the exploration arm for Metallic Group (which includes Group Ten Metals) to which I have been employed since 2020.
5. I consent to the use of this report by Group Ten Metals for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Mississauga, Ontario this 6<sup>th</sup> day of April, 2021.

*Povilas. Grigutis*

Povilas. Grigutis B.Sc.  
TruePoint Exploration  
2618 Pollard Drive  
Mississauga, ON, L5C 3H1



## Appendix I – YMEP Final Submission Form

# YMEP FINAL SUBMISSION FORM

		Date submitted:
<i>submit by January 31st to:</i>  <i>(winter placer projects may submit at pre-approved date)</i>	YMEP- EMR/ YTG Street address: 102-300 Main Street Mailing address: Box 2703, K-102 Whitehorse, Yt, Y1A 2C6	YMEP@gov.yk .ca phone: 867-456-3828 fax: 867-667-3198
<b>CONTACT INFO</b>		<b>PROJECT INFO</b>
Name:		YMEP no:
Address:		Project name:
		Project type:
email		Project module:
Phone:		
Is the final report enclosed?         _____ yes         _____ hard copy _____ no             _____ pdf copy _____ digital spreadsheet of station location data		
Comment: Final Report to be submitted by Monday February 8, 2021		
<b>PROJECT SUMMARY</b>		
Total project expenditures: _____		
Number of new claims since March 31st: _____		
Has an option resulted since March 31?     _____ yes     _____ no     _____ in negotiation		
Number of calendar field days: _____		
Number of person-days of employment:     _____ paid             _____ days of unpaid work		
Total no. of samples:     _____ rocks             _____ silts             _____ soils             _____ other		
Total length/volume of trenching/ shafting: _____		
Total number of line-km of geophysics _____		
Total meters drilled             _____ diamond drill     _____ RC drill     _____ auger/percussion drill		
Other products (provide details): _____		
<i>This is not an expense claim form. To request reimbursement of expenses, please submit a separate detailed expense claim form.</i>		
<b>FINANCIAL SUMMARY</b>		
Total daily field allowance	_____	Total contractor costs
Total field air transportation costs (helicopter/plane)	_____	Total excavating/ heavy equipment costs
Total truck/ mileage costs	_____	Total assay/analyses costs
Total wages paid	_____	Total reclamation costs
Total light equipment rental costs	_____	Total report writing cost
Other (please specify) _____		Total staking costs
Other (please specify) _____		

# YMEP FINAL SUBMISSION FORM

Your feedback on any aspect of the program:

The Department of Energy, Mines and Resources may verify all statements related to and made on this form, in any previously submitted reports, interim claims and in the Summary or Technical Report which accompanies it.

I certify that;

1. I am the person, or the representative of the company or partnership, named in the Application for Funding and in the Contribution Agreement under the Yukon Mining Incentives Program.
2. I am a person who is nineteen years of age or older, and I have complied with all the requirements of the said program.
3. I hereby apply for the final payment of a contribution under the Yukon Mineral Exploration Program (YMEP) and declare the information contained within the Summary or Technical Report and this form to be true and accurate.

Date \_\_\_\_\_

Signature of Applicant \_\_\_\_\_

Name (print) \_\_\_\_\_



## Appendix II – Statement of Expenditures

# YMEP Expense Claim - Client Copy



YMEP no:	20-096	project name:	Ultra	applicant name:	Group Ten Metals Inc.
expense claim no:	1/2	program type:	hard rock	program module:	target evaluation
date submitted:	31-Jan-21	phone:	(250) 231-0207	email:	llewis@truepointex.com
address: Suite 904-409 Granville St. Vancouver, BC V6C 1T2					
start/end dates of fieldwork for this claim:		2-Aug-20	08-Aug-20	no. of field days/this claim:	7
		start	end		
eligible expenses <i>Please refer to rate guidelines. Provide photocopy of receipts.</i>					
item		unit/days	rate	total	
daily field expenses	no persons: 4	28	\$100/day	\$2,800.00	
personnel	<i>Name (supply statement of qualifications)</i>				
		Ryan Versloot GIT	7	500.00	\$3,500.00
		Graham Davidson PGeo	7	500.00	\$3,500.00
		Linda Lewis P Geo	7	500.00	\$3,500.00
		Povi Grigutis Geologist	7	400.00	\$2,800.00
equipment (rental)	private or commercial	unit/days	rate	total	
Radios, sat phone, GPS, Drone	private	35	25.00	\$875.00	
Portable XRF	private	7	175.00	\$1,225.00	
Magnetic Susceptibility Meter	private	7	20.00	\$140.00	
	private				
	private				
	private				
	private				
	private				
	private				
	private				
other	<i>Please provide details.</i>				
	1 ton truck	21	140.00	\$2,940.00	
	Trailer, 18' 7000 lb covered	7	50.00	\$350.00	
	Fuel-truck	1490	.55	\$819.50	
	Helicopter - Long Ranger	13.5	1350.00	\$18,225.00	
	Jet Fuel 122L/hour	1647	1.65	\$2,717.55	
<b>Total this claim:</b>				<b>\$43,392.05</b>	

DATE: December 2, 2020

# LONGFORD

— EXPLORATION SERVICES LTD. —

**SEND TO:**

Group Ten Metals Inc.  
 #904-409 Granville Street  
 Vancouver, BC  
 Canada V6C 1T2  
 604-357-4790

Longford Exploration Services Ltd.  
 #460-688 West Hastings Street  
 Vancouver, BC  
 Canada, V6B 1P1  
 778-809-7009

**Ultra 2020**

Personnel		Days	Rate	Line Total
Project Manager / Geologist - Versloot	August 2 - 8	7	\$ 700.00	\$ 4,900.00
Senior Geologist - Lewis	August 2 - 8	7	\$ 850.00	\$ 5,950.00
Senior Geologist / P.Geo - Davidson	August 2 - 8	7	\$ 750.00	\$ 5,250.00
Geologist - Grigutia	August 2 - 8	7	\$ 600.00	\$ 4,200.00
Junior Geologist - O'Brien	August 2 - 8	7	\$ 500.00	\$ 3,500.00
total man days		35	<b>Cat. Total</b>	<b>\$ 23,800.00</b>
Food and Lodging		Units	Rate	Line Total
Food and Groceries	per diem	35	\$ 55.00	\$ 1,925.00
Lodging	Haines Junction	35	\$ 100.00	\$ 3,500.00
			<b>Cat. Total</b>	<b>\$ 5,425.00</b>
Transportation		Units/Days	Unit Price	Line Total
Truck	1 ton with safety and recovery gear	21	\$ 140.00	\$ 2,940.00
Trailer	18' 7000lb covered trailer	7	\$ 50.00	\$ 350.00
Fuel	per km for truck	1490	\$ 0.55	\$ 819.50
ATV's	To access lowlands	0	\$ 125.00	\$ -
Heli	Long Ranger	13.5	\$ 1,350.00	\$ 18,225.00
Jet Fuel	122L / hour	1647	\$ 1.65	\$ 2,717.55
			<b>Cat. Total</b>	<b>\$ 25,052.05</b>
Equipment Rentals		Units	Unit Price	Line Total
Electronics Kit	Radios, Sat phones, GPS, Drone, per man day	35	\$ 25.00	\$ 875.00
Portable XRF with Stand	per day	7	\$ 175.00	\$ 1,225.00
Magnetic Susceptibility Meter	per day	7	\$ 20.00	\$ 140.00
			<b>Cat. Total</b>	<b>\$ 2,240.00</b>
Consumables		Units	Unit Price	Line Total
Sample bags, flagging tape, office	per man day	35	\$ 20.00	\$ 700.00
			<b>Cat. Total</b>	<b>\$ 700.00</b>
Analytical		Units	Unit Price	Line Total
Analysis - MMI	SGS Burnaby	136	\$ 50.00	\$ 6,800.00
Analysis - Rock	PRP70-250, FA330, AQ300	56	\$ 38.55	\$ 2,158.80
Analysis - HMC	ODM for Indicator Mineral, inc shipping	5	\$ 400.00	\$ 2,000.00
Age Dating	Main sill and Outpost sill	--2	\$ 2,500.00	\$ 5,000.00
			<b>Cat. Total</b>	<b>\$ 10,958.80</b>
Pre/Post Field		Units	Unit Price	Line Total
Assessment Report prep and work filing		1	\$ 2,500.00	\$ 2,500.00
			<b>Cat. Total</b>	<b>\$ 2,500.00</b>

Estimated Sub Total	\$	<b>70,675.85</b>
Management 15%	\$	<b>10,958.68</b>
SUB TOTAL	\$	<b>81,634.53</b>
GST 5 %	\$	<b>4,081.73</b>
<b>Total</b>	<b>\$</b>	<b>85,716.26</b>





## Appendix III – Supplementary Work History Tables

*Historic geochemistry (after Pautler, 2015)*

Period	Summary
1955	The first claims were staked by Gaymont Prospectors Syndicate over the Boulder showing, which probably corresponds to the original “crushed copper-pyrite zones” discovered by placer miners in 1904 (Geological Survey of Canada, 1905). No assays were reported from the boulders at this time.
1958	The Frohberg nickel-copper-PGE+gold showing was discovered by Gaymont Prospectors Syndicate in 1958, with rock sample values of 18.9% Cu, 2.75% Zn, 0.4% Ni, 7.54 g/t Ag and 3.43 g/t Au, while tracing the source of the massive sulphide boulders at the Boulder showing (Abbott and Cathro, 1977).
1965	Coranex Limited obtained an average of 1.6% Cu, 4.4% Zn and 6.86 g/t Ag from six channel samples across the layering in the massive sulphide boulders at the Boulder showing (Abbott and Cathro, 1977).
1967	A detailed 71 sample silt survey was conducted along the upper drainages of Telluride Creek by Coranex Limited to explore for the source of the massive sulphide boulders at the Boulder showing. Samples were analyzed for copper, zinc, total heavy metals and occasional lead but significant results were not obtained from Cub Creek (Woodcock, 1967). A 77-sample soil geochemical survey was also completed by Coranex Limited in 1967, with analysis for copper, zinc and mercury. A mercury anomaly was found to coincide with the margins of the 1966 Turam conductor (Woodcock, 1967). The source of the boulders was thought to originate from the southeast from the area of the conductor due to glacial movement along the Shakwak valley (Woodcock, 1967).
1970	The Atlas program located massive sulphide float, 3 km upstream of the original Boulder showing along Cub Creek, with values of 0.25% Cu, 3.96% Zn and 19.2 g/t Ag (Abbott and Cathro, 1977).
1977	A geochemical sampling program by Aquitaine Oil Company on the Boulder, Telluride and Frohberg showings returned values of 1.40% Cu, 13.9% Zn and 46.6 g/t Ag from the Boulder showing and values of 1.15% Cu, 0.02% Zn, 0.86% Ni, 6.86 g/t Ag and 5.14 g/t Pd from the Frohberg showing. The Telluride massive sulphide showing was discovered and a brief examination returned 0.50% Cu, 5.22% Zn and 7.54 g/t Ag from a composite sample of the massive sulphides (Abbott and Cathro, 1977).
1984	A geochemical survey, involving the collection of 38 silt and 37 rock samples, in the area north of the Jennifer showing (Kul showing) was undertaken by Noranda Exploration Company Limited, following up silt anomalies obtained in 1983 (Reid, 1985). The survey outlined a 50-hectare drainage basin with anomalous copper, silver, zinc, and lead in an area north of the west branch of Silver Creek, southeast of Outpost Mountain. The drainage basin contains quartz stockwork and veins with malachite, chalcocite, galena hosted by black phyllitic argillite and limestone and limestone with pyrrhotite and chalcopyrite stringers returning rock sample values of 5200 ppm Cu, 4800 ppm Pb, 600 ppm Zn, 450 ppm Ag and 220 ppb Au. Results of > 4% Cu, 472 ppm Pb, 9200 ppm Zn, >500 ppm Ag and 440 ppb Au were obtained from the Jennifer showing. Grab samples were also collected from the Jennifer showing in

Period	Summary
	1984 with rock sample values of 1344 g/t Ag, 0.62 g/t Au and 22.5% Cu, with a previous sample reported to assay 7.8 g/t Au (Rogers, 1985).
1987	126 soil and 43 rock samples were collected from the Frohberg showing and surrounding areas underlain by mafic to ultramafic intrusions by Nordac Mining Corp. (Eaton, 1988a) and 52 soil and 38 rock samples by the Reed Creek Joint Venture from an area underlain by mafic to ultramafic intrusions 3 km southeast of the Frohberg showing (Eaton, 1988b) and analyzed for copper, nickel, gold, palladium and platinum. The Nordac program returned rock sample values of 1.6% Cu, 0.21% Ni, and 2.2 g/t Pd from the Frohberg showing but only 0.14% Ni and 0.07% Cu from surrounding areas and the Reed Creek JV returned values of 0.19% Ni and 0.06% Cu with no anomalous gold or PGE values.
2001	Fifty rock samples were collected in 2001 from the Frohberg showing and other exposures of mafic to ultramafic rocks on the property yielding rock sample values of 1.97 g/t Pd, 0.203 Pt g/t and 1.66% Cu from the Frohberg showing and rock sample values of 2.7% Cu, 0.83% Ni, 4.1% Zn and 23.5 g/t Ag from other exposures of mafic to ultramafic rocks (Brickner, 2002). In 2002 sampling of conglomerate float with malachite and sulphide stringers from the Boulder showing returned 0.86% Cu, 1.86% Zn and 85.1 g/t Ag (Table 3 and Morgan and Matkovich, 2003) and values of 5.54 g/t Pt, 13.46 g/t Pd, 4.07% Cu and 1.73% Ni over 0.5m from trenching on the Frohberg showing (Pautler, 2012).
2004	Numerous quartz-pyrite stockwork boulders were identified by Klondike Gold Corporation in the headwaters of Bryson Creek returning rock sample values of 1.14% copper with anomalous arsenic, mercury, antimony and zinc. Weak to moderate pyrite stockwork mineralization was also uncovered in mafic volcanic rocks in a number of creeks, including Boutellier Creek, along the eastern side of the claim boundary, which were thought to represent a feeder system to the VMS style mineralization at the Boulder showing (Casselman, 2005).
2006	<p>Klondike Star Mineral Corporation collected 157 rock and 16 soil samples across the property and completed MMI grid soil surveys (242 samples) on the Redball (100), Lake (62), and Silver Creek East (80) grids in 2006 to test for the presence of massive sulphide mineralization in areas of previously outlined geophysical conductors below thick deposits of glacial till where conventional soil sampling is ineffective (Pautler, 2006).</p> <p>On the Redball grid an airborne geophysical conductor occurs at L100N/9975E along with a geochemical anomaly in cobalt molybdenum-barium and to a lower degree, copper. Multi-element anomalies occur just to the south. One copper-cadmium-cobalt-lead-(barium)-(zinc) anomaly is centred at L100N/9850E (650298mE, 6755288mN) and lies within the 1961 Turam conductor. Another multi-element anomaly lies at the southern edge of the 1961 Turam conductor at 10150N/9750E (650187mE, 6755227mN) and includes copper-cadmium-cobalt-lead-barium-(molybdenum). Another high copper-cadmium cobalt-molybdenum-iron-zinc-barium-(lead) multi-element anomaly occurs in the northeastern grid area but is less distinct. A copper-molybdenum-iron-zinc (cadmium)-(cobalt) anomaly occurs centred at L10250N/100E at the northwest edge of the grid.</p>



Period	Summary
	<p>The Lake grid covers a till covered area with geophysical anomalies consistent with the VMS model (Hildes, 2006) that could be the source of the boulders from the Boulder showing with late reverse movement of the Shakwak Ice Sheet. A high copper-iron-molybdenum-barium anomaly occurs in the northeastern grid area and in the central area of L91N and L92N. A broad cadmium anomaly with some coincident zinc occurs through the northern two-thirds of the grid. The lack of exposure in this area and limited number of samples makes interpretation difficult but is also consistent with the presence of the Denali fault, thought to transect the area.</p>
2008	<p>Rock geochemical sampling reported by Tom Morgan in 2008 (16 samples) returned 2.1% Ni, 2.06% Cu, 3.65 g/t Pd, and 660 ppb Pt over 0.5m from semi-massive pyrrhotite in the hanging wall chert 4m above a gabbro dike, and 2.56% Cu, 2.30% Ni, 1.85 g/t Pd, and 220 ppb Pt, 0.315 ppm Rh over 0.25m along the gabbro footwall, 200m to the northwest of the Frohberg showing. Rhodium (Rh) is one of the rarest elements in the Earth's crust. Rock sampling of the Telluride North showing returned 5.53% Cu and 42.0 g/t Ag over 2m, and 4.60% Cu and 33.9 Ag g/t over 1.5m, and 7.06 % Cu, 32.3 g/t Ag, and 2.21% Zn from two adjacent samples, as well as gold enrichment of 480 and 410 ppb in the footwall portion of the two largest lenses.</p>
2012	<p>The 2012 program reported by Tom Morgan (2013) involved soil geochemical sampling and prospecting of a 2010 government aeromagnetic anomaly (Kiss, 2010a, b), with similar size and amplitude to that at the Wellgreen deposit, on the eastern UZ claims. A total of 157 soil and 3 rock samples were collected at a 25m sample spacing on 11 out of 18 lines (L0-L17), generally 200m apart, over the southern contact of the anomaly (gaps in sampling between lines 6 and 11, and 12 and 16). Soil sample results indicated elevated copper, palladium, platinum values correlating with the edge of the magnetic high (values of 2019 ppm Cu, 34 ppb Pd, 12 ppb Pt) and weakly elevated zinc, copper, silver, nickel, ±molybdenum, ±gold values centred approximately 1 km to the west of the magnetic high (soil sample values of 1429 ppm Zn, 371.5 ppm Cu, 458 ppb Ag, 259.5 ppm Ni, 13.6 ppm Mo and 596.3 ppb Au). Another weakly anomalous area appears to be emerging at L17/O25N with soil sample values of 345.6 ppm Zn, 105.8 ppm Cu, 387 ppb Ag, 121.3 ppm Ni and 20.76 ppm Mo.</p>
2014	<p>J. Pautler collected samples from the 2002 trench on the Frohberg showing which returned 7.91 g/t Pd, 1.00 (repeated at 3.24 by a different analysis) g/t Pt, 0.37 g/t Au, 1.98% Cu and 0.94% Ni from the silicified tuffaceous rocks (sample number YCRR82048) and a grab sample also returned 3.44% Cu with 0.71% Ni, with 0.26 g/t Au, 1.9 g/t Pt, and 10.9 g/t Pd (14ULT01), (Pautler, 2015). Samples of gabbro from the showing returned 0.54% Cu with 0.227% Ni with 182 ppb Pd (YCRR82045) and 0.02% Cu, 0.18% Ni with 178 ppb Au (16851). The latter sample is part of the Main sill, which was traced over 3 km to the west.</p>
2017	<p>Longford Exploration field crews conducted prospecting traverses, geological surveys and soil geochemical sampling on the UZE claims, including 13 rock samples and 387 soil samples on soil lines targeting geochemical and geophysical anomalies. The 2017 exploration work on the UZE claims identified soil geochemical anomalies in an area underlain by a quartz monzonite (EKK) intruding Bear Creek Assemblage</p>

Period	Summary
	metamorphic rocks with local pods of magnetite-epidote-actinolite skarn (Davidson, 2018).
2018	Longford Exploration field crews conducted prospecting traverses, geological surveys and soil geochemical sampling over various magnetic anomalies across the property. A total of 518 soil samples were collected primarily on the Uze area and 60 rock samples were collected from across the property.
2019	Longford Exploration field crews conducted prospecting traverses, geological surveys, and soil geochemical sampling over various targets on the property including Frohberg-Main Sill showing and other mafic and ultramafic sill margins. In total, 79 rocks were collected and 250 soils, all of the soils from a grid on the UZE block which built on the grid completed in 2018.

*Historic geophysics (after Pautler J., 2015)*

Period	Summary
1955-56	A resistivity and magnetic survey and three uncorrected gravity profiles were completed in the Boulder showing area by Gaymont Prospectors Syndicate in 1955 to 1956 to locate the source of the massive sulphide boulders at the Boulder showing. A magnetic high and resistivity low was outlined approximately 300m southwest of the most upstream occurrence of boulders known at this time. Results of the gravity survey were inconclusive (Clark, 1956).
1961	A Turam electromagnetic survey over the Boulder showing by Canadian Exploration Limited in 1961 outlined a northwest trending broad conductive zone with several conductive trends that appeared to correlate with the 1956 (Clark's) resistivity anomaly (Watson, 1961).
1966	Another Turam electromagnetic survey was completed over the Boulder showing by Coranex Limited in 1966 outlining a small conductor southeast of the massive sulphide boulder float, assumed to lie up ice of the Shakwak ice trend (Bosschart, 1966).
1977	An airborne electromagnetic survey, carried out by Scintrex, and a Maxmin orientation survey was completed in 1977 by Aquitaine Oil Co. to locate the source of the massive sulphide boulders at the Boulder showing, but results were not published (Abbott and Cathro, 1977).
2002	A horizontal loop electromagnetic (HLEM), VLF-EM and magnetic surveys, totaling 8.625-line km, were completed over the Ultra grid, on the Boulder showing, identifying two conductors and a magnetic low anomaly proximal to the boulder occurrences. A VLF-EM survey was also completed over the Frohberg showing but did not indicate any conductivity (Casselmann, 2003). In 2003 the HLEM survey over the Ultra grid was extended (Jackson, 2003).
2004	A 200-line km airborne total magnetic field and electromagnetic survey using the McPhar Hummingbird system was completed in 2004 by Klondike Gold Corporation over the lower slopes in the northeastern property area, directed towards locating

Period	Summary
	the source of the massive sulphide boulders of the Boulder showing. A total of 54 EM anomalies were outlined and several northwest trending narrow magnetic highs which may outline ultramafic sills of the Kluane Ultramafic Suite (Casselman, 2005).
2005	A VLF-EM and magnetic survey was undertaken over the Frohberg Ni-Cu-PGE showing and horizontal loop electromagnetic (HLEM) surveys were completed on the Lake and Redball grids in the Boulder showing area (Hildes, 2006) by Klondike Star Mineral Corporation under option. The Redball grid covers the best anomaly identified by the 2004 airborne electromagnetic survey and confirms anomalies identified by the 2002-2003 ground HLEM survey on the Ultra grid but was better oriented with respect to the regional geological strike (Mann and O'Shea, 2006). A conductor was outlined adjacent to a magnetic high anomaly on the Redball grid coincident with the Redball airborne anomaly and within the 1961 Turam electromagnetic anomaly. On the Lake grid a conductor was delineated southwest of a central, intermediate magnetic high anomaly (Mann and O'Shea, 2006). Both the Lake and Redball anomalies are consistent with the VMS model (Hildes, 2006). However, the Denali fault is thought to transect the Lake grid area and would be consistent with the anomalies obtained. A fault was also mapped in Alteration Creek in 2006 that follows the trend of the 1961 Turam electromagnetic anomaly. The VLF survey at the Frohberg showing confirmed the continuation of the host ultramafic sill that is partially obscured by overburden. The magnetic survey suggests that the Frohberg showing represents an apparent offshoot of a larger body underlying the creek, in an area with little outcrop.
2014	The 2014 magnetic (TMF) and VLF-EM survey covered approximately 17-line km over the UZE aeromagnetic anomaly in the eastern property area (Hildes, 2014). The grid is referred to as Jarvis River East in the memo by Hildes (2014) but has been renamed the UZE grid. A strong well-defined conductor (1) follows a very weak magnetic high in the southern grid area, corresponding to the open-ended copper-nickel-PGE soil anomaly from 2012. Strong magnetic highs were identified in the northern half of the grid and are consistent with responses over ultramafic bodies. A lower order magnetic high anomaly (B) is truncated by a VLF conductor, interpreted to be a fault (F). The main magnetic high anomaly (A) is coincident with a well-defined VLF response (2), which is slightly less distinct to the east of the interpreted fault (3) (Hildes, 2014).
2016	UAV mag survey (28.9km) by Longford Exploration Services Ltd. and Pioneer Exploration on the UZE claims for Group Ten Metals Inc. contiguous to the 2014 survey Identified a magnetic high through the center of the claim block (Rogers, 2016).
2017	Aurora Geosciences Ltd. released reprocessed geophysical imagery for map sheet 115B in Open File 2017-33.



*Historic trenching and associated rock sampling (after Pautler, 2015).*

Period	Summary
2002	In 2002 a hand trench was excavated at the southeastern end of the Frohberg showing, returning 5.54 g/t Pt, 13.46 g/t Pd, 4.07% Cu and 1.73% Ni over 0.5m from the silicified tuffaceous rocks at the margin of a gabbro sill (Morgan and Matkovich, 2003). An ultramafic body, 2 km southeast of the Frohberg returned 1526 ppm Ni, but with no associated gold. Previous sampling from this sill returned values up to 665 ppm Cu and 1500 ppm Ni but with no anomalous gold or PGE values (Eaton, 1988a).
2006	A helicopter pad was blasted at UTM coordinates 6753935mN, 646309mE, Nad 83, Zone 7 to facilitate access to the Telluride showing and hand/blast trenching was undertaken by Klondike Star Mineral Corporation in 2006 (Pautler, 2006).
2006	In 2006 the Telluride horizon was discontinuously traced, due to glacier cover, 6 km along strike to the southeast. The Telluride showing was systematically sampled and four hand-blast trenches (trenches TR 06-1 to TR 06-4, from south to north) were excavated in the lower, southern, offset portion of the massive sulphide horizon (Telluride South) over a strike length of 60m. Four additional trenches (trenches TR 06-5 to TR 06-8, from south to north) were excavated in the upper, northern portion of the massive sulphide horizon (Telluride North) over a strike length of 100m. The massive sulphide horizon trends 130-140°/ 45-70°S, ranges from 0.5 to 4m wide, has been traced for 200m and remains open along strike. The central portion overlies a 35m stockwork zone. The showing itself returned rock sample values of 3.23% Cu, 6.75% Zn, 17.8 Ag, 0.15 Au over 4m with grab sample values of 13.4% Cu, 6.75% Zn, 56 ppm Ag, 0.25 ppm Au. Sampling of the ridge 2 km southeast of the showing did not return anomalous values. However, another lens is partially exposed at Nunatak, 3 km southeast of the Telluride showing with rock sample results of 11.54% Cu, 1514 ppm Zn and 7.2 g/t Ag over 3m. The footwall returned 796 ppm Cu with 358 ppm Zn. One km further along strike to the southeast of the Nunatak showing (4 km southeast of the Telluride showing), semi massive pyritic horizons, sulphide bearing quartz veins and pyrite-chalcopyrite stockwork type mineralization is exposed along a rugged north facing slope with values of 2.34% Cu and 50.9 g/t Ag over 2m; and 5.34% Cu and 9.7 g/t Ag over 0.5m. This appears to be the source of the copper bearing boulders in Bryson Creek that returned 1.14% Cu in 2004. Anomalous values up to 295 ppm Cu, 2214 ppm Zn and 607 ppm Pb were obtained from a cliff face 6 km along strike to the southeast of the Telluride showing, on the east side of upper Bryson Creek (Pautler, 2006).

*Historic Drilling (after Pautler J., 2015).*

Period	Summary
1956	Gaymont Prospecting Syndicate: 3 diamond for 108 m. The 1956 drill program tested the magnetic high and resistivity low anomaly approximately 300m upstream of the most upstream occurrence of boulders but failed to reach bedrock as the casing twisted off due to extensive boulder till (Clark, 1956).
1962	Canadian Exploration Limited: 2-rotary for 116 m. The 1962 churn drill program tested conductors in the eastern portion of the geophysical anomaly but did not

Period	Summary
	intersect massive sulphides. The cuttings were reported to contain some disseminated native copper (Woodcock, 1967).
1970	Atlas Exploration Limited 3 diamond drill holes totalling 216 m. The 1970 drill program tested a conductor along the Shakwak ice trend. One hole was lost in overburden and another hole intersected coal seams and marcasite in porous sedimentary rocks thought to be responsible for the conductor (Coates, 1970). The 1970 core storage is located on the property and was examined by the author in 2006 at UTM coordinates 6756057mN, 650981mE, Nad 83, Zone 7 but is in a state of total disrepair (Pautler, 2015).

*Historical drill hole locations*

DDH	UTME_NAD83_Z7	UTMN_NAD83_Z7	Az	Dip	Depth (ft)
56-1	650155	6755560	SW	-45	124
56-2	650283	6755393	SW	-50	110
56-3	650021	6755622	-	-90	120
62-A	650675	6754733	-	-90	190
62-B	650653	6754716	-	-90	190
70-1	650830	6755657	225	-55	62
70-2	650830	6755657	-	-90	362
70-3	650936	6755511	225	-60	285

## Appendix IV – MMI SGS Mineral Technical Bulletins



# MMI™ SAMPLING GUIDE

## MMI™ SAMPLING OVERVIEW

Over 20 years of research, and the practical application of MMI™ Geochemistry in mineral exploration, has seen a substantial increase in the understanding of the release, migration and accumulation near surface of mobile metallic ions emanating from buried mineralization sources and underlying lithologies.

What has been demonstrated is that metal ions move towards the surface, given sufficient time they can accumulate near surface in a soil profile. MMI™ has proved successful in a broad range of landform situations including relic, lateritic, erosional and depositional regimes.

The most critical aspect of any soil geochemistry is proper sampling. MMI™ is an interface sampling technique: we are attempting to sample close to the soil/air or soil/organic layer interface in true soil, so sampling may occur in the A horizon. SGS has a large number of case studies and technical bulletins to guide your sampling in a variety of surficial environments.

The key to successful sample collection for MMI™ analyses, is a constant depth near surface, below the organic cover. In a new area, we recommend doing an orientation sampling program to determine the optimal depth where the bulk of the metals of interest reside. However, in the absence of an orientation survey we have provided guideline below to help guide your sampling protocols in your specific environment. These protocols have been established with over 20 years of experience and research.

### TEMPERATE CLIMATE ZONES

- In areas of temperate climates with no organic cover, MMI™ samples are collected as a continuous composite sample between 10 to 25 cm below the surface.
- In areas with a shallow organic layer (peat), measure 10cms below the organics and collect the sample as a continuous composite sample between the 10 to 25 cm
- In both cases, be sure to scrape away any loose non-decomposed matter (leaves, bark, twigs), debris and any possible cultural contamination. Note that roots and other fine organic material in the sampling zone do not affect the MMI™ analysis.



Figure 1: Sample Hole

### TROPICAL HIGH RAINFALL ENVIRONMENTS

- The MMI™ geochemical technique has been implemented at numerous sites in tropical high rainfall and rainforest climates. These areas typically have a very high organic content in the soils.
- In those areas of organic soils, sampling is typically the same as boreal climates.
- Scrape away any loose non-decomposed matter (leaves, bark, twigs), debris and any possible cultural

contamination. Dig a small pit at each site to penetrate through the organic material and at least another 40cms below.

Identify the interface where the organics begin to decompose and you start to see soil formation. This is called the “Zero Datum”. Measure 10cm below this zero datum and take a continuous composite sample down the pit wall between the 10 to 25 cms.

- In climatic areas of high seasonal rainfall events (from extreme dryness to tropical rains), MMI™ samples collected (using same protocols as above) before the rains and after the rains yielded different analytical values, however, the anomaly to background ratio over the known structure yielded the same responses when data was treated using response ratios. See Case Study CS47, Uranium in MT Isa, Australia.

### BOREAL ENVIRONMENTS

- Scrape away any loose non-decomposed matter (leaves, bark, twigs), debris and any possible cultural contamination. Dig a small pit at each site to penetrate through the organic material (peat) and at least another 40cms below. Identify the interface where the organics begin to decompose and you start to see soil formation. This is called the “Zero Datum”. Measure 10cm below this zero datum and take a continuous composite sample down the pit wall between the 10 to 25 cm.
- Collect approximately 200 to 300 grams of material, place in a properly labelled Ziploc plastic bag.



Figure 2: Sample Hole

#### GUIDELINES

- The above sampling procedures are those that are recommended where an orientation survey cannot be completed. Experience has shown that the optimal sample collection depth may vary from one survey area to another depending on a variety of factors influencing the elemental concentrations within the soil profile.
- Do not use an auger to collect the samples unless you are working in an area where the organics are much too deep to access with a shovel. Use a clean paint free shovel or spade to dig the pit. Before actually taking the sample, brush and clean sampling equipment to eliminate residue from previous samples and flush it with soil from the new sample site.
- Dig the pit to expose up to 30 cm of inorganic material below the zero datum. Scrape clean the face of the exposure removing any debris and potential contamination. Identify the zero datum (interface where the organics begin to decompose and you start to see soil formation or in the absence of organics, the interface between soil and air).
- Measure using a plastic ruler and using twigs to mark the depths. Using a clean plastic scoop, collect your sample as a continuous composite sample (200 to 300 grams) and place into a clean labelled plastic Ziploc bag.

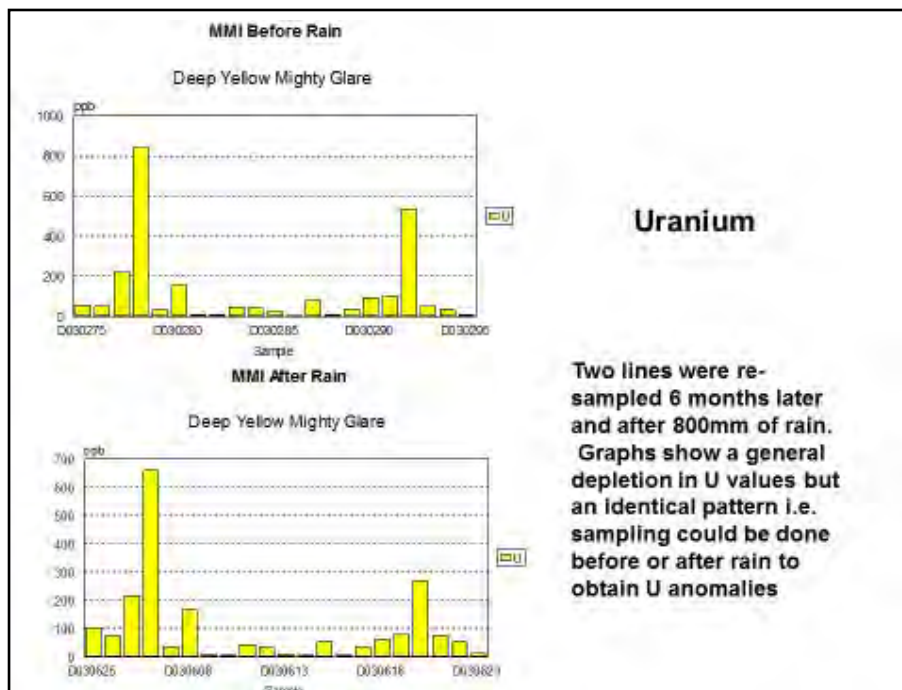


Figure 3: MMI™ Before Rain and After Rain Comparison - Uranium

- Record landscape characteristics at each sample location, including moisture content, range in particle size, thickness and nature of the organic and inorganic material, color and anthropogenic contamination.
- During sample collection and handling, no jewellery (watches, rings, bracelets, and chains) should be worn as this can be a major source of contamination.
- Moist Samples – Damp samples should be collected in a similar manner to soils in dry environments. Samples should not be dried in ovens or pulverized in crushers or mills. In the case of dry clays, sample material can be desegregated by crushing with a mallet between disposable plastic sheets. Sieving of the soil samples should be avoided other than using a plastic sieve to remove large pebbles from the sample. Larger rocks and twigs/leaves etc. these can also be removed carefully by hand.
- Organic Material – Organic material in the form of fine roots and hairs, decomposing leaf material and other fine organic debris WILL NOT adversely affect MMI™ analyses. Experimental work has shown that variability in sampling depth has a more

significant impact on element responses.

- Contaminated Sites – Where there is a potential contamination problem, samples should be collected so as to avoid any contaminated material and the sampler's judgment must be relied upon. Again, it is extremely important to keep good notes of all the potential factors that may affect the sampling and interpretation.

#### EQUIPMENT

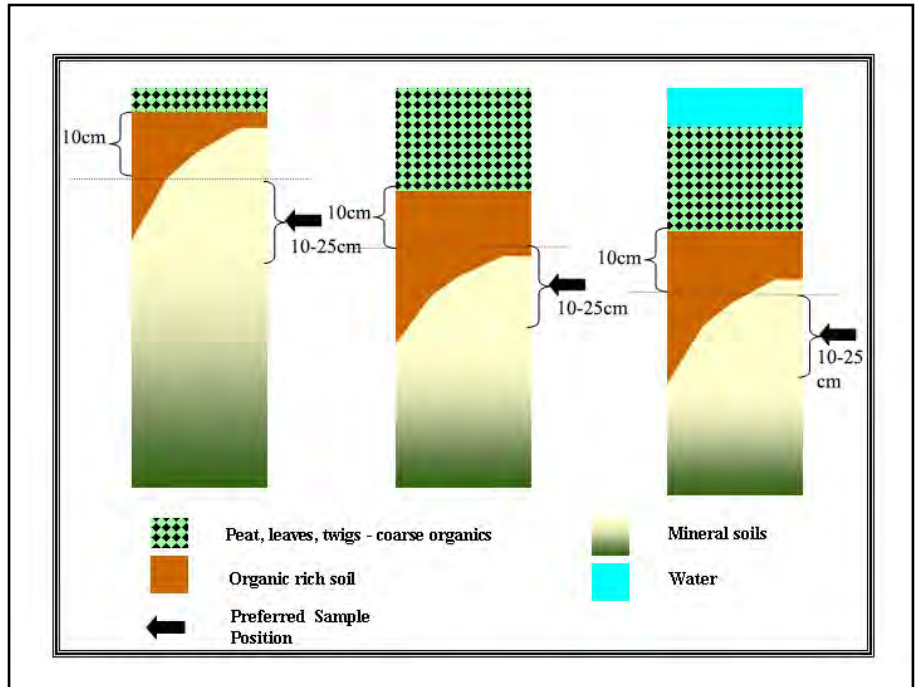
- A clean paint free shovel or spade.
  - A plastic garden sieve or kitchen colander with minus 5mm apertures, available from hardware and supermarkets, is ideal for sample collection. This is used only to remove large pebbles or roots.
  - Plastic collection dish with similar diameter and a kitchen floor brush used for cleaning the sieve and dish between samples.
  - Plastic snap seal bags, do not use calico or brown paper.
- Proper labelling of all samples is critical. Do not use water soluble markers or paper sample tags inside wet bags.



**Figure 4: Sample Equipment**

**ADDITIONAL INFORMATION**

SGS has a number of case studies and technical bulletins to help with all your sampling needs. Please visit our web site for further details or to contact our local SGS representatives. Consultants are available for sampling assistance and /or interpretation.



**Figure 5: Preferred Sampling Positions**

**CONTACT INFORMATION**

Email us at [minerals@sgs.com](mailto:minerals@sgs.com)  
[www.sgs.com/mining](http://www.sgs.com/mining)



# PROCESSING AND PRESENTING MMI™ GEOCHEMICAL DATA

## BACKGROUND

Effective interpretation of analytical MMI™ data typically involve presentations that include graphs and bar charts for sections and geochemical plans and images to overlay geological, geophysical and topographic maps.

With the development of MMI-M leach capable of determining 50 plus elements, the significance of multi-element associations has been dramatically emphasised in exploration for a number of commodities (Au, Ag, Ni, PGE, base metals, U and diamonds) and mineral settings (discrete veins, stockworks, VMS systems and intrusives including porphyries). This is not to say that a large analytical suite is necessary for effective application of MMI™ geochemistry, rather an expanded element group can be used as an aid to exploration, especially drill targeting. Information for application of the technology to specific commodities and settings, sampling protocols, analysis, interpretation and technical and research results can be found by contacting your local SGS representative and visiting the MMI™ website: [www.sgs.com/mining/mmi](http://www.sgs.com/mining/mmi)

## DATA RETRIEVAL FROM LABORATORY

MMI™ data can be returned from the licensed laboratory in a number of different formats and methods, including fax, letter and electronic formats such as Excel, csv, sif, pdf. The original laboratory results should always be retained in a secure place and/or format. This ensures a backup is available in the event of mishap.

Supreme care should always be taken when combining sample number and spatial coordinate information with the laboratory results – poor alignment of sample results and coordinate information could have disastrous and potentially costly results for any further work such as follow up sampling or drilling. Integrity of individual element results can be equally as important. For example, when inserting data or columns into an excel spreadsheet, it is possible to corrupt the alignment between the column header (i.e. element name) with its associated data, resulting in data attributed to an incorrect element.

## TREATMENT OF DATA WITH VALUES LESS THAN DETECTION LIMIT

Depending upon the software and methods to be used for data presentation, for those samples with values at the detection limit, a value half of the detection limit should be applied.

## QUALITY CONTROL - DUPLICATES

Laboratories routinely report duplicate analyses, whereby a sample is selected (generally at set intervals within the sample sequence) and re-digested and analysed as part of their quality control regime. It is also recommended that companies include samples for duplicate analysis to comply with its quality assurance/control program.

Duplicate sample values measure for repeatability. A useful method to quantify this is to determine a sample's mean percentage difference. This is calculated by taking the absolute value of the difference between the two values and expressing it as a percentage of the arithmetic mean of the two values. This should be performed for each element. A mean percentage difference less than 30% should be considered as acceptable. Where the values have reported within a factor of 10 of the detection limit for that element, common sense should prevail when observing the mean percentage difference for that element and duplicate sample pair.

Where duplicate analyses indicate a trend in poor reproducibility for a particular element, care should be taken with interpretation of the data for that element. A request for assistance from the laboratory is advised.

Where duplicate analyses highlight a problem sample, a number of causes and remedies can be reviewed:

- Check with the sampling team/field notes to ensure strict sampling protocols were adhered to, especially consistency and accuracy of sample depth and contamination prevention issues (for further information, see TB22 – MMI™ Sampling in Tropical and Temperate Climate Zones.
- Request assistance from the licensed laboratory – a further analysis of the sample in question may reveal more information as to the cause of any discrepancy.

## QUALITY CONTROL – CHECK MATERIAL

The laboratories routinely report results from analysis of SRM. Values for analysis of SRM should generally fall within a Coefficient of Variation (CV) of 15% of the expected value for each element. The CV for SRM results can be calculated by dividing the standard deviation with the arithmetic mean and expressing as a percentage. i.e.

$$CV = \frac{\text{standard deviation}}{\text{mean}} \times 100\%$$

## PRESENTATION OF DATA

Presentation of univariate (single element) data can depend on the layout of the sampling points. In a 'typical' sampling grid comprising 100+ data points in a grid over a survey area, presentation of data can be performed by applying the Kriging Interpolation algorithm (to the raw data), present in a number of contouring software packages including Surfer, MapInfo and others. Contour plots of Kriged data can be colour coded to demonstrate anomalous areas, as per Figure 1.

It can also be useful to geographically/geologically align the geochemistry with any associated information, including drill data, geophysical data, or surface geology maps.

Where the MMI™ survey is in discrete sections or lines that cannot be connected to produce representative contour images such as the images above, simple bar charts for each element with analytical value on the y axis and adjacent sample points on the x axis may suffice. These will still allow a visual identification of the anomalous data and geochemical patterns.

## PRESENTATION OF MULTI-ELEMENT DATA

Some software packages (e.g. Geosoft) allow for multiple contoured element images to be combined and 'stacked' on top of each other in layers, with a degree of transparency between layers. This allows for visual determination of coincident elemental responses, thereby providing another level of information that univariate data presentation cannot provide.

To facilitate multi-element interpretation of MMI™ analytical data, it is recommended that the data is normalized. For each element, a background for the data is calculated, using the lowest quartile of the data. Then a peak to background ratio (response ratio) is calculated for each element for each sample. Response ratios provide a number of benefits for interpretation:

- Reduce the effects of dissolution variables during extraction, for example time and temperature;
- Allow the splicing of different data

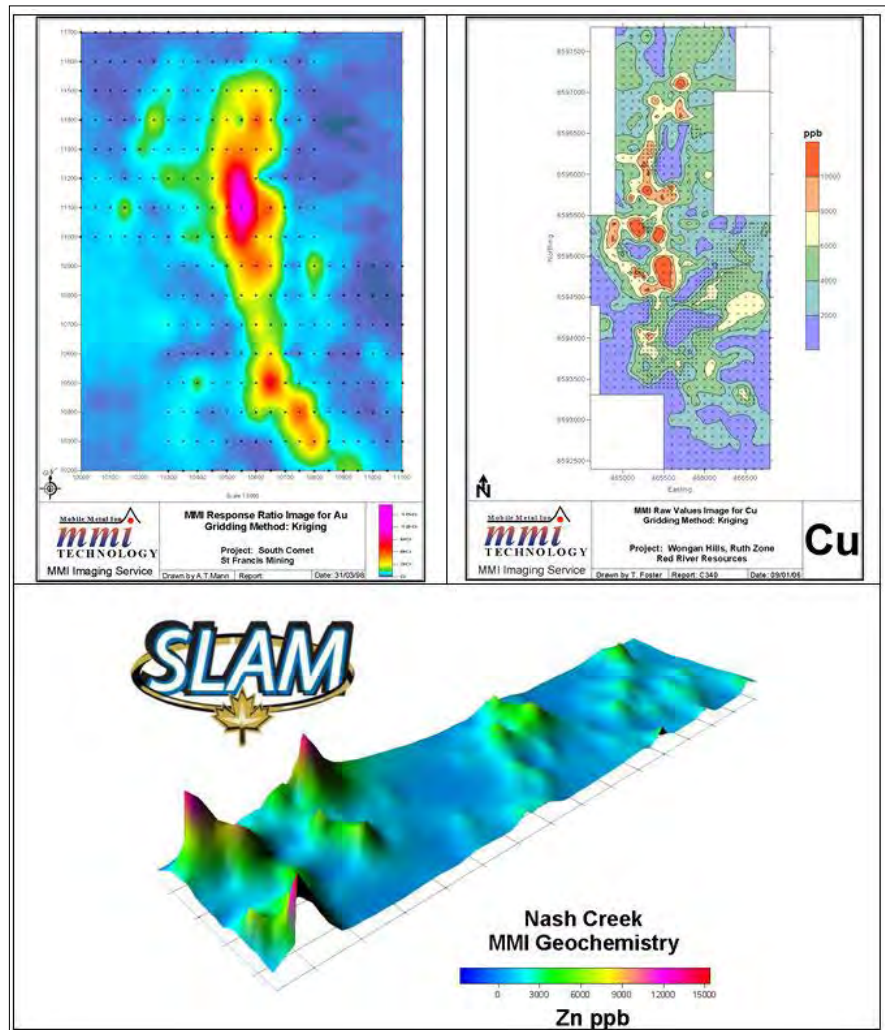


Figure 1: Contour Plots of Kriged Data

batches or data from varying regolith situations;

- Reduce the effects of sampling in different regolith units; and
- Facilitate multi-element data presentations for interpretation.

Before presenting MMI™ data in any graphical form, individual element response ratios are calculated for each sample. The concept of response ratios is simple: it involves determining a background value for each element in a survey area and ratioing all the data to that background. In more detail:

### Determining the Background

- Select an element, for example Au, and determine the lowest 25% of the data for all the samples analysed in the survey area.
- Any values less than the detection limit need to be included and a value half of

the detection limit should be substituted as an estimate value (based on scientific reports). For example, if Au has a detection limit of 0.01 ppb, any sample that analysed below this should be given a substituted value of 0.005 ppb.

- After determining the lowest quartile (25%) of the data, the average of these values is then calculated. This is the BACKGROUND value for that element within the specific dataset of a survey area.

### Calculating MMI™ Response Ratios

- Response ratios are calculated by dividing each sample value by the predetermined background value for that element. The numbers are then rounded to give whole numbers greater than or equal to one (1).
- A sample with a response ratio of 2, or less, is considered low and is a background sample. Samples with response ratios

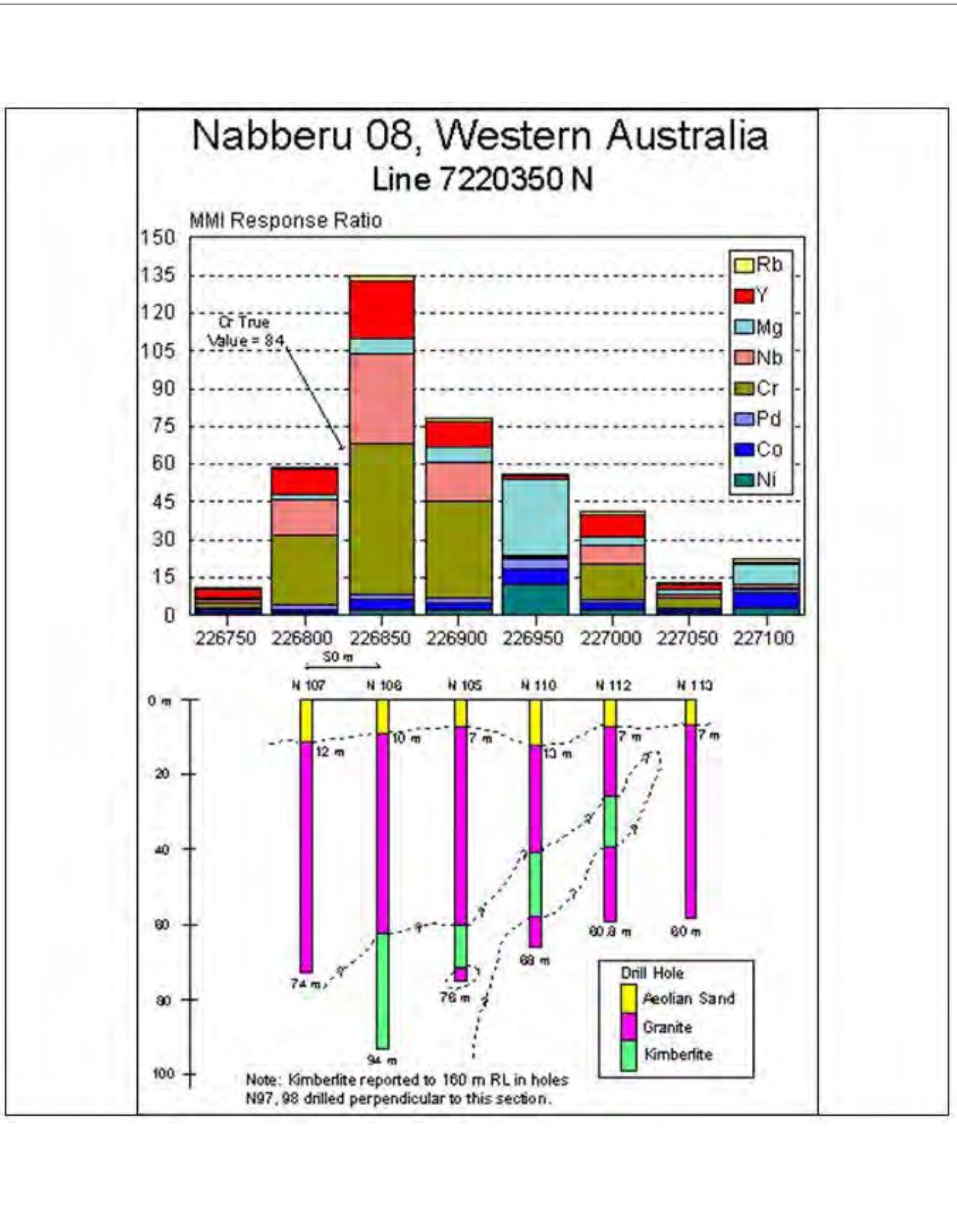


Figure 2: MMI™ Response Ratios



greater than 5 could be considered significant depending upon the regolith/landform characteristics of the area and the sample spacing used for the survey. Note however, that due to the greater contrast inherent in the MMI™ technique, response ratios in general need to be greater than 2-5 times background before being considered “anomalous.”

Additional advantages of using response ratios are:

1. The effective application of MMI™ Response ratios relies upon correct determination of the background for the survey area. It is important that the survey area covers sufficient ground and has not just been conducted over a mineralized sequence. Correct determination of the background and rationing of all the data to that value helps distinguish between those samples which are anomalous and those which are not. With MMI™ we are not looking at the absolute value of an element (for example Au) in a sample as it is a partial extraction technique. Instead, we are interested in the relative difference between background samples and those which are anomalous and which may overlie mineralization.

### MMI-M LEACH

MMI-M, a single multi-element leach, incorporates more than 6 specific ligands to hold elements in the analyte solution, thereby resolving soil and solution pH issues recognised as problematic in other partial extraction geochemistry. With MMI-M, individual multi-element packages (using ANY of the 50 plus elements) can now be tailored for specific commodity targeting (e.g. diamond, PGE, uranium and porphyry exploration) as well as for geological and alteration mapping.

### CONTACT INFORMATION

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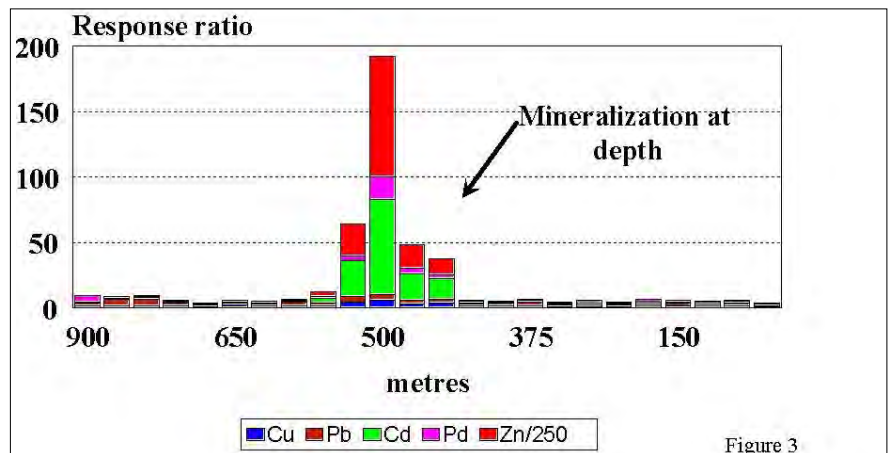


Figure 3: MMI™ Response Ratios for Base Metals

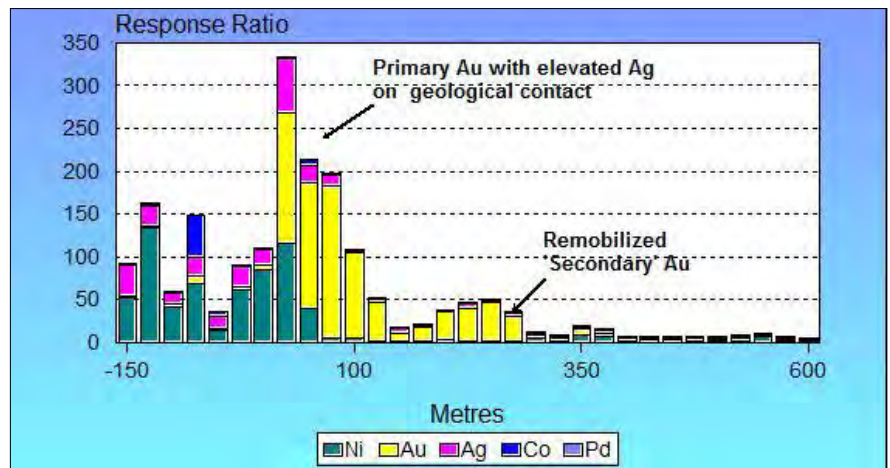


Figure 4: MMI™ Geochemistry - La Salle Concession Venezuela - Section 1900N

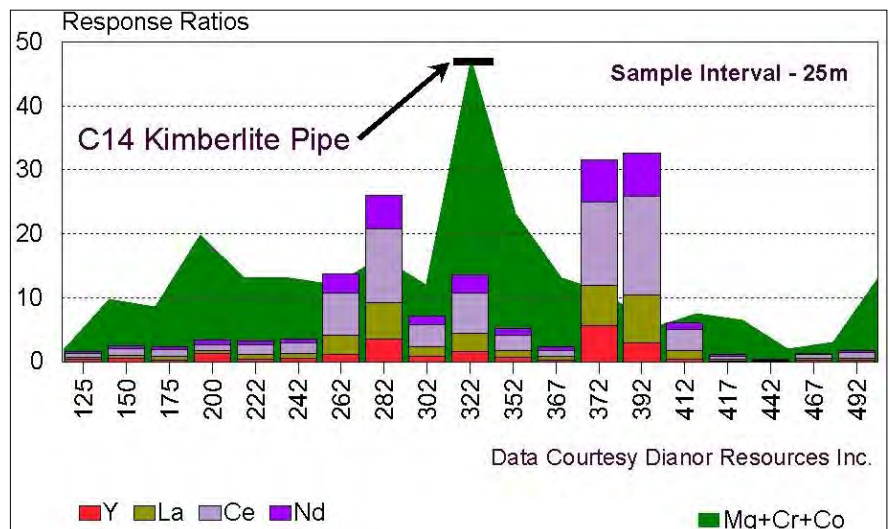


Figure 5: Apical Mg, Cr, Co Anomaly Over Pipe With Rare Earth Halo Around Margins

## Appendix V – MMI Soil Descriptions and Assays

## 2020 Ultra MMI (2)

Sample_ID	Area	UTM_mE	UTM_mN	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments	Sampler	Certificate
2064251	Outpost Sill	644200	6760848	Brown	CG	B	20	Steep. Lots of argillite frags.	RV	BBM20-04211
2064252	Outpost Sill	644199	6760875	Brown	FG	B	30	Gentle slope. Clay.	RV	BBM20-04211
2064253	Outpost Sill	644198	6760902	Brown	FG	B	35	Wet. Some Frags.	RV	BBM20-04211
2064254	Outpost Sill	644201	6760925	Brown	FG	B	40	Some frags.	RV	BBM20-04211
2064255	Outpost Sill	644200	6760949	Brown	FG	B	30	Good. Edge of plateau.	RV	BBM20-04211
2064256	Outpost Sill	644200	6760975	Brown	FG	B	35	Good. Start of steep.	RV	BBM20-04211
2064257	Outpost Sill	644199	6761000	Brown	FG	B	35	Large angular clasts.	RV	BBM20-04211
2064258	Outpost Sill	644201	6761023	Brown	FG	B	30	Good.	RV	BBM20-04211
2064259	Outpost Sill	644200	6761050	Light Brown.	MG	B	30	Bit sandy.	RV	BBM20-04211
2064260	Outpost Sill	644200	6761049	Duplicate of 59.	Duplicate of 59.	Duplicate of 59.	Duplicate of 59.	Duplicate of 59.	RV	BBM20-04211
2064261	Outpost Sill	644199	6761076	Light Brown.	CG	B/C	35	Abundant frags.	RV	BBM20-04211
2064262	Outpost Sill	644200	6761100	Light Brown.	MG	B	50	Deep but good.	RV	BBM20-04211
2064263	Outpost Sill	644197	6761126	Light Brown.	CG	B	35	Good.	RV	BBM20-04211
2064264	Outpost Sill	644197	6761155	Brown		B	35	In old drainage basin.	RV	BBM20-04211
2064265	Outpost Sill	644202	6761175	Brown	MG	B	40	Some rock frags.	RV	BBM20-04211
2064266	Outpost Sill	644200	6761200	Dark Brown Grey	MG	B/C	50	Rock chips.	RV	BBM20-04211
2064267	Outpost Sill	644199	6761224	Light Brown. Grey.	MG	B/C	55	Rock chips.	RV	BBM20-04211
2064268	Outpost Sill	644198	6761247	Dark brown.	FG	B	40	Clay.	RV	BBM20-04211
2064269	Outpost Sill	644299	6761250	Brown. Grey.	MG	B	50	Alluvial fan.	RV	BBM20-04211
2064270	Outpost Sill	644299	6761227	Light Brown.	FG	B	40	Good. On fan.	RV	BBM20-04211
2064271	Outpost Sill	644302	6761199	Light Brown.	FG	B/C	30	Rock chips mixed in.	RV	BBM20-04211
2064272	Outpost Sill	644302	6761174	Brown	MG	B/C	30	Lots of rock chips.	RV	BBM20-04211
2064273	Outpost Sill	644299	6761149	Brown	MG	B	60	In fan still.	RV	BBM20-04211
2064274	Outpost Sill	644301	6761124	Brown	MG	B	45	Good. But on fan.	RV	BBM20-04211
2064275	Outpost Sill	644303	6761101	Brown	MG	B/C	40	Okay. Still on fan.	RV	BBM20-04211
2064276	Outpost Sill	644299	6761075	Brown	MG	B/C	35	Rock chips. Still on fan.	RV	BBM20-04211
2064277	Outpost Sill	644300	6761048	Brown	FG	B	40	Good. Getting of fan.	RV	BBM20-04211
2064278	Outpost Sill	644298	6761026	Brown	FG	B	35	Good.	RV	BBM20-04211
2064279	Outpost Sill	644298	6761000	Brown	FG	B	35	Good. Start of hill.	RV	BBM20-04211
2064280	Outpost Sill	644299	6760999	Duplicate of 79.	Duplicate of 79.	Duplicate of 79.	Duplicate of 79.	Duplicate of 79.	RV	BBM20-04211
2064281	Outpost Sill	644299	6760973	Brown	FG	B	40	Good	RV	BBM20-04211
2064282	Outpost Sill	644303	6760949	Brown	FG	B	35	Steep. Some chips.	RV	BBM20-04211
2064283	Outpost Sill	644297	6760926	Brown	FG	B	35	Steep. Rocky.	RV	BBM20-04211
2064284	Outpost Sill	644300	6760901	Brown	FG	B	45	Steep. Some chips.	RV	BBM20-04211
2064285	Boutellier East	647952	6757656	Light Brown.	FG	B	40	North facing slope. Till. Clay.	RV	BBM20-04211
2064286	Boutellier East	647949	6757676	Light Brown.	FG	B	55	North facing slope. Till.	RV	BBM20-04211
2064287	Boutellier East	647950	6757701	Light Brown.	FG	B	55	Flat saddle. Till. Clay.	RV	BBM20-04211
2064288	Boutellier East	647949	6757726	Light Brown.	FG	B	60	Clay. Till. Float..	RV	BBM20-04211
2064289	Boutellier East	647950	6757750	Light Brown.	FG	B	60	Back of S facing slope.	RV	BBM20-04211



## 2020 Ultra MMI (2)

Sample_ID	Area	UTM_mE	UTM_mN	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments	Sampler	Certificate
2064290	Boutellier East	647949	6757776	Light Brown.	FG	B	45	On steep South facing slope.	RV	BBM20-04211
2064291	Boutellier East	647950	6757800	Light Brown.	FG	B	40	Steep Hill.	RV	BBM20-04211
2064292	Boutellier East	647950	6757826	Brown	MG	B	35	Met Till.	RV	BBM20-04211
2064293	Boutellier East	647951	6757852	Light Brown.	MG	B	50	Bench on hill.	RV	BBM20-04211
2064294	Boutellier East	647948	6757877	Brown	MG	B	40	On hill Rock slopes.	RV	BBM20-04211
2064295	Boutellier East	647950	6757899	Grey. Brown.	MG	B	40	Sandy. Volcaniclastic tallus.	RV	BBM20-04211
2064296	Boutellier East	647951	6757925	Light orange. Brown.	MG	B/C	20	Under tallus hill. Volcaniclastics.	RV	BBM20-04211
2064297	Boutellier East	647949	6757951	Brown	MG	B/C	20	Top of hill. Under tallus.	RV	BBM20-04211
2064298	Boutellier East	647948	6757975	Light orange. Brown.	MG	B/C	30	South Slope	RV	BBM20-04211
2064299	Boutellier East	647949	6758002	Light orange. Brown.	CG	B/C	25	Talus. Rock chips.	RV	BBM20-04211
2064300	Boutellier East	647950	6758002	Duplicate of 99.	Duplicate of 99.	Duplicate of 99.	Duplicate of 99.	Duplicate of 99.	RV	BBM20-04211
2064351	Boutellier East	647948	6758027	Light Brown.	MG	B	30	Bit sandy & Rocky.	RV	BBM20-04211
2064352	Boutellier East	647951	6758051	Brown.	MG	B/C	30	Includes rock chips. South side of hill.	RV	BBM20-04211
2064353	Boutellier East	648049	6758049	Dark brown.	MG	B	35	Steep Slope.	RV	BBM20-04211
2064354	Boutellier East	648050	6758025	Brown.	CG	B/C	20	Tallus slope.	RV	BBM20-04211
2064355	Boutellier East	648050	6758000	Brown	CG	B/C	20	Steep tallus slope.	RV	BBM20-04211
2064356	Boutellier East	648049	6757974	Light Brown.	CG	B/C	20	Steep tallus slope.	RV	BBM20-04211
2064357	Boutellier East	648051	6757950	Light Brown.	MG	B/C	30	Less, but still rock chips.	RV	BBM20-04211
2064358	Boutellier East	648051	6757925	Brown.	MG	B/C	25	Less Rocky & steep.	RV	BBM20-04211
2064359	Boutellier East	648052	6757899	Light Brown.	MG	B	25	Getting better.	RV	BBM20-04211
2064360	Boutellier East	648050	6757875	Brown	FG	B	20	Good.	RV	BBM20-04211
2064361	Boutellier East	648051	6757850	Light Brown.	FG	B	40	Trace rust. Good.	RV	BBM20-04211
2064362	Boutellier East	648050	6757826	Brown	MG	B	40	Gentle slope. Talus.	RV	BBM20-04211
2064363	Boutellier East	648053	6757804	Brown. Grey.	MG	B	35	Start of short buck brush.	RV	BBM20-04211
2064364	Boutellier East	648050	6757774	Light Brown.	FG	B	25	Flattening out.	RV	BBM20-04211
2064365	Boutellier East	648053	6757748	Light Brown.	FG	B	35	Damp. Last sample before moving to North.	RV	BBM20-04211
2064366	Boutellier East	648054	6757725	Light Brown.	FG	B	30	Other side of drainage. Till.	RV	BBM20-04211
2064367	Boutellier East	648051	6757701	Light Brown.	FG	B	25	Till. Gentle slope. Coming from North.	RV	BBM20-04211
2064368	Boutellier East	648053	6757674	Light Brown.	FG	B	25	Till. Gentle slope.	RV	BBM20-04211
2064404	Boutellier West	647000	6759700	red-brown	mg	B	50	bit rocky, base of se facing hill	RV	BBM20-04215
2064405	Boutellier West	646998	6759725	light red brown	mg	B	50	deep roots	RV	BBM20-04215
2064406	Boutellier West	647000	6759750	light orange brown	mg	B/C	30	steep slope	RV	BBM20-04215
2064407	Boutellier West	647000	6759776	light brown	fg	B	40	less steep	RV	BBM20-04215
2064408	Boutellier West	646999	6759800	light brown	mg	B	40	good, top of hill	RV	BBM20-04215
2064409	Boutellier West	646999	6759824	light brown	fg	B	40	good, top of hill	RV	BBM20-04215

## 2020 Ultra MMI (2)

Sample_ID	Area	UTM_mE	UTM_mN	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments	Sampler	Certificate
2064410	Boutellier West	647000	6759850	light brown	fg	B	40	rock frags	RV	BBM20-04215
2064411	Boutellier West	646999	6759875	light brown	fg	B	40	rock frags	RV	BBM20-04215
2064412	Boutellier West	647000	6759900	light brown	fg	B	40		RV	BBM20-04215
2064413	Boutellier West	647001	6759925	brown	fg	B	60	moist, deep a layer	RV	BBM20-04215
2064414	Boutellier West	646999	6759950	brown	fg	B	70	Deep A layer.	RV	BBM20-04215
2064415	Boutellier West	646998	6759975	dark brown	fg	B	50	permafrost at bottom, some A	RV	BBM20-04215
2064416	Boutellier West	646999	6760000	brown	fg	B	50	good	RV	BBM20-04215
2064417	Boutellier West	646999	6760026	brown	fg	A/B	60	permafrost at bottom, muddy	RV	BBM20-04215
2064418	Boutellier West	646999	6760052	brown	fg	A/B	35	wet, not great	RV	BBM20-04215
2064419	Boutellier West	646999	6760076	brown	fg	A/B	45	muddy	RV	BBM20-04215
2064420	Boutellier West	646999	6760077	brown	fg	A/B	45	DUP of 419	RV	BBM20-04215
2064421	Boutellier West	646897	6760076	light brown-grey	fg	B	55	moist, deep a layer	RV	BBM20-04215
2064422	Boutellier West	646901	6760049	grey-brown	fg	B	50	wet	RV	BBM20-04215
2064423	Boutellier West	646902	6760027	brown-grey	fg	B	55	wet	RV	BBM20-04215
2064424	Boutellier West	646902	6759999	brown	mg	B	50	good, still organic	RV	BBM20-04215
2064425	Boutellier West	646903	6759974	light brown-grey	mg	B	45		RV	BBM20-04215
2064426	Boutellier West	646901	6759950	brown	mg	B	40	good	RV	BBM20-04215
2064427	Boutellier West	646900	6759925	brown	fg	B	40	ok, some debris	RV	BBM20-04215
2064428	Boutellier West	646902	6759899	light brown	fg	B	45	Top of hill	RV	BBM20-04215
2064429	Boutellier West	646899	6759874	light brown	mg	B	50	dry, good	RV	BBM20-04215
2064430	Boutellier West	646900	6759850	light orange-brown	fg	B	30	shallower	RV	BBM20-04215
2064431	Boutellier West	646902	6759825	light brown	mg	B	35	good	RV	BBM20-04215
2064432	Boutellier West	646901	6759800	light brown	mg	B	35	good	RV	BBM20-04215
2064433	Boutellier West	646902	6759775	light brown	mg	B	35	good, bottom of hill	RV	BBM20-04215
2064434	Boutellier West	646903	6759749	grey-brown	mg	B	35	in flats, till?	RV	BBM20-04215
2064435	Boutellier West	646900	6759724	grey-brown	mg	B	40	wet, till? Flats	RV	BBM20-04215
2064436	Boutellier West	646900	6759700	grey-brown	mg	B	40	in flats, till, wet	RV	BBM20-04215
2064369	Uze	660048	6754574	Grey.	MG	B	70	Deep Organics	RV	BBM20-04211
2064370	Uze	660050	6754550	Grey. Brown.	FG	B	40	Clay. Some deep roots. SAMPLE LEFT BEHIND AND HAD NO TAG	RV	BBM20-04211
2064371	Uze	660052	6754524	Dark Grey	FG	B	65	Roots at depth.	RV	BBM20-04211
2064372	Uze	660047	6754498	Light Brown.	FG	B	50	Trace rust. Open forest.	RV	BBM20-04211
2064373	Uze	660051	6754473	Red Brown.	FG	B	50	Gentle slope in open forest.	RV	BBM20-04211
2064374	Uze	660049	6754448	Red Brown.	FG	B	40	Bit loamy. Good.	RV	BBM20-04211
2064375	Uze	660050	6754425	Grey, Green.	FG	B	50	Good.	RV	BBM20-04211
2064376	Uze	660049	6754398	Light grey/brown.	FG	B	35	Good	RV	BBM20-04211
2064377	Uze	660050	6754374	Light Brown. Grey.	FG	B	35	Good	RV	BBM20-04211
2064378	Uze	660051	6754347	Light Brown.	MG	B	35	Okay, not bad.	RV	BBM20-04211
2064379	Uze	660049	6754324	Light Brown.	FG	B	35	Bit rusty. Good.	RV	BBM20-04211

## 2020 Ultra MMI (2)

Sample_ID	Area	UTM_mE	UTM_mN	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments	Sampler	Certificate
2064380	Uze	660050	6754323	Duplicate of 79.	Duplicate of 79.	Duplicate of 79.	Duplicate of 79.	Duplicate of 79.	RV	BBM20-04211
2064381	Uze	660051	6754299	Brown. Grey.	FG	B	35	Good.	RV	BBM20-04211
2064382	Uze	660050	6754275	Light Brown. Grey.	FG	B	35	Good	RV	BBM20-04211
2064383	Uze	660049	6754249	Light Brown. Grey.	FG	B	50	Good	RV	BBM20-04211
2064384	Uze	660050	6754226	Light Brown. Grey.	FG	B	40	Good	RV	BBM20-04211
2064385	Uze	660051	6754198	Light Brown.	FG	B	40	Good. Dry.	RV	BBM20-04211
2064386	Uze	660053	6754175	Light Brown. Grey.	FG	B	40	Good.	RV	BBM20-04211
2064387	Uze	660152	6754125	Light Brown.	FG	B	50	Next line. Good.	RV	BBM20-04215
2064388	Uze	660150	6754152	Light Brown. Grey.	FG	B	75	Deep A layer.	RV	BBM20-04215
2064389	Uze	660151	6754177	Light Brown.	FG	B	40	Good.	RV	BBM20-04215
2064390	Uze	660150	6754203	Light Brown.	MG	B	35	Not great. No clay. Roots.	RV	BBM20-04215
2064391	Uze	660149	6754225	Light Brown. Grey.	FG	B	50	Good.	RV	BBM20-04215
2064392	Uze	660150	6754252	Light Brown. Grey.	FG	B	40	Good.	RV	BBM20-04215
2064393	Uze	660149	6754277	Light Brown. Grey.	MG	B	60	Bit rusty. Good.	RV	BBM20-04215
2064394	Uze	660153	6754301	Light Brown. Grey.	MG	B	45	Good.	RV	BBM20-04215
2064395	Uze	660150	6754325	Light Brown. Grey.	MG	B/C	40	Rock Frags. Good.	RV	BBM20-04215
2064396	Uze	660153	6754350	Light Brown. Grey.	MG	B	40	Good.	RV	BBM20-04215
2064397	Uze	660150	6754375	Light Brown.	MG	B	40	Good	RV	BBM20-04215
2064398	Uze	660150	6754400	Light Brown.	FG	B	35	Bit loamy.	RV	BBM20-04215
2064399	Uze	660147	6754427	Light Brown.	FG	B	70	Loamy. Deep. Not great.	RV	BBM20-04215
2064400	Uze	660149	6754426	Duplicate of 99.	Duplicate of 99.	Duplicate of 99.	Duplicate of 99.	Duplicate of 99.	RV	BBM20-04215
2064401	Uze	660150	6754452	light orange brown	fg	B	40	good	RV	BBM20-04215
2064402	Uze	660152	6754474	light grey	fg	B	40	good	RV	BBM20-04215
2064403	Uze	660149	6754505	brown-grey	vfg	B	35	clay, damp	RV	BBM20-04215



## 2020 Ultra MMI (2)

Sample_ID	Weight_kg	Au_ppb	Ag_ppb	Co_ppb	Cu_ppb	Ni_ppb	Pd_ppb	Pb_ppb	Sb_ppb	Th_ppb	Zn_ppb	Li_ppb	Mo_ppb	Al_ppm
2064251	0.89	0.2	28.1	174	790	1920	0.5	19	0.25	2.6	80	1	4	57
2064252	1	0.2	7.1	206	1600	1340	0.5	8	0.25	1.4	40	0.5	9	43
2064253	1.1	0.1	6.1	253	3390	2100	0.5	13	0.8	1.3	110	0.5	10	39
2064254	0.99	0.3	24.5	36	2730	2440	0.5	9	0.25	2	30	0.5	3	40
2064255	1.22	0.4	15.9	412	3930	2850	0.5	16	0.25	3.1	90	0.5	5	58
2064256	1.06	0.2	15.1	299	2260	2740	0.5	11	0.25	1.9	80	0.5	4	53
2064257	0.9	0.2	12.3	193	1370	1390	0.5	39	0.25	3.3	1320	2	3	92
2064258	0.94	0.8	42.2	254	3950	856	0.5	17	0.25	2.5	40	0.5	3	76
2064259	1.1	0.2	43.4	14	1390	1900	0.5	19	0.25	1.5	110	0.5	1	67
2064260	0.93	0.3	61.2	9	1630	2030	0.5	16	0.25	1.6	60	0.5	1	60
2064261	0.96	0.8	68.3	24	640	670	0.5	21	0.25	3.2	290	0.5	3	33
2064262	1.04	0.3	59.3	15	950	1200	0.5	26	0.25	5.2	90	0.5	2	53
2064263	1.03	0.2	70	13	840	1380	0.5	40	0.25	3.8	100	0.5	1	89
2064264	0.95	0.05	15.9	32	560	696	0.5	63	0.25	5.5	130	0.5	1	140
2064265	1.09	0.05	12.9	78	270	336	0.5	48	0.25	4.5	310	0.5	2	100
2064266	1.23	0.1	25	32	880	407	0.5	16	0.25	2.4	270	0.5	1	82
2064267	1.26	0.05	6.2	70	390	358	0.5	21	0.25	3.6	230	0.5	2	68
2064268	0.8	0.05	8.7	34	410	1190	0.5	50	0.25	1.8	740	1	1	90
2064269	1.16	0.1	23.3	37	450	345	0.5	29	0.25	2.2	210	0.5	1	96
2064270	0.89	0.1	33.6	37	920	1100	0.5	35	0.25	3.3	160	0.5	1	105
2064271	1.07	0.3	81.9	11	1040	993	0.5	22	0.25	2.3	30	0.5	1	73
2064272	1.15	0.05	29	20	520	909	0.5	48	0.25	4.8	250	0.5	3	97
2064273	1	0.2	66.5	17	1290	1940	0.5	69	0.25	3.9	90	0.5	1	90
2064274	0.91	0.05	21.7	21	440	701	0.5	44	0.25	4.6	580	1	2	77
2064275	0.82	0.2	40.2	12	1040	909	0.5	13	0.25	4.9	210	0.5	5	34
2064276	0.88	0.3	12.6	311	3800	2010	0.5	25	2.1	8.5	100	3	20	36
2064277	0.72	0.05	11.1	40	630	617	0.5	86	0.25	9.5	330	0.5	1	148
2064278	0.82	0.2	22.7	38	1200	1570	0.5	26	0.25	1.6	50	0.5	1	64
2064279	0.81	0.1	13.8	72	1550	1790	0.5	36	0.25	3	50	0.5	2	89
2064280	0.66	0.1	14.5	87	1890	1930	0.5	37	0.25	2.8	50	0.5	2	88
2064281	705	0.2	21.5	137	2150	1990	0.5	11	0.25	1.7	50	0.5	3	50
2064282	0.72	0.2	18.9	32	790	2660	0.5	12	0.25	1	50	0.5	1	43
2064283	0.84	0.6	37.1	22	2970	1800	0.5	6	0.25	2.1	60	0.5	1	39
2064284	0.86	0.4	53.4	41	3140	1020	0.5	2.5	0.25	3.5	100	0.5	4	23
2064285	1.05	0.5	64.9	97	1330	319	0.5	25	0.25	1.2	30	7	6	7
2064286	1	0.6	59	71	2960	491	0.5	22	0.25	1.6	20	5	8	5
2064287	1.06	0.4	39.2	60	2700	790	0.5	12	0.25	3.5	10	5	6	7
2064288	0.83	0.5	67.5	122	3380	829	0.5	8	0.25	4.5	30	0.5	12	18
2064289	0.93	0.6	34.2	46	6860	878	2	7	0.6	5.8	30	3	3	10

## 2020 Ultra MMI (2)

Sample_ID	Weight_kg	Au_ppb	Ag_ppb	Co_ppb	Cu_ppb	Ni_ppb	Pd_ppb	Pb_ppb	Sb_ppb	Th_ppb	Zn_ppb	Li_ppb	Mo_ppb	Al_ppm
2064290	0.82	0.7	55.3	31	4830	871	0.5	2.5	0.25	2.7	60	4	1	12
2064291	0.91	1.1	15.4	19	3250	228	2	2.5	0.25	0.7	10	0.5	1	8
2064292	0.84	0.6	25.4	120	5180	727	1	2.5	0.25	0.7	20	3	3	6
2064293	0.88	0.9	53.6	19	5530	825	1	2.5	0.25	1.3	20	9	1	15
2064294	0.92	1.9	50	24	9750	275	2	2.5	0.25	0.7	20	2	1	8
2064295	1.01	1.8	39.5	46	6750	307	3	2.5	0.25	0.25	10	3	1	10
2064296	1.02	1.3	11.3	68	1230	309	7	2.5	0.25	0.25	30	0.5	1	4
2064297	0.72	0.6	47.7	19	3250	266	1	2.5	0.25	2.1	20	0.5	1	43
2064298	0.82	0.2	6.2	37	730	544	0.5	6	0.25	2.6	20	0.5	1	96
2064299	0.71	2.8	14.8	52	2240	551	2	2.5	0.25	0.25	20	2	1	2
2064300	0.89	3.2	20.2	105	2910	706	2	2.5	0.25	0.6	10	2	1	4
2064351	1.02	3	28.1	32	4440	266	2	2.5	0.25	0.5	30	1	1	5
2064352	0.96	0.7	18.5	37	4190	349	2	2.5	0.25	1.7	80	1	1	46
2064353	0.82	0.4	29.4	142	4940	930	0.5	2.5	0.25	1.2	40	0.5	1	77
2064354	0.92	3.9	49.6	79	8410	284	4	2.5	0.25	0.25	30	0.5	1	12
2064355	1.28	1.1	19.4	28	9180	590	0.5	2.5	0.25	1.1	100	1	1	33
2064356	0.99	5.3	75.3	52	22800	116	2	2.5	0.25	0.25	5	4	1	4
2064357	1.1	1	19.3	16	7100	454	1	2.5	0.25	2.6	30	2	1	30
2064358	0.82	1.4	37.7	15	5340	226	2	2.5	0.25	0.25	5	4	1	7
2064359	1.06	1.6	16.7	20	2780	120	2	2.5	0.25	0.25	40	5	1	6
2064360	1.17	0.5	29.2	11	2930	595	0.5	5	0.25	0.8	30	0.5	1	49
2064361	1.09	0.7	15.3	5	2170	984	1	2.5	0.25	1	60	0.5	1	23
2064362	1.27	0.4	12.4	10	3100	176	0.5	2.5	0.25	0.9	30	0.5	1	52
2064363	1.17	1	8	4	1980	134	1	2.5	0.25	1.4	10	1	1	23
2064364	1.55	0.6	34.7	37	2880	363	0.5	2.5	0.25	1.2	5	0.5	2	33
2064365	1.34	0.3	42.2	57	1550	1370	0.5	21	0.6	4	50	3	7	20
2064366	1.4	0.4	34.2	161	1770	493	0.5	10	0.25	1.8	30	5	6	4
2064367	1.31	0.5	41	71	1360	304	0.5	16	0.25	1.1	10	7	6	5
2064368	1.43	0.7	59.1	69	1500	322	0.5	15	0.25	0.25	20	9	6	5
2064404	1.17	1.2	47	62	8710	735	1	21	0.25	5.5	40	0.5	2	56
2064405	1.09	0.8	51.3	16	2950	1130	0.5	2.5	0.25	5.4	110	0.5	1	112
2064406	1.34	0.9	18.9	42	3080	737	1	2.5	0.25	7.2	20	0.5	1	38
2064407	1.08	0.6	25.7	58	4790	870	0.5	20	0.25	8.7	100	0.5	1	98
2064408	1.35	0.8	31.9	58	4580	716	0.5	6	0.25	14.5	20	0.5	1	64
2064409	1.31	0.7	24.8	35	1680	392	0.5	6	0.25	10.6	40	0.5	1	132

## 2020 Ultra MMI (2)

Sample_ID	Weight_kg	Au_ppb	Ag_ppb	Co_ppb	Cu_ppb	Ni_ppb	Pd_ppb	Pb_ppb	Sb_ppb	Th_ppb	Zn_ppb	Li_ppb	Mo_ppb	Al_ppm
2064410	1.34	0.7	11	233	4360	433	0.5	6	0.25	15	20	0.5	1	134
2064411	1.19	1	25.4	15	8190	741	1	6	0.25	11.5	40	3	1	101
2064412	1.36	0.5	27.7	251	4140	1070	0.5	2.5	0.25	7.6	40	0.5	4	52
2064413	1.36	0.3	8.6	543	8320	2240	0.5	7	1	5.4	20	0.5	9	65
2064414	1.25	0.3	20.6	46	3340	1120	0.5	2.5	0.25	2.6	70	0.5	2	43
2064415	1.19	0.4	12.7	390	4880	1730	0.5	2.5	0.25	3.3	90	0.5	7	58
2064416	1.42	0.5	15.4	347	5250	1530	0.5	6	0.25	6.6	60	0.5	5	101
2064417	1.47	0.4	10.6	1340	11900	1770	0.5	23	1.6	16.3	160	0.5	6	109
2064418	1.57	0.4	3.4	553	11700	1520	0.5	12	2	10.7	120	0.5	12	66
2064419	1.36	0.3	11.2	388	9470	3290	0.5	34	2	11.8	390	0.5	6	109
2064420	1.32	0.3	1.9	444	13200	2530	0.5	13	1.9	5.5	230	0.5	8	60
2064421	1.29	0.4	8.4	464	12900	1550	0.5	29	2.4	14.5	160	0.5	20	56
2064422	1.38	0.5	11.4	708	6620	1320	0.5	2.5	0.25	6.6	80	0.5	6	107
2064423	1.34	0.8	22.3	183	14100	1250	0.5	2.5	0.25	4.8	50	0.5	6	52
2064424	1.26	0.5	19.7	475	7910	1410	0.5	5	0.25	9.6	140	0.5	5	79
2064425	1.25	0.7	26.6	403	5340	1000	0.5	2.5	0.25	5.2	30	0.5	6	50
2064426	1.1	0.6	26.5	20	4010	1500	0.5	9	0.25	5.9	110	0.5	1	76
2064427	1.23	0.5	24.5	502	3870	1380	0.5	10	0.25	6.3	30	0.5	3	68
2064428	1.28	0.5	19.2	57	2780	674	0.5	7	0.25	4.6	40	1	1	116
2064429	1.21	0.6	24.4	56	4030	674	0.5	5	0.25	19	20	0.5	1	91
2064430	1.08	0.4	19.2	53	3120	429	0.5	15	0.25	8	60	0.5	1	81
2064431	1	0.6	18.4	17	2840	429	0.5	2.5	0.25	2.5	20	2	1	16
2064432	1.27	0.6	20.1	26	1590	331	0.5	2.5	0.25	1.7	40	0.5	8	13
2064433	1.27	0.9	29.6	26	2200	663	1	2.5	0.25	4.5	20	1	5	22
2064434	1.56	0.5	24.5	197	3930	517	0.5	7	0.25	3.5	40	0.5	9	37
2064435	1.48	0.4	4.8	120	3040	644	0.5	16	0.8	11.9	60	0.5	11	19
2064436	1.33	0.5	19.3	95	3500	1070	0.5	10	0.25	9.5	110	0.5	4	45
2064369	1.2	1.4	53.2	30	1960	275	0.5	2.5	0.6	0.25	20	9	5	4
2064370	0.33	1.5	67.6	128	2070	916	0.5	2.5	0.25	0.25	30	3	7	5
2064371	0.69	0.5	6.7	45	8630	1300	0.5	26	0.6	1.5	210	18	5	3
2064372	0.71	0.8	32.4	64	1550	490	0.5	2.5	0.25	0.25	20	7	4	6
2064373	0.76	0.7	29	27	1650	271	0.5	2.5	0.25	0.25	30	3	12	5
2064374	0.72	0.7	15	36	1790	193	0.5	2.5	0.25	0.7	20	21	6	5
2064375	0.73	0.3	29.2	34	190	232	0.5	34	0.25	6.1	40	5	3	12
2064376	0.75	1.4	27.9	63	1360	446	0.5	6	0.25	5.8	10	3	4	13
2064377	0.77	0.9	21.9	69	1740	387	0.5	2.5	0.25	5.3	20	1	3	9
2064378	0.77	1.9	88.4	238	1590	822	0.5	24	0.5	0.25	10	19	4	4
2064379	0.84	0.7	7.6	119	490	221	0.5	7	0.25	7.8	90	0.5	5	18



## 2020 Ultra MMI (2)

Sample_ID	Weight_kg	Au_ppb	Ag_ppb	Co_ppb	Cu_ppb	Ni_ppb	Pd_ppb	Pb_ppb	Sb_ppb	Th_ppb	Zn_ppb	Li_ppb	Mo_ppb	Al_ppm
2064380	0.89	0.8	10	44	620	249	0.5	7	0.25	8.9	20	1	4	19
2064381	0.85	0.8	9.2	178	2050	608	0.5	9	0.25	11.4	50	1	2	23
2064382	0.77	2.1	48.3	24	1840	221	0.5	6	0.9	0.25	5	23	21	2
2064383	0.85	1.3	63.3	41	1480	615	0.5	7	0.5	4.3	10	5	2	7
2064384	0.74	0.6	21.1	61	830	735	0.5	9	0.6	6.1	70	2	6	18
2064385	0.8	2.3	57.6	79	3330	751	0.5	2.5	0.25	3.1	50	0.5	3	10
2064386	0.88	1.3	39.4	55	1610	249	0.5	6	0.25	2.1	5	0.5	3	7
2064387	0.93	1.5	80.7	48	4730	657	0.5	15	0.9	0.6	10	15	26	8
2064388	0.9	1.1	74	101	4260	661	0.5	2.5	1.2	0.9	20	6	15	7
2064389	0.9	1.8	42.8	183	5220	980	0.5	2.5	0.8	1	10	5	11	6
2064390	0.48	3	67.7	145	10500	802	0.5	2.5	0.7	1.8	20	2	9	6
2064391	0.78	1.3	69	240	5410	767	0.5	2.5	1.3	0.25	30	2	9	5
2064392	0.84	1.3	59.5	91	2840	403	0.5	8	1.6	0.25	40	6	12	5
2064393	0.9	1.5	91.1	92	3850	589	0.5	2.5	1.5	0.9	20	8	17	6
2064394	0.94	1	31.3	53	2150	313	0.5	2.5	0.9	0.25	5	4	10	7
2064395	0.9	1.1	62	31	2400	400	0.5	20	0.25	2.5	70	5	5	6
2064396	0.51	2.3	64	89	8150	793	0.5	2.5	1	0.7	5	4	13	8
2064397	0.8	1.5	76.4	190	4190	819	0.5	9	0.9	1.5	30	7	4	8
2064398	0.6	1.3	79.3	81	4560	927	0.5	8	1.3	1.1	60	7	7	10
2064399	0.48	1.1	41.9	124	4200	725	0.5	2.5	1.1	2.1	10	0.5	5	8
2064400	0.49	0.9	49.5	148	4680	803	0.5	5	1	1.9	10	0.5	5	8
2064401	0.71	0.9	30.5	105	5000	563	0.5	10	0.7	4.7	10	2	9	12
2064402	0.49	1.8	64.7	62	4270	464	0.5	10	0.9	1.2	5	23	16	6
2064403	0.57	0.6	32.2	135	9790	2350	0.5	13	1.1	2.7	160	31	12	6

## 2020 Ultra MMI (2)

Sample_ID	As_ppb	Ba_ppb	Bi_ppb	Ca_ppm	Cd_ppb	Ce_ppb	Cr_ppb	Cs_ppb	Dy_ppb	Er_ppb	Eu_ppb	Fe_ppm	Ga_ppb	Gd_ppb	Hg_ppb
2064251	5	1810	0.25	599	18	228	50	0.3	38.9	18.7	14.4	20	1.1	57.4	0.5
2064252	5	960	0.25	683	16	87	50	0.1	16.2	8.5	5.7	14	0.8	24.3	0.5
2064253	5	1050	0.25	654	22	97	50	0.4	15.8	8	5.4	25	0.9	22.2	0.5
2064254	5	1680	0.25	814	14	66	50	0.6	23.5	12.1	7.7	16	0.7	33.9	0.5
2064255	5	2020	0.25	593	30	176	50	0.3	32.8	17.5	10.4	41	1	44.1	0.5
2064256	5	2110	0.25	600	20	122	50	0.1	19.9	11	6.2	28	1	25.8	0.5
2064257	5	1570	0.25	485	65	66	50	0.4	27.3	15.2	6.1	64	1.3	28.7	0.5
2064258	5	2600	0.25	686	15	173	50	0.3	36.2	19.7	11.6	19	0.9	48.6	0.5
2064259	5	2050	0.25	594	70	125	50	0.1	63.1	33.8	20.8	22	1	81.6	0.5
2064260	5	2740	0.25	682	60	122	50	0.1	54.4	27.7	18.8	20	0.9	72.7	0.5
2064261	5	2150	0.25	714	51	104	50	0.4	31.7	15.7	11.5	21	0.6	43.5	0.5
2064262	5	2390	0.25	570	56	293	50	0.3	89.1	42.2	32.9	20	1.2	134	0.5
2064263	5	2770	0.25	613	56	400	50	0.3	134	64.5	41.9	26	1.3	170	0.5
2064264	5	1400	0.25	385	43	136	50	1.3	61.3	33.9	16.3	48	2	67.8	0.5
2064265	5	920	0.25	367	52	145	50	1.8	21.9	11	6.8	36	2	28.6	0.5
2064266	5	1910	0.25	609	47	100	50	1	21.8	11.6	7.2	12	1.3	30.5	0.5
2064267	5	1190	0.25	450	27	38	50	1.7	6.5	3.4	2.2	16	1.8	9.2	0.5
2064268	5	1020	0.25	452	161	46	50	0.3	34.2	22.4	5.6	68	1.7	26.9	0.5
2064269	5	1280	0.25	479	44	108	50	0.5	36.5	19.2	10.5	32	1.2	44.1	0.5
2064270	5	2050	0.25	527	44	233	50	0.5	69.8	38.7	18.5	19	0.9	78.7	0.5
2064271	5	3350	0.25	685	14	304	50	0.1	138	65.9	44.2	13	1.1	182	0.5
2064272	5	2140	0.25	435	82	266	100	1	70.3	35.5	21.8	31	1.8	84	0.5
2064273	5	3490	0.25	607	66	428	50	0.3	148	82.5	43.8	35	1.2	173	0.5
2064274	5	1730	0.25	494	62	239	100	0.9	57.1	28.4	20	31	1.4	74.4	0.5
2064275	5	1630	0.25	561	49	104	50	0.6	40.6	21	15.6	20	0.8	57.6	0.5
2064276	10	2330	0.25	472	28	286	100	0.6	40.8	22.2	16.4	61	1.9	58.2	0.5
2064277	5	2250	0.25	338	54	175	50	0.6	64.9	34.9	14.2	39	1.9	64.2	0.5
2064278	5	2510	0.25	732	33	72	50	0.1	30	17.3	8	27	0.8	35.2	0.5
2064279	5	1670	0.25	571	15	166	50	0.3	54.6	31.2	12.9	32	1.3	59.1	0.5
2064280	5	1730	0.25	603	12	185	50	0.4	58	32.4	13.7	34	1.3	61.4	0.5
2064281	5	1680	0.25	665	23	122	50	0.1	27.3	14	9.2	19	0.8	36.6	0.5
2064282	5	930	0.25	676	26	28	50	0.2	15.3	9.3	4.3	19	0.7	18.2	0.5
2064283	5	1890	0.25	771	20	29	50	0.1	19.5	10.2	6.5	16	0.8	26.9	0.5
2064284	5	1880	0.25	716	14	50	50	0.2	26	12.9	9.3	13	0.25	35.4	0.5
2064285	5	2460	0.25	873	15	13	50	0.1	8.3	4.6	1.8	7	0.25	9.1	2
2064286	5	2210	0.25	885	13	4	50	0.1	9.8	5.8	2.1	6	0.25	10.9	0.5
2064287	5	1640	0.25	853	11	20	50	0.1	12.8	6.6	3.3	10	0.25	16.4	0.5
2064288	5	4410	0.25	1055	16	68	50	0.1	22.7	11	7.3	11	0.25	31.7	0.5
2064289	5	2700	0.25	838	15	68	50	0.1	17.1	7.7	6.5	16	0.25	25.9	0.5

## 2020 Ultra MMI (2)

Sample_ID	As_ppb	Ba_ppb	Bi_ppb	Ca_ppm	Cd_ppb	Ce_ppb	Cr_ppb	Cs_ppb	Dy_ppb	Er_ppb	Eu_ppb	Fe_ppm	Ga_ppb	Gd_ppb	Hg_ppb
2064290	5	1940	0.25	907	18	18	50	0.1	21	10.5	5.9	11	0.25	28.2	0.5
2064291	5	720	0.25	757	3	2	50	0.3	17.9	10.9	2.6	8	0.25	18.5	0.5
2064292	5	930	0.25	835	10	9	50	0.3	6.9	3.8	1.8	9	0.25	8.5	0.5
2064293	5	1000	0.25	987	9	7	50	0.1	11.6	5.9	3	9	0.25	15.6	0.5
2064294	5	330	0.25	957	8	2	50	0.1	12.2	6.5	2	7	0.25	11.8	0.5
2064295	5	220	0.25	949	3	8	50	0.1	16	8.4	3.9	7	0.25	18.8	0.5
2064296	5	20	0.25	588	2	1	50	0.4	2.4	1.5	0.2	5	0.25	2.2	0.5
2064297	5	2080	0.25	586	2	22	50	0.1	78	40.7	17.5	8	0.9	93.8	0.5
2064298	5	740	0.25	424	2	96	50	0.1	73.7	35.4	10.9	25	0.7	68.8	0.5
2064299	5	60	0.25	433	2	5	50	2.3	10.4	5.7	1.4	8	0.25	12.1	0.5
2064300	5	50	0.25	464	2	7	50	0.8	21	10.8	2.8	8	0.25	25.8	0.5
2064351	5	150	0.25	527	2	2	50	0.5	11.5	6.6	1.8	7	0.25	11.5	0.5
2064352	5	480	0.25	474	5	28	50	0.1	20.6	11.2	4.4	18	0.6	23.5	0.5
2064353	5	590	0.25	480	3	77	50	0.1	46.2	24.3	8.3	33	0.6	45.7	0.5
2064354	5	130	0.25	688	7	1	50	0.1	5.2	2.9	1	6	0.25	5.2	0.5
2064355	5	160	0.25	470	9	16	50	0.1	13.8	7.7	3.1	15	0.6	15.4	0.5
2064356	5	150	0.25	653	7	1	50	0.6	2.1	1.4	0.3	6	0.25	1.6	0.5
2064357	5	580	0.25	656	4	66	50	0.1	74.1	37.6	12.7	19	0.7	90.3	0.5
2064358	5	480	0.25	1039	5	1	50	0.1	9.8	5	1.2	6	0.25	9.2	0.5
2064359	5	530	0.25	1019	5	1	50	0.1	7.5	4.1	0.8	5	0.25	6.7	0.5
2064360	5	1440	0.25	687	7	31	50	0.1	35.7	17.5	9.4	8	0.25	45	0.5
2064361	5	1900	0.25	712	5	29	50	0.1	49.9	26.2	9.5	11	0.5	52.6	0.5
2064362	5	510	0.25	434	4	7	50	0.5	14.2	6.9	3.1	6	0.6	17.7	0.5
2064363	5	730	0.25	564	3	9	50	0.1	12.7	6.5	3.1	9	0.7	16	0.5
2064364	5	1600	0.25	712	8	21	50	0.1	19.5	8.9	5.9	8	0.25	25.9	0.5
2064365	5	1230	0.25	653	32	215	50	0.1	26	12.1	9	8	0.5	37.3	0.5
2064366	5	1070	0.25	605	9	17	50	0.1	6.6	3.4	2	4	0.25	8.8	0.5
2064367	5	1730	0.25	746	8	12	50	0.1	6.5	3.3	1.8	3	0.25	8.5	0.5
2064368	5	2210	0.25	833	16	13	50	0.1	5.9	2.9	1.5	4	0.25	7.1	0.5
2064404	5	630	0.25	792	4	38	50	0.3	49.5	25.2	14.1	21	0.25	58.7	0.5
2064405	5	2200	0.25	878	6	96	50	0.1	55.3	29.8	14	30	0.25	58	0.5
2064406	5	1280	0.25	591	4	58	50	0.4	17.7	8.2	5.6	17	0.5	23.2	0.5
2064407	5	3130	0.25	645	4	171	50	0.1	37.1	19	11.3	24	1	49.4	0.5
2064408	5	2630	0.25	753	3	93	50	0.1	43.6	21.8	13.3	19	0.8	58.1	0.5
2064409	5	2940	0.25	511	2	142	50	0.8	19.9	9.2	6.4	21	1.1	26.4	0.5



## 2020 Ultra MMI (2)

Sample_ID	As_ppb	Ba_ppb	Bi_ppb	Ca_ppm	Cd_ppb	Ce_ppb	Cr_ppb	Cs_ppb	Dy_ppb	Er_ppb	Eu_ppb	Fe_ppm	Ga_ppb	Gd_ppb	Hg_ppb
2064410	5	1120	0.25	497	3	268	100	0.9	55.7	27.7	16.7	25	1.3	71.6	0.5
2064411	5	2320	0.25	708	6	133	50	0.1	39.6	20.2	11.3	24	0.9	48.2	0.5
2064412	5	1500	0.25	614	12	93	50	0.2	12.8	6.2	4.5	26	0.7	18.5	0.5
2064413	5	1670	0.25	596	19	128	50	0.1	18.9	10.2	6.1	71	1.2	25.5	0.5
2064414	5	860	0.25	685	19	40	50	0.1	9.7	5.1	3.2	20	0.5	13	0.5
2064415	5	820	0.25	572	40	90	50	0.1	12.3	7.2	4.2	37	0.8	16.6	0.5
2064416	5	1520	0.25	527	17	129	50	0.3	24.6	13.2	7.7	31	1.1	30.9	0.5
2064417	5	1280	0.25	321	31	238	50	0.7	54.9	31.2	13.5	181	1.7	57.9	0.5
2064418	10	880	0.25	368	18	185	50	0.7	34.1	19.6	9.4	183	1.6	40.3	0.5
2064419	5	1460	0.25	290	48	153	50	0.6	68	40.9	12.3	159	1.7	55.8	0.5
2064420	5	870	0.25	189	30	35	50	0.3	15.9	11.4	2.6	324	1.5	12	0.5
2064421	20	1360	0.25	432	20	263	50	0.4	35.3	20.3	11	155	2.1	45.2	0.5
2064422	5	1360	0.25	495	12	116	50	0.5	19.7	10.6	5.8	49	1.4	25.2	0.5
2064423	5	1820	0.25	831	16	64	50	0.1	16.2	8.5	5.3	21	0.8	21.2	0.5
2064424	5	1660	0.25	641	15	131	50	0.3	24.1	12.8	7.7	33	1.1	31.3	0.5
2064425	5	1880	0.25	856	11	53	50	0.1	12.7	6.1	4.3	26	0.7	17.2	0.5
2064426	5	1960	0.25	816	24	93	50	0.1	31.8	16	9	29	0.25	40.1	0.5
2064427	5	1840	0.25	640	11	134	50	0.3	18.7	9.5	6.4	33	0.9	26.7	0.5
2064428	5	3670	0.25	1002	3	216	50	0.1	60.2	32	17.4	32	1.5	78.4	0.5
2064429	5	1210	0.25	548	3	161	100	0.1	36.3	19.4	11	32	0.9	47	0.5
2064430	5	1850	0.25	622	1	143	50	0.1	35.7	20.7	9.5	24	0.6	40.9	0.5
2064431	5	650	0.25	634	3	19	50	0.1	6.8	3.4	2.1	21	0.25	8.8	0.5
2064432	5	1100	0.25	626	1	12	50	0.1	4.7	2.2	1.6	9	0.25	6.8	0.5
2064433	5	1100	0.25	656	4	32	50	0.1	28.3	14.5	7.4	15	0.25	33	0.5
2064434	5	1440	0.25	604	6	53	50	0.2	11.4	5.4	3.6	24	0.5	13.7	0.5
2064435	5	1140	0.25	552	15	86	50	0.1	12.3	6.9	4.4	53	0.6	17	0.5
2064436	5	1870	0.25	488	37	153	50	0.1	23.7	12.9	7.9	27	0.7	32.5	0.5
2064369	5	1860	0.25	617	7	14	50	0.2	6.3	3.3	1.5	3	0.25	7.3	0.5
2064370	5	970	0.25	546	6	1	50	0.1	2.1	1.3	0.5	4	0.25	2.3	0.5
2064371	5	290	0.25	589	34	9	50	0.1	3.6	2.1	0.8	13	0.25	3.8	0.5
2064372	5	920	0.25	616	9	5	50	0.1	5	2.5	1.1	4	0.25	5.7	0.5
2064373	5	760	0.25	599	5	1	50	0.1	3.5	1.8	0.7	5	0.25	3.9	0.5
2064374	5	2000	0.25	681	4	8	50	0.1	10.7	5.5	2.5	4	0.25	13.1	0.5
2064375	5	2120	0.25	626	17	81	50	0.1	18.9	9.3	5.2	9	0.25	23.5	0.5
2064376	5	1950	0.25	616	8	103	50	0.1	25.3	12.4	6.7	6	0.25	33.2	0.5
2064377	5	1630	0.25	860	3	45	50	0.1	24	11.7	6.2	5	0.25	30.9	0.5
2064378	5	2050	0.25	688	3	6	50	0.1	5.9	3.4	1	3	0.25	5.6	0.5
2064379	5	1290	0.25	470	10	86	50	0.3	14.3	6.5	4.1	10	1	18.4	0.5

## 2020 Ultra MMI (2)

Sample_ID	As_ppb	Ba_ppb	Bi_ppb	Ca_ppm	Cd_ppb	Ce_ppb	Cr_ppb	Cs_ppb	Dy_ppb	Er_ppb	Eu_ppb	Fe_ppm	Ga_ppb	Gd_ppb	Hg_ppb
2064380	5	1530	0.25	525	2	59	50	0.2	24.2	11.4	6.6	9	0.7	29.9	0.5
2064381	5	1540	0.25	469	7	222	50	0.1	75.8	38.7	21.5	14	1	99.6	0.5
2064382	5	2030	0.25	270	2	3	50	0.1	1.7	1.2	0.4	0.5	0.25	1.5	0.5
2064383	5	2690	0.25	870	8	46	50	0.1	14	7.3	3.3	6	0.25	16.4	0.5
2064384	5	2070	0.25	719	7	53	50	0.1	13.5	6.6	3.4	9	0.25	16.3	0.5
2064385	5	1450	0.25	755	7	17	50	0.1	18.6	9.7	4.3	8	0.25	21.7	0.5
2064386	5	2350	0.25	827	2	25	50	0.1	13.2	6.6	3.3	5	0.25	16.2	0.5
2064387	5	2720	0.6	675	16	2	50	0.1	4.5	2.4	0.9	5	0.25	4.6	2
2064388	5	1480	0.25	505	9	8	50	0.5	5.1	2.9	1.2	7	0.25	6.1	0.5
2064389	5	920	0.25	590	5	3	50	0.2	6.1	3.4	1.2	7	0.25	6.7	2
2064390	5	1190	0.25	622	6	1	50	0.2	7.4	4.6	1.4	12	0.25	8.1	0.5
2064391	5	1650	0.25	471	11	2	50	0.1	1.7	1.1	0.4	8	0.25	1.9	1
2064392	5	1310	0.25	484	8	2	50	0.1	1.4	1	0.3	5	0.25	1.5	0.5
2064393	5	1250	0.25	587	13	9	50	0.3	6.2	3.6	1.5	9	0.25	7.3	1
2064394	5	1050	0.25	723	1	1	50	0.2	4.9	2.6	1	5	0.25	5.3	0.5
2064395	5	1210	0.25	606	14	14	50	0.1	5.1	3	1.5	9	0.25	6.7	0.5
2064396	5	570	0.25	499	6	2	50	0.3	7.3	4.2	1.3	6	0.25	7.4	2
2064397	5	1990	0.25	629	7	6	50	0.1	4.1	2.4	1	7	0.25	4.9	0.5
2064398	5	1410	0.25	686	12	5	50	0.3	4.6	2.7	1	10	0.25	5	0.5
2064399	5	840	0.25	673	5	13	50	0.2	9.3	5	2.1	10	0.7	10.5	0.5
2064400	5	940	0.25	672	4	14	50	0.2	8.5	5.1	2	11	0.6	9.8	0.5
2064401	10	3200	0.25	853	4	37	50	0.1	19.6	9.6	5.8	9	0.25	27.1	0.5
2064402	5	1220	0.25	539	5	8	50	0.1	7.6	4.3	1.7	5	0.25	8.8	0.5
2064403	5	310	0.25	729	51	7	50	0.1	4.3	2.5	1.1	26	0.25	4.4	0.5

## 2020 Ultra MMI (2)

Sample_ID	In_ppb	K_ppm	La_ppb	Mg_ppm	Mn_ppb	Nb_ppb	Nd_ppb	P_ppm	Pr_ppb	Pt_ppb	Rb_ppb	Sc_ppb	Sm_ppb	Sn_ppb	Sr_ppb
2064251	0.05	8.6	72	36.5	13200	0.25	177	0.2	29.2	0.05	19	7	50	0.5	1710
2064252	0.05	8	29	38.6	15900	0.25	70	0.2	11.5	0.05	11	2.5	20	0.5	1910
2064253	0.05	15.4	36	64.9	17400	0.25	76	0.1	13.4	0.05	47	2.5	19	0.5	2240
2064254	0.05	11.6	41	95.7	1200	0.25	93	0.05	16.1	0.05	45	5	27	0.5	2830
2064255	0.05	7	79	71.6	21000	0.25	149	0.1	27.6	0.05	24	17	38	0.5	1790
2064256	0.05	8	44	67.4	26100	0.25	89	0.1	15.5	0.05	18	11	24	0.5	1670
2064257	0.05	12.7	31	24.3	12100	0.25	63	0.5	11.8	0.05	17	28	20	0.5	1260
2064258	0.05	5	62	42.6	15800	0.25	133	0.05	23	0.05	27	18	39	0.5	2440
2064259	0.05	3.3	90	36.3	1300	0.25	202	0.05	33.3	0.05	10	11	60	0.5	2090
2064260	0.05	2.3	80	43.2	800	0.25	183	0.05	30.2	0.05	9	11	56	0.5	2500
2064261	0.05	9.1	47	49	2000	0.25	113	0.2	18.3	0.05	37	14	34	0.5	2360
2064262	0.05	4.4	155	52.7	2400	0.25	346	0.2	58.4	0.05	21	17	104	0.5	2040
2064263	0.05	2.5	181	60.4	900	0.25	410	0.05	68.3	0.05	22	50	130	0.5	2370
2064264	0.05	6.3	72	17.3	1600	0.25	162	0.7	26.6	0.05	65	37	50	0.5	1090
2064265	0.05	5.5	46	26.2	3900	0.25	94	0.6	16.5	0.05	76	16	25	0.5	1050
2064266	0.05	6.9	36	33.9	2000	0.25	86	0.05	14.2	0.05	57	8	24	0.5	2180
2064267	0.05	9.8	14	30.9	5300	0.25	30	0.4	5.2	0.05	57	2.5	8	0.5	1450
2064268	0.05	4.6	17	39.5	1300	0.25	47	0.3	7.4	0.05	16	18	16	0.5	1840
2064269	0.05	2.6	55	32.1	1500	0.25	118	0.2	20.3	0.05	41	18	34	0.5	1820
2064270	0.05	3.5	97	35	2900	0.25	188	0.1	32.2	0.05	46	37	59	0.5	1930
2064271	0.05	2	185	57.3	800	0.25	417	0.05	67.8	0.05	19	23	135	0.5	2670
2064272	0.05	6.8	103	26.6	1900	0.25	237	0.6	40.7	0.05	38	31	68	0.5	1540
2064273	0.05	3.7	173	44.7	1500	0.25	381	0.05	63.7	0.05	19	61	123	0.5	2590
2064274	0.05	17.6	88	31.6	2400	0.25	200	0.5	34.1	0.05	53	26	61	0.5	1540
2064275	0.05	19.6	63	37.3	3700	0.25	152	0.4	25.4	0.05	33	18	45	0.5	1740
2064276	0.05	20.9	120	47.4	55000	0.25	220	0.8	39.9	0.05	13	26	53	0.5	1480
2064277	0.05	3.3	72	11.5	1700	0.25	145	0.5	24.4	0.05	34	48	44	0.5	1040
2064278	0.05	2.8	37	65	1300	0.25	84	0.1	14.1	0.05	13	14	26	0.5	2260
2064279	0.05	5.5	63	40.5	3100	0.25	142	0.4	23.8	0.05	18	27	44	0.5	1660
2064280	0.05	6.8	69	41.1	3300	0.25	151	0.4	26.5	0.05	20	28	46	0.5	1730
2064281	0.05	3.8	47	46.3	7100	0.25	108	0.05	18.1	0.05	27	8	31	0.5	1750
2064282	0.1	6	17	51.7	1700	0.25	38	0.05	6.4	0.05	20	6	12	0.5	1980
2064283	0.05	26	25	35.6	1500	0.25	62	0.2	10.4	0.05	10	6	20	0.5	2080
2064284	0.05	15.5	38	45.4	2900	0.25	93	0.05	14.9	0.05	24	8	27	0.5	2040
2064285	0.05	7.4	0.5	51.6	6000	0.25	7	0.05	0.5	0.05	24	13	4	0.5	3460
2064286	0.05	6.4	0.5	60.4	3500	0.25	5	0.05	0.25	0.05	17	12	5	0.5	3720
2064287	0.05	3.5	3	39.7	2900	0.25	22	0.05	2.5	0.05	15	8	11	0.5	3550
2064288	0.05	2.2	28	73.5	8000	0.25	75	0.05	11.7	0.05	8	12	25	0.5	5030
2064289	0.05	1.8	24	108	600	0.25	70	0.05	11.9	0.05	10	16	22	0.5	1260

## 2020 Ultra MMI (2)

Sample_ID	In_ppb	K_ppm	La_ppb	Mg_ppm	Mn_ppb	Nb_ppb	Nd_ppb	P_ppm	Pr_ppb	Pt_ppb	Rb_ppb	Sc_ppb	Sm_ppb	Sn_ppb	Sr_ppb
2064290	0.05	7.1	16	111	1500	0.25	51	0.05	7.4	0.05	10	12	19	0.5	2000
2064291	0.05	10.4	0.5	120	1600	0.25	14	0.05	1.2	0.05	8	27	8	0.5	1430
2064292	0.05	43.5	4	61.6	3300	0.25	15	0.3	2.1	0.05	23	6	6	0.5	1420
2064293	0.05	10	8	83.5	700	0.25	28	0.05	4.1	0.05	5	7	10	0.5	1720
2064294	0.05	5.7	0.5	41.5	2200	0.25	6	0.05	0.25	0.05	7	10	5	0.5	950
2064295	0.05	3	3	50.9	2300	0.25	22	0.05	2.2	0.05	5	10	10	0.5	1430
2064296	0.05	11.3	0.5	111	3500	0.25	0.5	0.05	0.25	0.05	3	5	0.5	0.5	670
2064297	0.05	4.9	51	123	600	0.25	170	0.05	22.3	0.05	13	15	61	0.5	2140
2064298	0.05	4.3	52	64.6	400	0.25	140	0.05	20.8	0.05	34	95	47	0.5	1030
2064299	0.05	4.5	3	121	1400	0.25	19	0.05	2.1	0.05	16	13	7	0.5	460
2064300	0.05	2.3	7	121	1500	0.25	39	0.05	4.5	0.05	7	17	15	0.5	600
2064351	0.05	13	2	147	1800	0.25	13	0.05	1.4	0.05	11	13	6	0.5	810
2064352	0.05	16.8	16	47.3	1400	0.25	51	0.1	7.6	0.05	18	17	17	0.5	770
2064353	0.05	6.6	42	66.7	5400	0.25	108	0.05	16.8	0.05	16	38	33	0.5	1430
2064354	0.05	21.6	0.5	42.2	3400	0.25	4	0.05	0.25	0.05	8	12	2	0.5	970
2064355	0.05	24.9	9	32.4	1200	0.25	33	0.1	4.6	0.05	14	9	11	0.5	850
2064356	0.05	64.9	0.5	27.6	3800	0.25	0.5	0.05	0.25	0.05	9	10	0.5	0.5	1040
2064357	0.05	13.7	58	102	1200	0.25	199	0.05	27.6	0.05	13	19	63	0.5	1830
2064358	0.05	26.9	0.5	35.1	1600	0.25	3	0.05	0.25	0.05	8	8	3	0.5	970
2064359	0.05	44.1	0.5	43.8	2200	0.25	0.5	0.05	0.25	0.05	18	7	2	0.5	1430
2064360	0.05	8.5	33	58.4	1100	0.25	94	0.05	14.1	0.05	6	9	32	0.5	1000
2064361	0.05	3.8	17	119	200	0.25	67	0.05	8	0.05	5	42	29	0.5	1770
2064362	0.05	13.8	10	54.6	400	0.25	38	0.05	5.2	0.05	19	13	13	0.5	910
2064363	0.05	10.5	10	45.7	400	0.25	35	0.05	5	0.05	12	10	12	0.5	820
2064364	0.05	1.6	17	67.1	2400	0.25	52	0.05	7.4	0.05	7	8	19	0.5	1670
2064365	0.05	2.4	41	44.6	6500	0.25	103	0.05	15.5	0.05	5	2.5	31	0.5	2120
2064366	0.05	7	4	41	5800	0.25	17	0.05	2.1	0.05	19	6	6	0.5	2370
2064367	0.05	7.9	0.5	49.7	2900	0.25	10	0.05	1	0.05	12	8	5	0.5	3240
2064368	0.05	9.5	0.5	62.1	4000	0.25	7	0.05	0.6	0.05	19	10	4	0.5	3620
2064404	0.05	4	30	134	1900	0.25	105	0.05	15.4	0.05	26	35	40	0.5	2010
2064405	0.05	11.4	46	89.8	700	0.25	118	0.1	19.2	0.05	26	57	41	0.5	2800
2064406	0.05	42.5	21	101	1300	0.25	58	0.4	9.6	0.05	33	24	18	0.5	1860
2064407	0.05	9.4	66	68.5	2700	0.25	136	0.3	24.6	0.05	27	30	40	0.5	2150
2064408	0.05	8.7	70	93.1	2200	0.25	161	0.3	26.9	0.05	25	30	46	0.5	2240
2064409	0.05	5.7	47	43.5	900	0.25	88	0.4	16.9	0.05	57	23	23	0.5	1560



## 2020 Ultra MMI (2)

Sample_ID	In_ppb	K_ppm	La_ppb	Mg_ppm	Mn_ppb	Nb_ppb	Nd_ppb	P_ppm	Pr_ppb	Pt_ppb	Rb_ppb	Sc_ppb	Sm_ppb	Sn_ppb	Sr_ppb
2064410	0.05	13.6	106	68.6	14400	0.25	228	0.8	40.5	0.05	49	61	62	0.5	3350
2064411	0.05	12.5	53	96	600	0.25	126	0.3	21.4	0.05	39	28	38	0.5	2220
2064412	0.05	17	29	80	11200	0.25	65	0.4	11.8	0.05	23	10	17	0.5	1360
2064413	0.05	24	51	86.8	35600	0.25	94	0.4	17.9	0.05	30	20	23	0.5	1470
2064414	0.05	16	16	100	1300	0.25	36	0.2	6.4	0.05	24	7	10	0.5	1480
2064415	0.05	8.2	27	83.1	30600	0.25	58	0.1	10.4	0.05	28	14	14	0.5	1380
2064416	0.05	8.9	45	89.1	25700	0.25	102	0.4	18.1	0.05	28	19	26	0.5	1240
2064417	0.1	13.7	84	34.7	40900	0.25	179	1.5	32.5	0.05	64	156	47	0.5	870
2064418	0.05	4.8	70	33.4	40000	0.25	140	0.6	25.4	0.05	33	89	34	0.5	940
2064419	0.2	2.8	54	29.4	13100	0.25	124	1.1	22.1	0.05	36	116	40	0.5	830
2064420	0.05	3.9	13	22	5900	0.25	26	1	4.7	0.05	25	49	8	0.5	750
2064421	0.05	10.2	99	36.9	26000	0.25	178	1	34.1	0.05	42	78	41	0.5	890
2064422	0.05	8.7	41	51	59000	0.25	84	0.5	15.9	0.05	32	21	22	0.5	1470
2064423	0.05	14.5	27	88.4	10600	0.25	64	0.05	10.8	0.05	32	14	17	0.5	2250
2064424	0.05	13.5	46	64.5	22600	0.25	102	0.4	17.9	0.05	24	19	28	0.5	1700
2064425	0.05	10.2	15	96.6	27100	0.25	43	0.05	7	0.05	23	11	13	0.5	2570
2064426	0.05	7.7	41	115	1900	0.25	99	0.1	16.6	0.05	23	17	31	0.5	2390
2064427	0.05	4.9	52	39.5	19400	0.25	97	0.3	18.1	0.05	41	12	24	0.5	1170
2064428	0.05	25.8	101	116	300	0.25	211	0.1	36.9	0.05	33	34	59	0.5	2910
2064429	0.05	13.7	72	68.1	1900	0.25	152	0.7	27.5	0.05	38	43	39	0.5	1290
2064430	0.05	11.1	48	95.5	2700	0.25	107	0.2	20.6	0.05	29	44	30	0.5	2020
2064431	0.05	11.7	12	72.5	600	0.25	25	0.05	4.8	0.05	13	7	7	0.5	1230
2064432	0.05	12	6	105	800	0.25	17	0.2	3.1	0.05	14	6	5	0.5	1490
2064433	0.05	2.9	17	76.5	1200	0.25	55	0.05	9.1	0.05	21	18	20	0.5	1620
2064434	0.05	2.2	14	91.8	11400	0.25	36	0.05	6.6	0.05	13	10	11	0.5	1680
2064435	0.05	2.6	40	68.5	11700	0.25	70	0.05	14.7	0.05	17	13	16	0.5	1120
2064436	0.05	1.9	53	56.2	6700	0.25	107	0.05	21.6	0.05	22	18	28	0.5	1020
2064369	0.05	7.7	2	123	2300	0.25	9	0.05	0.9	0.05	36	5	4	0.5	2650
2064370	0.05	24.7	0.5	72.8	2900	0.25	2	0.05	0.25	0.05	24	2.5	1	0.5	1870
2064371	0.05	12.4	2	77	3000	0.25	8	0.05	1.1	0.05	34	6	2	0.5	4490
2064372	0.05	10.7	1	86.9	2300	0.25	7	0.05	0.7	0.05	16	6	3	0.5	4670
2064373	0.05	15	0.5	120	1200	0.25	5	0.05	0.7	0.05	33	2.5	2	0.5	5490
2064374	0.05	8.7	5	152	1200	0.25	19	0.05	2.5	0.05	22	8	7	0.5	9150
2064375	0.05	10	24	132	1600	0.25	53	0.05	8.9	0.05	33	9	17	0.5	2500
2064376	0.05	4	23	107	4300	0.25	63	0.05	9.2	0.05	19	18	22	0.5	3650
2064377	0.05	5.9	21	63.3	2600	0.25	53	0.05	7.5	0.05	16	17	19	0.5	3730
2064378	0.05	10.3	0.5	195	6000	0.25	4	0.05	0.25	0.05	13	5	2	0.5	3430
2064379	0.05	9.5	23	48.3	6100	0.25	51	0.05	8.4	0.05	30	15	14	0.5	1810

## 2020 Ultra MMI (2)

Sample_ID	In_ppb	K_ppm	La_ppb	Mg_ppm	Mn_ppb	Nb_ppb	Nd_ppb	P_ppm	Pr_ppb	Pt_ppb	Rb_ppb	Sc_ppb	Sm_ppb	Sn_ppb	Sr_ppb
2064380	0.05	8.4	32	52.3	2000	0.25	73	0.05	11.5	0.05	29	21	23	0.5	2020
2064381	0.05	6.8	172	100	9900	0.25	291	0.05	49.9	0.05	19	31	76	0.5	2200
2064382	0.05	5.5	0.5	339	800	0.25	0.5	0.05	0.25	0.05	21	2.5	0.5	0.5	3380
2064383	0.05	5.2	6	73	2800	0.25	23	0.05	3.1	0.05	15	8	10	0.5	3540
2064384	0.05	9.3	14	47.9	3800	0.25	35	0.05	5.3	0.05	29	8	12	0.5	2750
2064385	0.05	7.1	12	66.5	2500	0.25	34	0.05	4.9	0.05	8	14	13	0.5	2830
2064386	0.05	6.1	9	90	2100	0.25	27	0.05	3.7	0.05	15	9	10	0.5	4070
2064387	0.05	16.8	0.5	128	2500	0.25	2	0.05	0.25	0.05	61	9	2	0.5	2390
2064388	0.05	15.1	2	115	5800	0.25	8	0.2	1.1	0.05	69	9	4	0.5	3400
2064389	0.05	10.3	0.5	67.9	8600	0.25	4	0.1	0.25	0.05	34	13	3	0.5	3490
2064390	0.05	12	0.5	76.8	4200	0.25	5	0.2	0.25	0.05	35	16	3	0.5	3430
2064391	0.05	12.2	0.5	62.3	5700	0.25	3	0.4	0.25	0.05	26	6	0.5	0.5	2220
2064392	0.05	12.5	0.5	113	3500	0.25	2	0.05	0.25	0.05	23	2.5	0.5	0.5	1820
2064393	0.05	10.1	3	90.9	5500	0.25	10	0.2	1.4	0.05	31	13	4	0.5	2010
2064394	0.05	13.2	0.5	172	1000	0.25	4	0.05	0.25	0.05	31	7	3	0.5	3010
2064395	0.05	10.8	4	69.4	2100	0.25	12	0.2	2	0.05	29	9	4	0.5	1600
2064396	0.05	10.3	0.5	225	4000	0.25	5	0.2	0.5	0.05	39	16	3	1	2080
2064397	0.05	11.6	2	112	5900	0.25	6	0.05	0.8	0.05	32	8	3	0.5	2030
2064398	0.05	24.1	2	177	5400	0.25	7	0.2	1	0.05	64	7	3	0.5	2340
2064399	0.05	27	6	64.2	4200	0.25	17	0.4	2.6	0.05	47	11	7	0.5	1720
2064400	0.05	26.2	5	62.8	5700	0.25	15	0.4	2.3	0.05	51	11	6	0.5	1670
2064401	0.05	18.8	29	106	2400	0.25	62	0.3	10.4	0.05	53	20	19	0.5	3140
2064402	0.05	23.4	2	130	3200	0.25	10	0.05	1.2	0.05	51	7	5	0.5	2790
2064403	0.05	23.5	1	88.2	3300	0.25	8	0.05	1.2	0.05	54	8	3	0.5	5080

## 2020 Ultra MMI (2)

Sample_ID	Ta_ppb	Tb_ppb	Te_ppb	Ti_ppb	Tl_ppb	U_ppb	W_ppb	Y_ppb	Yb_ppb	Zr_ppb
2064251	0.5	6.4	5	5	0.4	13.6	0.25	208	12.8	4
2064252	0.5	2.7	5	10	0.3	8.4	0.25	95	5.5	5
2064253	0.5	2.5	5	5	0.5	7.2	0.25	92	5.8	2
2064254	0.5	3.8	5	5	0.3	9.2	0.25	140	8.1	3
2064255	0.5	5.3	5	5	0.2	16.2	0.25	199	13	7
2064256	0.5	3.1	5	10	0.2	14.5	0.25	121	8.4	6
2064257	0.5	4.5	5	60	0.5	18.2	0.25	189	10.8	14
2064258	0.5	5.7	5	5	0.2	21.1	0.25	212	14.2	8
2064259	0.5	9.5	5	5	0.05	12.5	0.25	407	22.6	6
2064260	0.5	8.4	5	5	0.05	11.9	0.25	341	19.1	5
2064261	0.5	5	5	5	0.3	8.7	0.25	163	10.9	5
2064262	0.5	14.7	5	5	0.2	16.7	0.25	464	28.7	8
2064263	0.5	20.9	5	5	0.3	20.7	0.25	761	40.8	10
2064264	0.5	8.6	5	60	0.3	20.5	0.25	377	22.7	14
2064265	0.5	3.4	5	40	0.4	11	0.25	113	7.5	9
2064266	0.5	3.5	5	5	0.2	12.3	0.25	140	8	4
2064267	0.5	1	5	20	0.2	6.9	0.25	36	2.6	7
2064268	0.5	4.2	5	30	0.1	11.5	0.25	229	16	5
2064269	0.5	5.5	5	5	0.1	21.3	0.25	224	12.7	5
2064270	0.5	10	5	10	0.3	30.2	0.25	437	25.7	11
2064271	0.5	21.6	5	5	0.2	21.6	0.25	899	41.3	9
2064272	0.5	10.7	5	30	0.4	12.9	0.25	362	25.5	20
2064273	0.5	22.2	5	5	0.3	23.6	0.25	1050	55.9	15
2064274	0.5	9.1	5	30	0.3	15.8	0.25	274	20.3	16
2064275	0.5	6.5	5	10	0.3	13	0.25	236	15.8	11
2064276	0.5	6.7	5	50	0.6	12.4	0.25	246	17.9	21
2064277	0.5	9	5	50	0.5	22.6	0.25	399	24.1	22
2064278	0.5	4.5	5	20	0.2	16.5	0.25	175	12.2	6
2064279	0.5	7.8	5	30	0.2	18	0.25	344	22.5	10
2064280	0.5	8.2	5	40	0.2	18.1	0.25	368	22.9	11
2064281	0.5	4.4	5	5	0.2	10.5	0.25	164	9.9	4
2064282	0.5	2.2	5	5	0.1	7.5	0.25	94	6.6	2
2064283	0.5	3.1	5	5	0.1	9.1	0.25	105	7.3	3
2064284	0.5	4.1	5	5	0.2	6	0.25	140	9.2	4
2064285	0.5	1.2	5	5	0.3	3.5	0.25	48	3.1	3
2064286	0.5	1.5	5	5	0.2	6.1	0.25	56	4.2	5
2064287	0.5	1.9	5	5	0.3	15.5	0.25	68	5.4	4
2064288	0.5	3.6	5	5	0.05	31.2	0.25	130	7.7	9
2064289	0.5	3.4	5	5	0.4	6	0.25	105	6.2	12

## 2020 Ultra MMI (2)

Sample_ID	Ta_ppb	Tb_ppb	Te_ppb	Ti_ppb	Tl_ppb	U_ppb	W_ppb	Y_ppb	Yb_ppb	Zr_ppb
2064290	0.5	3.2	5	5	0.05	8.3	0.25	120	7.7	4
2064291	0.5	2.6	5	5	0.05	1.7	0.25	107	8.5	8
2064292	0.5	1.1	5	5	0.05	1.9	0.25	40	2.9	3
2064293	0.5	1.8	5	5	0.05	5	0.25	63	4	1
2064294	0.5	1.7	5	5	1.1	1.1	0.25	82	4.7	4
2064295	0.5	2.4	5	5	0.5	1.5	0.25	117	5.9	2
2064296	0.5	0.3	5	5	0.05	0.5	0.25	20	1.3	1
2064297	0.5	11.6	5	5	0.05	8.9	0.25	574	26.4	8
2064298	0.5	10.2	5	5	0.05	4.9	0.25	372	21.8	10
2064299	0.5	1.5	5	5	0.05	0.25	0.25	78	4.2	4
2064300	0.5	3.1	5	10	0.05	0.7	0.25	138	7	7
2064351	0.5	1.5	5	5	0.05	1.7	0.25	86	5	5
2064352	0.5	3	5	10	0.05	3.7	0.25	132	8.1	10
2064353	0.5	6.2	5	5	0.05	8	0.25	308	17	7
2064354	0.5	0.7	5	5	0.05	1.7	0.25	39	2.1	1
2064355	0.5	2	5	5	0.05	4.5	0.25	89	6	7
2064356	0.5	0.3	5	5	0.05	0.25	0.25	17	1.5	1
2064357	0.5	11.1	5	5	0.05	4.4	0.25	470	23.5	10
2064358	0.5	1.3	5	5	0.05	1.8	0.25	58	3.5	1
2064359	0.5	1	5	5	0.05	0.6	0.25	53	2.7	1
2064360	0.5	5.5	5	5	0.05	10.7	0.25	209	11.6	6
2064361	0.5	7.1	5	5	0.05	2	0.25	379	18	8
2064362	0.5	2.2	5	5	0.05	4.6	0.25	78	4.4	9
2064363	0.5	2.1	5	5	0.05	2.5	0.25	71	4.2	5
2064364	0.5	3.1	5	5	0.05	10.6	0.25	110	6.4	7
2064365	0.5	4.2	5	5	0.05	19.9	0.25	147	8.8	8
2064366	0.5	1	5	5	0.05	3.6	0.25	46	2.5	2
2064367	0.5	1	5	5	0.05	3	0.25	43	2.3	2
2064368	0.5	0.9	5	5	0.05	2.1	0.25	40	2	2
2064404	0.5	7.6	5	5	0.05	9.6	0.25	328	18.2	10
2064405	0.5	7.9	5	5	0.05	9	0.25	355	22.6	11
2064406	0.5	2.8	5	10	0.05	6.5	0.25	86	6.3	10
2064407	0.5	5.8	5	5	0.05	22.6	0.25	226	14.7	19
2064408	0.5	6.8	5	5	0.05	17.5	0.25	272	16.7	19
2064409	0.5	3.3	5	40	0.3	10.1	0.25	108	6.9	18



## 2020 Ultra MMI (2)

Sample_ID	Ta_ppb	Tb_ppb	Te_ppb	Ti_ppb	Tl_ppb	U_ppb	W_ppb	Y_ppb	Yb_ppb	Zr_ppb
2064410	0.5	8.8	5	30	0.05	17.4	0.25	293	19.7	27
2064411	0.5	5.9	5	5	0.2	20.7	0.25	235	16	16
2064412	0.5	2.1	5	20	0.05	14.3	0.25	76	4.8	11
2064413	0.5	3	5	40	0.2	14	0.25	127	8.9	10
2064414	0.5	1.5	5	10	0.05	8	0.25	62	4	2
2064415	0.5	2	5	10	0.2	8.8	0.25	83	6.1	5
2064416	0.5	3.8	5	40	0.05	12.7	0.25	156	10.7	13
2064417	0.5	7.9	5	110	0.2	28.9	0.25	327	26.4	50
2064418	0.5	5.1	5	60	0.05	19.8	0.25	210	16.4	25
2064419	0.5	8.7	5	130	0.3	26.5	0.25	471	32.2	33
2064420	0.5	2	5	140	0.2	15.3	0.25	114	9.8	22
2064421	0.5	5.4	5	90	0.2	26.3	0.25	229	17.6	32
2064422	0.5	2.9	5	30	0.1	9.1	0.25	119	9	12
2064423	0.5	2.5	5	5	0.1	12.7	0.25	104	6.6	8
2064424	0.5	3.9	5	20	0.05	16.2	0.25	147	9.9	16
2064425	0.5	2	5	5	0.05	10.5	0.25	69	4.4	7
2064426	0.5	4.8	5	5	0.05	20.2	0.25	200	12.3	9
2064427	0.5	3	5	30	0.05	25	0.25	118	7.9	9
2064428	0.5	9.3	5	5	0.05	9.6	0.25	439	22	7
2064429	0.5	5.7	5	30	0.05	16.5	0.25	224	15.3	30
2064430	0.5	5.3	5	5	0.3	12.7	0.25	189	15.8	9
2064431	0.5	1.1	5	5	0.05	6.4	0.25	36	3	2
2064432	0.5	0.8	5	5	0.05	10.5	0.25	25	1.6	1
2064433	0.5	4.2	5	5	0.05	10	0.25	145	11.2	6
2064434	0.5	1.8	5	5	0.2	9.9	0.25	47	4	6
2064435	0.5	2	5	5	0.1	21.3	0.25	58	6.6	8
2064436	0.5	3.8	5	5	0.2	48.7	0.25	122	11.1	14
2064369	0.5	1	5	5	0.05	7.2	0.25	46	2.7	2
2064370	0.5	0.3	5	5	0.05	3.1	0.25	17	1.1	1
2064371	0.5	0.5	5	5	0.05	3.6	0.25	26	2.1	1
2064372	0.5	0.7	5	5	0.05	4.1	0.25	34	2	1
2064373	0.5	0.5	5	5	0.05	13.9	0.25	23	1.5	1
2064374	0.5	1.6	5	5	0.05	12.2	0.25	74	3.9	3
2064375	0.5	3	5	5	0.05	10.8	0.25	94	6.7	6
2064376	0.5	4	5	5	0.05	14.2	0.25	151	9.3	9
2064377	0.5	3.7	5	5	0.05	17	0.25	165	8.5	7
2064378	0.5	0.8	5	5	0.05	12.1	0.25	37	2.5	1
2064379	0.5	2.2	5	30	0.05	24.4	0.25	65	4.8	13

## 2020 Ultra MMI (2)

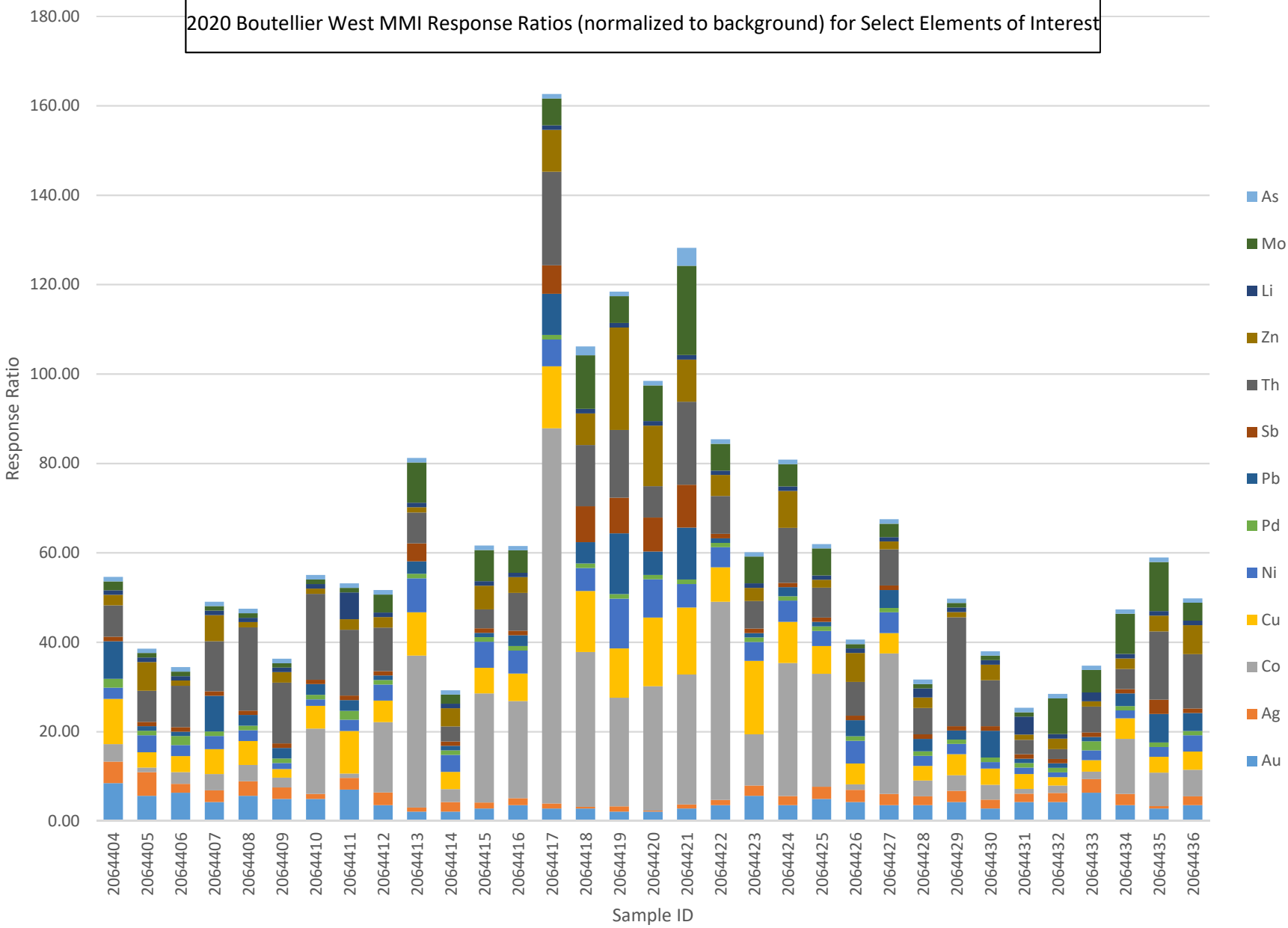
Sample_ID	Ta_ppb	Tb_ppb	Te_ppb	Ti_ppb	Tl_ppb	U_ppb	W_ppb	Y_ppb	Yb_ppb	Zr_ppb
2064380	0.5	3.8	5	10	0.05	31.5	0.25	115	7.9	15
2064381	0.5	11.9	5	10	0.05	22.8	0.25	506	28.7	20
2064382	0.5	0.2	5	5	0.05	36.8	0.25	12	1.2	2
2064383	0.5	2.1	5	5	0.05	5.3	0.25	96	5.4	5
2064384	0.5	2	5	5	0.05	55.7	0.25	76	5.2	13
2064385	0.5	2.7	5	5	0.05	20.1	0.25	121	7.8	6
2064386	0.5	1.9	5	5	0.05	8.7	0.25	94	4.7	4
2064387	0.5	0.6	5	5	0.2	11.7	0.25	31	2.1	5
2064388	0.5	0.8	5	5	0.2	21.4	0.25	39	2.7	6
2064389	0.5	0.8	5	5	0.2	11.9	0.25	44	3.1	6
2064390	0.5	1	5	5	0.2	16.9	0.25	57	4.5	9
2064391	0.5	0.2	5	5	0.1	16	0.25	13	1.1	6
2064392	0.5	0.2	5	5	0.1	7.5	0.25	12	1	4
2064393	0.5	0.9	5	5	0.1	10.2	0.25	54	3.5	8
2064394	0.5	0.7	5	5	0.05	17.9	0.25	32	2.1	2
2064395	0.5	0.9	5	5	0.3	6.9	0.25	37	2.4	7
2064396	0.5	1	5	5	0.2	23.5	0.25	54	3.8	8
2064397	0.5	0.6	5	5	0.2	6.5	0.25	33	2.2	6
2064398	0.5	0.6	5	5	0.2	12	0.25	34	2.6	5
2064399	0.5	1.3	5	5	0.05	9	0.25	65	4.7	8
2064400	0.5	1.2	5	10	0.1	8.9	0.25	61	4.4	7
2064401	0.5	3.1	5	5	0.05	21.9	0.25	131	7.5	10
2064402	0.5	1.1	5	10	0.1	5.2	0.25	60	4.1	5
2064403	0.5	0.6	5	10	0.1	10.3	0.25	31	2.4	4

## Appendix VI – MMI Soil Response Ratios and Charts

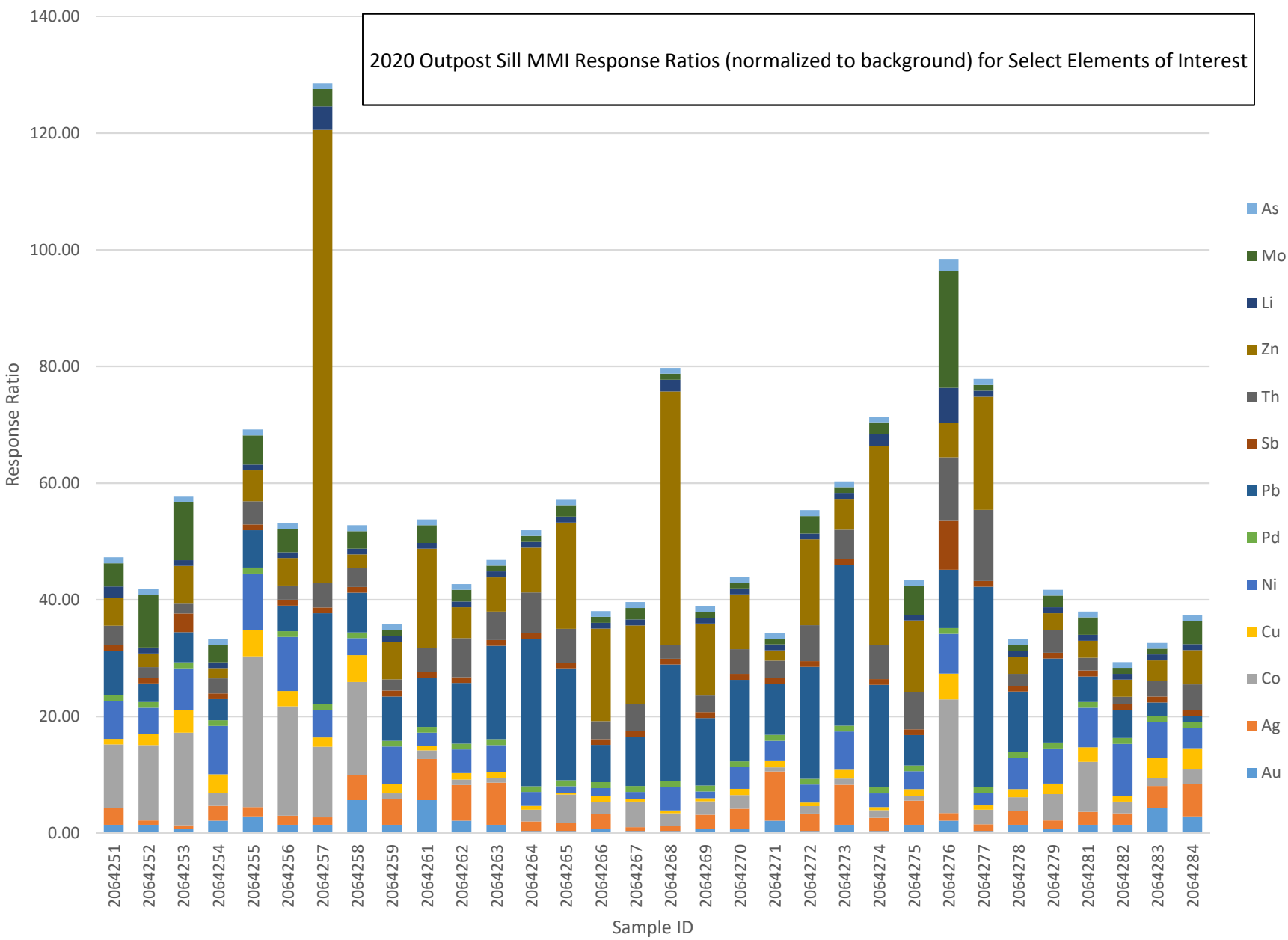




2020 Boutellier West MMI Response Ratios (normalized to background) for Select Elements of Interest



2020 Outpost Sill MMI Response Ratios (normalized to background) for Select Elements of Interest





Sample ID	Area	Au	Ag	Co	Cu	Ni	Pd	Pb	Sb	Th	Zn	Li	Mo	As
2064251	Outpost Sill	1.41	2.90	10.90	0.92	6.49	1.00	7.60	1.00	3.33	4.71	2.00	4.00	1.00
2064252	Outpost Sill	1.41	0.73	12.91	1.86	4.53	1.00	3.20	1.00	1.79	2.35	1.00	9.00	1.00
2064253	Outpost Sill	0.70	0.63	15.85	3.95	7.10	1.00	5.20	3.20	1.67	6.47	1.00	10.00	1.00
2064254	Outpost Sill	2.11	2.52	2.26	3.18	8.25	1.00	3.60	1.00	2.56	1.76	1.00	3.00	1.00
2064255	Outpost Sill	2.82	1.64	25.81	4.58	9.64	1.00	6.40	1.00	3.97	5.29	1.00	5.00	1.00
2064256	Outpost Sill	1.41	1.56	18.73	2.63	9.27	1.00	4.40	1.00	2.44	4.71	1.00	4.00	1.00
2064257	Outpost Sill	1.41	1.27	12.09	1.60	4.70	1.00	15.60	1.00	4.23	77.65	4.00	3.00	1.00
2064258	Outpost Sill	5.63	4.35	15.91	4.60	2.90	1.00	6.80	1.00	3.21	2.35	1.00	3.00	1.00
2064259	Outpost Sill	1.41	4.47	0.88	1.62	6.43	1.00	7.60	1.00	1.92	6.47	1.00	1.00	1.00
2064261	Outpost Sill	5.63	7.04	1.50	0.75	2.27	1.00	8.40	1.00	4.10	17.06	1.00	3.00	1.00
2064262	Outpost Sill	2.11	6.11	0.94	1.11	4.06	1.00	10.40	1.00	6.67	5.29	1.00	2.00	1.00
2064263	Outpost Sill	1.41	7.21	0.81	0.98	4.67	1.00	16.00	1.00	4.87	5.88	1.00	1.00	1.00
2064264	Outpost Sill	0.35	1.64	2.01	0.65	2.35	1.00	25.20	1.00	7.05	7.65	1.00	1.00	1.00
2064265	Outpost Sill	0.35	1.33	4.89	0.31	1.14	1.00	19.20	1.00	5.77	18.24	1.00	2.00	1.00
2064266	Outpost Sill	0.70	2.58	2.01	1.03	1.38	1.00	6.40	1.00	3.08	15.88	1.00	1.00	1.00
2064267	Outpost Sill	0.35	0.64	4.39	0.45	1.21	1.00	8.40	1.00	4.62	13.53	1.00	2.00	1.00
2064268	Outpost Sill	0.35	0.90	2.13	0.48	4.03	1.00	20.00	1.00	2.31	43.53	2.00	1.00	1.00
2064269	Outpost Sill	0.70	2.40	2.32	0.52	1.17	1.00	11.60	1.00	2.82	12.35	1.00	1.00	1.00
2064270	Outpost Sill	0.70	3.46	2.32	1.07	3.72	1.00	14.00	1.00	4.23	9.41	1.00	1.00	1.00
2064271	Outpost Sill	2.11	8.44	0.69	1.21	3.36	1.00	8.80	1.00	2.95	1.76	1.00	1.00	1.00
2064272	Outpost Sill	0.35	2.99	1.25	0.61	3.07	1.00	19.20	1.00	6.15	14.71	1.00	3.00	1.00
2064273	Outpost Sill	1.41	6.85	1.07	1.50	6.56	1.00	27.60	1.00	5.00	5.29	1.00	1.00	1.00
2064274	Outpost Sill	0.35	2.24	1.32	0.51	2.37	1.00	17.60	1.00	5.90	34.12	2.00	2.00	1.00
2064275	Outpost Sill	1.41	4.14	0.75	1.21	3.07	1.00	5.20	1.00	6.28	12.35	1.00	5.00	1.00
2064276	Outpost Sill	2.11	1.30	19.49	4.43	6.80	1.00	10.00	8.40	10.90	5.88	6.00	20.00	2.00
2064277	Outpost Sill	0.35	1.14	2.51	0.73	2.09	1.00	34.40	1.00	12.18	19.41	1.00	1.00	1.00
2064278	Outpost Sill	1.41	2.34	2.38	1.40	5.31	1.00	10.40	1.00	2.05	2.94	1.00	1.00	1.00
2064279	Outpost Sill	0.70	1.42	4.51	1.81	6.05	1.00	14.40	1.00	3.85	2.94	1.00	2.00	1.00
2064281	Outpost Sill	1.41	2.22	8.58	2.50	6.73	1.00	4.40	1.00	2.18	2.94	1.00	3.00	1.00
2064282	Outpost Sill	1.41	1.95	2.01	0.92	9.00	1.00	4.80	1.00	1.28	2.94	1.00	1.00	1.00
2064283	Outpost Sill	4.23	3.82	1.38	3.46	6.09	1.00	2.40	1.00	2.69	3.53	1.00	1.00	1.00
2064284	Outpost Sill	2.82	5.50	2.57	3.66	3.45	1.00	1.00	1.00	4.49	5.88	1.00	4.00	1.00



Sample ID	Area	Au	Ag	Co	Cu	Ni	Pd	Pb	Sb	Th	Zn	Li	Mo	As
2064285	Boutellier East	3.52	6.69	6.08	1.55	1.08	1.00	10.00	1.00	1.54	1.76	14.00	6.00	1.00
2064286	Boutellier East	4.23	6.08	4.45	3.45	1.66	1.00	8.80	1.00	2.05	1.18	10.00	8.00	1.00
2064287	Boutellier East	2.82	4.04	3.76	3.15	2.67	1.00	4.80	1.00	4.49	0.59	10.00	6.00	1.00
2064288	Boutellier East	3.52	6.96	7.64	3.94	2.80	1.00	3.20	1.00	5.77	1.76	1.00	12.00	1.00
2064289	Boutellier East	4.23	3.52	2.88	7.99	2.97	4.00	2.80	2.40	7.44	1.76	6.00	3.00	1.00
2064290	Boutellier East	4.93	5.70	1.94	5.63	2.95	1.00	1.00	1.00	3.46	3.53	8.00	1.00	1.00
2064291	Boutellier East	7.75	1.59	1.19	3.79	0.77	4.00	1.00	1.00	0.90	0.59	1.00	1.00	1.00
2064292	Boutellier East	4.23	2.62	7.52	6.03	2.46	2.00	1.00	1.00	0.90	1.18	6.00	3.00	1.00
2064293	Boutellier East	6.34	5.52	1.19	6.44	2.79	2.00	1.00	1.00	1.67	1.18	18.00	1.00	1.00
2064294	Boutellier East	13.38	5.15	1.50	11.36	0.93	4.00	1.00	1.00	0.90	1.18	4.00	1.00	1.00
2064295	Boutellier East	12.68	4.07	2.88	7.86	1.04	6.00	1.00	1.00	0.32	0.59	6.00	1.00	1.00
2064296	Boutellier East	9.15	1.16	4.26	1.43	1.05	14.00	1.00	1.00	0.32	1.76	1.00	1.00	1.00
2064297	Boutellier East	4.23	4.92	1.19	3.79	0.90	2.00	1.00	1.00	2.69	1.18	1.00	1.00	1.00
2064298	Boutellier East	1.41	0.64	2.32	0.85	1.84	1.00	2.40	1.00	3.33	1.18	1.00	1.00	1.00
2064299	Boutellier East	19.72	1.53	3.26	2.61	1.86	4.00	1.00	1.00	0.32	1.18	4.00	1.00	1.00
2064351	Boutellier East	21.13	2.90	2.01	5.17	0.90	4.00	1.00	1.00	0.64	1.76	2.00	1.00	1.00
2064352	Boutellier East	4.93	1.91	2.32	4.88	1.18	4.00	1.00	1.00	2.18	4.71	2.00	1.00	1.00
2064353	Boutellier East	2.82	3.03	8.90	5.75	3.15	1.00	1.00	1.00	1.54	2.35	1.00	1.00	1.00
2064354	Boutellier East	27.46	5.11	4.95	9.80	0.96	8.00	1.00	1.00	0.32	1.76	1.00	1.00	1.00
2064355	Boutellier East	7.75	2.00	1.75	10.69	2.00	1.00	1.00	1.00	1.41	5.88	2.00	1.00	1.00
2064356	Boutellier East	37.32	7.76	3.26	26.56	0.39	4.00	1.00	1.00	0.32	0.29	8.00	1.00	1.00
2064357	Boutellier East	7.04	1.99	1.00	8.27	1.54	2.00	1.00	1.00	3.33	1.76	4.00	1.00	1.00
2064358	Boutellier East	9.86	3.88	0.94	6.22	0.76	4.00	1.00	1.00	0.32	0.29	8.00	1.00	1.00
2064359	Boutellier East	11.27	1.72	1.25	3.24	0.41	4.00	1.00	1.00	0.32	2.35	10.00	1.00	1.00
2064360	Boutellier East	3.52	3.01	0.69	3.41	2.01	1.00	2.00	1.00	1.03	1.76	1.00	1.00	1.00
2064361	Boutellier East	4.93	1.58	0.31	2.53	3.33	2.00	1.00	1.00	1.28	3.53	1.00	1.00	1.00
2064362	Boutellier East	2.82	1.28	0.63	3.61	0.60	1.00	1.00	1.00	1.15	1.76	1.00	1.00	1.00
2064363	Boutellier East	7.04	0.82	0.25	2.31	0.45	2.00	1.00	1.00	1.79	0.59	2.00	1.00	1.00
2064364	Boutellier East	4.23	3.58	2.32	3.36	1.23	1.00	1.00	1.00	1.54	0.29	1.00	2.00	1.00
2064365	Boutellier East	2.11	4.35	3.57	1.81	4.63	1.00	8.40	2.40	5.13	2.94	6.00	7.00	1.00
2064366	Boutellier East	2.82	3.52	10.09	2.06	1.67	1.00	4.00	1.00	2.31	1.76	10.00	6.00	1.00
2064367	Boutellier East	3.52	4.23	4.45	1.58	1.03	1.00	6.40	1.00	1.41	0.59	14.00	6.00	1.00
2064368	Boutellier East	4.93	6.09	4.32	1.75	1.09	1.00	6.00	1.00	0.32	1.18	18.00	6.00	1.00

Sample ID	Area	Au	Ag	Co	Cu	Ni	Pd	Pb	Sb	Th	Zn	Li	Mo	As
2064404	Boutellier West	8.45	4.84	3.88	10.15	2.49	2.00	8.40	1.00	7.05	2.35	1.00	2.00	1.00
2064405	Boutellier West	5.63	5.29	1.00	3.44	3.82	1.00	1.00	1.00	6.92	6.47	1.00	1.00	1.00
2064406	Boutellier West	6.34	1.95	2.63	3.59	2.49	2.00	1.00	1.00	9.23	1.18	1.00	1.00	1.00
2064407	Boutellier West	4.23	2.65	3.63	5.58	2.94	1.00	8.00	1.00	11.15	5.88	1.00	1.00	1.00
2064408	Boutellier West	5.63	3.29	3.63	5.34	2.42	1.00	2.40	1.00	18.59	1.18	1.00	1.00	1.00
2064409	Boutellier West	4.93	2.56	2.19	1.96	1.33	1.00	2.40	1.00	13.59	2.35	1.00	1.00	1.00
2064410	Boutellier West	4.93	1.13	14.60	5.08	1.46	1.00	2.40	1.00	19.23	1.18	1.00	1.00	1.00
2064411	Boutellier West	7.04	2.62	0.94	9.54	2.51	2.00	2.40	1.00	14.74	2.35	6.00	1.00	1.00
2064412	Boutellier West	3.52	2.85	15.73	4.82	3.62	1.00	1.00	1.00	9.74	2.35	1.00	4.00	1.00
2064413	Boutellier West	2.11	0.89	34.02	9.69	7.58	1.00	2.80	4.00	6.92	1.18	1.00	9.00	1.00
2064414	Boutellier West	2.11	2.12	2.88	3.89	3.79	1.00	1.00	1.00	3.33	4.12	1.00	2.00	1.00
2064415	Boutellier West	2.82	1.31	24.44	5.68	5.85	1.00	1.00	1.00	4.23	5.29	1.00	7.00	1.00
2064416	Boutellier West	3.52	1.59	21.74	6.12	5.18	1.00	2.40	1.00	8.46	3.53	1.00	5.00	1.00
2064417	Boutellier West	2.82	1.09	83.96	13.86	5.99	1.00	9.20	6.40	20.90	9.41	1.00	6.00	1.00
2064418	Boutellier West	2.82	0.35	34.65	13.63	5.14	1.00	4.80	8.00	13.72	7.06	1.00	12.00	2.00
2064419	Boutellier West	2.11	1.15	24.31	11.03	11.13	1.00	13.60	8.00	15.13	22.94	1.00	6.00	1.00
2064420	Boutellier West	2.11	0.20	27.82	15.38	8.56	1.00	5.20	7.60	7.05	13.53	1.00	8.00	1.00
2064421	Boutellier West	2.82	0.87	29.07	15.03	5.24	1.00	11.60	9.60	18.59	9.41	1.00	20.00	4.00
2064422	Boutellier West	3.52	1.17	44.36	7.71	4.46	1.00	1.00	1.00	8.46	4.71	1.00	6.00	1.00
2064423	Boutellier West	5.63	2.30	11.47	16.43	4.23	1.00	1.00	1.00	6.15	2.94	1.00	6.00	1.00
2064424	Boutellier West	3.52	2.03	29.76	9.21	4.77	1.00	2.00	1.00	12.31	8.24	1.00	5.00	1.00
2064425	Boutellier West	4.93	2.74	25.25	6.22	3.38	1.00	1.00	1.00	6.67	1.76	1.00	6.00	1.00
2064426	Boutellier West	4.23	2.73	1.25	4.67	5.07	1.00	3.60	1.00	7.56	6.47	1.00	1.00	1.00
2064427	Boutellier West	3.52	2.52	31.45	4.51	4.67	1.00	4.00	1.00	8.08	1.76	1.00	3.00	1.00
2064428	Boutellier West	3.52	1.98	3.57	3.24	2.28	1.00	2.80	1.00	5.90	2.35	2.00	1.00	1.00
2064429	Boutellier West	4.23	2.51	3.51	4.69	2.28	1.00	2.00	1.00	24.36	1.18	1.00	1.00	1.00
2064430	Boutellier West	2.82	1.98	3.32	3.63	1.45	1.00	6.00	1.00	10.26	3.53	1.00	1.00	1.00
2064431	Boutellier West	4.23	1.90	1.07	3.31	1.45	1.00	1.00	1.00	3.21	1.18	4.00	1.00	1.00
2064432	Boutellier West	4.23	2.07	1.63	1.85	1.12	1.00	1.00	1.00	2.18	2.35	1.00	8.00	1.00
2064433	Boutellier West	6.34	3.05	1.63	2.56	2.24	2.00	1.00	1.00	5.77	1.18	2.00	5.00	1.00
2064434	Boutellier West	3.52	2.52	12.34	4.58	1.75	1.00	2.80	1.00	4.49	2.35	1.00	9.00	1.00
2064435	Boutellier West	2.82	0.49	7.52	3.54	2.18	1.00	6.40	3.20	15.26	3.53	1.00	11.00	1.00
2064436	Boutellier West	3.52	1.99	5.95	4.08	3.62	1.00	4.00	1.00	12.18	6.47	1.00	4.00	1.00

Sample ID	Area	Au	Ag	Co	Cu	Ni	Pd	Pb	Sb	Th	Zn	Li	Mo	As
2064369	Uze	2.33	2.89	1.63	0.69	0.64	1.00	1.00	2.40	0.10	1.00	4.50	5.00	1.00
2064370	Uze	2.50	3.67	6.96	0.73	2.14	1.00	1.00	1.00	0.10	1.50	1.50	7.00	1.00
2064371	Uze	0.83	0.36	2.45	3.04	3.03	1.00	10.40	2.40	0.60	10.50	9.00	5.00	1.00
2064372	Uze	1.33	1.76	3.48	0.55	1.14	1.00	1.00	1.00	0.10	1.00	3.50	4.00	1.00
2064373	Uze	1.17	1.58	1.47	0.58	0.63	1.00	1.00	1.00	0.10	1.50	1.50	12.00	1.00
2064374	Uze	1.17	0.82	1.96	0.63	0.45	1.00	1.00	1.00	0.28	1.00	10.50	6.00	1.00
2064375	Uze	0.50	1.59	1.85	0.07	0.54	1.00	13.60	1.00	2.44	2.00	2.50	3.00	1.00
2064376	Uze	2.33	1.52	3.42	0.48	1.04	1.00	2.40	1.00	2.32	0.50	1.50	4.00	1.00
2064377	Uze	1.50	1.19	3.75	0.61	0.90	1.00	1.00	1.00	2.12	1.00	0.50	3.00	1.00
2064378	Uze	3.17	4.80	12.93	0.56	1.92	1.00	9.60	2.00	0.10	0.50	9.50	4.00	1.00
2064379	Uze	1.17	0.41	6.47	0.17	0.52	1.00	2.80	1.00	3.12	4.50	0.25	5.00	1.00
2064381	Uze	1.33	0.50	9.67	0.72	1.42	1.00	3.60	1.00	4.56	2.50	0.50	2.00	1.00
2064382	Uze	3.50	2.63	1.30	0.65	0.52	1.00	2.40	3.60	0.10	0.25	11.50	21.00	1.00
2064383	Uze	2.17	3.44	2.23	0.52	1.43	1.00	2.80	2.00	1.72	0.50	2.50	2.00	1.00
2064384	Uze	1.00	1.15	3.32	0.29	1.71	1.00	3.60	2.40	2.44	3.50	1.00	6.00	1.00
2064385	Uze	3.83	3.13	4.29	1.17	1.75	1.00	1.00	1.00	1.24	2.50	0.25	3.00	1.00
2064386	Uze	2.17	2.14	2.99	0.57	0.58	1.00	2.40	1.00	0.84	0.25	0.25	3.00	1.00
2064387	Uze	2.50	4.39	2.61	1.67	1.53	1.00	6.00	3.60	0.24	0.50	7.50	26.00	1.00
2064388	Uze	1.83	4.02	5.49	1.50	1.54	1.00	1.00	4.80	0.36	1.00	3.00	15.00	1.00
2064389	Uze	3.00	2.33	9.95	1.84	2.28	1.00	1.00	3.20	0.40	0.50	2.50	11.00	1.00
2064390	Uze	5.00	3.68	7.88	3.70	1.87	1.00	1.00	2.80	0.72	1.00	1.00	9.00	1.00
2064391	Uze	2.17	3.75	13.04	1.90	1.79	1.00	1.00	5.20	0.10	1.50	1.00	9.00	1.00
2064392	Uze	2.17	3.23	4.95	1.00	0.94	1.00	3.20	6.40	0.10	2.00	3.00	12.00	1.00
2064393	Uze	2.50	4.95	5.00	1.36	1.37	1.00	1.00	6.00	0.36	1.00	4.00	17.00	1.00
2064394	Uze	1.67	1.70	2.88	0.76	0.73	1.00	1.00	3.60	0.10	0.25	2.00	10.00	1.00
2064395	Uze	1.83	3.37	1.68	0.85	0.93	1.00	8.00	1.00	1.00	3.50	2.50	5.00	1.00
2064396	Uze	3.83	3.48	4.84	2.87	1.85	1.00	1.00	4.00	0.28	0.25	2.00	13.00	1.00
2064397	Uze	2.50	4.15	10.33	1.48	1.91	1.00	3.60	3.60	0.60	1.50	3.50	4.00	1.00
2064398	Uze	2.17	4.31	4.40	1.61	2.16	1.00	3.20	5.20	0.44	3.00	3.50	7.00	1.00
2064399	Uze	1.83	2.28	6.74	1.48	1.69	1.00	1.00	4.40	0.84	0.50	0.25	5.00	1.00
2064401	Uze	1.50	1.66	5.71	1.76	1.31	1.00	4.00	2.80	1.88	0.50	1.00	9.00	2.00
2064402	Uze	3.00	3.52	3.37	1.50	1.08	1.00	4.00	3.60	0.48	0.25	11.50	16.00	1.00
2064403	Uze	1.00	1.75	7.34	3.45	5.48	1.00	5.20	4.40	1.08	8.00	15.50	12.00	1.00

## Appendix VII – HMC Descriptions and Analysis





Overburden Drilling Management Limited  
Unit 107, 15 Capella Court  
Nepean, Ontario, Canada, K2E 7X1  
Tel: (613) 226-1771 Fax: (613) 226-8753  
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### Laboratory Data Report

#### Client Information

Longford Exploration Ltd.  
460-688 West Hastings Street  
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V6B 1P1

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[jrogers@longfordex.com](mailto:jrogers@longfordex.com)

Attention: Ryan Versloot

James Rogers

#### Data-File Information

Date: November 30, 2020

Project name:

ODM batch number: 2088

Sample numbers: 2064301 to 2064313

Data file: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Number of samples in this report: 13 \*5 samples-Ultra

Number of samples processed to date: 13

Total number of samples in project: 13

Preliminary data:

Final data:

Revised data:

**Samples Processed For:**

Gold, MMSIM

#### Processing Specifications:

1. Submitted by client: Sand and gravel samples prescreened in the field.
2. One ±300 g archival split taken.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. Shaking table concentrates refined by heavy liquid separation at S.G. 3.2 to obtain heavy mineral concentrates (HMCs).
5. 1.0-2.0, 0.5-1.0 mm and nonparamagnetic (>1.0 amp) 0.25-0.5 mm HMC fractions examined for scheelite by UV lamping.

#### Notes

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Mike Crawford  
Laboratory Manager

## Overburden Drilling Management Limited - Abbreviations Table

### Raw Sample Weights and Descriptions Log

#### **Largest Clast Size Present:**

G: Granules  
P: Pebbles  
C: Cobbles

#### **Clast Composition:**

V/S: Volcanics and/or sediments  
GR: Granitics  
LS: Limestone, carbonates  
OT: Other lithologies (refer to footnotes)  
TR: Only trace present  
NA: Not applicable  
OX: Very oxidized, undifferentiated  
MB: Marble

#### **Matrix Grain Size Distribution:**

S/U: Sorted or unsorted  
SD: Sand (F: Fine; M: Medium; C: Coarse)  
ST: Silt  
CY: Clay  
Y: Fraction present  
+: Fraction more abundant than normal  
-: Fraction less abundant than normal  
N: Fraction not present

#### **Matrix Organics:**

ORG: Y: Organics present in matrix  
N: Organics absent or negligible  
in matrix  
+: Matrix is mainly organic

#### **Matrix Colour:**

Primary:  
BE: Beige  
BR: Brick Red  
GY: Grey  
GB: Grey-beige  
GN: Green  
GG: Grey-green  
PP: Purple  
PK: Pink  
PB: Pink-beige  
MN: Maroon

#### Secondary (soil):

OC: Ochre  
BN: Brown  
BK: Black

#### Secondary Colour Modifier:

L: Light  
M: Medium  
D: Dark

### Detailed Gold Grain Log

VG: Visible gold grains

#### **Thickness:**

M: Actual measured thickness of grain ( $\mu\text{m}$ )  
C: Thickness of grain ( $\mu\text{m}$ ) calculated from measured width and length

### Kimberlite Indicator Mineral (KIM) Log

GP: Purple to red peridotitic garnet (G9/10 Cr-pyrope)  
GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include unchecked (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces  
DC: Cr-diopside; distinctly emerald green (paler emerald green low-Cr diopside picked separately)  
IM: Mg-ilmenite; may include unchecked (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces  
CR: Chromite  
FO: Forsterite

### Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) and Porphyry Cu Indicator Mineral (PCIM) Logs

Adr: Andradite	Cpx: Clinopyroxene	Gth: Goethite	PGM: Platinum group-bearing mineral	Sil: Sillimanite
Ap: Apatite	Cpy: Chalcopyrite	Ilm: Ilmenite	Py: Pyrite	Spi: Spinel
Ase: Anatase	Cr: Chromite	Ky: Kyanite	REM: Rare earth-bearing mineral	Sps: Spessartine
Aspy: Arsenopyrite	Fay: Fayalite	Mrc: Marcasite	Rt: Red rutile	St: Staurolite
Ax: Axinite	Gh: Gahnite	Mz: Monazite		Tm: Tourmaline
Ba: Barite	Grs: Grossular	Ol: Olivine		Ttn: Titanite
		Opx: Orthopyroxene		Zir: Zircon

#### **Other**

HMC: Heavy mineral concentrate  
UV: Ultra-violet  
EPD: Electric-pulse disaggregation  
PGE: Platinum group element

Primary Sample Processing Weights and Descriptions																			
Client: Longford Exploration Ltd.																			
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020																			
Total Number of Samples in this Report: 13																			
ODM Batch Number(s): 2088																			
Sample Number	Weight (kg wet)					Screening and Shaking Table Sample Descriptions													
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	-2.0 mm Table Feed	Clasts (+2.0 mm)					Matrix (-2.0 mm)					Colour			
						Size	V/S	GR	LS	OT*	S/U	SD	ST	CY	ORG	SD	CY	Class	
2064301	20.4	0.3	20.1	10.5	9.6	G	80	10	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL	
2064302	21.5	0.3	21.2	8.9	12.3	G	80	10	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL	
2064303	22.5	0.3	22.2	5.0	17.2	G	80	10	0	10	S	MC	-	N	N	DOC	NA	SAND + GRAVEL	
2064304	20.0	0.3	19.7	6.3	13.4	G	90	TR	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL	
2064305	24.9	0.3	24.6	7.8	16.8	G	90	TR	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL	

\*Clasts listed as OT are Quartz.

<b>Gold Grain Summary</b>									
Client: Longford Exploration Ltd.									
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020									
Total Number of Samples in this Report: 13									
ODM Batch Number(s): 2088									
Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
2064301	3	1	1	1	38.4	9	2	4	4
2064302	2	1	1	0	49.2	68	56	12	0
2064303	48	16	19	13	68.8	1704	1142	546	16
2064304	8	2	5	1	53.6	25	21	4	<1
2064305	4	4	0	0	67.2	83	83	0	0

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.



Detailed Gold Grain Data										
Client: Longford Exploration Ltd.										
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020										
Total Number of Samples in this Report: 13										
ODM Batch Number(s): 2088										
Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
2064301	8	C	25	50	1			1	2	Tr (~2000 grains) pyrite (25-250 µm).
	10	C	25	75		1	1	2	8	
								3	38.4	
2064302	15	C	50	100			1	1	12	Tr (~2000 grains) pyrite (25-75 µm).
	25	C	100	150	1			1	56	
								2	49.2	
2064303	3	C	15	15			4	4	<1	Tr (1 grain) cinnabar (25 µm).
	5	C	25	25		1	4	5	2	5% pyrite (25-750 µm).
	8	C	25	50	6	5		11	12	Coarsest gold grain viald.
	10	C	25	75		1	3	4	8	
	13	C	25	100	1			1	3	
	10	C	50	50	4	6	1	11	31	
	13	C	50	75	1	1	1	3	16	
	15	C	50	100	2	1		3	25	
	15	C	75	75	1			1	9	
	25	C	100	150		2		2	81	
	29	C	125	175		1		1	70	
	75	M	125	350		1		1	358	
	50	M	400	500	1			1	1090	
							48	68.8	1704	
2064304	3	C	15	15			1	1	<1	Tr (1 grain) arsenopyrite (75 µm).
	5	C	25	25		3		3	1	Tr (~2000 grains) pyrite (25-150 µm).
	8	C	25	50		2		2	3	
	10	C	25	75	1			1	3	
	18	C	75	100	1			1	18	
							8	53.6	25	
2064305	8	C	25	50	1			1	1	5% pyrite (25-750 µm).
	18	C	75	100	1			1	15	
	25	C	75	175	1			1	36	
	22	C	100	125	1			1	31	
							4	67.2	83	

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

<b>0.25-0.5 mm Paramagnetic/Non-Paramagnetic Fraction Weights</b>						
Client: Longford Exploration Ltd.						
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020						
Total Number of Samples in this Report: 13						
ODM Batch Number(s): 2088						
Sample Number	Weight of 0.25-0.5 mm S.G. >3.2 Nonferromagnetic Heavy Mineral Fractions (g)					
	Total	Paramagnetic			Nonparamagnetic	
		Strongly (<0.6 amp)	Moderately (0.6-0.8 amp)	Weakly (0.8-1.0 amp)	>1.0 amp	>1.0 amp Lights*
2064301	6.80	0.27	1.22	2.68	2.55	0.08
2064302	2.99	0.07	0.24	0.88	1.72	0.08
2064303	11.60	1.52	1.45	2.70	5.43	0.50
2064304	6.98	2.04	1.87	1.38	1.45	0.24
2064305	12.48	1.97	1.77	2.16	6.12	0.46
*SG <3.20 heavy liquid separation clean-up of >1.0 amp fraction.						

Heavy Mineral Concentrate Processing Weights														
Client: Longford Exploration Ltd.														
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020														
Total Number of Samples in this Report: 13														
ODM Batch Number(s): 2088														
Weight of -2.0 mm Table Concentrate (g)														
0.25 to 2.0 mm Heavy Liquid Separation at S.G. 3.20														
HMC S.G.>3.20														
Nonferromagnetic HMC														
Processed Split														
Sample Number	Total	-0.25 mm	Total	Lights S.G. <3.2	Total	-0.25 mm (wash)	Mag	Total	Total			0.25 to 0.5 mm	0.5 to 1.0 mm	1.0 to 2.0 mm
									%	Weight				
2064301	890.6	361.4	529.2	504.9	24.3	2.6	6.7	15.0	100	15.0	6.8	6.1	2.1	
2064302	623.4	329.0	294.4	285.7	8.7	1.9	0.9	5.9	100	5.9	3.0	1.9	1.0	
2064303	1177.0	612.5	564.5	507.8	56.7	10.3	15.0	31.4	64	20.0	11.6	6.3	2.1	
2064304	1135.6	354.1	781.5	713.3	68.2	6.2	2.8	59.2	34	20.0	7.0	9.1	3.9	
2064305	733.8	485.3	248.5	215.8	32.7	5.7	1.9	25.1	80	20.0	12.5	6.1	1.4	

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts																						
Client: Longford Exploration Ltd.																						
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020																						
Total Number of Samples in this Report: 13																						
ODM Batch Number(s): 2088																						
0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																						
Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals										Phosphates								
>1.0 amp				<1.0		>1.0 amp										>1.0 amp						
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	% Rutile	% Ky	% Sil	% Tm	% St	% Sps*	Olivine			% Cr**	% Ap	% Mz	Remarks	Picked Grains		
													% Fo	% Fay	% Opx							
2064301	Tr (1 gr)	Tr malachite (1 gr); 0.1 barite (~50 gr)	8 (~2000 gr)	60	0	Tr Mn-epidote (4 gr)	0	0	0	0	0	Tr	Tr	0	0	0	0	Tr (8 gr)	0	Tr	Goethite-augite-hematite/epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 1 malachite candidate = 1 malachite; and 8 chromite candidates = 8 chromite.	0.5-1.0 mm fraction: 6 barite 2 Mn-epidote 0.25-0.5 mm fraction: 1 chalcopyrite 1 malachite 10 representative barite 4 Mn-epidote 8 chromite
2064302	0	6 barite (~1000 gr)	8 (~1500 gr)	80	0	Tr Mn-epidote (1 gr)	0	0	0	0	Tr	Tr	0	0	0	0	Tr (10 gr)	0	0	Goethite-augite/epidote assemblage. 0.5-1.0 mm fraction contains 3% (~80 grains) barite.	1.0-2.0 mm fraction: 3 barite 0.5-1.0 mm fraction: 10 representative barite 1 chromite 0.25-0.5 mm fraction: 10 representative barite 1 Mn-epidote 10 chromite	
2064303	Tr (5 gr)	Tr sphalerite (2 gr); 5 barite (~3000 gr)	40 (~25,000 gr)	40	0	Tr Mn-epidote (2 gr)	0	0	0	0	0	2	0	0	0	0	Tr (~30 gr)	0	Tr	Augite-goethite/epidote-pyrite-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 2 sphalerite candidates = 2 sphalerite; 2 arsenopyrite versus pyrite candidates = 2 pyrite; 4 barite candidates = 4 barite; and 5 fayalite versus siderite candidates = 5 siderite. One reshaped gold grain picked from 0.25-0.5 mm fraction (see detailed gold grain data). 0.5-1.0 mm fraction contains 1% (~80 grains) barite.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 3 chalcopyrite 10 representative barite 1 Mn-epidote 1 low-Cr diopside 2 chromite 0.25-0.5 mm fraction: 1 gold 5 chalcopyrite 2 sphalerite 2 pyrite resembling arsenopyrite 14 representative barite 2 Mn-epidote 5 siderite resembling fayalite 15 representative chromite	
2064304	Tr (13 gr)	Tr malachite (1 gr); 0.2 barite (~40 gr)	70 (~10,000 gr)	5	0	Tr Mn-epidote (5 gr); Tr low-Cr diopside (1 gr)	0	0	0	0	0	0	0	0	0	0	Tr (12 gr)	0	0	Hematite/pyrite-leucocoxene-diopside assemblage.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 1 chalcopyrite 8 barite 0.25-0.5 mm fraction: 13 chalcopyrite 1 malachite 10 representative barite 5 Mn-epidote 1 low-Cr diopside 12 chromite	
2064305	Tr (11 gr)	Tr malachite/azurite (1 gr); 0.5 barite (~250 gr)	95 (~60,000 gr)	10	0	Tr low-Cr diopside (2 gr)	0	0	0	0	0	0	0	0	0	0	Tr (2 gr)	0	0	Hematite/pyrite assemblage. 0.5-1.0 mm fraction contains 0.5% (~30 grains) barite.	0.5-1.0 mm fraction: 2 chalcopyrite 10 representative barite 0.25-0.5 mm fraction: 11 chalcopyrite 1 malachite/azurite 10 representative barite 2 low-Cr diopside 2 chromite	

\*Spessartine may include andradite.

\*\*Chromite may include hercynite, Cr-hercynite and Cr-spinel



## Appendix VIII – Rock Descriptions and Analysis

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Description
2064051	Grab		Outcrop	647154	6753932	BOUDINED QZ-CARB-CL PEGMATITE WEIN W/ RIPPED UP CLASTS OF GABBRO? TRACE PY AND OTHER OXIDIZED SULFIDES (UNKNOWN). VEIN PINCHES + SWELLS AND IS SEMI-CONFORMABLE TO HOST PHYLLITE? UNIT.
2064052	Grab		Outcrop	647154	6753932	MG, EUHEDRAL PY-BEARING (FE-OXIDIZED) GABBRO? INTRUSION THAT IS BOUDINED AND FOLP TO HOST PHYLLITIC-SCHIST UNIT. RELATIVELY EQUIGRANULAR GABBRO. QZ VEIN RIPPED UP AND INCORPORATED GABBRO CLASTS?
2064053	Grab		Outcrop	647275	6753851	VFG, MASV, DRY-GRY, LITHIFIED META-SED? SANDWICHED IN BETWEEN A POSSIBLE GABBRO? WITHIN PHLLITIC META-SED HOSTS. SAMPLES FE-OX META-SED THINKING IT WAS A PERIDOTITE AT THE TIME DUE TO ITS PROXIMITY TO GABBRO. PXRF SHOWS LOW NI AND CR, THEREFORE LIKELY A LITHIFIED, VFG, META-SED.
2064054	Grab		Outcrop	643878	6760846	FINE-MEDIUM GRAINED, DRK-GRY, INTERMEDIATE VOLCANIC COMPOSITION - EXTRUSIVE (ANDESITE?). PO+PY+CCP+/-BN IN/AROUND QZ VEINLETS. PO BLEBS ALONG QZ FOLIATION (WEAKLY MAGNETIC).
2064055	Grab		Outcrop	643878	6760846	VFG, SILICIFIED, FE-OX, LITHIFIED MUDSTONE (DRK-GRY). ARGILLITE (CLY-RICH).
2064056	Grab		Outcrop	643838	6760872	HEAVY FE-OXIDIZED ARG+LITHIFIED META-SED BEDS (DARKER GRY). SILICIFIED. PY+PO? PRESENT FOLP AS CM-SCALE NODULES. ARGILLITE BEDS WRAPPING AROUND PY NODULES.
2064057	Chip	3	Outcrop	643850	6760883	CHIP SAMPLE ACROSS 3M. INTERVAL OF HEAVILY FE-OXIDIZED ARGILLITES AND LITHIFIED META-SED BEDS (INTERCHANGING). ULTRAMAFIC SILL ~15M TO SW ALONG CREEK. TRACE PY.
2064058	Grab		Outcrop	643579	6761137	FG, MAFIC (BLK), SILICIFIED, MAFIC VOLCANIC W/ POSSIBLE COLUMNAR JOINTING. TRACE SULF (PO?), WEAKLY MAGNETIC. MISSING GPS COORDINATES.
2064059	Grab		Outcrop	644182	6760993	VFG, MASV, SILICIFIED, MAFIC VOLCANIC? DRY-LOOKING, ONLY LOCAL TRACE EUHEDRAL PY. NON-MAGNETIC. GREENISH-TINGE TO ROCK (CHLORITE ALTERATION?). COULD BE POTENTIAL ULTRAMAFIC PERIDOTITE?
2064060	Grab		Outcrop	643233	6761428	FG, INTERMEDIATE EXTRUSIVE (ANDESITE?) A GREY COLOUR W/ FG GROUNDMASS CONSISTING OF QZ+HBL PHENOS (MM-SCALE). QZ PHENOS STAINED A PALE GREEN. TRACE PY +/- PO?
2064061	Grab		Outcrop	642355	6762117	FG-MG, DRK GREY W/ PURPLE TINGE, BASALT? POSSIBLE NIKOLAI VOLCANIC UNIT. HIGHLY MAGNETIC. HEAVILY CHLORITE ALTERED, LOCAL EPIDOTE VEINLETS AND SERPENTINIZATION. HEAVILY SHEARED AREA. AMYGDALOIDAL BASALT.
2064062	Grab		Outcrop	642364	6762117	DRK-GREY W/ GREEN TINGE MAFIC VOLCANIC. MM-SCALE HBL+PL LOCALLY ALLIGNING INTO FOL, FORMING SCHISTOSE TEXTURE. CLOSER TO CHEARED AREA. HEM+EP ALONG CLEAVAGE PLANES. QZ VEINLETS CROSS-CUT ROCK. Pervasively chlorite altered.
2064063	Grab		Float	642309	6762230	DARK-BLK, STRONGLY MAGNETIC (4/5), DENSE SAMPLE, SUBROUNDED ULTRAMAFIC (PERIDOTITE?) FLOAT W/ WEAK-SERPENTINIZATION. LOT'S OF PERIDOTITE COBBLES/FLOAT IN AREA. UPSTRIKE (~200M) FROM LAST KNOWN PERIDOTITE OCCURRENCE.
2064064	Grab		Float	641652	6760876	DARK-BLK, MASV, DENSE, HIGHLY MAGNETIC, SUBROUNDED FLOAT FROM A PERIDOTITE FLOAT-RICH AREA AT CREEK JUNCTION LEADING TO GOSSONOUS MAFIC-LOOKING OUTCROP ~500M FROM GRAB LOCATION. PXRF SHOWS THAT HALF THE SAMPLE GRABBED WAS A PERIDOTITE/GABBRO COMPOSITION (~800PPM NI, 1500 PPM CR) BUT THE OTHER HALF HAD VERY LOW NI+CR COMPOSITIONS - HENCE A MAGNETIC MAFIC VOLCANIC?
2064065	Grab		Outcrop	646777	6753675	CONCORDANT LENS OF MASV PY-SULFIDE STRINGERS W/ MALACHITE STAINING IN B/W STRONGLY FOLIATED CHLORITE-SERPENTINE ALTERED MAFIC VOLCANIS W/ ABUNDANT SEMI-CONFORMABLE QZ-CL-CARB VEINLETS. WT% CU LEVELS (PXRF).

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Description
2064066	Grab		Outcrop	646390	6753755	SAMPLED MAROON-RED, BOUDINED FE + MN-OXIDE PINCHED AND BOUDINED VOLCANIC? BEDS CONCORDANT TO HOST MAFIC VOLCANIC BEDS (120 SE, 040 SW). SULFIDE-RICH (PY) ZONE. CR, CU, NI <200PPM (PXRF).
2064067	Grab		Outcrop	646359	6753728	LIGHT-GREEN/BLUE (MAL + AZXU?) AROUND BOUDINED QZ+EP VEINLETS THAT ARE CONCORDANT, BUT PINCH AND SWELLED TO FG, MAFIC VOLCANIC BEDS. MAFIC VOLCANIC BEDS STAINED BY FE-OXIDES WITHIN ~5M. RADIUS OF QZ+EP VEINLETS. 8300 PPM CU, 5500 PPM ZN (PXRF).
2064068	Grab		Outcrop	646245	6753803	MASV, GREY-SILVERY LOOKING SULFIDE, VERY DENSE AND HEAVY SAMPLES (MASV PYRITE) W/ POSSIBLE BORNITE STRINGERS (PURPLE) (CM-SCALE). POSSIBLE MASV ZINC? ~3M WIDE MASV SULFIDE LENS SEEN ON TWO OUTCROPS ~10M APART (ON STRIKE WITH EO). MASV SULF LENS WITH ALTERNATING STRIKE DIRECTION - IN AND AROUND VERTICAL. FG, MAFIC VOLCANICS W/ PILLOW STRUCTURES? ON THE HW CONTACT TO MASV SULFIDE. 9.0 WT% CU, 2.8 WT% ZN (PXRF). MASV SULFIDE ZONE GETS OFFSET/PINCHED BY MAFIC VOLCANIC HOSTS (BASALT).
2064069	Grab		Outcrop	646254	6753805	MASV, GREY-SILVERY LOOKING SULFIDE, VERY DENSE AND HEAVY SAMPLES (MASV PYRITE) W/ POSSIBLE BORNITE STRINGERS (PURPLE) (CM-SCALE). POSSIBLE MASV ZINC? ~3M WIDE MASV SULFIDE LENS SEEN ON TWO OUTCROPS ~10M APART (ON STRIKE WITH EO). MASV SULF LENS WITH ALTERNATING STRIKE DIRECTION - IN AND AROUND VERTICAL. FG, MAFIC VOLCANICS W/ PILLOW STRUCTURES? ON THE HW CONTACT TO MASV SULFIDE. 9.0 WT% CU, 2.8 WT% ZN (PXRF). MASV SULFIDE ZONE GETS OFFSET/PINCHED BY MAFIC VOLCANIC HOSTS (BASALT).
2064070	Grab		Outcrop	646243	6753823	SELECTIVE HIGH-GRADE SAMPLING OF PURPLE-TINGE SULFIDE VEIN THAT IS BORDERED BY SILVER-GREY SULFIDE (PY-RICH) ON EITHER SIDE. PY+BN+CCP MINERALIZATION. BN STRINGERS SEEN. 2.13 WT% CU, 1663 PPM ZN, 188 PPM PB (PXRF).
2064071	Grab		Outcrop	646270	6753896	MALACHITE (LIGHT GREEN) AND AZURITE (LIGHT BLUE) STAIN IN/AROUND QZ-BT-CL-EP VEIN (CM-SCALE) IN FG, MAFIC VOLCANIC HOST (BASALT?) TRENDING 130 SE, 085 SW (STEEPLY DIPPING). 7.5 - 9.0 WT% CU, 2000 - 5000 PPM ZN (PXRF).
2064072	Grab		Outcrop	647904	6752434	FG, BLACK SETS OF VEINS (160 SE, 040 SW) OVER ~2M INTERVAL (WIDTH). VERY DENSE, SILICIFIED, NON-MAGNETIC. COULD POTENTIALLY BE SMALL SILLS? OR JUST VFG, MAFIC VOLCANICS WITHIN VERY MAGNETIC DIORITE-HOST UNIT. QZ-EP VEINLETS CROSS-CUT BLACK MAFIC VEINS. PXRF SHOWS < 150 PPM NI AND CR, THEREFORE BLACK VEINS ARE JUST MAFIC VOLCANICS.
2064073	Grab		Outcrop	647926	6752441	SAMPLED THE SAME FG, MAFIC VOLCANIC UNIT JUST UP-STRIKE FROM SAMPLE #2064072. VERY DENSE, MASV, 3/5 MAGNETIC UNIT.
2064074	Grab		Outcrop	647946	6752470	VFG, DENSE, MAFIC EXTRUSIVE? BLACK COLOUR. 3/5 MAGNETIC. DENSE SAMPLE. 3X3M OUTCROP.
2064075	Grab		Outcrop	647915	6752496	GOSSONOUS MAFIC VOLCANIC VEIN (~1M WIDTH), LIGHT ORNG-BRWN COLOUR. STEEPLY DIPPING, CONTINUOUS NE-SW FOR ~100M TO THE NW. QUARTZ VEINLETS FOLP. UNIT WITHIN A PROPYLITIC-ALTERED DIORITE? HOST. GOSSONOUS VEIN CROSS-CUTS DRK MAFIC VOLCANIC VEIN, THEREFORE GOSSONOUS VEIN IS YOUNGER. POSSIBLE TREND: 220 SW, 085 NW.
2064076	Grab		Outcrop	648915	6752857	FG, MAFIC-ULTRAMAFIC, NON-MAGNETIC, DARK GREY-BLACK UNIT. TRENDS 080 NE, 070 SW (STRIKE, DIP). POSSIBLE GABBRO SURROUNDING ULTRAMAFIC PERIDOTITE SILL? 1477 PPM CR, 477 PPM NI.
2064077	Grab		Outcrop	649298	6753034	FG-MG, BLACK, MAGNETIC (4/5), VERY EXTENSIVE SILL? SEVERAL TENS OF METRES. LIKELY AN EXTENSION OF THE MAIN ULTRA ULTRAMAFIC (PERIDOTITE).
2064201	Grab		Outcrop	643806	6760762	Rusty/ Yellow Gouge zone, 5-8cm wide in coarse grained, non-magnetic peridotite; trace malachite in gouge.

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Description
2064202	Grab		Outcrop	643922	6761057	Gabbro, fine to medium grained, buff weathering, blocky, light-greenish grey. 40% mafics. 0.5% disseminated pyrite. Footwall to wide peridotite unit. Contact not visible.
2064203	Grab		Outcrop	643238	6761435	Fault/ Gouge Gosson zone; 30cm wide, rusty/brown/yellow brown. Sulphide-rich, but oxidized. In folded black/green thinly bedded argillite, near gabbro dyke & cross cutting, faulted andesitic dyke.
2064204	Grab		Outcrop	642306	6761959	Dark grey/brown weathering, blocky, fg, dark grey/green. Similar to UM - 01. Trace fg Py along fracture & cleavage planes. Non-magnetic. FG Gabbro? Near FW Contact.
2064205	Grab		Outcrop	642278	6761975	Dark greenish black weathering. Fg to Mg. Magnetic (4 - 5). Weakly serpentinized. 1% Calcite - Serpentine stringers to 2cm, trace disseminated pyrite.
2064206	Grab		Outcrop	642276	6762007	Very gossanous, red-brown to orange-brown. FG, siliceous with 5% vuggy quartz stringers to 6cm. Trace 1% oxidized sulphides (Py?) Beds are contorted in vicinity of surrounding gabbros.
2064207	Grab		Outcrop	642256	6762010	Small outcrop 5 x 5 x 5m. Mafic. FG, weakly magnetic (2/5). Up to 1% Py, fracture / cleavage controlled.
2064208	Grab		Outcrop	642131	6762115	Amygdaloidal Basalt, blocky to schistose approaching ultramafic to NW, dark grey-green, fg with 5 - 8% vesicles filled with chlorite (?) +/- calcite + oxides. Moderate orange Fe-oxide stain along fractures. Trace malachite, 2% Qtz - cc stringers, trace pyrite.
2064209	Grab		Talus	642439	6762217	Gossaned Argillite, brecciated, strong carbonate alteration. Up to 2% granular pyrite clots to 1cm. Likely from rusty stack approximately 50m upslope.
2064210	Grab		Outcrop	646711	6753534	Light to medium green-grey, blocky weathering with patchy orange to red-brown oxides lining fractures and joints. Fg, med grey, siliceous mafic volcanic (?), weakly magnetic (1/5), weakly schistose; 0.5% disseminated pyrite, 0.5% disseminated po. Downslope from Aedan's sample.
2064211	Grab		Talus	647382	6752987	Intermediate Volcanic, float/talus sample from base of outcrop. Rusty weathering, blocky, fg, siliceous. 1% x-cutting Qtz stringers with 0.5% pyrite as disseminations and blebs.
2064212	Grab		Talus	647589	6752656	Quartz Vein, talus sample, possibly from approx 150m up the rock face. Light orange-cream, coarse grained Qtz vein with dark green phyllitic rip-up clasts. 1% granular pyrite as discontinuous stringers and along fractures; trace galena (?) as fg silvery metallic mineral.
2064213	Grab		Outcrop	647564	6753854	Massive Sulphide lense (pentlandite + cpy), west of the main Froberg Showing. Weathers to dark red-brown. Fresh surface is massive pinkish-salmon colored pentlandite (up to 70%) with 1% cpy in bleached yellow to orange oxide stained, silicified fg argillite with scattered Cu-oxide stain.
2064214	Grab		Moraine	647831	6754012	Quartz-carbonate stringer / stockwork veining, 2mm-15cm wide with up to 5% cpy in veins and along fractures, 0.5% gn, tr-0.5% sph (?) in orange weathering boulders near base of moraine. Host appears to be fg quartzite (?), fg, light salmon-pink colored, variably schistose.
2064215	Grab		Moraine	647834	6754007	Quartz-carbonate stringer / stockwork veining, similar to previous sample, 1 m downslope. 2mm-25cm wide with up to 7% cpy in veins and along fractures, 1% gn, sulphides in clots to 3 cm, in orange weathering boulders near base of moraine. Host appears to be fg quartzite (?), fg, light salmon-pink colored, moderately schistose.
2064216	Grab		Talus	647781	6754209	Quartz-carbonate vein float from talus slope, composite grab over about 25m. Possibly from ridge outcrop above. Coarse grained, xtals up to 2cm, rusty orange oxides lining vugs and coating fractures. Trace - 1% pyrite, possible trace sph (red-brown color). Main lithology on talus slope is dark green mafic volcanic.
2064001	Grab		Subcrop	647210	6754467	Rusty weathering ultramafic rock, Main Sill, trace pyrite and pyrrhotite, magnetic (2).



Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Description
2064002	Chip	5	Outcrop	647216	6754460	Peridotite from Main Sill, rusty weathering, footwall, minor pyrite and pyrrhotite, magnetic (2-3).
2064004	Grab		Outcrop	647328	6753699	Gabbro sill in argillite along ridge, quartz carbonate veining, no visible sulphide minerals, trace malachite, magnetic (1).
2064005	Grab		Outcrop	647348	6753678	Green, fine to medium grained gabbroic dyke in argillite, qtz-carb. Veining with minor chalcopyrite, slight malachite stain.
2064006	Grab		Outcrop	647411	6753591	Rusty weathering gabbro sill, with qtz- carb. veining at footwall, trace chalcopyrite, magnetic (1).
2064007	Grab		Subcrop	647531	6753578	Limonic qtz- carb. Veining, trace sulphide minerals, non magnetic.
2064008	Grab		Outcrop	644098	6760749	Argillite in footwall of sill, rusty veinlets of qtz-carb, trace pyrrhotite, magnetic (1).
2064009	Grab	5	Outcrop	644126	6760892	Massive fine grained peridotite, waxy, trace carb. veins, trace pyrrhotite, magnetic (3-4).
2064010	Grab		Subcrop	644148	6760950	Massive fine grained peridotite, waxy, trace carb. veins, trace pyrrhotite, magnetic (3-4).
2064011	Grab		Talus	644223	6760960	Medium grained green gabbro with 5% net textured sulphide minerals, magnetic (2).
2064012	Grab		Talus	644295	6760885	Grey green fine grained gabbro, spotty pyrrhotite clots, calcite in fracture faces, magnetic (1).
2064013	Grab		Subcrop	643199	6761571	Rusty fine grained green to black gabbro, fine disseminated pyrrhotite, magnetic (2).
2064014	Grab		Subcrop	643196	6761574	Rusty weathering fine to medium grained mafic volcanic rock, trace pyrrhotite and pyrite, calcareous fractures, magnetic (2).
2064015	Grab		Outcrop	644478	6760492	Rusty weathering fine to medium grained mafic volcanic rock, trace pyrrhotite and pyrite, calcareous fractures, magnetic (2).
2064016	Grab		Outcrop	644509	6760501	Rusty weathering fine to medium grained mafic volcanic rock, trace pyrrhotite and pyrite, calcareous fractures, magnetic (2).
2064017	Grab		Outcrop	644603	6760427	Rusty weathering fine to medium grained mafic volcanic rock, trace pyrrhotite and pyrite, calcareous fractures, magnetic (2).
2064018	Grab		Outcrop	644895	6760456	Siliceous argillite with fine pyrite veins, non magnetic.
2064019	Grab		Outcrop	644779	6760406	Rusty weathering fine to medium grained mafic volcanic rock, trace pyrrhotite and pyrite, calcareous fractures, magnetic (2).
2064020	Grab		Outcrop	644556	6759965	Rusty fine grained green to black gabbro, 3m wide dyke, fine disseminated pyrrhotite, calcite veins, magnetic (1).
2064021	Grab		Outcrop	643231	6761171	Highly oxidized, rusty argillite with pyrite veins, orange-white-black clay gouge.
2064022	Grab		Outcrop	643217	6761226	Black to rusty weathering argillite, 1cm bands of fine grained pyrite.
2064023	Grab		Outcrop	643234	6761320	Quartz feldspar porphyry dyke cross cutting argillite and mafic volcanics, 5% disseminated sulphides, minor calcite veining.
2064024	Grab		Outcrop	643210	6761497	Light grey argillite, silicified, at contact with mafic volcanic rock, 5% disseminated pyrite, magnetic (1).
2064025	Grab		Outcrop	643202	6761507	Augite phenocrysts in basalt, brown weathering, 5% pyrite, calcareous fractures, magnetic (1).
2064026	Chip	4	Outcrop	646312	6753718	Telluride zone, 5-10cm bands of massive sulphide in rusty foliated basalt, mostly pyrite, spotty chalcopyrite and bornite.
2064027	Chip	2	Outcrop	646254	6753782	Telluride zone, bands of massive sulphide in brecciated basalt, mostly pyrite, spotty chalcopyrite and bornite.

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Description
2064028	Chip	4	Outcrop	646260	6753809	Telluride showing, massive sulphide lense 3-4m wide in basalt, pyrite-zinc-cpy-bornite, grey & orange clay gouge intervals.
2064029	Chip	3	Outcrop	646253	6753812	Telluride showing, massive sulphide lense 3-4m wide in basalt, pyrite-zinc-cpy-bornite, grey & orange clay gouge intervals.
2064030	Chip	2.5	Outcrop	646258	6753819	Telluride showing, massive sulphide lense 2.5m wide in basalt, pyrite-zinc-cpy-bornite, grey & orange clay gouge & volcanic interval.
2064031	Chip	1.5	Outcrop	646261	6753839	Telluride zone, 1.5m wide gouge and massive sulphide cobbles in basalt.
2064032	Grab		Talus	647593	6754249	Quartzite subcrop with common quartz carbonate veining, trace pyrite, non magnetic.
2064033	Grab		Subcrop	647574	6754318	Mafic volcanic rock with quartz carbonate veining and mior sulphide minerals, magnetic (1).
2064101	Grab		float	647119	6754540	fg gabbro float at contact between peridotite sill and silicified argillite, qtz-carb veinlets altered to limonite
2064102	Grab		outcrop	647104	6754567	chloritized green boulder of meta volcnics with serpentine veinlets and sub mm eu pyrite
2064103	Grab		outcrop	647171	6754059	fg peridotite, diss pyrrhotite and trace py, top of sill near contact
2064104	Grab		outcrop	647603	6753679	high grade sample from frohberg south, pycpy 2%, abundant malachite + azurite
2064105	grab		outcrop	647605	6753679	fg mafic intrusive, chilled margin? Adjacent to high grade pt+pd, trace rust
2064151	grab		float	660141	6754345	fg-mg ultramafic, very magnetic, boulder
2064152	grab		outcrop	646688	6753544	vfg, dark rock, hematite rich, posible large lens of sphalerite / po
2064153	grab		float	646708	6753540	massive sulphide bleb, rusty. Note that the location is estimated as no coordinates were recorded. Sample collected very near 2064153.
2064154	grab		float	647562	6752674	shale / phyllite, fine grained, calcite veining, disseminated pyrite (2-4%)

Sample ID	Structure_1	Azimuth_1	Dip_1	Structure_2	Azimuth_2	Dip_2	Sampler	Certificate	Weight_kg
2064051	Strike-Dip	120	55				PG	WHI20000276.1	0.84
2064052	Strike-Dip	120	55				PG	WHI20000276.1	0.83
2064053	Strike-Dip	160	55				PG	WHI20000276.1	0.65
2064054							PG	WHI20000276.1	1.94
2064055							PG	WHI20000276.1	0.91
2064056							PG	WHI20000276.1	2.14
2064057							PG	WHI20000276.1	4.57
2064058							PG	WHI20000276.1	1.14
2064059							PG	WHI20000276.1	1.38
2064060							PG	WHI20000276.1	1.03
2064061							PG	WHI20000276.1	1.89
2064062							PG	WHI20000276.1	1.86
2064063							PG	WHI20000276.1	1.61
2064064							PG	WHI20000276.1	1.63
2064065							PG	WHI20000276.1	0.86

Sample ID	Structure_1	Azimuth_1	Dip_1	Structure_2	Azimuth_2	Dip_2	Sampler	Certificate	Weight_kg
2064066	Strike-Dip	120	40				PG	WHI20000276.1	1.83
2064067							PG	WHI20000276.1	0.89
2064068	Strike-Dip	10	85	Strike-Dip	160	80	PG	WHI20000276.1	1.71
2064069	Strike-Dip	10	85	Strike-Dip	160	80	PG	WHI20000276.1	1.41
2064070							PG	WHI20000276.1	1.42
2064071	Strike-Dip	130	85				PG	WHI20000276.1	1.77
2064072	Strike-Dip	160	40				PG	WHI20000276.1	1.7
2064073							PG	WHI20000276.1	1.85
2064074							PG	WHI20000276.1	1.84
2064075	Strike-Dip	220	85				PG	WHI20000276.1	1.35
2064076	Strike-Dip	80	70				PG	WHI20000276.1	1.54
2064077							PG	WHI20000276.1	2.69
2064201	Gouge Zone	297	56				LL	WHI20000276.1	2.91



Sample ID	Structure_1	Azimuth_1	Dip_1	Structure_2	Azimuth_2	Dip_2	Sampler	Certificate	Weight_kg
2064202							LL	WHI20000276.1	2.49
2064203	Gouge Zone						LL	WHI20000276.1	2.48
2064204							LL	WHI20000276.1	0.94
2064205							LL	WHI20000276.1	0.9
2064206							LL	WHI20000276.1	1.4
2064207							LL	WHI20000276.1	1.67
2064208							LL	WHI20000276.1	2.78
2064209							LL	WHI20000276.1	1.11
2064210							LL	WHI20000276.1	0.52
2064211							LL	WHI20000276.1	1.05
2064212							LL	WHI20000276.1	1.49
2064213							LL	WHI20000276.1	1.4
2064214							LL	WHI20000276.1	1.34
2064215							LL	WHI20000276.1	0.86
2064216							LL	WHI20000276.1	1.33
2064001							GD	WHI20000276.1	1.44

Sample ID	Structure_1	Azimuth_1	Dip_1	Structure_2	Azimuth_2	Dip_2	Sampler	Certificate	Weight_kg
2064002							GD	WHI20000276.1	3.98
2064004							GD	WHI20000276.1	2.4
2064005	Strike	355	85				GD	WHI20000276.1	4.09
2064006	Strike	160	70				GD	WHI20000276.1	2.84
2064007							GD	WHI20000276.1	1.41
2064008							GD	WHI20000276.1	2.58
2064009							GD	WHI20000276.1	3.49
2064010							GD	WHI20000276.1	1.41
2064011							GD	WHI20000276.1	2.09
2064012							GD	WHI20000276.1	1.35
2064013							GD	WHI20000276.1	3.1
2064014							GD	WHI20000276.1	3.06
2064015							GD	WHI20000276.1	2.26
2064016							GD	WHI20000276.1	2.22
2064017							GD	WHI20000276.1	1.73
2064018							GD	WHI20000276.1	1.48
2064019							GD	WHI20000276.1	1.19
2064020	Strike	125	25				GD	WHI20000276.1	2.09
2064021	Strike	105	60				GD	WHI20000276.1	2.41
2064022	Strike	116	20				GD	WHI20000276.1	1.92
2064023	Strike	250	20				GD	WHI20000276.1	1.95
2064024							GD	WHI20000276.1	2.23
2064025							GD	WHI20000276.1	1.62
2064026	Strike	140	48				GD	WHI20000276.1	5.79
2064027	Strike	145	50				GD	WHI20000276.1	4.14

Sample ID	Structure_1	Azimuth_1	Dip_1	Structure_2	Azimuth_2	Dip_2	Sampler	Certificate	Weight_kg
2064028	Strike	150	50				GD	WHI20000276.1	3.95
2064029	Strike	150	50				GD	WHI20000276.1	2.61
2064030	Strike	150	50				GD	WHI20000276.1	3.24
2064031	Strike	155	80				GD	WHI20000276.1	3.94
2064032							GD	WHI20000276.1	1.88
2064033							GD	WHI20000276.1	2.11
2064101							RV	WHI20000276.1	2.23
2064102							RV	WHI20000276.1	1.09
2064103							RV	WHI20000276.1	2.49
2064104							RV	WHI20000276.1	2.73
2064105							RV	WHI20000276.1	1.99
2064151							AO	WHI20000276.1	1.17
2064152		160	40				AO	WHI20000276.1	2.51
2064153							AO	WHI20000276.1	1.74
2064154							AO	WHI20000276.1	1.47

Sample ID	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm	Fe_%	As_ppm
2064051	6	1.5	2	0.5	55	26	27	0.15	9	4	623	1.39	1
2064052	7	1.5	1	2	21	29	97	0.15	11	3	327	2.87	1
2064053	6	1.5	3	0.5	39	8	110	0.15	69	16	275	3.89	1
2064054	6	1.5	5	0.5	70	1.5	68	0.4	36	24	1306	5.68	1
2064055	5	1.5	5	0.5	35	4	69	0.15	18	6	369	2.28	1
2064056	7	1.5	4	0.5	54	8	71	0.4	24	16	800	4.32	4
2064057	8	4	5	0.5	40	9	86	0.15	33	13	969	3.43	4
2064058	8	1.5	7	0.5	83	1.5	43	0.15	277	42	836	5.08	5
2064059	6	5	4	0.5	68	1.5	37	0.15	188	34	489	3.9	1
2064060	4	1.5	3	0.5	37	1.5	54	0.15	29	19	1006	4.31	1
2064061	7	4	11	0.5	41	1.5	56	0.15	57	31	674	5.84	1
2064062	7	6	16	0.5	25	1.5	59	0.4	64	33	877	6.68	1
2064063	6	6	21	0.5	198	1.5	30	0.15	951	98	717	8.22	4
2064064	4	1.5	5	0.5	97	1.5	111	0.4	85	42	775	7.12	1
2064065	147	1.5	3	2	4319	23	53	5.5	59	30	635	11.15	27



Sample ID	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm	Fe_%	As_ppm
2064066	19	1.5	3	1	36	4	9	0.15	8	4	737	10.09	1
2064067	5	1.5	3	0.5	147	1.5	129	0.15	44	25	478	4.14	1
2064068	150	1.5	1	18	35280	98	8410	19.2	68	459	285	22.78	65
2064069	219	5	8	14	25900	182	5245	16.1	35	358	89	38.02	98
2064070	230	1.5	6	110	91960	105	7405	34.8	11	881	105	31.23	57
2064071	9	1.5	1	0.5	2081	1.5	507	2.1	62	56	804	5.65	164
2064072	5	1.5	1	0.5	13	1.5	31	0.15	40	29	716	4.41	11
2064073	3	1.5	4	0.5	31	1.5	15	0.15	9	16	242	3.02	1
2064074	2	1.5	1	0.5	21	1.5	19	0.15	14	24	448	6.04	1
2064075	5	1.5	4	0.5	27	1.5	32	0.15	2	12	387	2.22	1
2064076	3	5	4	0.5	50	1.5	37	0.15	244	31	505	2.95	1
2064077	5	13	14	0.5	63	1.5	45	0.15	862	99	887	8.11	1
2064201	11	1.5	12	0.5	120	1.5	89	0.3	109	42	1438	8.55	1

Sample ID	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm	Fe_%	As_ppm
2064202	4	1.5	5	0.5	36	1.5	58	0.15	30	19	923	4.11	1
2064203	8	1.5	7	8	156	1.5	482	0.5	151	41	1352	6.95	4
2064204	7	4	13	0.5	201	1.5	150	0.4	320	43	606	5.3	1
2064205	9	1.5	14	0.5	204	1.5	60	0.3	828	72	672	6.11	1
2064206	17	1.5	4	6	133	4	1400	1.4	17	3	373	5.42	6
2064207	10	1.5	15	0.5	249	1.5	44	0.4	170	36	310	4.43	3
2064208	9	1.5	33	0.5	389	1.5	62	0.4	39	22	875	4.71	1
2064209	11	1.5	6	3	1065	45	17	0.7	40	45	5349	8.74	13
2064210	5	1.5	1	2	68	1.5	59	0.15	66	31	875	4.11	1
2064211	7	1.5	3	0.5	60	1.5	76	0.15	60	30	796	4.55	1
2064212	3	1.5	1	0.5	50	1.5	25	0.15	24	36	2613	7.89	3
2064213	18	71	894	0.5	6805	22	26	1.8	42190	1760	6	>40.00	1
2064214	115	1.5	12	0.5	22830	17600	1618	40.5	200	25	521	4.53	7
2064215	170	1.5	5	0.5	24710	7118	1396	26.9	118	25	618	6.04	12
2064216	8	1.5	3	0.5	53	10	33	0.15	33	34	597	5.18	22
2064001	12	85	206	0.5	1965	5	48	1.6	772	48	404	9.62	1

Sample ID	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm	Fe_%	As_ppm
2064002	10	48	135	0.5	1621	3	29	1.1	1823	150	662	9.25	1
2064004	3	1.5	5	0.5	43	1.5	29	0.15	73	24	484	2.76	13
2064005	1	1.5	2	0.5	211	1.5	47	0.3	33	31	641	4.79	1
2064006	3	1.5	3	4	144	12	50	0.15	70	23	452	3.87	3
2064007	6	1.5	1	2	50	3	10	0.15	21	7	495	1.29	1
2064008	5	1.5	7	0.5	94	1.5	141	0.15	192	43	1014	5.75	4
2064009	5	1.5	6	0.5	78	1.5	52	0.15	851	89	686	8.04	1
2064010	6	1.5	9	0.5	139	1.5	78	0.4	136	43	827	7.2	1
2064011	8	1.5	11	0.5	122	1.5	51	0.15	79	25	418	3.8	1
2064012	6	1.5	11	0.5	153	1.5	68	0.15	94	31	562	4.94	1
2064013	5	5	14	0.5	153	1.5	41	0.15	93	28	345	3.6	1
2064014	5	1.5	11	0.5	133	1.5	37	0.15	112	29	313	3.59	1
2064015	4	1.5	5	0.5	100	1.5	70	0.15	310	51	1050	6.61	1
2064016	7	1.5	9	0.5	127	1.5	70	0.15	100	34	745	5.74	1
2064017	4	1.5	10	0.5	250	1.5	111	0.4	17	22	979	7.27	1
2064018	4	1.5	2	0.5	94	1.5	21	0.15	8	16	483	3.66	1
2064019	3	1.5	4	0.5	98	1.5	42	0.15	198	35	544	4.04	1
2064020	6	1.5	3	0.5	120	1.5	28	0.15	151	31	504	3.05	1
2064021	3	1.5	3	9	125	5	376	0.15	135	34	1337	6.11	2
2064022	40	1.5	6	35	35	10	109	0.6	36	4	113	2.57	30
2064023	5	1.5	1	2	93	3	83	0.4	26	30	1387	5.98	3
2064024	4	1.5	1	3	69	5	80	0.3	25	18	1090	4.12	1
2064025	7	1.5	6	0.5	104	3	55	0.15	48	30	935	5.18	1
2064026	20	1.5	4	3	182	17	251	2.1	46	24	771	11.68	7
2064027	80	1.5	3	9	11380	92	2536	11.7	44	158	502	15.55	34

Sample ID	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm	Fe_%	As_ppm
2064028	339	1.5	5	60	24540	228	6842	24.5	22	689	80	33.06	83
2064029	240	4	6	51	21830	167	5760	19	18	519	69	36.83	68
2064030	278	6	9	62	19670	154	3039	23.5	20	587	169	26.83	54
2064031	258	1.5	9	45	3184	137	524	5.4	17	76	154	38.36	103
2064032	11	1.5	3	0.5	16	1.5	19	0.15	47	7	180	1.35	1
2064033	9	1.5	6	0.5	70	1.5	43	0.15	93	26	829	4.4	5
2064101	19	14	44	0.5	248	1.5	13	0.15	914	87	928	6.52	5
2064102	4	4	5	0.5	75	4	40	0.15	146	37	770	4.88	1
2064103	5	9	21	0.5	57	1.5	41	0.4	824	97	1063	8.61	17
2064104	157	2077	8185	0.5	7661	8	18	8.9	743	5	88	4.06	5
2064105	3	15	37	2	109	1.5	29	0.15	164	28	328	2.43	5
2064151	5	4	18	0.5	17	1.5	4	0.15	1255	90	580	4.94	1
2064152	7	1.5	3	4	13	1.5	2	0.15	10	1	186	10.52	1
2064153	6	1.5	5	23	3	26	471	0.15	53	6	296	2.1	455
2064154	2	1.5	1	0.5	69	1.5	44	0.15	66	27	719	3.72	1



Sample ID	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%
2064051	1	240	0.25	1.5	1.5	27	8.22	0.015	8	11	0.6	18	0.039	10	0.65
2064052	1	42	0.25	1.5	1.5	6	1.96	0.012	33	3	1.06	32	0.003	10	1.38
2064053	1	33	0.25	1.5	1.5	51	0.71	0.038	3	72	1.42	55	0.227	10	1.84
2064054	1	289	0.25	1.5	1.5	235	6.5	0.125	10	66	3.21	94	0.025	10	3.29
2064055	1	17	0.25	1.5	1.5	14	0.47	0.014	12	6	1.22	201	0.004	10	1.44
2064056	1	13	0.25	1.5	1.5	67	0.5	0.048	4	7	1.45	93	0.005	10	1.51
2064057	1	60	0.25	1.5	1.5	42	2.52	0.068	12	49	1.42	266	0.011	10	1.82
2064058	1	127	0.25	1.5	1.5	146	3.12	0.062	6	567	6.14	73	0.183	10	4.52
2064059	1	84	0.25	1.5	1.5	97	1.54	0.032	2	173	4.01	50	0.187	10	3.01
2064060	2	257	0.25	1.5	1.5	114	4.46	0.102	14	99	2.57	152	0.004	10	2.74
2064061	1	107	0.25	1.5	1.5	157	3.96	0.056	4	98	2.71	216	0.415	10	2.54
2064062	1	57	0.25	1.5	1.5	228	3.52	0.063	2	127	3.25	404	0.601	10	3.18
2064063	1	27	0.25	1.5	1.5	51	0.73	0.02	3	420	11.37	100	0.04	22	2.5
2064064	1	21	0.25	1.5	1.5	235	0.76	0.08	5	19	2.86	151	0.427	10	2.17
2064065	7	20	1.3	1.5	1.5	143	2.48	0.065	4	117	1.43	15	0.29	10	1.62

Sample ID	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%
2064066	1	147	0.9	1.5	1.5	116	16.63	0.135	4	9	0.58	181	0.048	10	1.37
2064067	1	24	0.25	1.5	1.5	116	1.39	0.05	2	186	2.21	12	0.452	10	2.15
2064068	1	3	24.3	1.5	1.5	119	0.51	0.028	1	113	1.75	6	0.318	10	1.53
2064069	1	10	16.3	1.5	1.5	11	1.67	0.007	1	0.5	0.09	5	0.01	10	0.08
2064070	1	0.5	24.4	1.5	1.5	17	2.99	0.005	0.5	0.5	0.02	2	0.004	10	0.12
2064071	1	25	3.8	1.5	1.5	114	2.98	0.079	2	155	3.29	3	0.306	10	3.14
2064072	1	13	0.25	1.5	1.5	132	1.07	0.063	3	134	2.56	11	0.5	10	2.42
2064073	1	10	0.25	1.5	1.5	54	2.58	0.04	10	25	0.83	3	0.177	10	0.93
2064074	1	16	0.25	1.5	1.5	167	1.2	0.126	5	14	1.3	5	0.431	10	1.26
2064075	1	64	0.25	1.5	1.5	48	1.31	0.064	1	2	0.85	3	0.237	10	1.37
2064076	1	47	0.25	1.5	1.5	60	1.9	0.031	1	646	3.34	7	0.148	10	2.64
2064077	1	12	0.25	1.5	1.5	49	0.23	0.019	3	451	12.17	38	0.056	80	2.38
2064201	2	75	0.25	1.5	1.5	199	5.73	0.045	5	297	3.03	53	0.29	10	3.38

Sample ID	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%
2064202	4	220	0.25	1.5	1.5	129	3.5	0.101	14	108	2.39	12	0.1	10	2.38
2064203	1	100	8.5	1.5	1.5	314	3.36	0.047	9	210	4.53	357	0.162	10	4.43
2064204	1	100	0.25	1.5	1.5	83	1.97	0.059	4	323	4.2	288	0.209	10	4.12
2064205	1	115	0.25	1.5	1.5	39	1.27	0.042	4	206	8.34	118	0.101	10	3.66
2064206	1	7	9.2	1.5	1.5	126	0.14	0.022	4	34	2.25	91	0.024	10	1.5
2064207	1	100	0.25	1.5	1.5	89	1.96	0.064	4	128	1.82	316	0.246	10	2.98
2064208	1	108	0.25	1.5	1.5	155	5.4	0.071	5	99	3.32	76	0.281	10	3.19
2064209	1	87	1	1.5	1.5	88	19	0.009	5	17	0.25	11	0.003	10	0.19
2064210	1	38	0.25	1.5	1.5	123	3.17	0.089	0.5	161	1.84	70	0.586	10	2.16
2064211	1	13	0.25	1.5	1.5	98	1.36	0.07	3	93	2.23	17	0.277	10	2.36
2064212	1	56	1	1.5	1.5	71	16.35	0.01	1	7	3.82	3	0.002	10	0.59
2064213	4	4	3	1.5	1.5	1	0.06	0.0005	1	58	0.06	4	0.003	36	0.05
2064214	1	199	6.7	1.5	39	35	4.12	0.008	1	45	2.14	46	0.001	10	0.18
2064215	1	307	5.2	1.5	22	36	5.56	0.014	2	41	3.36	99	0.001	10	0.21
2064216	1	101	0.25	1.5	1.5	98	3.33	0.043	4	37	1.7	155	0.117	10	1.66
2064001	1	18	0.25	1.5	1.5	120	0.35	0.031	4	1175	7.58	52	0.039	10	3.67

Sample ID	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%
2064002	1	14	0.25	1.5	1.5	84	0.47	0.025	4	901	11	8	0.032	40	2.64
2064004	1	64	0.25	1.5	1.5	60	2.32	0.037	2	241	2.05	4	0.12	10	1.98
2064005	1	87	0.25	1.5	1.5	93	1.16	0.06	2	79	2.79	5	0.21	10	3.09
2064006	1	44	0.25	1.5	1.5	109	0.96	0.036	4	214	2.55	4	0.381	10	2.57
2064007	1	136	0.25	1.5	1.5	16	4.37	0.043	2	26	0.48	16	0.055	10	0.61
2064008	1	46	0.25	3	1.5	205	3.02	0.039	5	193	3.14	48	0.358	10	3.12
2064009	1	47	0.25	1.5	1.5	97	1.07	0.021	3	543	9.45	17	0.049	10	3.96
2064010	1	65	0.25	4	1.5	178	1.98	0.037	3	112	3.13	188	0.431	10	4.69
2064011	1	118	0.25	1.5	1.5	68	2.02	0.077	7	80	2.03	170	0.211	10	3.1
2064012	1	81	0.25	1.5	1.5	95	1.79	0.094	9	68	2.51	139	0.269	10	3.11
2064013	1	615	0.25	1.5	1.5	82	1.99	0.086	6	58	1.73	316	0.269	10	3.78
2064014	1	499	0.25	1.5	1.5	87	2.12	0.074	5	65	1.9	351	0.297	10	4.19
2064015	1	214	0.25	1.5	1.5	112	3.25	0.028	3	250	4.99	726	0.232	10	4.33
2064016	1	60	0.25	1.5	1.5	149	1.4	0.046	4	52	3.21	274	0.307	10	3.46
2064017	1	37	0.25	4	1.5	83	1.61	0.149	9	6	1.58	233	0.465	10	2.37
2064018	3	126	0.25	1.5	1.5	75	2.78	0.202	19	2	0.74	55	0.147	10	1.87
2064019	1	60	0.25	1.5	1.5	114	1.45	0.056	3	332	4.12	86	0.204	10	3
2064020	1	143	0.25	1.5	1.5	76	2.26	0.059	5	324	3.18	16	0.162	10	2.35
2064021	1	178	6.1	1.5	1.5	190	4.1	0.086	13	81	3.51	33	0.025	10	4.25
2064022	1	10	0.25	7	1.5	206	0.15	0.064	12	24	0.83	308	0.004	10	0.93
2064023	1	202	0.25	1.5	1.5	276	6.29	0.087	8	21	3.09	94	0.03	10	3.54
2064024	1	79	0.25	1.5	1.5	94	2.16	0.074	6	9	1.66	140	0.126	10	2.05
2064025	1	249	0.25	1.5	1.5	166	3.72	0.074	5	104	2.77	174	0.229	10	3.21
2064026	1	2	0.25	1.5	1.5	167	0.19	0.023	1	217	3.18	4	0.379	10	2.68
2064027	1	6	5.6	1.5	1.5	134	0.69	0.05	2	146	1.94	3	0.363	10	1.86

Sample ID	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%
2064028	1	14	19.7	1.5	1.5	24	2.92	0.007	0.5	6	0.15	7	0.04	10	0.19
2064029	1	2	18.4	1.5	1.5	19	1.46	0.009	0.5	0.5	0.04	5	0.011	10	0.09
2064030	1	3	10.1	1.5	1.5	40	2.51	0.011	0.5	21	0.45	4	0.08	10	0.52
2064031	1	15	2.8	1.5	1.5	12	3.09	0.004	0.5	7	0.11	3	0.039	10	0.13
2064032	1	69	0.25	1.5	1.5	18	2.35	0.105	3	26	1.06	24	0.002	10	0.24
2064033	1	248	0.25	1.5	1.5	160	5.46	0.044	4	376	3.69	30	0.15	10	2.92
2064101	1	61	0.25	1.5	1.5	45	1.77	0.015	2	746	9.25	9	0.032	10	1.47
2064102	1	126	0.25	1.5	1.5	163	2.95	0.054	3	409	3.99	57	0.254	10	3.26
2064103	1	18	0.25	1.5	1.5	93	0.27	0.023	4	968	12.55	53	0.066	154	2.74
2064104	3	15	0.25	5	1.5	53	0.43	0.037	5	47	0.21	85	0.333	129	0.32
2064105	1	81	0.25	1.5	1.5	67	1.77	0.049	4	330	2.31	128	0.246	35	1.87
2064151	1	5	0.25	1.5	1.5	29	0.1	0.002	3	455	13.78	19	0.013	52	0.61
2064152	1	28	0.25	1.5	1.5	11	2.47	0.013	0.5	6	0.15	21	0.005	10	0.13
2064153	1	32	0.6	12	1.5	9	37.05	0.013	1	3	0.43	6	0.0005	10	0.04
2064154	1	22	0.25	1.5	1.5	91	3.82	0.042	0.5	178	1.82	2	0.425	10	1.95



Sample ID	Na_%	K_%	W_ppm	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Pb_%	Ni_%	Lab
2064051	0.02	0.03	1	0.08	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.
2064052	0.06	0.02	1	0.68	0.5	2.5	12	2.5				Buereau Veritas Commodities Canada Ltd.
2064053	0.03	0.09	1	0.83	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.
2064054	0.03	0.05	1	0.4	0.5	2.5	13	14				Buereau Veritas Commodities Canada Ltd.
2064055	0.01	0.22	1	0.25	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.
2064056	0.02	0.24	1	1.48	0.5	2.5	5	6				Buereau Veritas Commodities Canada Ltd.
2064057	0.02	0.33	1	0.3	0.5	2.5	5	7				Buereau Veritas Commodities Canada Ltd.
2064058	0.17	0.06	1	0.38	0.5	2.5	2.5	7				Buereau Veritas Commodities Canada Ltd.
2064059	0.07	0.02	1	0.12	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.
2064060	0.04	0.16	1	0.34	0.5	2.5	10	7				Buereau Veritas Commodities Canada Ltd.
2064061	0.03	0.04	1	0.025	0.5	6	2.5	9				Buereau Veritas Commodities Canada Ltd.
2064062	0.03	0.07	1	0.1	0.5	9	6	20				Buereau Veritas Commodities Canada Ltd.
2064063	0.005	0.01	1	0.08	0.5	2.5	8	7				Buereau Veritas Commodities Canada Ltd.
2064064	0.04	0.34	1	0.23	0.5	7	12	5				Buereau Veritas Commodities Canada Ltd.
2064065	0.02	0.25	4	7.19	0.5	2.5	8	9				Buereau Veritas Commodities Canada Ltd.

Sample ID	Na_%	K_%	W_ppm	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Pb_%	Ni_%	Lab
2064066	0.005	0.49	1	0.28	0.5	2.5	9	2.5				Buereau Veritas Commodities Canada Ltd.
2064067	0.05	0.22	1	0.025	0.5	5	8	2.5				Buereau Veritas Commodities Canada Ltd.
2064068	0.02	0.12	1	>10.00	0.5	9	13	5	3.528	0.01	0.007	Buereau Veritas Commodities Canada Ltd.
2064069	0.005	0.06	15	>10.00	0.5	9	9	2.5	2.59	0.02	0.004	Buereau Veritas Commodities Canada Ltd.
2064070	0.005	0.005	82	>10.00	0.5	10	18	2.5	9.196	0.01	0.001	Buereau Veritas Commodities Canada Ltd.
2064071	0.02	0.005	1	0.21	0.5	2.5	11	7				Buereau Veritas Commodities Canada Ltd.
2064072	0.06	0.59	1	0.025	0.5	6	8	2.5				Buereau Veritas Commodities Canada Ltd.
2064073	0.09	0.25	1	0.11	0.5	2.5	12	2.5				Buereau Veritas Commodities Canada Ltd.
2064074	0.07	0.09	1	0.18	0.5	5	8	2.5				Buereau Veritas Commodities Canada Ltd.
2064075	0.08	0.05	1	0.3	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.
2064076	0.16	0.05	1	0.025	0.5	2.5	6	5				Buereau Veritas Commodities Canada Ltd.
2064077	0.005	0.16	1	0.025	0.5	2.5	6	7				Buereau Veritas Commodities Canada Ltd.
2064201	0.03	0.04	1	0.21	0.5	2.5	19	17				Buereau Veritas Commodities Canada Ltd.

Sample ID	Na_%	K_%	W_ppm	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Pb_%	Ni_%	Lab		
2064202	0.07	0.005	1	0.09	0.5	2.5	17	9				Buereau Veritas Commodities Canada Ltd.		
2064203	0.06	0.18	1	1.97	0.5	2.5	13	42				Buereau Veritas Commodities Canada Ltd.		
2064204	0.24	0.06	1	0.15	0.5	2.5	8	2.5				Buereau Veritas Commodities Canada Ltd.		
2064205	0.03	0.29	1	0.09	0.5	2.5	7	2.5				Buereau Veritas Commodities Canada Ltd.		
2064206	0.005	0.01	1	0.19	0.5	2.5	12	2.5				Buereau Veritas Commodities Canada Ltd.		
2064207	0.28	0.15	1	1.05	0.5	2.5	7	2.5				Buereau Veritas Commodities Canada Ltd.		
2064208	0.05	0.53	1	0.07	0.5	2.5	6	12				Buereau Veritas Commodities Canada Ltd.		
2064209	0.005	0.005	1	5.94	0.5	16	2.5	13				Buereau Veritas Commodities Canada Ltd.		
2064210	0.04	0.47	1	0.19	0.5	9	2.5	5				Buereau Veritas Commodities Canada Ltd.		
2064211	0.04	0.09	1	0.26	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064212	0.02	0.02	1	0.24	0.5	7	2.5	36				Buereau Veritas Commodities Canada Ltd.		
2064213	0.005	0.005	1	>10.00	0.5	10	2.5	2.5	0.698	0.005	4.291	Buereau Veritas Commodities Canada Ltd.		
2064214	0.01	0.16	20	2.35	3	2.5	2.5	11	2.283	1.76	0.022	Buereau Veritas Commodities Canada Ltd.		
2064215	0.02	0.13	22	1.96	2	2.5	2.5	15	2.471	0.77	0.012	Buereau Veritas Commodities Canada Ltd.		
2064216	0.03	0.06	1	1.21	0.5	2.5	2.5	12				Buereau Veritas Commodities Canada Ltd.		
2064001	0.005	0.06	1	0.29	0.5	2.5	6	2.5				Buereau Veritas Commodities Canada Ltd.		

Sample ID	Na_%	K_%	W_ppm	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Pb_%	Ni_%	Lab		
2064002	0.005	0.02	1	0.76	0.5	2.5	2.5	14				Buereau Veritas Commodities Canada Ltd.		
2064004	0.04	0.01	1	0.025	0.5	2.5	2.5	5				Buereau Veritas Commodities Canada Ltd.		
2064005	0.03	0.005	1	0.43	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064006	0.04	0.005	1	0.16	0.5	2.5	2.5	6				Buereau Veritas Commodities Canada Ltd.		
2064007	0.005	0.03	1	0.16	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064008	0.05	0.02	1	0.11	0.5	2.5	7	21				Buereau Veritas Commodities Canada Ltd.		
2064009	0.005	0.02	1	0.025	0.5	2.5	7	8				Buereau Veritas Commodities Canada Ltd.		
2064010	0.21	0.21	1	0.025	0.5	2.5	5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064011	0.18	0.1	1	0.1	0.5	2.5	6	2.5				Buereau Veritas Commodities Canada Ltd.		
2064012	0.12	0.07	1	0.09	0.5	2.5	7	2.5				Buereau Veritas Commodities Canada Ltd.		
2064013	0.36	0.11	1	0.12	0.5	2.5	8	2.5				Buereau Veritas Commodities Canada Ltd.		
2064014	0.45	0.15	1	0.17	0.5	2.5	9	2.5				Buereau Veritas Commodities Canada Ltd.		
2064015	0.04	0.1	1	0.025	0.5	2.5	8	2.5				Buereau Veritas Commodities Canada Ltd.		
2064016	0.06	0.09	1	0.025	0.5	2.5	8	2.5				Buereau Veritas Commodities Canada Ltd.		
2064017	0.05	0.11	1	0.13	0.5	2.5	12	2.5				Buereau Veritas Commodities Canada Ltd.		
2064018	0.09	0.1	1	1.39	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064019	0.18	0.08	1	0.2	0.5	2.5	6	8				Buereau Veritas Commodities Canada Ltd.		
2064020	0.15	0.05	1	0.19	0.5	2.5	2.5	8				Buereau Veritas Commodities Canada Ltd.		
2064021	0.13	0.2	1	2	0.5	2.5	9	18				Buereau Veritas Commodities Canada Ltd.		
2064022	0.03	0.21	1	1.89	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064023	0.03	0.04	1	0.78	0.5	2.5	13	21				Buereau Veritas Commodities Canada Ltd.		
2064024	0.05	0.17	1	1.35	0.5	2.5	6	6				Buereau Veritas Commodities Canada Ltd.		
2064025	0.14	0.08	1	0.45	0.5	2.5	7	10				Buereau Veritas Commodities Canada Ltd.		
2064026	0.03	0.04	1	6.46	0.5	6	7	14				Buereau Veritas Commodities Canada Ltd.		
2064027	0.04	0.05	9	>10.00	0.5	7	8	7	1.138	0.01	0.004	Buereau Veritas Commodities Canada Ltd.		

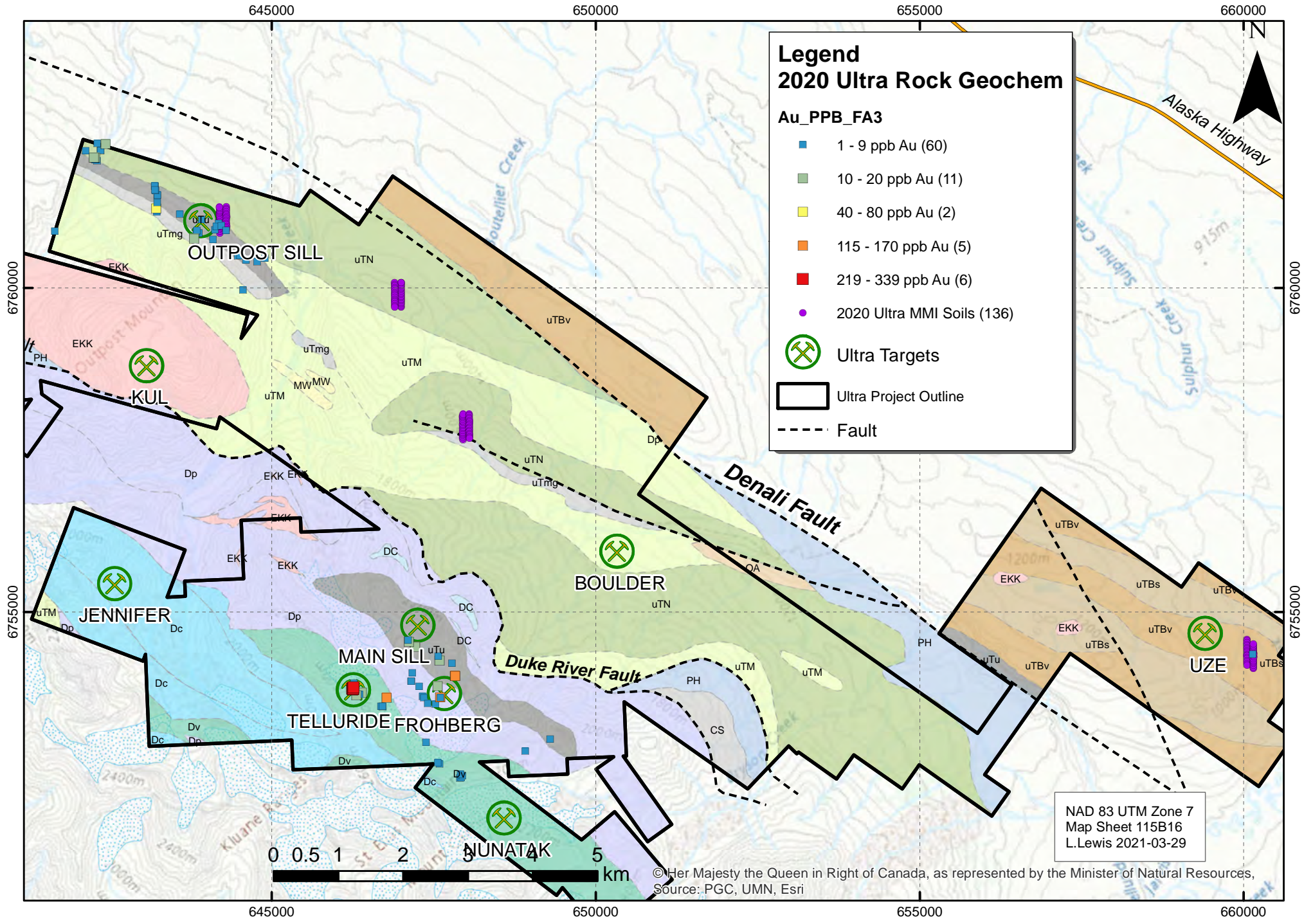
Sample ID	Na_%	K_%	W_ppm	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Pb_%	Ni_%	Lab		
2064028	0.005	0.12	24	>10.00	0.5	9	9	2.5	2.454	0.03	0.002	Buereau Veritas Commodities Canada Ltd.		
2064029	0.005	0.01	25	>10.00	0.5	9	13	2.5	2.183	0.02	0.002	Buereau Veritas Commodities Canada Ltd.		
2064030	0.005	0.04	22	>10.00	0.5	7	12	2.5	1.967	0.02	0.002	Buereau Veritas Commodities Canada Ltd.		
2064031	0.005	0.005	6	>10.00	0.5	8	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064032	0.03	0.06	1	0.45	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064033	0.05	0.05	1	0.38	0.5	2.5	13	14				Buereau Veritas Commodities Canada Ltd.		
2064101	0.005	0.005	1	0.34	0.5	2.5	2.5	11				Buereau Veritas Commodities Canada Ltd.		
2064102	0.05	0.08	1	0.33	0.5	2.5	10	6				Buereau Veritas Commodities Canada Ltd.		
2064103	0.005	0.2	1	0.025	0.5	2.5	7	15				Buereau Veritas Commodities Canada Ltd.		
2064104	0.04	0.04	6	0.82	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064105	0.03	0.08	1	0.025	0.5	2.5	7	2.5				Buereau Veritas Commodities Canada Ltd.		
2064151	0.005	0.03	1	0.09	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064152	0.005	0.09	1	0.025	0.5	2.5	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064153	0.005	0.02	1	1.13	1	6	2.5	2.5				Buereau Veritas Commodities Canada Ltd.		
2064154	0.04	0.005	1	0.21	0.5	5	6	2.5				Buereau Veritas Commodities Canada Ltd.		



## Appendix IX – Rock Geochem Plots







### Legend

#### 2020 Ultra Rock Geochem

**Au\_PPB\_FA3**

- 1 - 9 ppb Au (60)
- 10 - 20 ppb Au (11)
- 40 - 80 ppb Au (2)
- 115 - 170 ppb Au (5)
- 219 - 339 ppb Au (6)
- 2020 Ultra MMI Soils (136)

Ultra Targets

Ultra Project Outline

Fault

NAD 83 UTM Zone 7  
 Map Sheet 115B16  
 L.Lewis 2021-03-29





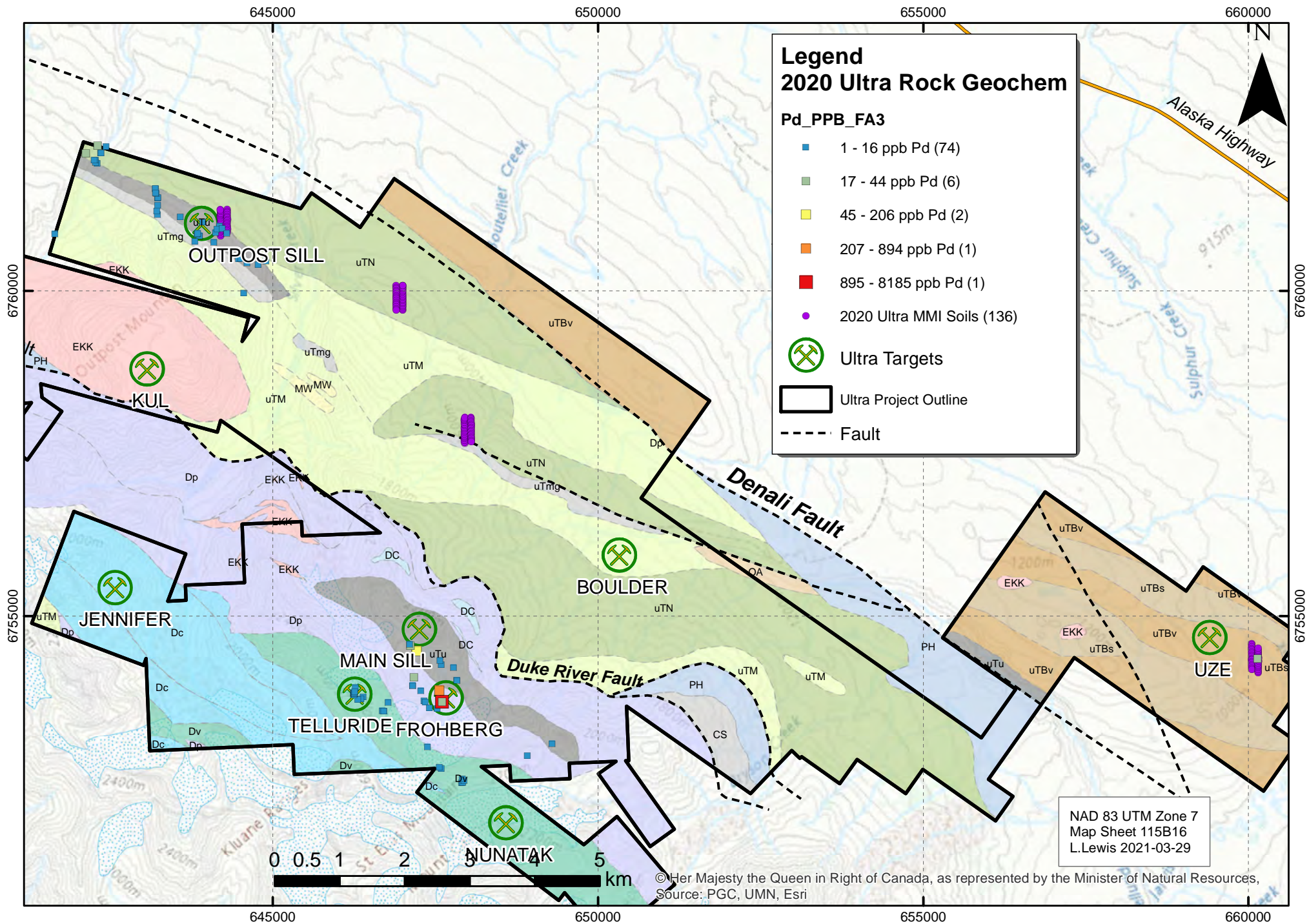












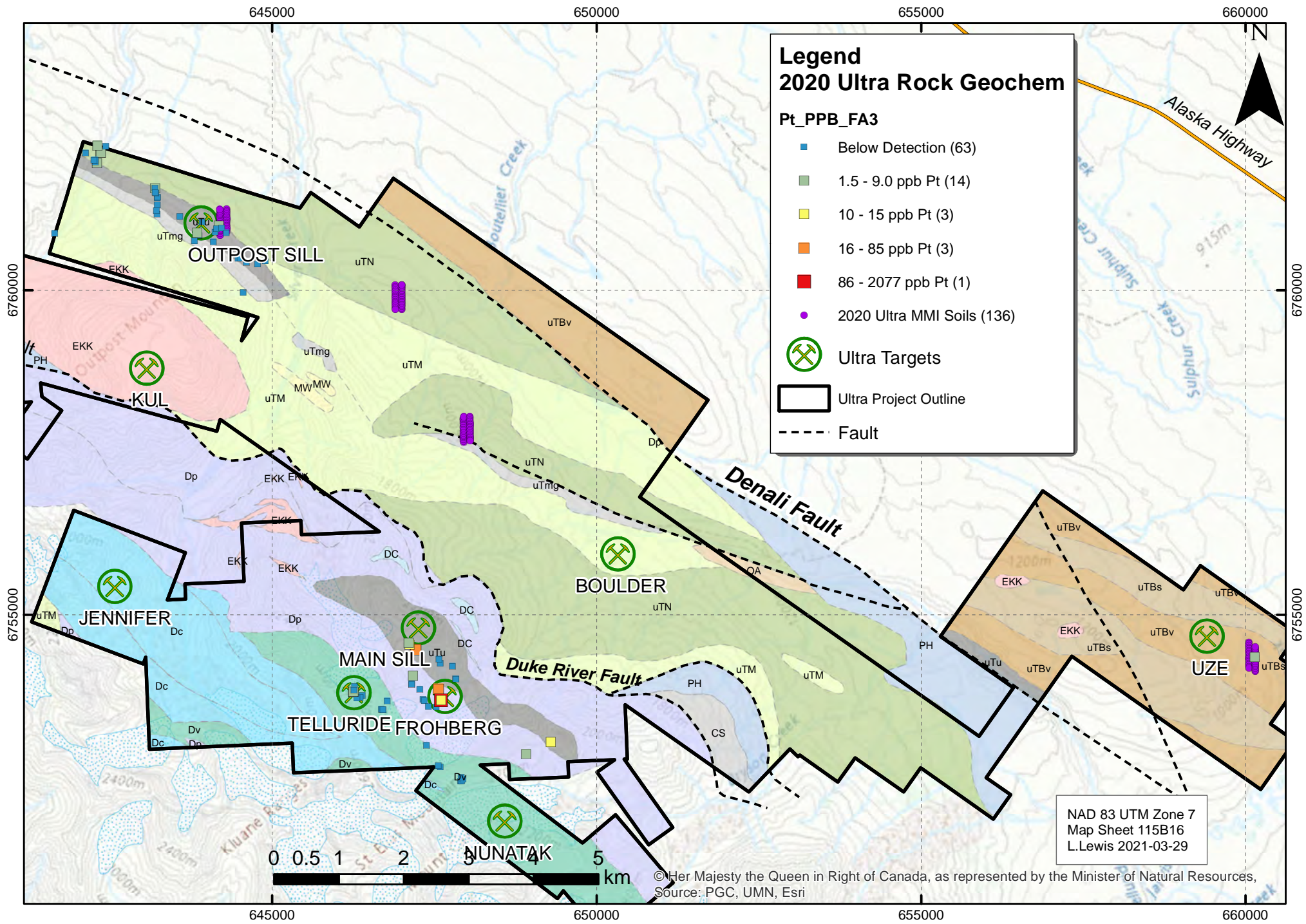
### Legend

#### 2020 Ultra Rock Geochem

- Pd\_PPB\_FA3**
- 1 - 16 ppb Pd (74)
  - 17 - 44 ppb Pd (6)
  - 45 - 206 ppb Pd (2)
  - 207 - 894 ppb Pd (1)
  - 895 - 8185 ppb Pd (1)
  - 2020 Ultra MMI Soils (136)
- ⊗ Ultra Targets
- Ultra Project Outline
- Fault

NAD 83 UTM Zone 7  
 Map Sheet 115B16  
 L.Lewis 2021-03-29









## Appendix X – Assay Certificates





Overburden Drilling Management Limited  
Unit 107, 15 Capella Court  
Nepean, Ontario, Canada, K2E 7X1  
Tel: (613) 226-1771 Fax: (613) 226-8753  
odm@storm.ca www.odm.ca

### Laboratory Data Report

#### Client Information

Longford Exploration Ltd.  
460-688 West Hastings Street  
Vancouver, BC  
V6B 1P1

[ryan@longfordex.com](mailto:ryan@longfordex.com)

[jrogers@longfordex.com](mailto:jrogers@longfordex.com)

Attention: Ryan Versloot

James Rogers

#### Data-File Information

Date: November 30, 2020

Project name:

ODM batch number: 2088

Sample numbers: 2064301 to 2064313

Data file: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Number of samples in this report: 13 **5 samples Ultra Project**

Number of samples processed to date: 13

Total number of samples in project: 13

Preliminary data:	<input type="checkbox"/>
Final data:	<input checked="" type="checkbox"/>
Revised data:	<input type="checkbox"/>

**Samples Processed For:** Gold, MMSIM

#### Processing Specifications:

1. Submitted by client: Sand and gravel samples prescreened in the field.
2. One ±300 g archival split taken.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. Shaking table concentrates refined by heavy liquid separation at S.G. 3.2 to obtain heavy mineral concentrates (HMCs).
5. 1.0-2.0, 0.5-1.0 mm and nonparamagnetic (>1.0 amp) 0.25-0.5 mm HMC fractions examined for scheelite by UV lamping.

#### Notes

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Mike Crawford  
Laboratory Manager

## Overburden Drilling Management Limited - Abbreviations Table

### Raw Sample Weights and Descriptions Log

#### **Largest Clast Size Present:**

G: Granules  
P: Pebbles  
C: Cobbles

#### **Matrix Organics:**

ORG: Y: Organics present in matrix  
N: Organics absent or negligible in matrix  
+: Matrix is mainly organic

#### **Clast Composition:**

V/S: Volcanics and/or sediments  
GR: Granitics  
LS: Limestone, carbonates  
OT: Other lithologies (refer to footnotes)  
TR: Only trace present  
NA: Not applicable  
OX: Very oxidized, undifferentiated  
MB: Marble

#### **Matrix Colour:**

Primary:  
BE: Beige  
BR: Brick Red  
GY: Grey  
GB: Grey-beige  
GN: Green  
GG: Grey-green  
PP: Purple  
PK: Pink  
PB: Pink-beige  
MN: Maroon

#### **Matrix Grain Size Distribution:**

S/U: Sorted or unsorted  
SD: Sand (F: Fine; M: Medium; C: Coarse)  
ST: Silt  
CY: Clay  
Y: Fraction present  
+: Fraction more abundant than normal  
-: Fraction less abundant than normal  
N: Fraction not present

#### Secondary (soil):

OC: Ochre  
BN: Brown  
BK: Black

#### Secondary Colour Modifier:

L: Light  
M: Medium  
D: Dark

### Detailed Gold Grain Log

VG: Visible gold grains

#### **Thickness:**

M: Actual measured thickness of grain (µm)  
C: Thickness of grain (µm) calculated from measured width and length

### Kimberlite Indicator Mineral (KIM) Log

GP: Purple to red peridotitic garnet (G9/10 Cr-pyrope)  
GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include unchecked (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces  
DC: Cr-diopside; distinctly emerald green (paler emerald green low-Cr diopside picked separately)  
IM: Mg-ilmenite; may include unchecked (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces  
CR: Chromite  
FO: Forsterite

### Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) and Porphyry Cu Indicator Mineral (PCIM) Logs

Adr: Andradite	Cpx: Clinopyroxene	Gth: Goethite	PGM: Platinum group-bearing mineral	Sil: Sillimanite
Ap: Apatite	Cpy: Chalcopyrite	Ilm: Ilmenite	Py: Pyrite	Spi: Spinel
Ase: Anatase	Cr: Chromite	Ky: Kyanite	REM: Rare earth-bearing mineral	Sps: Spessartine
Aspy: Arsenopyrite	Fay: Fayalite	Mrc: Marcasite	Rt: Red rutile	St: Staurolite
Ax: Axinite	Gh: Gahnite	Mz: Monazite		Tm: Tourmaline
Ba: Barite	Gr: Grossular	Ol: Olivine		Ttn: Titanite
		Opx: Orthopyroxene		Zir: Zircon

#### **Other**

HMC: Heavy mineral concentrate  
UV: Ultra-violet  
EPD: Electric-pulse disaggregation  
PGE: Platinum group element

**Primary Sample Processing Weights and Descriptions**

Client: Longford Exploration Ltd.  
 File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020  
 Total Number of Samples in this Report: 13  
 ODM Batch Number(s): 2088

Sample Number	Weight (kg wet)						Screening and Shaking Table Sample Descriptions											Class
							Clasts (+2.0 mm)					Matrix (-2.0 mm)						
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	-2.0 mm Table Feed	Size	Percentage				Distribution				Colour			
							V/S	GR	LS	OT*	S/U	SD	ST	CY	ORG	SD	CY	
2064301	20.4	0.3	20.1	10.5	9.6	G	80	10	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064302	21.5	0.3	21.2	8.9	12.3	G	80	10	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064303	22.5	0.3	22.2	5.0	17.2	G	80	10	0	10	S	MC	-	N	N	DOC	NA	SAND + GRAVEL
2064304	20.0	0.3	19.7	6.3	13.4	G	90	TR	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064305	24.9	0.3	24.6	7.8	16.8	G	90	TR	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL

\*Clasts listed as OT are Quartz.

### Gold Grain Summary

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13

ODM Batch Number(s): 2088

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
2064301	3	1	1	1	38.4	9	2	4	4
2064302	2	1	1	0	49.2	68	56	12	0
2064303	48	16	19	13	68.8	1704	1142	546	16
2064304	8	2	5	1	53.6	25	21	4	<1
2064305	4	4	0	0	67.2	83	83	0	0

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.



## Detailed Gold Grain Data

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13

ODM Batch Number(s): 2088

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
2064301	8	C	25	50	1			1	2	Tr (~2000 grains) pyrite (25-250 µm).
	10	C	25	75		1	1	2	8	
								3	38.4	
2064302	15	C	50	100		1		1	12	Tr (~2000 grains) pyrite (25-75 µm).
	25	C	100	150	1			1	56	
								2	49.2	
2064303	3	C	15	15				4	<1	Tr (1 grain) cinnabar (25 µm). 5% pyrite (25-750 µm). Coarsest gold grain viald.
	5	C	25	25		1	4	5	2	
	8	C	25	50	6	5		11	12	
	10	C	25	75		1	3	4	8	
	13	C	25	100	1			1	3	
	10	C	50	50	4	6	1	11	31	
	13	C	50	75	1	1	1	3	16	
	15	C	50	100	2	1		3	25	
	15	C	75	75	1			1	9	
	25	C	100	150		2		2	81	
	29	C	125	175		1		1	70	
	75	M	125	350		1		1	358	
	50	M	400	500	1			1	1090	
							48	68.8	1704	
2064304	3	C	15	15			1	1	<1	Tr (1 grain) arsenopyrite (75 µm). Tr (~2000 grains) pyrite (25-150 µm).
	5	C	25	25		3		3	1	
	8	C	25	50		2		2	3	
	10	C	25	75	1			1	3	
	18	C	75	100	1			1	18	
							8	53.6	25	
2064305	8	C	25	50	1			1	1	5% pyrite (25-750 µm).
	18	C	75	100	1			1	15	
	25	C	75	175	1			1	36	
	22	C	100	125	1			1	31	
							4	67.2	83	

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

### 0.25-0.5 mm Paramagnetic/Non-Paramagnetic Fraction Weights

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13

ODM Batch Number(s): 2088

Sample Number	Weight of 0.25-0.5 mm S.G. >3.2 Nonferromagnetic Heavy Mineral Fractions (g)					
	Total	Paramagnetic			Nonparamagnetic	
		Strongly (<0.6 amp)	Moderately (0.6-0.8 amp)	Weakly (0.8-1.0 amp)	>1.0 amp	>1.0 amp Lights*
2064301	6.80	0.27	1.22	2.68	2.55	0.08
2064302	2.99	0.07	0.24	0.88	1.72	0.08
2064303	11.60	1.52	1.45	2.70	5.43	0.50
2064304	6.98	2.04	1.87	1.38	1.45	0.24
2064305	12.48	1.97	1.77	2.16	6.12	0.46

\*SG <3.20 heavy liquid separation clean-up of >1.0 amp fraction.

### Heavy Mineral Concentrate Processing Weights

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13

ODM Batch Number(s): 2088

Sample Number	Weight of -2.0 mm Table Concentrate (g)												
	Total	-0.25 mm	0.25 to 2.0 mm Heavy Liquid Separation at S.G. 3.20										
			Total	Lights S.G. <3.2	HMC S.G.>3.20								
					Total	-0.25 mm (wash)	Mag	Nonferromagnetic HMC					
								Total	Processed Split				
									%	Weight	0.25 to 0.5 mm	0.5 to 1.0 mm	1.0 to 2.0 mm
2064301	890.6	361.4	529.2	504.9	24.3	2.6	6.7	15.0	100	15.0	6.8	6.1	2.1
2064302	623.4	329.0	294.4	285.7	8.7	1.9	0.9	5.9	100	5.9	3.0	1.9	1.0
2064303	1177.0	612.5	564.5	507.8	56.7	10.3	15.0	31.4	64	20.0	11.6	6.3	2.1
2064304	1135.6	354.1	781.5	713.3	68.2	6.2	2.8	59.2	34	20.0	7.0	9.1	3.9
2064305	733.8	485.3	248.5	215.8	32.7	5.7	1.9	25.1	80	20.0	12.5	6.1	1.4

## Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13

ODM Batch Number(s): 2088

Sample Number	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																Remarks	Picked Grains		
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals										Phosphates					
	>1.0 amp			<1.0	>1.0 amp							<1.0 amp			>1.0 amp					
	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	Olivine		% Opx	% Cr**			% Ap	% Mz
												% Fo	% Fay							
2064301	Tr (1 gr)	Tr malachite (1 gr); 0.1 barite (~50 gr)	8 (~2000 gr)	60	0	Tr Mn-epidote (4 gr)	0	0	0	0	Tr	Tr	0	0	0	Tr (8 gr)	0	Tr	Goethite-augite-hematite/epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 1 malachite candidate = 1 malachite; and 8 chromite candidates = 8 chromite.	0.5-1.0 mm fraction: 6 barite 2 Mn-epidote 0.25-0.5 mm fraction: 1 chalcopyrite 1 malachite 10 representative barite 4 Mn-epidote 8 chromite
2064302	0	6 barite (~1000 gr)	8 (~1500 gr)	80	0	Tr Mn-epidote (1 gr)	0	0	0	0	Tr	Tr	0	0	Tr	Tr (10 gr)	0	0	Goethite-augite/epidote assemblage. 0.5-1.0 mm fraction contains 3% (~80 grains) barite.	1.0-2.0 mm fraction: 3 barite 0.5-1.0 mm fraction: 10 representative barite 1 chromite 0.25-0.5 mm fraction: 10 representative barite 1 Mn-epidote 10 chromite
2064303	Tr (5 gr)	Tr sphalerite (2 gr); 5 barite (~3000 gr)	40 (~25,000 gr)	40	0	Tr Mn-epidote (2 gr)	0	0	0	0	0	2	0	0	Tr	Tr (~30 gr)	0	Tr	Augite-goethite/epidote-pyrite-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 2 sphalerite candidates = 2 sphalerite; 2 arsenopyrite versus pyrite candidates = 2 pyrite; 4 barite candidates = 4 barite; and 5 fayalite versus siderite candidates = 5 siderite. One reshaped gold grain picked from 0.25-0.5 mm fraction (see detailed gold grain data). 0.5-1.0 mm fraction contains 1% (~80 grains) barite.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 3 chalcopyrite 10 representative barite 1 Mn-epidote 1 low-Cr diopside 2 chromite 0.25-0.5 mm fraction: 1 gold 5 chalcopyrite 2 sphalerite 2 pyrite resembling arsenopyrite 14 representative barite 2 Mn-epidote 5 siderite resembling fayalite 15 representative chromite

\*Spessartine may include andradite.

\*\*Chromite may include hercynite, Cr-hercynite and Cr-spinel



### Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13

ODM Batch Number(s): 2088

Sample Number	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																Remarks	Picked Grains
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals										Phosphates			
	>1.0 amp			<1.0	>1.0 amp						<1.0 amp				>1.0 amp			
	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	Olivine		% Opx	% Cr**		
												% Fo	% Fay					
2064304	Tr (13 gr)	Tr malachite (1 gr); 0.2 barite (~40 gr)	70 (~10,000 gr)	5	0	Tr Mn-epidote (5 gr); Tr low-Cr diopside (1 gr)	0	0	0	0	0	0	0	0	0	Tr (12 gr)	0	0
2064305	Tr (11 gr)	Tr malachite/azurite (1 gr); 0.5 barite (~250 gr)	95 (~60,000 gr)	10	0	Tr low-Cr diopside (2 gr)	0	0	0	0	0	0	0	0	0	Tr (2 gr)	0	0

\*Spessartine may include andradite.

\*\*Chromite may include hercynite, Cr-hercynite and Cr-spinel



## ANALYSIS REPORT BBM20-04211

To COD SGS MINERALS - GEOCHEM VANCOUVER  
LONGFORD EXPLORATION SERVICES – RYAN  
VERSLOOT  
SGS CANADA INC  
3260 PRODUCTION WAY  
BURNABY V5A 4W4  
BC  
CANADA

Project	Longford Exploration Services	Date Received	21-Aug-2020
Submission Number	*BBY* LONGFORD EXPLORATION SERVICES/ Ultra/ 136 MMI (1-86)	Date Analysed	25-Aug-2020 - 04-Sep-2020
Number of Samples	86	Date Completed	05-Sep-2020
		SGS Order Number	BBM20-04211

### Methods Summary

Number of Sample	Method Code	Description
86	G_LOG	Sample Registration Fee
86	G_WGH_KG	Weight of samples received
86	GE_MMIM	Mobile Metal ION standard package,ICP-MS

Authorised Signatory

John Chiang  
Laboratory Operations  
Manager

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Wtkg	Ag	Al	As	Au	Ba
Method	G_WGH_KG	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.01	0.5	1	10	0.1	10
Upper Limit	--	--	--	--	--	--
Unit	kg	ppb	ppm m / m	ppb	ppb	ppb
2064251	0.89	28.1	57	<10	0.2	1810
2064252	1.00	7.1	43	<10	0.2	960
2064253	1.10	6.1	39	<10	0.1	1050
2064254	0.99	24.5	40	<10	0.3	1680
2064255	1.22	15.9	58	<10	0.4	2020
2064256	1.06	15.1	53	<10	0.2	2110
2064257	0.90	12.3	92	<10	0.2	1570
2064258	0.94	42.2	76	<10	0.8	2600
2064259	1.10	43.4	67	<10	0.2	2050
2064260	0.93	61.2	60	<10	0.3	2740
2064261	0.96	68.3	33	<10	0.8	2150
2064262	1.04	59.3	53	<10	0.3	2390
2064263	1.03	70.0	89	<10	0.2	2770
2064264	0.95	15.9	140	<10	<0.1	1400
2064265	1.09	12.9	100	<10	<0.1	920
2064266	1.23	25.0	82	<10	0.1	1910
2064267	1.26	6.2	68	<10	<0.1	1190
2064268	0.80	8.7	90	<10	<0.1	1020
2064269	1.16	23.3	96	<10	0.1	1280
2064270	0.89	33.6	105	<10	0.1	2050
2064271	1.07	81.9	73	<10	0.3	3350
2064272	1.15	29.0	97	<10	<0.1	2140
2064273	1.00	66.5	90	<10	0.2	3490
2064274	0.91	21.7	77	<10	<0.1	1730
2064275	0.82	40.2	34	<10	0.2	1630
2064276	0.88	12.6	36	10	0.3	2330
2064277	0.72	11.1	148	<10	<0.1	2250
2064278	0.82	22.7	64	<10	0.2	2510
2064279	0.81	13.8	89	<10	0.1	1670

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element Method Lower Limit Upper Limit Unit	Wtkg G_WGH_KG 0.01 -- kg	Ag GE_MMIM 0.5 -- ppb	Al GE_MMIM 1 -- ppm m / m	As GE_MMIM 10 -- ppb	Au GE_MMIM 0.1 -- ppb	Ba GE_MMIM 10 -- ppb
2064280	0.66	14.5	88	<10	0.1	1730
2064281	705.00	21.5	50	<10	0.2	1680
2064282	0.72	18.9	43	<10	0.2	930
2064283	0.84	37.1	39	<10	0.6	1890
2064284	0.86	53.4	23	<10	0.4	1880
2064285	1.05	64.9	7	<10	0.5	2460
2064286	1.00	59.0	5	<10	0.6	2210
2064287	1.06	39.2	7	<10	0.4	1640
2064288	0.83	67.5	18	<10	0.5	4410
2064289	0.93	34.2	10	<10	0.6	2700
2064290	0.82	55.3	12	<10	0.7	1940
2064291	0.91	15.4	8	<10	1.1	720
2064292	0.84	25.4	6	<10	0.6	930
2064293	0.88	53.6	15	<10	0.9	1000
2064294	0.92	50.0	8	<10	1.9	330
2064295	1.01	39.5	10	<10	1.8	220
2064296	1.02	11.3	4	<10	1.3	20
2064297	0.72	47.7	43	<10	0.6	2080
2064298	0.82	6.2	96	<10	0.2	740
2064299	0.71	14.8	2	<10	2.8	60
2064300	0.89	20.2	4	<10	3.2	50
2064351	1.02	28.1	5	<10	3.0	150
2064352	0.96	18.5	46	<10	0.7	480
2064353	0.82	29.4	77	<10	0.4	590
2064354	0.92	49.6	12	<10	3.9	130
2064355	1.28	19.4	33	<10	1.1	160
2064356	0.99	75.3	4	<10	5.3	150
2064357	1.10	19.3	30	<10	1.0	580
2064358	0.82	37.7	7	<10	1.4	480

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element Method Lower Limit Upper Limit Unit	Wtkg G_WGH_KG 0.01 -- kg	Ag GE_MMIM 0.5 -- ppb	Al GE_MMIM 1 -- ppm m / m	As GE_MMIM 10 -- ppb	Au GE_MMIM 0.1 -- ppb	Ba GE_MMIM 10 -- ppb
2064359	1.06	16.7	6	<10	1.6	530
2064360	1.17	29.2	49	<10	0.5	1440
2064361	1.09	15.3	23	<10	0.7	1900
2064362	1.27	12.4	52	<10	0.4	510
2064363	1.17	8.0	23	<10	1.0	730
2064364	1.55	34.7	33	<10	0.6	1600
2064365	1.34	42.2	20	<10	0.3	1230
2064366	1.40	34.2	4	<10	0.4	1070
2064367	1.31	41.0	5	<10	0.5	1730
2064368	1.43	59.1	5	<10	0.7	2210
2064369	1.20	53.2	4	<10	1.4	1860
2064370	0.33	67.6	5	<10	1.5	970
2064371	0.69	6.7	3	<10	0.5	290
2064372	0.71	32.4	6	<10	0.8	920
2064373	0.76	29.0	5	<10	0.7	760
2064374	0.72	15.0	5	<10	0.7	2000
2064375	0.73	29.2	12	<10	0.3	2120
2064376	0.75	27.9	13	<10	1.4	1950
2064377	0.77	21.9	9	<10	0.9	1630
2064378	0.77	88.4	4	<10	1.9	2050
2064379	0.84	7.6	18	<10	0.7	1290
2064380	0.89	10.0	19	<10	0.8	1530
2064381	0.85	9.2	23	<10	0.8	1540
2064382	0.77	48.3	2	<10	2.1	2030
2064383	0.85	63.3	7	<10	1.3	2690
2064384	0.74	21.1	18	<10	0.6	2070
2064385	0.80	57.6	10	<10	2.3	1450
2064386	0.88	39.4	7	<10	1.3	2350
*Blk BLANK	-	<0.5	<1	<10	<0.1	<10

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Wtkg	Ag	Al	As	Au	Ba
Method	G_WGH_KG	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.01	0.5	1	10	0.1	10
Upper Limit	--	--	--	--	--	--
Unit	kg	ppb	ppm m / m	ppb	ppb	ppb
*Rep 2064295	-	37.7	12	<10	2.2	230
*Std AMIS0169	-	6.3	46	<10	0.4	920
*Rep 2064361	-	12.3	21	<10	0.9	1770
*Rep 2064383	-	75.5	8	<10	1.3	2630
*Blk BLANK	-	<0.5	<1	<10	<0.1	<10
*Rep 2064272	-	25.4	90	<10	<0.1	2140
*Std AMIS0169	-	9.1	53	10	4.9	1050

Element	Bi	Ca	Cd	Ce	Co	Cr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	2	1	2	1	100
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064251	<0.5	599	18	228	174	<100
2064252	<0.5	683	16	87	206	<100
2064253	<0.5	654	22	97	253	<100
2064254	<0.5	814	14	66	36	<100
2064255	<0.5	593	30	176	412	<100
2064256	<0.5	600	20	122	299	<100
2064257	<0.5	485	65	66	193	<100
2064258	<0.5	686	15	173	254	<100
2064259	<0.5	594	70	125	14	<100
2064260	<0.5	682	60	122	9	<100
2064261	<0.5	714	51	104	24	<100
2064262	<0.5	570	56	293	15	<100
2064263	<0.5	613	56	400	13	<100
2064264	<0.5	385	43	136	32	<100
2064265	<0.5	367	52	145	78	<100
2064266	<0.5	609	47	100	32	<100

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Bi	Ca	Cd	Ce	Co	Cr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	2	1	2	1	100
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064267	<0.5	450	27	38	70	<100
2064268	<0.5	452	161	46	34	<100
2064269	<0.5	479	44	108	37	<100
2064270	<0.5	527	44	233	37	<100
2064271	<0.5	685	14	304	11	<100
2064272	<0.5	435	82	266	20	100
2064273	<0.5	607	66	428	17	<100
2064274	<0.5	494	62	239	21	100
2064275	<0.5	561	49	104	12	<100
2064276	<0.5	472	28	286	311	100
2064277	<0.5	338	54	175	40	<100
2064278	<0.5	732	33	72	38	<100
2064279	<0.5	571	15	166	72	<100
2064280	<0.5	603	12	185	87	<100
2064281	<0.5	665	23	122	137	<100
2064282	<0.5	676	26	28	32	<100
2064283	<0.5	771	20	29	22	<100
2064284	<0.5	716	14	50	41	<100
2064285	<0.5	873	15	13	97	<100
2064286	<0.5	885	13	4	71	<100
2064287	<0.5	853	11	20	60	<100
2064288	<0.5	1055	16	68	122	<100
2064289	<0.5	838	15	68	46	<100
2064290	<0.5	907	18	18	31	<100
2064291	<0.5	757	3	2	19	<100
2064292	<0.5	835	10	9	120	<100
2064293	<0.5	987	9	7	19	<100
2064294	<0.5	957	8	2	24	<100
2064295	<0.5	949	3	8	46	<100

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Bi	Ca	Cd	Ce	Co	Cr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	2	1	2	1	100
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064296	<0.5	588	2	<2	68	<100
2064297	<0.5	586	2	22	19	<100
2064298	<0.5	424	2	96	37	<100
2064299	<0.5	433	2	5	52	<100
2064300	<0.5	464	2	7	105	<100
2064351	<0.5	527	2	2	32	<100
2064352	<0.5	474	5	28	37	<100
2064353	<0.5	480	3	77	142	<100
2064354	<0.5	688	7	<2	79	<100
2064355	<0.5	470	9	16	28	<100
2064356	<0.5	653	7	<2	52	<100
2064357	<0.5	656	4	66	16	<100
2064358	<0.5	1039	5	<2	15	<100
2064359	<0.5	1019	5	<2	20	<100
2064360	<0.5	687	7	31	11	<100
2064361	<0.5	712	5	29	5	<100
2064362	<0.5	434	4	7	10	<100
2064363	<0.5	564	3	9	4	<100
2064364	<0.5	712	8	21	37	<100
2064365	<0.5	653	32	215	57	<100
2064366	<0.5	605	9	17	161	<100
2064367	<0.5	746	8	12	71	<100
2064368	<0.5	833	16	13	69	<100
2064369	<0.5	617	7	14	30	<100
2064370	<0.5	546	6	<2	128	<100
2064371	<0.5	589	34	9	45	<100
2064372	<0.5	616	9	5	64	<100
2064373	<0.5	599	5	<2	27	<100
2064374	<0.5	681	4	8	36	<100

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Bi	Ca	Cd	Ce	Co	Cr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	2	1	2	1	100
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064375	<0.5	626	17	81	34	<100
2064376	<0.5	616	8	103	63	<100
2064377	<0.5	860	3	45	69	<100
2064378	<0.5	688	3	6	238	<100
2064379	<0.5	470	10	86	119	<100
2064380	<0.5	525	2	59	44	<100
2064381	<0.5	469	7	222	178	<100
2064382	<0.5	270	2	3	24	<100
2064383	<0.5	870	8	46	41	<100
2064384	<0.5	719	7	53	61	<100
2064385	<0.5	755	7	17	79	<100
2064386	<0.5	827	2	25	55	<100
*Blk BLANK	<0.5	<2	<1	<2	<1	<100
*Rep 2064295	<0.5	912	3	10	46	<100
*Std AMIS0169	<0.5	32	1	709	82	<100
*Rep 2064361	<0.5	711	5	27	5	<100
*Rep 2064383	<0.5	901	11	57	39	<100
*Blk BLANK	<0.5	<2	<1	<2	<1	<100
*Rep 2064272	<0.5	419	79	260	22	<100
*Std AMIS0169	<0.5	34	2	885	92	<100

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
2064251	0.3	790	38.9	18.7	14.4	20
2064252	<0.2	1600	16.2	8.5	5.7	14
2064253	0.4	3390	15.8	8.0	5.4	25

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
2064254	0.6	2730	23.5	12.1	7.7	16
2064255	0.3	3930	32.8	17.5	10.4	41
2064256	<0.2	2260	19.9	11.0	6.2	28
2064257	0.4	1370	27.3	15.2	6.1	64
2064258	0.3	3950	36.2	19.7	11.6	19
2064259	<0.2	1390	63.1	33.8	20.8	22
2064260	<0.2	1630	54.4	27.7	18.8	20
2064261	0.4	640	31.7	15.7	11.5	21
2064262	0.3	950	89.1	42.2	32.9	20
2064263	0.3	840	134	64.5	41.9	26
2064264	1.3	560	61.3	33.9	16.3	48
2064265	1.8	270	21.9	11.0	6.8	36
2064266	1.0	880	21.8	11.6	7.2	12
2064267	1.7	390	6.5	3.4	2.2	16
2064268	0.3	410	34.2	22.4	5.6	68
2064269	0.5	450	36.5	19.2	10.5	32
2064270	0.5	920	69.8	38.7	18.5	19
2064271	<0.2	1040	138	65.9	44.2	13
2064272	1.0	520	70.3	35.5	21.8	31
2064273	0.3	1290	148	82.5	43.8	35
2064274	0.9	440	57.1	28.4	20.0	31
2064275	0.6	1040	40.6	21.0	15.6	20
2064276	0.6	3800	40.8	22.2	16.4	61
2064277	0.6	630	64.9	34.9	14.2	39
2064278	<0.2	1200	30.0	17.3	8.0	27
2064279	0.3	1550	54.6	31.2	12.9	32
2064280	0.4	1890	58.0	32.4	13.7	34
2064281	<0.2	2150	27.3	14.0	9.2	19
2064282	0.2	790	15.3	9.3	4.3	19

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
2064283	<0.2	2970	19.5	10.2	6.5	16
2064284	0.2	3140	26.0	12.9	9.3	13
2064285	<0.2	1330	8.3	4.6	1.8	7
2064286	<0.2	2960	9.8	5.8	2.1	6
2064287	<0.2	2700	12.8	6.6	3.3	10
2064288	<0.2	3380	22.7	11.0	7.3	11
2064289	<0.2	6860	17.1	7.7	6.5	16
2064290	<0.2	4830	21.0	10.5	5.9	11
2064291	0.3	3250	17.9	10.9	2.6	8
2064292	0.3	5180	6.9	3.8	1.8	9
2064293	<0.2	5530	11.6	5.9	3.0	9
2064294	<0.2	9750	12.2	6.5	2.0	7
2064295	<0.2	6750	16.0	8.4	3.9	7
2064296	0.4	1230	2.4	1.5	0.2	5
2064297	<0.2	3250	78.0	40.7	17.5	8
2064298	<0.2	730	73.7	35.4	10.9	25
2064299	2.3	2240	10.4	5.7	1.4	8
2064300	0.8	2910	21.0	10.8	2.8	8
2064351	0.5	4440	11.5	6.6	1.8	7
2064352	<0.2	4190	20.6	11.2	4.4	18
2064353	<0.2	4940	46.2	24.3	8.3	33
2064354	<0.2	8410	5.2	2.9	1.0	6
2064355	<0.2	9180	13.8	7.7	3.1	15
2064356	0.6	22800	2.1	1.4	0.3	6
2064357	<0.2	7100	74.1	37.6	12.7	19
2064358	<0.2	5340	9.8	5.0	1.2	6
2064359	<0.2	2780	7.5	4.1	0.8	5
2064360	<0.2	2930	35.7	17.5	9.4	8
2064361	<0.2	2170	49.9	26.2	9.5	11

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
2064362	0.5	3100	14.2	6.9	3.1	6
2064363	<0.2	1980	12.7	6.5	3.1	9
2064364	<0.2	2880	19.5	8.9	5.9	8
2064365	<0.2	1550	26.0	12.1	9.0	8
2064366	<0.2	1770	6.6	3.4	2.0	4
2064367	<0.2	1360	6.5	3.3	1.8	3
2064368	<0.2	1500	5.9	2.9	1.5	4
2064369	0.2	1960	6.3	3.3	1.5	3
2064370	<0.2	2070	2.1	1.3	0.5	4
2064371	<0.2	8630	3.6	2.1	0.8	13
2064372	<0.2	1550	5.0	2.5	1.1	4
2064373	<0.2	1650	3.5	1.8	0.7	5
2064374	<0.2	1790	10.7	5.5	2.5	4
2064375	<0.2	190	18.9	9.3	5.2	9
2064376	<0.2	1360	25.3	12.4	6.7	6
2064377	<0.2	1740	24.0	11.7	6.2	5
2064378	<0.2	1590	5.9	3.4	1.0	3
2064379	0.3	490	14.3	6.5	4.1	10
2064380	0.2	620	24.2	11.4	6.6	9
2064381	<0.2	2050	75.8	38.7	21.5	14
2064382	<0.2	1840	1.7	1.2	0.4	<1
2064383	<0.2	1480	14.0	7.3	3.3	6
2064384	<0.2	830	13.5	6.6	3.4	9
2064385	<0.2	3330	18.6	9.7	4.3	8
2064386	<0.2	1610	13.2	6.6	3.3	5
*Bik BLANK	<0.2	<10	<0.5	<0.2	<0.2	<1
*Rep 2064295	<0.2	6980	16.5	8.3	4.1	8
*Std AMIS0169	6.1	3190	21.2	9.2	8.5	30
*Rep 2064361	<0.2	2050	49.3	26.1	9.2	11

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
*Rep 2064383	<0.2	1580	17.6	9.1	4.2	6
*Blk BLANK	<0.2	<10	<0.5	<0.2	<0.2	<1
*Rep 2064272	1.0	490	62.7	33.0	20.4	28
*Std AMIS0169	7.8	3770	27.7	12.4	10.8	35

Element	Ga	Gd	Hg	In	K	La
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.1	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppm m / m	ppb
2064251	1.1	57.4	<1	<0.1	8.6	72
2064252	0.8	24.3	<1	<0.1	8.0	29
2064253	0.9	22.2	<1	<0.1	15.4	36
2064254	0.7	33.9	<1	<0.1	11.6	41
2064255	1.0	44.1	<1	<0.1	7.0	79
2064256	1.0	25.8	<1	<0.1	8.0	44
2064257	1.3	28.7	<1	<0.1	12.7	31
2064258	0.9	48.6	<1	<0.1	5.0	62
2064259	1.0	81.6	<1	<0.1	3.3	90
2064260	0.9	72.7	<1	<0.1	2.3	80
2064261	0.6	43.5	<1	<0.1	9.1	47
2064262	1.2	134	<1	<0.1	4.4	155
2064263	1.3	170	<1	<0.1	2.5	181
2064264	2.0	67.8	<1	<0.1	6.3	72
2064265	2.0	28.6	<1	<0.1	5.5	46
2064266	1.3	30.5	<1	<0.1	6.9	36
2064267	1.8	9.2	<1	<0.1	9.8	14
2064268	1.7	26.9	<1	<0.1	4.6	17
2064269	1.2	44.1	<1	<0.1	2.6	55

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element Method Lower Limit Upper Limit Unit	Ga GE_MMIM 0.5 -- ppb	Gd GE_MMIM 0.5 -- ppb	Hg GE_MMIM 1 -- ppb	In GE_MMIM 0.1 -- ppb	K GE_MMIM 0.5 -- ppm m / m	La GE_MMIM 1 -- ppb
2064270	0.9	78.7	<1	<0.1	3.5	97
2064271	1.1	182	<1	<0.1	2.0	185
2064272	1.8	84.0	<1	<0.1	6.8	103
2064273	1.2	173	<1	<0.1	3.7	173
2064274	1.4	74.4	<1	<0.1	17.6	88
2064275	0.8	57.6	<1	<0.1	19.6	63
2064276	1.9	58.2	<1	<0.1	20.9	120
2064277	1.9	64.2	<1	<0.1	3.3	72
2064278	0.8	35.2	<1	<0.1	2.8	37
2064279	1.3	59.1	<1	<0.1	5.5	63
2064280	1.3	61.4	<1	<0.1	6.8	69
2064281	0.8	36.6	<1	<0.1	3.8	47
2064282	0.7	18.2	<1	0.1	6.0	17
2064283	0.8	26.9	<1	<0.1	26.0	25
2064284	<0.5	35.4	<1	<0.1	15.5	38
2064285	<0.5	9.1	2	<0.1	7.4	<1
2064286	<0.5	10.9	<1	<0.1	6.4	<1
2064287	<0.5	16.4	<1	<0.1	3.5	3
2064288	<0.5	31.7	<1	<0.1	2.2	28
2064289	<0.5	25.9	<1	<0.1	1.8	24
2064290	<0.5	28.2	<1	<0.1	7.1	16
2064291	<0.5	18.5	<1	<0.1	10.4	<1
2064292	<0.5	8.5	<1	<0.1	43.5	4
2064293	<0.5	15.6	<1	<0.1	10.0	8
2064294	<0.5	11.8	<1	<0.1	5.7	<1
2064295	<0.5	18.8	<1	<0.1	3.0	3
2064296	<0.5	2.2	<1	<0.1	11.3	<1
2064297	0.9	93.8	<1	<0.1	4.9	51
2064298	0.7	68.8	<1	<0.1	4.3	52

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Ga	Gd	Hg	In	K	La
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.1	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppm m / m	ppb
2064299	<0.5	12.1	<1	<0.1	4.5	3
2064300	<0.5	25.8	<1	<0.1	2.3	7
2064351	<0.5	11.5	<1	<0.1	13.0	2
2064352	0.6	23.5	<1	<0.1	16.8	16
2064353	0.6	45.7	<1	<0.1	6.6	42
2064354	<0.5	5.2	<1	<0.1	21.6	<1
2064355	0.6	15.4	<1	<0.1	24.9	9
2064356	<0.5	1.6	<1	<0.1	64.9	<1
2064357	0.7	90.3	<1	<0.1	13.7	58
2064358	<0.5	9.2	<1	<0.1	26.9	<1
2064359	<0.5	6.7	<1	<0.1	44.1	<1
2064360	<0.5	45.0	<1	<0.1	8.5	33
2064361	0.5	52.6	<1	<0.1	3.8	17
2064362	0.6	17.7	<1	<0.1	13.8	10
2064363	0.7	16.0	<1	<0.1	10.5	10
2064364	<0.5	25.9	<1	<0.1	1.6	17
2064365	0.5	37.3	<1	<0.1	2.4	41
2064366	<0.5	8.8	<1	<0.1	7.0	4
2064367	<0.5	8.5	<1	<0.1	7.9	<1
2064368	<0.5	7.1	<1	<0.1	9.5	<1
2064369	<0.5	7.3	<1	<0.1	7.7	2
2064370	<0.5	2.3	<1	<0.1	24.7	<1
2064371	<0.5	3.8	<1	<0.1	12.4	2
2064372	<0.5	5.7	<1	<0.1	10.7	1
2064373	<0.5	3.9	<1	<0.1	15.0	<1
2064374	<0.5	13.1	<1	<0.1	8.7	5
2064375	<0.5	23.5	<1	<0.1	10.0	24
2064376	<0.5	33.2	<1	<0.1	4.0	23
2064377	<0.5	30.9	<1	<0.1	5.9	21

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element Method Lower Limit Upper Limit Unit	Ga GE_MMIM 0.5 -- ppb	Gd GE_MMIM 0.5 -- ppb	Hg GE_MMIM 1 -- ppb	In GE_MMIM 0.1 -- ppb	K GE_MMIM 0.5 -- ppm m / m	La GE_MMIM 1 -- ppb
2064378	<0.5	5.6	<1	<0.1	10.3	<1
2064379	1.0	18.4	<1	<0.1	9.5	23
2064380	0.7	29.9	<1	<0.1	8.4	32
2064381	1.0	99.6	<1	<0.1	6.8	172
2064382	<0.5	1.5	<1	<0.1	5.5	<1
2064383	<0.5	16.4	<1	<0.1	5.2	6
2064384	<0.5	16.3	<1	<0.1	9.3	14
2064385	<0.5	21.7	<1	<0.1	7.1	12
2064386	<0.5	16.2	<1	<0.1	6.1	9
*Blk BLANK	<0.5	<0.5	<1	<0.1	<0.5	<1
*Rep 2064295	<0.5	20.0	<1	<0.1	3.3	4
*Std AMIS0169	10.5	36.0	<1	<0.1	39.8	372
*Rep 2064361	<0.5	52.3	<1	<0.1	4.1	16
*Rep 2064383	<0.5	21.9	<1	<0.1	4.9	9
*Blk BLANK	<0.5	<0.5	<1	<0.1	<0.5	<1
*Rep 2064272	1.7	78.1	<1	<0.1	5.7	102
*Std AMIS0169	11.6	46.4	<1	<0.1	48.1	449

Element Method Lower Limit Upper Limit Unit	Li GE_MMIM 1 -- ppb	Mg GE_MMIM 0.5 -- ppm m / m	Mn GE_MMIM 100 -- ppb	Mo GE_MMIM 2 -- ppb	Nb GE_MMIM 0.5 -- ppb	Nd GE_MMIM 1 -- ppb
2064251	1	36.5	13200	4	<0.5	177
2064252	<1	38.6	15900	9	<0.5	70
2064253	<1	64.9	17400	10	<0.5	76
2064254	<1	95.7	1200	3	<0.5	93
2064255	<1	71.6	21000	5	<0.5	149
2064256	<1	67.4	26100	4	<0.5	89

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element	Li	Mg	Mn	Mo	Nb	Nd
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	100	2	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064257	2	24.3	12100	3	<0.5	63
2064258	<1	42.6	15800	3	<0.5	133
2064259	<1	36.3	1300	<2	<0.5	202
2064260	<1	43.2	800	<2	<0.5	183
2064261	<1	49.0	2000	3	<0.5	113
2064262	<1	52.7	2400	2	<0.5	346
2064263	<1	60.4	900	<2	<0.5	410
2064264	<1	17.3	1600	<2	<0.5	162
2064265	<1	26.2	3900	2	<0.5	94
2064266	<1	33.9	2000	<2	<0.5	86
2064267	<1	30.9	5300	2	<0.5	30
2064268	1	39.5	1300	<2	<0.5	47
2064269	<1	32.1	1500	<2	<0.5	118
2064270	<1	35.0	2900	<2	<0.5	188
2064271	<1	57.3	800	<2	<0.5	417
2064272	<1	26.6	1900	3	<0.5	237
2064273	<1	44.7	1500	<2	<0.5	381
2064274	1	31.6	2400	2	<0.5	200
2064275	<1	37.3	3700	5	<0.5	152
2064276	3	47.4	55000	20	<0.5	220
2064277	<1	11.5	1700	<2	<0.5	145
2064278	<1	65.0	1300	<2	<0.5	84
2064279	<1	40.5	3100	2	<0.5	142
2064280	<1	41.1	3300	2	<0.5	151
2064281	<1	46.3	7100	3	<0.5	108
2064282	<1	51.7	1700	<2	<0.5	38
2064283	<1	35.6	1500	<2	<0.5	62
2064284	<1	45.4	2900	4	<0.5	93
2064285	7	51.6	6000	6	<0.5	7

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element	Li	Mg	Mn	Mo	Nb	Nd
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	100	2	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064286	5	60.4	3500	8	<0.5	5
2064287	5	39.7	2900	6	<0.5	22
2064288	<1	73.5	8000	12	<0.5	75
2064289	3	108	600	3	<0.5	70
2064290	4	111	1500	<2	<0.5	51
2064291	<1	120	1600	<2	<0.5	14
2064292	3	61.6	3300	3	<0.5	15
2064293	9	83.5	700	<2	<0.5	28
2064294	2	41.5	2200	<2	<0.5	6
2064295	3	50.9	2300	<2	<0.5	22
2064296	<1	111	3500	<2	<0.5	<1
2064297	<1	123	600	<2	<0.5	170
2064298	<1	64.6	400	<2	<0.5	140
2064299	2	121	1400	<2	<0.5	19
2064300	2	121	1500	<2	<0.5	39
2064351	1	147	1800	<2	<0.5	13
2064352	1	47.3	1400	<2	<0.5	51
2064353	<1	66.7	5400	<2	<0.5	108
2064354	<1	42.2	3400	<2	<0.5	4
2064355	1	32.4	1200	<2	<0.5	33
2064356	4	27.6	3800	<2	<0.5	<1
2064357	2	102	1200	<2	<0.5	199
2064358	4	35.1	1600	<2	<0.5	3
2064359	5	43.8	2200	<2	<0.5	<1
2064360	<1	58.4	1100	<2	<0.5	94
2064361	<1	119	200	<2	<0.5	67
2064362	<1	54.6	400	<2	<0.5	38
2064363	1	45.7	400	<2	<0.5	35
2064364	<1	67.1	2400	2	<0.5	52

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Li	Mg	Mn	Mo	Nb	Nd
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	100	2	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064365	3	44.6	6500	7	<0.5	103
2064366	5	41.0	5800	6	<0.5	17
2064367	7	49.7	2900	6	<0.5	10
2064368	9	62.1	4000	6	<0.5	7
2064369	9	123	2300	5	<0.5	9
2064370	3	72.8	2900	7	<0.5	2
2064371	18	77.0	3000	5	<0.5	8
2064372	7	86.9	2300	4	<0.5	7
2064373	3	120	1200	12	<0.5	5
2064374	21	152	1200	6	<0.5	19
2064375	5	132	1600	3	<0.5	53
2064376	3	107	4300	4	<0.5	63
2064377	1	63.3	2600	3	<0.5	53
2064378	19	195	6000	4	<0.5	4
2064379	<1	48.3	6100	5	<0.5	51
2064380	1	52.3	2000	4	<0.5	73
2064381	1	100	9900	2	<0.5	291
2064382	23	339	800	21	<0.5	<1
2064383	5	73.0	2800	2	<0.5	23
2064384	2	47.9	3800	6	<0.5	35
2064385	<1	66.5	2500	3	<0.5	34
2064386	<1	90.0	2100	3	<0.5	27
*Blk BLANK	<1	<0.5	<100	<2	<0.5	<1
*Rep 2064295	4	51.7	2600	<2	<0.5	26
*Std AMIS0169	<1	29.9	4500	3	1.9	304
*Rep 2064361	<1	120	300	<2	<0.5	62
*Rep 2064383	5	75.0	2700	2	<0.5	33
*Blk BLANK	<1	<0.5	<100	<2	<0.5	2
*Rep 2064272	<1	24.6	1600	2	<0.5	226

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Li	Mg	Mn	Mo	Nb	Nd
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	100	2	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
*Std AMIS0169	1	31.9	4800	4	2.4	381

Element	Ni	P	Pb	Pd	Pr	Pt
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	5	0.1	5	1	0.5	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064251	1920	0.2	19	<1	29.2	<0.1
2064252	1340	0.2	8	<1	11.5	<0.1
2064253	2100	0.1	13	<1	13.4	<0.1
2064254	2440	<0.1	9	<1	16.1	<0.1
2064255	2850	0.1	16	<1	27.6	<0.1
2064256	2740	0.1	11	<1	15.5	<0.1
2064257	1390	0.5	39	<1	11.8	<0.1
2064258	856	<0.1	17	<1	23.0	<0.1
2064259	1900	<0.1	19	<1	33.3	<0.1
2064260	2030	<0.1	16	<1	30.2	<0.1
2064261	670	0.2	21	<1	18.3	<0.1
2064262	1200	0.2	26	<1	58.4	<0.1
2064263	1380	<0.1	40	<1	68.3	<0.1
2064264	696	0.7	63	<1	26.6	<0.1
2064265	336	0.6	48	<1	16.5	<0.1
2064266	407	<0.1	16	<1	14.2	<0.1
2064267	358	0.4	21	<1	5.2	<0.1
2064268	1190	0.3	50	<1	7.4	<0.1
2064269	345	0.2	29	<1	20.3	<0.1
2064270	1100	0.1	35	<1	32.2	<0.1
2064271	993	<0.1	22	<1	67.8	<0.1
2064272	909	0.6	48	<1	40.7	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element	Ni	P	Pb	Pd	Pr	Pt
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	5	0.1	5	1	0.5	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064273	1940	<0.1	69	<1	63.7	<0.1
2064274	701	0.5	44	<1	34.1	<0.1
2064275	909	0.4	13	<1	25.4	<0.1
2064276	2010	0.8	25	<1	39.9	<0.1
2064277	617	0.5	86	<1	24.4	<0.1
2064278	1570	0.1	26	<1	14.1	<0.1
2064279	1790	0.4	36	<1	23.8	<0.1
2064280	1930	0.4	37	<1	26.5	<0.1
2064281	1990	<0.1	11	<1	18.1	<0.1
2064282	2660	<0.1	12	<1	6.4	<0.1
2064283	1800	0.2	6	<1	10.4	<0.1
2064284	1020	<0.1	<5	<1	14.9	<0.1
2064285	319	<0.1	25	<1	0.5	<0.1
2064286	491	<0.1	22	<1	<0.5	<0.1
2064287	790	<0.1	12	<1	2.5	<0.1
2064288	829	<0.1	8	<1	11.7	<0.1
2064289	878	<0.1	7	2	11.9	<0.1
2064290	871	<0.1	<5	<1	7.4	<0.1
2064291	228	<0.1	<5	2	1.2	<0.1
2064292	727	0.3	<5	1	2.1	<0.1
2064293	825	<0.1	<5	1	4.1	<0.1
2064294	275	<0.1	<5	2	<0.5	<0.1
2064295	307	<0.1	<5	3	2.2	<0.1
2064296	309	<0.1	<5	7	<0.5	<0.1
2064297	266	<0.1	<5	1	22.3	<0.1
2064298	544	<0.1	6	<1	20.8	<0.1
2064299	551	<0.1	<5	2	2.1	<0.1
2064300	706	<0.1	<5	2	4.5	<0.1
2064351	266	<0.1	<5	2	1.4	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Ni	P	Pb	Pd	Pr	Pt
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	5	0.1	5	1	0.5	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064352	349	0.1	<5	2	7.6	<0.1
2064353	930	<0.1	<5	<1	16.8	<0.1
2064354	284	<0.1	<5	4	<0.5	<0.1
2064355	590	0.1	<5	<1	4.6	<0.1
2064356	116	<0.1	<5	2	<0.5	<0.1
2064357	454	<0.1	<5	1	27.6	<0.1
2064358	226	<0.1	<5	2	<0.5	<0.1
2064359	120	<0.1	<5	2	<0.5	<0.1
2064360	595	<0.1	5	<1	14.1	<0.1
2064361	984	<0.1	<5	1	8.0	<0.1
2064362	176	<0.1	<5	<1	5.2	<0.1
2064363	134	<0.1	<5	1	5.0	<0.1
2064364	363	<0.1	<5	<1	7.4	<0.1
2064365	1370	<0.1	21	<1	15.5	<0.1
2064366	493	<0.1	10	<1	2.1	<0.1
2064367	304	<0.1	16	<1	1.0	<0.1
2064368	322	<0.1	15	<1	0.6	<0.1
2064369	275	<0.1	<5	<1	0.9	<0.1
2064370	916	<0.1	<5	<1	<0.5	<0.1
2064371	1300	<0.1	26	<1	1.1	<0.1
2064372	490	<0.1	<5	<1	0.7	<0.1
2064373	271	<0.1	<5	<1	0.7	<0.1
2064374	193	<0.1	<5	<1	2.5	<0.1
2064375	232	<0.1	34	<1	8.9	<0.1
2064376	446	<0.1	6	<1	9.2	<0.1
2064377	387	<0.1	<5	<1	7.5	<0.1
2064378	822	<0.1	24	<1	<0.5	<0.1
2064379	221	<0.1	7	<1	8.4	<0.1
2064380	249	<0.1	7	<1	11.5	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element	Ni	P	Pb	Pd	Pr	Pt
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	5	0.1	5	1	0.5	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064381	608	<0.1	9	<1	49.9	<0.1
2064382	221	<0.1	6	<1	<0.5	<0.1
2064383	615	<0.1	7	<1	3.1	<0.1
2064384	735	<0.1	9	<1	5.3	<0.1
2064385	751	<0.1	<5	<1	4.9	<0.1
2064386	249	<0.1	6	<1	3.7	<0.1
*Blk BLANK	<5	<0.1	<5	<1	<0.5	<0.1
*Rep 2064295	366	<0.1	<5	4	2.9	<0.1
*Std AMIS0169	344	2.0	85	<1	73.6	<0.1
*Rep 2064361	989	<0.1	<5	1	7.7	<0.1
*Rep 2064383	670	<0.1	7	<1	4.6	<0.1
*Blk BLANK	<5	<0.1	<5	<1	<0.5	<0.1
*Rep 2064272	856	0.5	42	<1	39.6	<0.1
*Std AMIS0169	395	2.4	112	<1	94.2	0.2

Element	Rb	Sb	Sc	Sm	Sn	Sr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	5	1	1	10
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064251	19	<0.5	7	50	<1	1710
2064252	11	<0.5	<5	20	<1	1910
2064253	47	0.8	<5	19	<1	2240
2064254	45	<0.5	5	27	<1	2830
2064255	24	<0.5	17	38	<1	1790
2064256	18	<0.5	11	24	<1	1670
2064257	17	<0.5	28	20	<1	1260
2064258	27	<0.5	18	39	<1	2440
2064259	10	<0.5	11	60	<1	2090

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Rb	Sb	Sc	Sm	Sn	Sr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	5	1	1	10
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064260	9	<0.5	11	56	<1	2500
2064261	37	<0.5	14	34	<1	2360
2064262	21	<0.5	17	104	<1	2040
2064263	22	<0.5	50	130	<1	2370
2064264	65	<0.5	37	50	<1	1090
2064265	76	<0.5	16	25	<1	1050
2064266	57	<0.5	8	24	<1	2180
2064267	57	<0.5	<5	8	<1	1450
2064268	16	<0.5	18	16	<1	1840
2064269	41	<0.5	18	34	<1	1820
2064270	46	<0.5	37	59	<1	1930
2064271	19	<0.5	23	135	<1	2670
2064272	38	<0.5	31	68	<1	1540
2064273	19	<0.5	61	123	<1	2590
2064274	53	<0.5	26	61	<1	1540
2064275	33	<0.5	18	45	<1	1740
2064276	13	2.1	26	53	<1	1480
2064277	34	<0.5	48	44	<1	1040
2064278	13	<0.5	14	26	<1	2260
2064279	18	<0.5	27	44	<1	1660
2064280	20	<0.5	28	46	<1	1730
2064281	27	<0.5	8	31	<1	1750
2064282	20	<0.5	6	12	<1	1980
2064283	10	<0.5	6	20	<1	2080
2064284	24	<0.5	8	27	<1	2040
2064285	24	<0.5	13	4	<1	3460
2064286	17	<0.5	12	5	<1	3720
2064287	15	<0.5	8	11	<1	3550
2064288	8	<0.5	12	25	<1	5030

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Rb	Sb	Sc	Sm	Sn	Sr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	5	1	1	10
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064289	10	0.6	16	22	<1	1260
2064290	10	<0.5	12	19	<1	2000
2064291	8	<0.5	27	8	<1	1430
2064292	23	<0.5	6	6	<1	1420
2064293	5	<0.5	7	10	<1	1720
2064294	7	<0.5	10	5	<1	950
2064295	5	<0.5	10	10	<1	1430
2064296	3	<0.5	5	<1	<1	670
2064297	13	<0.5	15	61	<1	2140
2064298	34	<0.5	95	47	<1	1030
2064299	16	<0.5	13	7	<1	460
2064300	7	<0.5	17	15	<1	600
2064351	11	<0.5	13	6	<1	810
2064352	18	<0.5	17	17	<1	770
2064353	16	<0.5	38	33	<1	1430
2064354	8	<0.5	12	2	<1	970
2064355	14	<0.5	9	11	<1	850
2064356	9	<0.5	10	<1	<1	1040
2064357	13	<0.5	19	63	<1	1830
2064358	8	<0.5	8	3	<1	970
2064359	18	<0.5	7	2	<1	1430
2064360	6	<0.5	9	32	<1	1000
2064361	5	<0.5	42	29	<1	1770
2064362	19	<0.5	13	13	<1	910
2064363	12	<0.5	10	12	<1	820
2064364	7	<0.5	8	19	<1	1670
2064365	5	0.6	<5	31	<1	2120
2064366	19	<0.5	6	6	<1	2370
2064367	12	<0.5	8	5	<1	3240

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Rb	Sb	Sc	Sm	Sn	Sr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	5	1	1	10
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064368	19	<0.5	10	4	<1	3620
2064369	36	0.6	5	4	<1	2650
2064370	24	<0.5	<5	1	<1	1870
2064371	34	0.6	6	2	<1	4490
2064372	16	<0.5	6	3	<1	4670
2064373	33	<0.5	<5	2	<1	5490
2064374	22	<0.5	8	7	<1	9150
2064375	33	<0.5	9	17	<1	2500
2064376	19	<0.5	18	22	<1	3650
2064377	16	<0.5	17	19	<1	3730
2064378	13	0.5	5	2	<1	3430
2064379	30	<0.5	15	14	<1	1810
2064380	29	<0.5	21	23	<1	2020
2064381	19	<0.5	31	76	<1	2200
2064382	21	0.9	<5	<1	<1	3380
2064383	15	0.5	8	10	<1	3540
2064384	29	0.6	8	12	<1	2750
2064385	8	<0.5	14	13	<1	2830
2064386	15	<0.5	9	10	<1	4070
*Blk BLANK	<1	<0.5	<5	<1	11	<10
*Rep 2064295	5	<0.5	10	12	<1	1210
*Std AMIS0169	227	0.5	46	48	6	80
*Rep 2064361	6	<0.5	41	27	<1	1750
*Rep 2064383	15	0.7	8	13	<1	3600
*Blk BLANK	<1	<0.5	<5	<1	11	10
*Rep 2064272	39	<0.5	27	66	<1	1500
*Std AMIS0169	267	0.5	57	63	4	90

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element	Ta	Tb	Te	Th	Ti	Tl
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.1	10	0.5	10	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064251	<1	6.4	<10	2.6	<10	0.4
2064252	<1	2.7	<10	1.4	10	0.3
2064253	<1	2.5	<10	1.3	<10	0.5
2064254	<1	3.8	<10	2.0	<10	0.3
2064255	<1	5.3	<10	3.1	<10	0.2
2064256	<1	3.1	<10	1.9	10	0.2
2064257	<1	4.5	<10	3.3	60	0.5
2064258	<1	5.7	<10	2.5	<10	0.2
2064259	<1	9.5	<10	1.5	<10	<0.1
2064260	<1	8.4	<10	1.6	<10	<0.1
2064261	<1	5.0	<10	3.2	<10	0.3
2064262	<1	14.7	<10	5.2	<10	0.2
2064263	<1	20.9	<10	3.8	<10	0.3
2064264	<1	8.6	<10	5.5	60	0.3
2064265	<1	3.4	<10	4.5	40	0.4
2064266	<1	3.5	<10	2.4	<10	0.2
2064267	<1	1.0	<10	3.6	20	0.2
2064268	<1	4.2	<10	1.8	30	0.1
2064269	<1	5.5	<10	2.2	<10	0.1
2064270	<1	10.0	<10	3.3	10	0.3
2064271	<1	21.6	<10	2.3	<10	0.2
2064272	<1	10.7	<10	4.8	30	0.4
2064273	<1	22.2	<10	3.9	<10	0.3
2064274	<1	9.1	<10	4.6	30	0.3
2064275	<1	6.5	<10	4.9	10	0.3
2064276	<1	6.7	<10	8.5	50	0.6
2064277	<1	9.0	<10	9.5	50	0.5
2064278	<1	4.5	<10	1.6	20	0.2
2064279	<1	7.8	<10	3.0	30	0.2

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Ta	Tb	Te	Th	Ti	Tl
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.1	10	0.5	10	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064280	<1	8.2	<10	2.8	40	0.2
2064281	<1	4.4	<10	1.7	<10	0.2
2064282	<1	2.2	<10	1.0	<10	0.1
2064283	<1	3.1	<10	2.1	<10	0.1
2064284	<1	4.1	<10	3.5	<10	0.2
2064285	<1	1.2	<10	1.2	<10	0.3
2064286	<1	1.5	<10	1.6	<10	0.2
2064287	<1	1.9	<10	3.5	<10	0.3
2064288	<1	3.6	<10	4.5	<10	<0.1
2064289	<1	3.4	<10	5.8	<10	0.4
2064290	<1	3.2	<10	2.7	<10	<0.1
2064291	<1	2.6	<10	0.7	<10	<0.1
2064292	<1	1.1	<10	0.7	<10	<0.1
2064293	<1	1.8	<10	1.3	<10	<0.1
2064294	<1	1.7	<10	0.7	<10	1.1
2064295	<1	2.4	<10	<0.5	<10	0.5
2064296	<1	0.3	<10	<0.5	<10	<0.1
2064297	<1	11.6	<10	2.1	<10	<0.1
2064298	<1	10.2	<10	2.6	<10	<0.1
2064299	<1	1.5	<10	<0.5	<10	<0.1
2064300	<1	3.1	<10	0.6	10	<0.1
2064351	<1	1.5	<10	0.5	<10	<0.1
2064352	<1	3.0	<10	1.7	10	<0.1
2064353	<1	6.2	<10	1.2	<10	<0.1
2064354	<1	0.7	<10	<0.5	<10	<0.1
2064355	<1	2.0	<10	1.1	<10	<0.1
2064356	<1	0.3	<10	<0.5	<10	<0.1
2064357	<1	11.1	<10	2.6	<10	<0.1
2064358	<1	1.3	<10	<0.5	<10	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

**ANALYSIS REPORT BBM20-04211**

Element	Ta	Tb	Te	Th	Ti	Tl
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.1	10	0.5	10	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064359	<1	1.0	<10	<0.5	<10	<0.1
2064360	<1	5.5	<10	0.8	<10	<0.1
2064361	<1	7.1	<10	1.0	<10	<0.1
2064362	<1	2.2	<10	0.9	<10	<0.1
2064363	<1	2.1	<10	1.4	<10	<0.1
2064364	<1	3.1	<10	1.2	<10	<0.1
2064365	<1	4.2	<10	4.0	<10	<0.1
2064366	<1	1.0	<10	1.8	<10	<0.1
2064367	<1	1.0	<10	1.1	<10	<0.1
2064368	<1	0.9	<10	<0.5	<10	<0.1
2064369	<1	1.0	<10	<0.5	<10	<0.1
2064370	<1	0.3	<10	<0.5	<10	<0.1
2064371	<1	0.5	<10	1.5	<10	<0.1
2064372	<1	0.7	<10	<0.5	<10	<0.1
2064373	<1	0.5	<10	<0.5	<10	<0.1
2064374	<1	1.6	<10	0.7	<10	<0.1
2064375	<1	3.0	<10	6.1	<10	<0.1
2064376	<1	4.0	<10	5.8	<10	<0.1
2064377	<1	3.7	<10	5.3	<10	<0.1
2064378	<1	0.8	<10	<0.5	<10	<0.1
2064379	<1	2.2	<10	7.8	30	<0.1
2064380	<1	3.8	<10	8.9	10	<0.1
2064381	<1	11.9	<10	11.4	10	<0.1
2064382	<1	0.2	<10	<0.5	<10	<0.1
2064383	<1	2.1	<10	4.3	<10	<0.1
2064384	<1	2.0	<10	6.1	<10	<0.1
2064385	<1	2.7	<10	3.1	<10	<0.1
2064386	<1	1.9	<10	2.1	<10	<0.1
*Blk BLANK	<1	<0.1	<10	<0.5	<10	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	Ta	Tb	Te	Th	Ti	Tl
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.1	10	0.5	10	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
*Rep 2064295	<1	2.5	<10	<0.5	<10	0.2
*Std AMIS0169	<1	3.9	<10	53.3	330	0.7
*Rep 2064361	<1	6.9	<10	0.9	<10	<0.1
*Rep 2064383	<1	2.7	<10	5.6	<10	<0.1
*Blk BLANK	<1	<0.1	<10	<0.5	<10	<0.1
*Rep 2064272	<1	9.6	<10	4.7	30	0.3
*Std AMIS0169	<1	5.1	<10	69.9	320	1.1

Element	U	W	Y	Yb	Zn	Zr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.2	10	2
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064251	13.6	<0.5	208	12.8	80	4
2064252	8.4	<0.5	95	5.5	40	5
2064253	7.2	<0.5	92	5.8	110	2
2064254	9.2	<0.5	140	8.1	30	3
2064255	16.2	<0.5	199	13.0	90	7
2064256	14.5	<0.5	121	8.4	80	6
2064257	18.2	<0.5	189	10.8	1320	14
2064258	21.1	<0.5	212	14.2	40	8
2064259	12.5	<0.5	407	22.6	110	6
2064260	11.9	<0.5	341	19.1	60	5
2064261	8.7	<0.5	163	10.9	290	5
2064262	16.7	<0.5	464	28.7	90	8
2064263	20.7	<0.5	761	40.8	100	10
2064264	20.5	<0.5	377	22.7	130	14
2064265	11.0	<0.5	113	7.5	310	9
2064266	12.3	<0.5	140	8.0	270	4

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	U	W	Y	Yb	Zn	Zr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.2	10	2
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064267	6.9	<0.5	36	2.6	230	7
2064268	11.5	<0.5	229	16.0	740	5
2064269	21.3	<0.5	224	12.7	210	5
2064270	30.2	<0.5	437	25.7	160	11
2064271	21.6	<0.5	899	41.3	30	9
2064272	12.9	<0.5	362	25.5	250	20
2064273	23.6	<0.5	1050	55.9	90	15
2064274	15.8	<0.5	274	20.3	580	16
2064275	13.0	<0.5	236	15.8	210	11
2064276	12.4	<0.5	246	17.9	100	21
2064277	22.6	<0.5	399	24.1	330	22
2064278	16.5	<0.5	175	12.2	50	6
2064279	18.0	<0.5	344	22.5	50	10
2064280	18.1	<0.5	368	22.9	50	11
2064281	10.5	<0.5	164	9.9	50	4
2064282	7.5	<0.5	94	6.6	50	2
2064283	9.1	<0.5	105	7.3	60	3
2064284	6.0	<0.5	140	9.2	100	4
2064285	3.5	<0.5	48	3.1	30	3
2064286	6.1	<0.5	56	4.2	20	5
2064287	15.5	<0.5	68	5.4	10	4
2064288	31.2	<0.5	130	7.7	30	9
2064289	6.0	<0.5	105	6.2	30	12
2064290	8.3	<0.5	120	7.7	60	4
2064291	1.7	<0.5	107	8.5	10	8
2064292	1.9	<0.5	40	2.9	20	3
2064293	5.0	<0.5	63	4.0	20	<2
2064294	1.1	<0.5	82	4.7	20	4
2064295	1.5	<0.5	117	5.9	10	2

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	U	W	Y	Yb	Zn	Zr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.2	10	2
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064296	0.5	<0.5	20	1.3	30	<2
2064297	8.9	<0.5	574	26.4	20	8
2064298	4.9	<0.5	372	21.8	20	10
2064299	<0.5	<0.5	78	4.2	20	4
2064300	0.7	<0.5	138	7.0	10	7
2064351	1.7	<0.5	86	5.0	30	5
2064352	3.7	<0.5	132	8.1	80	10
2064353	8.0	<0.5	308	17.0	40	7
2064354	1.7	<0.5	39	2.1	30	<2
2064355	4.5	<0.5	89	6.0	100	7
2064356	<0.5	<0.5	17	1.5	<10	<2
2064357	4.4	<0.5	470	23.5	30	10
2064358	1.8	<0.5	58	3.5	<10	<2
2064359	0.6	<0.5	53	2.7	40	<2
2064360	10.7	<0.5	209	11.6	30	6
2064361	2.0	<0.5	379	18.0	60	8
2064362	4.6	<0.5	78	4.4	30	9
2064363	2.5	<0.5	71	4.2	10	5
2064364	10.6	<0.5	110	6.4	<10	7
2064365	19.9	<0.5	147	8.8	50	8
2064366	3.6	<0.5	46	2.5	30	2
2064367	3.0	<0.5	43	2.3	10	2
2064368	2.1	<0.5	40	2.0	20	2
2064369	7.2	<0.5	46	2.7	20	2
2064370	3.1	<0.5	17	1.1	30	<2
2064371	3.6	<0.5	26	2.1	210	<2
2064372	4.1	<0.5	34	2.0	20	<2
2064373	13.9	<0.5	23	1.5	30	<2
2064374	12.2	<0.5	74	3.9	20	3

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (1-86)  
 Number of Samples 86

## ANALYSIS REPORT BBM20-04211

Element	U	W	Y	Yb	Zn	Zr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.2	10	2
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064375	10.8	<0.5	94	6.7	40	6
2064376	14.2	<0.5	151	9.3	10	9
2064377	17.0	<0.5	165	8.5	20	7
2064378	12.1	<0.5	37	2.5	10	<2
2064379	24.4	<0.5	65	4.8	90	13
2064380	31.5	<0.5	115	7.9	20	15
2064381	22.8	<0.5	506	28.7	50	20
2064382	36.8	<0.5	12	1.2	<10	2
2064383	5.3	<0.5	96	5.4	10	5
2064384	55.7	<0.5	76	5.2	70	13
2064385	20.1	<0.5	121	7.8	50	6
2064386	8.7	<0.5	94	4.7	<10	4
*Blk BLANK	<0.5	<0.5	<1	<0.2	<10	<2
*Rep 2064295	1.8	<0.5	113	5.9	10	3
*Std AMIS0169	17.9	1.0	104	7.4	180	38
*Rep 2064361	1.7	<0.5	356	17.9	60	8
*Rep 2064383	5.7	<0.5	113	7.1	20	6
*Blk BLANK	<0.5	<0.5	1	<0.2	<10	<2
*Rep 2064272	11.8	<0.5	331	23.2	180	17
*Std AMIS0169	24.4	1.2	121	9.6	210	45

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



## ANALYSIS REPORT BBM20-04215

To COD SGS MINERALS - GEOCHEM VANCOUVER  
LONGFORD EXPLORATION SERVICES – RYAN  
VERSLOOT  
SGS CANADA INC  
3260 PRODUCTION WAY  
BURNABY V5A 4W4  
BC  
CANADA

Project	Longford Exploration Services	Date Received	21-Aug-2020
Submission Number	*BBY* LONGFORD EXPLORATION SERVICES/ Ultra/ 136 MMI (87-136)	Date Analysed	25-Aug-2020 - 04-Sep-2020
Number of Samples	50	Date Completed	05-Sep-2020
		SGS Order Number	BBM20-04215

### Methods Summary

Number of Sample	Method Code	Description
50	G_LOG	Sample Registration Fee
50	G_WGH_KG	Weight of samples received
50	GE_MMIM	Mobile Metal ION standard package,ICP-MS

Authorised Signatory

John Chiang  
Laboratory Operations  
Manager

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element Method Lower Limit Upper Limit Unit	Wtkg G_WGH_KG 0.01 -- kg	Ag GE_MMIM 0.5 -- ppb	Al GE_MMIM 1 -- ppm m / m	As GE_MMIM 10 -- ppb	Au GE_MMIM 0.1 -- ppb	Ba GE_MMIM 10 -- ppb
2064387	0.93	80.7	8	<10	1.5	2720
2064388	0.90	74.0	7	<10	1.1	1480
2064389	0.90	42.8	6	<10	1.8	920
2064390	0.48	67.7	6	<10	3.0	1190
2064391	0.78	69.0	5	<10	1.3	1650
2064392	0.84	59.5	5	<10	1.3	1310
2064393	0.90	91.1	6	<10	1.5	1250
2064394	0.94	31.3	7	<10	1.0	1050
2064395	0.90	62.0	6	<10	1.1	1210
2064396	0.51	64.0	8	<10	2.3	570
2064397	0.80	76.4	8	<10	1.5	1990
2064398	0.60	79.3	10	<10	1.3	1410
2064399	0.48	41.9	8	<10	1.1	840
2064400	0.49	49.5	8	<10	0.9	940
2064401	0.71	30.5	12	10	0.9	3200
2064402	0.49	64.7	6	<10	1.8	1220
2064403	0.57	32.2	6	<10	0.6	310
2064404	1.17	47.0	56	<10	1.2	630
2064405	1.09	51.3	112	<10	0.8	2200
2064406	1.34	18.9	38	<10	0.9	1280
2064407	1.08	25.7	98	<10	0.6	3130
2064408	1.35	31.9	64	<10	0.8	2630
2064409	1.31	24.8	132	<10	0.7	2940
2064410	1.34	11.0	134	<10	0.7	1120
2064411	1.19	25.4	101	<10	1.0	2320
2064412	1.36	27.7	52	<10	0.5	1500
2064413	1.36	8.6	65	<10	0.3	1670
2064414	1.25	20.6	43	<10	0.3	860
2064415	1.19	12.7	58	<10	0.4	820

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element Method Lower Limit Upper Limit Unit	Wtkg G_WGH_KG 0.01 -- kg	Ag GE_MMIM 0.5 -- ppb	Al GE_MMIM 1 -- ppm m / m	As GE_MMIM 10 -- ppb	Au GE_MMIM 0.1 -- ppb	Ba GE_MMIM 10 -- ppb
2064416	1.42	15.4	101	<10	0.5	1520
2064417	1.47	10.6	109	<10	0.4	1280
2064418	1.57	3.4	66	10	0.4	880
2064419	1.36	11.2	109	<10	0.3	1460
2064420	1.32	1.9	60	<10	0.3	870
2064421	1.29	8.4	56	20	0.4	1360
2064422	1.38	11.4	107	<10	0.5	1360
2064423	1.34	22.3	52	<10	0.8	1820
2064424	1.26	19.7	79	<10	0.5	1660
2064425	1.25	26.6	50	<10	0.7	1880
2064426	1.10	26.5	76	<10	0.6	1960
2064427	1.23	24.5	68	<10	0.5	1840
2064428	1.28	19.2	116	<10	0.5	3670
2064429	1.21	24.4	91	<10	0.6	1210
2064430	1.08	19.2	81	<10	0.4	1850
2064431	1.00	18.4	16	<10	0.6	650
2064432	1.27	20.1	13	<10	0.6	1100
2064433	1.27	29.6	22	<10	0.9	1100
2064434	1.56	24.5	37	<10	0.5	1440
2064435	1.48	4.8	19	<10	0.4	1140
2064436	1.33	19.3	45	<10	0.5	1870
*Rep 2064432	-	20.8	15	<10	0.5	1140
*Std AMIS0169	-	6.7	39	<10	4.9	890
*Blk BLANK	-	<0.5	<1	<10	<0.1	20
*Rep 2064409	-	25.7	134	<10	1.0	3280
*Std AMIS0169	-	9.2	57	10	0.4	1070
*Blk BLANK	-	<0.5	<1	<10	<0.1	10
*Rep 2064422	-	10.7	109	<10	0.5	1380
*Rep 2064395	-	57.2	6	<10	1.2	1240

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Bi	Ca	Cd	Ce	Co	Cr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	2	1	2	1	100
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064387	0.6	675	16	2	48	<100
2064388	<0.5	505	9	8	101	<100
2064389	<0.5	590	5	3	183	<100
2064390	<0.5	622	6	<2	145	<100
2064391	<0.5	471	11	2	240	<100
2064392	<0.5	484	8	2	91	<100
2064393	<0.5	587	13	9	92	<100
2064394	<0.5	723	1	<2	53	<100
2064395	<0.5	606	14	14	31	<100
2064396	<0.5	499	6	2	89	<100
2064397	<0.5	629	7	6	190	<100
2064398	<0.5	686	12	5	81	<100
2064399	<0.5	673	5	13	124	<100
2064400	<0.5	672	4	14	148	<100
2064401	<0.5	853	4	37	105	<100
2064402	<0.5	539	5	8	62	<100
2064403	<0.5	729	51	7	135	<100
2064404	<0.5	792	4	38	62	<100
2064405	<0.5	878	6	96	16	<100
2064406	<0.5	591	4	58	42	<100
2064407	<0.5	645	4	171	58	<100
2064408	<0.5	753	3	93	58	<100
2064409	<0.5	511	2	142	35	<100
2064410	<0.5	497	3	268	233	100
2064411	<0.5	708	6	133	15	<100
2064412	<0.5	614	12	93	251	<100
2064413	<0.5	596	19	128	543	<100
2064414	<0.5	685	19	40	46	<100
2064415	<0.5	572	40	90	390	<100

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element	Bi	Ca	Cd	Ce	Co	Cr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	2	1	2	1	100
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064416	<0.5	527	17	129	347	<100
2064417	<0.5	321	31	238	1340	<100
2064418	<0.5	368	18	185	553	<100
2064419	<0.5	290	48	153	388	<100
2064420	<0.5	189	30	35	444	<100
2064421	<0.5	432	20	263	464	<100
2064422	<0.5	495	12	116	708	<100
2064423	<0.5	831	16	64	183	<100
2064424	<0.5	641	15	131	475	<100
2064425	<0.5	856	11	53	403	<100
2064426	<0.5	816	24	93	20	<100
2064427	<0.5	640	11	134	502	<100
2064428	<0.5	1002	3	216	57	<100
2064429	<0.5	548	3	161	56	100
2064430	<0.5	622	1	143	53	<100
2064431	<0.5	634	3	19	17	<100
2064432	<0.5	626	1	12	26	<100
2064433	<0.5	656	4	32	26	<100
2064434	<0.5	604	6	53	197	<100
2064435	<0.5	552	15	86	120	<100
2064436	<0.5	488	37	153	95	<100
*Rep 2064432	<0.5	655	<1	19	22	<100
*Std AMIS0169	<0.5	27	<1	625	62	<100
*Blk BLANK	<0.5	<2	<1	<2	<1	<100
*Rep 2064409	<0.5	545	2	150	42	<100
*Std AMIS0169	<0.5	36	2	765	90	100
*Blk BLANK	<0.5	<2	<1	<2	<1	<100
*Rep 2064422	<0.5	525	13	123	657	<100
*Rep 2064395	<0.5	609	13	16	31	<100

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
2064387	<0.2	4730	4.5	2.4	0.9	5
2064388	0.5	4260	5.1	2.9	1.2	7
2064389	0.2	5220	6.1	3.4	1.2	7
2064390	0.2	10500	7.4	4.6	1.4	12
2064391	<0.2	5410	1.7	1.1	0.4	8
2064392	<0.2	2840	1.4	1.0	0.3	5
2064393	0.3	3850	6.2	3.6	1.5	9
2064394	0.2	2150	4.9	2.6	1.0	5
2064395	<0.2	2400	5.1	3.0	1.5	9
2064396	0.3	8150	7.3	4.2	1.3	6
2064397	<0.2	4190	4.1	2.4	1.0	7
2064398	0.3	4560	4.6	2.7	1.0	10
2064399	0.2	4200	9.3	5.0	2.1	10
2064400	0.2	4680	8.5	5.1	2.0	11
2064401	<0.2	5000	19.6	9.6	5.8	9
2064402	<0.2	4270	7.6	4.3	1.7	5
2064403	<0.2	9790	4.3	2.5	1.1	26
2064404	0.3	8710	49.5	25.2	14.1	21
2064405	<0.2	2950	55.3	29.8	14.0	30
2064406	0.4	3080	17.7	8.2	5.6	17
2064407	<0.2	4790	37.1	19.0	11.3	24
2064408	<0.2	4580	43.6	21.8	13.3	19
2064409	0.8	1680	19.9	9.2	6.4	21
2064410	0.9	4360	55.7	27.7	16.7	25
2064411	<0.2	8190	39.6	20.2	11.3	24
2064412	0.2	4140	12.8	6.2	4.5	26
2064413	<0.2	8320	18.9	10.2	6.1	71
2064414	<0.2	3340	9.7	5.1	3.2	20
2064415	<0.2	4880	12.3	7.2	4.2	37

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element	Cs	Cu	Dy	Er	Eu	Fe
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.2	10	0.5	0.2	0.2	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppm m / m
2064416	0.3	5250	24.6	13.2	7.7	31
2064417	0.7	11900	54.9	31.2	13.5	181
2064418	0.7	11700	34.1	19.6	9.4	183
2064419	0.6	9470	68.0	40.9	12.3	159
2064420	0.3	13200	15.9	11.4	2.6	324
2064421	0.4	12900	35.3	20.3	11.0	155
2064422	0.5	6620	19.7	10.6	5.8	49
2064423	<0.2	14100	16.2	8.5	5.3	21
2064424	0.3	7910	24.1	12.8	7.7	33
2064425	<0.2	5340	12.7	6.1	4.3	26
2064426	<0.2	4010	31.8	16.0	9.0	29
2064427	0.3	3870	18.7	9.5	6.4	33
2064428	<0.2	2780	60.2	32.0	17.4	32
2064429	<0.2	4030	36.3	19.4	11.0	32
2064430	<0.2	3120	35.7	20.7	9.5	24
2064431	<0.2	2840	6.8	3.4	2.1	21
2064432	<0.2	1590	4.7	2.2	1.6	9
2064433	<0.2	2200	28.3	14.5	7.4	15
2064434	0.2	3930	11.4	5.4	3.6	24
2064435	<0.2	3040	12.3	6.9	4.4	53
2064436	<0.2	3500	23.7	12.9	7.9	27
*Rep 2064432	<0.2	1650	6.7	3.1	2.2	11
*Std AMIS0169	6.2	2730	21.2	9.3	8.4	22
*Blk BLANK	<0.2	<10	<0.5	<0.2	<0.2	<1
*Rep 2064409	0.8	1690	20.7	9.7	6.9	20
*Std AMIS0169	9.1	4060	25.4	11.0	10.1	33
*Blk BLANK	<0.2	<10	<0.5	<0.2	<0.2	<1
*Rep 2064422	0.4	6320	19.9	10.8	6.2	49
*Rep 2064395	<0.2	2530	5.8	3.0	1.7	9

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Ga	Gd	Hg	In	K	La
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.1	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppm m / m	ppb
2064387	<0.5	4.6	2	<0.1	16.8	<1
2064388	<0.5	6.1	<1	<0.1	15.1	2
2064389	<0.5	6.7	2	<0.1	10.3	<1
2064390	<0.5	8.1	<1	<0.1	12.0	<1
2064391	<0.5	1.9	1	<0.1	12.2	<1
2064392	<0.5	1.5	<1	<0.1	12.5	<1
2064393	<0.5	7.3	1	<0.1	10.1	3
2064394	<0.5	5.3	<1	<0.1	13.2	<1
2064395	<0.5	6.7	<1	<0.1	10.8	4
2064396	<0.5	7.4	2	<0.1	10.3	<1
2064397	<0.5	4.9	<1	<0.1	11.6	2
2064398	<0.5	5.0	<1	<0.1	24.1	2
2064399	0.7	10.5	<1	<0.1	27.0	6
2064400	0.6	9.8	<1	<0.1	26.2	5
2064401	<0.5	27.1	<1	<0.1	18.8	29
2064402	<0.5	8.8	<1	<0.1	23.4	2
2064403	<0.5	4.4	<1	<0.1	23.5	1
2064404	<0.5	58.7	<1	<0.1	4.0	30
2064405	<0.5	58.0	<1	<0.1	11.4	46
2064406	0.5	23.2	<1	<0.1	42.5	21
2064407	1.0	49.4	<1	<0.1	9.4	66
2064408	0.8	58.1	<1	<0.1	8.7	70
2064409	1.1	26.4	<1	<0.1	5.7	47
2064410	1.3	71.6	<1	<0.1	13.6	106
2064411	0.9	48.2	<1	<0.1	12.5	53
2064412	0.7	18.5	<1	<0.1	17.0	29
2064413	1.2	25.5	<1	<0.1	24.0	51
2064414	0.5	13.0	<1	<0.1	16.0	16
2064415	0.8	16.6	<1	<0.1	8.2	27

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Ga	Gd	Hg	In	K	La
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.1	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppm m / m	ppb
2064416	1.1	30.9	<1	<0.1	8.9	45
2064417	1.7	57.9	<1	0.1	13.7	84
2064418	1.6	40.3	<1	<0.1	4.8	70
2064419	1.7	55.8	<1	0.2	2.8	54
2064420	1.5	12.0	<1	<0.1	3.9	13
2064421	2.1	45.2	<1	<0.1	10.2	99
2064422	1.4	25.2	<1	<0.1	8.7	41
2064423	0.8	21.2	<1	<0.1	14.5	27
2064424	1.1	31.3	<1	<0.1	13.5	46
2064425	0.7	17.2	<1	<0.1	10.2	15
2064426	<0.5	40.1	<1	<0.1	7.7	41
2064427	0.9	26.7	<1	<0.1	4.9	52
2064428	1.5	78.4	<1	<0.1	25.8	101
2064429	0.9	47.0	<1	<0.1	13.7	72
2064430	0.6	40.9	<1	<0.1	11.1	48
2064431	<0.5	8.8	<1	<0.1	11.7	12
2064432	<0.5	6.8	<1	<0.1	12.0	6
2064433	<0.5	33.0	<1	<0.1	2.9	17
2064434	0.5	13.7	<1	<0.1	2.2	14
2064435	0.6	17.0	<1	<0.1	2.6	40
2064436	0.7	32.5	<1	<0.1	1.9	53
*Rep 2064432	<0.5	9.2	<1	<0.1	9.5	9
*Std AMIS0169	7.7	34.4	<1	<0.1	37.8	323
*Blk BLANK	<0.5	<0.5	<1	<0.1	<0.5	<1
*Rep 2064409	1.2	28.4	<1	<0.1	5.3	51
*Std AMIS0169	9.9	42.5	<1	<0.1	52.2	382
*Blk BLANK	<0.5	<0.5	<1	<0.1	<0.5	<1
*Rep 2064422	1.3	24.4	<1	<0.1	9.0	40
*Rep 2064395	<0.5	7.5	<1	<0.1	10.4	5

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Li	Mg	Mn	Mo	Nb	Nd
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	100	2	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064387	15	128	2500	26	<0.5	2
2064388	6	115	5800	15	<0.5	8
2064389	5	67.9	8600	11	<0.5	4
2064390	2	76.8	4200	9	<0.5	5
2064391	2	62.3	5700	9	<0.5	3
2064392	6	113	3500	12	<0.5	2
2064393	8	90.9	5500	17	<0.5	10
2064394	4	172	1000	10	<0.5	4
2064395	5	69.4	2100	5	<0.5	12
2064396	4	225	4000	13	<0.5	5
2064397	7	112	5900	4	<0.5	6
2064398	7	177	5400	7	<0.5	7
2064399	<1	64.2	4200	5	<0.5	17
2064400	<1	62.8	5700	5	<0.5	15
2064401	2	106	2400	9	<0.5	62
2064402	23	130	3200	16	<0.5	10
2064403	31	88.2	3300	12	<0.5	8
2064404	<1	134	1900	2	<0.5	105
2064405	<1	89.8	700	<2	<0.5	118
2064406	<1	101	1300	<2	<0.5	58
2064407	<1	68.5	2700	<2	<0.5	136
2064408	<1	93.1	2200	<2	<0.5	161
2064409	<1	43.5	900	<2	<0.5	88
2064410	<1	68.6	14400	<2	<0.5	228
2064411	3	96.0	600	<2	<0.5	126
2064412	<1	80.0	11200	4	<0.5	65
2064413	<1	86.8	35600	9	<0.5	94
2064414	<1	100.0	1300	2	<0.5	36
2064415	<1	83.1	30600	7	<0.5	58

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Li	Mg	Mn	Mo	Nb	Nd
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	100	2	0.5	1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064416	<1	89.1	25700	5	<0.5	102
2064417	<1	34.7	40900	6	<0.5	179
2064418	<1	33.4	40000	12	<0.5	140
2064419	<1	29.4	13100	6	<0.5	124
2064420	<1	22.0	5900	8	<0.5	26
2064421	<1	36.9	26000	20	<0.5	178
2064422	<1	51.0	59000	6	<0.5	84
2064423	<1	88.4	10600	6	<0.5	64
2064424	<1	64.5	22600	5	<0.5	102
2064425	<1	96.6	27100	6	<0.5	43
2064426	<1	115	1900	<2	<0.5	99
2064427	<1	39.5	19400	3	<0.5	97
2064428	1	116	300	<2	<0.5	211
2064429	<1	68.1	1900	<2	<0.5	152
2064430	<1	95.5	2700	<2	<0.5	107
2064431	2	72.5	600	<2	<0.5	25
2064432	<1	105	800	8	<0.5	17
2064433	1	76.5	1200	5	<0.5	55
2064434	<1	91.8	11400	9	<0.5	36
2064435	<1	68.5	11700	11	<0.5	70
2064436	<1	56.2	6700	4	<0.5	107
*Rep 2064432	<1	107	600	7	<0.5	25
*Std AMIS0169	1	24.5	3100	2	1.2	287
*Blk BLANK	<1	<0.5	<100	<2	<0.5	<1
*Rep 2064409	<1	47.0	1200	<2	<0.5	93
*Std AMIS0169	1	35.7	4800	4	2.9	340
*Blk BLANK	<1	<0.5	<100	<2	<0.5	<1
*Rep 2064422	<1	56.2	53200	5	<0.5	87
*Rep 2064395	3	63.2	1800	5	<0.5	15

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Ni	P	Pb	Pd	Pr	Pt
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	5	0.1	5	1	0.5	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064387	657	<0.1	15	<1	<0.5	<0.1
2064388	661	0.2	<5	<1	1.1	<0.1
2064389	980	0.1	<5	<1	<0.5	<0.1
2064390	802	0.2	<5	<1	<0.5	<0.1
2064391	767	0.4	<5	<1	<0.5	<0.1
2064392	403	<0.1	8	<1	<0.5	<0.1
2064393	589	0.2	<5	<1	1.4	<0.1
2064394	313	<0.1	<5	<1	<0.5	<0.1
2064395	400	0.2	20	<1	2.0	<0.1
2064396	793	0.2	<5	<1	0.5	<0.1
2064397	819	<0.1	9	<1	0.8	<0.1
2064398	927	0.2	8	<1	1.0	<0.1
2064399	725	0.4	<5	<1	2.6	<0.1
2064400	803	0.4	5	<1	2.3	<0.1
2064401	563	0.3	10	<1	10.4	<0.1
2064402	464	<0.1	10	<1	1.2	<0.1
2064403	2350	<0.1	13	<1	1.2	<0.1
2064404	735	<0.1	21	1	15.4	<0.1
2064405	1130	0.1	<5	<1	19.2	<0.1
2064406	737	0.4	<5	1	9.6	<0.1
2064407	870	0.3	20	<1	24.6	<0.1
2064408	716	0.3	6	<1	26.9	<0.1
2064409	392	0.4	6	<1	16.9	<0.1
2064410	433	0.8	6	<1	40.5	<0.1
2064411	741	0.3	6	1	21.4	<0.1
2064412	1070	0.4	<5	<1	11.8	<0.1
2064413	2240	0.4	7	<1	17.9	<0.1
2064414	1120	0.2	<5	<1	6.4	<0.1
2064415	1730	0.1	<5	<1	10.4	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Ni	P	Pb	Pd	Pr	Pt
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	5	0.1	5	1	0.5	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppm m / m	ppb	ppb	ppb	ppb
2064416	1530	0.4	6	<1	18.1	<0.1
2064417	1770	1.5	23	<1	32.5	<0.1
2064418	1520	0.6	12	<1	25.4	<0.1
2064419	3290	1.1	34	<1	22.1	<0.1
2064420	2530	1.0	13	<1	4.7	<0.1
2064421	1550	1.0	29	<1	34.1	<0.1
2064422	1320	0.5	<5	<1	15.9	<0.1
2064423	1250	<0.1	<5	<1	10.8	<0.1
2064424	1410	0.4	5	<1	17.9	<0.1
2064425	1000	<0.1	<5	<1	7.0	<0.1
2064426	1500	0.1	9	<1	16.6	<0.1
2064427	1380	0.3	10	<1	18.1	<0.1
2064428	674	0.1	7	<1	36.9	<0.1
2064429	674	0.7	5	<1	27.5	<0.1
2064430	429	0.2	15	<1	20.6	<0.1
2064431	429	<0.1	<5	<1	4.8	<0.1
2064432	331	0.2	<5	<1	3.1	<0.1
2064433	663	<0.1	<5	1	9.1	<0.1
2064434	517	<0.1	7	<1	6.6	<0.1
2064435	644	<0.1	16	<1	14.7	<0.1
2064436	1070	<0.1	10	<1	21.6	<0.1
*Rep 2064432	349	0.1	<5	<1	4.7	<0.1
*Std AMIS0169	280	2.1	82	<1	78.2	<0.1
*Blk BLANK	<5	<0.1	<5	<1	<0.5	<0.1
*Rep 2064409	404	0.4	6	<1	17.3	<0.1
*Std AMIS0169	401	3.0	98	<1	85.3	<0.1
*Blk BLANK	<5	<0.1	<5	<1	<0.5	<0.1
*Rep 2064422	1410	0.4	<5	<1	15.7	<0.1
*Rep 2064395	409	0.3	18	<1	2.4	<0.1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Rb	Sb	Sc	Sm	Sn	Sr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	5	1	1	10
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064387	61	0.9	9	2	<1	2390
2064388	69	1.2	9	4	<1	3400
2064389	34	0.8	13	3	<1	3490
2064390	35	0.7	16	3	<1	3430
2064391	26	1.3	6	<1	<1	2220
2064392	23	1.6	<5	<1	<1	1820
2064393	31	1.5	13	4	<1	2010
2064394	31	0.9	7	3	<1	3010
2064395	29	<0.5	9	4	<1	1600
2064396	39	1.0	16	3	1	2080
2064397	32	0.9	8	3	<1	2030
2064398	64	1.3	7	3	<1	2340
2064399	47	1.1	11	7	<1	1720
2064400	51	1.0	11	6	<1	1670
2064401	53	0.7	20	19	<1	3140
2064402	51	0.9	7	5	<1	2790
2064403	54	1.1	8	3	<1	5080
2064404	26	<0.5	35	40	<1	2010
2064405	26	<0.5	57	41	<1	2800
2064406	33	<0.5	24	18	<1	1860
2064407	27	<0.5	30	40	<1	2150
2064408	25	<0.5	30	46	<1	2240
2064409	57	<0.5	23	23	<1	1560
2064410	49	<0.5	61	62	<1	3350
2064411	39	<0.5	28	38	<1	2220
2064412	23	<0.5	10	17	<1	1360
2064413	30	1.0	20	23	<1	1470
2064414	24	<0.5	7	10	<1	1480
2064415	28	<0.5	14	14	<1	1380

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element	Rb	Sb	Sc	Sm	Sn	Sr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.5	5	1	1	10
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064416	28	<0.5	19	26	<1	1240
2064417	64	1.6	156	47	<1	870
2064418	33	2.0	89	34	<1	940
2064419	36	2.0	116	40	<1	830
2064420	25	1.9	49	8	<1	750
2064421	42	2.4	78	41	<1	890
2064422	32	<0.5	21	22	<1	1470
2064423	32	<0.5	14	17	<1	2250
2064424	24	<0.5	19	28	<1	1700
2064425	23	<0.5	11	13	<1	2570
2064426	23	<0.5	17	31	<1	2390
2064427	41	<0.5	12	24	<1	1170
2064428	33	<0.5	34	59	<1	2910
2064429	38	<0.5	43	39	<1	1290
2064430	29	<0.5	44	30	<1	2020
2064431	13	<0.5	7	7	<1	1230
2064432	14	<0.5	6	5	<1	1490
2064433	21	<0.5	18	20	<1	1620
2064434	13	<0.5	10	11	<1	1680
2064435	17	0.8	13	16	<1	1120
2064436	22	<0.5	18	28	<1	1020
*Rep 2064432	11	<0.5	6	7	<1	1510
*Std AMIS0169	207	<0.5	38	48	1	70
*Blk BLANK	<1	<0.5	<5	<1	2	<10
*Rep 2064409	58	<0.5	24	24	<1	1690
*Std AMIS0169	288	0.8	58	56	<1	90
*Blk BLANK	<1	<0.5	<5	<1	<1	<10
*Rep 2064422	33	<0.5	23	22	<1	1580
*Rep 2064395	31	<0.5	8	6	<1	1560

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Ta	Tb	Te	Th	Ti	Tl
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.1	10	0.5	10	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064387	<1	0.6	<10	0.6	<10	0.2
2064388	<1	0.8	<10	0.9	<10	0.2
2064389	<1	0.8	<10	1.0	<10	0.2
2064390	<1	1.0	<10	1.8	<10	0.2
2064391	<1	0.2	<10	<0.5	<10	0.1
2064392	<1	0.2	<10	<0.5	<10	0.1
2064393	<1	0.9	<10	0.9	<10	0.1
2064394	<1	0.7	<10	<0.5	<10	<0.1
2064395	<1	0.9	<10	2.5	<10	0.3
2064396	<1	1.0	<10	0.7	<10	0.2
2064397	<1	0.6	<10	1.5	<10	0.2
2064398	<1	0.6	<10	1.1	<10	0.2
2064399	<1	1.3	<10	2.1	<10	<0.1
2064400	<1	1.2	<10	1.9	10	0.1
2064401	<1	3.1	<10	4.7	<10	<0.1
2064402	<1	1.1	<10	1.2	10	0.1
2064403	<1	0.6	<10	2.7	10	0.1
2064404	<1	7.6	<10	5.5	<10	<0.1
2064405	<1	7.9	<10	5.4	<10	<0.1
2064406	<1	2.8	<10	7.2	10	<0.1
2064407	<1	5.8	<10	8.7	<10	<0.1
2064408	<1	6.8	<10	14.5	<10	<0.1
2064409	<1	3.3	<10	10.6	40	0.3
2064410	<1	8.8	<10	15.0	30	<0.1
2064411	<1	5.9	<10	11.5	<10	0.2
2064412	<1	2.1	<10	7.6	20	<0.1
2064413	<1	3.0	<10	5.4	40	0.2
2064414	<1	1.5	<10	2.6	10	<0.1
2064415	<1	2.0	<10	3.3	10	0.2

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	Ta	Tb	Te	Th	Ti	Tl
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	1	0.1	10	0.5	10	0.1
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064416	<1	3.8	<10	6.6	40	<0.1
2064417	<1	7.9	<10	16.3	110	0.2
2064418	<1	5.1	<10	10.7	60	<0.1
2064419	<1	8.7	<10	11.8	130	0.3
2064420	<1	2.0	<10	5.5	140	0.2
2064421	<1	5.4	<10	14.5	90	0.2
2064422	<1	2.9	<10	6.6	30	0.1
2064423	<1	2.5	<10	4.8	<10	0.1
2064424	<1	3.9	<10	9.6	20	<0.1
2064425	<1	2.0	<10	5.2	<10	<0.1
2064426	<1	4.8	<10	5.9	<10	<0.1
2064427	<1	3.0	<10	6.3	30	<0.1
2064428	<1	9.3	<10	4.6	<10	<0.1
2064429	<1	5.7	<10	19.0	30	<0.1
2064430	<1	5.3	<10	8.0	<10	0.3
2064431	<1	1.1	<10	2.5	<10	<0.1
2064432	<1	0.8	<10	1.7	<10	<0.1
2064433	<1	4.2	<10	4.5	<10	<0.1
2064434	<1	1.8	<10	3.5	<10	0.2
2064435	<1	2.0	<10	11.9	<10	0.1
2064436	<1	3.8	<10	9.5	<10	0.2
*Rep 2064432	<1	1.1	<10	2.4	<10	<0.1
*Std AMIS0169	<1	3.8	<10	50.3	260	1.2
*Blk BLANK	<1	<0.1	<10	<0.5	<10	<0.1
*Rep 2064409	<1	3.5	<10	10.2	20	0.2
*Std AMIS0169	<1	4.6	<10	68.9	360	1.3
*Blk BLANK	<1	<0.1	<10	<0.5	<10	<0.1
*Rep 2064422	<1	3.1	<10	5.5	20	0.1
*Rep 2064395	<1	1.0	<10	2.7	<10	0.2

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received





Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

**ANALYSIS REPORT BBM20-04215**

Element	U	W	Y	Yb	Zn	Zr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.2	10	2
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064387	11.7	<0.5	31	2.1	10	5
2064388	21.4	<0.5	39	2.7	20	6
2064389	11.9	<0.5	44	3.1	10	6
2064390	16.9	<0.5	57	4.5	20	9
2064391	16.0	<0.5	13	1.1	30	6
2064392	7.5	<0.5	12	1.0	40	4
2064393	10.2	<0.5	54	3.5	20	8
2064394	17.9	<0.5	32	2.1	<10	2
2064395	6.9	<0.5	37	2.4	70	7
2064396	23.5	<0.5	54	3.8	<10	8
2064397	6.5	<0.5	33	2.2	30	6
2064398	12.0	<0.5	34	2.6	60	5
2064399	9.0	<0.5	65	4.7	10	8
2064400	8.9	<0.5	61	4.4	10	7
2064401	21.9	<0.5	131	7.5	10	10
2064402	5.2	<0.5	60	4.1	<10	5
2064403	10.3	<0.5	31	2.4	160	4
2064404	9.6	<0.5	328	18.2	40	10
2064405	9.0	<0.5	355	22.6	110	11
2064406	6.5	<0.5	86	6.3	20	10
2064407	22.6	<0.5	226	14.7	100	19
2064408	17.5	<0.5	272	16.7	20	19
2064409	10.1	<0.5	108	6.9	40	18
2064410	17.4	<0.5	293	19.7	20	27
2064411	20.7	<0.5	235	16.0	40	16
2064412	14.3	<0.5	76	4.8	40	11
2064413	14.0	<0.5	127	8.9	20	10
2064414	8.0	<0.5	62	4.0	70	2
2064415	8.8	<0.5	83	6.1	90	5

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
 Submission Number \*BBY\* LONGFORD EXPLORATION  
 SERVICES/ Ultra/ 136 MMI (87-136)  
 Number of Samples 50

## ANALYSIS REPORT BBM20-04215

Element	U	W	Y	Yb	Zn	Zr
Method	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM	GE_MMIM
Lower Limit	0.5	0.5	1	0.2	10	2
Upper Limit	--	--	--	--	--	--
Unit	ppb	ppb	ppb	ppb	ppb	ppb
2064416	12.7	<0.5	156	10.7	60	13
2064417	28.9	<0.5	327	26.4	160	50
2064418	19.8	<0.5	210	16.4	120	25
2064419	26.5	<0.5	471	32.2	390	33
2064420	15.3	<0.5	114	9.8	230	22
2064421	26.3	<0.5	229	17.6	160	32
2064422	9.1	<0.5	119	9.0	80	12
2064423	12.7	<0.5	104	6.6	50	8
2064424	16.2	<0.5	147	9.9	140	16
2064425	10.5	<0.5	69	4.4	30	7
2064426	20.2	<0.5	200	12.3	110	9
2064427	25.0	<0.5	118	7.9	30	9
2064428	9.6	<0.5	439	22.0	40	7
2064429	16.5	<0.5	224	15.3	20	30
2064430	12.7	<0.5	189	15.8	60	9
2064431	6.4	<0.5	36	3.0	20	2
2064432	10.5	<0.5	25	1.6	40	<2
2064433	10.0	<0.5	145	11.2	20	6
2064434	9.9	<0.5	47	4.0	40	6
2064435	21.3	<0.5	58	6.6	60	8
2064436	48.7	<0.5	122	11.1	110	14
*Rep 2064432	12.7	<0.5	29	2.3	10	2
*Std AMIS0169	18.8	0.8	80	7.2	140	29
*Blk BLANK	<0.5	<0.5	<1	<0.2	<10	<2
*Rep 2064409	10.6	<0.5	112	7.1	30	17
*Std AMIS0169	23.9	1.3	121	8.8	200	48
*Blk BLANK	<0.5	<0.5	<1	<0.2	<10	<2
*Rep 2064422	9.2	<0.5	123	9.0	100	11
*Rep 2064395	6.4	<0.5	43	2.5	70	9

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received



Project Longford Exploration Services  
Submission Number \*BBY\* LONGFORD EXPLORATION  
SERVICES/ Ultra/ 136 MMI (87-136)  
Number of Samples 50

## ANALYSIS REPORT BBM20-04215

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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MIN-M\_COA\_ROW-Last Modified Date: 05-Nov-2019



**BUREAU  
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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

**Client: Longford Exploration Services Ltd.**

460-688 West Hastings St.

Vancouver British Columbia V6B 1P1 Canada

Submitted By: James Rogers  
Receiving Lab: Canada-Whitehorse  
Received: August 19, 2020  
Analysis Start: October 22, 2020  
Report Date: November 17, 2020  
Page: 1 of 4

# CERTIFICATE OF ANALYSIS

# WHI20000276.2

## CLIENT JOB INFORMATION

Project: 2020-Ultra  
Shipment ID:  
P.O. Number  
Number of Samples: 84

## SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps  
PICKUP-RJT Client to Pickup Rejects

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

Invoice To: Longford Exploration Services Ltd.  
460-688 West Hastings St.  
Vancouver British Columbia V6B 1P1  
Canada

CC:

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	84	Crush, split and pulverize 250 g rock to 200 mesh			WHI
FA330	84	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
EN002	84	Environmental disposal charge-Fire assay lead waste			VAN
AQ300	84	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
SHP01	84	Per sample shipping charges for branch shipments			VAN
AQ370-X	10	1:1:1 Aqua Regia digestion ICP-ES analysis	1	Completed	VAN

## ADDITIONAL COMMENTS

Version 2 : AQ370-Cu Pb Ni included.



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



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**

460-688 West Hastings St.

Vancouver British Columbia V6B 1P1 Canada

Project: 2020-Ultra

Report Date: November 17, 2020

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# CERTIFICATE OF ANALYSIS

## WHI20000276.2

Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	
Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	
2064001	Rock	1.44	12	85	206	<1	1965	5	48	1.6	772	48	404	9.62	<2	<2	18	<0.5	<3	<3	120
2064002	Rock	3.98	10	48	135	<1	1621	3	29	1.1	1823	150	662	9.25	<2	<2	14	<0.5	<3	<3	84
2064004	Rock	2.40	3	<3	5	<1	43	<3	29	<0.3	73	24	484	2.76	13	<2	64	<0.5	<3	<3	60
2064005	Rock	4.09	<2	<3	2	<1	211	<3	47	0.3	33	31	641	4.79	<2	<2	87	<0.5	<3	<3	93
2064006	Rock	2.84	3	<3	3	4	144	12	50	<0.3	70	23	452	3.87	3	<2	44	<0.5	<3	<3	109
2064007	Rock	1.41	6	<3	<2	2	50	3	10	<0.3	21	7	495	1.29	<2	<2	136	<0.5	<3	<3	16
2064008	Rock	2.58	5	<3	7	<1	94	<3	141	<0.3	192	43	1014	5.75	4	<2	46	<0.5	3	<3	205
2064009	Rock	3.49	5	<3	6	<1	78	<3	52	<0.3	851	89	686	8.04	<2	<2	47	<0.5	<3	<3	97
2064010	Rock	1.41	6	<3	9	<1	139	<3	78	0.4	136	43	827	7.20	<2	<2	65	<0.5	4	<3	178
2064011	Rock	2.09	8	<3	11	<1	122	<3	51	<0.3	79	25	418	3.80	<2	<2	118	<0.5	<3	<3	68
2064012	Rock	1.35	6	<3	11	<1	153	<3	68	<0.3	94	31	562	4.94	<2	<2	81	<0.5	<3	<3	95
2064013	Rock	3.10	5	5	14	<1	153	<3	41	<0.3	93	28	345	3.60	<2	<2	615	<0.5	<3	<3	82
2064014	Rock	3.06	5	<3	11	<1	133	<3	37	<0.3	112	29	313	3.59	<2	<2	499	<0.5	<3	<3	87
2064015	Rock	2.26	4	<3	5	<1	100	<3	70	<0.3	310	51	1050	6.61	<2	<2	214	<0.5	<3	<3	112
2064016	Rock	2.22	7	<3	9	<1	127	<3	70	<0.3	100	34	745	5.74	<2	<2	60	<0.5	<3	<3	149
2064017	Rock	1.73	4	<3	10	<1	250	<3	111	0.4	17	22	979	7.27	<2	<2	37	<0.5	4	<3	83
2064018	Rock	1.48	4	<3	2	<1	94	<3	21	<0.3	8	16	483	3.66	<2	3	126	<0.5	<3	<3	75
2064019	Rock	1.19	3	<3	4	<1	98	<3	42	<0.3	198	35	544	4.04	<2	<2	60	<0.5	<3	<3	114
2064020	Rock	2.09	6	<3	3	<1	120	<3	28	<0.3	151	31	504	3.05	<2	<2	143	<0.5	<3	<3	76
2064021	Rock	2.41	3	<3	3	9	125	5	376	<0.3	135	34	1337	6.11	2	<2	178	6.1	<3	<3	190
2064022	Rock	1.92	40	<3	6	35	35	10	109	0.6	36	4	113	2.57	30	<2	10	<0.5	7	<3	206
2064023	Rock	1.95	5	<3	<2	2	93	3	83	0.4	26	30	1387	5.98	3	<2	202	<0.5	<3	<3	276
2064024	Rock	2.23	4	<3	<2	3	69	5	80	0.3	25	18	1090	4.12	<2	<2	79	<0.5	<3	<3	94
2064025	Rock	1.62	7	<3	6	<1	104	3	55	<0.3	48	30	935	5.18	<2	<2	249	<0.5	<3	<3	166
2064026	Rock	5.79	20	<3	4	3	182	17	251	2.1	46	24	771	11.68	7	<2	2	<0.5	<3	<3	167
2064027	Rock	4.14	80	<3	3	9	>10000	92	2536	11.7	44	158	502	15.55	34	<2	6	5.6	<3	<3	134
2064028	Rock	3.95	339	<3	5	60	>10000	228	6842	24.5	22	689	80	33.06	83	<2	14	19.7	<3	<3	24
2064029	Rock	2.61	240	4	6	51	>10000	167	5760	19.0	18	519	69	36.83	68	<2	2	18.4	<3	<3	19
2064030	Rock	3.24	278	6	9	62	>10000	154	3039	23.5	20	587	169	26.83	54	<2	3	10.1	<3	<3	40
2064031	Rock	3.94	258	<3	9	45	3184	137	524	5.4	17	76	154	38.36	103	<2	15	2.8	<3	<3	12





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## CERTIFICATE OF ANALYSIS

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Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370	AQ370	AQ370
Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu	Pb	Ni			
Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%	%	%	%
MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.01	0.01	0.001		
2064001	Rock	0.35	0.031	4	1175	7.58	52	0.039	<20	3.67	<0.01	0.06	<2	0.29	<1	<5	6	<5					
2064002	Rock	0.47	0.025	4	901	11.00	8	0.032	40	2.64	<0.01	0.02	<2	0.76	<1	<5	<5	14					
2064004	Rock	2.32	0.037	2	241	2.05	4	0.120	<20	1.98	0.04	0.01	<2	<0.05	<1	<5	<5	5					
2064005	Rock	1.16	0.060	2	79	2.79	5	0.210	<20	3.09	0.03	<0.01	<2	0.43	<1	<5	<5	<5					
2064006	Rock	0.96	0.036	4	214	2.55	4	0.381	<20	2.57	0.04	<0.01	<2	0.16	<1	<5	<5	6					
2064007	Rock	4.37	0.043	2	26	0.48	16	0.055	<20	0.61	<0.01	0.03	<2	0.16	<1	<5	<5	<5					
2064008	Rock	3.02	0.039	5	193	3.14	48	0.358	<20	3.12	0.05	0.02	<2	0.11	<1	<5	7	21					
2064009	Rock	1.07	0.021	3	543	9.45	17	0.049	<20	3.96	<0.01	0.02	<2	<0.05	<1	<5	7	8					
2064010	Rock	1.98	0.037	3	112	3.13	188	0.431	<20	4.69	0.21	0.21	<2	<0.05	<1	<5	5	<5					
2064011	Rock	2.02	0.077	7	80	2.03	170	0.211	<20	3.10	0.18	0.10	<2	0.10	<1	<5	6	<5					
2064012	Rock	1.79	0.094	9	68	2.51	139	0.269	<20	3.11	0.12	0.07	<2	0.09	<1	<5	7	<5					
2064013	Rock	1.99	0.086	6	58	1.73	316	0.269	<20	3.78	0.36	0.11	<2	0.12	<1	<5	8	<5					
2064014	Rock	2.12	0.074	5	65	1.90	351	0.297	<20	4.19	0.45	0.15	<2	0.17	<1	<5	9	<5					
2064015	Rock	3.25	0.028	3	250	4.99	726	0.232	<20	4.33	0.04	0.10	<2	<0.05	<1	<5	8	<5					
2064016	Rock	1.40	0.046	4	52	3.21	274	0.307	<20	3.46	0.06	0.09	<2	<0.05	<1	<5	8	<5					
2064017	Rock	1.61	0.149	9	6	1.58	233	0.465	<20	2.37	0.05	0.11	<2	0.13	<1	<5	12	<5					
2064018	Rock	2.78	0.202	19	2	0.74	55	0.147	<20	1.87	0.09	0.10	<2	1.39	<1	<5	<5	<5					
2064019	Rock	1.45	0.056	3	332	4.12	86	0.204	<20	3.00	0.18	0.08	<2	0.20	<1	<5	6	8					
2064020	Rock	2.26	0.059	5	324	3.18	16	0.162	<20	2.35	0.15	0.05	<2	0.19	<1	<5	<5	8					
2064021	Rock	4.10	0.086	13	81	3.51	33	0.025	<20	4.25	0.13	0.20	<2	2.00	<1	<5	9	18					
2064022	Rock	0.15	0.064	12	24	0.83	308	0.004	<20	0.93	0.03	0.21	<2	1.89	<1	<5	<5	<5					
2064023	Rock	6.29	0.087	8	21	3.09	94	0.030	<20	3.54	0.03	0.04	<2	0.78	<1	<5	13	21					
2064024	Rock	2.16	0.074	6	9	1.66	140	0.126	<20	2.05	0.05	0.17	<2	1.35	<1	<5	6	6					
2064025	Rock	3.72	0.074	5	104	2.77	174	0.229	<20	3.21	0.14	0.08	<2	0.45	<1	<5	7	10					
2064026	Rock	0.19	0.023	1	217	3.18	4	0.379	<20	2.68	0.03	0.04	<2	6.46	<1	6	7	14					
2064027	Rock	0.69	0.050	2	146	1.94	3	0.363	<20	1.86	0.04	0.05	9	>10	<1	7	8	7	1.138	0.01	0.004		
2064028	Rock	2.92	0.007	<1	6	0.15	7	0.040	<20	0.19	<0.01	0.12	24	>10	<1	9	9	<5	2.454	0.03	0.002		
2064029	Rock	1.46	0.009	<1	<1	0.04	5	0.011	<20	0.09	<0.01	0.01	25	>10	<1	9	13	<5	2.183	0.02	0.002		
2064030	Rock	2.51	0.011	<1	21	0.45	4	0.080	<20	0.52	<0.01	0.04	22	>10	<1	7	12	<5	1.967	0.02	0.002		
2064031	Rock	3.09	0.004	<1	7	0.11	3	0.039	<20	0.13	<0.01	<0.01	6	>10	<1	8	<5	<5					



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# CERTIFICATE OF ANALYSIS

# WHI20000276.2

Method Analyte Unit MDL	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	
	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	
2064032	Rock	1.88	11	<3	3	<1	16	<3	19	<0.3	47	7	180	1.35	<2	<2	69	<0.5	<3	<3	18
2064033	Rock	2.11	9	<3	6	<1	70	<3	43	<0.3	93	26	829	4.40	5	<2	248	<0.5	<3	<3	160
2064201	Rock	2.91	11	<3	12	<1	120	<3	89	0.3	109	42	1438	8.55	<2	2	75	<0.5	<3	<3	199
2064202	Rock	2.49	4	<3	5	<1	36	<3	58	<0.3	30	19	923	4.11	<2	4	220	<0.5	<3	<3	129
2064203	Rock	2.48	8	<3	7	8	156	<3	482	0.5	151	41	1352	6.95	4	<2	100	8.5	<3	<3	314
2064204	Rock	0.94	7	4	13	<1	201	<3	150	0.4	320	43	606	5.30	<2	<2	100	<0.5	<3	<3	83
2064205	Rock	0.90	9	<3	14	<1	204	<3	60	0.3	828	72	672	6.11	<2	<2	115	<0.5	<3	<3	39
2064206	Rock	1.40	17	<3	4	6	133	4	1400	1.4	17	3	373	5.42	6	<2	7	9.2	<3	<3	126
2064207	Rock	1.67	10	<3	15	<1	249	<3	44	0.4	170	36	310	4.43	3	<2	100	<0.5	<3	<3	89
2064208	Rock	2.78	9	<3	33	<1	389	<3	62	0.4	39	22	875	4.71	<2	<2	108	<0.5	<3	<3	155
2064209	Rock	1.11	11	<3	6	3	1065	45	17	0.7	40	45	5349	8.74	13	<2	87	1.0	<3	<3	88
2064210	Rock	0.52	5	<3	<2	2	68	<3	59	<0.3	66	31	875	4.11	<2	<2	38	<0.5	<3	<3	123
2064211	Rock	1.05	7	<3	3	<1	60	<3	76	<0.3	60	30	796	4.55	<2	<2	13	<0.5	<3	<3	98
2064212	Rock	1.49	3	<3	<2	<1	50	<3	25	<0.3	24	36	2613	7.89	3	<2	56	1.0	<3	<3	71
2064213	Rock	1.40	18	71	894	<1	6805	22	26	1.8	>10000	1760	6	>40	<2	4	4	3.0	<3	<3	1
2064214	Rock	1.34	115	<3	12	<1	>10000	>10000	1618	40.5	200	25	521	4.53	7	<2	199	6.7	<3	39	35
2064215	Rock	0.86	170	<3	5	<1	>10000	7118	1396	26.9	118	25	618	6.04	12	<2	307	5.2	<3	22	36
2064216	Rock	1.33	8	<3	3	<1	53	10	33	<0.3	33	34	597	5.18	22	<2	101	<0.5	<3	<3	98
2064051	Rock	0.84	6	<3	2	<1	55	26	27	<0.3	9	4	623	1.39	<2	<2	240	<0.5	<3	<3	27
2064052	Rock	0.83	7	<3	<2	2	21	29	97	<0.3	11	3	327	2.87	<2	<2	42	<0.5	<3	<3	6
2064053	Rock	0.65	6	<3	3	<1	39	8	110	<0.3	69	16	275	3.89	<2	<2	33	<0.5	<3	<3	51
2064054	Rock	1.94	6	<3	5	<1	70	<3	68	0.4	36	24	1306	5.68	<2	<2	289	<0.5	<3	<3	235
2064055	Rock	0.91	5	<3	5	<1	35	4	69	<0.3	18	6	369	2.28	<2	<2	17	<0.5	<3	<3	14
2064056	Rock	2.14	7	<3	4	<1	54	8	71	0.4	24	16	800	4.32	4	<2	13	<0.5	<3	<3	67
2064057	Rock	4.57	8	4	5	<1	40	9	86	<0.3	33	13	969	3.43	4	<2	60	<0.5	<3	<3	42
2064058	Rock	1.14	8	<3	7	<1	83	<3	43	<0.3	277	42	836	5.08	5	<2	127	<0.5	<3	<3	146
2064059	Rock	1.38	6	5	4	<1	68	<3	37	<0.3	188	34	489	3.90	<2	<2	84	<0.5	<3	<3	97
2064060	Rock	1.03	4	<3	3	<1	37	<3	54	<0.3	29	19	1006	4.31	<2	2	257	<0.5	<3	<3	114
2064061	Rock	1.89	7	4	11	<1	41	<3	56	<0.3	57	31	674	5.84	<2	<2	107	<0.5	<3	<3	157
2064062	Rock	1.86	7	6	16	<1	25	<3	59	0.4	64	33	877	6.68	<2	<2	57	<0.5	<3	<3	228



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# CERTIFICATE OF ANALYSIS

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Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370	AQ370	AQ370		
Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu	Pb	Ni				
Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%				
MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.01	0.01				
2064032	Rock	2.35	0.105	3	26	1.06	24	0.002	<20	0.24	0.03	0.06	<2	0.45	<1	<5	<5	<5						
2064033	Rock	5.46	0.044	4	376	3.69	30	0.150	<20	2.92	0.05	0.05	<2	0.38	<1	<5	13	14						
2064201	Rock	5.73	0.045	5	297	3.03	53	0.290	<20	3.38	0.03	0.04	<2	0.21	<1	<5	19	17						
2064202	Rock	3.50	0.101	14	108	2.39	12	0.100	<20	2.38	0.07	<0.01	<2	0.09	<1	<5	17	9						
2064203	Rock	3.36	0.047	9	210	4.53	357	0.162	<20	4.43	0.06	0.18	<2	1.97	<1	<5	13	42						
2064204	Rock	1.97	0.059	4	323	4.20	288	0.209	<20	4.12	0.24	0.06	<2	0.15	<1	<5	8	<5						
2064205	Rock	1.27	0.042	4	206	8.34	118	0.101	<20	3.66	0.03	0.29	<2	0.09	<1	<5	7	<5						
2064206	Rock	0.14	0.022	4	34	2.25	91	0.024	<20	1.50	<0.01	0.01	<2	0.19	<1	<5	12	<5						
2064207	Rock	1.96	0.064	4	128	1.82	316	0.246	<20	2.98	0.28	0.15	<2	1.05	<1	<5	7	<5						
2064208	Rock	5.40	0.071	5	99	3.32	76	0.281	<20	3.19	0.05	0.53	<2	0.07	<1	<5	6	12						
2064209	Rock	19.00	0.009	5	17	0.25	11	0.003	<20	0.19	<0.01	<0.01	<2	5.94	<1	16	<5	13						
2064210	Rock	3.17	0.089	<1	161	1.84	70	0.586	<20	2.16	0.04	0.47	<2	0.19	<1	9	<5	5						
2064211	Rock	1.36	0.070	3	93	2.23	17	0.277	<20	2.36	0.04	0.09	<2	0.26	<1	<5	<5	<5						
2064212	Rock	16.35	0.010	1	7	3.82	3	0.002	<20	0.59	0.02	0.02	<2	0.24	<1	7	<5	36						
2064213	Rock	0.06	<0.001	1	58	0.06	4	0.003	36	0.05	<0.01	<0.01	<2	>10	<1	10	<5	<5	0.698	<0.01	4.291			
2064214	Rock	4.12	0.008	1	45	2.14	46	0.001	<20	0.18	0.01	0.16	20	2.35	3	<5	<5	11	2.283	1.76	0.022			
2064215	Rock	5.56	0.014	2	41	3.36	99	0.001	<20	0.21	0.02	0.13	22	1.96	2	<5	<5	15	2.471	0.77	0.012			
2064216	Rock	3.33	0.043	4	37	1.70	155	0.117	<20	1.66	0.03	0.06	<2	1.21	<1	<5	<5	12						
2064051	Rock	8.22	0.015	8	11	0.60	18	0.039	<20	0.65	0.02	0.03	<2	0.08	<1	<5	<5	<5						
2064052	Rock	1.96	0.012	33	3	1.06	32	0.003	<20	1.38	0.06	0.02	<2	0.68	<1	<5	12	<5						
2064053	Rock	0.71	0.038	3	72	1.42	55	0.227	<20	1.84	0.03	0.09	<2	0.83	<1	<5	<5	<5						
2064054	Rock	6.50	0.125	10	66	3.21	94	0.025	<20	3.29	0.03	0.05	<2	0.40	<1	<5	13	14						
2064055	Rock	0.47	0.014	12	6	1.22	201	0.004	<20	1.44	0.01	0.22	<2	0.25	<1	<5	<5	<5						
2064056	Rock	0.50	0.048	4	7	1.45	93	0.005	<20	1.51	0.02	0.24	<2	1.48	<1	<5	5	6						
2064057	Rock	2.52	0.068	12	49	1.42	266	0.011	<20	1.82	0.02	0.33	<2	0.30	<1	<5	5	7						
2064058	Rock	3.12	0.062	6	567	6.14	73	0.183	<20	4.52	0.17	0.06	<2	0.38	<1	<5	<5	7						
2064059	Rock	1.54	0.032	2	173	4.01	50	0.187	<20	3.01	0.07	0.02	<2	0.12	<1	<5	<5	<5						
2064060	Rock	4.46	0.102	14	99	2.57	152	0.004	<20	2.74	0.04	0.16	<2	0.34	<1	<5	10	7						
2064061	Rock	3.96	0.056	4	98	2.71	216	0.415	<20	2.54	0.03	0.04	<2	<0.05	<1	6	<5	9						
2064062	Rock	3.52	0.063	2	127	3.25	404	0.601	<20	3.18	0.03	0.07	<2	0.10	<1	9	6	20						

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.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**

460-688 West Hastings St.

Vancouver British Columbia V6B 1P1 Canada

Project: 2020-Ultra

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# CERTIFICATE OF ANALYSIS

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Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	
Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	
2064063	Rock	1.61	6	6	21	<1	198	<3	30	<0.3	951	98	717	8.22	4	<2	27	<0.5	<3	<3	51
2064064	Rock	1.63	4	<3	5	<1	97	<3	111	0.4	85	42	775	7.12	<2	<2	21	<0.5	<3	<3	235
2064065	Rock	0.86	147	<3	3	2	4319	23	53	5.5	59	30	635	11.15	27	7	20	1.3	<3	<3	143
2064066	Rock	1.83	19	<3	3	1	36	4	9	<0.3	8	4	737	10.09	<2	<2	147	0.9	<3	<3	116
2064067	Rock	0.89	5	<3	3	<1	147	<3	129	<0.3	44	25	478	4.14	<2	<2	24	<0.5	<3	<3	116
2064068	Rock	1.71	150	<3	<2	18	>10000	98	8410	19.2	68	459	285	22.78	65	<2	3	24.3	<3	<3	119
2064069	Rock	1.41	219	5	8	14	>10000	182	5245	16.1	35	358	89	38.02	98	<2	10	16.3	<3	<3	11
2064070	Rock	1.42	230	<3	6	110	>10000	105	7405	34.8	11	881	105	31.23	57	<2	<1	24.4	<3	<3	17
2064071	Rock	1.77	9	<3	<2	<1	2081	<3	507	2.1	62	56	804	5.65	164	<2	25	3.8	<3	<3	114
2064072	Rock	1.70	5	<3	<2	<1	13	<3	31	<0.3	40	29	716	4.41	11	<2	13	<0.5	<3	<3	132
2064073	Rock	1.85	3	<3	4	<1	31	<3	15	<0.3	9	16	242	3.02	<2	<2	10	<0.5	<3	<3	54
2064074	Rock	1.84	2	<3	<2	<1	21	<3	19	<0.3	14	24	448	6.04	<2	<2	16	<0.5	<3	<3	167
2064075	Rock	1.35	5	<3	4	<1	27	<3	32	<0.3	2	12	387	2.22	<2	<2	64	<0.5	<3	<3	48
2064076	Rock	1.54	3	5	4	<1	50	<3	37	<0.3	244	31	505	2.95	<2	<2	47	<0.5	<3	<3	60
2064077	Rock	2.69	5	13	14	<1	63	<3	45	<0.3	862	99	887	8.11	<2	<2	12	<0.5	<3	<3	49
2064101	Rock	2.23	19	14	44	<1	248	<3	13	<0.3	914	87	928	6.52	5	<2	61	<0.5	<3	<3	45
2064102	Rock	1.09	4	4	5	<1	75	4	40	<0.3	146	37	770	4.88	<2	<2	126	<0.5	<3	<3	163
2064103	Rock	2.49	5	9	21	<1	57	<3	41	0.4	824	97	1063	8.61	17	<2	18	<0.5	<3	<3	93
2064104	Rock	2.73	157	2077	8185	<1	7661	8	18	8.9	743	5	88	4.06	5	3	15	<0.5	5	<3	53
2064105	Rock	1.99	3	15	37	2	109	<3	29	<0.3	164	28	328	2.43	5	<2	81	<0.5	<3	<3	67
2064151	Rock	1.17	5	4	18	<1	17	<3	4	<0.3	1255	90	580	4.94	<2	<2	5	<0.5	<3	<3	29
2064152	Rock	2.51	7	<3	3	4	13	<3	2	<0.3	10	1	186	10.52	<2	<2	28	<0.5	<3	<3	11
2064153	Rock	1.74	6	<3	5	23	3	26	471	<0.3	53	6	296	2.10	455	<2	32	0.6	12	<3	9
2064154	Rock	1.47	2	<3	<2	<1	69	<3	44	<0.3	66	27	719	3.72	<2	<2	22	<0.5	<3	<3	91



Bureau Veritas Commodities Canada Ltd.

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**Project:** 2020-Ultra  
**Report Date:** November 17, 2020

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# CERTIFICATE OF ANALYSIS

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Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370	AQ370	AQ370
Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu	Pb	Ni		
Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%		
MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.01	0.001		
2064063	Rock	0.73	0.020	3	420	11.37	100	0.040	22	2.50	<0.01	0.01	<2	0.08	<1	<5	8	7				
2064064	Rock	0.76	0.080	5	19	2.86	151	0.427	<20	2.17	0.04	0.34	<2	0.23	<1	7	12	5				
2064065	Rock	2.48	0.065	4	117	1.43	15	0.290	<20	1.62	0.02	0.25	4	7.19	<1	<5	8	9				
2064066	Rock	16.63	0.135	4	9	0.58	181	0.048	<20	1.37	<0.01	0.49	<2	0.28	<1	<5	9	<5				
2064067	Rock	1.39	0.050	2	186	2.21	12	0.452	<20	2.15	0.05	0.22	<2	<0.05	<1	5	8	<5				
2064068	Rock	0.51	0.028	1	113	1.75	6	0.318	<20	1.53	0.02	0.12	<2	>10	<1	9	13	5	3.528	0.01	0.007	
2064069	Rock	1.67	0.007	1	<1	0.09	5	0.010	<20	0.08	<0.01	0.06	15	>10	<1	9	9	<5	2.590	0.02	0.004	
2064070	Rock	2.99	0.005	<1	<1	0.02	2	0.004	<20	0.12	<0.01	<0.01	82	>10	<1	10	18	<5	9.196	0.01	0.001	
2064071	Rock	2.98	0.079	2	155	3.29	3	0.306	<20	3.14	0.02	<0.01	<2	0.21	<1	<5	11	7				
2064072	Rock	1.07	0.063	3	134	2.56	11	0.500	<20	2.42	0.06	0.59	<2	<0.05	<1	6	8	<5				
2064073	Rock	2.58	0.040	10	25	0.83	3	0.177	<20	0.93	0.09	0.25	<2	0.11	<1	<5	12	<5				
2064074	Rock	1.20	0.126	5	14	1.30	5	0.431	<20	1.26	0.07	0.09	<2	0.18	<1	5	8	<5				
2064075	Rock	1.31	0.064	1	2	0.85	3	0.237	<20	1.37	0.08	0.05	<2	0.30	<1	<5	<5	<5				
2064076	Rock	1.90	0.031	1	646	3.34	7	0.148	<20	2.64	0.16	0.05	<2	<0.05	<1	<5	6	5				
2064077	Rock	0.23	0.019	3	451	12.17	38	0.056	80	2.38	<0.01	0.16	<2	<0.05	<1	<5	6	7				
2064101	Rock	1.77	0.015	2	746	9.25	9	0.032	<20	1.47	<0.01	<0.01	<2	0.34	<1	<5	<5	11				
2064102	Rock	2.95	0.054	3	409	3.99	57	0.254	<20	3.26	0.05	0.08	<2	0.33	<1	<5	10	6				
2064103	Rock	0.27	0.023	4	968	12.55	53	0.066	154	2.74	<0.01	0.20	<2	<0.05	<1	<5	7	15				
2064104	Rock	0.43	0.037	5	47	0.21	85	0.333	129	0.32	0.04	0.04	6	0.82	<1	<5	<5	<5				
2064105	Rock	1.77	0.049	4	330	2.31	128	0.246	35	1.87	0.03	0.08	<2	<0.05	<1	<5	7	<5				
2064151	Rock	0.10	0.002	3	455	13.78	19	0.013	52	0.61	<0.01	0.03	<2	0.09	<1	<5	<5	<5				
2064152	Rock	2.47	0.013	<1	6	0.15	21	0.005	<20	0.13	<0.01	0.09	<2	<0.05	<1	<5	<5	<5				
2064153	Rock	37.05	0.013	1	3	0.43	6	<0.001	<20	0.04	<0.01	0.02	<2	1.13	1	6	<5	<5				
2064154	Rock	3.82	0.042	<1	178	1.82	2	0.425	<20	1.95	0.04	<0.01	<2	0.21	<1	5	6	<5				





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

Project: 2020-Ultra  
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# QUALITY CONTROL REPORT

WHI20000276.2

Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	
Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	
Pulp Duplicates																					
2064001	Rock	1.44	12	85	206	<1	1965	5	48	1.6	772	48	404	9.62	<2	<2	18	<0.5	<3	<3	120
REP 2064001	QC		10	83	212																
2064028	Rock	3.95	339	<3	5	60	>10000	228	6842	24.5	22	689	80	33.06	83	<2	14	19.7	<3	<3	24
REP 2064028	QC		346	4	10																
2064201	Rock	2.91	11	<3	12	<1	120	<3	89	0.3	109	42	1438	8.55	<2	2	75	<0.5	<3	<3	199
REP 2064201	QC					<1	119	<3	88	0.3	109	42	1429	8.49	<2	<2	75	<0.5	<3	<3	197
2064063	Rock	1.61	6	6	21	<1	198	<3	30	<0.3	951	98	717	8.22	4	<2	27	<0.5	<3	<3	51
REP 2064063	QC		5	9	23																
2064067	Rock	0.89	5	<3	3	<1	147	<3	129	<0.3	44	25	478	4.14	<2	<2	24	<0.5	<3	<3	116
REP 2064067	QC					<1	148	<3	130	<0.3	45	24	479	4.15	<2	<2	23	<0.5	<3	<3	114
Core Reject Duplicates																					
2064023	Rock	1.95	5	<3	<2	2	93	3	83	0.4	26	30	1387	5.98	3	<2	202	<0.5	<3	<3	276
DUP 2064023	QC		4	<3	2	2	91	3	80	0.3	26	30	1347	5.84	4	<2	194	<0.5	<3	<3	271
2064058	Rock	1.14	8	<3	7	<1	83	<3	43	<0.3	277	42	836	5.08	5	<2	127	<0.5	<3	<3	146
DUP 2064058	QC		5	6	9	<1	80	<3	41	<0.3	271	41	815	4.93	6	<2	123	<0.5	<3	<3	141
Reference Materials																					
STD BVGEO01	Standard					10	4378	184	1686	2.6	162	23	718	3.72	120	12	56	6.1	<3	21	72
STD CDN-ME-9A	Standard																				
STD CDN-ME-14A	Standard																				
STD CDN-ME-9A	Standard																				
STD CDN-ME-14A	Standard																				
STD DS11	Standard					14	153	147	356	1.8	79	13	1055	3.17	45	7	69	2.2	7	10	50
STD DS11	Standard					13	151	136	342	1.6	78	13	1036	3.07	43	6	67	2.2	6	8	49
STD DS11	Standard					13	144	140	333	1.6	75	13	1006	3.00	43	7	64	2.0	8	10	47
STD KO74421	Standard		523	455	484																
STD KO74421	Standard		526	461	492																
STD KO74421	Standard		509	459	471																
STD OREAS262	Standard					<1	118	57	149	0.5	63	27	529	3.22	35	8	35	0.5	<3	<3	21



# QUALITY CONTROL REPORT

# WHI20000276.2

Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370	AQ370	AQ370
		Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu	Pb	Ni
Unit		%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	%	%	%	
MDL		0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.01	0.001
Pulp Duplicates																					
2064001	Rock	0.35	0.031	4	1175	7.58	52	0.039	<20	3.67	<0.01	0.06	<2	0.29	<1	<5	6	<5			
REP 2064001	QC																				
2064028	Rock	2.92	0.007	<1	6	0.15	7	0.040	<20	0.19	<0.01	0.12	24	>10	<1	9	9	<5	2.454	0.03	0.002
REP 2064028	QC																				
2064201	Rock	5.73	0.045	5	297	3.03	53	0.290	<20	3.38	0.03	0.04	<2	0.21	<1	<5	19	17			
REP 2064201	QC	5.70	0.045	5	293	2.99	54	0.285	<20	3.37	0.03	0.04	<2	0.20	<1	<5	18	16			
2064063	Rock	0.73	0.020	3	420	11.37	100	0.040	22	2.50	<0.01	0.01	<2	0.08	<1	<5	8	7			
REP 2064063	QC																				
2064067	Rock	1.39	0.050	2	186	2.21	12	0.452	<20	2.15	0.05	0.22	<2	<0.05	<1	5	8	<5			
REP 2064067	QC	1.37	0.050	2	186	2.22	12	0.443	<20	2.17	0.05	0.22	<2	<0.05	<1	6	6	<5			
Core Reject Duplicates																					
2064023	Rock	6.29	0.087	8	21	3.09	94	0.030	<20	3.54	0.03	0.04	<2	0.78	<1	<5	13	21			
DUP 2064023	QC	6.06	0.085	8	21	3.04	85	0.029	<20	3.45	0.03	0.04	<2	0.77	<1	<5	13	20			
2064058	Rock	3.12	0.062	6	567	6.14	73	0.183	<20	4.52	0.17	0.06	<2	0.38	<1	<5	<5	7			
DUP 2064058	QC	3.06	0.059	6	556	6.01	71	0.174	<20	4.41	0.16	0.06	<2	0.36	<1	<5	<5	6			
Reference Materials																					
STD BVGEO01	Standard	1.30	0.074	25	171	1.31	338	0.232	<20	2.30	0.19	0.88	6	0.68	<1	<5	<5	6			
STD CDN-ME-9A	Standard																		0.673	<0.01	0.941
STD CDN-ME-14A	Standard																		1.232	0.47	0.002
STD CDN-ME-9A	Standard																		0.655	<0.01	0.945
STD CDN-ME-14A	Standard																		1.205	0.46	0.002
STD DS11	Standard	1.08	0.072	18	59	0.87	450	0.093	<20	1.20	0.08	0.41	2	0.30	<1	6	<5	<5			
STD DS11	Standard	1.06	0.071	18	56	0.84	432	0.092	<20	1.16	0.07	0.40	<2	0.29	<1	8	5	<5			
STD DS11	Standard	1.02	0.068	16	55	0.82	422	0.086	<20	1.11	0.07	0.39	2	0.28	<1	7	8	<5			
STD KO74421	Standard																				
STD KO74421	Standard																				
STD KO74421	Standard																				
STD OREAS262	Standard	2.85	0.039	16	42	1.19	246	0.003	<20	1.28	0.07	0.31	<2	0.27	<1	<5	<5	<5			



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# QUALITY CONTROL REPORT

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		WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
		kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
STD OREAS262	Standard					<1	117	56	148	0.4	63	26	538	3.23	36	18	35	0.7	<3	<3	21
STD OREAS262	Standard					<1	117	56	149	0.4	64	26	540	3.32	36	12	36	0.6	<3	<3	21
STD OREAS262	Standard					<1	113	55	144	0.5	61	26	524	3.18	37	8	34	0.5	4	<3	21
STD PD05	Standard		523	437	606																
STD PD05	Standard		518	431	604																
STD PD05	Standard		489	420	575																
STD PG04	Standard		1013	918	1218																
STD PG04	Standard		997	911	1206																
STD BVGEO01 Expected						10.8	4415	187	1741	2.53	163	25	733	3.7	121	14.4	55	6.5	2.2	25.6	73
STD PG04 Expected			996	910	1210																
STD DS11 Expected						13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	7.65	67.3	2.37	7.2	12.2	50
STD OREAS262 Expected							118	56	154	0.45	62	26.9	530	3.284	35.8	9.33	36	0.61	3.39		22.5
STD PD05 Expected			519	430	596																
STD KO74421 Expected			518	459	466																
STD CDN-ME-9A Expected																					
STD CDN-ME-14A Expected																					
BLK	Blank		3	<3	<2																
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
BLK	Blank		8	<3	3																
BLK	Blank		4	<3	<2																
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
BLK	Blank		2	<3	<2																
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		4	<3	2	<1	3	<3	28	<0.3	1	4	487	1.98	3	2	26	<0.5	<3	<3	30
ROCK-WHI	Prep Blank		4	<3	3	1	2	<3	28	<0.3	1	4	491	1.94	<2	2	23	<0.5	<3	<3	26



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**Client: Longford Exploration Services Ltd.**  
460-688 West Hastings St.  
Vancouver British Columbia V6B 1P1 Canada

Project: 2020-Ultra  
Report Date: November 17, 2020

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# QUALITY CONTROL REPORT WHI20000276.2

		AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370	AQ370	AQ370
		Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu	Pb	Ni
		%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%
		0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.01	0.001
STD OREAS262	Standard	2.85	0.038	16	41	1.19	251	0.003	<20	1.27	0.07	0.31	<2	0.26	<1	<5	<5	<5			
STD OREAS262	Standard	2.89	0.039	15	42	1.20	253	0.003	<20	1.25	0.07	0.31	<2	0.27	<1	<5	<5	<5			
STD OREAS262	Standard	2.83	0.038	15	39	1.15	244	0.003	<20	1.22	0.07	0.30	<2	0.26	<1	<5	<5	<5			
STD PD05	Standard																				
STD PD05	Standard																				
STD PD05	Standard																				
STD PG04	Standard																				
STD PG04	Standard																				
STD BVGEO01 Expected		1.3219	0.0727	25.9	171	1.2963	340	0.233		2.347	0.1924	0.89	3.5	0.6655			7.37	5.97			
STD PG04 Expected																					
STD DS11 Expected		1.063	0.0701	18.6	61.5	0.85	417	0.0976	6	1.129	0.0694	0.4	2.9	0.2835	0.3	4.9	4.7	3.1			
STD OREAS262 Expected		2.98	0.04	15.9	41.7	1.17	248	0.003		1.3	0.071	0.312		0.269			3.9	3.24			
STD PD05 Expected																					
STD KO74421 Expected																					
STD CDN-ME-9A Expected																			0.654	0.003	0.912
STD CDN-ME-14A Expected																			1.24	0.488	0.0018
BLK	Blank																				
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5			
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5			
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5			
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5			
BLK	Blank																				
BLK	Blank																		<0.001	<0.01	<0.001
BLK	Blank																		<0.001	<0.01	<0.001
Prep Wash																					
ROCK-WHI	Prep Blank	0.67	0.042	6	2	0.46	64	0.094	<20	0.93	0.09	0.10	<2	<0.05	<1	<5	<5	<5			
ROCK-WHI	Prep Blank	0.61	0.042	6	3	0.45	61	0.089	<20	0.87	0.08	0.09	<2	<0.05	<1	<5	<5	<5			