

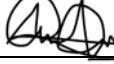

Ministry of Energy and Mines  
BC Geological Survey

Assessment Report  
Title Page and Summary

**TYPE OF REPORT [type of survey(s)]:** Soil Geochemistry

**TOTAL COST:** \$8,405.00

**AUTHOR(S):** Andrew J. Mitchell & Neil D Prowse.

**SIGNATURE(S):**


**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** \_\_\_\_\_ **YEAR OF WORK:** 2019

**STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):** \_\_\_\_\_

**PROPERTY NAME:** Trepanier

**CLAIM NAME(S) (on which the work was done):** 1064645

**COMMODITIES SOUGHT:** Copper, molybdenum

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** North Brenda-Jeff 43 (082ENW008 and North Brenda-Central (083ENW003)

**MINING DIVISION:** Omineca

**NTS/BCGS:** 092H/16 & 82E/13

**LATITUDE:** 49 ° 54 '00 "      **LONGITUDE:** 120 ° 04 '00 "      (at centre of work)

**OWNER(S):**

1) C.J. Greig

2)

**MAILING ADDRESS:**

729 Okanagan Avenue East, Penticton BC, V2A 3K7

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

1) C.J. Greig

2)

**MAILING ADDRESS:**

729 Okanagan Avenue East, Penticton BC, V2A 3K7

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

The Trepanier property lies 4 km north of the Cu-Mo Brenda deposit, and hosts Cu-Mo porphyry potential. Mineralization at Brenda

is hosted within the Brenda stock, which hosts a quartz-diorite within the much larger Pennask Batholith

Trepanier covers the Pennask Batholith and hosts chalcopyrite and malachite mineralized fractures, commonly occurring with biotite as infill.

It also hosts an sericitic and argillic altered breccia zone containing specularite, chalcopyrite and molybdenum in veins, fractures and disseminations.

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:** 33743

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil	94 soils analyzed by XRF		\$8,405.00
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$8,405.00

# **ASSESSMENT REPORT**

describing

## **SOIL GEOCHEMISTRY**

**at the**

### **Trepanier Property**

Trepanier Creek Area  
(NTS 92H/16 & 82E/13)

Nicola Mining Division, South-Central British Columbia  
Latitude 49° 54', Longitude 120° 04'  
UTM NAD83 Zone 11, 285100 mE 5536000 mN

Prepared for

**C. J. Greig (Owner)**

by

Andrew J. Mitchell, B.Sc., P.Geo.

And

Neil Prowse, M.Sc

of

C.J. Greig & Associates Ltd.  
Penticton, British Columbia

February 15, 2020

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## **1.0 Summary and Introduction**

The Trepanier Property is located at the headwaters of Trepanier Creek, in south-central British Columbia, approximately 40 km west of the city of Kelowna, and 5 km north of the past-producing Brenda Cu-Mo Mine. The Brenda Mine processed 177 million tonnes grading 0.169 % Cu and 0.043 % Mo, between 1970 and 1990. The Trepanier property is also located 15 to 24 kilometres northeast of the Elk gold deposit, where 51,750 ounces of gold were mined at an average grade of 2.8 oz/ton from a small open pit in the early 1990's. The Okanagan Connector highway (97C) passes within 4 km of the claims and numerous logging roads, both active and deactivated, provide excellent access to most of the claim area. The Trepanier Property consists of a single mineral tenure, 207.96 hectares in area. In October of 2019, two soil samplers spent two days collecting 112 soil samples over the central part of the property, 94 of which fall within the property's boundary, infilling previously collected soil sample lines from 2012. The soils samples from the 2019 program were analyzed using a handheld XRF device, and returned encouraging results for copper in the southern part of the property, confirming the most anomalous area from the 2012 program, and expanding the footprint of the Cu-in-soil anomaly.

## **2.0 Location, Access, Physiography, Climate and Vegetation**

The Trepanier property is located 4 km north of the Okanagan Connector highway (97C), at a location 40 km west of Kelowna and 55 km southeast of the town of Merritt, in south-central British Columbia (Figures 1, 2).

The area of the 2019 geochemical survey has very good access, provided by a number of logging spur roads that branch from a main trunk road, which exits Bear FSR at km 15. The Bear FSR is well maintained, since active logging is ongoing within this region; however, many of the spur roads have been decommissioned. They are still passable by two or four-wheel drive vehicles, with care and attention paid to water bars that have been cut across the roads. A two-way radio is recommended for travelling the forest service roads. In the winter months the roads are generally not ploughed, so a four-wheel drive vehicle equipped with chains is essential, although deep snow and drifting may render the roads impassable to trucks from November to June.

The North Brenda claims cover an area of 207.96 hectares, over which the elevation ranges from 1495 to 1600 metres above sea level. Several small- to medium-size creeks flow into Trepanier Creek, ultimately draining into Okanagan Lake.

Bedrock exposure on the property varies from scarce to moderate with significant outcrop found along creeks and road cuts. Glacial overburden depth is variable but thickest in flatter areas. Nearby trenching work has revealed that overburden thickness is up to 10 meters (Rowe, 2011).

The property area is predominately within the Montane Spruce biogeoclimatic zone, which is transitional between the Interior Douglas Fir and the higher elevation Engelmann Spruce Sub Alpine Fir biogeoclimatic zones. Mature stands of Lodgepole pine, spruce and fir cover the property, from which some blocks have been recently logged.

The area of the Trepanier Property is characterized by short, warm summers (up to +30° C) and long cold winters (down to -20° C). Annual precipitation is low to moderate with most of the precipitation falling as snow. The claims are predominately snow-free from June to October. The property is generally easy to traverse, as the underbrush is not dense and the topography is moderate, with few challenging steep sections.

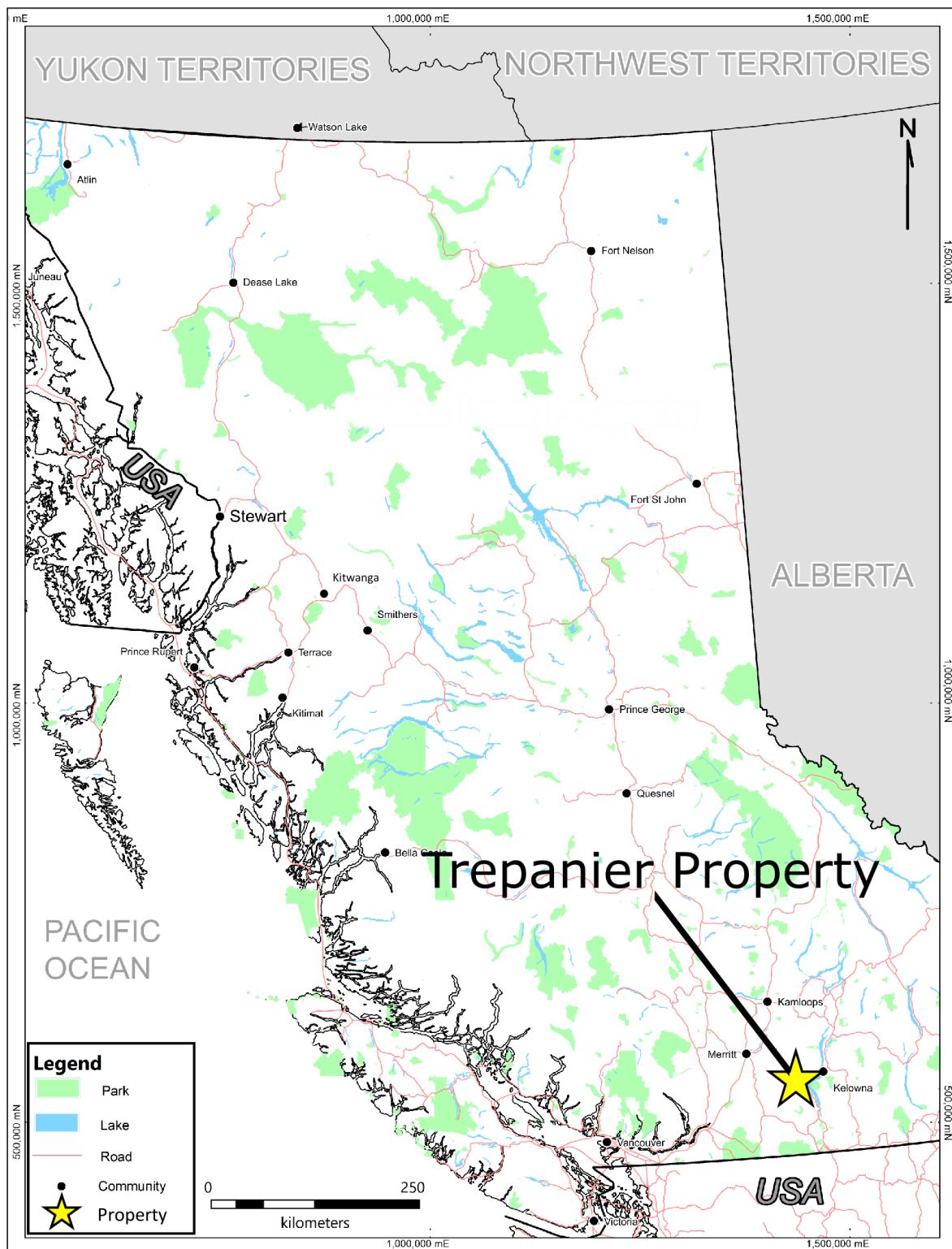


Figure 1: Trepanier Property location

### 3.0 Claim Location and Description

The Trepanier Property consists of 1 mineral claim totaling approximately 207.96 hectares (Table 1), located approximately 40 km west of Kelowna (Figure 2). The claim was staked in November of 2018 by Mr. Arron Albano, on behalf of Charles Greig. With the credits from the work described in this report, the claim is set to expire on August 26, 2024.

Table 1: Mineral tenure comprising the Trepanier Property.

Claim Name	Client num	Issue Date	Hectares	Tenure Number	Good to Date	Owner %	Owner Name
MING	283449	2018-11-23	207.96	1064645	2024-08-26	100	ARRON, ALBANO MICHAEL

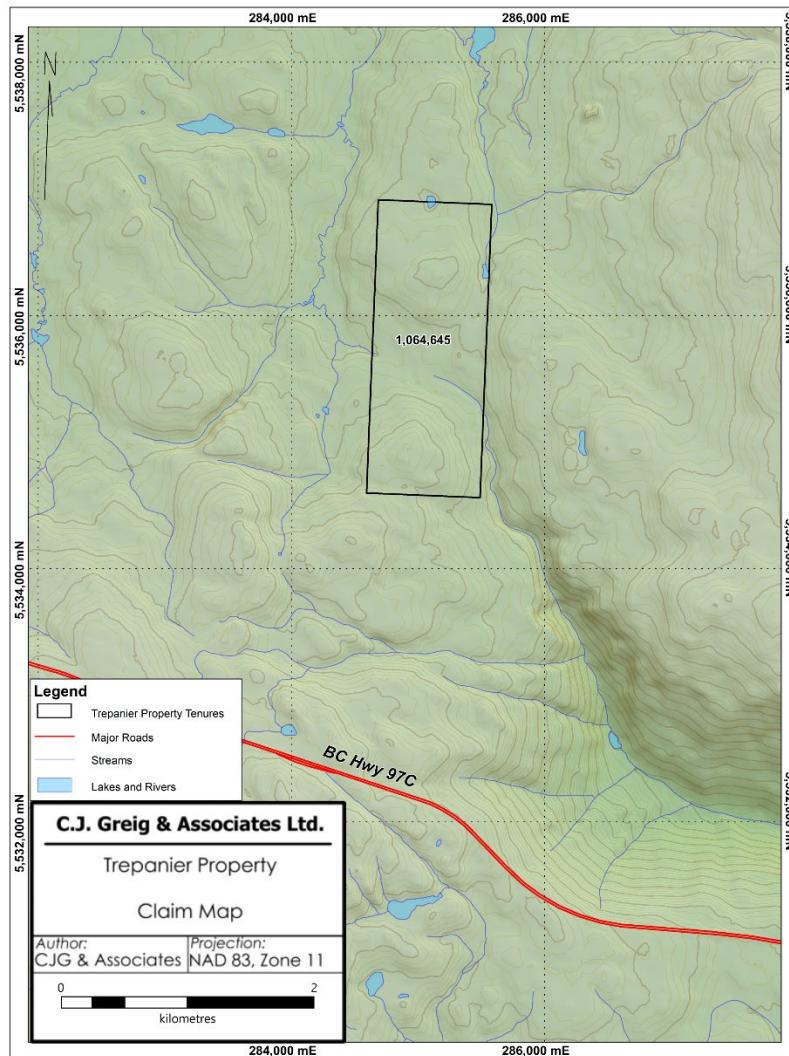


Figure 2: Trepanier Property mineral tenure location

## 4.0 History

The area around the Trepanier Property has been explored extensively, largely dating from the 1960's to the 1990's as part of Noranda's exploration around the Brenda Mine. On the Trepanier Claims, exploration has primarily focused around and between two BC Minfile occurrences in the northern (North Brenda-Jeff 43) and southern (North Brenda-Central) parts of the property. Much of the early work carried out by Noranda was not filed for assessment, however remnants of old exploration trails and trenches are scattered throughout the Trepanier property, and surrounding area.

In 1987, work carried out by Brenda Mines Ltd. Identified several mineralized breccia zones bearing chalcopyrite, molybdenite, and malachite. Drill hole DDH 24 intersected very encouraging mineralization, grading 0.23% copper of 126 meters. Drill hole PH9 intersected 24.0 meters grading 0.34% copper (Minfile No. 082ENW003, Minfile.gov.bc.ca). In 1987, nine more drilled holes were completed, however this work was not filed for assessment, and no record of this work is available to the public (Minfile No. 082ENW008, Minfile.gov.bc.ca).

In 2012, 232 soil samples were collected by Bitterroot Resources over ground now covered by the Trepanier claim. Results were encouraging, with copper values increasing to the south, towards the North Brenda-Jeff43 Minfile Occurrence.

For a more comprehensive overview of Exploration history on the historical North Brenda Property, see 2012 BC assessment report 33743, by Rowe et al.

## 5.0 Regional Geological Setting and Mineralization

### 5.1 Regional Geology

Regional geology in the area of the Trepanier property is shown on Figure 3. This map is a compilation of the northeast portion of GSC Map 41-1989 (J.W.H. Monger, 1989), the northwest portion of Map 1736A (D.J. Templeman-Kluit, 1989) and mapping done by G.L. Dawson and G.E. Ray (1988) which defined the geology of the Pennask Mountain area, to the west of the property. The information has been compiled on B.C. Ministry of Energy and Mines, Geofile 2005-3 Map by N.W.D. Massey et al, 2005.

The property itself is underlain by the Pennask batholith, which is informally subdivided into the Brenda stock in the area of the Brenda porphyry Cu-Mo deposit, immediately to the south of the property. The Brenda stock, is comprised predominantly of quartz diorite, whereas the much larger, Early Jurassic Pennask batholith consists predominantly of granodiorite and lesser quartz diorite. The batholith intrudes, and has locally metamorphosed, stratified volcanic and sedimentary rocks of the Quesnel terrane, of Lower to Upper Triassic age, which lie to the west and south-west of the property. These Triassic rocks, which are mostly assigned to the Nicola Group, make up a large pendant, roughly circular and about 13 kilometres in diameter, that is completely encompassed by plutonic rocks. Within the pendant, the Nicola Group rocks comprise a generally northeast-trending, moderately to steeply dipping, northwest-facing sequence of volcanic and sedimentary rocks (Dawson and Ray, 1988).

The Triassic lithologies include a basal sequence, located along the southeast side of the pendant, of mafic and felsic volcanic rocks, with mafic flows predominating over mafic tuffs and felsic high-level intrusions. These are succeeded, stratigraphically upward to the west, by feldspar porphyry subvolcanic intrusions and local felsic flows and tuffs. These intermediate to felsic rocks are in turn overlain by a thick sequence of argillaceous rocks. The argillaceous rocks have been divided into two members, an older calcareous argillite with limestone horizons, overlain by a thick, monotonous sequence of black argillite,

tuffaceous siltstone, and tuff (Dawson and Ray, 1988). Continuing up section to the west, the fine-grained clastic rocks are overlain by massive to bedded, andesitic ash and lapilli tuff and tuffaceous siltstone. Structural lineaments that have been interpreted as possible faults on regional scale maps commonly trend east-northeast to northeast and less commonly north to northwest. The trenching areas discussed in this report fall along one of the east-northeast interpreted structures and it is postulated that this particular structure may have been a conduit for gold-bearing fluids.

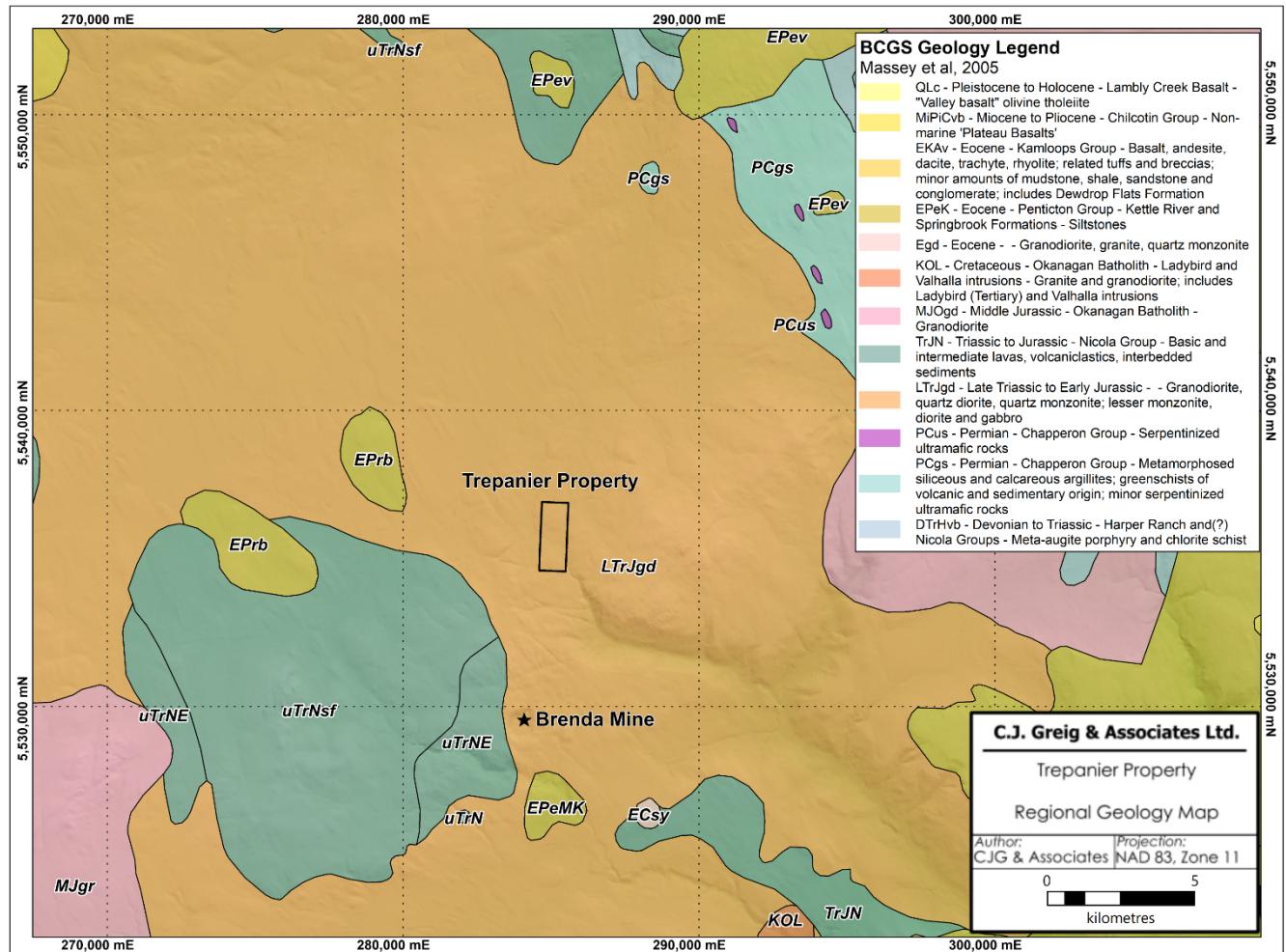


Figure 3: Regional Geology (Compiled by Massey et al, 2005)

## 5.2 Regional Mineralization

The most significant mineral deposit in the region, due to its close proximity to the Trepanier Property, is the past-producing Brenda Mine, from which 177 million tonnes averaging 0.169% Cu and 0.043% Mo were mined between 1970 and 1990 (Figure 3). The Brenda Cu-Mo deposit lies within quartz diorite of the Brenda Stock, which is part of the much larger Pennask Batholith. It has been described as a belt of Cu-Mo mineralization extending north-easterly from the Nicola volcanic-Brenda stock contact and reaching depths of more than 300 metres below surface. Chalcopyrite and molybdenite are the principal sulphide minerals and are found almost entirely in fine, fracture-filling veinlets accompanied by minor pyrite. The Brenda

deposit, unlike porphyry copper systems in general, has weak hydrothermal alteration and low sulphide mineral content, comprising 1.0 to 1.5% metallic mineralization (MinFile Report 92HNE047).

Another significant deposit in the region is the Nickel Plate Mine, located 65 km to the southwest, which produced, from 1904 to 1996, 14.6 million tonnes of skarn mineralization yielding over 2.1 million ounces of gold and 0.5 million ounces of silver. Gold and copper skarn environments have also been explored 12 kilometres southeast of the Trepanier property at the Iron Horse and Bolivar Road prospects, hosted by Nicola Group sedimentary and volcanic rocks. The best drill intersections were 5.8 g/t Au over 6 metres and 14.9 g/t Au over 1.52 m (MinFile 82ENW025).

Gold-silver bearing quartz veins are also present in the area, such as at the Elk property, located 20 km southwest of the Trepanier Property, where narrow veins cut Late Jurassic granite and adjacent Nicola volcanic rocks. At Elk, open pit and underground mining from 1992 to 1995 produced 51,750 ounces of gold from 18,400 tons of ore (Almaden Minerals Ltd website). The Elk deposit is subject to continuing exploration by Almaden Minerals Ltd, with measured and indicated reserves recently reported as 301,000 ounces of gold at an average grade of 4.26 grams/tonne Au (Almaden News Release, Preliminary Economic Assessment, January 2011).

Another past-producing mine, situated about 60 km to the northwest of the property, near Merritt, is the copper-iron skarn deposit at Craigmont. This mine produced 402,705 tonnes of copper from 35.3 million tonnes of skarn ore, between 1962 and 1982. Iron and magnetite were significant by-products of the processing as well as low values in silver and gold.

The historical Aspen Grove copper camp, 35 km west of Trepanier, had several small, but high grade, producers from the early 1900's that each recovered up to a few thousand pounds of copper with some by-product silver and minor gold. Most of the ore came from altered and commonly sheared or brecciated Nicola volcanic rocks, cut locally by diorite dykes.

### **5.3 Local Mineral Occurrences**

Two BC Minfile Occurrences lie within the bounds of the Trepanier Property (Figure 4). In the north of the property, North Brenda-Central is characterized by chalcopyrite and malachite mineralization present along thin fractures, commonly occurring with biotite as fracture infill. In 1987, a drill hole intersected 24.0 meters grading 0.34% copper (Minfile No. 082ENW003, Minfile.gov.bc.ca).

In the southern of the property, the North Brenda-Jeff 43 Minfile Occurrence is characterized by copper mineralization in historical drilling. The Minister of Mines Annual Report 1967, page 205-206 reports that the drilling located a mineralized breccia zone. The zone was thought to be acute in plan, concave to the west and narrowing to the north. It measured approximately 140 by 25 metres. The breccia is an explosive type developed in porphyritic quartz diorite with a biotite-rich matrix. The rock is cut by veins of quartz-microcline and quartz with epidote and calcite. Intense chlorite alteration occurs in and near the breccia, partly on numerous faults and shears, which also show sericitic and argillic alteration in places. Specular hematite, pyrite, chalcopyrite and molybdenite occur partly in the veins and fractures and partly disseminated in strongly altered rock. In the 1987, a diamond drill hole yielded 0.23 per cent copper over 126.0 metres (Assessment Report 16750).

## 6.0 Property Geology

Detailed geological mapping at the property scale has been hindered by limited outcrop exposure over the majority of the property, however compilation mapping by the BCGS in 2005, and more detailed mapping of the encompassing North Brenda Property in 2012 (Rowe et al, 2012) both confidently indicate that the Trepanier Property is underlain by Late Triassic to Early Jurassic age intrusive quartz diorite to granodiorite, informally termed by previous workers as the Pennask Batholith. It is the same lithological unit that hosts the Brenda Mine deposit to the south of the property. To the south east, outside of the property's boundary, Intrusive rocks contact Upper Triassic aged interbedded sedimentary units of the Nicola Group. These rocks dominantly consist of shale and siltstone, interspersed with rare sandstone and conglomeritic beds (Massey, 2005). Property scale geology is presented in figure 4, with the two BC Minfile occurrences located on the property.

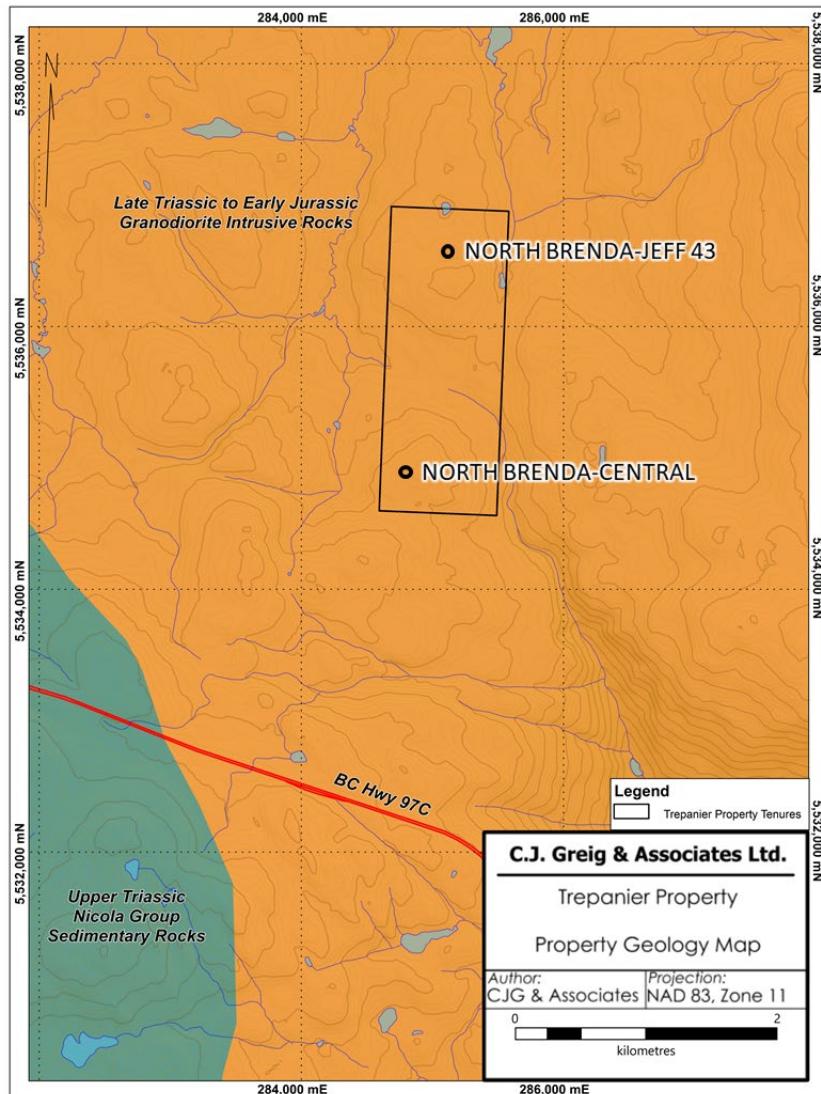


Figure 4: Trepanier property geology after Massey et al., 2005

## 7.0 2019 Geochemical Survey

The 2019 field program consisted of two days of soils sampling, taking place between October 16<sup>th</sup> and October 17<sup>th</sup>, 2019. A total of 112 soil samples were collected, 94 of which lie within the property boundary, at spacings of 50 m, from four northeast oriented lines spaced 200 m apart (figure 5). Soil samples were collected from the B-horizon using an auger or geotul, at approximately 10-15cm depth. The B-horizon material was placed into pre-labelled kraft paper bags and sealed using flagging tape. The station was marked using a Garmin GPSMAP 64s and recorded into a weatherproof Rite In The Rain notebook. The soil sample UTM coordinates collected by the Garmin GPSMAP 64s were then uploaded into an Excel spreadsheet at the end of every field day. Soil samples were placed onto drying racks and allowed to dry for a minimum of a week before analysis.

Once completely dry, the soil samples were analyzed at the Penticton warehouse with a Thermo Scientific Niton Gold XLT3t 500 GOLDD™ handheld X-Ray Fluorescence (XRF) Analyzer unit operated in the ‘benchtop’ mode. Prior to each XRF analysis, the sample number was recorded in a software program on the attached computer. The soil sample was then placed on the test stand and centered on the probe window; the test stand lid was then closed and locked. The analyzer was then run in “Soils” mode for 30 seconds, reading 33 different elements. Data for each reading was automatically recorded, saved directly into the analyzer and simultaneously downloaded to the laptop computer.

Upon completion of the sample scans, XRF data was compiled into an Excel spreadsheet and then merged with the UTM sample locations for all samples to allow entry of the sample data into MapInfo GIS computer software. Soil sample coordinates along with XRF data is located in Appendix IV.

### 7.1 Evaluation of Soil Geochemistry Results

The results from the 2019 soils sampling returned encouraging values for copper, particularly in the south of the survey area, coinciding with the most anomalous area from the 2012 soil survey conducted by Bitterroot Resources. Copper values as high as 848 ppm were reported, within and east-west trending zone of highly anomalous (> 300 ppm) samples. All other elements of interest (As, Mo, Ag, Au) were dominantly either below detection for the XRF device used, or results were less than the reported margin of error, and no other anomalous zones were observed. Figure 6 presents the reported XRF analysis values for copper. Figure 7 combines the 2019 survey results for copper, with the copper results from the 2012 survey, illustrating that the trend to the south is consistent.

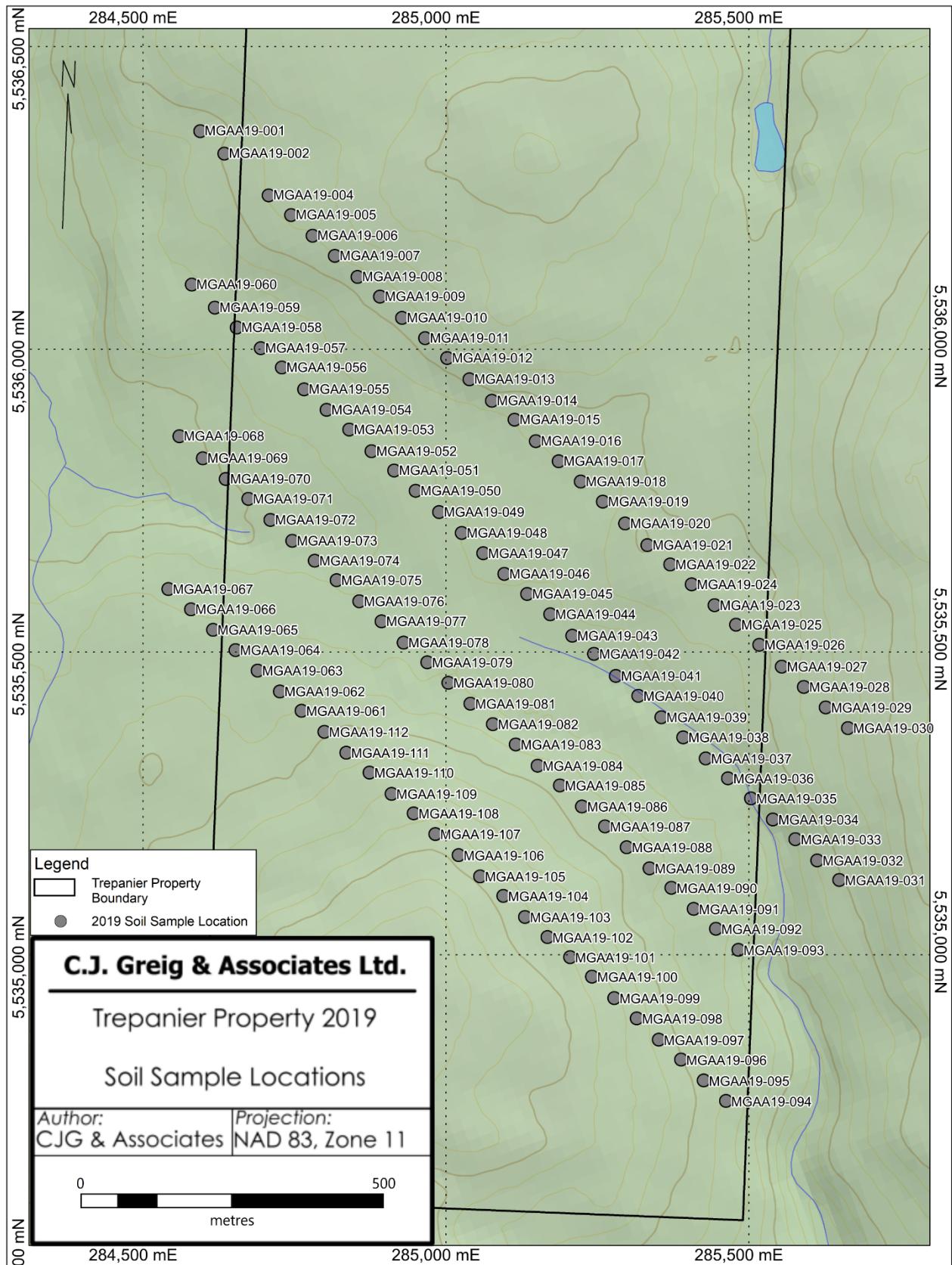


Figure 5: 2019 soil sample locations

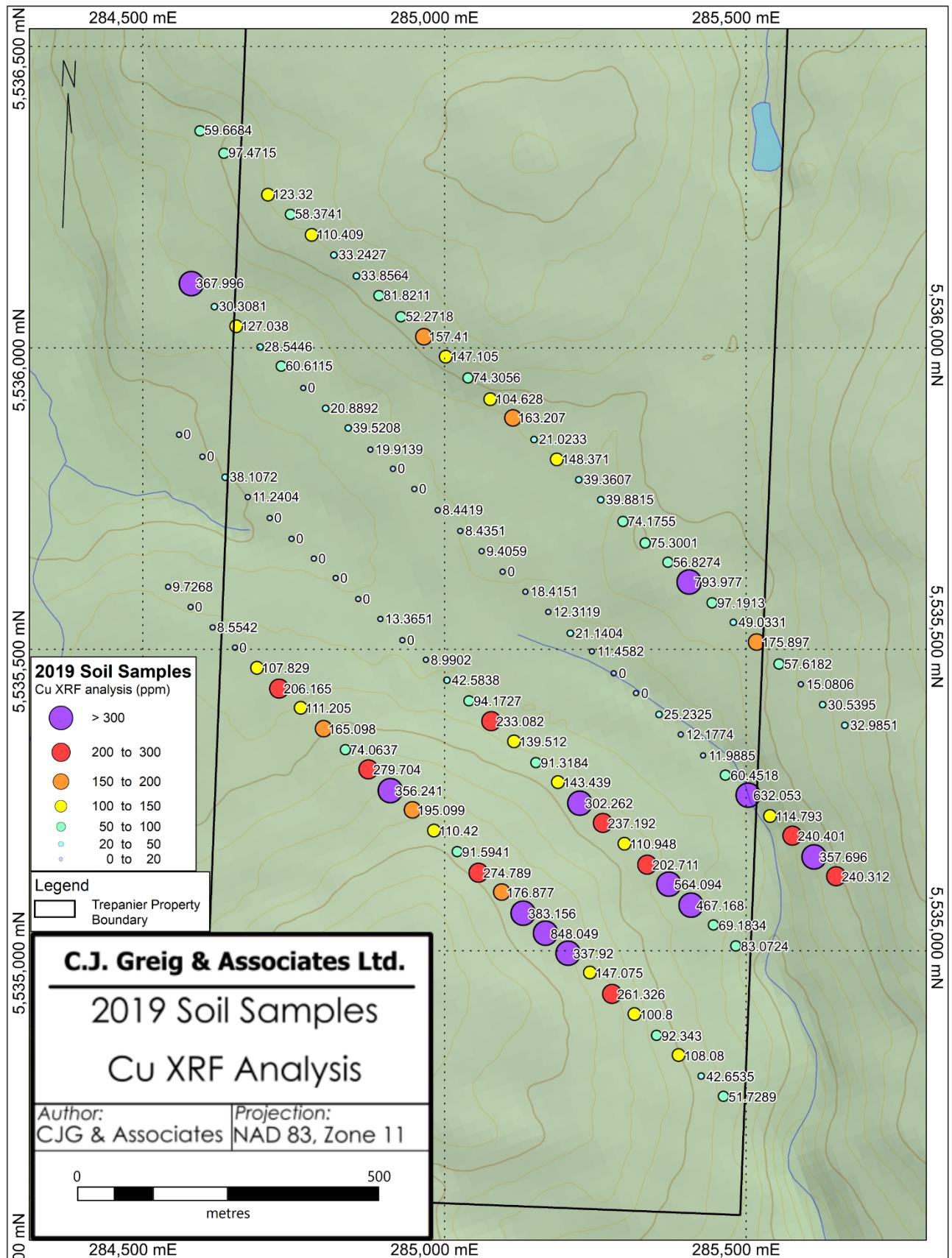


Figure 6: 2019 soil sample copper values (ppm) by handheld XRF analysis

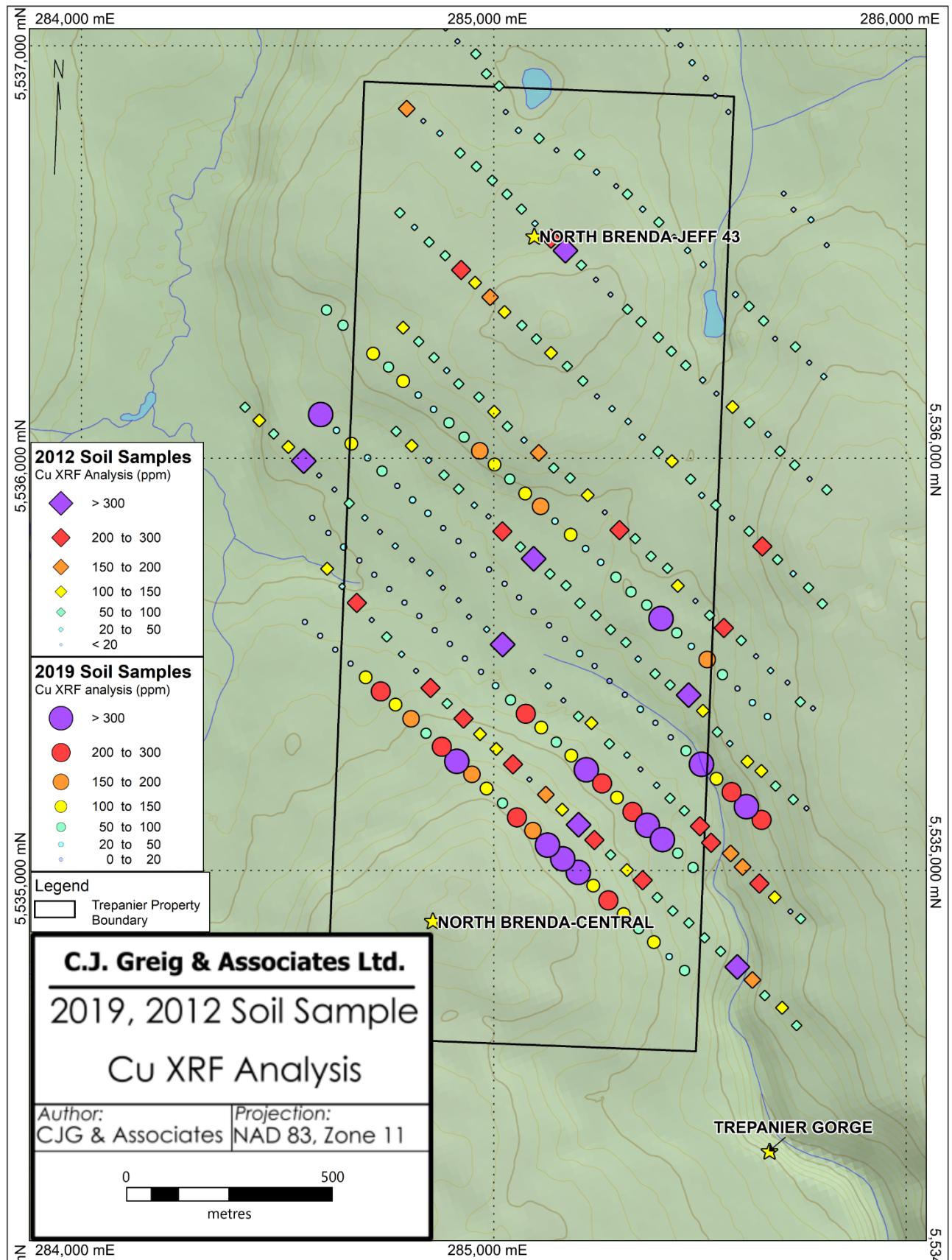


Figure 7: 2012 and 2019 soil samples, illustrating highly Cu-anomalous zone in the south of the survey area

## **8.0 Conclusions and Recommendations**

The Trepanier Property lies within a belt of significant Cu-Mo and precious metals deposits, hosted within Late Triassic to early Jurassic plutons intruded into rocks of the Quesnel terrane. The 2019 soil sampling program was successful in further defining an area of anomalous Cu-in-soil which remains open to the south. The broad extent of this copper anomaly is suggestive of a buried copper porphyry system, similar to the North Brenda mine, 5 km to the south. It is recommended that follow-up work on the property include additional soil sampling to the south, and an integration, if possible of historical drilling over the JEFF 43 showing at the southern corner of the property. Pursuant to these results, a 3D IP survey should be conducted over the southern part of the property, to help better define areas of buried disseminated sulfide mineralization, and outline potential drill targets.

Respectfully submitted,

C.J Greig & Associates Ltd.

A. Mitchell, B.Sc., P.Geo.  
N. Prowse, M.Sc.

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\*All Assessment Reports are available on-line at <http://aris.empr.gov.bc.ca/>

BC Geological Survey Minfile descriptions are available on-line at <http://minfile.gov.bc.ca/searchbasic.aspx>

BC Ministry of Energy and Mines, Exploration Assistant is available online at

[http://webmap.em.gov.bc.ca/mapplace/minpot/ex\\_assist.cfm](http://webmap.em.gov.bc.ca/mapplace/minpot/ex_assist.cfm)

All BC GSB publications are available on-line at

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## **Appendix A – Statements of Qualifications**

I, Andrew Mitchell of 1090 Lacombe Road, Kelowna, British Columbia, Canada, hereby certify that:

1. I graduated from the University of British Columbia in 2010 with a B.Sc. in Earth and Environmental Sciences
2. From 2010 to present, I have been actively engaged in mineral exploration in Yukon Territory and British Columbia.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (license #46211)
4. I was involved in the field program and I have interpreted all data resulting from this work.
5. I am the author of the report entitled: "Soil Geochemistry at the Trepanier Property," dated February, 2020.

Dated at Penticton, British Columbia, this 15th day of February, 2020.

Respectfully submitted,

*"Andrew James Mitchell"*

Andrew J. Mitchell, B.Sc., P.Geo.

I, Neil Prowse, of 1116 Jonathan Drive, Penticton, British Columbia, hereby certify that:

1. I graduated from Carleton University with a B.Sc. in Earth Sciences in 2014, and an M.Sc. in Earth Sciences in 2017.
2. From 2017 to present, I have been actively engaged in mineral exploration in British Columbia.
3. I have personally participated in the field work reported herein and have interpreted all data resulting from this work.
4. I am a co-author of the report entitled: "Soil Geochemistry at the Trepanier Property", dated February 2020.

Dated at Penticton, British Columbia, this 15th day of February, 2020.

Respectfully submitted,

*"Neil David Prowse"*

Neil D. Prowse, M.Sc.

**Appendix B – Statement of Costs**

<b>Trepanier Property - C.J. Greig and Associates Ltd.</b>							
<b>Work Invoices</b>							
	October 16, 17th, 2019	Trepanier	Arron Albano	2 field days	\$1,300.00	Senior Geologist	\$650/day (Senior Geologist)
	October 16, 17th, 2019	Trepanier	Calum Quinn	2 field days	\$1,000.00	Prospector	\$500/day (Prospector)
	October 16, 2019	Trepanier	Charles Greig	0.5 days	\$400.00	Supervising Geologist	\$800/day (Supervising Geologist)
<b>Pre-field planning</b>	August 8, 2019	Trepanier	Jeff Rowe	0.5 day	\$325.00	Project Geologist - 0 field days	\$650/day (Geologist)
<b>Total Pre-field and field labour</b>					<b>\$3,025.00</b>		
<b>Total labour for report writing and drafting (4 x \$625)</b>					<b>\$2,500.00</b>		
<b>Transportation, Food, Accomodation</b>							
Fuel, accom, food	\$700.00		Two nights boarding, fuel for truck, food for 2 days				
Truck and Trailer Rentals	\$350.00		Drive from Penticton to Trepanier twice. \$100/day truck, 300 km total @ \$0.50/km				
<b>Field Equipment charges</b>							
Consumables	\$100.00						
<b>Geochemistry costs</b>							
Soil geochem	\$1,410		94 soils @ \$15 per sample (XRF)				
<b>Miscellaneous</b>							
Field rentals (GPS, radios, sat phone)	\$120						
Office equipment , GIS software, Field Gear	\$200			32			
	\$2,880.00				<b>\$2,880.00</b>		
				Grand Total	<b>\$8,405.00</b>		

**Appendix C – Soil Sample Locations and XRF Results (all units in parts per million (ppm))**

Sample ID	UTM E	UTM N	Elev	Ag	As	Au	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hf	Hg	K	Mn	Mo	Nb	Ni	Pb	Pd	Rb	Re	Sb	Se	Sn	Sr	Ta	Th	Ti	U	V	W	Y	Zn	Zr
MGAA19-001	284594.47	5536361.54	1522.33	0.00	2.08	0.00	0.00	7572.90	0.00	0.00	29.80	59.67	18437.86	0.00	0.00	2950.10	196.84	0.00	0.00	17.87	4.90	0.00	43.68	0.00	0.00	0.00	307.60	0.00	3.27	1298.37	9.37	66.10	0.00	3.58	55.53	101.11	
MGAA19-002	284634.22	5536324.21	1521.12	0.00	0.00	0.00	0.00	7178.67	0.00	0.00	19.17	97.47	17324.34	0.00	0.00	2057.97	327.53	0.00	0.00	0.00	7.95	0.00	42.92	0.00	0.00	0.00	307.40	0.00	3.53	1045.52	11.34	48.48	0.00	2.02	72.47	93.43	
MGAA19-004	284707.26	5536255.25	1528.85	0.00	0.00	0.00	0.00	7423.26	0.00	0.00	30.09	123.32	24993.07	0.00	0.00	3209.15	344.12	0.00	0.00	0.00	11.94	0.00	46.84	0.00	0.00	0.00	323.24	0.00	2.53	1741.03	6.82	68.58	0.00	7.08	76.07	127.68	
MGAA19-005	284744.47	5536222.81	1542.03	0.00	0.00	0.00	0.00	7569.65	0.00	0.00	22.62	58.37	16675.73	0.00	0.00	3414.10	568.53	0.00	0.00	0.00	10.12	0.00	36.27	0.00	0.00	0.00	194.85	0.00	0.00	1332.76	3.60	44.38	0.00	0.00	60.10	67.96	
MGAA19-006	284780.04	5536188.87	1534.46	0.00	2.65	0.00	0.00	6609.07	0.00	0.00	24.20	110.41	15043.95	0.00	0.00	2484.54	374.99	0.00	0.00	0.00	13.75	0.00	61.49	0.00	0.00	0.00	279.46	0.00	0.00	890.26	8.32	54.85	0.00	0.00	53.93	75.42	
MGAA19-007	284816.78	5536155.45	1533.36	0.00	2.08	0.00	0.00	6155.21	0.00	0.00	18.77	33.24	18076.83	0.00	0.00	1788.72	315.67	0.00	0.00	0.00	6.47	0.00	31.51	0.00	0.00	0.00	280.00	0.00	3.10	916.70	9.25	58.17	0.00	45.80	125.27		
MGAA19-008	284853.98	5536120.78	1520.61	0.00	0.00	0.00	0.00	9461.39	0.00	0.00	26.09	33.86	20906.82	0.00	0.00	2892.01	225.67	0.00	0.00	0.00	11.18	0.00	39.18	0.00	0.00	0.00	275.74	0.00	2.12	1389.75	7.07	65.89	0.00	4.85	72.13	98.35	
MGAA19-009	284891.04	5536088.12	1521.82	0.00	0.00	0.00	0.00	7624.61	0.00	0.00	67.85	21.86	81.82	18717.78	0.00	0.00	2662.23	245.92	0.00	0.00	0.00	11.37	0.00	49.41	0.00	0.00	0.00	309.80	0.00	0.00	1209.03	5.26	65.80	0.00	6.98	50.80	141.11
MGAA19-010	284927.58	5536053.03	1525.76	0.00	0.00	0.00	0.00	7777.40	0.00	0.00	15.83	52.27	18465.54	0.00	0.00	2302.18	262.65	0.00	0.00	0.00	10.24	0.00	37.29	0.00	0.00	0.00	306.88	0.00	0.00	1249.34	8.22	62.24	0.00	3.23	54.92	106.51	
MGAA19-011	284965.68	5536019.44	1527.91	0.00	2.29	0.00	0.00	7256.98	0.00	79.50	20.36	157.41	18088.47	0.00	0.00	2286.14	234.97	0.00	0.00	0.00	8.79	0.00	44.05	0.00	0.00	0.00	290.47	0.00	2.83	1117.77	8.05	68.09	0.00	4.21	55.24	105.93	
MGAA19-012	285002.10	5535986.80	1527.79	0.00	0.00	0.00	0.00	7924.79	0.00	70.51	28.40	147.11	16437.77	0.00	0.00	2096.02	334.19	0.00	0.00	0.00	12.48	0.00	43.75	0.00	0.00	0.00	301.20	0.00	0.00	1185.05	11.36	54.70	0.00	3.62	69.93	104.16	
MGAA19-013	285038.63	5535951.61	1516.10	0.00	0.00	0.00	0.00	6236.54	0.00	0.00	74.31	12825.76	0.00	0.00	1634.71	113.46	0.00	0.00	0.00	10.18	0.00	32.26	0.00	0.00	0.00	234.50	0.00	0.00	717.97	6.03	37.86	0.00	1.45	51.26	72.61		
MGAA19-014	285075.87	5535916.16	1513.70	0.00	0.00	0.00	0.00	7951.86	0.00	120.24	19.19	104.63	18659.56	0.00	0.00	2715.11	250.64	0.00	0.00	0.00	9.24	0.00	41.42	0.00	0.00	0.00	333.37	0.00	0.00	1201.08	10.93	43.01	0.00	3.48	62.46	110.81	
MGAA19-015	285113.35	5535884.93	1508.03	0.00	3.13	0.00	0.00	8545.10	0.00	103.16	30.92	163.21	22605.61	0.00	0.00	3247.30	337.49	0.00	0.00	0.00	17.81	0.00	47.47	0.00	0.00	0.00	332.28	0.00	4.18	1647.64	9.28	61.68	0.00	5.46	71.43	107.59	
MGAA19-016	285148.44	5535849.57	1504.32	0.00	0.00	0.00	0.00	8265.76	0.00	71.84	28.47	21.02	18597.90	0.00	0.00	2671.08	432.55	0.00	0.00	0.00	12.70	0.00	43.27	0.00	0.00	0.00	320.17	0.00	3.51	1279.90	5.56	51.11	0.00	8.14	69.80	139.46	
MGAA19-017	285186.21	5535816.44	1507.48	0.00	0.00	0.00	0.00	7548.83	0.00	0.00	12.12	148.37	19264.76	0.00	0.00	2958.30	325.10	0.00	0.00	0.00	11.42	0.00	40.65	0.00	0.00	0.00	297.17	0.00	4.43	1262.29	10.49	51.72	0.00	7.86	72.51	144.89	
MGAA19-018	285222.59	5535782.92	1506.39	0.00	0.00	0.00	0.00	7228.93	0.00	0.00	25.68	39.36	16916.16	0.00	0.00	2279.23	207.92	0.00	0.00	0.00	10.59	0.00	41.27	0.00	0.00	0.00	286.75	0.00	0.00	1266.85	5.92	53.61	0.00	3.42	54.87	105.17	
MGAA19-019	285259.06	5535749.50	1509.18	0.00	2.13	0.00	0.00	5924.34	0.00	92.05	19.69	39.88	17197.10	0.00	0.00	2121.12	305.35	0.00	0.00	0.00	11.02	0.00	37.74	0.00	0.00	0.00	283.24	0.00	4.11	1181.93	8.68	41.48	0.00	9.47	53.87	153.59	
MGAA19-020	285295.71	5535713.64	1509.20	0.00	2.64	0.00	0.00	6014.76	0.00	71.96	14.24	74.18	16419.13	0.00	0.00	1751.04	2																				

Sample ID	UTM E	UTM N	Elev	Ag	As	Au	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hf	Hg	K	Mn	Mo	Nb	Ni	Pb	Pd	Rb	Re	Sb	Se	Sn	Sr	Ta	Th	Ti	U	V	W	Y	Zn	Zr
MGAA19-071	284674.01	5535754.35	1482.32	0.00	0.00	0.00	0.00	8044.03	0.00	0.00	46.85	11.24	21964.65	0.00	0.00	3945.87	444.71	0.00	0.00	10.50	0.00	47.98	0.00	0.00	0.00	0.00	373.63	0.00	3.49	1526.41	9.25	67.57	0.00	11.20	64.17	122.86	
MGAA19-072	284710.20	5535719.50	1479.90	0.00	0.00	0.00	0.00	6883.20	0.00	0.00	45.33	0.00	17002.20	0.00	0.00	3027.96	306.47	0.00	0.00	7.52	0.00	45.78	0.00	0.00	0.00	0.00	375.54	0.00	2.84	1689.42	13.71	69.01	0.00	4.61	41.94	73.01	
MGAA19-073	284746.40	5535684.98	1480.38	0.00	0.00	0.00	0.00	7596.80	0.00	0.00	32.66	0.00	14400.63	0.00	0.00	2859.97	192.93	0.00	0.00	7.09	0.00	45.83	0.00	0.00	0.00	0.00	348.46	0.00	0.00	1166.91	10.69	65.83	0.00	3.28	39.62	62.15	
MGAA19-074	284783.38	5535651.99	1482.23	0.00	0.00	0.00	0.00	9080.55	0.00	0.00	49.47	0.00	19008.89	0.00	0.00	3385.43	369.78	0.00	0.00	11.65	0.00	39.69	0.00	0.00	0.00	0.00	370.27	0.00	3.63	1315.00	8.54	60.07	0.00	8.85	67.30	151.72	
MGAA19-075	284819.45	5535619.81	1480.77	0.00	0.00	0.00	0.00	8721.00	0.00	0.00	42.98	0.00	17627.22	0.00	0.00	2169.17	275.48	0.00	0.00	7.61	0.00	38.98	0.00	0.00	0.00	0.00	365.30	0.00	2.56	1146.46	10.05	50.21	0.00	8.00	50.07	151.32	
MGAA19-076	284856.87	5535585.14	1484.50	0.00	0.00	0.00	0.00	8670.19	0.00	81.53	43.93	0.00	20281.53	0.00	0.00	2347.09	248.09	0.00	0.00	10.59	0.00	41.09	0.00	0.00	0.00	0.00	370.10	0.00	2.55	1335.75	13.19	67.22	0.00	11.42	51.66	143.45	
MGAA19-077	284893.63	5535552.04	1492.02	0.00	0.00	0.00	0.00	9468.61	0.00	0.00	55.56	13.37	21125.71	0.00	0.00	3279.86	401.82	0.00	0.00	8.27	0.00	43.01	0.00	0.00	0.00	0.00	365.30	0.00	3.43	1527.82	9.48	81.37	0.00	9.66	72.98	156.09	
MGAA19-078	284930.16	5535516.62	1498.16	0.00	0.00	0.00	0.00	7686.71	0.00	100.93	29.59	0.00	19940.82	0.00	0.00	2347.45	238.41	0.00	0.00	9.79	0.00	42.85	0.00	0.00	0.00	0.00	299.77	0.00	2.84	1224.06	9.38	61.27	0.00	8.04	70.23	114.80	
MGAA19-079	284969.10	5535484.11	1499.71	0.00	2.72	0.00	0.00	8450.15	0.00	114.75	31.77	8.99	22043.98	0.00	0.00	3029.42	319.47	0.00	0.00	9.01	0.00	41.66	0.00	0.00	0.00	0.00	311.31	0.00	5.65	1544.22	9.27	77.03	0.00	10.82	82.71	169.35	
MGAA19-080	285004.12	5535450.53	1500.02	0.00	0.00	0.00	0.00	8324.85	0.00	105.26	16.88	42.58	22369.79	0.00	0.00	3101.90	351.20	0.00	0.00	11.78	0.00	39.66	0.00	0.00	0.00	0.00	584.46	0.00	2.78	1412.98	20.13	59.70	0.00	10.02	72.79	131.65	
MGAA19-081	285040.32	5535415.90	1500.61	0.00	2.71	0.00	0.00	7725.39	0.00	0.00	22.11	94.17	17243.89	0.00	0.00	3332.54	396.72	0.00	0.00	7.08	0.00	61.12	0.00	0.00	0.00	0.00	344.95	0.00	0.00	1020.53	16.55	47.86	0.00	3.70	47.07	105.82	
MGAA19-082	285077.63	5535382.12	1499.19	0.00	0.00	0.00	0.00	6725.92	0.00	0.00	21.35	233.08	20852.05	0.00	0.00	2511.15	337.82	0.00	0.00	9.87	0.00	39.13	0.00	0.00	0.00	0.00	316.09	0.00	3.96	1300.04	9.43	51.58	0.00	5.75	80.32	134.43	
MGAA19-083	285115.24	5535348.55	1502.82	0.00	0.00	0.00	0.00	5541.65	0.00	79.34	18.13	139.51	16140.90	0.00	0.00	2340.81	193.17	0.00	0.00	10.08	0.00	38.82	0.00	0.00	0.00	0.00	286.78	0.00	2.98	1217.37	7.52	61.17	0.00	5.84	53.35	131.44	
MGAA19-084	285151.34	5535313.37	1508.79	0.00	0.00	0.00	0.00	5994.77	0.00	0.00	0.00	91.32	18457.64	0.00	0.00	2383.11	261.43	0.00	0.00	11.16	0.00	50.13	0.00	0.00	0.00	0.00	319.51	0.00	5.48	1286.66	6.81	48.32	0.00	4.51	78.79	123.01	
MGAA19-085	285188.06	5535280.84	1512.73	0.00	0.00	0.00	0.00	6714.05	0.00	0.00	29.79	143.44	22096.29	0.00	0.00	3375.63	279.10	0.00	0.00	7.13	0.00	98.67	0.00	0.00	0.00	0.00	317.24	0.00	0.00	1422.10	5.69	60.24	0.00	0.00	61.34	83.34	
MGAA19-086	285224.62	5535246.31	1511.49	0.00	0.00	0.00	0.00	7488.46	0.00	66.34	0.00	302.26	13649.97	0.00	0.00	1925.50	203.58	0.00	0.00	11.45	0.00	37.13	0.00	0.00	0.00	0.00	331.08	0.00	2.79	1305.67	10.02	39.95	0.00	8.86	57.00	137.79	
MGAA19-087	285262.46	5535213.18	1510.53	0.00	0.00	0.00	0.00	8472.33	0.00	99.09	16.85	237.19	19925.27	0.00	0.00	2403.80	306.03	0.00	0.00	11.38	0.00	42.87	0.00	0.00	0.00	0.00	300.03	0.00	3.93	1573.87	11.43	74.28	0.00	12.35	62.47	119.47	
MGAA19-088	285298.47	5535179.00	1514.36	0.00	2.62	0.00	0.00	6858.96	0.00	64.30	46.57	110.95	19479.08	0.00	0.00	3086.15	260.48	0.00	0.00	4.89	0.00	39.00	0.00	0.00	0.00	0.00	303.07	0.00	5.05	1350.59	9.54	55.91	0.00	5.77	71.85	132.37	
MGAA19-089	285336.17	5535144.10	1509.16	0.00	3.25	0.00	0.00	8299.02	0.00	0.00	16.85	202.71	18585.07	0.00	0.00	2792.18	220.44	0.00	0.00	12.06	0.00	41.															