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# **BLACK RAVEN PROJECT**



**WORK REPORT OF THE  
SUMMER 2019 EXPLORATION PROGRAM ON  
THE BLACK RAVEN PROJECT,  
HEMLO AREA, ONTARIO  
For  
CANADIAN OREBODIES INC.**

**NTS Map sheets 42D/09 & 42D/16**

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**-TABLE OF CONTENTS-**

1.0 Summary.....	1
2.0 Introduction.....	1
2.1 Property Description, Location and Access .....	1
2.2 Climate, Local Resources, Local Infrastructure and Physiography .....	2
2.3 Personnel .....	2
3.0 Geology.....	6
3.1 Regional Geology.....	6
3.2 Local and Property Geology .....	6
4.0 Exploration History.....	10
4.1 Black Raven Cell-Claims .....	10
4.2 Detailed Description of Historical Work .....	10
5.0 2019 Exploration Program.....	23
5.1 Introduction.....	23
5.2 Results by Area .....	25
6.0 Discussion of Results and Recommendations .....	34
6.1 Discussion of Results.....	34
6.2 Recommendations .....	37
7.0 Statement of Qualifications .....	38
8.0 References.....	39

**-APPENDICES-**

Appendix I	Rock Sample Description Sheets (Table I)
Appendix II	Soil Sample Description Sheets (Table II)
Appendix III	Lake Sediment Description Sheet (Table III)
Appendix IV	Rock Assay Certificates
Appendix V	Soil Assay Certificates
Appendix VI	Lake Sediment Certificates
Appendix VII	Lab Analytical Descriptions
Appendix VIII	Statement of Expenditures
Appendix IX	List of Mining Cells-Claims (Table IV)
Appendix X	Daily Logs
Appendix XI	Map Sheets

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**-MAPS-**

- Sample Index Map
- Beggs Lake Area (Map Sheet A)
- South of Budall Lake Area (Map Sheet B)
- Harriet Creek Area (Map Sheet C)
- West of Lola Lake Area (Map Sheet D)
- Contact Lake Area (Map Sheet E)
- North of Lola Lake Area (Map Sheet F)

**-LIST OF FIGURES-**

Figure 1- General Location Map .....	3
Figure 2- Black Raven Property Location and Access Map .....	4
Figure 3: Black Raven Property Cell-Claim Map .....	5
Figure 4: Regional Geology with Major Mineral Deposits Labelled .....	8
Figure 5: Property Geology, Black Raven & Other Projects .....	9

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## 1.0 -SUMMARY-

From June to October of 2019 a prospecting, geological mapping, soil sampling and lake sediment sampling program was carried out on the Canadian Orebodies Inc. (“Orebodies”) Black Raven claim group, see Figure 3.

The Black Raven Property is located approximately 20 kilometres northeast of the town of Marathon, 40 kilometres southwest of the town of Manitouwadge and approximately 30 kilometres northwest of the Hemlo Gold Mines, see Figure 4.

The 2019 Black Raven Exploration Program was carried out simultaneously with the 2019 Wire Lake Exploration Program.

Eighty-nine grab samples were collected on the Black Raven cell-claims during the 2019 field program. Lithologies sampled were predominantly sediments, mafic volcanics and intermediate intrusives north of the Beggs Lake Stock, iron formation and mafic volcanics east of Contact Lake, and quartz veins. Of those 89 samples, 7 returned gold assays of 0.1 gpt Au or greater, with one sample returning a grade of **544ppb Au** (sample A704589 – described as mafic volcanic with quartz-carbonate alteration in the Alpha North area northwest of Beggs Lake), see Table I.

Four small orientation soil sampling surveys were carried out in the Beggs Lake area and two small orientation soil sampling surveys were carried out in the Contact Lake area. “A” horizon were collected at each station as well as “B” horizon where possible. Soil sampling in the Contact Lake area returned assays of up to **34 ppb Au** and soil samples in the Beggs Lake area returned up to **44ppb Au**, see Table II. Eight lake sediment samples were collected during the 2019 field program. Five lake sediment samples were collected at Beggs Lake and five lake sediment samples were collected at Contact Lake (3 on the Black Raven Property and 2 on the adjacent Wire Lake Property), see Table III.

The results of the prospecting, soil sampling and lake sediment sampling program are viewed as very successful, and the potential for more discoveries is high as well as the potential to expand many of the new showings located during the 2017 to 2019 field programs.

## 2.0 -INTRODUCTION-

Canadian Orebodies acquired the Black Raven Property in April 2017. The main target mineral is gold where previous operators’ discoveries on the Property had pointed to the area’s potential, and due to the Property’s proximity to the world-class Hemlo gold deposit. Details of the 2019 work programs are presented below.

### 2.1 PROPERTY DESCRIPTION, PERMIT, LOCATION AND ACCESS

Canadian Orebodies Inc.’s Black Raven Project is located northeast of Lake Superior in northeastern Ontario. The property is situated approximately 20 kilometres northeast of the town of Marathon and approximately 30 kilometres northwest of the Hemlo Gold Mine (see Figure 5).

The Black Raven Property is comprised of 1274 cell-claims, including 225 Boundary Cell Mining Claims and 1049 Single Cell Mining Claims. See Figure 3.

The Ministry of Northern Development and Mines (MNDM) has issued Exploration Permit Number: PR-16-11008A for the Black Raven Property.

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## **2.2 CLIMATE, RESOURCES, LOCAL INFRASTRUCTURE AND PHYSIOGRAPHY**

*As summarized by MacConnell and Mackie (2017) (with minor modifications).*

The Black Raven Project is located within the Canadian Shield, which is a major physiographic division of Canada. The property is situated in an area of swamps, small lakes, and moderate to steep hills, with scattered to locally moderate outcrop. Elevation across the project area ranges from 275 to 450 m.

The Property is covered with a thick secondary growth of birch, balsam fir, black spruce, red cedar and some jack pine and poplar. The underbrush can be very dense with intergrowths of maple, alder and hazel.

The Black Raven Property is situated approximately 20 km northeast of the town of Marathon, Ontario (population ~3300), and 30 km northwest of the producing gold mine at Hemlo. Access for the 2019 exploration program was by helicopter based out of the Marathon Airport.

Marathon is approximately 350 km east of Thunder Bay, Ontario located approximately 4 kilometres southwest the Trans-Canada Highway 17. Thunder Bay is serviced by many airlines, with daily flights to major cities in Canada such as Toronto and Winnipeg, allowing easy connections to other Canadian cities and international destinations.

Climate in the area is typical of Northern Ontario, with cold winters and warm summers. Average January minimum temperatures range from -18°C to -32°C, and average July temperatures are between 24°C and 32°C. Exploration work can be carried out (subject to snow and freezing) for most of the year. Certain mapping, mechanized stripping, and soil sampling activities are best performed in snow-free conditions, whereas drilling can occur any time of the year.


## **2.3 PERSONNEL**

The 2019 field program was carried out by Bruce MacLachlan and Coleman Robertson of Emerald Geological Services (EGS) based at various locations on the Property.

Tom Savage of Superior Geospatial provided drafting and GIS support and helicopter support was provided by Wilderness Helicopters based out of Marathon and Wawa.



Figure 1

 CANADIANOREBODIES	
<b>Black Raven Property General Location Map</b>	
Date: December, 2018	Name: TS
File: ontloc_dec2018_blkraven	

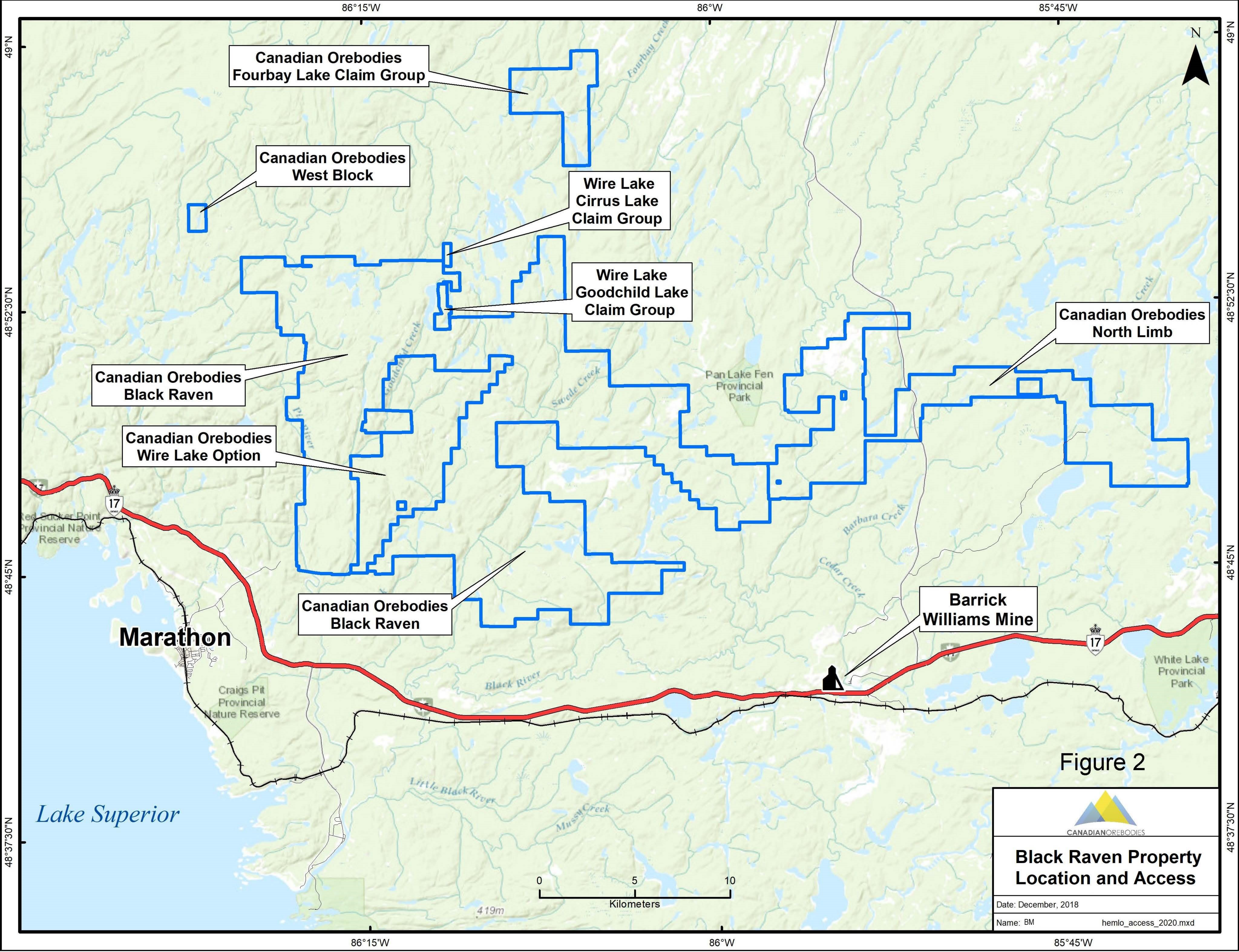



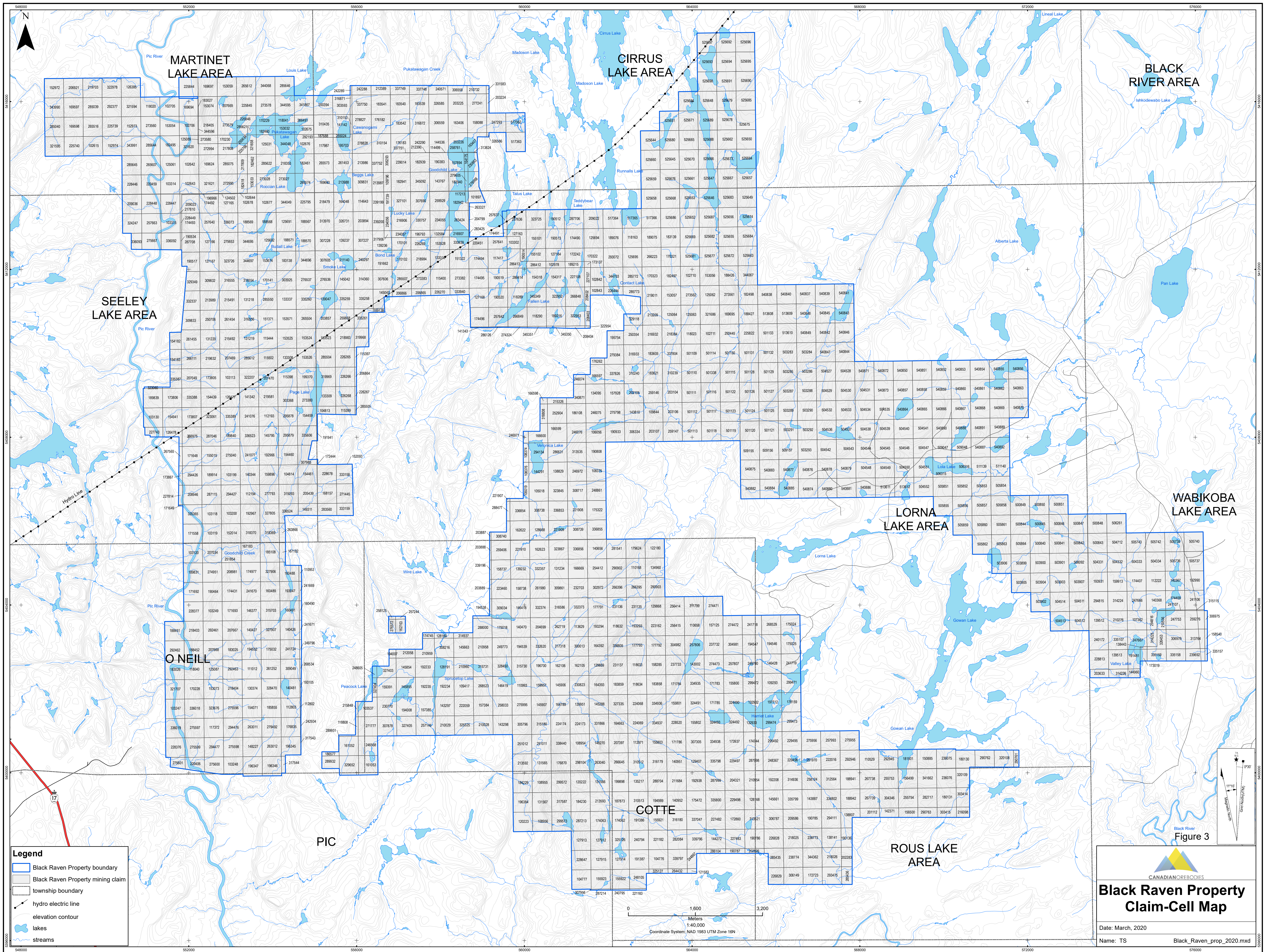
Figure 2

  
CANADIANOREBODIES

**Black Raven Property  
Location and Access**

Date: December, 2018  
Name: BM hemlo\_access\_2020.mxd





**Legend**

- Black Raven Property boundary
- Black Raven Property mining claim
- township boundary
- hydro electric line
- elevation contour
- lakes
- streams

**Figure 3**

CANADIAN OREBODIES

**Black Raven Property  
Claim-Cell Map**

Date: March, 2020

Name: TS Black\_Raven\_prop\_2020.mxd

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### 3.0 -GEOLOGY-

#### 3.1 REGIONAL GEOLOGY

The following description of the regional geology is adapted from an Economic Geology paper by Lin (2001), which was utilized in the Technical Report on the Lunny Lake Area by B.J. Price Geological Consultants Inc. in 2008.

The Black Raven Project is situated within the eastern portion of the Wawa Sub-province, a division of the Superior Structural Province and Precambrian Canadian Shield. The Wawa Sub-province consists of a sequence of Archean sedimentary and felsic, intermediate and mafic volcanic rocks ranging in age from ~2720 million years (Ma) to ~2688 Ma. The supracrustal rocks of the Wawa Sub-province have been metamorphosed, with metamorphic grade increasing from upper greenschist facies west of Lake Superior, to middle amphibolite facies east of Lake Superior, the latter portion of the Sub-province that includes the Hemlo deposit area (see Figure 4).

The greenstone belt is intruded by granodioritic to tonalitic plutons and dikes. Major plutons include the Pukaskwa Intrusive Complex, the Heron Bay pluton, the Cedar Lake pluton, and the Gowan Lake pluton. A marginal gneissic phase of the Pukaskwa complex yielded a U-Pb zircon age of ~2719 Ma, whereas an internal phase of the complex, the Heron Bay pluton and the Cedar Lake pluton, yielded U-Pb zircon ages of ~2688 Ma. The Cedar Creek stock has been dated at ~2684 Ma, and the Gowan Lake pluton and two other plutons at ~2679 to 2677 Ma.

#### 3.2 LOCAL AND PROPERTY GEOLOGY

*The regional and property geology of the Black Raven Property have been summarized by Labreque, 2011 from various sources, for Entourage Metals Ltd., as written below.*

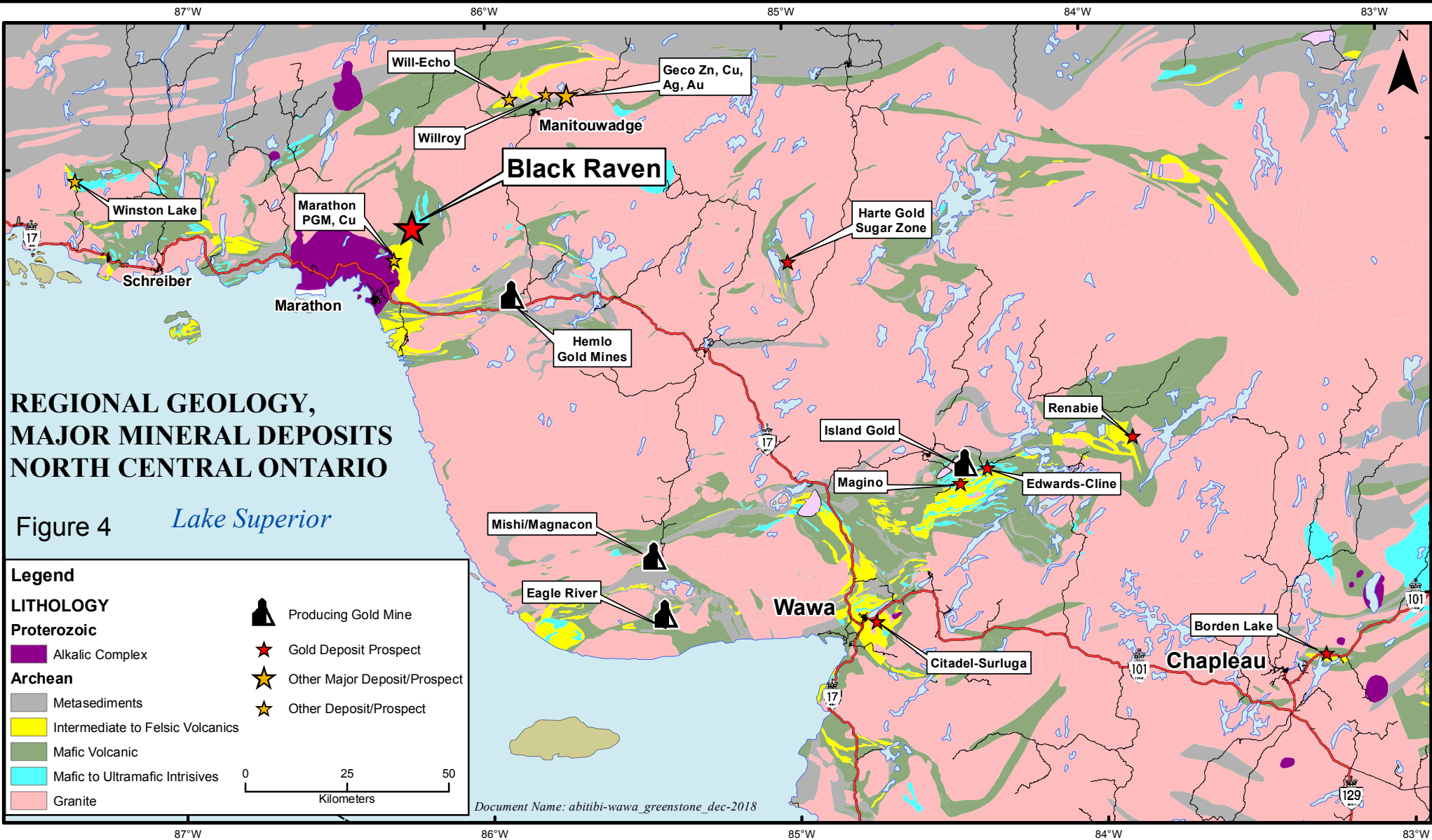
The Black Raven Property is situated within the northwestern margin of the eastern portion of the Schreiber-Hemlo greenstone belt of the eastern Wawa Subprovince (Williams et al. 1991). It occurs within the north-south trending Cirrus lobe of the greenstone belt which is bordered to the north, east and northwest by the joined tonalitic to granodioritic Black-Pic Batholith and to the southwest by the late-Proterozoic, syenitic to gabbroic Coldwell Alkaline Complex. The Cirrus Lake lobe is comprised of mafic metavolcanic flows, interflow metasedimentary rocks, and felsic metavolcanic rocks intruded by a large, U-shaped, mafic-ultramafic serpentized unit and the oval shaped, intermediate Beggs Lake Stock. The composite, intensely magnetic serpentized Goodchild Lake unit forms an obvious, unique anomaly on regional airborne magnetic maps (MacTavish 2000). See Figure 4.

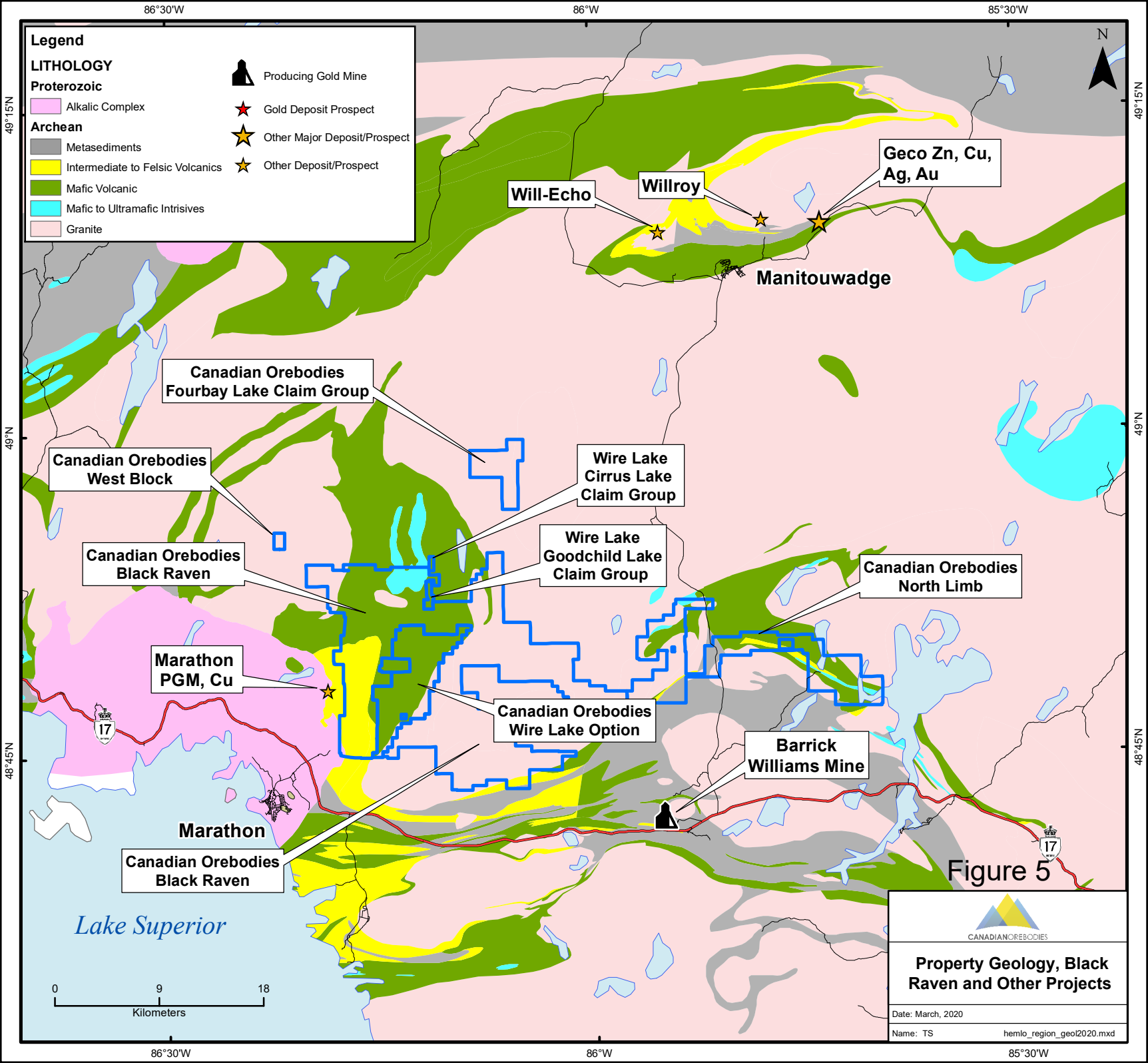
The oval, 3.2 km long, 1.1 km wide Beggs Lake Stock is located directly south of the Goodchild Lake serpentized unit and forms an elongate, oval shaped anomaly with a visible magnetic rim and a subtly magnetic core. The northern portion of the property around Smoke Lake is underlain by the Beggs Lake Stock, the northern-most area by the serpentized Goodchild Lake unit and its associated gabbros, and the remainder by mafic metavolcanic flows, subvolcanic gabbro dikes and sills, and a variety of narrow, interflow iron formations and mudstone units. The Beggs Lake stock consists of monzonite, equigranular biotite granodiorite, biotite tonalite, and localized hornblende-quartz-monzonite.

The zone of contact with the contiguous lithologies is commonly carbonatized, cut by quartz-carbonate veinlets, and contains disseminated pyrite (Schnieder's and Smyk 1997). The serpentized Goodchild Lake unit is principally made of intensely serpentized dunite within a discontinuous envelope of coarse-grained gabbro. The locally carbonatized and epidotized, pillowed to massive, locally variolitic and/or amygdaloidal, mafic metavolcanic flows often contain disseminated pyrite and pyrrhotite. Foliated, subvolcanic gabbro dikes and sills of a variety of thicknesses are also common. Thin, weakly to moderately deformed, foliated, Archean-age intermediate biotite lamphyre dikes are typical as are

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significantly thicker, northwest-and-northeast trending Proterozoic-age diabase dikes. Both east and north-trending penetrative fabrics are developed within all of these lithotypes excluding the diabase. All rock types, excluding the Beggs Lake Stock and the Proterozoic diabase dikes, have experienced amphibolite-grade regional metamorphism. Intense contact metamorphism has overprinted regional metamorphism within the supracrustal rocks surrounding the Beggs Lake Stock (MacTavish, 2003).





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## 4.0 -EXPLORATION HISTORY-

### 4.1 BLACK RAVEN CELLS-CLAIMS

Prior to Canadian Orebodies' involvement, the Black Raven Cell-Claim Group has been moderately explored. Much of the historical work has focused on the Smoke Lake area in the vicinity of the high-grade Super G showing, located on the north shore of Smoke Lake.

Other areas of historical work include the Page Lake area in the vicinity of the historical Zn/Au Knut Kuhner Showing and recent exploration work carried out by Canadian Orebodies Inc in the vicinity of the Beggs Lake Stock and Contact Lake area.

### 4.2 DETAILED DESCRIPTION OF HISTORICAL WORK

*Information below is modified from the Freewest Resources Canada Inc. Phase II Prospecting Report by MacTavish (2003), up to and including 2001, with several additions, including a number of assessment report references. The exploration history from 2002 onwards is summarized from the above report and various other historical reports as cited.*

Previous exploration and government surveys in the vicinity of the Smoke Lake Property, as researched from the Resident Geologist's Assessment Files (Thunder Bay South, Ontario Geological Survey), Thunder Bay, Ontario, Milne (1967), and McKay (1994) are summarized below.

**1930 and 1931:** J.E. Thomson of the Ontario Department of Mines completed reconnaissance mapping over a large area including the Cirrus Lobe (Thomson, 1931). He noted the presence of a pit located a short distance south of Cawanogami Lake within the northeastern corner of the present property. No record of who excavated the pit is within the public record.

**1951 to 1953:** A group of 9 claims staked east of Cawanogami and Beggs Lake by Moses Fisher in 1951 included the northeastern corner of the present property. Fisher excavated several trenches and pits somewhere on this property later that year and discovered the Cawanogami Lake Asbestos Occurrence. He added another 9 claims to the property in 1953 and then optioned it to MacLeod Cockshutt Gold Mines Limited, who dropped it soon after without completing any work. Canadian Johns-Manville Co. Ltd. then optioned the claims and completed linecutting, reconnaissance mapping, and a magnetometer survey (Eveleigh, 1953).

**1953:** MacLeod Cockshutt Gold Mines Limited completed airborne magnetometer and scintillometer surveys over the Goodchild Lake Serpentinite during July 1953 (Canadian Aero Service Ltd., 1953).

**1953 and 1954:** A group of 30 claims was staked in 1953 for Kenogamisis Gold Mines Limited near Louis, Pukatawagan, Fisher, and Beggs Lakes. The claims were optioned by MacLeod Cockshutt Gold Mines Limited sometime in 1953. Ground magnetometer and HEM surveys and 6 diamond drill holes, totalling 939 ft. (286.2m), were completed in 1954. The drilling was completed near the northeast corner of the property (Macleod-Cockshutt Gold, 1954).

**1953 and 1954:** A group of 18 claims was staked in 1953 by Violamac Mines Limited to cover the Goodchild Lake Prospect (Violamac Prospect). Work completed included geological mapping, trenching, prospecting and 5 diamond drill holes, totalling 2002 ft. (610.2 m). Four sulphide showings were defined within silicified diorite (?) over a strike length of approximately 2300 feet (700 m). Surface mineralization occurs as thin stringers and seams of pyrite, pyrrhotite, and chalcopyrite over widths of <8 to 100 ft. (2.4 to 30.5 m). Values of up to **2% Cu, 0.5% Ni, and 2.0 ounces per ton Ag** were reported (Jeffs, 1954, 1955).

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**1959:** The Mining Corporation of Canada contracted an airborne magnetometer and EM survey over the Goodchild Lake-Pic River area.

**1963:** The area of the Cirrus Lobe was mapped by V.G. Milne of the Ontario Department of Mines (Milne, 1967).

**1967 to 1969:** The Violamac Prospect was covered by a block of 54 claims staked by Mexico Exploration (Canada) Limited during 1967.

Work completed during 1968 included geological mapping, soil geochemistry, and ground magnetometer, HLEM, and self-potential (SP) surveys. SP surveys were conducted on grids covering the southern contact area of the serpentinite body, and 572 soil samples were collected on these grids and analyzed for copper and nickel. Self-potential anomalies were identified in the Violamac prospect area, north of Beggs Lake and north of Cawanogami Lake. These areas were associated with copper in soil anomalies, and the Violamac prospect was also associated with nickel in soil anomalies. Another noticeable copper in soil anomaly was located east of Beggs Lake, and a number of nickel in soil anomalies were located along the southern contact of the Goodchild Lake Intrusive (Buser, 1968).

In 1969, 11 diamond drill holes were completed, totalling 4251 ft. (1295.7 m). Disseminated to semi-massive pods of pyrrhotite and pyrite, with minor chalcopyrite were intersected; however, no significant metal values were encountered. 2 holes were drilled in the Violamac area; 1 hole was drilled east of Beggs Lake; 2 holes were drilled north of Beggs Lake; and six holes were drilled north of Cawanogami Lake in two clusters (Buser, 1969).

**1971:** Knut Kuhner discovered Zn-Au mineralization about 0.75 km southwest of Page Lake (4 km south of the Smoke Lake Property) in 1971. He staked a group of claims around the occurrence and optioned them to Kerr Addison Mines Ltd. The company promptly staked a large block of claims around the original property and proceeded to complete linecutting, geological mapping, IP and resistivity surveys, and 9 diamond drill holes, totalling 254 m. Four of the holes tested the occurrence, with one intersecting **1.10% Zn**/7.60 m, which included a 1.50 m interval grading **4.50 gpt Au**. (Kerr Addison Mines Ltd., 1971).

**1978 and 1979, 1990, 1996:** The Geological Survey of Canada (GSC) completed extensive lake sediment geochemical surveys covering much of the Schreiber-Hemlo Greenstone Belt during the late 1970s. The original samples were re-analysed for Au and a multi-element package (Friske et al. 1991) in 1990. The re-analyses defined anomalous Au-in lake sediment values in 4 lakes occurring in an east-west trend located to the south, southeast and southwest of Goodchild Lake.

Three of the anomalous sites are within the confines of the present Smoke Lake Property with gold values of **21, 18 and 13 ppb Au**. These comprise the highest Au values obtained from the entire survey and are associated with elevated levels of Ag, Zn, Cd Cr, and Ni. A detailed follow-up of these anomalies was completed by the GSC (Friske 1997) in 1996. Lake sediment core samples were collected from the 4 anomalous lakes as well as several smaller lakes that were not initially sampled. This follow-up survey defined an additional 5 lakes exhibiting anomalous gold values, clearly demonstrating the potential for widespread gold mineralization within the catchment basin that comprises a major portion of the Smoke Lake property.

**1982 to 1983:** A 20 claim property centred on Page Lake was staked in 1982 by Gowganda Resources Ltd., and an IP survey was conducted in 1983 (Meikle, 1983). The property included the Kuhner Zn-Au Occurrence and was optioned in 1984 by Homestake Mineral Development Company.

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**1983:** Canadian-United Metals Inc. conducted a short prospecting and reconnaissance program on the Goodchild Creek Property, re-excavating a historical trench dug in 1938. No significant gold values were discovered, so it was concluded that the excavated trench was likely not one that had previously yielded gold values up to **0.4 oz/t.** (Caulfield and Ikona, 1983)

**1983:** Colby Resources Corporation conducted a mapping, prospecting, sampling and geophysical surveying program (Mag and HEM) on the Hemlo Gold area property in the vicinity of Page Lake. Grab samples of quartz-tourmaline veins, tuff, banded iron formation and volcanoclastic rocks returned anomalous Au up to **498ppb Au** from a sample which included 4 narrow quartz-tourmaline veins. Results of the H.E.M. survey indicated conductors in the vicinity of the metavolcanic/metasedimentary contact, the cause of which was presumed to be graphite and/or sulphides. Geological mapping revealed that the property represents a volcanic pile, with older rhyolitic units in the south and younger mafic volcanics in the north, separated by a metasedimentary formation which represents a hiatus in volcanic activity. Banded iron formations representing siliceous exhalatives, and ultramafic and/or tholeiitic flow rocks were also noted (Coster and Maser, 1983).

**1983 to 1994:** Carlson Mines Ltd. Staked the 214 claim Wire Lake Property, located about 4 km south of the Smoke Lake Property, in 1983 during the Hemlo gold rush. When the first report of work was filed in 1986 the property consisted of 407 claims; however, by 2000 it had decreased to 253 contiguous claims. An Aerodat helicopter-borne EM, magnetic and VLF-EM survey was flown over the property in 1984. Surface exploration began in 1985 and included geological mapping, prospecting, stream sediment and humus geochemistry, and VLF-EM surveys on flagged grids. Gold was discovered by surface sampling of pyritic quartz veins south of Wire Lake during the initial program. One of the samples contained **15.91 gpt Au** and **23.30 gpt Ag**. (Brereton and Willoughby, 1986). Subsequent exploration programs completed between 1986 and 1994 included geological mapping, humus geochemistry, IP, resistivity, and VLF-EM surveys, another airborne geophysics survey, stripping and trenching, linecutting, and diamond drilling. This work shows that the Wire Lake Property hosts numerous northwest-trending shear zones containing significant but erratic gold mineralization. Several mineralized zones (South Lake, Lucky Seven, Candlestick, and North Hill) are apparently related to a 2.5 km-long lineament known as the Wire Lake Shear zone. Gold is associated with quartz, carbonate and stockwork vein systems within intensely altered metavolcanic and metasedimentary rocks (Jensen, 1994). 60 holes totalling 6927.5m were drilled from 1987 to 1990, and from 1993 to 1994 28 holes totalling 5242.6m were drilled (Siriunas, 1995).

Alteration consists of silicification, chloritization, pyritization, carbonatization, and sericitization as well as potassic alteration assemblages. Some of the better drill intercepts include **7.07 gpt Au/2.10 m (0.21 opt Au/6.90 ft.)** and **1.50 gpt Au/28.50 m (0.04 opt Au/93.50 ft.)** (Siriunas, 1994). The original company was succeeded by Black Gregor Exploration Ltd, Gregor Goldfields Corp., and Aavdex Corporation. All Terrane Track Sales and Service acquired the property in 2000. The mineral rights are now owned by Canadian Orebodies.

**1984 to 1985:** During 1984 and 1985 Homestake completed linecutting, geological mapping, a magnetometer survey (Staargard, 1984), IP and resistivity surveys (Flanagan, 1985), and a diamond drilling program. The five-hole diamond drilling program seemingly targeting lithological contacts, primarily volcano-sedimentary contacts, west of Page Lake. Values of up to **145ppb Au** and up to **2213ppm Zn** in core were returned from hole 84-CEW3 (Homestake Mineral Development Co., 1984). The property was optioned to Noranda Exploration Co. Ltd. in 1986 after Homestake dropped its option.

**1984:** MPH Consulting Limited completed an Airborne Magnetic and VLF-EM Survey by Aerodat Limited (Aerodat Ltd., 1984).

**1984:** Teeshin Resources conducted work on the Hemlo West (Pic River) Property (formerly the Goodchild Creek Property), east of the Pic River and north of Goodchild Creek, including grid



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magnetometer and V.L.F. ground geophysical surveys, as well as diamond drilling. Drilling intersected sulphide-chert formations with relatively high background levels of silver, copper and zinc, as well as gold values up to **0.008opt/5 feet** and **0.011opt/6 feet** in black mudstone (Kaye, 1984).

**1985 to 1991:** In 1985, Noranda Exploration Company Ltd. staked a group of 16 claims in the Seeley Lake area in the vicinity of Page Lake in November; 4 more claims were added in October of 1986. In November of 1986 a humus geochemical survey was conducted on a portion of the claim group and identified an anomalous Zn-Au trend along a 1.7km strike length, with values in soil up to **9705ppm Zn** and up to **135ppb Au** (Cooper, 1987).

From 1987 to 1988, Noranda conducted geological mapping, soil and humus geochemistry surveys, and VLF-EM and magnetometer surveys (Gingerich, 1988) in the Page Lake Area. This work included the discovery of the Page Lake Au occurrence containing up to **6 gpt Au**. There is no record of diamond drilling or a description of the Page Lake Au Occurrence in the Noranda assessment data.

The 1987 program included mapping, rock sampling and soil sampling conducted on 14 of 20 contiguous claims centered on Page Lake. 165 grab samples and 770 humus samples were collected. Grab samples returned up to **3.1gpt Au** and up to **6400ppm Zn**. Local gold in humus anomalies up to **180ppb Au** were identified, over iron formation in the eastern claims and a green mica alteration zone in the northern claims (D'Silva, 1987).

The 1988 program included an A (humus) and B horizon soil survey on 8 new claims west of the power line northwest of Page Lake. Humus returned up to **29ppb Au**, consistently high Zn (>**100ppm**) values up to **500ppm**, and up to **33ppm As**. B horizon returned up to **20ppb Au**, up to **570ppm Zn** and up to **165ppm**. Up to **0.34gpt Au** was returned from graphitic argillite and up to **50ppm Cu**, **230ppm Zn** was returned from rusty volcanics with 1% pyrite and 2% pyrrhotite (Petersen, 1988).

Additional claims were added to the property during 1988 and 1989 to bring the total to 85 contiguous claims. A litho-geochemical survey centred to the west and north of Page Lake outlined a Na-depletion, Mg-enrichment trend along the sedimentary-metavolcanic contact west of Page Lake. (Wilson, 1989). HLEM and magnetometer surveys were completed on the southern claims in 1991 (Walmsley and Degagne, 1991).

**1986 to 1988:** A 54 claim group, including the Violamac Prospect, was staked by Paul Skalesky in 1986. A Terraquest airborne magnetometer and VLF-EM survey was completed over the property in 1988 and detected numerous VLF-EM conductors. One 1.8 km long anomaly parallels the Violamac Prospect between 50 and 75 m to the northeast and may represent a down-dip expression of the mineralized zone (Terraquest Ltd., 1988).

**1989:** Noranda Exploration Co. Ltd. completed a detailed, helicopter-borne Dighem EM and magnetometer survey over a large area encompassing the eastern Schreiber-Hemlo greenstone belt, including the Cirrus Lobe (McConnell, 1989).

**1989 and 1990:** Russel Renner staked a small group of 11 claims that included the north half of Roccian Lake and the southwestern portion of Pukatawagan Lake. Noranda Exploration Co. Ltd. optioned the property and staked 15 additional claims to the southwest.

Over the next 2 years Noranda completed geological mapping, soil and rock geochemistry, magnetometer and HLEM surveys, and 3 diamond drill holes, totally 258.5m. One of the holes targeted the Renner/Roccian Lake Cu Occurrence located 500 m west of Roccian Lake, which on surface graded up to **1.10% Cu** and **0.12% Zn**. The other 2 holes tested HLEM anomalies, but no assay results are available. (Degagne, 1990).

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**1991 to 1993:** D.B. McKay of the Ontario Geological Survey examined, sampled, described, and sometimes mapped 71 mineral occurrences, and researched and compiled a further 18 occurrences within a 50-km radius of the town of Manitouwadge (McKay 1994).

**1993 and 1994:** Reconnaissance field investigations of the GSC lake bottom sediment anomalies by Hemlo Gold Mines Inc. during 1993 led to the discovery of the high-grade Smoke Lake Float boulders on the northeastern shoreline of Smoke Lake. These boulders occur 120 metres southeast of the Smoke Lake Occurrence discovered by OGS during 1996 and consist of numerous angular blocks of white, coarse to fine-grained quartz containing fine-grained pyrite and fine visible gold. Grab samples graded **139.9 gpt Au (4.10 opt)**, **30.3 gpt Au (0.88 opt)**, **10.0 gpt Au (0.29 opt)** and **6.6 gpt Au (0.19 opt)**. After this was discovered Hemlo Gold immediately staked a single 16-unit claim and completed limited prospecting and a soil geochemical survey on a flagged grid.

Positive results from the soil survey led to the staking of 2 additional claims and the completion of linecutting, prospecting, geological mapping, and soil sampling during 1994. An attempt to hand-strip the Smoke Lake Float occurrence to bedrock was unsuccessful. A total of 69 rock samples were collected as part of the property-wide prospecting and reconnaissance mapping program (Thomson 1995). A second soil survey comprising 256 soil samples collected at 25 m intervals along grid lines cut at 100 and 200 m intervals, was completed in the immediate vicinity of Smoke Lake. Numerous spot-high, Au-in-soil values of up to **210, 350 and 600 ppb Au** were obtained.

**1996 and 1997:** The staff of the Schreiber-Hemlo Resident Geologist's office of the Ontario Geological Survey (OGS) conducted a one-day examination on the Smoke Lake property in 1996 to investigate possible source areas for the gold-in lake sediment anomalies. They discovered a narrow, steeply dipping, northwest-trending quartz vein crosscutting carbonatized mafic volcanic rocks near the north shore of Smoke Lake. Disseminated pyrite occurs in the vein selvages and in the altered wall rocks. A single grab sample of the quartz vein, dubbed the Smoke Lake Occurrence assayed **26.7 gpt Au (0.78 opt)** (Schnieders et al. 1996).

An additional short visit by the OGS in 1997 uncovered another occurrence approximately 1 km east-northeast of Smoke Lake, proximal to the contact between the Beggs Lake syenite stock and outlying mafic metavolcanic rocks. Two grab samples of carbonatized, pyritized syenodiorite (?) with a quartz veinlet stockwork collected from the Contact Occurrence assayed **1.03 gpt Au (0.03 opt)** and **0.68 gpt Au (0.02 opt)**, respectively.

**1997 to 2000:** During 1997 Peter Moses staked the 2 claims comprising the Goodchild Property as defined by Freewest and included the Violamac Cu-Ni-Ag Occurrence located near Goodchild Lake within the northeastern portion of the property. Prospecting and soil sampling during 1997 led to the discovery of the Main Moses and South Moses gold occurrences (Moses, 1998<sup>1</sup>). The Main Moses Occurrence consists of a coarse-grained Fe-carbonate vein system within strongly sheared and carbonatized mafic metavolcanic rocks. The zone was exposed by 6 surface trenches over 207 m in 1999 and samples taken from the zone graded from **0.30 to 8.60 gpt Au** (Moses, 1999). The South Moses Occurrence was exposed by a trench in 1998 and consists of folded, sulphide-bearing quartz veins within mafic metavolcanic rocks that graded up to **1.60 gpt Au** (Moses, 1998<sup>2</sup>).

Further prospecting and soil sampling were completed during 1998 and 1999 and led to the discovery of 3 more occurrences: the BG Pt Occurrence, located approximately 115 m northwest of the South Moses Occurrence, occurs within a gabbro dike and grades up to **517 ppb Pt** and **101 ppb Au** (Moses, 1998<sup>2</sup>); the MZ Occurrence, located 780 m south-southeast of the South Moses Occurrence on the eastern shore of a small lake, consists of an altered, well-mineralized monzonite outcrop and numerous boulders containing between **0.47 and 2.50 gpt Au**; and the Crusher Occurrence, located 600 m east-southeast of

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the MZ Occurrence and 110 m northeast of a small lake, consists of well-mineralized talus boulders of pink, fine-grained felsite/aplite that assayed up to **430 ppb Au** (Moses, 1999).

Teck-Cominco Limited optioned the property late in 1999 and during 2000 completed linecutting, geological mapping and sampling, channel sampling of the Main Moses Occurrence, and an Induced Polarization (IP) survey. A total of 97 rock samples were collected during reconnaissance mapping, prospecting, and channel sampling. Samples collected from the trenches at the Main Moses Occurrence graded up to **5.50 gpt Au (0.16 opt)**; whereas sampling of the South Moses and MZ occurrences returned up to **0.25** and **0.145 gpt Au**, respectively. Teck-Cominco also discovered 2 previously unknown, contact proximal, disseminated pyrite zones within the Beggs Lake Stock that contained strongly anomalous to low-grade Au values.

The first is located 100m west of the South Moses Occurrence, has been traced for 125 m and grades up to **0.33 gpt Au**. The second is located 300 m north-northeast of the MZ Occurrence, grades up to **120 ppb Au**, and may correspond to the present UGM Occurrence. Paakki (2001) recognized that at least three styles of mineralization were present within the property, including 1) sheared, pyritic, Fe-carbonate altered mafic metavolcanic rocks (Main Moses and South Moses); 2) disseminated pyrite and quartz veining within granodiorite, monzonite and syenite along the contact of the Beggs Lake stock (UGM, J & J); and 3) disseminated and fracture-controlled chalcopyrite and pyrrhotite in cherty footwall rocks at the base of the Goodchild Lake Serpentine (Violamac Cu-Ni). Teck-Cominco optioned the property to Saxony Explorations Ltd. who subsequently optioned it to Jonpol Explorations Inc. in 2001.

**1998 to 2002:** Four claims, totalling 51 units, were staked near Smoke Lake during 1998 for prospectors J.E. Bond, D.M. Michano, P.A. Moses, R.P. Renner, and K.G. Fenwick. Prospecting during 1998 by Peter Moses and Russell Renner discovered several high-grade float boulders within a stream valley east of Smoke Lake. These boulders consist of disseminated pyrite within angular to sub-round, metre-sized blocks of pink to dark grey, altered, equigranular, fine-grained monzonite crosscut by quartz and quartz-carbonate veinlets. Grab samples returned high-grade assays of up to **20.60 gpt Au (0.60 opt)**. The owners completed a program of prospecting, stripping, blasting, trenching, soil sampling, and rock sampling in 1999 and discovered 1 high grade Au float boulder, 2 bedrock Au occurrences, and 7 Zn+/-Cu+/-Ag+/-Co occurrences throughout the property.

Two samples taken from the float boulder (which may be the Syenite 1 boulder discovered by Peter Moses in 1997) graded **3.90** and **21.05 gpt Au**. The most significant of the various bedrock Au and base metals occurrences discovered during 1999 include: The East Budall Occurrence located 150 m northeast of Budall Lake (**3.02 gpt Au** from a 15-cm thick quartz vein); the Budall Lake Occurrence on the eastern shoreline of Budall Lake (**1.97% Zn** and **2810 ppm Cu**); and the Moosehorn Lake Occurrence occurring within iron formation on the western shoreline of Moosehorn Lake (**5.78% Zn**, **12.4 ppm Ag**, and **528 ppm Cu**). The 5 remaining occurrences were within various iron formation units and contained up to **7170 ppm Zn**, **5260 ppm Cu**, and **3.80 ppm Ag** (Michano, 2000). Additional prospecting was completed and 2 claims, totalling 32 units, were added to the property in 2001. The prospecting discovered several boulders containing anomalous amounts of Au and one high grade float boulder all in the immediate vicinity of Bond Lake (Moses, 2001).

The high-grade boulder (Syenite #2) is located 60 m west of Bond Lake and assayed **14.52 gpt Au**. The property was optioned to Freewest Resources Canada Inc. in late April 2002. Freewest added 7 more claims to the property (an additional 73 units), completed 2 phases of prospecting, a till sampling program, linecutting, ground magnetometer and IP surveys, geological mapping, backhoe trenching, channel sampling, and detailed trench mapping. The highlight of the Phase 1 exploration was the discovery of a high-grade, granodiorite float boulder (Crocker Float) crosscut by a stockwork of quartz veins and veinlets approximately 270 m north of Smoke Lake. This boulder graded **321.90 gpt Au**, **70.70**

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**ppm Ag, 2050 ppm Bi, 989 ppm Te, and 1940 ppm Cu.** Phase 1 prospecting also discovered the Beggs Lake Occurrence (**1.09 gpt Au**), the RC South Occurrence (**2.76% Zn, 6.92 ppm Ag**), and several auriferous float boulders, in the vicinity of the Syenite #1 and #2 boulders, that graded between **1.01** and **7.57 gpt Au**.

**1999:** Battle Mountain Canada Ltd. conducted a summer exploration program in the Page Lake area from July to October, consisting of rock sampling and linecutting, with a total of 275 rocks collected and 1.7km of line cut. The property consisted of 29 claims of 44 claim units. Rocks were assayed for gold and returned up to **4.2gpt Au** from iron formation. Many other samples of iron formation returned Au results in the hundreds to low thousands ppb (Battle Mountain Canada Ltd., 1999<sup>1</sup>). Between July and September, a whole rock and soil sampling program was also conducted on the property, resulting in 158 whole rock samples and 123 soil samples. Soil samples were collected on cut lines at several locations returning up to **815ppb Au** and up to **662ppm Zn** (Battle Mountain Canada Ltd., 1999<sup>2</sup>).

**2002:** Freewest Resources Canada Inc. acquired the Smoke Lake Property, in the northern portion of what is now the Black Raven Property, in April 2002. They completed a Phase I prospecting, mapping and till sampling program in June and July of that year. They were also operators for Jonpol Explorations Limited on the Goodchild Property, situated adjacent to the Smoke Lake Property to the northeast and adjoining the west shore of Goodchild Lake. Jonpol had optioned the property from Saxony Explorations Ltd. in 2001. Saxony had optioned the property from Teck Cominco Limited, who had originally optioned the ground from Peter Moses of Marathon, Ontario in 1999.

The Phase I program, focusing on the Smoke Lake Property, resulted in the discovery of 4 bedrock gold occurrences (one returning > **1gpt**), 5 Zn occurrences (one returning > **1%**) and 14 auriferous floats. As mentioned above, this included the high-grade granodiorite Crocker Float, and several boulders forming a train NE from Smoke Lake towards a possible source on the Goodchild Property. As a follow-up to the Phase I program, in August Freewest began a Phase II program which would involve linecutting, grid prospecting and mapping, ground magnetometer and IP surveys, trench excavating, and channel sampling. 288 grab samples were collected during the prospecting program – 153 from the Smoke Lake Property and 135 from the Goodchild Property (MacTavish, 2003).

During Phase II 8 new Au occurrences were discovered on the Smoke Lake Property and 5 new Au occurrences were discovered on the Goodchild Property. Some more auriferous boulders were also found in the boulder train, and some possible source areas for the train were discovered on the Goodchild Property. Also, a total of 300 channel samples from the Smoke Lake Property and 351 from the Goodchild Property were collected, for a total of 651. The trenching program uncovered the gold-rich Super G vein hosted in mafic metavolcanics on the northeast shore of Smoke Lake. One grab sample there assayed **846.6 gpt Au** and channel samples assayed up to **33.06 gpt/1.85m** (MacTavish, 2003). Freewest drilled 3 holes on the Smoke Lake Property in October. Two of them tested the Super G occurrence and one tested the Double Deuce occurrence within the Beggs Lake Stock, where sampling had yielded gold values up to **9.08 gpt**. The first two holes intersected VMS style mineralization (samples graded up to **7321 ppm Zn** and **627 ppm Cu**, as well as **127 ppb Au**) as well as the probable continuation of the Super G vein below surface (**10.57 gpt/0.29 m**). The third hole intersected altered monzonite with quartz stringers and veins from 23 to 135 m, with the best sample assaying **471 ppb Au/0.2 m** (Hawke, 2003<sup>3</sup>).

**2002 and 2003:** Jonpol began drilling in November 2002 and ended in January 2003. They drilled 3 holes beneath the high-grade (**100.9 gpt**) Lucky occurrence within the Beggs Lake Stock, and intersected altered monzonite and syenite dikes which returned assays of up to **2.88 gpt Au/1.14m**.

Another hole tested the UGM occurrence (up to **2.71 gpt Au**) and returned assays of up to **3.94 gpt Au/0.42 m** and **1.29 gpt Au/2.2 m**, in a 90-metre section of altered and mineralized monzonite. The fifth

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hole tested an IP anomaly and intersected VMS style mineralization which returned assays of up to **888 ppm Cu/1.0 m** and **8180 ppm Zn/0.42 m** (Hawke, 2003<sup>1</sup>).

**2003:** Jonpol drilled 5 diamond drill holes on the Goodchild Property during September and October. Four holes tested IP targets and one tested the MZ gold occurrence. One hole testing an IP target and a historical occurrence returned **1.13 gpt Au/1 m**, the best result of the program. The hole testing the MZ occurrence was drilled to hopefully intersect the contact between the monzonite and surrounding metavolcanics, but failed to reach the contact and yielded low gold values (Hawke, 2003<sup>2</sup>).

**2004:** CanAlaska Ventures Ltd., having previously optioned the ground from Freewest Resources, conducted a program of detailed soil sampling, geological mapping and prospecting on the Smoke Lake Property from late August to mid-September, with the main purpose of locating source areas for the Crocker Float and the Smoke Lake Float boulders. Up to **632 ppb Au** was obtained from soil sampling and re-sampling of the Super G vein returned a value of **100 gpt Au** (MacLachlan and Londry, 2004).

From late October to mid-November, CanAlaska followed up these results with a DDH program consisting of six holes. The highest assay from drilling was **8092 ppb Au/0.8m**, in a hole testing the possible strike extension of the Super G vein to the north, as well as soil anomalies, an IP trend and possible NE structure. Another hole testing the possible strike extension of the Smoke Lake Occurrence (on the north shore of Smoke Lake), as well as soil anomalies, IP and mag features, and a NE trending structure, returned a highest assay of **1587 ppb Au/1.0 m** (MacLachlan et al., 2004).

**2004 to 2006:** Prospectors Duncan Michano, Brian Gionet and Jamie Moses conducted a prospecting and trenching program on the Page Lake Property to follow up on the historical Kurt Kuhner showing, and to locate hematized quartz veins similar to that of the Super G showing at Smoke Lake. The main trench southwest of Page Lake contained green mica sericite schist and samples that assayed up to **23 gpt Au** from a quartz-flooded sample, as well as **6.20% Zn** and **34.8 gpt Ag**. There were Mo anomalies throughout the trench. A pit 100m NW of the main trench yielded a sample which assayed **160 ppb Au, 42.6 gpt Ag, 30.7 ppm As, 179 ppm Bi, 3650 ppm Mo, 2770 ppm Pb, 15.35 ppm Te, and 464 ppm Zn**, from an 8cm wide quartz vein (Michano, 2004).

In **2005**, more work was done to the southwest and northeast along strike of the main trench, as well as in the northwest of the property to follow up on work done by Hemlo Gold. The best mineralization was discovered southwest of the main trench, assaying up to **298 ppb Au** (Michano, 2005).

In **2006**, two claims were added to the Page Lake Property, resulting in the creation of the King Lake Property, owned by the previously mentioned prospectors as well as Russell Renner and James Bond. The intent of the 2006 program was to follow up on work done in the 2005 field season; however, a new showing was discovered southwest of King Lake, south of Page Lake, and it was decided to set up a camp there to carry out further work in the area. Samples taken from subsequent trenching at the main showing assayed up to **281ppb Au, 2255ppm Cu** and **23,696ppm Zn** (Michano and Renner, 2006).

**2006:** Benton Resources conducted a prospecting and geological reconnaissance program on the Goodchild Lake Property. This property covered portions of the current Black Raven / Pic property but work at this time was conducted to the north at the Cu-Ni Beggs-Currie showing (1930s) and the Phantom showing (discovered by Freewest Resources in 2000). The showings were mapped in detail. Samples taken earlier in 2006 at the Beggs-Currie showing had returned **6.72% Ni, 0.127% Co & 0.326ppm Pd** and **12.6% Ni & 0.295% Co**, within intrusion breccia close to the contact of the ultramafic body. The Phantom showing is a sulphide occurrence hosted in pyroxenite and associated with a 070-degree shear zone. The best field result obtained from this showing was **1.27%Ni, 0.216% Cu, 0.385ppm Pd & 0.227ppm Pt**. The Goodchild ultramafic was found to consist primarily of olivine and chromite cumulate

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rock. Timing of the intrusion relative to the enclosing volcanosedimentary assemblage was not determined (Giovenazzo, 2007).

**2007:** Geotech Ltd. carried out a VTEM survey over the Goodchild Lake Property for Benton Resources. It covered 142.1 km<sup>2</sup> and 957-line kilometers. A number of EM anomalies were identified (Sims & Venter, 2007).

**2007:** In the fall of 2007, Benton Resources prospected and mapped where VTEM anomalies had been outlined earlier in the year. Seven of eleven anomalies were ground truthed. 14 whole rock, 113 grab and 77 soil samples were collected on the property (Arnold, 2007). Anomalies included the Phantom and Beggs-Currie showings mentioned above, but six of the anomalies are located on the current Pic Property:

GC-03: This anomaly is located proximal to the northern property boundary and to the contact of the intrusion between its two north-south trending limbs. It was found to be underlain by chloritic mafic volcanics, and weakly to moderately sheared ultramafics, altered with serpentine/talc and hematite, with locally up to 10-15% pyrrhotite/pyrite/chalcopyrite along silica flooded shear planes.

GC-04: This anomaly is located west of anomaly GC-03, also not far from the contact of the intrusion but more internal than GC-03. Geological mapping of this area determined that the conductor is underlain by locally spinifex textured, moderately serpentinized and talc-altered peridotite. Some mafic volcanics with local trace-2% pyrrhotite were observed as well.

GC-05: This anomaly is located between Beggs and Cawanogami Lakes, at the contact of the intrusion. It was not mapped by Benton; however, some linecutting and prospecting was conducted in the area, which returned values up to 0.25% Ni.

GC-06: This anomaly is located on the northwest side of Cawanogami Lake and was not ground truthed.

GC-07: This anomaly is located west of anomaly GC-04, at a flexure in the western contact of the western limb of the intrusion. It was found to be underlain by gabbro, with dunite/orthopyroxenite to the east and mafic volcanics to the west. These rocks were transected by northeast-southwest narrow shears, were all carbonate altered, and disseminated pyrite/pyrrhotite was observed in the mafic and ultramafic rocks, while 1-2% pyrrhotite/pyrite and trace-1% chalcopyrite was observed in the gabbroic unit.

GC-11: This anomaly is located on the north shore of Pukatawagan Lake and was not ground truthed.

**2008:** Benton Resources Ltd. conducted a twelve hole, 2053m Phase I diamond drill program on the Goodchild Property to test the Beggs-Currie and Phantom showings as well as airborne VTEM and magnetic anomalies and the brecciated contact of the Goodchild ultramafic complex. Assays returned only background nickel values. Only hole GC08-05 was located on the current Pic Property, north of Pukatawagan Lake and intersected graphitic argillite at 79.4m (Byrnes, 2008).

**2009:** Benton Resources Ltd. conducted an eight hole, 1601m Phase II diamond drill program on the Goodchild Property to further test VTEM anomalies identified on the property. Assays returned mostly background nickel with weakly anomalous copper values. Holes GC-09-15, GC-09-17 and GC-09-20 were located on the current Pic Property. Hole 15 was drilled to test a VTEM anomaly northeast of Goodchild Lake and intersected fine disseminated pyrrhotite within serpentinite at 321.4m and graphitic argillite at 331m. Hole 17 was drilled to test VTEM and Mag anomalies and intersected graphitic argillite at 55.2m and 95.2m. Hole 20 was drilled to test priority one VTEM anomalies and intersected several graphitic argillite units (Byrnes, 2009).

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**2011:** Entourage Metals Ltd. acquired the Black Raven Property on February 28<sup>th</sup>, 2011. It consisted of the Smoke Lake Property, a couple of claims adjoining it to the north covering part of the Goodchild Lake Serpentinite, and a block of claims adjoining it to the south.

All claims were under option from J. Bond, D. Michano, R. Renner, J. Moses B. Gionet, M. Dorval and K. Fenwick. Entourage conducted a Phase I exploration program between May 1<sup>st</sup> and July 29<sup>th</sup>, involving line cutting, reconnaissance sampling of historical trenches, prospecting, and a grid-based soil survey. 19 reconnaissance channel samples, 38 grab samples and at least 1000 soil samples were taken. Several grab samples returned anomalous levels of Au and a trench sample from the Super G vein confirmed high grade. There were also several gold anomalies in the soil samples collected (Labrecque, 2011).

**2011 and 2012:** Entourage Metals Ltd. conducted a diamond drill program on the Black Raven Property, based on the results of their earlier soil survey and geophysical data. The purpose was generally to test for the strike extension of the Super G vein and mineralization at the contact between the Beggs Lake stock and the surrounding metavolcanics. Eight holes (BR-11-01 to BR-12-08) were drilled in late 2011 and early 2012, followed by five holes (BR-12-15 to BR-12-19).

Holes BR-11-01 to BR-11-06 tested the Super G vein and returned up to **44.57gpt Au** / 2.38m from hole BR-11-04. Veins sampled up-hole returned up to **5.43gpt Au** / 0.6m from hole BR-11-03.

Hole BR-12-07 tested the southern contact of the Beggs Lake Stock and returned **1.39gpt Au** / 2m from a zone of quartz stringers at the contact within the Stock, and a sulphide-rich zone of ‘metasomatic layering’ at the contact returned **0.53% Zn** / 1m. According to an Entourage April 26<sup>th</sup>, 2012 press release, this hole tested the Tracy Lee Prospect identified by Freewest Resources, targeting a **0.87gpt Au** soil anomaly, an IP anomaly and a magnetic lineament.

Hole BR-12-08 tested the northern contact of the Beggs Lake Stock and a zone of anomalous gold was identified within the Stock, associated with a mafic and lamprophyre dyke swarm. According to an Entourage August 1<sup>st</sup>, 2012 press release, the hole was designed to target elevated gold in soil anomalies between **30** and **50ppb**. Anomalous gold values and hydrothermal alteration were identified over 76m, including **0.42gpt Au** / 2m.

Five further holes (BR-12-15 to BR-12-19) were subsequently drilled to test the Super G Vein. These returned up to **12.2gpt Au** / 0.3m from hole BR-12-18, and the possible down-dip expression of the Mark Vein (west of the Super G Vein on surface) returned up to **4.62gpt Au** / 0.65m from hole BR-12-16. A mineralized zone in hole BR-12-18 returned **14.1gpt Au** / 0.38m, up-hole from the Super G Vein.

(Labrecque and Florek, 2012).

**2016:** From October 16<sup>th</sup> to 22<sup>nd</sup> a small prospecting program was carried out on the Sprucetop Lake Property on behalf of Canadian Orebodies Inc., by Bruce MacLachlan of Emerald Geological Services and assistant Rogan Hennie. Sampling was carried out at several locations along and near a prominent northwest trending fault and numerous points of interest were documented (MacLachlan, 2016).

**2017:** Canadian Orebodies Inc. carried out an extensive prospecting, mapping, soil sampling and Line-cutting program on the Black Raven Property between June and October 2017. The prospecting program resulted in the discovery of a number of gold occurrences and zones near the northern contact of the Beggs Lake Stock, including the ABC Occurrence (**109 gpt Au**), Gold Shore Occurrence (**11.6 gpt Au**), Tibia Occurrence (**14.7 gpt Au**), Sunglasses Occurrence (**895 ppb Au**), North Ridge Zone (**1.3 gpt Au**), Forty-Five Zone (**536 ppb Au**), Alpha Boulder (**980 ppb Au**), Turbo Q Zone (**637 ppb Au**), Super 7 Zone (**492 ppb Au**), Revival Occurrence (**526 ppb Au**) and other zones and occurrences that were less anomalous.

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Most of the new Au anomalies were returned from quartz stringers/veins in locally silicified and pyritic monzonite/granodiorite. In addition, while following the strike extension of the interpreted Beggs Lake Fault, thought to be spatially related to Au mineralization, the Contact Occurrence (**11.9 gpt Au**) was discovered ~8km southeast of the Beggs Lake Stock, consisting of quartz veins in mafic volcanics within a NNE-trending stream in a magnetic high southeast of Contact Lake. Additionally, some prospecting was carried out near Page Lake to follow up on historical work which had identified the Page Lake Iron Formation (up to **3.1 gpt Au**), the Kurt Kuhner base metal/gold showing (**1.1% Zn**/7.6 meters in core, including **4.5gpt Au**/1.5 meters), and a gold in soil anomaly of **1100 ppb Au** southeast of Page Lake.

Results of up to **3.16 gpt Au** were returned from banded iron formation from the Page Lake Iron Formation, which was found to be more laterally extensive than previously thought. The Southeast Bond Lake Occurrence (**423 ppb Au**), was also discovered 150m southeast of Bond Lake in sheared mafic volcanics with up to 2% pyrite, and the Crusher South Occurrence (**867 ppb Au**) was discovered 230m south-southwest of the Crusher Occurrence discovered by Freewest Resources in 2002. It consisted of vuggy quartz in mafic volcanics with up to 5% pyrite.

Linecutting was carried out between September 28<sup>th</sup>, 29<sup>th</sup> and October 11<sup>th</sup>, 12<sup>th</sup> in the northwestern portion of the Beggs Lake Stock (the Roccian East Grid), to facilitate prospecting and soil sampling in the vicinity of the high-grade ABC Occurrence and the northern contact of the Stock. Soil sampling was conducted on part of the Grid between September 28<sup>th</sup> and October 1<sup>st</sup>. A total of 164 “B” horizon samples were collected along five northeast trending grid lines and along the southeast trending baseline. Notable results included **180 ppb Au** near the northern end of L200E, up to **35 ppb Au** in the immediate vicinity of the ABC Occurrence, up to **32 ppb Au** on line 100E between 100S and 150S, and up to **15 ppb Au** on Line 500E between 125S and 150S. Geological mapping was also carried out along the northern contact of the Beggs Lake Stock, on the Roccian East Grid and north of the Beggs Lake Stock, which better defined the northern contact of the Stock, the mafic volcanics to the north, and the serpentinite further north (MacLachlan and MacConnell, 2017).

**2018:** Canadian Orebodies Inc. carried out an extensive prospecting, mapping and soil sampling program on the Black Raven Property between June and October 2018. Several new gold discoveries were made during the 2018 field program including a new gold occurrence located 190 metres north of Lucky Lake which returned gold values up to **16.4gpt** as well as a new gold occurrence located approximately 200 metres north of Beggs Lake which returned gold values up to **15.3gpt**. Several anomalous samples up to **8.3gpt Au** and up to **227gpt Ag** correspond to the newly discovered “GC” vein which is located approximately 125 metres northeast of the ABC Gold Occurrence discovered during the 2017 field program.

A new copper showing was found late in the field season near major northwest and northeast trending structures located approximately 5.5 kilometres southeast of the company’s Wire Lake Camp, within the Gowan Lake Pluton within the Black Pic Batholith. Sampling of altered, brecciated syenite with chalcopyrite returned grades up to **9560ppm Cu**.

Grades of up to **3.51% Zn** (Mag Lake NW Iron Formation) and **352ppm W** (Super 7 Extension Zone) were obtained as well.

Two small orientation soil sampling surveys were carried out across the Contact Lake Gold Occurrence and immediately south of the Super G Gold Occurrence at Smoke Lake. At Contact Lake “A” horizon were collected at each station as well as “B” horizon where possible. Original results from A & B horizon were all above background up to **774 ppb Au**. At Smoke Lake “A” horizon only were collected at each station, resulting in assays of up to **1240 ppb Au**. However, selective resampling did not replicate these high results in either survey.



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Geological mapping was carried out at many locations across the Black Raven Property to provide a better understanding of the underlying stratigraphy and associated structures.

**2018:** Canadian Orebodies Inc. carried out a diamond drill program on the Black Raven Property during October 2018. The drill program was carried out at the Super G Occurrence located at Smoke Lake, the North Ridge Au zone located east of Beggs Lake and the Contact Lake Gold Occurrence located southeast of Contact Lake. Results from the drill program included the following:

#### Smoke Lake:

Five diamond drill holes totalling 785.3 metres were drilled in the Smoke Lake area to target the Super G vein. The results of the 2018 drilling suggested that the Super G vein is part of the much larger mineralized system referred to as the Smoke Lake Gold System (SLGS). From the integration of the historic and the 2018 drilling results, the SLGS is interpreted as an anastomosed network of mineralized structures in which gold mineralization is associated with mm-wide to cm-wide quartz stringers and veins with haloes of disseminated sulfides.

Narrow higher-grade zones enveloped by lower grade mineralization were observed in the main mineralized structures composing the SLGS. The SLGS has been so far defined by drilling over a strike length of >400 metres and to a vertical depth of 130 metres. The vein system remains open in both directions along strike and to depth. Surface mapping of gold mineralization in the area also suggests that additional mineralized structures are likely present in the hanging wall and footwall of the of the SLGS.

The SLGS was targeted based on the previous work of Freewest Resources Canada Ltd. in 2003 and diamond drilling by Entourage Metals Ltd. in 2011-12. Both exploration programs encountered multiple zones of mineralization in the area and the best diamond drilling intersections were obtained in the Super G vein, which returned assay results of **44.5 g/t Au** (uncut) over a drilled width of 2.4 metres (BR-11-04<sup>1</sup>) and **19.2 g/t Au** over 2.0 metres (BR-11-01<sup>1</sup>). From the 2018 drilling, the high-grade intersection in BR-2018-002 suggests an up-plunge continuity of the zone of high-grade mineralization between BR-11-01 and BR-11-04, whereas BR-2018-003 shows that the zone of mineralization remains open down-plunge.

#### North Ridge:

The North Ridge target consists of a quartz-tourmaline vein system hosted within the Beggs Lake Stock. Anomalous gold values (grabs include values up to 5.1 g/t Au) +/- chalcopyrite and molybdenum have been observed over a strike length of 200 plus metres and 28 metres in width. Two diamond drill holes BR-2018-006 and 007 (216 metres) were drilled to further evaluate the area. Hole BR-2018-007 revealed a broad gold anomaly in bedrock that corresponds to the vertical projection of the vein system discovered at surface. In hole BR-2018-007, intermittent anomalous gold values (in excess of 100ppb gold) detected between 19.0 to 103.0 metres correspond to an intersection of 80 ppb gold over 84 metres. (Hutteri, 2019)

#### Contact Lake:

The Contact Lake Prospect is in the northeast portion of the project area approximately 8 kilometres northeast of the Wire Lake Gold Zone and 7 kilometres east of the Super G Vein. The mineralized zone observed in outcrop consists of several ~E-W parallel quartz veins over an apparent 2 to 3 metre width in which selective grab samples contained up to **11.9 g/t Au**. One hole, CL-2018-001 was drilled to test the vertical extension of the mineralized zone, but no significant results were obtained in the hole (MacConnell, 2019).

**2019:** In the winter of 2019, a ten-hole, 1305m diamond drill program was conducted on the ice at Smoke Lake to follow up on previous drilling targeting the Smoke Lake Gold System. Up to **5.4gpt Au** /

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10.4m, including **12.0gpt Au** / 4.3m was returned from hole BR-2019-013, which was a new near-surface discovery. Within the same hole the Super G structure returned **6.4gpt Au** / 2m, including **15.9gpt Au** / 0.8m. Zinc enrichment up to **1.28% Zn** in hole BR-2019-16 was discovered at the contacts of volcanic units, suggesting VMS-style mineralization (Canadian Orebodies press release June 2019).

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## 5.0 -2019 EXPLORATION PROGRAM -

### 5.1 INTRODUCTION

Between June 18<sup>th</sup> and October 30<sup>th</sup>, a prospecting, soil sampling and lake sediment sampling program was carried out on the Black Raven Property located approximately 20 kilometers north of the town of Marathon, approximately 40 kilometres southwest of the town of Manitouwadge and 30 kilometers northwest of the Hemlo Mine Site, see Figure 4.

The majority of field work was carried out from three “fly-camps” on the Black Raven claim group; one in the “Harvey Fault” Area southeast of Wire Lake, one at Contact Lake, and one at Beggs Lake. Two ‘day trips’ were based out of the Marathon Airport in October. Three days of prospecting were based out of Turner’s Northwoods Adventures campground in Manitouwadge.

Prospecting was carried out at numerous locations targeting historical showings, prospective geology and alteration, structural features identified from magnetic surveys and topographical features. Two small “orientation” humus and B horizon soil sampling surveys were carried out at the Contact Lake Gold Occurrence and four “orientation” humus and B horizon soil surveys were carried out in the Beggs Lake Area. Lake sediment sampling was carried out at Contact Lake and at Beggs Lake. The program resulted in a total of 74 man-days of field work.

All the work and sample locations were defined using a handheld Garmin GPS. The measurements were plotted using UTM: NAD 83 in Zone 16 metric coordinates. Foot and boat traverses are collected by GPS, saved as separate files and plotted on the various Figures. All samples were entered in an Excel database nightly then imported into MapInfo for reviewing current work and planning future programs. All GPS tracks were downloaded daily. The tracks were saved by type (foot traverse-boat-truck), date and labeled as such, then saved to a “Master” file in MapInfo for plotting and future planning.

A total of 89 rock-grab samples were collected for gold and multi-element ICP analyses. Samples collected were individually bagged and labeled; individually bagged samples were then put into rice bags and driven to Activation Labs (Actlabs) in Timmins.

All 89 rock samples were photographed in the field and labeled by their sample number, direction the photo is taken and type (outcrop-frost heave-talus etc.). A representative rock sample “Rep” is labeled of every rock sample sent for analysis and kept for future reference. In addition to the grab sample photos, photos were collected and labeled of various outcrops and other features in the field.

A total of 96 A horizon (humus) soil samples and 37 B horizon soil samples were collected and sent for Au analysis. 64 soil samples were collected in the Beggs Lake Area; 53 soil samples were collected in the Contact Lake Area, and 16 soil samples were collected in the Mag Lake Area. Soils were placed in paper-Kraft bags, labeled and placed in plastic bins and driven to Activation Labs (Actlabs) in Timmins.

The Rock Sample Description Table is presented in Table I, Appendix I, and Rock Assay Certificates are presented in Appendix IV. The Soil Sample Description Table is presented in Table II, Appendix II, and soil assay certificates are presented in Appendix V. The Lake Sediment Table is presented in Table III, Appendix III and lake sediment assay certificates are presented in Appendix VI. Descriptions of the Act Labs analytical procedures and packages is presented in Appendix VII; Statement of Costs is presented in Appendix VIII; a list of the Black Raven Cell-Claims is presented in Table IV, Appendix IX; daily logs are located in Appendix X. Map sheets A-F display the locations of the grab, soil and lake sediment samples in relation to the claim boundaries and are located in Appendix XI.

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A summary of each camp's targets/objectives as well as specific target areas +/- areas of interest are discussed below.

- Contact Lake

The Contact Lake soil sampling, lake sediment sampling and prospecting program was carried out in order to follow up on the Contact Lake Gold Occurrence (CLGO, **11.9 gpt Au**) discovered in the fall of 2017 by Canadian Orebodies operators, as well as the Contact East Iron Formation (**428ppb Au, 9370ppm Zn, 1970ppm Cu**), discovered by Canadian Orebodies operators in 2018. A tent was set up on the west shore of Contact Lake and a boat was used to travel to the opposite side of the lake and to collect lake sediment samples. Soil lines were designed to test a south-southeast trending magnetic high thought to correspond to a package of iron formation and volcanics, while a 2018 orientation soil survey in the vicinity of the CLGO was oriented north-south to test an approximately E-W trending zone hosting the occurrence. Soil sampling in 2018 returned values up to **774ppb Au** from A horizon soil. A handheld GPS and compass was used to collect soil samples rather than a cut grid. A helicopter pad slightly west of camp, constructed in 2018, was used as a landing spot.

Four 100m east-northeast soil lines were run at 100m line spacing and 25m stations over the Contact East Iron Formation.

Two 250m east-northeast lines were run at 100m line spacing and 25m stations in the CLGO Area.

- Beggs Lake

The Beggs Lake soil sampling, lake sediment sampling and prospecting program was undertaken in order to follow up on samples collected in 2017 and 2018, including the ABC Occurrence (2017, **109.0gpt Au**) and GC Vein (**8.2gpt Au, 227.0gpt Ag**), the Alpha North Occurrence (2018, **15.3gpt Au**), the Super 7 (2017, **492ppb Au**) and Super 7 Extension (**327ppb Au, 352ppm W**) Zones, as well as to test an east-northeast-trending swampy area west of Beggs Lake. A camp was set up at the north end of a peninsula in the centre of Beggs Lake, and a boat was used to travel across the lake as well as to collect lake sediments. A handheld GPS and compass was used to collect soil samples rather than a cut grid. An old helicopter pad south of camp was reinforced and used as a landing spot.

Two ~225m east-west soil lines were run at 100m line spacing and 25m stations over the ABC Occurrence and GC Vein Area.

One ~240m east-southeast soil line was run with 25m stations over the swampy area west of Beggs Lake.

Two ~150m north-northeast soil lines were run at 100m line spacing and 25m stations across the Alpha North Area (where quartz veining had been subparallel to the contact of the Beggs Lake Stock, east-southeast).

One 275m soil line was run with 25m stations across the Super 7 and Super 7 Extension Areas.

- Harvey 1 Fault

The Harvey 1 Fault prospecting program was undertaken in order to follow up on a brecciated syenite boulder that returned up to **9560ppm Cu**, and to further explore east-southeast trending structures where quartz stockwork with pyrite and chalcopyrite had been located in 2017 and 2018. A camp was set up on a small lake ~6km southeast of Wire Lake. The helicopter landed in low ground on the west side of the lake.

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### - Harvey 2 Fault

The Harvey 2 Fault prospecting program was undertaken in order to follow up on slightly anomalous lake sediments up to **5ppb Au** within or in the vicinity of an east-southeast trending magnetic low corresponding to an interpreted fault. No significant assays were returned. Access was achieved by truck via logging roads, based out of ‘Turner’s Northwoods Adventures’ campground in Manitouwadge, which was simultaneously used as a base for the Fourbay Lake prospecting program detailed in a separate report.

### - Mag Lake

The Mag Lake one-day prospecting and soil sampling program was undertaken in order to follow up on samples in this area which in 2018 had returned up to **61ppb Au** and **3.5% Zn** from garnet-bearing iron formation and up to **222ppb Au** from quartz veins with chalcopyrite and galena. Access was achieved via Wilderness Helicopters out of the Marathon Airport. The helicopter landed on the north side of Mag Lake.

### - Goodchild Serpentinite

The Goodchild Serpentinite one-day prospecting program was undertaken in order to investigate an orange-brown-stained hillside seen from the air. Access was achieved via Wilderness Helicopters out of the Marathon Airport. The helicopter landed in a swamp north of the target cliff face.

### - Budall Lake South

The Budall Lake South one-day prospecting program was undertaken in order to try to explain the 21ppb Au lake sediment anomaly in Budall Lake. Access was achieved via Wilderness Helicopters out of the Marathon Airport. The helicopter landed in a swamp south of Budall Lake.

## **5.2 RESULTS BY AREA**

Eighty-nine grab samples were collected on the Black Raven cell-claims during the 2019 field program. Of those 89 samples, 7 returned gold assays of **0.1 gpt Au**, with one sample returning a grade of **554ppb Au** (sample A704589).

Two small orientation soil sampling surveys were carried out in the Contact Lake Area, four orientation soil sampling surveys in the Beggs Lake Area, and one in the Mag Lake Area. “A” horizon were collected at each station as well as “B” horizon where possible. Up to **44ppb Au** was returned from A horizon overall, and up to **22ppb Au** from B horizon.

### **“Harvey 2” Fault Area Results:**

A total of 10 grab samples were collected in this area, where a southeast-trending magnetic low corresponds to an interpreted fault. See Map Sheets D and F.

Five (5) grab samples (A704550-A704554) were collected south of Hammerhead Lake where a **5ppb Au** GSC Lake sediment was obtained. They consisted mainly of what appeared to be coarse-grained hornblendite which may be a cumulate, intruded by quartz monzonite dykes and containing up to 1% pyrite and trace chalcopyrite. These samples returned up to **6ppb Au**. See Map Sheet F.

Five (5) grab samples (A704555-A704559) were collected south of Dragon Lake and southeast of a lake where a **3ppb Au** GSC Lake sediment was obtained. They consisted of mafic intrusive (possible ultramafic) with local breccia and felsic dykes containing up to 0.5% pyrite. These samples returned up to **5ppb Au**. See Map Sheet D.

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### Contact Lake Area Results:

A total of 39 A horizon (humus) samples, 26 B horizon samples, 17 grab samples and 5 lake sediment samples were collected in the Contact Lake Area. Of these, 6 humus samples and 5 B horizon samples were actually collected on the Wire Lake Property in the vicinity of the Contact East Iron Formation. See Map Sheet E.

Of the soil samples collected across the Contact East Iron Formation, humus returned up to **30ppb Au** (averaging **19ppb Au** over 4 lines and 20 samples) and B horizon returned up to **18ppb Au** (averaging **8.5ppb Au** over 17 samples). Humus also returned up to **0.93ppm Ag, 162ppm Co, 60ppm Cu, 8410ppm Mn, 4.3ppm Mo, 105ppm Pb & 539ppm Zn**. B horizon also returned up to **26ppm Co, 62ppm Cu, 1370ppm Mn, 5.5ppm Mo & 174ppm Zn**. On the Black Raven Property alone, soils returned up to **30ppb Au** from humus and B horizon returned up to **18ppb Au**.

Two (2) grab samples (A704560, A704576) were collected between Contact Lake and the Contact East Iron Formation, returning up to **20ppb Au & 1290ppm Zn** from weakly sheared mafic volcanics (A704560).

One (1) grab sample (A704561) was collected south-southeast of the Contact East Iron Formation along the same lineament, consisting of weakly sheared mafic volcanics with trace pyrite and returning **34ppb Au**.

Ten (10) grab samples (A704562-A704571) were collected at the Contact East Iron Formation after the zone was washed and returned up to **262ppb Au & 1.42ppm Ag**, (A704562), consisting of banded iron formation. Washing also revealed possible feldspar porphyry in contact with the iron formation as well as folded chert layers. Sampling also returned up to **1.51% Mn** (A704563) and **1340ppm Zn** (A704571).

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**Folded chert horizon at Contact East Iron Formation, look SE.**



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**Samples at Contact East Iron Formation, look west into lineament**



**Possible feldspar porphyry at the Contact East Iron Formation**





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Of the soil samples collected near the Contact Lake Gold Occurrence (CLGO, 2017, **11.9gpt Au**) and Quartz Slope Zone Areas (2018, **229ppb Au**), humus returned up to **34ppb Au** (averaging **22ppb Au** over 2 lines and 17 samples) and B horizon returned up to **22ppb Au** (averaging **9ppb Au** over 9 samples). Humus also returned up to **29ppm Co, 437ppm Cr, 67ppm Cu, 11ppm Mo & 140ppm Pb**. B horizon also returned up to **0.67ppm Ag, 28ppm Co, 187ppm Cr, 31ppm Cu, 1090ppm Mn & 30ppm Mo**.

Four (4) grab samples (A704572-A704575) were collected on the northern soil line between the CLGO and the Quartz Slope Zone, returning up to **140ppb Au** from fine-grained amphibolite with a <1cm quartz stringer (A704574). This sample was roughly along strike to the north-northwest from the Quartz Slope Zone. Samples also returned up to **95ppm Co, 596ppm Cr, 3470ppm Mn** (A704575) and **433ppm Ni** (A704573).

Five (5) lake sediment samples were collected at Contact Lake and returned up to **34ppb Au** and averaged **23ppb Au**.

#### **Beggs Lake Area Results:**

A total of 55 humus samples, 9 B horizon samples, 33 grab samples and 5 lake sediment samples were collected in this area. B horizon samples were difficult to collect in this area. See Map Sheet A.

Of the soil samples collected across the ABC Occurrence and GC Vein located during the 2017 and 2018 field programs, (**109gpt Au** and **8.2gpt Au & 227gpt Ag**, respectively), humus returned up to **44ppb Au** (averaging **32ppb Au** over 2 lines and 20 samples) and B horizon returned up to **13ppb Au** (averaging **5ppb Au** over 6 samples). Humus also returned up to **1.2ppm Ag, 213ppm Co, 985ppm Cr, 167ppm Cu, 5570ppm Mn, 9.8ppm Mo, 308ppm Ni & 117ppm Pb**. B horizon also returned up to **0.9ppm Ag, 82ppm Co, 581ppm Cr, 255ppm Cu, 3760ppm Mn, 9.4ppm Mo, 702ppm Ni & 23ppm Pb**.

Of the soil samples collected across the Super 7 and Super 7 Extension Zones located during the 2017 field program (up to **492ppb Au** and **327ppb Au & 352ppm W**, respectively), humus returned up to **40ppb Au** (averaging **33ppb Au** over 1 line and 11 samples), and B horizon returned up to **5ppb Au** (only 2 samples collected). Humus also returned up to **32ppm Co, 1280ppm Cr, 2320ppm Mn, 2.3ppm Mo, 786ppm Ni, 119ppm Pb & 202ppm Zn**. B horizon also returned up to **19ppm Co, 642ppm Cr & 157ppm Ni**.

Of the soil samples collected across a northeast-trending swamp west of Beggs Lake, humus returned up to **41ppb Au** (averaging **33ppb Au** over 1 line and 10 samples). No B horizon samples were collected. Humus also returned up to **6490ppm Mn**.

Of the soil samples collected across the Alpha North Occurrence (2018, **15.3gpt Au**), humus returned up to **29ppb Au** (averaging **25ppb Au** over 2 lines and 14 samples. One B horizon sample was collected which returned **<5ppb Au**. Humus also returned up to **0.84ppm Ag, 169ppm Co, 1240ppm Cr, 3770ppm Mn, 226ppm Ni, 140ppm Pb & 253ppm Zn**. B horizon also returned up to **92ppm Co, 795ppm Cr, 60ppm Cu, 1320ppm Mn & 419ppm Ni**.

Twenty-seven (27) grab samples (A704577-A704603) were collected north of Beggs Lake in the vicinity of the Alpha North Occurrence and to the east and southeast, consisting of mafic volcanics and argillite/metasediments trending east-southeast, sub-parallel to the contact of the Beggs Lake Stock. These samples returned up to **544ppb Au** (A704589) from mafic volcanics with quartz-carbonate alteration and 1% pyrite cubes, and **135ppb Au** (A704590) from intermediate intrusive with 1% pyrite cubes, both samples about 60m southwest of the Alpha North Occurrence. Samples also returned up to

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**68ppm Co** (A704580), **0.17% Cu** (A704579), up to **8820ppm Mn** (A704577), and up to **13ppm Mo** & **48ppm Pb** (A704583).

**Alpha North Occurrence, quartz stringer at 100 degrees in sheared mafic volcanics look S**



Three (3) grab samples (A704606-A704608) were collected on the soil lines across the ABC Occurrence and GC Vein Areas, returning up to **217ppb Au** from shallow-dipping hematitic quartz veining in mafic volcanics with trace-1% pyrite and 0.5% chalcopyrite (A704608).

Two (2) grab samples (A704604-A704605) were collected south of Beggs Lake, consisting of mafic intrusive in outcrop in a 120-degree fracture zone with trace-1% pyrite and trace chalcopyrite, and an angular serpentinite float. Both samples returned **13ppb Au**.

One (1) grab sample (A704609) was collected between the North Ridge and Super 7 zones located during the 2017 field program, consisting of silicified and foliated felsic intrusive with quartz along foliation planes, from subangular float. This sample returned **14ppb Au**.

Five (5) lake sediment samples were collected at Beggs Lake and returned up to **33ppb Au**, averaging **29ppb Au**.

Attempts to wash the North Ridge Zone were not very successful. Little veining and mineralization was uncovered, and it was difficult to wash.

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### Harvey 1 Fault Area Results:

A total of 8 grab samples were collected in this area. See Map Sheet C.

One (1) grab sample (A704610) was collected south of the main Harvey Fault at the edge of a southeast-trending magnetic low, consisting of diabase dyke with pyrite. This sample returned **7ppb Au**. This was sampled to test for remobilization of gold.

Seven (7) grab samples (A704611-A704617) were collected within the main Harvey Fault southeast-trending magnetic low. They consisted mainly of syenite/syenogranite with quartz stockwork and aplite dykelets. These returned up to **8ppb Au** (A704611) from an aplite dyke with quartz stringers and trace pyrite.

### Mag Lake Area Results:

A total of 11 grab samples, 9 humus samples and 7 B horizon soil samples were collected at the north end of Mag Lake. See Map Sheet E.

Soil sampling returned up to **19ppb Au** from humus, averaging **5ppb Au** over 1 line of 9 samples, and **6ppb Au** from B horizon, averaging **<5ppb Au** over 7 samples. Humus also returned up to **265ppm Zn**, and B horizon also returned up to **195ppm Zn**.

Two (2) grab samples (A705076-A705077) were collected on the northwest shore of Mag Lake, returning up to **30ppb Au, 1.27ppm Ag, 40ppm Pb & 2160ppm Zn** from sample A705076 consisting of sheared iron formation, mainly chert in this sample. The shear trends 240/64 degrees NW here. Small northeast-plunging folds were also observed at this location one of which plunged at approximately 040/40 degrees.

Nine (9) grab samples (A705078-A705086) were collected northeast of Mag Lake in a broad area of rusty, variably sheared and silicified mafic volcanics with trace-0.5% pyrite. Only one sample (A705082) returned above background Au at **9ppb Au** (and **813ppm Zn**). Shearing at 100 degrees was observed at the eastern extent of these samples (A705083-A705084), as well as local quartz veining and outcrops of granodiorite which were also sampled (A705085-A705086). However, the major lineament associated with these samples trends northeast. Sampling also returned up to **129ppb Pb & 1550ppm Zn** (A705080).

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**Small folds in sheared banded iron formation look NE**



**Goodchild Serpentinite Results:**

A total of 9 grab samples (A583351-A583359) were collected in this area. See Map Sheet A.

Three (3) grab samples (A583351-A583353) were collected on a west-facing hillside where much orange staining had been observed from the air. These samples consisted of serpentinite with locally trace pyrite, minor-moderate quartz-carbonate alteration and minor-moderate fibrous stringers of some form of asbestos. The orange staining did not appear to be rust from sulphide mineralization but did appear to be a weathering product as it formed rims on talus blocks. These samples returned insignificant Au up to **3ppb Au & 2570ppm Ni** (A583352). Samples also returned up to **113ppm Co & 743ppm Cr** (A583353).

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### Serpentinite with orange-brown staining look E



Six (6) grab samples (A583354-A583359) were collected ~50m south of the serpentinite slope and consisted of mafic volcanics with minor-moderate quartz-carbonate alteration and up to 3-4% pyrite cubes up to 1cm. These returned up to **9ppb Au** (A583357). They may correspond to the contact area with the Goodchild Serpentinite. Samples also returned up to **392ppm Cu** (A583355).

#### **Budall Lake South Results:**

Three (3) grab samples (A583360-A583362) were collected south of Budall Lake and consisted of altered/sheared mafic volcanics with locally folded quartz-carbonate stringers, local chert fragments, up to 3-4% pyrite and trace chalcopyrite (A583360-A583361), and a 1cm quartz stringer within granodiorite, containing 0.5% pyrite and moderate Fe-carb alteration (A583362). These samples returned up to **13ppb Au & 1800ppm Zn** (A583361). See Map Sheet B.

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## 6.0 -DISCUSSION OF RESULTS AND RECOMMENDATIONS-

### 6.1 DISCUSSION OF RESULTS

The 2019 Program was successful in advancing gold discoveries from 2017 and 2018 and identifying new areas of interest for future gold exploration.

In the Beggs Lake Stock and surroundings, orientation soil sampling returned up to **44ppb Au** from humus and **13ppb Au** from B horizon, confirming anomalous Au in the vicinity of known showings, as well as in a northeast-trending swampy area west of Beggs Lake. While no very high Au values were obtained in these orientation surveys, they seem to demonstrate that humus detects gold more effectively than B horizon in this area. Humus samples have, to our knowledge, never been systematically collected across the Beggs Lake Stock, and previous surveys have been mainly oriented north-south, sub-parallel to the orientation of most major zones.

The Beggs Lake Stock and surroundings remain a high priority target. The showings/zones mentioned above represent a small portion of all the known gold showings within the Stock. Of particular note is the North Ridge vein system, which returned **80ppb Au** / 84m in diamond drill hole BR-2018-007 from the fall of 2018 and is a possible extension of the Smoke Lake Gold System. These systems may be partially explained by interpreted fold structures, as the Beggs Lake Stock appears to have intruded into the nose of an antiform and been fractured parallel to axial planar cleavage, providing a conduit for gold-bearing fluids. It is unknown if gold mineralization is only orogenic in nature or if there is a component sourced from the intrusion itself. According to Sillitoe and Thompson (1998), it is often difficult to distinguish orogenic vein systems from intrusion-related vein systems with a possible genetic link to oxidized felsic magmas. The Beggs Lake Stock shares many similarities with certain calc-alkaline or alkaline intrusion-related deposits such as the Dongping deposit in China, where several orebodies are hosted within a monzonitic to syenitic intrusion, in quartz-kspars stockworks, k-spar-altered rock with disseminated pyrite, or parallel quartz vein systems, with associated pyrite, chalcopyrite, galena, sphalerite, tellurides and magnetite (NIE, 1998). The Beggs Lake Stock has variable composition and has been described as tonalite, granodiorite, monzonite, quartz monzonite, and locally syenite (rarely observed, but according to Michano (2000) there are outcrops of altered, gold-bearing syenite at the southern contact of the Stock, and drilling by Jonpol Exploration Ltd. identified altered syenite and monzonite dykes associated with gold. Pyritic (though not gold-bearing) syenite float has also been observed on the east shore of Roccian Lake, close to a large swampy area). To the current explorationists, the majority of the Beggs Lake Stock seems to be comprised of a pinkish-white-grey rock which is likely monzonite to quartz monzonite with local potassic alteration, with granodiorite being the second most common rock type. Locally 'mixed' monzonite and mafic material south of the northern contact of the Stock yields low but consistent gold values in the tens to hundreds of ppb; however, gold is by far hosted within parallel north to northeast striking vein systems. Gold in quartz veins has so far been associated with a variety of elevated elements, mainly Ag, Te, Bi, Cu, Pb, Mo, and W, in varying associations and abundances. While future work should be primarily focused on vein systems known to carry gold, the possibility of altered zones or stockworks within the Stock should not be overlooked going forward, especially within low relief areas in the Stock such as swampy ground west and south of Beggs Lake.

In the vicinity of the Contact East Iron Formation (2018, **428ppb Au**), orientation soil sampling returned up to **30ppb Au** from humus and **18ppb Au** from B horizon. In the vicinity of the Contact Lake Gold Occurrence (CLGO, 2017, **11.9gpt Au**), soil sampling returned up to **34ppb Au** from humus and **22ppb Au** from B horizon. In both of these areas, gold in soil anomalies reflect the widespread bedrock Au anomalies obtained from iron formation and mafic volcanics. These rocks coincide with a south-

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southeast-trending magnetic high anomaly. It is unclear if this package of rocks corresponds to the interpreted folded package of metavolcanics and iron formation which form a northeast-plunging synform in the Fallen Lake Area and an antiform in the Smoke Lake / Beggs Lake Area. If so, a fold nose could be located northeast of Mag Lake and northwest of Contact Lake. Some folded chert layers were observed at the Contact East Iron Formation after washing the zone, as well as possible altered feldspar porphyry, similar to the Wire Lake Gold Zone and the Porphyry Lake Area. Several trace elements were anomalous in this area in rock and soil, including Co, Cr, Cu, Mn, Mo, Ni, Pb & Zn. Most anomalous was Mn up to **1.51%** (A704563), followed by Zn up to **1340ppm** (A704571) at the Contact East Iron Formation, which in 2018 returned up to **9370ppm Zn & 1970ppm Cu** (A704159 – although this sample was collected on the Wire Lake Property), and **1.8ppm Ag** (A704168 – Wire Lake Property). Base metal and other elemental anomalies should not be overlooked and may be significant, especially if the Contact – Mag – Porphyry – Smoke – Budall Lake Areas are all connected by the same folded stratigraphic package of volcanics and iron formation, and which all feature base metal anomalies, particularly Zinc. At Smoke Lake historical grab samples returned **8860ppm Zn** (N388425) & **2020ppm Cu** (Jeff's BIF Occurrence); in the general Budall Lake vicinity historical samples returned **5.78% Zn** (Moosehorn Lake Occurrence), **1.51% Cu** (Renner #1 Cu Occurrence) and **3240ppm Mo** (Renner #2 Mo Occurrence) (MacTavish, 2002).

According to Peter (2003), metalliferous iron formation can be spatially associated or coincident with base metal deposits, such as in the Bathurst and Broken Hill mining camps, or host the deposit such as the Gamsberg Zinc mine in South Africa. It is thought that buoyant plumes from hydrothermal vents in volcanic arcs, back-arc basins, spreading ridges or rifts carried particulates (sulphide, carbonate, silicate or oxyhydroxide) which settled to form “Algoma-type” iron formations, rich in Fe, Mn, Zn, Cu & Pb. These Algoma-type iron formations can be laterally extensive over many kilometers away from a vent, and there can be multiple vents over a large area. Deposits such as Broken Hill are associated with an Mn-enrichment halo around the deposit and an increase in garnet towards the deposit. As mentioned above, Mn-rich rocks have been observed at the Contact East Iron Formation up to **1.51% Mn**, with lesser Mn anomalies in the Mag Lake Area, and garnet-bearing rocks in the Mag Lake Area are directly associated with Zinc grades up to **3.5% Zn** from grab samples, which may or may not be significant. If the Budall Lake to Contact Lake iron formations are all part of the same folded stratigraphic sequence, there is a possibility that zinc-bearing iron formations could be used as marker horizons across the property, which would represent 15km or more of prospective surface geology to explore for base metal mineralization, whether within iron formation or especially felsic volcanic rocks close to ancient vents (in addition to the prospective Page Lake Area). Felsic volcanics have been observed locally along this folded trend, including felsic fragmentals at Roccian Lake and what appear to be felsic volcanics at Porphyry Lake, though primary textures are less obvious here due to intense shearing. Based on magnetic data, it appears that the same package of rocks folds back to the north southeast of Contact Lake, hugging the granite contact for many kilometers towards the Cirrus Lake Area. Extensive iron formation was observed in outcrop in 2018 by CORE operators west of an elongate lake southeast of Cirrus Lake. While most of these areas are located on the Black Raven Property, there is considerable underexplored ground southwest of Fallen Lake within an interpreted synform on the Wire Lake Property. Given that Zinc predominates by far over Lead and Copper mineralization in known showings, and sphalerite is not conductive, this may explain why previous property-wide airborne EM surveys have not identified large anomalies. Considering the widespread orogenic gold mineralization on the property, iron formations, representing potential chemical and structural traps, are also important gold exploration targets, particularly where they coincide with fold hinges, fold limbs, axial planar fracturing and other cross-cutting faults, or felsic intrusions such as the Beggs Lake Stock.

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Orientation soil sampling at the north end of Mag Lake in 2019 returned up to **19ppb Au** from humus and **6ppb Au** from B horizon, although most samples returned **<5ppb Au**. Soils also returned zinc and lead (less so) anomalies. Sheared iron formation on the northwestern shore, 40m northeast of the 2018 sample which returned **3.5% Zn** and **61ppb Au**, was sampled which returned **30ppb Au**. Small folds were observed in outcrop here, one of which plunged at around 040/40 degrees. This remains an area of interest given anomalous zinc and somewhat anomalous gold, as well as intensely altered iron formation and quartz veining with chalcopyrite and galena which returned up to **222ppb Au**. This area is along strike from the Porphyry Lake Area over 2km to the southwest, where widespread gold anomalies up to **12.4gpt Au** and a number of zinc anomalies up to **1.9% Zn** have been discovered since 2017. Similar to the Porphyry Lake Area, there are pillowed mafic-intermediate volcanics on the shore, similar-looking quartz veins anomalous in Au, and intermediate dykes close by. The area between Porphyry Lake and Mag Lake has been very sparsely explored, although samples collected there in 2018 returned up to **0.6% Zn** and **76ppb Au**.

A few samples were collected 900m southwest of Budall Lake to follow up on the **21ppb Au** GSC lake sediment at Budall Lake which has yet to be explained. No significant gold results were obtained; however, some shearing with folded quartz-carbonate stringers and chalcopyrite was observed. Additional prospecting should be carried out in light of the recent recognition of fold structures across the property. This area appears to correspond to the western limb of an interpreted northeast-plunging antiform (which seems to have a 'kinked' or 'boxy' shape based on a 2018 magnetic survey), which the Beggs Lake Stock has intruded to the north.

The Page Lake Area remains a prime area of interest due to multiple gold and base metal showings associated with felsic volcanics, including the Kuhner showing which was drilled in 1971 and returned **1.10% Zn** / 7.6m including **4.5gpt Au** / 1.5m, as well as iron formation, which in 1999 returned up to **4.2gpt Au** from grab samples. (Battle Mountain Ltd, 1999). Besides being conducive to VMS style mineralization, this area is also folded into an antiform, possibly structurally connected to the antiform in the Beggs Lake Area, with corresponding axial planar cleavage and contact zones potentially facilitating gold mineralization.

Finally, the Goodchild Serpentinite body north of Beggs Lake remains a target of interest. As mentioned in the Exploration History, values of up to **2% Cu**, **0.5% Ni** and **2 oz/t Ag** in core were reported in the altered footwall rocks of the Goodchild Lake ultramafic intrusion by Violamac Mines Ltd in the 1950s, and later on several holes were drilled around the contact of the intrusive by Mexico Exploration (Canada) Ltd. in 1969. The latter also identified several areas of copper and nickel in soil anomalies close to the contact, which could use more follow up work as limited drilling took place in these locations and the gold content is unknown. According to Mexico Exploration's 1969 diamond drill report, the serpentinized peridotite body is intruded in places by quartz monzonite dykes and has undergone folding. If true, this suggests that the serpentinite intrusion may be younger than regional metamorphism and the emplacement of felsic intrusive bodies such as the Beggs Lake Stock (perhaps it is a folded sill complex similar to those in the Abitibi described by MacRae (1969)? However, to date it does not seem that any stratiform layering has been observed by previous workers). Milne (1967, p33) also theorized that the intrusion may have preceded regional metamorphism, based on metamorphic assemblages observed locally. If true, there is no reason why the ultramafic intrusive should not represent an important gold target in addition to a base metal and PGM target; however, there are no known gold showings within the intrusion. North-trending faults known to host gold-bearing quartz veins (e.g. the North Ridge to Smoke Lake gold system) should be projected through the contact of the Goodchild Serpentinite to investigate the possibility of gold-bearing faults or shear zones in the ultramafic rocks. An attempt should also be



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made to locate quartz-monzonite dykes mentioned by Mexico Exploration. Areas of particular interest for base metal mineralization include a broad copper in soil anomaly east of Beggs Lake at the North end of the North Ridge and Super 7 Areas, where there appears to be only one historical drill hole. A VTEM anomaly located immediately north of Beggs Lake identified by Benton Resources, which is north of the Alpha North Occurrence which returned **15.3gpt Au** in 2018 from an east-southeast trending quartz stringer, has seen limited work and should be investigated.

## **6.2 RECOMMENDATIONS**

- Targeted humus sampling within the Beggs Lake Stock.
- Trenching (followed by drilling if warranted) within the Beggs Lake Stock at several targets located during 2017 & 2018 as well as historical targets.
- Trenching (followed by drilling if warranted) in the Contact Lake Area.
- Prospecting and mapping in between Porphyry Lake and Mag Lake.
- Prospecting in the Budall Lake Area (southwest to northwest).
- Prospecting in the Page Lake Area.
- Prospecting north of Bond Lake.
- Prospecting north, west and northwest of Contact Lake.
- Prospecting at the King Lake Zinc Showing located southwest of Page Lake.
- Prospecting south of Smoke Lake.
- Prospecting in the Talus Lake Area.
- Prospecting within the Goodchild Lake Ultramafic where gold-bearing structures to the south would project along strike to the north.
- VTEM survey over the Page Lake Area.
- High-Resolution Magnetic Survey from Page Lake east to Contact lake and Porphyry Lake located on the adjacent Wire Lake Property.

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## 7.0 -STATEMENT OF QUALIFICATIONS-

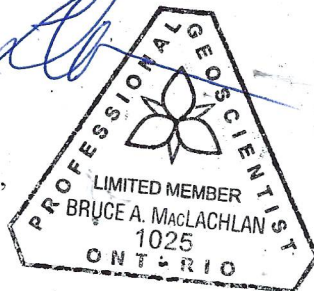
I, Bruce A. MacLachlan P. Geo (Limited), residing at 222 Emerald St., Timmins, Ontario, do hereby certify that:

- 1) Canadian Orebodies Inc. currently contracts me as a consulting Geological Technician and Prospector.
- 2) I am a P. Geo (Limited), registered in the province of Ontario (APGO No. 1025).
- 3) I have continuously practiced my profession as a Geological Technician and Prospector for over 36 years. I have prepared reports, conducted, supervised and managed exploration programs for several major and junior mining companies including Noranda Exploration Company Limited, CanAlaska Uranium Ltd., Noront Resources Ltd., Bold Ventures Inc., GoldON Resources Inc. and others.
- 4) I am responsible for the preparation of this report titled 'Work Report of the Summer 2019 Exploration Program on the Black Raven Claim Group, Hemlo, Ontario.'
- 5) I have worked extensively across the Property.
- 6) I have been involved with the mineral Property that forms the subject of this report since Canadian Orebodies acquired the property in 2016.

Dated at Timmins, Ontario, this 29<sup>th</sup> day of March 2020.

"Bruce A. MacLachlan" P. Geo (Limited) APGO No. 1025  
(Signed and Sealed)

Bruce A. MacLachlan  
2099840 Ontario Inc.  
"Emerald Geological Services"



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## 8.0 - REFERENCES-

*Aerodat Ltd., 1984.* Report on Combined Helicopter Borne Magnetic, Electromagnetic and VLF Survey, Marathon, Ontario, for MPH Consulting Limited, Cirrus Lake Area, Lorna Lake Area and Seeley Lake Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0012.

*Arnold, J., 2007.* Assessment Report on Geological Mapping, Prospecting & Soil Sampling, Goodchild Property, Benton Resources Corporation, Cirrus Lake Area, NTS 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 20000000057.

*Battle Mountain Canada Ltd., 1999<sup>1</sup>.* Exploration Program for Page Lake-Hemlo Area, Battle Mountain Canada Ltd., Lorna Lake Area, Seeley Lake Area, NTS 42D16SE, 42D16SW, Thunder Bay South, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE2004.

*Battle Mountain Canada Ltd., 1999<sup>2</sup>.* Exploration Program for Page Lake-Hemlo Area, Battle Mountain Canada Ltd., Battle Mountain Canada Ltd., Lorna Lake Area, Seeley Lake Area, NTS 42D16SE, 42D16SW, Thunder Bay South, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE2005.

*Brereton, W.E. and Willoughby, N.O., 1986.* Report on Geological Survey, Marathon Property for Carlson Mines, Ltd., Lorna Lake Area, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0028.

*Buser, L.J., 1968.* Self Potential and Geochemical Survey Goodchild Lake, Mexico Exploration (Canada) Ltd., Cirrus Lake Area, NTS 42D16NE, Thunder Bay South, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0026.

*Buser, L.J., 1969.* Report on Diamond Drill Program 1969, Mexico Exploration (Canada) Ltd., Cirrus Lake Area, NTS 42D16NE, Thunder Bay South, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0022.

*Byrnes, K., 2008.* Assessment Report on the Phase I Drill Program, Goodchild Property, Benton Resources Corporation, Cirrus Lake Area, Martinet Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 20000003919.

*Byrnes, K., 2009.* Assessment Report on the Phase II Drill Program, Goodchild Property, Benton Resources Corp, Cirrus Lake Area, Lorna Lake Area, Martinet Lake Area, Seeley Lake Area, NTS 42D16NE, 42D16NW, 42D16SE, 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 20000000560.

*Canadian Aero Services Ltd., 1953.* Airborne Magnetic Survey Report, Macleod-Cockshutt Gold Mines Ltd., Cirrus Lake Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0035.

*Caulfield, D.A. and Ikona, C.K. 1983.* Assessment Report on the Goodchild Creek Property, located in the Pic River Area, Canadian-United Metals Inc., Thunder Bay Mining District, Ontario, file 42D16SW0058.

*Cooper, P., 1987.* Geochemical Report, Page Lake Group, Noranda Exploration Company Ltd., Seeley Lake Area, NTS 42D16, Northwestern Ontario Division, Northern Development and Mines, file 42D16SW0033.

---

*Coster, I. and Maser, M., 1983.* Geological and Geophysical Report on the Colby Resources Corporation Property Hemlo-Marathon Gold Region, Seeley Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SW0071.

*D'Silva, 1987.* Geochemical and Geological Report, Noranda Exploration Company Ltd., Seeley Lake Area and Lorna Lake Area, NTS 42D16SE, 42D16SW, Thunder Bay South District, file 42D16SE0027.

*Degagne, P., 1990.* Diamond Drilling Report 14 Martinet Lake Area, Noranda Exploration Company Ltd., NTS 42D16NW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NW0006.

*Entourage Metals Ltd., 2012.* News Release, April 26<sup>th</sup>, 2012: Entourage Continues to Outline Gold Mineralization at Black Raven, Hemlo Greenstone Belt.

*Entourage Metals Ltd., 2012.* News Release, August 1<sup>st</sup>, 2012: Entourage Metals Updates Exploration Results, Hemlo Greenstone Belt.

*Eveleigh, F., J., 1953.* Report on Geological and Magnetic Survey on Fisher Group of Cirrus Lake Pic River Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0032.

*Flanagan, J.M., 1985.* Report on the Induced Polarization and Resistivity Surveys on the Gowganda Resources Property, Homestake Mineral Development Company, Lorna Lake Area and Seeley Lake Area, NTS 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0055.

*Friske, P.W.B. 1997.* National Geochemical Reconnaissance, Multi-Element Concentrations in Lake Sediment, Northwestern Ontario; Geological Survey of Canada, Open File 2360.

*Gingerich, J., 1988.* Report of Work, Magnetometer and VLF-EM Surveys, Page Lake Property, Noranda Exploration Company Ltd., Lorna Lake Area and Seeley Lake Area, NTS 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0009.

*Giovenazzo, D., 2007.* Geological And Prospecting Report, Goodchild Lake Property, Benton Resources Corporation, Cirrus Lake Area, Lorna Lake Area and Martinet Lake Area, NTS 42D16NE, 42D16NW, & 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 20000002338.

*Hawke, D.R. 2003<sup>1</sup>.* Report on The Diamond Drilling Program on The Goodchild Property of Jonpol Explorations Ltd., Cirrus Lake Area and Lorna Lake Area, NTS 42D16NE, 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2013.

*Hawke, D.R. 2003<sup>2</sup>.* Report on The Diamond Drilling Program on The Goodchild Property of Jonpol Explorations Ltd., Cirrus Lake Area and Lorna Lake Area, NTS 42D16NE, 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2014.

*Hawke, D.R. 2003<sup>3</sup>.* Report on the Diamond Drilling Program on the Smoke Lake Property of Freewest Resources Canada Inc., Cirrus Lake Area and Lorna Lake Area, NTS 42D16NE, 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE2008.

---

*Homestake Mineral Development Co., 1984.* Diamond Drill Report 49, Seeley Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SW0054.

*Hutteri, H., 2018.* Work Report of the 2018 Summer Exploration Program on the Black Raven Project, Hemlo Area, Ontario for Canadian Orebodies, NTS Map Sheet 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines.

*Hutteri, H., 2019.* 2018 Diamond Drilling Report, Black Raven Property, Hemlo Area, Ontario, NTS Map Sheet 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines.

*Jeffs, D.N., 1954.* Geological Survey, Goodchild Lake Mineralized Zone, Violamac Mines Ltd., Cirrus Lake Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0031.

*Jeffs, D.N., 1955.* Diamond Drilling Report 11 Cirrus Lake, Violamac Mines Ltd., Cirrus Lake Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0303.

*Jensen, K.A., 1994.* Summary of Exploration Activities in 1993 for Gregor Goldfields Corp, Marathon Property; Cotte Township and Lorna Lake Area, NTS 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0030.

*Kaye, L., 1984.* Geological Report on Hemlo West (Pic River) Property, Thunder Bay Mining District, Ontario, report no. 63.4422

*Kerr Addison Mines Ltd., 1971.* Diamond Drill Report 33 Seeley Lake, Kerr Addison Mines, Seeley Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SW0134.

*Labrecque, J.A. 2011.* Work Assessment Report for the Black Raven Project, Goodchild Lake and Cirrus Lake Areas, Thunder Bay District, Ontario, NTS 42D16NE, SE, NW and SW, file 20000006366.

*Labrecque, J.A. and Florek, J. 2012.* Work Assessment Report for the Black Raven Project, Goodchild Lake and Cirrus Lake Areas, Thunder Bay District, Ontario, NTS 42D16NE, SE, NW and SW, file 20000013653.

*Lin, S. 2001.* Stratigraphic and Structural Setting of the Hemlo Gold Deposit, Ontario, Canada. *Economic Geology*, 96(3), 477-507.

*MacConnell, S. and Mackie, B.W. 2017.* Work Report of the 2017 Summer Exploration Program Including a Drilling Program on the Wire Lake Project, Hemlo Area, Ontario for Canadian Orebodies, NTS 42C12, 42C13, 42D09, 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines.

*MacConnell, S., 2019.* Work Report of the 2018 Drilling Program on the Wire Lake Project, Hemlo Area, Ontario, for Canadian Orebodies Inc., NTS 42C12, 42C13, 42D09, 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines.

---

*Mackie, B.W. 2018.* News Release, TORONTO, September 19, 2018 – Canadian Orebodies Significantly Increases High Grade Super G Vein Results with Screen Metallic Assays and Provides Wire Lake Project Exploration Update.

*MacLachlan, B.A. and Londry, J.W. 2004.* Report on Soil Sampling, Mapping and Prospecting for CanAlaska Ventures Limited on The Smoke Lake Property, Thunder Bay Mining Division, Ontario, file 20000000319.

*MacLachlan, B.A., Kelso, I. and Londry, J.W. 2004.* Report on Diamond Drilling for CanAlaska Ventures Limited on The Smoke Lake Property, Thunder Bay Mining Division, Ontario, file 20000000758.

*MacLachlan, B. and MacConnell, S. 2017.* Work Report of the 2017 Summer Exploration Program on the Black Raven Project, Hemlo Area, Ontario for Canadian Orebodies, NTS Map Sheet 42D16.

*MacLachlan, B. 2017.* Work Report of the 2017 Summer Exploration Program on the Sprucejack Project, Hemlo Area, Ontario for Canadian Orebodies, NTS Map Sheets 42D09 & 42D16.

*MacLachlan, B. and MacConnell, S. 2018.* Work Report of the 2018 Summer Exploration Program on the Black Raven Project, Hemlo Area, Ontario for Canadian Orebodies, NTS Map Sheet 42D16.

*MacLeod-Cockshutt Gold Mines, 1954.,* Diamond Drill Report 13 Cirrus Lake, Kenogamisis Gold Mines – Chellew Gold Mines Ltd., Cirrus Lake Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0015.

*MacRae, N.D., 1969.* Ultramafic Intrusions of the Abitibi Area, Department of Geology, McMaster University, Hamilton, Ontario.

*MacTavish, A.D. 2000.* Summary Report on the Mealey Property, Cirrus Lake and Martinet Lake areas, Ontario, Canada. Internal report for Freewest Resources Canada.

*MacTavish, A.D. 2002.* Report on Phase I Reconnaissance Geology, Prospecting, and Till Sampling of the Smoke Lake Gold Property, Lorna, Martinet, Cirrus, and Seeley Lakes Areas, Thunder Bay South, Mines and Minerals Division Ontario, NTS 42D16NE, SE, NW, and SW, file 42D16NE2009.

*MacTavish, A.D. 2003.* Phase II Summary Report for the Smoke Lake Project, Lorna Lake and Cirrus Lake Areas, Thunder Bay South, Mines & Minerals Division, Ontario, NTS 42D16 NE, SE, NW and SW, file 42D16NE2011.

*McConnell, D.L., 1989.* DIGHEM<sup>IV</sup> Survey for Noranda Exploration Company Ltd., Geco Manitouwadge Airborne, GAEM JV, Manitouwadge, Ontario, Cirrus Lake Area, Martinet Lake Area, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0007.

*McKay, D.B. 1994.* Mineral Occurrences in the Manitouwadge Area, Volumes 1-3; Ontario Geological Survey, Open File Report 5906, p.229-238.

*Meikle, R.J., 1983,* Geophysical Report on the Seeley Lake Property, Hemlo Area, Ontario for Gowganda Resources Incorporated, Seeley Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SW0073.

---

*Michano, D.M., 2000.* Geological, Soil Sampling and Prospecting Smoke Lake Area, Duncan Michano, James E Bond, Kenneth George Fenwick, Rudolf Wahl, Russel Philip Renner, Cirrus Lake Area, Lorna Lake Area, Martinet Lake Area, Seeley Lake Area, NTS 42D16NW, 42D16SE, 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2003.

*Michano, D.M. 2004.* Report on the Page Lake Property, Thunder Bay South, Mines and Minerals Division, Ontario, file 42D16SE2009.

*Michano, D.M. 2005.* Report on the Page Lake Property, Thunder Bay South, Mines and Minerals Division, Ontario, file 20000001091.

*Michano, D.M. and Renner, R 2006.* Report on the King Lake Property, Thunder Bay South, Mines and Minerals Division, Ontario, file 20000001794.

*Milne, V.G. 1967.* Geology of the Cirrus Lake Bamooos Area; Ontario Geological Survey Report 218, 89p.

*Moses, P., 1998<sup>1</sup>.* Geochemical Survey Report (Soil and Rock Grab Sampling), Moses Claim 1210470, Goodchild Lake Area, Lorna Lake and Cirrus Lake Areas, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2001.

*Moses, P., 1998<sup>2</sup>.* Prospecting Report (Rock Grab Sampling), Moses Claim 1210470, Goodchild Lake Area, Lorna Lake and Cirrus Lake Areas, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2002.

*Moses, P., 1999.* OP99-370 Project #1, Goodchild Lake Property, Claims 1210470, 1232129, Lorna Lake and Cirrus Lake Areas, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2004.

*Moses, P., 2002.* Report: Smoke Lake Property, Claims 1232457, 1232458, 1232462, 1187521, 1187522, Prospecting June-December 2001, Lorna Lake Area and Martinet Lake Area, NTS 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2008.

*NIE, Feng-Jun, 1998.* "Geology and origin of the Dongping alkalic-type gold deposit, northern Hebei Province, People's Republic of China." *Resource Geology* 48.3 (1998): 139-158.

*Paakki, J. 2001.* Report on the 2000 Exploration Program on the Goodchild Lake property, Cirrus Lake and Lorna Lake areas, Ontario. Assessment report for Teck Exploration Ltd., report no. 1341NB, 6p., NTS 42D16, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE2005.

*Peter, J. M., 2003.* "Ancient iron-rich metalliferous sediments (iron formations): their genesis and use in the exploration for stratiform base metal sulphide deposits, with examples from the Bathurst Mining Camp." *Geochemistry of sediments and sedimentary rocks: Secular evolutionary considerations to mineral deposit-forming environments: Geological Association of Canada, Geotext 4* (2003): 145-173.

*Petersen, D., 1988.* Page Lake – 1171 Assessment Report, Soil Geochemical Survey, Noranda Exploration Company Ltd., Seeley Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SW0010.

---

*Schnieders, B.R., and Smyk, M.C. 1996.* Recommendations for Exploration in the Schreiber-Hemlo Resident Geologist's District; Summary of Field Work and Other Activities, Ontario Geological Survey, Miscellaneous Paper 166, p. 126-127.

*Schnieders, B.R., Smyk, M.C. and McKay, D.B. 1996.* Schreiber-Hemlo Resident Geologist's district; in Report of Activities 1995, Resident Geologists, Ontario Geological Survey, Open File Report.

*Schnieders, B.R., and Smyk, M.C. 1997.* Schreiber-Hemlo Resident Geologist's District; in Report of Activities 1996, Ontario Geological Survey, Open File Report 5958, p. 4-1 to 4-37.

*Schnieders, B.R., and Smyk, M.C. 1997.* The Continuing Investigation of the Gold Potential of the Goodchild Lake Area, Schreiber-Hemlo District; Summary of Field Work and Other Activities, Ontario Geological Survey, Miscellaneous Paper 168, p. 143-145.

*Sims, N. and Venter, N., 2007.* 2007 Exploration Report Goodchild Lake Property, Benton Resources Corporation, Cirrus Lake Area, Lorna Lake Area, Martinet Lake Area, Seeley Lake Area, NTS 42D16NE, 42D16NW, 42D16SE, 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 20000002304.

*Siriunas, J.M., 1994.* Exploration on the Marathon (Hemlo) Property, District of Thunder Bay, Ontario, for Gregor Goldfields Corp.

*Siriunas, J.M., 1995.* Exploration on the Marathon (Hemlo) Property, District of Thunder Bay, Ontario, for Gregor Goldfields Corp.

*Staargard, C.F., 1984.* Report on the Magnetometer Survey on the Gowganda Property, Homestake Mineral Development Co, Lorna Lake Area and Seeley Lake Area, NTS 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0038.

*Terraquest Ltd., 1988.* Report on an Airborne Magnetic and VLF-EM Survey, Cirrus Lake Claims, Marathon for Mr. Paul Skalesky, NTS 42D16NE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16NE0009.

*Thomson, J.E., 1931.* Geology of the Heron Bay area; Ontario Dept. Mines, Vol. 60 pt 2.

*Thomson, K 1995.* Hemlo Gold Mines Inc. Report of Work, Smoke Lake Property, N.T. 42D/16, Superior District, Assessment Report for Hemlo Gold Mines Inc., Report No. 2.16114, 4p. Lorna Lake Area and Seeley Lake Area, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0016.

*Walmsley, T. and Degagné, P., 1991.* Report on Geophysical and Geological Work, Page Lake Project, South Page Property, Noranda Exploration Company Ltd., Seeley Lake Area, NTS 42D16SW, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SW0004.

*Williams, H.R. Stott, G.M., Heather, K.B., Muir, T.L. and Sage, R.P. 1991.* Wawa Subprovince; in Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part al, p. 485-539.

*Wilson, P., 1989.* Report of Work, Lithogeochemical Survey, Page Lake Property, Noranda Exploration Company, Seeley Lake Area and Lorna Lake Area, NTS 42D16SE, Thunder Bay South District, Ontario Ministry of Energy, Northern Development and Mines, file 42D16SE0001.



# **APPENDIX I**

## **Rock Sample Descriptions (Table I)**

Black Raven Rock Sample Descriptions															
Table I	Sample	Easting	Northing	Date	Elevation	Type	Area	Project	Claim	Sample Type	Rock Type	Rock Code	Description	Lab Certificate No.	Au_ppb_final
	A704550	571245	5409081	18-Jun-19	317	Grab	S of Hammerhead Lake	Black Raven	540862	Outcrop	Hornblendite	HORN	Coarse-grained hornblendite (?), possible cumulate. 1cm quartz monzonite (?) dykelet. 1% pyrite, minor rust.	A19-09208	6
	A704551	571247	5409079	18-Jun-19	317	Grab	S of Hammerhead Lake	Black Raven	540862	Outcrop	Hornblendite	HORN	Medium-grained hornblendite. Minor 1mm quartz/potassic/epidote stringers, 1% disseminated pyrite, minor-moderate rust.	A19-09208	6
	A704552	571259	5409079	18-Jun-19	325	Grab	S of Hammerhead Lake	Black Raven	540862	Outcrop	Felsic Dyke	FD	~5cm quartz monzonite (?) dyke in hornblendite. Trace chalcopyrite. 350/75 degrees NE.	A19-09208	2.5
	A704553	571271	5409072	18-Jun-19	325	Grab	S of Hammerhead Lake	Black Raven	540862	Outcrop	Hornblendite	HORN	Medium-coarse-grained hornblendite. Minor-moderate white mica, minor rust. Trace pyrite, possible trace chalcopyrite.	A19-09208	5
	A704554	571674	5409100	18-Jun-19	319	Grab	S of Hammerhead Lake	Black Raven	540863	Rubble	Granite	GRAN	1 by 1.5 by 1.5m angular hematitic granite boulder, similar outcrop not far away. Minor <1cm quartz stringer associated with trace-0.5% pyrite, some mafic dyke material.	A19-09208	2.5
	A704555	567194	5406598	20-Jun-19	383	Grab	S of Dragon Lake	Black Raven	540880	Outcrop	Mafic Intrusive	MI	Mafic Intrusive (possible ultramafic) with minor-moderate rust, minor-moderate chlorite, minor phlogopite, minor quartz, <1mm potassic stringer.	A19-09208	4
	A704556	567190	5406609	20-Jun-19	381	Grab	S of Dragon Lake	Black Raven	540880	Outcrop	Quartz Vein	QV	Quartz within felsic dyke within brecciated mafic intrusive. Glassy, white-pink, minor hematite.	A19-09208	2.5
	A704557	567218	5406589	20-Jun-19	382	Grab	S of Dragon Lake	Black Raven	540880	Outcrop	Mafic Intrusive	MI	Mafic Intrusive (possible ultramafic) with minor rust, minor-moderate chlorite.	A19-09208	4
	A704558	567234	5406579	21-Jun-19	381	Grab	S of Dragon Lake	Black Raven	540880	Float	Mafic Intrusive	MI	Mafic intrusive (gabbro?) with minor-moderate rust, 0.5% pyrite from angular float, possible frost heave.	A19-09208	5
	A704559	567239	5406590	21-Jun-19	382	Grab	S of Dragon Lake	Black Raven	540880	Outcrop	Mafic Intrusive	MI	Med-grained, dark grey-green mafic intrusive (ultramafic?) in outcrop. Weak foliation, minor <1mm quartz stringer, trace pyrite, minor-moderate chlorite.	A19-09208	5
	A704560	562296	5411452	26-Jun-19	370	Grab	East of Contact Lake	Black Raven	226444	Outcrop	Mafic Volcanic	MV	Weakly sheared, rusty mafic volcanic, silicified with trace pyrite. Shear trends 310/60 degrees NE, and the contact trends 80/50 degrees S.	A19-09210	20
	A704562	562488	5411429	29-Jun-19	375	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Rusty iron formation, some magnetic bands (magnetite).	A19-09210	262
	A704563	562487.8	5411428.5	29-Jun-19	375	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Very rusty, altered iron formation.	A19-09210	84
	A704564	562488.8	5411428.5	29-Jun-19	375	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Amphibolite	AMP	Fine-grained amphibolite (?) with 1cm quartz stringer, trace-0.5% pyrite, within the amphibolite.	A19-09210	8
	A704565	562487.7	5411430	29-Jun-19	375	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Recrystallized, folded cherty bands in rusty iron formation.	A19-09210	70
	A704566	562486.9	5411430.2	29-Jun-19	374	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Diorite	DIO	Med-coarse-grained dioritic rock, may be a sill or flow and appears porphyritic in places, with rounded feldspar or quartz phenocrysts in a mafic groundmass. Moderate pink-purple garnet.	A19-09210	6
	A704567	562486.2	5411429.2	29-Jun-19	373	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Rusty iron formation with minor-moderate chert.	A19-09210	252

A704568	562485.5	5411429.7	29-Jun-19	373	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Rusty iron formation with moderate recrystallized chert layers. 5% of an unidentified fine, iron grey mineral.	A19-09210	20
A704569	562484	5411429.7	29-Jun-19	371	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Very rusty iron formation.	A19-09210	45
A704570	562484.3	5411428.4	29-Jun-19	371	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Rusty iron formation with minor-moderate recrystallized chert and numerous rusty fractures.	A19-09210	40
A704571	562484.6	5411425.9	29-Jun-19	371	Grab	Contact East Iron Formation Trench	Black Raven	285773	Outcrop	Iron Formation	IF	Rusty, weakly sheared, locally silicified iron formation with moderate recrystallized chert. Trace-0.5% fine pyrite.	A19-09210	63
A704572	562863	5410760	30-Jun-19	349	Grab	East of Contact Lake Gold Showing	Black Raven	213209	Outcrop	Amphibolite	AMP	Fine-medium-grained amphibolite with <1cm glassy, white to smoky grey quartz stringer. Trace pyrite in stringer and rock. Minor rust, minor quartz-carb alteration.	A19-09210	32
A704573	562890	5410758	30-Jun-19	355	Grab	East of Contact Lake Gold Showing	Black Raven	213209	Frost Heave	Amphibolite	AMP	Fine-grained amphibolite with 1% very fine disseminated pyrite. Rusty surface.	A19-09210	23
A704574	562917	5410774	30-Jun-19	347	Grab	East of Contact Lake Gold Showing	Black Raven	213209	Frost Heave	Amphibolite	AMP	Fine-grained amphibolite with <1cm white quartz stringer. Minor biotite.	A19-09210	140
A704575	562919	5410772	30-Jun-19	347	Grab	East of Contact Lake Gold Showing	Black Raven	213209	Frost Heave	Amphibolite	AMP	Altered, rusty amphibolite with moderate garnet, trace-0.5% pyrite.	A19-09210	65
A704577	555688	5414506	02-Jul-19	311	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Rusty mafic volcanic with minor quartz-carb alteration, 1% pyrite.	A19-09210	27
A704578	555688	5414506.2	02-Jul-19	311	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Very rusty mafic volcanic with minor-moderate quartz-carb alteration/stringers, 1% pyrite, some in the quartz-carb.	A19-09210	5
A704579	555688	5414509	02-Jul-19	311	Grab	North of Beggs Lake	Black Raven	261453	Talus	Mafic Volcanic	MV	Pervasively rusty, moderately sheared mafic volcanic, minor quartz-carb alteration, some visible pyrite blebs.	A19-09210	23
A704580	555702	5414520	02-Jul-19	308	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Mafic volcanic with minor quartz-carb alteration and very fine, <1mm parallel stringers. 1% very fine pyrite, up to 5% on fracture planes.	A19-09210	5
A704581	555710	5414536	02-Jul-19	306	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Rusty, weakly-moderately sheared argillite with weak-moderate quartz-carb alteration from fractured outcrop. 0.5% visible pyrite. Shears/fracture zones in outcrop nearby strike 275/subvertical and 250/70 degrees N.	A19-09210	9
A704582	555716	5414532	02-Jul-19	300	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Sediment	SED	Weakly-moderately sheared, rusty, cherty sediment with trace pyrite.	A19-09210	5
A704583	555725	5414535	02-Jul-19	299	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Moderately-strongly sheared, rusty argillite. Shear strikes 215/75 degrees.	A19-09210	34
A704584	555713	5414540	02-Jul-19	301	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Black argillite adjacent to thicker cherty layer, sharp contact between the two with pyrite bleb along it. Weak shearing, 1% pyrite, more in the cherty layer.	A19-09210	6
A704585	555708	5414523	02-Jul-19	300	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Altered mafic volcanic with moderate quartz-carb alteration, minor rusty fractures. Quite soft-textured.	A19-09210	5
A704586	555646	5414518	02-Jul-19	308	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Variolitic/vuggy, very rusty mafic volcanic with minor quartz-carb alteration, trace visible pyrite.	A19-09210	9
A704587	555580	5414524	02-Jul-19	317	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Rusty mafic volcanic with minor-moderate quartz-carb alteration/blebs, trace pyrite, trace chalcopyrite blebs. Fractured outcrop.	A19-09210	5

A704588	555545	5414492	02-Jul-19	317	Grab	North of Beggs Lake	Black Raven	261453	Talus	Mafic Volcanic	MV	Mafic volcanic with minor rust, minor quartz-carb alteration/stringers, 0.5% small pyrite cubes.	A19-09210	11
A704589	555540	5414496	02-Jul-19	317	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Weakly foliated mafic volcanic with minor-moderate quartz-carb alteration, 1% pyrite cubes. Somewhat soft-textured. Fractured outcrop or possibly large talus block.	A19-09210	544
A704590	555538	5414498	02-Jul-19	317	Grab	North of Beggs Lake	Black Raven	261453	Talus	Intermediate Intrusive	ININ	Intermediate intrusive with minor-moderate quartz-carb alteration, 1% pyrite cubes overall, more on fracture planes. Talus or possibly angular float.	A19-09210	135
A704591	555795	5414526	03-Jul-19	289	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Very rusty, fractured argillite with minor quartz-carb alteration, some tarnished pyrite visible. Fractured outcrop.	A19-09210	7
A704592	555791	5414530	03-Jul-19	291	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Mafic Volcanic	MV	Rusty, silicified mafic volcanic in very altered outcrop which may correspond to mafic/sedimentary contact. Trace pyrite.	A19-09210	2.5
A704593	555800	5414540	03-Jul-19	293	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Sediment	SED	Rusty, cherty sediment with 3-4% fine pyrite throughout, minor-moderate Fe-carb alteration.	A19-09210	6
A704594	555799	5414544	03-Jul-19	289	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Very rusty, altered, weakly sheared argillite. Minor-moderate chert, slight sheen on some surfaces (weak schistosity). Trace pyrite.	A19-09210	8
A704595	555771	5414545	03-Jul-19	299	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Rusty, weakly sheared, moderately fractured argillite with minor quartz-carb alteration/<1mm stringers, 1% pyrite overall in clusters. Strikes 300/79 degrees NE.	A19-09210	6
A704596	555715	5414562	08-Jul-19	293	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Argillite	ARG	Rusty argillite with some chert, minor-moderate quartz-carb alteration/stringers, trace pyrite.	A19-09210	7
A704597	555718	5414562	08-Jul-19	293	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Argillite	ARG	Rusty argillite, moderate component of a recrystallized siliceous/bleached layer, minor Fe-carb, trace pyrite.	A19-09210	5
A704598	555718	5414561.7	08-Jul-19	293	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Argillite	ARG	Rusty argillite with minor-moderate chert, minor-moderate quartz-carb stringers, trace pyrite.	A19-09210	5
A704599	555713	5414562	08-Jul-19	293	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Sediment	SED	Sediment with moderate quartz-carb flooding, rusty surface. 1% pyrite overall, some elongated brown minerals within alteration (sphalerite?).	A19-09210	7
A704600	555717	5414559	08-Jul-19	309	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Argillite	ARG	Rusty argillite with minor quartz-carb alteration, trace pyrite.	A19-09210	13
A704601	555712	5414553	08-Jul-19	309	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Argillite	ARG	Rusty argillite with minor-moderate quartz-carb alteration, local recrystallized/bleached appearance. 0.5% pyrite, sometimes in rusty fractures. Frost heave near similar outcrop.	A19-09210	6
A704602	555736	5414516	08-Jul-19	312	Grab	North of Beggs Lake	Black Raven	261453	Outcrop	Argillite	ARG	Rusty argillite with minor quartz-carb alteration.	A19-09210	21
A704603	555674	5414448	08-Jul-19	307	Grab	North of Beggs Lake	Black Raven	261453	Frost Heave	Mafic Volcanic	MV	Mafic volcanic with minor-moderate quartz-carb filled amygdules, 1% pyrite overall, more within amygdules. Rusty surface.	A19-09210	9
A704604	555547	5413525	09-Jul-19	317	Grab	S of Beggs Lake	Black Raven	164048	Outcrop	Mafic Intrusive	MI	Rusty, altered mafic intrusive with some syenite in 120 degree fracture zone exposed by NE-trending structure. Mixed material looks a bit like fault gouge in places. Trace-1% fine disseminated pyrite, trace chalcopyrite.	A19-09210	13
A704605	555549	5413876	09-Jul-19	297	Grab	Beggs Lake SW Shore	Black Raven	213988	Float	Serpentinite	SERP	Angular serpentinite (?) float with weak quartz-carb alteration/stringers, trace associated chalcopyrite.	A19-09210	13
A704606	555129	5414650	12-Jul-19	307	Grab	Beggs-Roccian Grid N	Black Raven	265573	Outcrop	Gabbro	GAB	Gabbro with 0.5cm felsic dykelet from fractured outcrop. Minor carb alteration, 1% mainly cubic pyrite. Strongly magnetic.	A19-09210	6

A704607	554929	5414639	12-Jul-19	316	Grab	Beggs-Roccian Grid N	Black Raven	182461	Outcrop	Quartz Vein	QV	3-4cm glassy, white-grey to orange-red quartz vein, quite flat-lying but shallow dip to NW, moderate hematite, trace-1% pyrite, trace-0.5% chalcopyrite. Overlies rusty mafic volcanics. At location of 2017 sample A581642.	A19-09210	197
A704608	554929	5414638.6	12-Jul-19	316	Grab	Beggs-Roccian Grid N	Black Raven	182461	Outcrop	Quartz Vein	QV	3-4cm glassy, white-grey to orange-red quartz vein, quite flat-lying but shallow dip to NW, moderate hematite, trace-1% pyrite, trace-0.5% chalcopyrite. Overlies rusty mafic volcanics.	A19-09210	217
A704609	556236	5413960	13-Jul-19	319	Grab	Between North Ridge - Super 7	Black Raven	309831	Float	Felsic Intrusive	FINT	Rusty, altered, silicified felsic intrusive with moderate foliation, moderate white mica, moderate quartz along foliation planes, 1cm pegmatite dykelet. Possible trace tarnished pyrite visible. Subangular float, somewhat soft.	A19-09210	14
A704610	561150	5400852	09-Aug-19	350	Grab	Harvey 1	Black Raven	108954	Frost Heave	Diabase	DIA	Rusty diabase with trace-0.5% pyrite. Sampled for possible remob.	A19-11648	7
A704611	561921	5401343	10-Aug-19	305	Grab	Harvey 1	Black Raven	331866	Talus	Aplite Dyke	APL	~10cm band of grey-white aplite(?) with a few cm-scale glassy white stringers in syenogranite. Trace pyrite.	A19-11648	8
A704612	562005	5401453	10-Aug-19	293	Grab	Harvey 1	Black Raven	145288	Frost Heave	Syenogranite	SYENO	Syenogranite with minor-moderate quartz stringers, minor rust, 1% pyrite overall in quartz and wall rock. Frost heave or possibly talus beneath roots along with a number of quartz fragments.	A19-11648	6
A704613	562034	5401510	10-Aug-19	292	Grab	Harvey 1	Black Raven	327335	Outcrop	Syenite	SYE	Syenite with minor-moderate up to 1cm quartz stringers. Trace pyrite, minor rust.	A19-11648	2.5
A704614	562046	5401439	10-Aug-19	302	Grab	Harvey 1	Black Raven	327335	Talus	Quartz Stockwork	QSTOCK	Quartz stockwork in granite, minor-moderate hematite, minor rust, trace pyrite, trace bornite.	A19-11648	2.5
A704615	562046	5401437	10-Aug-19	302	Grab	Harvey 1	Black Raven	327335	Talus	Quartz Stockwork	QSTOCK	Quartz stockwork in granite, minor rust, trace pyrite.	A19-11648	7
A704616	562045	5401416	10-Aug-19	301	Grab	Harvey 1	Black Raven	327335	Talus	Quartz Stockwork	QSTOCK	Quartz stockwork and flooding (white and grey respectively) in syenite. Trace pyrite. At least 0.5 by 0.4 by 0.3m talus block.	A19-11648	2.5
A704617	561995	5401390	10-Aug-19	305	Grab	Harvey 1	Black Raven	331866	Talus	Quartz Stockwork	QSTOCK	Quartz stockwork in granite, minor-moderate rust, trace pyrite. At least 2 by 1 by 0.5m talus block.	A19-11648	2.5
A705076	560950	5411760	29-Oct-19	371	Grab	Mag Lake NW Shore	Black Raven	154317	Outcrop	Iron Formation	IF	Very rusty, highly siliceous iron formation, appears to be mainly recrystallized chert. Trace-0.5% visible pyrite. Outcrop.	A19-15072	30
A705077	560946	5411756	29-Oct-19	371	Grab	Mag Lake NW Shore	Black Raven	154317	Outcrop	Banded Iron Formation	BIF	Rusty, weakly sheared banded iron formation with minor quartz. Shear trends 240/64 degrees NW, measurement may be affected by magnetics.	A19-15072	6
A705078	561075	5411847	29-Oct-19	392	Grab	N of Mag Lake	Black Raven	227108	Outcrop	Mafic Volcanic	MV	Rusty, silicified mafic volcanic with trace-0.5% pyrite. Outcrop on W-facing hill. Very hard and smooth surface, not much in bag.	A19-15072	2.5
A705079	561101	5411838	29-Oct-19	394	Grab	N of Mag Lake	Black Raven	227108	Frost Heave	Mafic Volcanic	MV	Very rusty, very bleached, moderately-strongly sheared mafic volcanic (?) with trace visible pyrite. Angular rock at base of hill, probably frost heave or talus.	A19-15072	2.5
A705080	561087	5411864	29-Oct-19	388	Grab	N of Mag Lake	Black Raven	227108	Outcrop	Mafic Volcanic	MV	Rusty, weakly-moderately silicified mafic volcanic with trace pyrite. Outcrop.	A19-15072	2.5
A705081	561081	5411882	29-Oct-19	388	Grab	N of Mag Lake	Black Raven	227108	Frost Heave	Mafic Volcanic	MV	Rusty, weakly-moderately silicified mafic volcanic with minor <1mm quartz stringer, trace-0.5% pyrite. Trace chalcopyrite in stringer. Frost heave on W-facing hill.	A19-15072	2.5
A705082	561100	5411819	29-Oct-19	393	Grab	N of Mag Lake	Black Raven	227108	Frost Heave	Mafic Volcanic	MV	Rusty, weakly-moderately sheared, weakly-moderately silicified mafic volcanic. Trace fine visible pyrite. Frost heave on W-facing slope.	A19-15072	9

A705083	561107	5411829	29-Oct-19	397	Grab	N of Mag Lake	Black Raven	227108	Outcrop	Mafic Volcanic	MV	Very rusty, moderately-strongly sheared, highly siliceous mafic volcanic (or iron formation?) with trace visible pyrite. Shear trends ~100 degrees, subvertical. Outcrop.	A19-15072	2.5
A705084	561106.5	5411829.2	29-Oct-19	397	Grab	N of Mag Lake	Black Raven	227108	Outcrop	Mafic Volcanic	MV	Rusty, weakly-moderately sheared, silicified mafic volcanic with trace-0.5% pyrite.	A19-15072	2.5
A705085	561114	5411829	29-Oct-19	396	Grab	N of Mag Lake	Black Raven	227108	Outcrop	Quartz Vein	QV	~5cm glassy, grey-white quartz stringer in chloritic mafic volcanic, appears to be somewhat folded when broken, unknown orientation. Some mafic banding on margins. Trends 055/73 degrees SE.	A19-15072	2.5
A705086	561113	5411838	29-Oct-19	398	Grab	N of Mag Lake	Black Raven	227108	Outcrop	Granodiorite	GRANO	Granodiorite with minor-moderate rust, appears porphyritic with <1mm crystals. 1% pyrite in matrix.	A19-15072	2.5
A583351	556843	5414417	30-Oct-19	273	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Serpentinite	SERP	Serpentinite with orange rusty rim, minor-moderate quartz-carbonate alteration, trace pyrite specks, minor fibrous stringers (asbestos-chrysotile?). Talus block.	A19-15072	2
A583352	556842	5414407	30-Oct-19	276	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Serpentinite	SERP	Serpentinite with minor-moderate quartz-carbonate alteration, trace pyrite specks, minor fibrous stringers (asbestos-chrysotile?). Talus block.	A19-15072	3
A583353	556843	5414391	30-Oct-19	275	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Serpentinite	SERP	Serpentinite with moderate quartz-carbonate alteration, trace pyrite specks, minor-moderate fibrous stringers (asbestos-chrysotile?). Talus block.	A19-15072	1
A583354	556858	5414329	30-Oct-19	293	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Mafic Volcanic	MV	Rusty mafic volcanic with minor-moderate quartz-carb alteration, 2-3% pyrite cubes up to 2-3mm. Talus block.	A19-15072	3
A583355	556861	5414325	30-Oct-19	296	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Mafic Volcanic	MV	Rusty mafic volcanic with minor quartz-carb, 5% pyrite cubes up to 0.5cm. Talus block.	A19-15072	8
A583356	556861.5	5414325.5	30-Oct-19	296	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Mafic Volcanic	MV	Rusty mafic volcanic with minor quartz-carb alteration, 3-4% pyrite cubes up to 1cm. Talus block.	A19-15072	8
A583357	556852	5414333	30-Oct-19	296	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Mafic Volcanic	MV	Very rusty quartz-carb flooded mafic volcanic with 1% pyrite cubes, presence of a fine, short (1-2mm), dark grey-green acicular mineral. Talus block.	A19-15072	9
A583358	556847	5414332	30-Oct-19	296	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Mafic Volcanic	MV	Very fine-grained, rusty mafic volcanic with minor-moderate quartz-carb alteration, 0.5% fine pyrite. Almost conchoidal fracture. Talus block.	A19-15072	1
A583359	556846.5	5414331.5	30-Oct-19	296	Grab	Goodchild property N of P. Moses trenches	Black Raven	337751	Talus	Mafic Volcanic	MV	Very fine-grained, very rusty mafic volcanic with moderate quartz-carb alteration, 1% fine pyrite. Almost conchoidal fracture. Talus block.	A19-15072	6
A583360	553470	5411509	30-Oct-19	300	Grab	S of Budall Lake	Black Raven	316554	Outcrop	Mafic Volcanic	MV	Up to 3-4cm, parallel quartz-carb stringers in weakly sheared, rusty mafic volcanic. Trace pyrite, chalcopyrite within stringers. Veins appear to be folded in places. If in place, shear trends ~340/subvertical dip, but may not be entirely in place.	A19-15072	2.5
A583361	553450	5411478	30-Oct-19	294	Grab	S of Budall Lake	Black Raven	131218	Outcrop	Mafic Volcanic	MV	Rusty, weakly sheared mafic volcanic with moderate chert fragments, 3-4% pyrite mainly in and around chert fragments. Outcrop.	A19-15072	13
A583362	553331	5411536	30-Oct-19	294	Grab	S of Budall Lake	Black Raven	316554	Outcrop	Quartz Vein	QV	1cm quartz stringer in frost heaved granodiorite block. 0.5% pyrite, moderate Fe-carb alteration, largely in streaks perpendicular to vein walls.	A19-15072	2.5

## **APPENDIX II**

### **Soil Sample Descriptions (Table II)**

Black Raven Soil Sample Descriptions																										
Table II	Sample	Date	Area	Easting	Northing	Elevation	Claim	Type	Depth (cm)	Ground level	Ground wetness	Ground inclination	Direction	Colour	Veg1	Veg2	Veg3	Tree1	Tree2	Tree3	Subjective quality	Vegetation in soil	Rocks in soil	Photo	Comments	Au_ppb
A704701	26-Jun-19	Contact E Iron Formation	562423	5411456	367	285773	A	10	Moderate	Dry	Slight rise to	SW	Dark Brown	Leaf Litter	Ferns		Spruce	Birch		6	Some		NE		18	
A704702	26-Jun-19	Contact E Iron Formation	562423	5411456	367	285773	B	15	Moderate	Dry	Slight rise to	SW	Brown	Leaf Litter	Ferns		Spruce	Birch		9	Some		NE		18	
A704703	26-Jun-19	Contact E Iron Formation	562446	5411467	363	285773	A	10	Low	Damp	Steep rise to	WSW	Dark Brown	Leaf Litter			Spruce	Birch	Alder	7		Some	W		27	
A704704	26-Jun-19	Contact E Iron Formation	562446	5411467	363	285773	B	15	Low	Damp	Steep rise to	WSW	Tan-brown	Leaf Litter			Spruce	Birch		7		Moderate amount	W	Gravelly.	2.5	
A704705	26-Jun-19	Contact E Iron Formation	562474	5411465	363	285773	A	5 to 10	Moderate	Dry	Moderate rise to	ENE	Dark Brown	Leaf Litter	Moss		Spruce	Alder		7	Not much		E		28	
A704706	26-Jun-19	Contact E Iron Formation	562474	5411465	363	285773	B	15	Moderate	Dry	Moderate rise to	ENE	Rich Brown	Leaf Litter	Moss		Spruce	Alder		9			E		5	
A704707	26-Jun-19	Contact E Iron Formation	562504	5411482	365	285773	A	5	Moderate	Dry	Slight downhill to	SW	Dark Brown	Leaf Litter	Ferns		Spruce			6			W		8	
A704708	26-Jun-19	Contact E Iron Formation	562504	5411482	365	285773	B	15	Moderate	Dry	Slight downhill to	SW	Medium Brown	Leaf Litter	Ferns		Spruce			8			W		8	
A704709	26-Jun-19	Contact E Iron Formation	562521	5411487	365	285773	A	5	Moderate	Dry	Flat		Dark Brown	Leaf Litter	Ferns		Spruce			6			S		5	
A704710	26-Jun-19	Contact E Iron Formation	562521	5411487	365	285773	B	10	Moderate	Dry	Flat		Tan-brown	Leaf Litter	Ferns		Spruce			8			S	Some clay.	6	
A704711	26-Jun-19	Contact E Iron Formation	562533	5411428	369	285773	A	<5	Moderate	Dry	Flat		Dark Brown	Leaf Litter	Ferns		Spruce	Birch	Poplar	4			W		30	
A704712	26-Jun-19	Contact E Iron Formation	562533	5411428	369	285773	B	10	Moderate	Dry	Flat		Medium Brown	Leaf Litter	Ferns		Spruce	Birch	Poplar	8			W		2.5	
A704713	26-Jun-19	Contact E Iron Formation	562501	5411422	372	285773	A	5	High	Dry	Slight rise to	E	Dark Brown	Leaf Litter	Moss		Spruce	Birch		6			E	Nearly on top of showing.	29	
A704714	26-Jun-19	Contact E Iron Formation	562501	5411422	372	285773	B	15	High	Dry	Slight rise to	E	Rusty Brown	Leaf Litter	Moss		Spruce	Birch		8			E		6	
A704715	26-Jun-19	Contact E Iron Formation	562480	5411415	369	285773	A	10	Low	Damp	Moderate rise to	NE	Dark Brown	Leaf Litter	Moss		Birch	Alder		9			NE		16	
A704716	26-Jun-19	Contact E Iron Formation	562454	5411409	371	285773	A	1 to 2	Low	Damp	Slight rise to	N	Dark Brown	Leaf Litter			Spruce	Alder	Poplar	7			W		16	
A704717	26-Jun-19	Contact E Iron Formation	562454	5411409	371	285773	B	10	Low	Damp	Slight rise to	N	Tan-brown	Leaf Litter			Spruce	Alder	Poplar	7			W		12	
A704718	26-Jun-19	Contact E Iron Formation	562436	5411399	374	285773	A	2	High	Dry	On moderate slope facing	ENE	Dark Brown	Leaf Litter	Ferns		Spruce	Birch		8			SW		27	
A704719	26-Jun-19	Contact E Iron Formation	562436	5411399	374	285773	B	15	High	Dry	On moderate slope facing	ENE	Light Brown	Leaf Litter	Ferns		Spruce	Birch		4			SW	Clay rich.	15	
A704724	26-Jun-19	Contact E Iron Formation	562519	5411372	374	285773	A	1 to 2	High	Dry	Slight rise to	NE	Dark Brown	Leaf Litter	Moss		Spruce	Poplar		5	Moderate amount		N		28	
A704725	26-Jun-19	Contact E Iron Formation	562519	5411372	374	285773	B	10	High	Dry	Slight rise to	NE	Rusty Brown	Leaf Litter	Moss		Spruce	Poplar		9			N		6	
A704726	26-Jun-19	Contact E Iron Formation	562544	5411386	375	285773	A	2	Moderate	Dry	On shallow slope, facing	NE	Dark Brown				Spruce	Birch		4	Moderate amount		SW		8	
A704727	26-Jun-19	Contact E Iron Formation	562544	5411386	375	285773	B	15	Moderate	Dry	On shallow slope, facing	NE	Rich Brown				Spruce	Birch		8			SW		10	
A704728	26-Jun-19	Contact E Iron Formation	562565	5411389	373	285773	A	2	Low	Damp	Steep rise to	SW	Dark Brown	Leaf Litter	Ferns		Spruce	Alder		6	Some		W		19	
A704729	26-Jun-19	Contact E Iron Formation	562565	5411389	373	285773	B	10	Low	Damp	Steep rise to	SW	Tan-brown	Leaf Litter	Ferns		Spruce	Alder		6		Some	W		11	
A704738	30-Jun-19	Contact Lake Gold Occurrence	562756	5410709	347	329118	A	5	Moderate	Dry	On shallow slope, facing	W	Dark Brown	Leaf Litter			Spruce	Birch	Moose Maple	8	Not much		SE		18	
A704739	30-Jun-19	Contact Lake Gold Occurrence	562760	5410706	345	329118	B	10	Moderate	Dry	On shallow slope, facing	W	Rusty Brown	Leaf Litter			Spruce	Birch	Moose Maple	8			E		8	
A704740	30-Jun-19	Contact Lake Gold Occurrence	562780	5410719	340	329118	A	5	Moderate	Dry	Steep rise to	W	Dark Brown	Leaf Litter			Spruce	Alder		6	Some		NE		22	
A704741	30-Jun-19	Contact Lake Gold Occurrence	562814	5410730	335	329118	A	5	Moderate	Dry	Steep downhill to	E	Dark Brown	Leaf Litter			Spruce	Birch	Moose Maple	5	Some		N	Possible charcoal in soil, top of showing.	12	
A704742	30-Jun-19	Contact Lake Gold Occurrence	562814	5410730	335	329118	B	15	Moderate	Dry	Steep downhill to	E	Dark Brown	Leaf Litter			Spruce	Birch	Moose Maple	6			N	Clay rich.	22	
A704743	30-Jun-19	Contact Lake Gold Occurrence	562840	5410743	344	213209	A	5	Moderate	Dry	Steep rise to	SE	Dark Brown	Leaf Litter			Birch	Alder	Moose Maple	6	Some		SE		27	
A704744	30-Jun-19	Contact Lake Gold Occurrence	562840	5410743	344	213209	B	15	Moderate	Dry	Steep rise to	SE	Dark Brown	Leaf Litter			Birch	Alder	Moose Maple	5		Some	SE		8	
A704745	30-Jun-19	Contact Lake Gold Occurrence	562863	5410760	349	213209	A	10	Moderate	Dry	On steep slope, facing	NW	Dark Brown	Moss	Leaf Litter		Spruce	Birch	Moose Maple	6	Some		E		24	
A704746	30-Jun-19	Contact Lake Gold Occurrence	562863	5410760	349	213209	B	15	Moderate	Dry	On steep slope, facing	NW	Dark Brown	Moss	Leaf Litter		Spruce	Birch	Moose Maple	7			E		8	
A704747	30-Jun-19	Contact Lake Gold Occurrence	562897	5410766	354	213209	A	10	Moderate	Damp	On shallow slope, facing	NW	Dark Brown	Moss	Leaf Litter		Spruce	Birch		6	Not much		SE		34	
A704748	30-Jun-19	Contact Lake Gold Occurrence	562933	5410766	353	213209	A	1 to 2	High	Damp	On moderate slope, facing	N	Dark Brown	Moss	Ferns		Spruce	Birch		6			S	A few cm to bedrock.	34	
A704749	30-Jun-19	Contact Lake Gold Occurrence	562958	5410778	349	213209	A	1 to 2	Moderate	Dry	Steep rise to	S	Dark Brown	Leaf Litter			Spruce	Birch		4	Moderate amount		E		29	
A704750	30-Jun-19	Contact Lake Gold Occurrence	562958	5410778	349	213209	B	15	Moderate	Dry	Steep rise to	S	Dark Brown	Leaf Litter			Spruce	Birch		8			E		13	



A704751	30-Jun-19	Contact Lake Gold Occurrence	562982	5410794	341	213209	A	10	Moderate	Dry	On moderate slope, facing	N	Dark Brown	Moss	Leaf Litter		Spruce			6			S	A horizon then bedrock.	12	
A704752	30-Jun-19	Contact Lake Gold Occurrence	563017	5410744	327	213209	A	1 to 2	High	Damp	On steep slope, facing	E	Dark Brown	Moss	Leaf Litter		Spruce	Birch		7			W	A few cm to granite bedrock.	9	
A704753	30-Jun-19	Contact Lake Gold Occurrence	562983	5410733	328	213209	A	5	Moderate	Dry	On moderate slope, facing	NE	Dark Brown	Leaf Litter	Moss		Spruce	Birch		5	Moderate amount		SW		16	
A704754	30-Jun-19	Contact Lake Gold Occurrence	562983	5410733	328	213209	B	15	Moderate	Dry	On moderate slope, facing	NE	Dark Brown	Leaf Litter	Moss		Spruce	Birch		9			SW		2.5	
A704755	30-Jun-19	Contact Lake Gold Occurrence	562958	5410722	336	213209	A	1 to 2	Moderate	Dry	Slight rise to	S	Dark Brown	Leaf Litter			Moose Maple	Spruce	Birch	4	Moderate amount		S		17	
A704756	30-Jun-19	Contact Lake Gold Occurrence	562958	5410722	336	213209	B	10 to 15	Moderate	Dry	Slight rise to	S	Dark Brown	Leaf Litter			Moose Maple	Spruce	Birch	6			S	Clay rich, some rusty rock in hole (amphibolite?)	2.5	
A704757	30-Jun-19	Contact Lake Gold Occurrence	562926	5410715	340	213209	A	5	Moderate	Dry	Slight rise to	SW	Dark Brown	Leaf Litter	Moss		Spruce	Birch		4	Quite a bit		SW		14	
A704758	30-Jun-19	Contact Lake Gold Occurrence	562926	5410715	340	213209	B	15	Moderate	Dry	Slight rise to	SW	Dark Brown	Leaf Litter	Moss		Spruce	Birch		7			SW		18	
A704759	30-Jun-19	Contact Lake Gold Occurrence	562896	5410708	349	213209	A	5	Moderate	Dry	On shallow slope, facing	NW	Dark Brown	Moss	Leaf Litter		Spruce			5	Moderate amount		SW		17	
A704760	30-Jun-19	Contact Lake Gold Occurrence	562868	5410698	350	213209	A	5	Moderate	Dry	On shallow slope, facing	NW	Dark Brown	Leaf Litter			Spruce	Birch		5	Moderate amount		S		29	
A704761	30-Jun-19	Contact Lake Gold Occurrence	562838	5410693	352	213209	A	1 to 2	Moderate	Dry	On shallow slope, facing	SW	Dark Brown	Leaf Litter				Birch	Spruce	Alder	5	Some		SE		25
A704762	30-Jun-19	Contact Lake Gold Occurrence	562838	5410693	352	213209	B	10	Moderate	Dry	On shallow slope, facing	SW	Dark Brown	Leaf Litter				Birch	Spruce	Alder	10			SE		2.5
A704763	30-Jun-19	Contact Lake Gold Occurrence	562816	5410687	350	329118	A	5	Moderate	Dry	On moderate slope, facing	SW	Dark Brown	Leaf Litter			Spruce	Birch	Alder	6	Some		SE	A down to clay and bedrock	26	
A704764	30-Jun-19	Contact Lake Gold Occurrence	562799	5410689	347	329118	A	5	Low	Damp	Moderate rise to	SW	Dark Brown	Leaf Litter			Alder			9			W	Stream to E.	27	
A704765	30-Jun-19	Contact Lake Gold Occurrence	562773	5410680	346	329118	A	5	Low	Damp	Flat		Dark Brown	Leaf Litter			Alder	Spruce		6	Some		SW	Stream to W.	24	
A704766	08-Jul-19	North of Beggs Lake	555574	5414488	325	261453	A	30	High	Wet	Slight rise to	SSW	Dark Brown	Moss	Labrador Tea		Spruce	Birch		1	A lot		E		20	
A704767	08-Jul-19	North of Beggs Lake	555596	5414503	320	261453	A	10	High	Dry	Moderate rise to	SSW	Dark Brown	Moss			Spruce	Birch		6			SW	On bedrock.	26	
A704768	08-Jul-19	North of Beggs Lake	555607	5414525	308	261453	A	5	Moderate	Dry	Moderate rise to	S	Dark Brown	Leaf Litter	Ferns		Moose Maple	Birch	Spruce	6			W	Down to clay.	22	
A704769	08-Jul-19	North of Beggs Lake	555626	5414543	310	261453	A	<5	High	Dry	On moderate slope, facing	NE	Dark Brown	Leaf Litter	Ferns		Moose Maple	Spruce		3	Quite a bit		SW	A few cm to bedrock.	24	
A704770	08-Jul-19	North of Beggs Lake	555642	5414564	302	261453	A	<5	Moderate	Dry	Slight rise to	SW	Dark Brown	Leaf Litter	Moss		Moose Maple	Alder	Birch	7		Moderate amount			24	
A704771	08-Jul-19	North of Beggs Lake	555658	5414582	302	261453	A	10	Moderate	Dry	On shallow slope, facing	NE	Dark Brown	Leaf Litter	Ferns	Moss	Moose Maple	Spruce		8			NW		24	
A704772	08-Jul-19	North of Beggs Lake	555658	5414582	302	261453	B	15	Moderate	Dry	On shallow slope, facing	NE	Dark Brown	Leaf Litter	Ferns	Moss	Moose Maple	Spruce		6			NW	Clay rich	2.5	
A704773	08-Jul-19	North of Beggs Lake	555676	5414602	294	261453	A	15	High	Dry	On steep slope, facing	NE	Dark Brown	Moss	Leaf Litter		Spruce	Moose Maple		5		Moderate amount	NW	Down to bedrock, topo gets extreme downhill.	24	
A704774	08-Jul-19	North of Beggs Lake	555763	5414556	310	261453	A	<5	Moderate	Dry	Valley trending	N	Dark Brown	Leaf Litter	Moss		Spruce	Birch	Moose Maple	4	Quite a bit		ESE	Basically on bedrock, valley plunges to North.	27	
A704775	08-Jul-19	North of Beggs Lake	555743	5414526	312	261453	A	10	High	Dry	On shallow slope, facing	NE	Dark Brown	Leaf Litter	Moss		Spruce	Birch		5	Moderate amount	Some	NE	Some rusty rock in hole.	29	
A704776	08-Jul-19	North of Beggs Lake	555722	5414514	311	261453	A	5	High	Dry	Slight rise to	SW	Dark Brown	Moss	Leaf Litter		Spruce			6	Some		WSW		21	
A704777	08-Jul-19	North of Beggs Lake	555714	5414486	309	261453	A	5	High	Dry	Flat		Dark Brown	Moss			Spruce			3	A lot		ENE	Flat but on top of NE trending ridge.	24	
A704778	08-Jul-19	North of Beggs Lake	555697	5414470	309	261453	A	5	Low	Dry	Flat		Dark Brown	Leaf Litter			Moose Maple			6	Some		NE		29	
A704779	08-Jul-19	North of Beggs Lake	555687	5414454	307	261453	A	1 to 2	High	Dry	On moderate slope, facing	E	Dark Brown	Leaf Litter	Moss		Moose Maple	Spruce	Birch	2	A lot		NW		25	
A704780	08-Jul-19	North of Beggs Lake	555674	5414448	307	261453	A	10	High	Dry	Steep rise to	W	Dark Brown	Leaf Litter	Moss		Moose Maple	Spruce		2	A lot		NW		29	
A704781	11-Jul-19	ABC Grid N	555093	5414577	309	265573	A	1 to 2	High	Dry	On moderate slope, facing	W	Dark Brown	Ferns	Grass		Spruce			4	Quite a bit		E	On bedrock.	39	
A704782	11-Jul-19	ABC Grid N	555093	5414577	309	265573	B	10	High	Dry	On moderate slope, facing	W	Light tan	Ferns			Spruce			3	Moderate amount	Moderate amount	E		13	
A704783	11-Jul-19	ABC Grid N	555067	5414580	310	265573	A	1 to 2	Moderate	Dry	On shallow slope, facing	W	Dark Brown	Leaf Litter	Moss		Spruce	Birch		4	Some	Some	E		32	
A704784	11-Jul-19	ABC Grid N	555044	5414582	303	265573	A	5	Moderate	Damp	Flat		Dark Brown	Leaf Litter	Moss	Ferns	Spruce	Birch	Alder	10			S		29	
A704785	11-Jul-19	ABC Grid N	555019	5414578	303	265573	A	<5	High	Dry	Slight rise to	N	Dark Brown	Leaf Litter			Birch	Spruce		2	A lot	Quite a bit	E	Down to bedrock possibly.	30	
A704786	11-Jul-19	ABC Grid N	555019	5414578	303	265573	B	10 to 15	High	Dry	Slight rise to	N	Medium brown	Leaf Litter			Birch	Spruce		6		A lot	N		2.5	
A704787	11-Jul-19	ABC Grid N	554991	5414575	302	265573	A	10	Moderate	Dry	Slight rise to	N	Dark Brown	Leaf Litter	Moss		Spruce	Birch		4	Moderate amount	Moderate amount	N	On baseline.	29	
A704788	11-Jul-19	ABC Grid N	554973	5414573	295	182461	A	1 to 2	Moderate	Dry	On shallow slope, facing	SW	Dark Brown	Leaf Litter			Spruce	Moose Maple		5	Some		SE		39	
A704789	11-Jul-19	ABC Grid N	554973	5414573	295	182461	B	15	Moderate	Dry	On shallow slope, facing	SW	Rusty brown	Leaf Litter			Spruce	Moose Maple		8			SE		2.5	

A704790	11-Jul-19	ABC Grid N	554947	5414575	291	182461	A	1 to 2	Moderate	Dry	Slight rise to	W	Dark Brown	Leaf Litter	Moss		Alder	Birch	Spruce	2	Moderate amount		NE	Thin layer above B.	44
A704791	11-Jul-19	ABC Grid N	554947	5414575	291	182461	B	10	Moderate	Dry	Slight rise to	W	Tan-brown	Leaf Litter	Moss		Alder	Birch	Spruce	2			NE	Clay rich.	2.5
A704792	11-Jul-19	ABC Grid N	554920	5414576	299	182461	A	1 to 2	Moderate	Dry	On shallow slope, facing	S	Dark Brown	Leaf Litter	Moss		Spruce	Moose Maple		2	Quite a bit	A lot	SE		29
A704793	11-Jul-19	ABC Grid N	554920	5414576	299	182461	B	15	Moderate	Dry	On shallow slope, facing		Medium brown	Leaf Litter	Moss		Spruce	Moose Maple		7		A lot	SE		2.5
A704794	11-Jul-19	ABC Grid N	554893	5414584	301	182461	A	5	Moderate	Dry	On shallow slope, facing	SW	Dark Brown	Leaf Litter			Spruce	Birch	Moose Maple	5	Some	Moderate amount	NE		32
A704795	11-Jul-19	ABC Grid N	554863	5414577	298	182461	A	10	Low	Dry	Flat		Dark Brown	Leaf Litter			Moose Maple	Birch		10			SW		31
A704796	11-Jul-19	ABC Grid N	554878	5414673	304	182461	A	<5	Moderate	Dry	On shallow slope, facing	SE	Dark Brown	Leaf Litter	Moss		Alder	Birch	Spruce	5	Some		NW		32
A704797	11-Jul-19	ABC Grid N	554900	5414670	307	182461	A	5	Moderate	Dry	Steep rise to	SW	Dark Brown	Leaf Litter	Ferns	Moss	Alder	Spruce	Birch	8	Not much		S		31
A704798	11-Jul-19	ABC Grid N	554923	5414665	312	182461	A	1 to 2	High	Dry	Moderate rise to	NE	Dark Brown	Leaf Litter			Spruce	Birch		1	A lot		SE	Right on bedrock.	32
A704799	12-Jul-19	ABC Grid N	555102	5414669	301	265573	A	10	Low	Damp	Flat		Dark Brown	Moss	Ferns		Alder	Birch	Spruce	10			S		37
A704800	12-Jul-19	ABC Grid N	555079	5414668	300	265573	A	10	Low	Damp	Slight rise to	W	Dark Brown	Leaf Litter	Ferns		Alder	Birch	Spruce	8	Some		N		29
A704801	12-Jul-19	ABC Grid N	555079	5414668	300	265573	B	15	Low	Damp	Slight rise to	W	Dark Brown	Leaf Litter	Ferns		Alder	Birch	Spruce	8			N		9
A704802	12-Jul-19	ABC Grid N	555048	5414665	308	265573	A	5	High	Dry	On moderate slope, facing	E	Dark Brown	Leaf Litter	Moss		Spruce	Birch		7	Some	Some	N		23
A704803	12-Jul-19	ABC Grid N	555017	5414664	317	265573	A	5	High	Dry	On shallow slope, facing	E	Dark Brown	Moss	Ferns		Spruce			3	A lot		N		34
A704804	12-Jul-19	ABC Grid N	554995	5414667	317	265573	A	10	High	Dry	Flat		Dark Brown	Leaf Litter	Moss		Spruce	Alder	Birch	1	A lot		E		27
A704805	12-Jul-19	ABC Grid N	554970	5414668	305	182461	A	5	Moderate	Dry	Slight rise to	NE	Dark Brown	Leaf Litter			Spruce			2	A lot		W		25
A704806	12-Jul-19	ABC Grid N	554946	5414663	311	182461	A	5	High	Dry	On shallow slope, facing	S	Dark Brown	Leaf Litter	Moss		Spruce			2	A lot		E		37
A704807	12-Jul-19	Swamp W of Beggs	554993	5414271	316	169663	A	5	Low	Damp	Flat		Dark Brown	Moss	Ferns	Leaf Litter	Birch	Alder	Spruce	10					36
A704808	12-Jul-19	Swamp W of Beggs	555016	5414263	300	169663	A	15	Low	Damp	Flat		Dark Brown	Moss	Grass		Cedar	Alder		10			E		41
A704809	12-Jul-19	Swamp W of Beggs	555042	5414254	297	169663	A	20	Low	Wet	Flat		Dark Brown	Moss	Ferns		Spruce	Cedar		7	Not much		N		30
A704810	12-Jul-19	Swamp W of Beggs	555066	5414241	300	169663	A	20	Low	Wet	Flat		Dark Brown	Moss	Grass		Spruce	Alder	Alder	6	Some		S		23
A704811	12-Jul-19	Swamp W of Beggs	555089	5414234	297	169663	A	15	Low	Wet	Flat		Dark Brown	Moss	Grass		Spruce	Alder	Cedar	2	A lot		S		25
A704812	12-Jul-19	Swamp W of Beggs	555112	5414225	299	169663	A	15	Low	Wet	Flat		Dark Brown	Moss			Alder	Spruce	Birch	7	Not much		NW		31
A704813	12-Jul-19	Swamp W of Beggs	555140	5414204	300	169663	A	5	Low	Damp	Flat		Dark Brown	Leaf Litter			Spruce	Alder		7	Some				32
A704814	12-Jul-19	Swamp W of Beggs	555167	5414202	299	169663	A	5	Low	Damp	Flat		Dark Brown	Moss	Ferns		Alder	Spruce	Birch	10			S		35
A704815	12-Jul-19	Swamp W of Beggs	555194	5414190	296	169663	A	5	Low	Damp	Flat		Dark Brown	Moss	Ferns		Alder	Spruce	Birch	9	Not much		N		38
A704816	12-Jul-19	Swamp W of Beggs	555218	5414179	296	169663	A	20	Low	Damp	Flat		Dark Brown	Moss	Ferns	Grass	Alder	Spruce		8	Not much		E		35
A704817	13-Jul-19	Super 7 Area	556187	5413957	319	309831	A	10	Low	Damp	Flat		Dark Brown	Leaf Litter	Moss		Alder	Birch	Spruce	10			E		34
A704818	13-Jul-19	Super 7 Area	556209	5413958	322	309831	A	1 to 2	Moderate	Dry	On moderate slope, facing	W	Dark Brown	Leaf Litter			Moose Maple	Birch	Spruce	2	Quite a bit		S	On diabase possibly.	39
A704819	13-Jul-19	Super 7 Area	556209	5413958	322	309831	B	15	Moderate	Dry	On moderate slope, facing	W	Tan-brown	Leaf Litter			Moose Maple	Birch	Spruce	6			S		5
A704820	13-Jul-19	Super 7 Area	556240	5413960	322	309831	A	5	Moderate	Dry	On shallow slope, facing	W	Dark Brown	Leaf Litter			Spruce	Moose Maple	Birch	6	Some		E		26
A704821	13-Jul-19	Super 7 Area	556261	5413955	321	309831	A	5	High	Dry	Slight rise to	SE	Dark Brown	Leaf Litter	Moss		Spruce	Birch		5	Some		S	Some charcoal.	39
A704822	13-Jul-19	Super 7 Area	556301	5413955	321	309831	A	15	Moderate	Dry	On moderate slope, facing	NNE	Dark Brown	Leaf Litter	Ferns		Moose Maple	Spruce	Birch	4	Quite a bit		W	Large diabase immediately west.	27
A704823	13-Jul-19	Super 7 Area	556327	5413966	315	309831	A	5	Moderate	Dry	On shallow slope, facing	W	Dark Brown	Leaf Litter	Ferns		Moose Maple	Spruce		5	Moderate amount		S		31
A704824	13-Jul-19	Super 7 Area	556347	5413958	317	309831	A	15	Moderate	Dry	On shallow slope, facing	SW	Dark Brown	Leaf Litter			Spruce	Birch		2	A lot		SW		40
A704825	13-Jul-19	Super 7 Area	556374	5413959	318	213987	A	10	Low	Dry	Slight rise to	W	Dark Brown	Leaf Litter	Ferns		Moose Maple	Spruce	Birch	7	Not much		SW		35
A704826	13-Jul-19	Super 7 Area	556405	5413964	324	213987	A	15	Moderate	Dry	On shallow slope, facing	W	Dark Brown	Leaf Litter	Moss		Spruce	Moose Maple	Birch	2	A lot		SW		35
A704827	13-Jul-19	Super 7 Area	556430	5413959	327	213987	A	10	Moderate	Dry	On shallow slope, facing	W	Dark Brown	Leaf Litter			Moose Maple	Spruce	Birch	3	Quite a bit		SW		27
A704828	13-Jul-19	Super 7 Area	556430	5413959	327	213987	B	15	Moderate	Dry	On shallow slope, facing	W	Medium brown	Leaf Litter			Moose Maple	Spruce	Birch	7			SW		2.5

A704829	13-Jul-19	Super 7 Area	556458	5413969	329	213987	A	5	Low	Dry	Flat		Dark Brown	Leaf Litter	Ferns		Birch	Moose Maple	Spruce	4	Quite a bit		SW		28
A705324	29-Oct-19	N of Mag Lake	560899	5411848	366	154317	A	5	Moderate	Dry	Slight rise to	N	Dark Brown	Leaf Litter	Moss		Spruce	Balsam Fir	Birch	7			N		2.5
A705325	29-Oct-19	N of Mag Lake	560899	5411848	366	154317	B	10	Moderate	Dry	Slight rise to	N	Dark Brown	Leaf Litter	Moss		Spruce	Balsam Fir	Birch	9			N		2.5
A705326	29-Oct-19	N of Mag Lake	560922	5411846	368	154317	A	10	Moderate	Dry	Moderate rise to	E	Dark Brown	Leaf Litter	Moss		Alder	Balsam Fir	Birch	8		Some	SE		2.5
A705327	29-Oct-19	N of Mag Lake	560944	5411856	370	154317	A	5	Moderate	Dry	Slight rise to	NW	Dark Brown	Leaf Litter			Spruce	Balsam Fir	Birch	8			N		19
A705328	29-Oct-19	N of Mag Lake	560944	5411856	370	154317	B	15	Moderate	Dry	Slight rise to	NW	Medium brown	Leaf Litter			Spruce	Balsam Fir	Birch	7			N		6
A705329	29-Oct-19	N of Mag Lake	560972	5411857	373	154317	A	5	Moderate	Dry	Slight rise to	SE	Dark Brown	Leaf Litter	Moss		Balsam Fir	Birch	Spruce	6			S		2.5
A705330	29-Oct-19	N of Mag Lake	560972	5411857	373	154317	B	15	Moderate	Dry	Slight rise to	SE	Medium brown	Leaf Litter	Moss		Balsam Fir	Birch	Spruce	8			S		2.5
A705331	29-Oct-19	N of Mag Lake	560997	5411852	377	227108	A	5	Low	Dry	Slight rise to	W	Dark Brown	Leaf Litter			Balsam Fir	Birch		7			NW		2.5
A705332	29-Oct-19	N of Mag Lake	561024	5411846	380	227108	A	5	Moderate	Dry	Slight rise to	E	Dark Brown	Leaf Litter			Alder	Birch	Spruce	5			N		2.5
A705333	29-Oct-19	N of Mag Lake	561024	5411846	380	227108	B	15	Moderate	Dry	Slight rise to	E	Medium brown	Leaf Litter			Alder	Birch	Spruce	8		Some	N	A bit gravelly, some clay.	2.5
A705334	29-Oct-19	N of Mag Lake	561049	5411852	384	227108	A	5	Moderate	Dry	Slight rise to	E	Dark Brown	Moss	Leaf Litter		Alder	Balsam	Birch	5			N		2.5
A705335	29-Oct-19	N of Mag Lake	561049	5411852	384	227108	B	15	Moderate	Dry	Slight rise to	E	Rusty brown	Moss	Leaf Litter		Alder	Balsam	Birch	10			N		2.5
A705336	29-Oct-19	N of Mag Lake	561079	5411847	392	227108	A	5	Moderate	Dry	Moderate downhill to	W	Dark Brown	Leaf Litter	Moss		Balsam	Alder	Birch	5			E		2.5
A705337	29-Oct-19	N of Mag Lake	561079	5411847	392	227108	B	15	Moderate	Dry	Moderate downhill to	W	Rusty brown	Leaf Litter	Moss		Balsam	Alder	Birch	9			E		2.5
A705338	29-Oct-19	N of Mag Lake	561101	5411838	394	227108	A	5	Low	Dry	Moderate rise to	E	Dark Brown	Leaf Litter			Balsam	Alder		6			E		11
A705339	29-Oct-19	N of Mag Lake	561101	5411838	394	227108	B	10	Low	Dry	Moderate rise to	E	Medium brown	Leaf Litter			Balsam	Alder		7			E		2.5

**APPENDIX III**

**Lake Sediment Descriptions  
(Table III)**

<b>Table III</b>		<b>Black Raven Sediment Sample Descriptions</b>						
Sample	Date	Lake	Easting	Northing	Elevation	Claim	Depth (metres)	Au_ppb
A704951	27-Jun-19	Contact	562154	5411840	370	344703	4	19
A704952	27-Jun-19	Contact	562253	5411585	366	226444	2	20
A704953	27-Jun-19	Contact	562064	5411637	365	344703	10	28
A704956	03-Jul-19	Beggs	555602	5413906	296	213988	5	31
A704957	03-Jul-19	Beggs	555637	5414119	294	213988	10	27
A704958	03-Jul-19	Beggs	555684	5414270	291	213988	3	23
A704959	03-Jul-19	Beggs	555753	5414233	293	213988	5	33
A704960	03-Jul-19	Beggs	555837	5413985	291	213988	4	31

**APPENDIX IV**

**Rock Assay Certificates**



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09208-Au-1C  
**Invoice Date:** 23-Aug-19  
**Your Reference:** FOUR

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

59 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-Exp QOP PGE ICP-MS (Fire Assay-ICPMS)

REPORT **A19-09208-Au-1C**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09208-Au-1C  
**Invoice Date:** 23-Aug-19  
**Your Reference:** FOUR

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

**CERTIFICATE OF ANALYSIS**

59 Rock samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Timmins QOP AA-Au (Au - Fire Assay AA)

REPORT **A19-09208-Au-1C**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com



Analyte Symbol	Pd	Pt	Au	Au
Unit Symbol	ppb	ppb	ppb	ppb
Lower Limit	1	1	2	5
Method Code	FA-MS	FA-MS	FA-MS	FA-AA
A704501	< 1	< 1	5	
A704502	< 1	< 1	5	
A704503	< 1	< 1	6	
A704504	< 1	< 1	4	
A704505	< 1	< 1	4	
A704538	2	3	5	
A704539	< 1	< 1	5	
A704540	1	1	5	
A704550	< 1	< 1	6	
A704551	< 1	< 1	6	
A704553	< 1	< 1	5	
A704555	< 1	< 1	4	
A704557	< 1	< 1	4	
A704558	< 1	< 1	5	
A704559	< 1	< 1	5	
A704506				9
A704507				8
A704508				6
A704509				6
A704510				6
A704511				7
A704512				7
A704513				8
A704514				7
A704515				7
A704516				9
A704517				8
A704518				8
A704519				9
A704520				9
A704521				8
A704522				8
A704523				9
A704524				8
A704525				21
A704526				10
A704527				10
A704528				10
A704529				12
A704530				10
A704531				10
A704532				13

Analyte Symbol	Pd	Pt	Au	Au
Unit Symbol	ppb	ppb	ppb	ppb
Lower Limit	1	1	2	5
Method Code	FA-MS	FA-MS	FA-MS	FA-AA
A704533				12
A704534				12
A704535				13
A704536				12
A704537				13
A704541				14
A704542				14
A704543				16
A704544				< 5
A704545				< 5
A704546				< 5
A704547				< 5
A704548				< 5
A704549				< 5
A704552				< 5
A704554				< 5
A704556				< 5

Analyte Symbol	Pd	Pt	Au	Au
Unit Symbol	ppb	ppb	ppb	ppb
Lower Limit	1	1	2	5
Method Code	FA-MS	FA-MS	FA-MS	FA-AA
PK2 Meas	5660	4450	4450	
PK2 Cert	5918	4749	4785	
Oreas 221 (Fire Assay) Meas				1100
Oreas 221 (Fire Assay) Cert				1060
Oreas 221 (Fire Assay) Meas				1080
Oreas 221 (Fire Assay) Cert				1060
A704551 Orig	< 1	< 1	5	
A704551 Dup	< 1	< 1	7	
A704515 Orig				7
A704515 Dup				7
A704525 Orig				22
A704525 Dup				20
A704535 Orig				12
A704535 Dup				14
A704543 Orig				16
A704543 Split PREP DUP				< 5
Method Blank				< 5
Method Blank				< 5
Method Blank				< 5
Method Blank				< 5
Method Blank	< 1	< 1	3	
Method Blank	< 1	< 1	3	
Method Blank	< 1	< 1	3	
Method Blank	< 1	< 1	3	



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09208-TD  
**Invoice Date:** 14-Aug-19  
**Your Reference:** FOUR

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

59 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine Total Digestion ICP & ICP/MS

REPORT **A19-09208-TD**

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat cursive.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-09208

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704501	0.08	7.05	< 0.2	380	1.01	0.05	5.31	0.18	43.2	52.5	64	1.15	64.4	10.9	19.2	0.24	2.0	0.091	1.29	19.6	28.0	3.59	1680
A704502	0.16	7.03	2.1	320	2.22	0.47	4.08	0.09	70.8	26.9	143	1.32	48.1	6.03	18.9	< 0.05	3.5	0.076	1.68	28.3	12.5	3.32	1100
A704503	0.15	7.51	< 0.2	590	1.45	0.07	4.97	0.11	110	35.7	26	0.75	29.9	8.36	19.7	0.15	2.7	0.078	0.88	42.1	15.4	3.74	1040
A704504	0.04	6.44	0.4	780	1.45	0.06	12.1	0.09	53.1	35.4	16	0.71	25.7	11.5	23.8	0.40	1.0	0.096	0.09	24.2	4.5	2.47	1070
A704505	0.06	6.79	0.5	340	1.72	0.07	5.68	0.11	62.7	47.3	14	1.18	26.0	11.3	21.1	0.18	2.0	0.096	0.66	28.1	15.5	2.49	1480
A704538	0.16	3.73	0.6	660	1.08	0.14	7.77	0.13	45.5	55.8	284	1.85	282	5.72	3.28	0.09	1.5	0.043	1.26	19.4	19.8	7.89	1030
A704539	0.14	8.25	0.4	830	1.56	0.13	4.32	0.10	61.1	22.2	27	0.66	24.1	6.46	16.8	0.33	2.6	0.062	1.62	24.2	11.7	2.53	1080
A704540	0.22	2.42	0.4	650	0.59	0.17	8.44	0.10	33.3	67.8	239	1.00	336	6.83	< 0.05	< 0.05	0.9	0.047	0.58	14.4	12.4	9.18	1210
A704550	0.24	6.64	< 0.2	160	0.79	0.16	4.78	0.09	25.0	49.9	14	0.42	52.8	10.4	21.4	0.15	1.3	0.087	0.73	7.4	13.9	4.55	960
A704551	0.07	5.73	< 0.2	240	0.84	0.10	5.41	0.12	32.1	58.0	9	0.69	31.7	14.3	22.8	0.18	1.6	0.098	1.02	10.3	18.6	5.15	1060
A704553	0.03	6.28	< 0.2	180	0.89	0.13	5.92	0.11	29.8	52.2	75	0.36	53.4	7.90	15.9	0.12	1.6	0.103	0.64	10.4	28.7	6.42	884
A704555	0.01	3.21	0.2	90	0.87	0.05	6.67	0.08	21.6	57.9	938	0.26	10.8	7.49	13.5	0.17	1.4	0.035	0.25	7.9	31.5	9.66	1320
A704557	0.02	3.45	< 0.2	130	0.63	0.07	7.20	0.08	25.0	60.5	813	0.28	9.4	7.44	9.69	0.14	1.7	0.049	0.38	8.8	14.9	9.21	1200
A704558	0.10	8.25	< 0.2	1050	1.04	0.11	3.55	0.08	52.6	24.9	88	0.85	15.0	5.54	26.9	< 0.05	2.0	0.058	1.67	24.9	25.1	2.85	934
A704559	0.06	2.86	< 0.2	210	0.85	0.17	6.38	0.09	36.2	47.0	987	0.30	99.3	7.19	10.8	0.14	2.3	0.074	0.94	13.9	9.4	7.66	1440
A704506	0.04	3.29	0.6	230	0.87	0.14	6.58	0.09	32.7	42.6	744	0.27	24.2	7.54	8.42	0.56	2.3	0.054	1.03	12.7	8.7	7.96	1450
A704507	0.08	9.74	0.2	600	1.02	0.04	1.19	< 0.02	17.6	5.3	18	0.37	9.0	1.68	17.8	< 0.05	0.9	0.006	0.78	9.4	6.2	0.51	214
A704508	0.07	7.20	2.8	560	0.83	0.05	1.58	< 0.02	26.6	5.8	27	0.91	7.0	2.50	12.7	0.05	1.2	0.009	0.78	12.8	8.5	0.72	254
A704509	< 0.01	0.19	1.1	80	< 0.05	0.02	0.08	< 0.02	1.29	0.8	31	0.09	1.1	1.07	0.89	0.05	< 0.1	< 0.005	0.12	0.6	1.2	0.05	134
A704510	0.04	7.59	< 0.2	40	0.52	0.05	1.83	< 0.02	90.1	3.8	13	0.56	8.7	1.58	19.2	< 0.05	1.9	0.013	0.18	47.1	6.2	0.18	208
A704511	0.04	6.46	< 0.2	10	0.35	0.05	1.22	< 0.02	22.4	3.8	13	0.17	18.3	1.57	16.9	< 0.05	1.4	0.006	0.04	13.4	10.7	0.59	246
A704512	0.01	4.75	< 0.2	10	0.24	0.06	1.77	< 0.02	62.0	2.7	11	0.19	9.7	1.37	10.2	< 0.05	0.5	< 0.005	0.03	25.5	7.8	0.36	259
A704513	0.04	6.44	< 0.2	10	0.28	0.05	0.64	< 0.02	18.3	3.7	17	0.11	22.2	1.63	15.5	< 0.05	1.8	0.007	0.04	9.5	8.4	0.54	214
A704514	0.03	6.24	< 0.2	10	0.30	0.05	2.84	< 0.02	22.9	3.8	14	0.13	50.9	1.82	15.0	< 0.05	1.9	0.009	0.04	10.2	9.4	0.62	280
A704515	0.04	7.07	1.1	30	0.48	0.05	0.20	< 0.02	40.1	4.3	12	0.33	4.9	1.87	17.4	< 0.05	1.9	0.006	0.08	10.9	9.8	0.60	244
A704516	0.02	8.09	0.3	20	0.75	0.14	0.66	< 0.02	58.3	20.8	53	0.63	81.5	4.33	33.8	0.06	1.7	0.027	0.07	26.9	28.4	1.90	650
A704517	0.05	7.61	0.2	1150	0.71	0.05	1.12	0.02	29.4	2.1	7	1.34	1.2	1.38	12.0	< 0.05	1.8	0.008	2.15	11.8	5.4	0.22	164
A704518	0.05	6.38	< 0.2	260	1.02	0.08	5.42	0.20	43.3	41.5	28	3.08	114	12.4	19.7	0.19	2.7	0.118	0.81	18.9	17.3	2.44	1680
A704519	0.04	7.57	< 0.2	900	0.50	0.07	1.22	0.10	41.2	4.7	14	0.36	7.2	1.84	12.4	0.08	1.8	< 0.005	3.09	19.2	7.1	0.43	268
A704520	0.04	4.94	< 0.2	30	0.27	0.05	13.8	< 0.02	21.6	3.6	9	0.09	3.1	1.35	13.6	< 0.05	1.2	0.007	0.19	11.3	6.3	0.43	317
A704521	0.02	6.15	0.8	240	0.39	0.08	0.13	< 0.02	5.31	1.9	9	0.20	1.4	1.11	15.5	0.06	0.9	< 0.005	0.74	2.3	5.8	0.23	122
A704522	0.01	6.02	0.8	240	0.38	0.08	0.13	< 0.02	4.96	1.8	12	0.18	1.5	1.09	14.5	< 0.05	1.5	< 0.005	0.74	2.1	5.4	0.22	128
A704523	0.02	6.19	0.6	240	0.41	0.07	0.16	< 0.02	5.00	1.9	12	0.17	1.8	1.21	14.6	< 0.05	1.5	< 0.005	0.74	2.2	5.6	0.23	136
A704524	0.02	3.17	0.4	80	0.20	0.11	0.06	< 0.02	2.40	1.0	16	0.26	2.1	0.96	8.00	< 0.05	0.5	< 0.005	0.47	1.0	6.9	0.10	96
A704525	0.37	6.12	< 0.2	10	0.11	0.11	7.39	0.15	3.66	78.5	4	0.20	823	14.1	23.5	0.22	0.3	0.083	0.04	1.2	17.0	3.71	1770
A704526	0.02	7.59	0.3	970	0.73	0.06	0.37	< 0.02	16.3	2.5	10	0.40	3.5	1.40	12.7	< 0.05	1.6	< 0.005	2.07	7.4	5.3	0.30	185
A704527	0.57	5.99	0.3	830	1.90	0.09	0.52	< 0.02	9.88	1.2	11	2.36	8.3	1.23	12.2	< 0.05	2.5	< 0.005	3.33	4.7	2.8	0.11	165
A704528	0.23	2.34	0.2	370	0.34	0.05	0.16	< 0.02	6.29	0.9	18	0.34	9.0	1.08	4.40	< 0.05	1.0	< 0.005	1.08	2.8	1.2	0.08	118
A704529	0.06	6.78	0.2	1010	0.34	0.05	0.37	< 0.02	29.4	4.7	7	0.98	88.7	1.15	13.2	< 0.05	2.1	0.006	4.08	14.5	3.6	0.24	138
A704530	0.06	6.45	< 0.2	250	1.02	0.04	5.41	0.15	40.0	44.2	32	3.09	87.5	12.4	20.5	0.17	1.6	0.118	0.88	17.0	13.6	2.38	1710
A704531	0.41	6.84	< 0.2	960	1.01	0.04	0.89	< 0.02	19.6	2.2	11	1.73	7.4	1.40	12.8	0.05	1.9	< 0.005	2.15	8.9	6.2	0.22	175
A704532	0.03	5.90	0.3	280	1.27	0.28	5.18	0.05	30.4	21.4	32	0.66	15.5	8.63	24.0	0.15	0.2	0.159	0.91	11.5	8.9	0.87	1380

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704533	0.04	6.80	0.5	1340	1.50	0.08	0.93	< 0.02	47.5	5.1	19	3.85	0.9	2.09	9.53	0.16	1.3	0.019	3.89	21.7	16.4	0.49	303
A704534	0.10	7.63	0.9	80	0.57	0.13	0.35	< 0.02	15.0	4.4	7	0.96	14.7	1.37	26.3	< 0.05	2.3	0.005	0.73	5.7	8.3	0.23	166
A704535	0.64	9.52	0.5	210	0.98	0.80	0.79	< 0.02	4.96	3.2	12	4.19	43.3	4.64	47.8	0.07	6.8	0.026	1.58	2.5	32.0	0.95	368
A704536	0.05	9.57	0.5	1400	0.65	0.12	0.81	< 0.02	48.7	1.1	8	2.31	14.2	1.16	25.1	< 0.05	1.6	< 0.005	2.76	23.0	5.6	0.17	105
A704537	0.06	8.62	0.3	120	0.64	0.10	0.43	< 0.02	17.7	1.9	7	1.09	20.2	1.40	23.7	< 0.05	2.0	0.007	1.54	6.3	11.9	0.25	192
A704541	0.32	8.66	< 0.2	750	0.87	0.13	3.65	0.08	33.6	8.8	9	0.50	429	2.36	8.19	< 0.05	3.4	0.029	2.00	14.6	0.6	0.98	371
A704542	0.03	0.73	0.6	120	< 0.05	0.05	2.50	0.02	4.09	6.1	65	0.15	9.3	1.60	1.80	0.13	0.1	< 0.005	0.52	1.6	2.4	0.71	265
A704543	0.03	4.20	2.0	300	0.48	0.04	0.29	< 0.02	14.2	1.2	12	0.18	8.2	1.20	8.17	< 0.05	0.9	< 0.005	0.62	6.7	2.3	0.15	154
A704544	0.02	7.51	< 0.2	1030	0.75	0.03	0.77	< 0.02	12.5	1.2	9	0.49	2.3	1.05	12.3	0.12	2.0	< 0.005	3.31	5.1	4.0	0.17	117
A704545	0.02	0.05	3.8	< 10	0.41	0.05	2.13	< 0.02	2.25	0.9	29	0.06	6.4	28.4	0.55	0.37	< 0.1	< 0.005	0.01	1.4	1.1	0.49	3050
A704546	0.20	0.99	0.7	80	0.21	0.06	0.85	< 0.02	4.53	0.5	25	0.26	0.9	1.10	4.58	0.08	0.2	< 0.005	0.41	3.4	1.0	0.03	124
A704547	0.12	7.47	1.0	1140	1.76	0.05	1.10	0.03	25.3	4.3	39	1.69	22.6	2.08	10.6	0.06	4.4	0.008	2.43	9.9	7.5	0.61	249
A704548	< 0.01	0.49	< 0.2	110	< 0.05	0.02	0.05	< 0.02	0.70	0.4	21	0.09	0.9	0.90	0.89	< 0.05	< 0.1	< 0.005	0.26	< 0.5	2.1	0.01	97
A704549	0.08	8.17	0.4	650	1.10	0.07	1.72	< 0.02	21.4	2.7	15	0.76	18.6	1.78	15.1	< 0.05	1.9	< 0.005	1.37	10.2	5.7	0.32	217
A704552	1.80	9.74	< 0.2	300	0.24	0.06	0.28	< 0.02	6.52	1.1	3	0.35	38.1	0.41	17.2	< 0.05	2.0	< 0.005	3.02	2.6	< 0.2	0.06	59
A704554	0.03	7.47	< 0.2	360	0.90	0.05	1.21	0.06	14.3	4.1	51	1.54	8.8	1.62	16.0	< 0.05	1.2	< 0.005	1.21	6.5	10.8	0.51	317
A704556	< 0.01	0.59	0.8	200	< 0.05	0.02	0.16	< 0.02	1.35	1.1	32	0.08	1.5	1.02	0.42	< 0.05	< 0.1	< 0.005	0.22	< 0.5	0.7	0.14	121

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704501	0.31	2.07	1.2	51.3	760	4.3	67.4	< 0.002	0.15	< 0.05	44.6	< 1	0.4	296	< 0.05	< 0.05	2.6	0.352	0.37	0.5	175	< 0.1	27.4
A704502	0.42	3.16	4.7	32.8	2480	9.7	37.6	< 0.002	0.93	< 0.05	24.2	< 1	1.9	519	0.17	0.08	3.0	0.373	0.28	1.7	161	0.3	21.0
A704503	0.29	3.03	5.0	13.5	4130	7.0	21.5	< 0.002	0.03	< 0.05	29.9	< 1	1.5	1400	0.24	< 0.05	3.1	0.577	0.16	0.9	209	0.1	27.0
A704504	< 0.05	1.36	0.2	34.6	1420	8.9	10.6	< 0.002	0.58	0.13	27.4	< 1	1.9	2370	< 0.05	< 0.05	3.9	0.314	0.04	1.4	92	< 0.1	28.5
A704505	0.06	2.79	0.3	48.2	1390	7.0	29.9	< 0.002	0.71	0.05	27.4	< 1	1.2	402	< 0.05	< 0.05	4.6	0.375	0.10	1.5	100	< 0.1	35.5
A704538	0.17	1.61	3.5	225	680	7.8	48.0	< 0.002	0.13	0.06	38.6	< 1	0.5	498	0.14	< 0.05	2.0	0.265	0.30	0.8	124	0.1	9.7
A704539	0.32	3.36	5.5	14.5	1520	10.8	42.2	< 0.002	0.08	< 0.05	22.5	< 1	1.4	840	0.22	< 0.05	2.6	0.458	0.25	0.9	161	0.1	21.0
A704540	0.20	0.99	1.3	261	310	4.8	17.9	< 0.002	0.28	< 0.05	45.5	< 1	0.3	391	0.06	< 0.05	1.1	0.175	0.18	0.4	137	0.1	9.6
A704550	< 0.05	2.71	< 0.1	10.7	170	3.2	16.7	< 0.002	0.47	< 0.05	40.7	< 1	0.6	316	< 0.05	< 0.05	1.4	0.368	0.13	0.6	262	< 0.1	19.9
A704551	< 0.05	1.59	0.1	8.1	260	3.0	26.5	< 0.002	0.32	< 0.05	49.0	< 1	< 0.2	338	< 0.05	< 0.05	0.6	0.312	0.16	0.4	536	< 0.1	24.3
A704553	< 0.05	2.09	< 0.1	39.4	150	4.0	12.5	< 0.002	0.07	< 0.05	55.1	< 1	< 0.2	394	< 0.05	< 0.05	1.7	0.198	0.10	0.5	231	< 0.1	23.6
A704555	< 0.05	0.37	0.1	136	180	5.9	5.6	< 0.002	< 0.01	< 0.05	34.0	< 1	< 0.2	55.8	< 0.05	< 0.05	1.2	0.165	0.05	0.4	116	< 0.1	10.8
A704557	0.06	0.70	0.1	122	160	6.3	6.4	< 0.002	0.02	< 0.05	38.6	< 1	< 0.2	131	< 0.05	< 0.05	1.2	0.178	0.06	0.4	148	< 0.1	14.0
A704558	0.53	2.48	1.9	17.0	1450	11.6	90.3	< 0.002	0.01	< 0.05	17.5	< 1	0.8	1170	< 0.05	< 0.05	2.6	0.340	0.57	0.8	138	0.2	13.3
A704559	0.34	0.75	0.5	120	210	4.5	34.9	< 0.002	0.03	< 0.05	40.0	< 1	0.5	132	< 0.05	< 0.05	2.8	0.192	0.23	0.5	147	< 0.1	17.6
A704506	0.22	0.80	1.2	101	250	4.9	31.5	< 0.002	0.03	0.05	37.3	< 1	0.5	127	0.08	< 0.05	2.6	0.226	0.26	0.5	164	0.1	16.1
A704507	0.27	5.48	1.2	6.8	270	9.1	15.6	< 0.002	0.02	0.08	2.9	< 1	< 0.2	1370	0.10	< 0.05	1.3	0.109	0.14	0.3	31	0.2	2.0
A704508	0.80	3.63	1.5	7.3	570	7.2	20.0	< 0.002	< 0.01	0.06	3.9	< 1	0.3	1080	0.13	< 0.05	1.8	0.139	0.16	0.6	47	0.1	3.3
A704509	1.84	0.05	0.2	1.4	40	1.6	3.2	< 0.002	< 0.01	0.06	0.8	< 1	< 0.2	20.6	< 0.05	< 0.05	< 0.2	0.012	0.05	< 0.1	4	0.2	0.3
A704510	0.64	5.26	2.7	5.5	470	1.5	6.2	< 0.002	< 0.01	< 0.05	2.7	< 1	0.6	154	0.17	< 0.05	3.3	0.150	0.06	0.5	31	0.2	5.7
A704511	0.51	4.31	2.0	3.6	230	1.4	1.3	< 0.002	< 0.01	< 0.05	1.6	< 1	0.3	73.4	0.21	< 0.05	3.3	0.092	0.03	0.4	22	0.1	4.1
A704512	0.56	3.02	0.5	3.3	120	1.4	0.9	< 0.002	< 0.01	< 0.05	1.3	< 1	< 0.2	58.7	< 0.05	< 0.05	0.6	0.055	0.04	0.2	12	< 0.1	4.0
A704513	0.42	4.60	1.8	3.9	300	1.3	0.9	< 0.002	< 0.01	< 0.05	1.9	< 1	0.3	97.0	0.13	< 0.05	2.4	0.109	0.03	0.6	21	< 0.1	2.7
A704514	0.73	4.27	1.9	4.4	350	1.7	1.0	< 0.002	< 0.01	< 0.05	1.6	< 1	0.4	117	0.15	< 0.05	3.8	0.124	0.03	0.5	20	0.1	2.8
A704515	0.46	4.95	2.6	9.2	420	1.5	2.7	< 0.002	< 0.01	< 0.05	2.1	< 1	0.4	175	0.18	< 0.05	3.7	0.156	0.06	0.6	23	0.1	2.2
A704516	< 0.05	4.80	< 0.1	16.3	990	1.9	2.4	< 0.002	< 0.01	< 0.05	15.8	< 1	< 0.2	96.3	< 0.05	< 0.05	2.6	0.165	0.05	0.8	31	< 0.1	7.1
A704517	0.36	3.45	1.6	2.4	290	10.5	45.0	< 0.002	< 0.01	< 0.05	1.9	< 1	0.4	593	0.13	< 0.05	2.2	0.109	0.34	0.5	15	0.1	2.1
A704518	0.09	1.83	0.2	36.8	1030	6.5	41.8	0.002	0.14	< 0.05	38.5	< 1	< 0.2	199	< 0.05	< 0.05	2.8	0.335	0.24	0.9	183	< 0.1	42.8
A704519	0.65	3.44	1.5	4.8	350	7.1	59.8	< 0.002	0.16	0.06	1.5	< 1	0.2	382	0.08	< 0.05	2.2	0.139	0.37	0.7	27	0.1	2.4
A704520	15.4	3.37	1.1	3.0	190	1.7	4.1	< 0.002	0.04	< 0.05	1.4	< 1	< 0.2	144	0.06	< 0.05	1.2	0.064	0.04	0.3	15	< 0.1	2.7
A704521	0.76	3.96	0.6	1.7	100	2.6	17.8	< 0.002	< 0.01	< 0.05	1.0	< 1	< 0.2	101	< 0.05	< 0.05	0.6	0.057	0.10	0.4	9	0.1	1.2
A704522	0.71	3.91	0.8	1.6	100	2.4	16.7	< 0.002	< 0.01	< 0.05	1.0	< 1	< 0.2	94.9	< 0.05	< 0.05	0.5	0.059	0.10	0.4	9	0.1	1.1
A704523	1.34	3.96	0.8	1.8	100	2.7	17.2	< 0.002	< 0.01	< 0.05	1.0	< 1	< 0.2	97.6	< 0.05	< 0.05	0.5	0.058	0.10	0.4	9	< 0.1	1.1
A704524	0.69	1.99	1.3	2.0	70	1.9	10.6	< 0.002	0.01	< 0.05	1.2	< 1	< 0.2	39.5	0.10	< 0.05	0.7	0.047	0.10	0.4	10	< 0.1	1.0
A704525	< 0.05	1.10	0.2	30.4	170	1.5	1.1	< 0.002	0.77	< 0.05	73.5	< 1	< 0.2	112	< 0.05	< 0.05	< 0.2	0.393	0.09	< 0.1	753	< 0.1	15.1
A704526	0.25	3.90	1.4	2.5	210	4.2	48.1	< 0.002	< 0.01	< 0.05	1.6	< 1	0.3	277	0.10	< 0.05	1.1	0.098	0.27	0.5	15	0.1	1.8
A704527	0.63	2.31	1.9	1.7	60	24.1	67.4	< 0.002	0.02	0.10	1.1	< 1	0.2	320	0.14	< 0.05	16.7	0.033	0.43	3.5	9	0.1	2.1
A704528	1.00	0.99	2.4	1.3	40	8.7	20.9	< 0.002	< 0.01	0.05	0.8	< 1	< 0.2	130	0.57	< 0.05	3.1	0.014	0.15	2.3	5	< 0.1	1.3
A704529	0.66	2.13	0.8	5.5	300	24.8	99.9	< 0.002	0.11	< 0.05	1.0	< 1	< 0.2	549	< 0.05	< 0.05	2.1	0.060	0.84	0.4	16	< 0.1	2.0
A704530	< 0.05	1.92	< 0.1	33.8	840	5.3	42.2	0.003	0.15	< 0.05	43.6	< 1	< 0.2	230	< 0.05	< 0.05	2.6	0.174	0.24	0.8	149	< 0.1	41.7
A704531	1.36	2.98	1.3	2.0	200	19.9	52.1	< 0.002	< 0.01	0.07	1.4	< 1	0.3	569	0.08	< 0.05	2.9	0.070	0.35	0.8	14	< 0.1	1.8
A704532	0.08	0.52	< 0.1	14.2	970	2.6	40.1	< 0.002	0.11	< 0.05	27.3	< 1	0.4	191	< 0.05	< 0.05	1.0	0.127	0.28	0.3	44	< 0.1	52.1

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704533	0.74	2.44	2.9	3.2	650	11.3	130	< 0.002	< 0.01	0.07	4.9	< 1	0.6	341	0.17	< 0.05	2.5	0.141	1.08	1.2	40	0.3	7.1
A704534	0.52	5.22	2.3	2.6	270	4.4	20.0	< 0.002	0.19	0.06	1.6	< 1	0.4	445	0.19	< 0.05	1.7	0.092	0.15	0.5	19	0.4	2.4
A704535	0.98	4.80	2.4	4.3	210	8.9	74.3	< 0.002	1.03	< 0.05	4.7	< 1	0.8	528	0.10	< 0.05	1.0	0.144	0.51	0.8	58	0.2	1.4
A704536	0.10	4.99	1.1	1.4	60	13.3	51.2	< 0.002	0.06	< 0.05	1.1	< 1	< 0.2	569	0.10	< 0.05	3.1	0.043	0.39	0.3	13	0.2	2.0
A704537	0.34	5.73	1.5	2.3	270	6.8	30.4	< 0.002	0.04	< 0.05	1.8	< 1	0.3	507	< 0.05	< 0.05	0.6	0.121	0.26	0.3	19	0.2	2.0
A704541	0.18	5.11	5.5	4.4	660	10.9	59.3	< 0.002	0.74	< 0.05	5.5	< 1	0.6	390	0.52	< 0.05	3.7	0.184	0.44	1.9	36	0.2	7.5
A704542	1.02	0.09	0.7	19.4	50	1.9	18.9	< 0.002	< 0.01	0.05	2.7	< 1	< 0.2	78.5	< 0.05	< 0.05	< 0.2	0.050	0.14	0.2	19	< 0.1	1.2
A704543	0.75	2.45	0.3	1.8	130	3.3	14.7	< 0.002	< 0.01	0.06	0.8	< 1	< 0.2	185	< 0.05	< 0.05	1.9	0.027	0.09	0.8	6	< 0.1	0.8
A704544	0.33	3.11	0.8	1.9	80	10.3	53.6	< 0.002	< 0.01	< 0.05	1.4	< 1	< 0.2	541	< 0.05	< 0.05	1.0	0.070	0.35	0.5	11	< 0.1	1.2
A704545	2.11	0.01	0.3	3.6	40	1.7	0.9	< 0.002	< 0.01	0.09	0.4	< 1	< 0.2	28.7	< 0.05	< 0.05	< 0.2	< 0.005	< 0.02	< 0.1	6	0.2	2.7
A704546	1.52	0.16	0.5	1.1	20	22.3	11.0	< 0.002	< 0.01	0.06	0.5	< 1	< 0.2	143	0.07	< 0.05	1.0	0.012	0.08	0.6	8	< 0.1	0.7
A704547	0.95	2.95	5.6	8.7	470	19.3	67.3	< 0.002	0.10	0.05	3.7	< 1	0.6	504	0.52	< 0.05	7.5	0.160	0.45	2.0	34	0.1	6.6
A704548	0.83	0.17	0.2	1.1	20	1.9	5.5	< 0.002	< 0.01	< 0.05	0.4	< 1	< 0.2	40.7	< 0.05	< 0.05	0.2	0.010	0.06	0.1	2	< 0.1	0.1
A704549	1.12	3.85	2.2	2.5	320	14.0	30.0	< 0.002	0.14	0.06	1.3	< 1	0.3	751	0.17	< 0.05	2.5	0.129	0.19	0.8	20	0.1	1.9
A704552	0.13	5.73	0.7	1.0	10	10.1	58.5	< 0.002	< 0.01	< 0.05	1.0	< 1	< 0.2	102	0.11	< 0.05	1.6	0.035	0.33	0.8	7	0.1	1.3
A704554	0.75	3.81	1.0	11.6	260	4.9	35.5	< 0.002	0.03	< 0.05	2.1	< 1	0.3	339	< 0.05	< 0.05	0.9	0.090	0.25	0.2	20	0.2	1.9
A704556	0.71	0.26	< 0.1	3.3	< 10	1.3	4.5	< 0.002	< 0.01	< 0.05	0.9	< 1	< 0.2	35.2	< 0.05	< 0.05	0.2	0.007	0.07	0.1	4	< 0.1	0.2



Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704501	3.0	115	72.6
A704502	2.1	111	127
A704503	2.2	120	104
A704504	2.8	63	31.8
A704505	3.5	116	76.0
A704538	0.9	62	39.4
A704539	2.1	105	84.0
A704540	0.9	59	27.7
A704550	1.9	92	32.4
A704551	2.2	122	39.9
A704553	2.1	77	43.1
A704555	1.1	79	40.1
A704557	1.4	69	45.9
A704558	1.3	84	76.4
A704559	2.0	94	79.7
A704506	1.8	99	67.7
A704507	0.2	31	25.9
A704508	0.3	37	34.8
A704509	< 0.1	5	1.8
A704510	0.4	30	72.5
A704511	0.4	31	48.1
A704512	0.4	24	26.0
A704513	0.3	31	57.9
A704514	0.3	41	67.5
A704515	0.2	40	67.6
A704516	0.8	84	60.4
A704517	0.2	47	59.0
A704518	5.3	149	93.0
A704519	0.2	86	56.8
A704520	0.2	22	35.4
A704521	0.1	17	35.1
A704522	0.1	16	48.6
A704523	0.1	16	49.2
A704524	0.1	10	11.4
A704525	1.7	100	8.8
A704526	0.2	31	53.9
A704527	0.3	16	44.4
A704528	0.2	7	22.4
A704529	0.2	21	69.5
A704530	4.9	141	59.4
A704531	0.2	34	60.4
A704532	5.9	101	4.6

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704533	0.6	52	40.7
A704534	0.2	30	81.8
A704535	0.2	93	215
A704536	0.2	23	38.6
A704537	0.2	35	56.7
A704541	0.9	25	101
A704542	0.1	13	3.1
A704543	< 0.1	10	24.8
A704544	0.1	25	54.3
A704545	0.1	2	3.1
A704546	< 0.1	5	5.3
A704547	0.8	36	147
A704548	< 0.1	< 2	3.3
A704549	0.2	32	64.0
A704552	0.2	5	53.7
A704554	0.2	49	35.3
A704556	< 0.1	3	2.0

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
SDC-1 Meas		8.08	< 0.2	660	2.81		1.04		86.4	16.0	49	3.81	27.2	4.84	19.5		1.0		2.22	38.6	28.7	1.00	828
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
Oreas 72a (4 Acid Digest) Meas			9.7							160	162		296	9.35									
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63									
Oreas 72a (4 Acid Digest) Meas			5.5							144	167		272	9.26									
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63									
Oreas 72a (4 Acid Digest) Meas											174			9.42									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
OREAS 101b (4 Acid) Meas									> 500	44.5			381	11.3					2.34	697		1.31	969
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927
OREAS 101b (4 Acid) Meas									> 500	47.7			393	10.5					2.43	735		1.23	883
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927
OREAS 101b (4 Acid) Meas														10.7					2.59			1.25	916
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 98 (4 Acid) Meas	42.0					88.3				108			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
OREAS 98 (4 Acid) Meas	50.3					79.6				139			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
DNC-1a Meas				90			7.15			58.7	153		96.7	6.46	15.7					3.6	4.8		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				110			7.37				136			7.14									
DNC-1a Cert				118			8.21				270			6.97									
DNC-1a Meas				110			7.45				149			7.30									
DNC-1a Cert				118			8.21				270			6.97									
OREAS 13b (4-Acid) Meas	0.85		45.5							64.2	9320		1780										
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.0 00		2327.0 000										
OREAS 13b (4-Acid) Meas											9400												

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
OREAS 13b (4-Acid) Cert											8650.00												
OREAS 904 (4 ACID) Meas	0.64	6.43	94.5	210	9.55	4.07	0.05		88.3	86.3	66	3.77	5850	7.03	19.1	0.07	0.3	0.230	2.90	42.9	15.3	0.61	455
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410
OREAS 904 (4 ACID) Meas	0.65	6.58	88.9	200	8.86	3.99	0.05		85.6	85.8	61	3.64	5900	7.13	17.8	0.17	5.1	0.204	2.82	41.7	16.1	0.59	425
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410
OREAS 904 (4 ACID) Meas		6.55		210			0.05				60			7.01					3.68			0.58	433
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410
SBC-1 Meas			25.4	820	3.33	0.70		0.33	110	22.6	100	7.97	30.6		21.2		3.5				47.6	160	
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7				52.5	163	
SBC-1 Meas			26.1	820	3.58	0.75		0.36	103	23.4	105	7.59	40.7		26.1		3.6				45.7	179	
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7				52.5	163	
SBC-1 Meas				830							97												
SBC-1 Cert				788.0							109												
OREAS 45d (4-Acid) Meas		8.05	4.8	200	0.74	0.31	0.21		36.3	29.8	572	3.82	395	15.2	21.9		1.3	0.096	0.42	16.3	21.6	0.26	536
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas		8.22	7.0	200	0.77	0.32	0.20		37.1	30.2	543	3.69	361	14.7	25.4		1.4	0.099	0.45	17.0	21.3	0.25	506
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas		8.31	8.7	200	0.74	0.34	0.20		37.1	30.0	560	3.62	340	14.7	23.4		2.7	0.077	0.44	17.0	22.2	0.25	527
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 96 (4 Acid) Meas	11.1					25.2				45.6			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.9					25.3				50.7			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas																							
OREAS 96 (4 Acid) Cert																							
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Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.75	7.17	3.8	440	2.03	19.7	0.51	0.31	79.3	20.2	73	6.13	4070	6.59	19.5		3.4	0.536	2.53	38.3	28.6	1.78	1000
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 923 (4 Acid) Meas	2.00	7.51	6.6	440	2.32	23.0	0.50	0.37	79.0	21.6	79	6.23	3970	6.80	17.8		3.6	0.492	2.05	39.8	28.0	1.76	940
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 923 (4 Acid) Meas	1.76	7.48	6.0	460	2.09	21.0	0.50	0.38	80.5	20.9	76	6.10	3930	6.77	17.0		3.6	0.482	2.62	39.1	26.6	1.75	928
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 621 (4 Acid) Meas	63.7	6.47	65.3		1.77	3.90	2.05	240	42.3	28.3	49	3.14	3300	3.84	28.6		4.7	1.80	2.30	16.2	13.2	0.52	558
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas	69.9	6.68	63.8		1.77	4.01	2.09	253	47.2	30.6	30	3.27	3610	3.90	26.6		4.8	1.87	2.28	19.7	13.5	0.52	533
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 520 (4 Acid) Meas	0.40	5.07	64.5		1.04	2.80	3.88		73.9	181	43	0.74	2720	15.2	17.4		3.1	0.122	3.20	71.9	16.0	1.14	2200
OREAS 520 (4 Acid) Cert	0.450	5.63	153		1.06	2.94	4.10		86.0	203	36.4	0.800	2930	16.4	18.7		3.53	0.110	3.46	85.0	16.9	1.19	2420
OREAS 522 (4 Acid) Meas	1.38	3.48	404		0.60	8.40	3.43		58.5	545	28	0.62	8020	22.3	17.0		3.0	0.220	2.64	45.9	14.0	1.08	3610
OREAS 522 (4 Acid) Cert	1.31	3.95	490		0.700	8.72	3.65		148	550	29.6	0.640	9160	24.6	16.0		2.96	0.230	2.83	171	16.2	1.12	3970
OREAS 522 (4 Acid) Meas		3.79					3.46				31			23.6					2.92			1.12	3670
OREAS 522 (4 Acid) Cert		3.95					3.65				29.6			24.6					2.83			1.12	3970
Oreas 77b (4 Acid Digest) Meas	1.75	1.56	1610	40	0.46	3.15	2.64	1.01	28.3	1710	240	2.20	3370	24.2	5.00		1.1	0.116	0.30	15.5	18.5	2.32	565
Oreas 77b (4 Acid Digest) Cert	1.62	1.94	2050	118	0.470	3.44	3.06	1.20	27.7	1550	280	2.32	3430	29.9	4.61		1.15	0.112	0.361	15.8	18.8	2.59	640
Oreas 77b (4 Acid Digest) Meas	1.71	1.78	1530	90	0.46	3.22	2.66	1.21	26.9	1680	215	2.10	3190	27.2	5.09		1.2	0.117	0.34	14.6	20.3	2.44	590
Oreas 77b (4 Acid Digest) Cert	1.62	1.94	2050	118	0.470	3.44	3.06	1.20	27.7	1550	280	2.32	3430	29.9	4.61		1.15	0.112	0.361	15.8	18.8	2.59	640
Oreas 77b (4 Acid Digest) Meas		1.79		80			2.68				225			27.6					0.34			2.48	593
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
A704501 Orig	0.10	7.05	< 0.2	380	1.02	0.06	5.30	0.14	43.7	53.8	65	1.19	65.0	10.9	19.2	0.29	3.2	0.088	1.29	19.7	28.3	3.58	1670
A704501 Dup	0.06	7.06	0.5	370	0.99	0.04	5.32	0.21	42.6	51.3	63	1.12	63.9	10.9	19.1	0.18	0.8	0.093	1.29	19.5	27.6	3.60	1700

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704557 Orig	0.02	3.44	< 0.2	140	0.66	0.07	7.20	0.09	25.2	61.0	788	0.28	9.8	7.48	9.73	0.13	1.7	0.049	0.38	8.9	14.9	9.27	1210
A704557 Dup	0.01	3.45	0.2	130	0.60	0.07	7.20	0.07	24.7	59.9	839	0.28	9.0	7.40	9.65	0.14	1.7	0.048	0.38	8.7	14.9	9.15	1200
A704519 Orig	0.04	7.54	0.4	890	0.48	0.07	1.21	0.10	41.5	4.9	16	0.37	6.7	1.82	13.2	0.07	1.8	< 0.005	3.04	19.1	7.5	0.43	264
A704519 Dup	0.04	7.60	< 0.2	900	0.51	0.07	1.23	0.09	41.0	4.5	13	0.35	7.6	1.86	11.7	0.09	1.7	< 0.005	3.14	19.4	6.8	0.44	272
A704530 Orig	0.06	6.42	< 0.2	250	1.03	0.04	5.40	0.14	40.0	43.2	33	3.09	85.2	12.3	19.8	0.18	2.4	0.116	0.88	17.0	13.1	2.37	1710
A704530 Dup	0.06	6.48	0.7	250	1.01	0.04	5.43	0.16	40.0	45.2	30	3.09	89.8	12.5	21.2	0.16	0.9	0.120	0.88	17.1	14.1	2.39	1700
A704543 Orig	0.03	4.20	2.0	300	0.48	0.04	0.29	< 0.02	14.2	1.2	12	0.18	8.2	1.20	8.17	< 0.05	0.9	< 0.005	0.62	6.7	2.3	0.15	154
A704543 Split PREP DUP	0.03	4.29	< 0.2	300	0.44	0.03	0.29	< 0.02	13.0	1.2	15	0.18	7.4	1.22	7.43	< 0.05	1.0	< 0.005	0.63	6.3	2.2	0.15	160
A704552 Orig	1.88	9.59	< 0.2	300	0.22	0.07	0.28	< 0.02	6.58	1.1	3	0.34	38.0	0.41	17.4	< 0.05	2.0	< 0.005	3.05	2.6	< 0.2	0.06	57
A704552 Dup	1.73	9.88	1.4	300	0.26	0.06	0.29	< 0.02	6.46	1.1	3	0.36	38.1	0.42	16.9	< 0.05	2.0	< 0.005	2.99	2.6	< 0.2	0.06	62
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank		< 0.01		< 10			< 0.01				< 1			< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01				1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	0.14		< 0.02	< 0.01	< 0.1		< 0.05	< 0.2		0.20	< 0.05	< 0.1	< 0.005		< 0.5	< 0.2		
Method Blank	< 0.01	< 0.01	< 0.2	< 10	< 0.05	0.03	< 0.01	< 0.02	0.23	< 0.1		< 0.05	0.2	< 0.01	0.23	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01	< 0.01	0.3	< 10	< 0.05	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1		< 0.05	< 0.2	< 0.01	0.18	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank	< 0.01	< 0.01	< 0.2	< 10	< 0.05	0.02	< 0.01	< 0.02	0.11	< 0.1		< 0.05	0.4	< 0.01	0.24	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	< 5
Method Blank	< 0.01	< 0.01	0.4	< 10	< 0.05	< 0.01	< 0.01	< 0.02	0.11	< 0.1		< 0.05	0.6	< 0.01	0.23	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank	< 0.01	< 0.01	0.4	< 10	< 0.05	0.01	< 0.01	< 0.02	0.05	< 0.1		< 0.05	0.6	< 0.01	0.24	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.49	< 0.1	30.5	580	26.7	98.1			0.05	13.3		< 0.2	160	< 0.05		11.5	0.113	0.69	2.9	40	0.4	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
Oreas 72a (4 Acid Digest) Meas				6880					1.65														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas				6030					1.66														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas									1.68														
Oreas 72a (4 Acid Digest) Cert									1.74														
OREAS 101b (4 Acid) Meas	19.1			9.0	1230	23.0											34.1	0.376		358	82		126
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas	20.8			9.3	1090	22.9											33.1	0.340		349	79		129
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas					1210													0.341			80		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 98 (4 Acid) Meas						319			> 10.0	5.00		140	185										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
OREAS 98 (4 Acid) Meas						300			> 10.0	17.9		142	230										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
DNC-1a Meas		1.34	1.5	263		6.8	3.6			0.85	34.4			161				0.254			132		16.5
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.41																0.263			139		
DNC-1a Cert		1.40																0.29			148		
DNC-1a Meas		1.43																0.268			145		
DNC-1a Cert		1.40																0.29			148		
OREAS 13b (4-Acid) Meas	8.20			1840					1.18														
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas									1.17														

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
OREAS 13b (4-Acid) Cert									1.2														
OREAS 904 (4 ACID) Meas	2.05	0.04		42.4	1090	12.1	115		0.07	1.05	12.4	2	3.0	27.7	0.11		14.9		0.60	9.2	86	2.7	32.2
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
OREAS 904 (4 ACID) Meas	2.04	0.04		40.1	940	11.7	127		0.06	1.05	11.6	2	3.1	26.1	0.68		14.1		0.57	9.1	84	2.4	31.2
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
OREAS 904 (4 ACID) Meas		0.04			1050				0.06												84		
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630												76.0		
SBC-1 Meas	2.62		14.1	84.0		36.9	136			1.12	19.4		3.8	180	0.97		15.4	0.502	0.95	5.9	218	1.7	29.2
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.16		14.1	90.1		37.4	146			1.07	22.6		3.7	183	1.00		15.4	0.481	0.96	5.8	221	1.9	30.5
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas																		0.469			209		
SBC-1 Cert																		0.51			220.0		
OREAS 45d (4-Acid) Meas	0.11	0.10	< 0.1	242	390	21.4	39.4		0.04	< 0.05	54.4		< 0.2	30.8	< 0.05		14.3	0.213	0.27	2.8	124	< 0.1	11.0
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.11	0.10	< 0.1	235	370	21.7	41.3		0.04	0.05	54.0		0.3	33.4	< 0.05		14.2	0.127	0.29	2.7	99	< 0.1	10.9
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.42	0.10	1.0	228	380	22.2	40.2		0.05	< 0.05	52.6		0.7	31.2	< 0.05		14.3	0.323	0.28	2.8	147	< 0.1	10.9
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 96 (4 Acid) Meas						93.1			4.47	3.45		33	65.4										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						94.9			4.25	3.44		30	70.0										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas									4.33														
OREAS 96 (4 Acid) Cert									4.19														
OREAS 96 (4 Acid) Meas									4.26														
OREAS 96 (4 Acid) Meas									4.19														



Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Acid) Cert																							
OREAS 923 (4 Acid) Meas	0.84	0.32	13.5	34.5	670	81.2	131		0.73	1.08	12.2	5	13.1	39.0	0.97		14.9	0.415	0.86	2.9	94	4.4	23.1
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 923 (4 Acid) Meas	0.78	0.32	13.1	34.8	650	85.7	125		0.71	1.21	12.5	4	13.7	40.2	1.01		15.7	0.402	0.88	3.1	95	4.5	23.2
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 923 (4 Acid) Meas	0.87	0.32	12.3	33.5	650	80.5	141		0.71	1.19	11.9	5	13.6	39.9	0.83		15.6	0.395	0.91	3.5	92	4.5	23.9
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 621 (4 Acid) Meas	12.9	1.32	8.0	28.1	380	> 10000	74.7		4.54	39.8	6.4	6	5.2	59.4			4.4	0.181	2.11	2.9	34	1.4	10.9
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas	13.9	1.32	9.4	29.6	390	> 10000	84.6		4.61	22.6	7.5	6	6.0	67.5			5.5	0.176	2.18	2.9	33	2.1	13.1
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 520 (4 Acid) Meas	45.1	1.25	0.8	72.5	670	5.9	98.8	0.028	0.89	1.03	16.4	< 1	4.3	81.5	< 0.05	0.05	6.3	0.397	0.26	17.4	236	3.4	18.6
OREAS 520 (4 Acid) Cert	65.0	1.35	5.68	76.0	740	5.85	111	0.0310	1.01	3.21	17.0	1.76	4.76	104	0.470	0.360	9.62	0.445	0.260	17.9	257	43.8	20.8
OREAS 522 (4 Acid) Meas	205	0.58	5.5	69.1	810	12.4	75.9	0.100	2.30	4.51	11.8	1	9.9	62.0	0.34	0.54	2.1	0.331	0.33	41.5	153	126	17.2
OREAS 522 (4 Acid) Cert	206	0.633	5.66	70.0	890	12.5	82.0	0.0980	2.50	7.93	10.9	2.74	9.32	199	0.440	1.14	7.53	0.344	0.290	42.2	164	135	18.5
OREAS 522 (4 Acid) Meas		0.60			890				2.34									0.323			161		
OREAS 522 (4 Acid) Cert		0.633			890				2.50									0.344			164		
Oreas 77b (4 Acid Digest) Meas		0.37	3.1	> 10000		57.4	19.0	0.021		8.07	4.3		1.7	38.9	0.23	1.13	6.0	0.052	1.39	1.8	32	2.9	7.2
Oreas 77b (4 Acid Digest) Cert		0.434	3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61	0.0640	1.37	1.71	33.6	3.07	6.55
Oreas 77b (4 Acid Digest) Meas		0.39	3.0	> 10000		57.3	18.9	0.022		7.14	4.5		1.7	36.7	0.24	1.00	5.9	0.056	1.44	1.8	35	3.2	7.0
Oreas 77b (4 Acid Digest) Cert		0.434	3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61	0.0640	1.37	1.71	33.6	3.07	6.55
Oreas 77b (4 Acid Digest) Meas		0.40																0.056			36		
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640			33.6		
A704501 Orig	0.56	2.08	2.3	51.1	760	4.4	67.4	< 0.002	0.15	< 0.05	44.4	< 1	0.3	297	< 0.05	< 0.05	2.6	0.540	0.38	0.6	223	0.1	27.4
A704501 Dup	0.07	2.07	0.1	51.4	760	4.1	67.3	< 0.002	0.15	< 0.05	44.9	< 1	0.5	295	< 0.05	< 0.05	2.6	0.164	0.37	0.5	126	< 0.1	27.4

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704557 Orig	0.06	0.70	0.1	122	160	6.3	6.5	< 0.002	0.01	< 0.05	39.4	< 1	< 0.2	132	< 0.05	< 0.05	1.2	0.157	0.07	0.4	141	< 0.1	14.1
A704557 Dup	0.05	0.70	0.1	122	160	6.3	6.3	< 0.002	0.02	< 0.05	37.9	< 1	< 0.2	130	< 0.05	< 0.05	1.2	0.198	0.06	0.4	155	< 0.1	13.8
A704519 Orig	0.61	3.40	1.5	4.9	350	7.3	60.7	< 0.002	0.15	0.06	1.5	< 1	0.2	388	0.08	< 0.05	2.2	0.138	0.38	0.8	27	0.1	2.5
A704519 Dup	0.70	3.47	1.5	4.7	350	7.0	58.8	< 0.002	0.16	0.06	1.4	< 1	0.2	377	0.09	< 0.05	2.2	0.140	0.37	0.6	27	0.1	2.4
A704530 Orig	< 0.05	1.91	< 0.1	33.4	840	5.3	41.0	0.003	0.16	< 0.05	41.5	< 1	< 0.2	224	< 0.05	< 0.05	2.6	0.215	0.23	0.9	186	< 0.1	40.7
A704530 Dup	< 0.05	1.92	< 0.1	34.3	850	5.3	43.4	0.003	0.15	< 0.05	45.7	< 1	< 0.2	235	< 0.05	< 0.05	2.6	0.133	0.24	0.7	111	< 0.1	42.6
A704543 Orig	0.75	2.45	0.3	1.8	130	3.3	14.7	< 0.002	< 0.01	0.06	0.8	< 1	< 0.2	185	< 0.05	< 0.05	1.9	0.027	0.09	0.8	6	< 0.1	0.8
A704543 Split PREP DUP	0.73	2.48	0.3	1.7	130	3.0	13.2	< 0.002	< 0.01	0.05	0.8	< 1	< 0.2	163	< 0.05	< 0.05	1.9	0.026	0.08	0.9	7	< 0.1	0.7
A704552 Orig	0.11	5.72	0.7	1.1	10	10.1	59.6	< 0.002	< 0.01	< 0.05	1.0	< 1	< 0.2	103	0.12	< 0.05	1.6	0.036	0.34	0.8	7	0.2	1.3
A704552 Dup	0.16	5.75	0.7	0.8	10	10.0	57.3	< 0.002	< 0.01	0.05	1.0	< 1	< 0.2	101	0.11	< 0.05	1.6	0.035	0.33	0.8	7	0.1	1.3
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									0.011			1		
Method Blank	0.09		< 0.1	0.2		0.8	< 0.1	< 0.002		0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.10	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.3	< 10	1.0	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.06	< 0.1	< 1	< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	< 0.05	< 0.01	< 0.1	1.0	< 10	0.7	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.03	< 0.1	< 1	< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.3	< 10	0.8	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.07	< 0.1	< 1	< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.2	< 10	< 0.5	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.02	< 0.1	< 1	< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.8	< 10	< 0.5	< 0.1	< 0.002	< 0.01	< 0.05	0.2	2	0.8	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.02	< 0.1	< 1	< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.4	108	31.9
SDC-1 Cert	4.00	103.00	290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.4		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas	13.4		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 98 (4 Acid) Meas		1300	
OREAS 98 (4 Acid) Cert		1360	
OREAS 98 (4 Acid) Meas		1320	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas	1.9	58	36.2
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas		61	
DNC-1a Cert		70	
DNC-1a Meas		64	
DNC-1a Cert		70	
OREAS 13b (4-Acid) Meas		148	
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas		146	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
OREAS 13b (4-Acid) Cert		133	
OREAS 904 (4 ACID) Meas	3.4	28	29.9
OREAS 904 (4 ACID) Cert	3.14	26.3	171
OREAS 904 (4 ACID) Meas	3.2	28	171
OREAS 904 (4 ACID) Cert	3.14	26.3	171
OREAS 904 (4 ACID) Meas		28	
OREAS 904 (4 ACID) Cert		26.3	
SBC-1 Meas	3.4	192	109
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.5	200	112
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas		191	
SBC-1 Cert		186	
OREAS 45d (4-Acid) Meas	1.5	47	51.5
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.5	47	51.6
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.5	46	94.1
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 96 (4 Acid) Meas		470	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		459	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		469	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		466	
OREAS 96 (4 Acid) Meas		457	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Acid) Cert			
OREAS 923 (4 Acid) Meas	2.4	365	122
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 923 (4 Acid) Meas	2.6	366	114
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 923 (4 Acid) Meas	2.5	369	117
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 621 (4 Acid) Meas	1.0	> 10000	156
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas	1.1	> 10000	181
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 520 (4 Acid) Meas	2.0	20	130
OREAS 520 (4 Acid) Cert	2.20	22.7	134
OREAS 522 (4 Acid) Meas	1.9	31	111
OREAS 522 (4 Acid) Cert	1.97	30.2	112
OREAS 522 (4 Acid) Meas		28	
OREAS 522 (4 Acid) Cert		30.2	
Oreas 77b (4 Acid Digest) Meas		180	41.9
Oreas 77b (4 Acid Digest) Cert		205	37.9
Oreas 77b (4 Acid Digest) Meas		178	41.7
Oreas 77b (4 Acid Digest) Cert		205	37.9
Oreas 77b (4 Acid Digest) Meas		178	
Oreas 77b (4 Acid Digest) Cert		205	
A704501 Orig	3.1	114	117
A704501 Dup	2.9	117	27.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704557 Orig	1.4	69	46.2
A704557 Dup	1.4	69	45.6
A704519 Orig	0.2	85	59.3
A704519 Dup	0.2	87	54.2
A704530 Orig	4.9	140	86.0
A704530 Dup	4.8	142	32.9
A704543 Orig	< 0.1	10	24.8
A704543 Split PREP DUP	< 0.1	24	29.7
A704552 Orig	0.2	4	54.2
A704552 Dup	0.2	5	53.2
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1	< 2	< 0.5
Method Blank		< 2	
Method Blank	< 0.1	< 2	1.4
Method Blank	< 0.1	< 2	< 0.5
Method Blank	< 0.1	< 2	< 0.5
Method Blank	< 0.1	< 2	< 0.5
Method Blank		< 2	

Quality Analysis ...



Innovative Technologies

**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09210-Au-1C  
**Invoice Date:** 23-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

50 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-Exp QOP PGE ICP-MS (Fire Assay-ICPMS)

REPORT **A19-09210-Au-1C**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and is positioned above a horizontal line.

Emmanuel Esemé, Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09210-Au-1C  
**Invoice Date:** 23-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

**CERTIFICATE OF ANALYSIS**

50 Rock samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Timmins QOP AA-Au (Au - Fire Assay AA)

REPORT **A19-09210-Au-1C**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com



Analyte Symbol	Au	Pd	Pt	Au
Unit Symbol	ppb	ppb	ppb	ppb
Lower Limit	5	1	1	2
Method Code	FA-AA	FA-MS	FA-MS	FA-MS
A704560	20			
A704561	34			
A704562	262			
A704563	84			
A704564	8			
A704565	70			
A704566	6			
A704567	252			
A704568	20			
A704569	45			
A704570	40			
A704571	63			
A704572	32			
A704573	23			
A704574	140			
A704575	65			
A704576	< 5			
A704577	27			
A704578	5			
A704579	23			
A704580	5			
A704581	9			
A704582	5			
A704583	34			
A704584	6			
A704585	5			
A704586	9			
A704587	5			
A704588	11			
A704589	544			
A704590	135			
A704591	7			
A704592	< 5			
A704593	6			
A704594	8			
A704595	6			
A704596	7			
A704597	5			
A704598	5			
A704599	7			
A704600	13			
A704601	6			

Analyte Symbol	Au	Pd	Pt	Au
Unit Symbol	ppb	ppb	ppb	ppb
Lower Limit	5	1	1	2
Method Code	FA-AA	FA-MS	FA-MS	FA-MS
A704602	21			
A704603	9			
A704604	13			
A704605	13			
A704606		< 1	< 1	6
A704607	197			
A704608	217			
A704609	14			

Analyte Symbol	Au	Pd	Pt	Au
Unit Symbol	ppb	ppb	ppb	ppb
Lower Limit	5	1	1	2
Method Code	FA-AA	FA-MS	FA-MS	FA-MS
PK2 Meas		5660	4450	4450
PK2 Cert		5918	4749	4785
Oreas 221 (Fire Assay) Meas	1080			
Oreas 221 (Fire Assay) Cert	1060			
Oreas 221 (Fire Assay) Meas	1050			
Oreas 221 (Fire Assay) Cert	1060			
Oreas 221 (Fire Assay) Meas	1070			
Oreas 221 (Fire Assay) Cert	1060			
A704569 Orig	43			
A704569 Dup	47			
A704579 Orig	24			
A704579 Dup	21			
A704589 Orig	543			
A704589 Dup	544			
A704608 Orig	225			
A704608 Dup	208			
A704609 Orig	14			
A704609 Split PREP DUP	13			
Method Blank	< 5			
Method Blank	< 5			
Method Blank	< 5			
Method Blank	< 5			
Method Blank	5			
Method Blank		< 1	< 1	3
Method Blank		< 1	< 1	3
Method Blank		< 1	< 1	3
Method Blank		< 1	< 1	3



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09210-TD  
**Invoice Date:** 08-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

50 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine Total Digestion ICP & ICP/MS

REPORT **A19-09210-TD**

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized with a large 'E' and 'S'.

---

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-09210

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704560	0.37	5.04	26.1	170	0.60	0.65	3.87	1.96	18.2	30.7	36	0.43	103	4.59	16.1	0.34	2.4	1.05	0.29	6.9	2.2	1.09	881
A704561	0.12	6.99	0.5	80	0.43	0.06	8.23	0.06	15.0	48.3	85	0.51	109	11.1	25.7	0.21	1.2	0.080	0.22	5.2	47.1	2.18	2270
A704562	1.42	1.39	8.7	< 10	0.69	0.56	6.82	1.86	2.93	8.7	13	< 0.05	199	24.5	8.12	0.28	0.6	0.425	0.04	0.8	1.2	2.90	14300
A704563	0.51	1.19	5.0	< 10	0.58	0.24	7.53	3.28	4.35	12.5	14	0.06	221	27.2	9.37	0.26	0.6	0.470	0.02	1.7	1.7	3.48	15100
A704564	0.04	6.00	0.6	170	0.55	0.12	6.61	0.27	15.8	34.9	52	0.63	15.4	7.42	17.9	0.14	0.3	0.080	0.22	5.4	3.3	1.39	1680
A704565	0.08	1.65	10.2	90	0.65	0.14	1.78	3.73	5.70	10.0	39	0.64	44.2	4.78	10.3	0.14	0.6	0.382	0.18	2.4	3.2	0.37	897
A704566	0.07	8.07	6.5	600	1.62	0.20	4.67	1.92	77.2	23.9	24	5.45	29.2	7.40	17.4	0.52	3.4	0.359	1.42	29.4	19.0	2.54	1270
A704567	0.94	2.59	13.3	60	0.70	0.34	2.13	2.47	17.5	12.4	33	0.60	348	15.9	12.0	0.50	1.2	0.419	0.19	9.3	2.9	1.50	3700
A704568	0.42	4.99	21.0	290	1.28	0.19	3.86	3.28	26.4	18.4	62	1.62	253	6.52	15.3	0.11	1.9	0.345	1.14	12.0	17.1	0.90	1110
A704569	0.70	3.48	19.4	40	0.73	0.35	2.82	0.79	11.8	3.9	43	0.46	79.1	15.9	17.5	0.15	1.6	0.429	0.27	6.3	2.1	1.15	5180
A704570	1.33	3.36	21.0	90	0.32	0.41	4.57	0.55	10.2	7.4	86	0.70	239	9.38	15.7	0.49	1.4	0.498	0.62	4.9	2.9	0.67	1120
A704571	0.63	5.71	8.9	310	1.24	0.30	1.98	5.79	26.7	23.9	53	1.63	242	6.14	17.7	0.10	2.5	0.332	1.81	13.6	16.5	0.63	508
A704572	0.33	6.57	0.4	960	1.91	0.14	7.85	0.22	76.5	53.6	57	2.17	169	8.64	3.25	0.18	0.9	0.067	1.14	38.2	18.0	4.10	1600
A704573	0.27	3.80	0.8	100	2.25	0.18	7.92	0.13	68.8	71.4	293	0.12	321	10.9	9.77	0.27	1.7	0.057	0.10	37.3	5.1	7.85	1680
A704574	0.19	5.59	0.2	960	2.45	0.17	7.53	0.22	70.5	44.4	331	2.43	198	9.82	< 0.05	0.21	1.9	0.038	1.51	35.7	22.8	4.22	2320
A704575	0.34	7.40	1.1	100	0.46	0.24	4.86	0.15	52.4	94.9	596	2.39	121	16.6	15.5	0.26	2.1	0.062	0.69	23.3	15.7	2.11	3470
A704576	0.06	7.48	1.6	60	1.18	0.04	5.44	0.23	22.4	11.0	28	0.64	22.0	2.95	29.5	0.36	2.7	0.049	0.16	11.3	13.0	0.71	385
A704577	0.11	3.83	1.0	40	0.26	0.08	13.1	0.20	28.8	16.0	24	< 0.05	237	17.0	12.1	0.14	1.9	0.059	0.08	12.5	2.2	1.90	8820
A704578	0.11	4.26	0.8	30	0.08	0.04	7.47	0.15	9.85	34.6	93	0.24	343	9.57	14.0	0.43	0.9	0.050	0.10	3.7	7.0	3.71	2650
A704579	0.56	5.44	1.1	60	0.34	0.12	6.86	0.12	13.1	37.1	44	0.47	1700	18.7	23.2	0.40	2.2	0.151	0.19	5.1	16.2	2.79	5820
A704580	0.07	8.50	< 0.2	470	0.52	0.03	4.63	0.08	13.4	68.1	107	0.89	132	5.67	17.8	0.33	1.7	0.117	1.50	4.4	19.6	4.22	1020
A704581	0.21	5.83	0.4	270	0.37	0.33	0.29	0.09	14.1	3.2	25	1.23	108	1.71	10.4	0.05	4.6	0.023	1.45	6.1	7.8	0.32	148
A704582	0.13	7.70	5.1	520	0.46	0.10	0.30	< 0.02	23.4	1.8	8	1.50	7.4	1.48	15.0	0.21	5.8	0.035	3.74	11.2	17.2	0.61	219
A704583	0.55	7.76	97.1	540	0.59	1.29	0.26	0.15	11.2	35.5	44	1.58	248	2.60	22.4	0.49	3.6	0.726	3.45	4.7	11.5	0.53	244
A704584	0.20	6.75	3.2	280	0.59	0.09	1.15	0.24	31.8	3.7	13	0.49	20.0	2.05	12.7	< 0.05	5.4	0.041	1.64	13.4	6.2	0.31	237
A704585	0.03	8.47	0.5	70	0.35	0.05	6.97	0.07	12.1	38.0	83	1.27	65.4	5.17	19.7	0.21	0.5	0.069	0.45	4.2	10.6	3.61	1300
A704586	0.22	3.81	0.9	60	0.60	0.12	5.91	1.02	14.7	24.2	19	0.14	262	23.5	15.0	0.19	2.2	0.220	0.23	6.2	4.3	2.13	8620
A704587	0.06	7.49	1.8	20	0.41	0.16	8.41	0.11	15.2	58.7	95	0.63	158	8.25	21.6	0.24	0.9	0.080	0.26	5.3	9.4	3.66	2440
A704588	0.06	8.41	0.9	80	0.35	0.04	6.25	0.09	10.3	47.5	175	0.65	96.5	7.10	21.9	0.27	1.2	0.075	0.39	3.6	20.3	3.42	1210
A704589	0.24	8.59	1.4	70	0.47	0.27	5.29	0.09	12.7	52.8	157	1.23	122	7.22	22.8	0.38	1.2	0.051	0.54	4.4	45.3	4.14	1390
A704590	0.16	8.69	< 0.2	660	1.15	0.16	1.33	0.08	36.3	4.3	11	1.86	6.4	2.61	18.1	0.11	3.3	0.029	1.62	15.7	18.4	0.46	416
A704591	0.09	7.48	210	150	0.78	0.10	1.34	0.08	13.0	17.8	34	0.45	108	2.52	15.6	0.15	3.9	0.039	0.43	7.1	3.5	0.27	169
A704592	0.12	8.90	1.1	690	1.25	0.11	2.48	0.13	43.5	7.1	9	1.16	55.5	3.69	20.1	0.05	3.4	0.042	1.16	19.4	8.5	0.63	493
A704593	0.10	6.16	3.9	80	0.41	0.04	0.64	0.11	17.4	9.8	22	0.05	14.2	2.17	13.6	0.05	4.4	0.007	0.30	6.8	0.6	0.06	137
A704594	0.25	6.00	4.7	250	0.46	0.38	0.73	0.32	8.13	3.1	29	< 0.05	90.3	2.16	13.2	< 0.05	3.3	0.112	0.45	3.3	0.3	0.20	165
A704595	0.33	7.97	7.5	270	1.08	0.36	1.32	0.15	58.3	31.7	35	0.94	239	3.83	15.3	0.10	5.1	0.245	2.10	25.9	18.5	0.68	264
A704596	0.20	6.84	25.2	260	0.51	0.17	0.81	0.37	25.3	7.7	34	0.62	39.4	2.24	15.9	0.06	3.8	0.055	2.66	10.7	9.9	0.48	125
A704597	0.16	6.72	35.9	180	0.61	0.17	3.27	0.23	19.9	5.1	34	0.33	42.2	1.64	24.2	0.42	2.3	0.146	0.66	7.8	3.4	0.18	259
A704598	0.08	7.09	31.4	600	0.60	0.07	0.88	0.27	16.8	2.9	14	0.52	22.0	1.25	12.2	< 0.05	2.5	0.020	2.74	8.1	9.6	0.46	89
A704599	0.12	7.76	73.0	170	0.64	0.04	4.65	0.04	12.7	53.2	83	1.63	91.1	6.55	19.1	0.31	1.8	0.091	1.26	5.1	23.4	3.45	3060
A704600	0.43	6.44	78.3	700	0.38	0.51	0.20	0.13	6.54	4.2	23	0.83	40.5	2.25	16.8	0.16	3.8	0.090	3.37	2.7	13.2	0.59	130
A704601	0.19	7.24	23.3	670	0.66	0.12	0.58	0.08	33.6	7.2	9	0.64	12.8	1.54	11.1	0.06	5.3	0.024	3.18	13.1	13.2	0.48	337

## Results

## Activation Laboratories Ltd.

Report: A19-09210

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704602	0.18	2.07	5.4	150	0.13	0.32	0.40	1.13	4.54	6.3	65	0.34	36.1	1.79	4.78	< 0.05	1.0	0.096	0.53	2.3	2.1	0.09	146
A704603	0.09	7.11	2.0	90	0.38	0.07	7.50	0.18	15.4	33.9	51	0.43	99.3	14.1	20.2	0.59	1.9	0.079	0.21	5.7	11.1	2.21	8660
A704604	0.22	7.67	1.0	170	3.14	0.17	4.14	0.06	81.5	33.2	101	3.71	38.2	7.51	25.4	0.27	4.0	0.041	1.09	37.1	69.0	2.70	760
A704605	0.03	7.73	0.5	180	< 0.05	0.06	8.52	0.10	2.45	39.4	1020	0.21	33.8	5.74	9.69	0.15	0.4	0.028	0.26	0.9	9.1	5.39	954
A704606	0.08	5.97	0.3	130	0.71	0.37	4.06	0.08	21.7	40.0	8	4.66	169	12.8	28.6	0.19	2.1	0.135	0.60	7.3	13.3	1.91	1700
A704607	0.24	0.49	1.2	40	0.05	0.38	0.17	0.04	1.58	6.1	87	0.51	65.5	2.02	2.21	0.07	0.1	0.008	0.16	0.6	2.3	0.21	313
A704608	0.17	0.49	1.6	30	< 0.05	0.47	0.06	0.12	2.19	9.4	269	0.31	110	2.64	2.49	0.10	0.1	0.022	0.11	0.7	4.1	0.31	465
A704609	0.07	7.11	37.8	490	1.06	0.13	1.81	< 0.02	20.6	2.6	27	6.93	10.0	1.39	12.7	0.08	2.2	0.022	2.16	8.9	35.3	0.79	285

**Results****Activation Laboratories Ltd.****Report: A19-09210**

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704560	4.70	1.51	3.1	27.4	340	38.0	10.5	0.003	0.23	0.21	9.7	1	14.5	404	0.19	0.58	1.7	0.221	0.14	0.6	67	0.4	7.7
A704561	< 0.05	0.86	0.4	41.2	790	1.7	6.9	0.002	0.78	< 0.05	44.0	< 1	0.7	51.8	< 0.05	< 0.05	0.5	0.422	0.10	0.2	220	0.2	26.5
A704562	2.95	0.10	0.8	4.7	110	4.0	0.5	< 0.002	0.30	0.09	3.3	5	2.9	42.4	< 0.05	1.37	< 0.2	0.049	0.03	< 0.1	34	0.3	9.3
A704563	2.21	0.07	0.8	13.5	70	2.7	0.4	< 0.002	0.19	0.09	4.2	2	6.0	51.2	< 0.05	0.33	0.4	0.045	0.03	0.1	22	0.5	7.3
A704564	< 0.05	1.11	< 0.1	25.8	480	12.6	6.2	< 0.002	0.02	< 0.05	40.4	< 1	< 0.2	187	< 0.05	< 0.05	0.4	0.135	0.06	0.2	88	< 0.1	26.5
A704565	2.30	0.14	1.3	14.4	120	9.0	8.6	< 0.002	0.07	0.09	4.2	< 1	2.5	45.0	0.06	0.13	0.5	0.075	0.10	0.1	37	0.4	4.4
A704566	0.82	1.48	2.1	10.0	1600	26.2	60.7	< 0.002	0.02	< 0.05	23.7	< 1	3.2	815	< 0.05	< 0.05	3.7	0.428	0.54	1.1	152	0.2	23.1
A704567	3.72	0.10	1.7	11.5	550	6.4	7.9	0.003	1.01	0.11	8.9	4	3.0	39.7	0.11	0.74	2.4	0.143	0.12	0.4	58	0.5	9.0
A704568	3.63	0.37	2.7	33.1	390	5.5	53.0	0.002	0.91	0.15	11.0	2	2.6	62.9	0.19	0.53	1.6	0.205	0.54	0.5	69	0.8	9.2
A704569	3.25	0.09	2.7	3.5	470	7.7	6.8	< 0.002	0.25	0.11	8.6	6	5.0	31.4	0.15	1.21	1.0	0.158	0.16	0.2	59	0.3	12.0
A704570	5.12	0.12	2.2	8.9	420	10.4	25.7	0.004	1.01	0.25	7.0	7	4.8	181	0.14	0.99	1.1	0.157	0.32	0.2	75	0.5	6.3
A704571	4.47	0.79	2.9	27.8	420	23.4	52.2	< 0.002	1.18	0.16	7.1	2	4.5	101	0.23	0.35	1.9	0.159	0.49	0.7	47	0.7	7.6
A704572	0.73	1.72	0.4	216	630	6.0	47.9	< 0.002	0.08	< 0.05	25.9	< 1	0.2	823	< 0.05	< 0.05	3.2	0.187	0.16	0.6	68	< 0.1	14.7
A704573	0.36	0.55	4.9	433	610	2.6	1.0	< 0.002	0.62	< 0.05	25.0	< 1	0.9	454	0.09	< 0.05	2.8	0.432	0.05	0.5	124	0.7	13.3
A704574	0.15	0.19	1.0	256	560	4.7	52.7	< 0.002	0.07	< 0.05	26.2	< 1	0.2	403	< 0.05	< 0.05	5.1	0.357	0.18	0.9	85	0.2	12.3
A704575	0.89	0.25	7.2	414	670	3.0	27.4	< 0.002	1.23	0.06	32.8	< 1	0.7	270	0.56	0.36	2.3	0.417	0.19	0.6	184	0.7	23.6
A704576	0.83	1.61	3.0	29.5	380	2.8	6.1	< 0.002	< 0.01	0.09	9.4	< 1	0.7	178	0.19	< 0.05	2.0	0.235	0.09	0.6	78	0.7	10.3
A704577	1.15	0.20	2.9	18.0	360	1.9	0.7	< 0.002	1.23	0.13	8.8	1	1.8	45.8	0.19	< 0.05	1.6	0.136	0.03	0.5	35	0.5	21.7
A704578	0.65	0.48	0.9	39.1	290	1.6	4.1	< 0.002	0.57	0.06	25.7	< 1	0.7	57.8	< 0.05	< 0.05	0.3	0.328	0.04	0.2	152	0.1	19.4
A704579	0.84	0.24	0.5	23.7	450	4.7	3.6	0.004	2.06	0.07	38.4	2	1.3	132	< 0.05	0.18	0.7	0.356	0.07	0.3	186	0.1	31.3
A704580	0.13	1.87	0.2	96.8	510	8.1	53.1	< 0.002	0.30	0.06	51.6	< 1	0.5	257	< 0.05	< 0.05	0.5	0.364	0.34	0.2	191	< 0.1	24.2
A704581	2.45	2.59	5.7	3.1	220	14.4	37.3	< 0.002	0.24	0.86	5.6	1	2.0	103	0.39	0.15	3.4	0.177	0.87	3.6	21	1.2	7.1
A704582	1.76	0.73	6.1	1.4	340	3.8	92.7	< 0.002	0.20	0.08	6.7	< 1	1.6	40.5	0.27	0.06	2.2	0.239	1.88	2.2	26	1.2	7.5
A704583	12.8	1.13	2.5	13.9	300	48.0	80.2	< 0.002	0.05	0.96	16.9	2	6.5	45.4	0.17	0.63	2.8	0.263	2.60	1.3	115	1.1	7.2
A704584	1.82	2.32	7.0	5.0	390	5.0	42.1	< 0.002	0.70	0.08	6.4	< 1	1.4	134	0.54	< 0.05	3.3	0.231	1.17	0.9	20	0.6	12.1
A704585	< 0.05	1.97	< 0.1	54.1	460	1.9	11.2	< 0.002	0.03	< 0.05	41.4	< 1	< 0.2	167	< 0.05	< 0.05	0.4	0.117	0.11	0.2	82	< 0.1	18.4
A704586	4.47	0.39	2.7	30.1	330	4.0	1.8	0.011	1.82	0.07	12.4	5	2.2	14.0	0.19	0.39	1.7	0.140	0.04	0.5	44	0.3	24.3
A704587	0.23	0.83	0.3	75.3	500	2.1	7.9	< 0.002	0.26	0.08	43.5	< 1	0.4	161	< 0.05	< 0.05	0.4	0.289	0.08	0.1	157	< 0.1	28.9
A704588	< 0.05	1.86	0.2	66.7	430	2.1	10.9	< 0.002	0.06	< 0.05	44.1	< 1	< 0.2	138	< 0.05	< 0.05	0.4	0.283	0.07	0.2	135	< 0.1	18.7
A704589	0.16	1.84	0.4	77.4	450	3.8	14.7	< 0.002	0.23	< 0.05	50.2	< 1	0.3	132	< 0.05	0.33	0.4	0.469	0.10	0.2	222	0.1	22.3
A704590	0.53	4.37	4.2	1.8	670	9.6	47.1	< 0.002	0.27	0.07	3.9	< 1	0.8	501	0.27	0.22	2.8	0.207	0.27	0.9	40	5.0	5.4
A704591	3.90	4.16	4.6	10.5	480	5.1	11.9	< 0.002	0.13	0.09	13.9	3	0.4	200	0.32	0.67	2.8	0.251	0.17	1.3	56	0.9	9.3
A704592	0.46	4.01	4.4	2.2	720	10.9	30.9	< 0.002	0.78	0.12	5.1	1	0.9	649	0.27	0.33	2.9	0.261	0.31	1.1	49	1.8	7.9
A704593	2.57	4.33	4.7	4.7	410	3.7	5.6	< 0.002	0.78	0.08	2.3	< 1	0.6	75.3	0.40	< 0.05	2.3	0.180	0.16	1.5	11	0.7	7.0
A704594	5.11	3.93	3.5	3.2	90	40.1	6.2	< 0.002	0.41	0.23	6.1	2	1.7	125	0.36	0.36	1.7	0.111	0.15	1.3	17	0.7	5.4
A704595	2.60	2.51	7.1	22.3	760	4.9	49.4	< 0.002	2.06	0.31	9.2	2	1.8	238	0.52	0.23	3.1	0.274	0.96	1.1	56	1.0	12.9
A704596	1.70	1.43	4.9	12.2	490	19.4	69.1	< 0.002	1.51	0.33	7.4	1	2.0	103	0.39	0.10	2.4	0.241	3.31	0.7	51	0.7	8.4
A704597	2.41	1.82	2.4	7.3	440	15.4	16.1	< 0.002	0.17	0.23	5.5	1	2.2	236	0.16	0.09	2.0	0.145	0.88	0.5	41	0.6	3.0
A704598	1.09	1.20	2.6	4.4	570	10.2	64.8	< 0.002	0.75	0.23	2.5	< 1	2.3	119	0.13	< 0.05	3.0	0.145	3.34	0.8	19	0.5	3.3
A704599	0.19	1.94	3.1	65.8	610	5.4	45.5	< 0.002	0.79	0.07	39.5	< 1	1.2	182	0.10	< 0.05	0.4	0.667	2.49	0.2	284	0.5	23.8
A704600	3.18	0.66	4.3	5.3	410	42.0	89.6	< 0.002	0.71	1.54	8.1	3	4.6	53.1	0.29	0.40	2.8	0.208	5.44	1.1	50	0.8	4.4
A704601	1.42	1.14	7.4	5.6	380	3.2	75.0	< 0.002	0.51	< 0.05	6.5	< 1	1.4	91.3	0.50	< 0.05	3.1	0.218	2.08	0.9	22	0.6	10.9

## Results

## Activation Laboratories Ltd.

## Report: A19-09210

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704602	7.75	0.55	1.7	10.6	140	9.3	12.9	0.011	0.23	0.12	4.9	1	0.7	29.8	0.08	0.26	0.9	0.078	0.30	0.3	28	0.7	2.0
A704603	0.82	0.27	4.1	38.9	590	2.4	5.0	< 0.002	0.23	0.19	44.0	< 1	0.9	42.1	0.23	< 0.05	0.4	0.649	0.04	0.1	290	1.5	34.6
A704604	0.20	2.71	13.6	36.7	2080	5.1	59.2	< 0.002	0.16	0.13	22.5	< 1	1.2	264	0.21	< 0.05	2.8	0.493	0.39	4.1	173	0.6	20.9
A704605	0.38	1.16	0.6	117	90	1.2	5.4	< 0.002	0.01	0.05	43.4	< 1	< 0.2	86.0	< 0.05	< 0.05	< 0.2	0.185	0.06	< 0.1	158	0.1	8.0
A704606	< 0.05	1.88	0.1	3.5	630	4.8	33.7	0.002	0.56	< 0.05	47.0	< 1	0.4	96.1	< 0.05	< 0.05	1.1	0.338	0.26	0.4	127	< 0.1	44.1
A704607	3.17	0.07	0.2	14.5	40	2.2	6.4	< 0.002	0.56	0.08	4.5	2	< 0.2	9.5	< 0.05	2.14	< 0.2	0.050	0.06	0.1	32	2.1	1.6
A704608	3.41	0.03	0.3	57.1	70	4.8	4.7	< 0.002	0.32	0.11	3.7	2	< 0.2	4.6	< 0.05	16.5	< 0.2	0.045	0.05	< 0.1	26	3.8	1.5
A704609	1.14	2.35	1.8	5.0	440	16.4	73.7	< 0.002	0.04	0.31	4.6	< 1	0.8	544	0.10	0.13	3.1	0.186	0.87	1.5	35	0.5	4.0



Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704560	0.8	1290	84.1
A704561	3.2	95	34.5
A704562	0.9	741	29.5
A704563	0.9	873	30.2
A704564	2.9	183	9.1
A704565	0.5	725	26.1
A704566	2.3	361	114
A704567	1.1	606	41.3
A704568	1.0	866	73.7
A704569	1.3	361	66.7
A704570	0.9	342	60.3
A704571	0.8	1340	92.2
A704572	1.6	121	31.0
A704573	1.3	87	60.5
A704574	1.4	83	68.1
A704575	3.5	138	77.1
A704576	1.1	61	93.0
A704577	2.3	198	72.6
A704578	2.0	121	26.3
A704579	3.7	184	75.8
A704580	2.8	58	53.5
A704581	1.4	39	192
A704582	1.5	25	210
A704583	1.5	225	119
A704584	1.3	183	195
A704585	2.1	76	15.9
A704586	2.8	610	86.0
A704587	3.4	91	26.0
A704588	2.2	51	37.7
A704589	2.5	90	41.2
A704590	0.4	85	76.9
A704591	1.3	28	143
A704592	0.6	89	118
A704593	1.0	71	169
A704594	0.9	201	107
A704595	1.5	93	189
A704596	1.0	227	136
A704597	0.4	205	75.5
A704598	0.4	154	89.0
A704599	2.8	111	60.0
A704600	0.8	72	137
A704601	1.4	43	196

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704602	0.3	364	41.1
A704603	4.3	140	65.8
A704604	2.2	162	152
A704605	1.0	55	9.3
A704606	5.0	71	69.2
A704607	0.2	26	3.2
A704608	0.1	66	3.6
A704609	0.4	36	75.4

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
SDC-1 Meas		8.08	< 0.2	660	2.81		1.04		86.4	16.0	49	3.81	27.2	4.84	19.5		1.0		2.22	38.6	28.7	1.00	828
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
Oreas 72a (4 Acid Digest) Meas			9.7							160	167		296	9.26									
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63									
Oreas 72a (4 Acid Digest) Meas			5.5							144	174		272	9.42									
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63									
OREAS 101b (4 Acid) Meas									> 500	44.5			381	10.5					2.43	697		1.23	883
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927
OREAS 101b (4 Acid) Meas									> 500	47.7			393	10.7					2.59	735		1.25	916
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927
OREAS 98 (4 Acid) Meas	50.3					79.6				139			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
DNC-1a Meas				110			7.37			58.7	136		96.7	7.14	15.7					3.6	4.8		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				110			7.45				149			7.30									
DNC-1a Cert				118			8.21				270			6.97									
OREAS 13b (4-Acid) Meas	0.85		45.5							64.2	9400		1780										
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.0 00		2327.0 000										
OREAS 904 (4 ACID) Meas	0.64	6.58	94.5	200	9.55	4.07	0.05		88.3	86.3	61	3.77	5850	7.13	19.1	0.07	0.3	0.230	2.82	42.9	15.3	0.59	425
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410
OREAS 904 (4 ACID) Meas	0.65	6.55	88.9	210	8.86	3.99	0.05		85.6	85.8	60	3.64	5900	7.01	17.8	0.17	5.1	0.204	3.68	41.7	16.1	0.58	433
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410
SBC-1 Meas			25.4	820	3.33	0.70		0.33	110	22.6	105	7.97	30.6		21.2		3.5			47.6	160		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			26.1	830	3.58	0.75		0.36	103	23.4	97	7.59	40.7		26.1		3.6			45.7	179		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
OREAS 45d (4-Acid) Meas		8.22	7.0	200	0.77	0.32	0.20		37.1	30.2	543	3.69	361	14.7	25.4		1.4	0.099	0.45	17.0	21.3	0.25	506
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	
OREAS 45d (4-Acid) Meas		8.31	8.7	200	0.74	0.34	0.20		37.1	30.0	560	3.62	340	14.7	23.4		2.7	0.077	0.44	17.0	22.2	0.25	527	
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000	
OREAS 96 (4 Acid) Meas	11.1					25.2				45.6			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 96 (4 Acid) Meas	11.9					25.3				50.7			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 923 (4 Acid) Meas	2.00	7.51	6.6	440	2.32	23.0	0.50	0.37	79.0	21.6	79	6.23	3970	6.80	17.8		3.6	0.492	2.05	39.8	28.0	1.76	940	
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950	
OREAS 923 (4 Acid) Meas	1.76	7.48	6.0	460	2.09	21.0	0.50	0.38	80.5	20.9	76	6.10	3930	6.77	17.0		3.6	0.482	2.62	39.1	26.6	1.75	928	
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950	
OREAS 621 (4 Acid) Meas	63.7	6.47	65.3		1.77	3.90	2.05	240	42.3	28.3	49	3.14	3300	3.84	28.6		4.7	1.80	2.30	16.2	13.2	0.52	558	
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532	
OREAS 621 (4 Acid) Meas	69.9	6.68	63.8		1.77	4.01	2.09	253	47.2	30.6	30	3.27	3610	3.90	26.6		4.8	1.87	2.28	19.7	13.5	0.52	533	
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532	
OREAS 522 (4 Acid) Meas	1.38	3.79	404		0.60	8.40	3.46		58.5	545	31	0.62	8020	23.6	17.0		3.0	0.220	2.92	45.9	14.0	1.12	3670	
OREAS 522 (4 Acid) Cert	1.31	3.95	490		0.700	8.72	3.65		148	550	29.6	0.640	9160	24.6	16.0		2.96	0.230	2.83	171	16.2	1.12	3970	
Oreas 77b (4 Acid Digest) Meas	1.75	1.78	1610	90	0.46	3.15	2.66	1.01	28.3	1710	215	2.20	3370	27.2	5.00		1.1	0.116	0.34	15.5	18.5	2.44	590	
Oreas 77b (4 Acid Digest) Cert	1.62	1.94	2050	118	0.470	3.44	3.06	1.20	27.7	1550	280	2.32	3430	29.9	4.61		1.15	0.112	0.361	15.8	18.8	2.59	640	
Oreas 77b (4 Acid Digest) Meas	1.71	1.79	1530	80	0.46	3.22	2.68	1.21	26.9	1680	225	2.10	3190	27.6	5.09		1.2	0.117	0.34	14.6	20.3	2.48	593	
Oreas 77b (4 Acid Digest) Cert	1.62	1.94	2050	118	0.470	3.44	3.06	1.20	27.7	1550	280	2.32	3430	29.9	4.61		1.15	0.112	0.361	15.8	18.8	2.59	640	
A704571 Orig	0.65	5.74	9.2	410	1.23	0.30	1.99	5.82	26.9	24.1	51	1.62	244	6.19	16.8	0.11	2.5	0.336	1.86	13.8	16.7	0.64	505	
A704571 Dup	0.61	5.69	8.5	220	1.25	0.29	1.97	5.76	26.5	23.6	54	1.63	240	6.08	18.7	0.09	2.5	0.328	1.75	13.3	16.3	0.63	511	
A704595 Orig	0.33	7.88	7.8	290	1.12	0.36	1.31	0.16	60.3	32.9	39	0.97	247	3.81	15.7	0.11	5.3	0.250	2.08	26.9	19.2	0.68	263	
A704595 Dup	0.32	8.05	7.2	260	1.04	0.35	1.34	0.14	56.4	30.5	30	0.91	231	3.85	15.0	0.08	4.9	0.241	2.13	24.8	17.9	0.69	265	
A704609 Orig	0.07	7.11	37.8	490	1.06	0.13	1.81	< 0.02	20.6	2.6	27	6.93	10.0	1.39	12.7	0.08	2.2	0.022	2.16	8.9	35.3	0.79	285	
A704609 Split PREP DUP	0.08	7.14	33.0	490	1.01	0.15	1.82	< 0.02	20.0	2.3	30	6.68	39.8	1.40	10.5	0.30	2.1	0.017	2.30	8.3	31.9	0.81	293	

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Method Blank		< 0.01		< 10			< 0.01				1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	0.14		< 0.02	< 0.01	< 0.1		< 0.05	< 0.2		0.20	< 0.05	< 0.1	< 0.005		< 0.5	< 0.2		
Method Blank	< 0.01	< 0.01	< 0.2	< 10	< 0.05	0.03	< 0.01	< 0.02	0.23	< 0.1		< 0.05	0.2	< 0.01	0.23	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01	< 0.01	0.3	< 10	< 0.05	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1		< 0.05	< 0.2	< 0.01	0.18	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank	< 0.01	< 0.01	< 0.2	< 10	< 0.05	0.02	< 0.01	< 0.02	0.11	< 0.1		< 0.05	0.4	< 0.01	0.24	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	< 5
Method Blank	< 0.01	< 0.01	0.4	< 10	< 0.05	< 0.01	< 0.01	< 0.02	0.11	< 0.1		< 0.05	0.6	< 0.01	0.23	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	
Method Blank	< 0.01	< 0.01	0.4	< 10	< 0.05	0.01	< 0.01	< 0.02	0.05	< 0.1		< 0.05	0.6	< 0.01	0.24	< 0.05	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	< 0.01	

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.49	< 0.1	30.5	580	26.7	98.1			0.05	13.3		< 0.2	160	< 0.05		11.5	0.113	0.69	2.9	40	0.4	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
Oreas 72a (4 Acid Digest) Meas				6880					1.66														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas				6030					1.68														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
OREAS 101b (4 Acid) Meas	19.1			9.0	1090	23.0											34.1	0.340		358	79		126
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas	20.8			9.3	1210	22.9											33.1	0.341		349	80		129
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 98 (4 Acid) Meas						300			> 10.0	17.9		142	230										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
DNC-1a Meas		1.41	1.5	263		6.8	3.6			0.85	34.4			161				0.263			139		16.5
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.43																0.268			145		
DNC-1a Cert		1.40																0.29			148		
OREAS 13b (4-Acid) Meas	8.20			1840					1.17														
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 904 (4 ACID) Meas	2.05	0.04		42.4	940	12.1	115		0.06	1.05	12.4	2	3.0	27.7	0.11		14.9		0.60	9.2	84	2.7	32.2
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
OREAS 904 (4 ACID) Meas	2.04	0.04		40.1	1050	11.7	127		0.06	1.05	11.6	2	3.1	26.1	0.68		14.1		0.57	9.1	84	2.4	31.2
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
SBC-1 Meas	2.62		14.1	84.0		36.9	136			1.12	19.4		3.8	180	0.97		15.4	0.481	0.95	5.9	221	1.7	29.2
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.16		14.1	90.1		37.4	146			1.07	22.6		3.7	183	1.00		15.4	0.469	0.96	5.8	209	1.9	30.5
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
OREAS 45d (4-Acid) Meas	0.11	0.10	< 0.1	235	370	21.7	41.3		0.04	0.05	54.0		0.3	33.4	< 0.05		14.2	0.127	0.29	2.7	99	< 0.1	10.9
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
OREAS 45d (4-Acid) Meas	0.42	0.10	1.0	228	380	22.2	40.2		0.05	< 0.05	52.6		0.7	31.2	< 0.05		14.3	0.323	0.28	2.8	147	< 0.1	10.9
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 96 (4 Acid) Meas						93.1			4.33	3.45		33	65.4										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						94.9			4.26	3.44		30	70.0										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	0.78	0.32	13.1	34.8	650	85.7	125		0.71	1.21	12.5	4	13.7	40.2	1.01		15.7	0.402	0.88	3.1	95	4.5	23.2
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 923 (4 Acid) Meas	0.87	0.32	12.3	33.5	650	80.5	141		0.71	1.19	11.9	5	13.6	39.9	0.83		15.6	0.395	0.91	3.5	92	4.5	23.9
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 621 (4 Acid) Meas	12.9	1.32	8.0	28.1	380	> 10000	74.7		4.54	39.8	6.4	6	5.2	59.4			4.4	0.181	2.11	2.9	34	1.4	10.9
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas	13.9	1.32	9.4	29.6	390	> 10000	84.6		4.61	22.6	7.5	6	6.0	67.5			5.5	0.176	2.18	2.9	33	2.1	13.1
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 522 (4 Acid) Meas	205	0.60	5.5	69.1	890	12.4	75.9	0.100	2.34	4.51	11.8	1	9.9	62.0	0.34	0.54	2.1	0.323	0.33	41.5	161	126	17.2
OREAS 522 (4 Acid) Cert	206	0.633	5.66	70.0	890	12.5	82.0	0.0980	2.50	7.93	10.9	2.74	9.32	199	0.440	1.14	7.53	0.344	0.290	42.2	164	135	18.5
Oreas 77b (4 Acid Digest) Meas		0.39	3.1	> 10000		57.4	19.0	0.021		8.07	4.3		1.7	38.9	0.23	1.13	6.0	0.056	1.39	1.8	35	2.9	7.2
Oreas 77b (4 Acid Digest) Cert		0.434	3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61	0.0640	1.37	1.71	33.6	3.07	6.55
Oreas 77b (4 Acid Digest) Meas		0.40	3.0	> 10000		57.3	18.9	0.022		7.14	4.5		1.7	36.7	0.24	1.00	5.9	0.056	1.44	1.8	36	3.2	7.0
Oreas 77b (4 Acid Digest) Cert		0.434	3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61	0.0640	1.37	1.71	33.6	3.07	6.55
A704571 Orig	4.25	0.80	2.9	28.8	410	23.9	54.3	< 0.002	1.19	0.12	7.2	2	4.6	103	0.23	0.38	1.9	0.159	0.49	0.6	47	0.7	7.7
A704571 Dup	4.68	0.78	2.9	26.9	420	22.9	50.2	0.002	1.17	0.19	7.0	2	4.5	98.4	0.22	0.32	1.8	0.159	0.48	0.8	46	0.6	7.6
A704595 Orig	2.72	2.49	7.3	22.8	750	5.1	51.0	< 0.002	2.05	0.33	9.5	3	1.8	243	0.53	0.26	3.3	0.273	0.98	1.3	56	1.0	13.3
A704595 Dup	2.49	2.52	6.9	21.8	760	4.7	47.7	< 0.002	2.08	0.30	8.9	2	1.7	233	0.50	0.20	3.0	0.275	0.93	1.0	56	0.9	12.6
A704609 Orig	1.14	2.35	1.8	5.0	440	16.4	73.7	< 0.002	0.04	0.31	4.6	< 1	0.8	544	0.10	0.13	3.1	0.186	0.87	1.5	35	0.5	4.0
A704609 Split PREP DUP	1.15	2.36	2.1	4.5	460	16.3	70.4	< 0.002	0.04	0.40	4.5	< 1	0.8	458	0.15	< 0.05	3.1	0.188	0.88	1.6	35	0.6	3.4

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Method Blank		< 0.01			< 10				< 0.01									0.011			1		
Method Blank	0.09		< 0.1	0.2		0.8	< 0.1	< 0.002		0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.10	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.3	< 10	1.0	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.06	< 0.1	< 1	< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	< 0.05	< 0.01	< 0.1	1.0	< 10	0.7	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.03	< 0.1	< 1	< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.3	< 10	0.8	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.07	< 0.1	< 1	< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.2	< 10	< 0.5	< 0.1	< 0.002	< 0.01	< 0.05	0.3	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.02	< 0.1	< 1	< 0.1	< 0.1
Method Blank	< 0.05	< 0.01	< 0.1	0.8	< 10	< 0.5	< 0.1	< 0.002	< 0.01	< 0.05	0.2	2	0.8	< 0.2	< 0.05	< 0.05	< 0.2	< 0.005	0.02	< 0.1	< 1	< 0.1	< 0.1



Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.4	108	31.9
SDC-1 Cert	4.00	103.00	290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.4		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas	13.4		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 98 (4 Acid) Meas		1320	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas	1.9	61	36.2
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas		64	
DNC-1a Cert		70	
OREAS 13b (4-Acid) Meas		146	
OREAS 13b (4-Acid) Cert		133	
OREAS 904 (4 ACID) Meas	3.4	28	29.9
OREAS 904 (4 ACID) Cert	3.14	26.3	171
OREAS 904 (4 ACID) Meas	3.2	28	171
OREAS 904 (4 ACID) Cert	3.14	26.3	171
SBC-1 Meas	3.4	200	109
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.5	191	112
SBC-1 Cert	3.64	186	134.0
OREAS 45d (4-Acid) Meas	1.5	47	51.6
OREAS 45d (4-Acid) Cert	1.33	45.7	141

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
OREAS 45d (4-Acid) Meas	1.5	46	94.1
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 96 (4 Acid) Meas		469	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		466	
OREAS 96 (4 Acid) Cert		457	
OREAS 923 (4 Acid) Meas	2.6	366	114
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 923 (4 Acid) Meas	2.5	369	117
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 621 (4 Acid) Meas	1.0	> 10000	156
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas	1.1	> 10000	181
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 522 (4 Acid) Meas	1.9	28	111
OREAS 522 (4 Acid) Cert	1.97	30.2	112
Oreas 77b (4 Acid Digest) Meas		178	41.9
Oreas 77b (4 Acid Digest) Cert		205	37.9
Oreas 77b (4 Acid Digest) Meas		178	41.7
Oreas 77b (4 Acid Digest) Cert		205	37.9
A704571 Orig	0.8	1330	93.5
A704571 Dup	0.9	1350	90.9
A704595 Orig	1.5	92	196
A704595 Dup	1.4	94	182
A704609 Orig	0.4	36	75.4
A704609 Split PREP DUP	0.4	37	63.7

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1	< 2	< 0.5
Method Blank		< 2	
Method Blank	< 0.1	< 2	1.4
Method Blank	< 0.1	< 2	< 0.5
Method Blank	< 0.1	< 2	< 0.5
Method Blank	< 0.1	< 2	< 0.5

Quality Analysis ...



Innovative Technologies

**Date Submitted:** 03-Sep-19  
**Invoice No.:** A19-11648-Au  
**Invoice Date:** 09-Sep-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**141 Adelaide Street West, Suite 301**  
**Toronto ON M5H 3L5**  
**Canada**

**ATTN: Fraser Laschinger (inv)**

## CERTIFICATE OF ANALYSIS

8 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS)

REPORT **A19-11648-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E' and 'S'.

Emmanuel Esemé, Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL [Ancaster@actlabs.com](mailto:Ancaster@actlabs.com) ACTLABS GROUP WEBSITE [www.actlabs.com](http://www.actlabs.com)

**Date Submitted:** 03-Sep-19  
**Invoice No.:** A19-11648-Au  
**Invoice Date:** 09-Sep-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**141 Adelaide Street West, Suite 301**  
**Toronto ON M5H 3L5**  
**Canada**

**ATTN: Fraser Laschinger (inv)**

**CERTIFICATE OF ANALYSIS**

8 Rock samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Timmins QOP AA-Au (Au - Fire Assay AA)

REPORT **A19-11648-Au**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A704610	7
A704611	8
A704612	6
A704613	< 5
A704614	< 5
A704615	7
A704616	< 5
A704617	< 5

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
Oreas 221 (Fire Assay) Meas	1030
Oreas 221 (Fire Assay) Cert	1060
Method Blank	< 5



Date Submitted: 03-Sep-19
Invoice No.: A19-11648-TD
Invoice Date: 25-Sep-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

8 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Table with 2 columns: UT-6M-RedPine, QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS)

REPORT A19-11648-TD

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Handwritten signature of Emmanuel Esemé

Emmanuel Esemé , Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com



## Results

## Activation Laboratories Ltd.

## Report: A19-11648

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704610	0.06	7.06	< 0.2	150	0.47	0.09	6.69	0.12	16.7	53.9	205	2.81	148	10.8	16.9	0.15	2.0	0.078	0.63	7.0	17.1	4.28	1570
A704611	0.83	1.44	< 0.2	230	0.25	0.20	0.21	0.04	8.76	2.7	37	0.25	6.0	1.33	3.04	< 0.05	0.3	< 0.005	0.56	3.9	33.0	0.39	206
A704612	0.06	6.68	0.7	630	0.89	0.19	0.68	< 0.02	32.3	6.9	22	0.44	7.0	3.12	13.1	< 0.05	2.9	0.015	1.29	12.7	20.8	1.51	461
A704613	0.10	5.62	< 0.2	860	0.74	0.14	0.38	0.03	68.6	6.8	29	0.62	14.3	2.69	11.1	< 0.05	2.8	0.012	1.40	31.8	21.1	1.37	485
A704614	0.03	1.52	< 0.2	240	0.33	0.10	0.23	< 0.02	13.5	1.7	26	0.93	1.7	1.01	2.74	< 0.05	0.6	< 0.005	0.94	6.8	21.7	0.16	128
A704615	0.20	2.70	< 0.2	450	0.34	0.15	0.13	< 0.02	12.1	2.5	37	0.46	3.1	1.36	3.87	< 0.05	< 0.1	< 0.005	0.87	4.3	30.2	0.57	226
A704616	0.13	2.69	< 0.2	360	0.52	0.10	0.20	0.03	37.8	3.3	40	0.28	4.1	1.67	5.37	< 0.05	< 0.1	0.007	0.85	17.6	29.2	0.80	316
A704617	0.09	4.28	< 0.2	760	0.71	0.13	0.37	< 0.02	24.7	3.7	33	0.48	2.2	1.76	7.10	< 0.05	< 0.1	0.005	0.99	10.2	24.0	0.71	307

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704610	0.19	1.65	0.4	116	390	4.4	28.5	0.002	0.09	< 0.05	37.8	< 1	< 0.2	175	< 0.05	< 0.05	1.0	0.415	0.12	0.3	278	< 0.1	20.9
A704611	2.25	0.56	0.9	2.8	220	5.1	16.4	< 0.002	0.08	0.06	1.5	< 1	< 0.2	57.3	< 0.05	0.37	1.0	0.061	0.06	0.1	19	0.4	1.7
A704612	0.87	3.85	3.7	3.9	1300	6.4	31.3	< 0.002	0.17	< 0.05	6.2	< 1	0.5	198	0.11	< 0.05	6.3	0.276	0.15	1.0	65	0.3	7.1
A704613	0.72	2.92	5.7	6.1	1150	8.5	46.9	< 0.002	0.02	0.05	5.3	< 1	0.7	191	0.28	< 0.05	7.1	0.216	0.33	1.9	52	0.6	7.3
A704614	1.63	0.39	1.2	202	190	3.5	34.8	< 0.002	0.02	0.09	0.8	< 1	< 0.2	45.4	< 0.05	< 0.05	1.1	0.046	0.14	0.2	12	0.3	1.7
A704615	1.94	1.20	1.0	1.5	430	4.2	31.8	< 0.002	0.04	< 0.05	2.1	< 1	< 0.2	95.0	< 0.05	< 0.05	2.1	0.093	0.14	0.3	22	0.2	2.4
A704616	2.41	1.14	0.9	1.9	410	3.1	32.6	< 0.002	0.02	< 0.05	2.4	< 1	< 0.2	112	< 0.05	< 0.05	1.8	0.085	0.15	0.2	35	0.2	2.9
A704617	2.39	2.07	1.4	2.3	750	6.4	46.0	< 0.002	0.02	< 0.05	3.9	< 1	0.3	231	< 0.05	< 0.05	2.9	0.153	0.31	0.5	38	0.6	6.4

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704610	2.3	110	72.1
A704611	0.2	23	14.8
A704612	0.8	54	108
A704613	0.8	68	99.0
A704614	0.2	18	23.0
A704615	0.3	37	1.2
A704616	0.3	48	0.9
A704617	0.6	44	1.4

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
SDC-1 Meas		7.32	< 0.2	640	2.90		1.00		93.0	18.6	40	3.97	31.4	4.42	19.2		1.1		1.60	42.2	36.9	0.99	852
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
Oreas 72a (4 Acid Digest) Meas											144			8.38									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											170			9.86									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
OREAS 101b (4 Acid) Meas														9.71					1.61			1.18	903
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 101b (4 Acid) Meas														10.3					1.81			1.26	953
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 98 (4 Acid) Meas	48.4					90.1				137			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800.0										
DNC-1a Meas				110			7.51				130			6.99									
DNC-1a Cert				118			8.21				270			6.97									
OREAS 13b (4-Acid) Meas	0.95		53.6							78.0	9420		2170										
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 904 (4 ACID) Meas		5.89		200			0.05				46			6.32					2.50			0.58	413
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410
OREAS 904 (4 ACID) Meas		5.87		200			0.05				61			6.36					3.00			0.59	421
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410
SBC-1 Meas				870							101												
SBC-1 Cert				788.0							109												
OREAS 45d (4-Acid) Meas		7.13	12.2	180	0.76	0.36	0.19		37.1	29.9	556	3.80	391	13.2	23.3		3.9	0.092	0.40	16.5	23.0	0.24	496
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas		7.05	13.1	180	0.79	0.34	0.18		34.6	30.6	573	3.62	389	13.5	23.3		4.6	0.084	0.41	15.0	23.7	0.24	498
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 96 (4 Acid) Meas	11.4					27.7					48.3		> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3					49.9		39300										
OREAS 96 (4 Acid) Meas	11.8					27.3					50.9		> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3					49.9		39300										
OREAS 923 (4 Acid) Meas	1.59	6.79	4.8	440	2.25	18.2	0.49	0.28	84.0	21.8	76	6.18	3820	6.24	16.9		3.8	0.510	2.53	42.4	31.6	1.77	979
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
OREAS 923 (4 Acid) Meas	1.81	6.76	5.5	440	2.32	24.8	0.49	0.30	85.1	22.3	75	6.39	4090	6.14	19.1		3.9	0.502	2.49	42.9	32.9	1.75	966
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 621 (4 Acid) Meas		5.96					2.03				25			3.56					1.84			0.53	498
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 621 (4 Acid) Meas		6.79					2.27				28			4.03					1.79			0.59	567
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 522 (4 Acid) Meas		3.46					3.37				33			21.5					2.61			1.09	3570
OREAS 522 (4 Acid) Cert		3.95					3.65				29.6			24.6					2.83			1.12	3970
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	0.02		< 0.02	< 0.01	< 0.1		< 0.05	< 0.2		0.12	0.09	< 0.1	< 0.005		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	0.01		0.03	< 0.01	< 0.1		< 0.05	1.1		0.14	0.10	< 0.1	< 0.005		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank		< 0.01		< 10			< 0.01			< 1				< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01		< 0.2		< 0.05	< 0.01		< 0.02	< 0.01	< 0.1		< 0.05	< 0.2		0.08	0.08	< 0.1	< 0.005		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01				1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	< 0.01		< 0.02	< 0.01	< 0.1		< 0.05	< 0.2		0.09	0.05	< 0.1	< 0.005		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.46	< 0.1	34.4	520	27.2	96.4			< 0.05	15.1		< 0.2	188	< 0.05		12.4	0.118	0.65	3.0	42	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
Oreas 72a (4 Acid Digest) Meas									1.49														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.73														
Oreas 72a (4 Acid Digest) Cert									1.74														
OREAS 101b (4 Acid) Meas					1060													0.319			74		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 101b (4 Acid) Meas					1170													0.336			78		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 98 (4 Acid) Meas						327			> 10.0	11.0		163	206										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
DNC-1a Meas		1.55																0.274			146		
DNC-1a Cert		1.40																0.29			148		
OREAS 13b (4-Acid) Meas	9.79			2020					1.09														
OREAS 13b (4-Acid) Cert	9.0			2247.0 000					1.2														
OREAS 904 (4 ACID) Meas		0.04			940				0.06													79	
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630													76.0	
OREAS 904 (4 ACID) Meas		0.04			1010				0.06													80	
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630													76.0	
SBC-1 Meas																		0.511				233	
SBC-1 Cert																		0.51				220.0	
OREAS 45d (4-Acid) Meas	1.52	0.09	6.4	231	380	23.3	47.2		0.05	0.05	50.7		1.4	33.6	0.32		14.9	0.581	0.27	2.9	199	0.4	11.2
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	3.04	0.09	15.4	240	390	23.5	43.8		0.05	0.22	50.9		2.5	32.9	1.12		13.5	0.768	0.27	3.0	234	1.6	10.4
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 96 (4 Acid) Meas						105			4.01	2.78		37	64.3										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						107			4.00	2.88		39	64.2										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	0.97	0.32	13.0	33.9	630	92.7	172		0.68	1.27	12.7	6	13.4	43.7	1.11		16.9	0.383	0.90	3.2	93	4.8	24.7
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
OREAS 923 (4 Acid) Meas	1.20	0.32	14.4	37.9	630	93.1	179		0.67	1.31	12.9	7	13.6	43.8	1.13		17.2	0.381	0.90	3.4	93	5.0	25.6
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 621 (4 Acid) Meas		1.30			360				4.36									0.173			33		
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149			31.8		
OREAS 621 (4 Acid) Meas		1.48			410				4.92									0.197			37		
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149			31.8		
OREAS 522 (4 Acid) Meas		0.59			760				2.25									0.263			147		
OREAS 522 (4 Acid) Cert		0.633			890				2.50									0.344			164		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	< 0.05		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	0.07		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	< 0.05		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.03	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	0.06		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.03	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.5	103	41.7
SDC-1 Cert	4.00	103.00	290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 98 (4 Acid) Meas		1300	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas		65	
DNC-1a Cert		70	
OREAS 13b (4-Acid) Meas		135	
OREAS 13b (4-Acid) Cert		133	
OREAS 904 (4 ACID) Meas		27	
OREAS 904 (4 ACID) Cert		26.3	
OREAS 904 (4 ACID) Meas		27	
OREAS 904 (4 ACID) Cert		26.3	
SBC-1 Meas		215	
SBC-1 Cert		186	
OREAS 45d (4-Acid) Meas	1.5	43	155
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.5	44	176
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 96 (4 Acid) Meas		447	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		455	
OREAS 96 (4 Acid) Cert		457	
OREAS 923 (4 Acid) Meas	2.6	361	135
OREAS 923 (4 Acid) Cert	2.57	345	116



Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
OREAS 923 (4 Acid) Meas	2.7	346	140
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 522 (4 Acid) Meas		30	
OREAS 522 (4 Acid) Cert		30.2	
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank	< 0.1		0.6
Method Blank		< 2	
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank		< 2	



Report No.: A19-15068-Au  
 Report Date: 04-Dec-19  
 Date Submitted: 05-Nov-19  
 Your Reference: RAV

Canadian Orebodies Inc.  
 141 Adelaide Street West, Suite 301  
 Toronto ON M5H 3L5  
 Canada

ATTN: Fraser Laschinger (inv)

**CERTIFICATE OF ANALYSIS**

9 Humus samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	GOP AA-Au (Au - Fire Assay AA)	2019-12-04 14:00:06

REPORT **A19-15068-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Esemé , Ph.D.  
 Quality Control Coordinator

**ACTIVATION LABORATORIES LTD.**  
 1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
 TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
 E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A705324	< 5
A705326	< 5
A705327	19
A705329	< 5
A705331	< 5
A705332	< 5
A705334	< 5
A705336	< 5
A705338	11

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 254 Fire Assay Meas	2460
OREAS 254 Fire Assay Cert	2550
OREAS 217 (Fire Assay) Meas	352
OREAS 217 (Fire Assay) Cert	338
Method Blank	< 5
Method Blank	< 5



Report No.: A19-15068-TD
Report Date: 04-Dec-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

9 Humus samples were submitted for analysis.

Table with 2 columns: The following analytical package(s) were requested: and Testing Date:
Row 1: UT-6M-RedPine | QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS) | 2019-11-19 11:34:44

REPORT A19-15068-TD

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

[Handwritten signature]

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-15068

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A705324	0.04	1.53	4.9	190	0.33	0.35	0.66	0.75	12.7	2.4	17	0.64	10.0	0.73	3.95	0.09	< 0.1	0.034	0.40	6.4	3.3	0.21	202
A705326	0.14	2.60	5.0	260	0.47	0.38	1.51	0.56	19.3	11.2	32	1.37	16.0	2.48	7.14	0.47	0.7	0.041	0.60	9.3	7.0	0.28	656
A705327	0.05	1.44	9.3	240	0.31	0.46	0.67	0.73	13.1	1.8	17	1.16	11.4	0.57	3.43	0.08	< 0.1	0.029	0.37	6.6	3.5	0.13	99
A705329	0.12	2.19	7.9	260	0.34	0.46	0.95	0.62	14.5	4.2	44	0.87	11.0	1.25	4.72	0.17	0.4	0.040	0.40	7.4	4.5	0.44	233
A705331	0.32	1.15	4.3	200	0.19	0.38	1.01	0.86	11.0	3.6	23	0.72	23.3	0.60	2.42	0.11	0.3	0.026	0.26	5.7	2.7	0.23	166
A705332	0.20	1.44	5.6	260	0.32	0.41	0.84	1.01	12.7	1.8	16	0.78	8.7	0.48	2.85	0.13	< 0.1	0.033	0.42	6.5	3.5	0.12	128
A705334	0.21	1.26	3.1	280	0.32	0.35	1.34	1.25	10.3	3.6	29	1.05	12.4	0.59	2.38	0.09	< 0.1	0.030	0.38	5.3	3.5	0.30	1320
A705336	0.09	1.23	4.8	220	0.33	0.31	0.67	0.45	12.1	1.4	12	0.73	8.6	0.41	2.39	0.09	< 0.1	0.025	0.40	6.2	2.7	0.10	183
A705338	0.19	1.85	4.9	260	0.36	0.41	1.01	0.92	16.8	2.5	30	1.07	9.9	0.74	3.72	0.17	< 0.1	0.031	0.51	8.6	4.3	0.22	377

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A705324	1.15	0.35	0.7	11.6	710	51.8	13.1	< 0.002	0.16	0.78	2.5	1	0.8	71.3	< 0.05	< 0.05	1.8	0.130	0.16	0.6	24	0.4	4.1
A705326	2.02	0.57	1.3	12.7	570	53.3	18.8	0.003	0.13	0.52	6.1	1	1.6	88.1	< 0.05	< 0.05	2.5	0.236	0.25	0.8	82	0.1	6.8
A705327	1.23	0.28	1.1	9.1	670	69.9	14.1	< 0.002	0.18	1.13	2.5	1	1.7	59.9	< 0.05	< 0.05	2.0	0.114	0.24	0.6	21	0.4	4.0
A705329	1.13	0.46	2.6	16.3	680	71.2	14.1	< 0.002	0.15	1.12	4.4	1	2.3	63.1	0.06	0.05	2.1	0.213	0.27	0.7	37	0.6	5.0
A705331	1.10	0.22	1.7	13.7	820	55.1	10.5	< 0.002	0.19	0.87	3.0	1	1.7	43.0	0.09	< 0.05	1.4	0.098	0.19	0.5	20	0.3	3.7
A705332	1.33	0.33	0.7	8.3	840	73.8	15.6	< 0.002	0.17	1.03	2.2	1	1.0	64.3	< 0.05	< 0.05	1.9	0.101	0.35	0.7	17	0.3	4.1
A705334	1.08	0.26	0.9	12.1	1080	69.8	16.6	< 0.002	0.18	0.81	2.6	1	1.7	76.2	< 0.05	< 0.05	1.4	0.082	0.30	0.5	21	0.3	3.6
A705336	1.01	0.32	1.0	6.6	780	61.2	15.0	< 0.002	0.14	0.63	2.1	1	0.6	65.5	< 0.05	< 0.05	2.2	0.084	0.15	0.6	15	0.2	3.3
A705338	1.49	0.40	1.2	11.0	930	76.3	21.4	< 0.002	0.16	0.85	2.7	1	1.3	78.8	< 0.05	< 0.05	2.1	0.164	0.21	0.7	25	0.3	5.2

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A705324	0.5	47	6.1
A705326	0.8	48	32.3
A705327	0.4	42	6.7
A705329	0.6	98	28.5
A705331	0.4	79	9.8
A705332	0.4	75	3.0
A705334	0.4	265	2.9
A705336	0.4	116	2.8
A705338	0.6	124	5.4



Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	
Oreas 72a (4 Acid Digest) Meas			2.0							155	149		305	9.09										
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63										
Oreas 72a (4 Acid Digest) Meas			5.7							154			303											
Oreas 72a (4 Acid Digest) Cert			14.7							157			316											
OREAS 101b (4 Acid) Meas									> 500	45.0			411	10.5					2.03	770		1.27	863	
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927	
OREAS 101b (4 Acid) Meas									> 500	44.3			388								788			
OREAS 101b (4 Acid) Cert									1325	45			412								754			
OREAS 98 (4 Acid) Meas	45.1					89.1				114			> 10000											
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0											
DNC-1a Meas										58.6			96.8		13.1						3.9	5.0		
DNC-1a Cert										57			100		15						3.6	5.2		
OREAS 13b (4-Acid) Meas	0.97		53.7							77.9			2310											
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.0 000											
OREAS 904 (4 ACID) Meas	0.65	6.33	99.5	200	9.10	4.03	0.05		88.0	84.0	62	3.78	5860	6.87	14.9	0.22	5.0	0.204	2.65	45.0	18.1	0.60	421	
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410	
SBC-1 Meas			25.2		3.13	0.69		0.37	114	23.3		8.34	30.9		23.7		3.5			53.2	175			
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7			52.5	163			
OREAS 45d (4-Acid) Meas		7.81	8.7	180	0.78	0.34	0.20		39.7	31.5	524	3.80	383	14.2	21.0		2.4	0.098	0.43	17.9	22.9	0.25	512	
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000	
OREAS 45d (4-Acid) Meas			9.1		0.79	0.37			39.1	30.4		4.02	359		20.4		1.7	0.089		18.3	21.6			
OREAS 45d (4-Acid) Cert			13.8		0.79	0.31			37.20	29.50		3.910	371		21.20		3.830	0.096		16.9	21.5			
OREAS 96 (4 Acid) Meas	12.0					27.7				49.6			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 96 (4 Acid) Meas	11.6					26.7				49.7			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 923 (4 Acid) Meas	1.70	7.31	5.3	430	2.54	20.3	0.51	0.34	87.8	23.5	80	6.74	4150	6.42	17.6		3.8	0.501	2.18	45.1	33.2	1.75	970	
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950	
OREAS 522 (4 Acid) Meas	1.21		429		0.69	8.62			57.2	518		0.63	7900		12.8		3.1	0.191		50.3	15.3			
OREAS 522 (4 Acid) Cert	1.31		490		0.700	8.72			148	550		0.640	9160		16.0		2.96	0.230		171	16.2			
Oreas 77b (4 Acid Digest) Meas	1.53		1510		0.43	3.41		0.91	28.2	1430		2.15	2860		3.80		1.2	0.104		15.6	15.7			

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
Oreas 77b (4 Acid Digest) Meas	1.50		1390		0.40	3.40		1.09	26.6	1490		2.17	2900		3.66		1.1	0.089		14.8	15.3		
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
Method Blank	< 0.01		< 0.2		< 0.05	0.11		< 0.02	0.01	< 0.1		< 0.05	0.3		0.08	< 0.05	< 0.1	< 0.005		< 0.5	0.6		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.5		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.7		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	< 5
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 72a (4 Acid Digest) Meas				6650					1.64														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas				6690																			
Oreas 72a (4 Acid Digest) Cert				6930.000																			
OREAS 101b (4 Acid) Meas	16.2			8.7	970	22.0											38.7	0.286		372	76		133
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas	19.4			8.2		21.6											37.4			371			136
OREAS 101b (4 Acid) Cert	20.1			8.2		23											36.4			387			133
OREAS 98 (4 Acid) Meas						308				8.76		152	187										
OREAS 98 (4 Acid) Cert						345				20.1		158	206										
DNC-1a Meas			1.3	267		5.7	3.6			0.69	34.7			145									17.2
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b (4-Acid) Meas	9.12			2280																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas	2.13	0.03		41.3	880	10.2	145		0.06	1.11	12.7	3	2.9	26.1	0.78		15.8		0.52	9.0	67	2.5	34.0
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
SBC-1 Meas	2.24		13.4	85.2		34.1	144			0.94	22.2		3.4	182	0.98		16.2		0.88	5.8		1.6	33.2
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.48	0.09	0.8	238	350	20.9	42.2		0.04	< 0.05	58.6		0.8	32.2	< 0.05		15.6	0.183	0.26	2.8	113	0.1	12.1
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.37		0.2	238		20.8	41.3			< 0.05	56.2		0.6	30.2	< 0.05		16.0		0.27	2.9		0.1	11.5
OREAS 45d (4-Acid) Cert	2.500		14.50	231.0		21.8	42.1			0.82	49.30		2.78	31.30	1.02		14.5		0.27	2.63		1.62	9.53
OREAS 96 (4 Acid) Meas						97.4				3.65		41	64.1										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						94.4				3.30		41	61.8										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	0.96	0.31	12.8	39.6	630	82.5	138		0.68	1.20	14.1	6	13.0	40.7	0.95		17.1	0.408	0.85	3.1	95	4.3	26.9
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 522 (4 Acid) Meas	189		4.7	65.3		11.6	72.7	0.097		3.53	11.0	2	8.2	51.1	0.39	0.63	3.2		0.29	43.6		125	17.0
OREAS 522 (4 Acid) Cert	206		5.66	70.0		12.5	82.0	0.0980		7.93	10.9	2.74	9.32	199	0.440	1.14	7.53		0.290	42.2		135	18.5
Oreas 77b (4 Acid Digest) Meas			2.4	> 10000		58.0	17.2	0.023		3.80	3.4		1.4	29.4	0.25	1.10	6.7		1.37	1.8		2.9	5.9

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
Oreas 77b (4 Acid Digest) Meas			2.5	> 10000		57.7	16.2	0.022		5.17	4.0		1.4	28.3	0.24	1.07	6.9		1.42	1.9		2.7	6.2
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
Method Blank	0.06		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.09	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.6		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			> 10000				< 0.01										< 0.005			< 1	
Method Blank		< 0.01			< 10				< 0.01										< 0.005			< 1	
Method Blank		< 0.01			> 10000				< 0.01										< 0.005			< 1	
Method Blank		< 0.01			< 10				< 0.01										< 0.005			< 1	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.8		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas	13.3		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 98 (4 Acid) Meas			
OREAS 98 (4 Acid) Cert			
DNC-1a Meas	2.1		37.9
DNC-1a Cert	2.0		38.0
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas	3.2	28	183
OREAS 904 (4 ACID) Cert	3.14	26.3	171
SBC-1 Meas	3.6		124
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.6	45	89.4
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.6		58.5
OREAS 45d (4-Acid) Cert	1.33		141
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.7	352	129
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 522 (4 Acid) Meas	2.0		106
OREAS 522 (4 Acid) Cert	1.97		112
Oreas 77b (4 Acid Digest) Meas			34.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 77b (4 Acid Digest) Cert			37.9
Oreas 77b (4 Acid Digest) Meas			36.1
Oreas 77b (4 Acid Digest) Cert			37.9
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	



Report No.: A19-15070-Au
Report Date: 22-Nov-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

7 Soil samples were submitted for analysis.

Table with 2 columns: The following analytical package(s) were requested, Testing Date. Row 1: 1A2-50-Timmins, GOP AA-Au (Au - Fire Assay AA), 2019-11-19 12:05:21

REPORT A19-15070-Au

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A705325	< 5
A705328	6
A705330	< 5
A705333	< 5
A705335	< 5
A705337	< 5
A705339	< 5



Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 254 Fire Assay Meas	2540
OREAS 254 Fire Assay Cert	2550
OREAS 217 (Fire Assay) Meas	331
OREAS 217 (Fire Assay) Cert	338
Method Blank	< 5
Method Blank	< 5



Report No.: A19-15070-TD
Report Date: 22-Nov-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

7 Soil samples were submitted for analysis.

Table with 2 columns: Analytical package(s) requested and Testing Date. Row 1: UT-6M-RedPine, QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS), 2019-11-19 11:34:44

REPORT A19-15070-TD

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Handwritten signature of Emmanuel Esemé

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A19-15070

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A705325	0.04	5.81	3.1	400	0.80	0.22	0.91	0.12	26.4	4.2	86	1.02	24.0	5.92	19.2	0.38	3.3	0.047	1.18	13.5	14.1	0.43	231
A705328	0.09	5.68	1.6	440	0.87	0.17	1.32	0.21	24.4	6.0	56	1.32	9.8	3.03	12.9	0.32	3.4	0.034	1.35	12.2	14.6	0.53	275
A705330	0.04	6.41	1.4	360	0.90	0.19	1.85	0.19	25.9	13.7	96	1.27	14.4	4.42	14.9	0.30	2.5	0.040	1.10	12.5	16.0	1.41	576
A705333	0.06	6.74	1.8	730	1.28	0.16	1.67	0.12	30.8	7.5	29	0.74	13.3	3.36	18.0	0.16	2.7	0.034	1.66	11.2	20.4	0.62	325
A705335	0.08	5.91	3.2	490	1.14	0.17	1.49	0.23	29.2	8.7	59	1.74	11.2	4.26	14.0	0.20	0.1	0.044	1.53	13.2	19.3	0.80	385
A705337	0.04	6.45	2.4	630	1.31	0.17	1.38	0.21	32.1	6.1	39	1.51	5.7	3.18	16.1	0.13	< 0.1	0.031	1.69	14.2	19.0	0.57	299
A705339	0.18	5.78	2.2	460	0.81	0.21	1.34	0.25	46.7	6.9	69	2.29	13.9	4.54	17.0	0.15	0.3	0.048	1.37	22.4	15.5	1.57	626

Results

Activation Laboratories Ltd.

Report: A19-15070

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A705325	0.98	1.23	1.2	13.1	280	22.0	33.8	< 0.002	0.05	0.11	6.8	1	1.1	196	0.05	< 0.05	5.2	0.298	0.28	1.3	95	0.2	6.6
A705328	0.39	1.77	0.4	15.8	210	14.2	37.0	< 0.002	0.03	0.06	8.0	< 1	0.8	266	< 0.05	< 0.05	3.8	0.206	0.29	0.9	52	< 0.1	6.4
A705330	0.24	1.61	0.1	39.3	310	13.1	34.2	< 0.002	0.03	0.07	16.0	< 1	0.7	211	< 0.05	< 0.05	3.6	0.208	0.24	0.9	72	< 0.1	10.0
A705333	0.21	2.46	0.2	14.3	190	17.0	40.3	< 0.002	0.02	< 0.05	6.2	< 1	0.3	513	< 0.05	< 0.05	3.0	0.189	0.26	0.8	58	< 0.1	5.9
A705335	0.69	1.81	1.0	22.1	370	14.8	47.5	< 0.002	0.03	< 0.05	9.3	< 1	0.5	278	< 0.05	< 0.05	4.0	0.291	0.30	1.0	83	< 0.1	8.1
A705337	0.46	2.15	0.6	14.1	360	15.7	49.4	< 0.002	0.02	< 0.05	7.0	< 1	0.6	387	< 0.05	< 0.05	4.2	0.271	0.31	1.1	67	< 0.1	7.8
A705339	0.11	1.59	< 0.1	14.5	320	19.0	51.1	< 0.002	0.07	< 0.05	12.1	< 1	0.4	211	< 0.05	< 0.05	3.7	0.241	0.33	1.0	72	< 0.1	9.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A705325	0.8	28	113
A705328	0.7	29	122
A705330	1.1	63	87.9
A705333	0.6	48	99.2
A705335	0.9	91	12.5
A705337	0.9	65	13.6
A705339	1.2	195	28.9

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	
Oreas 72a (4 Acid Digest) Meas			2.0							155	149		305	9.09										
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63										
Oreas 72a (4 Acid Digest) Meas			5.7							154			303											
Oreas 72a (4 Acid Digest) Cert			14.7							157			316											
OREAS 101b (4 Acid) Meas									> 500	45.0			411	10.5					2.03	770		1.27	863	
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927	
OREAS 101b (4 Acid) Meas									> 500	44.3			388								788			
OREAS 101b (4 Acid) Cert									1325	45			412								754			
OREAS 98 (4 Acid) Meas	45.1					89.1				114			> 10000											
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0											
DNC-1a Meas										58.6			96.8		13.1						3.9	5.0		
DNC-1a Cert										57			100		15						3.6	5.2		
OREAS 13b (4-Acid) Meas	0.97		53.7							77.9			2310											
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.0 000											
OREAS 904 (4 ACID) Meas	0.65	6.33	99.5	200	9.10	4.03	0.05		88.0	84.0	62	3.78	5860	6.87	14.9	0.22	5.0	0.204	2.65	45.0	18.1	0.60	421	
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410	
SBC-1 Meas			25.2		3.13	0.69		0.37	114	23.3		8.34	30.9		23.7		3.5			53.2	175			
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7			52.5	163			
OREAS 45d (4-Acid) Meas		7.81	8.7	180	0.78	0.34	0.20		39.7	31.5	524	3.80	383	14.2	21.0		2.4	0.098	0.43	17.9	22.9	0.25	512	
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000	
OREAS 45d (4-Acid) Meas			9.1		0.79	0.37			39.1	30.4		4.02	359		20.4		1.7	0.089		18.3	21.6			
OREAS 45d (4-Acid) Cert			13.8		0.79	0.31			37.20	29.50		3.910	371		21.20		3.830	0.096		16.9	21.5			
OREAS 96 (4 Acid) Meas	12.0					27.7				49.6			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 96 (4 Acid) Meas	11.6					26.7				49.7			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 923 (4 Acid) Meas	1.70	7.31	5.3	430	2.54	20.3	0.51	0.34	87.8	23.5	80	6.74	4150	6.42	17.6		3.8	0.501	2.18	45.1	33.2	1.75	970	
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950	
OREAS 522 (4 Acid) Meas	1.21		429		0.69	8.62			57.2	518		0.63	7900		12.8		3.1	0.191		50.3	15.3			
OREAS 522 (4 Acid) Cert	1.31		490		0.700	8.72			148	550		0.640	9160		16.0		2.96	0.230		171	16.2			
Oreas 77b (4 Acid Digest) Meas	1.53		1510		0.43	3.41		0.91	28.2	1430		2.15	2860		3.80		1.2	0.104		15.6	15.7			

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
Oreas 77b (4 Acid Digest) Meas	1.50		1390		0.40	3.40		1.09	26.6	1490		2.17	2900		3.66		1.1	0.089		14.8	15.3		
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
A705337 Orig	0.04	6.41	2.7	620	1.30	0.17	1.39	0.21	32.6	6.4	37	1.55	5.6	3.21	16.4	0.17	0.2	0.035	1.67	14.2	19.2	0.58	299
A705337 Dup	0.04	6.49	2.1	640	1.32	0.17	1.37	0.22	31.7	5.8	41	1.47	5.8	3.16	15.7	0.10	< 0.1	0.028	1.71	14.2	18.8	0.57	299
Method Blank	< 0.01		< 0.2		< 0.05	0.11		< 0.02	0.01	< 0.1		< 0.05	0.3		0.08	< 0.05	< 0.1	< 0.005		< 0.5	0.6		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.5		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.7		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	< 5
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 72a (4 Acid Digest) Meas				6650					1.64														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas				6690																			
Oreas 72a (4 Acid Digest) Cert				6930.000																			
OREAS 101b (4 Acid) Meas	16.2			8.7	970	22.0											38.7	0.286		372	76		133
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas	19.4			8.2		21.6											37.4			371			136
OREAS 101b (4 Acid) Cert	20.1			8.2		23											36.4			387			133
OREAS 98 (4 Acid) Meas						308				8.76		152	187										
OREAS 98 (4 Acid) Cert						345				20.1		158	206										
DNC-1a Meas			1.3	267		5.7	3.6			0.69	34.7			145									17.2
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b (4-Acid) Meas	9.12			2280																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas	2.13	0.03		41.3	880	10.2	145		0.06	1.11	12.7	3	2.9	26.1	0.78		15.8		0.52	9.0	67	2.5	34.0
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
SBC-1 Meas	2.24		13.4	85.2		34.1	144			0.94	22.2		3.4	182	0.98		16.2		0.88	5.8		1.6	33.2
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.48	0.09	0.8	238	350	20.9	42.2		0.04	< 0.05	58.6		0.8	32.2	< 0.05		15.6	0.183	0.26	2.8	113	0.1	12.1
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.37		0.2	238		20.8	41.3			< 0.05	56.2		0.6	30.2	< 0.05		16.0		0.27	2.9		0.1	11.5
OREAS 45d (4-Acid) Cert	2.500		14.50	231.0		21.8	42.1			0.82	49.30		2.78	31.30	1.02		14.5		0.27	2.63		1.62	9.53
OREAS 96 (4 Acid) Meas						97.4				3.65		41	64.1										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						94.4				3.30		41	61.8										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	0.96	0.31	12.8	39.6	630	82.5	138		0.68	1.20	14.1	6	13.0	40.7	0.95		17.1	0.408	0.85	3.1	95	4.3	26.9
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 522 (4 Acid) Meas	189		4.7	65.3		11.6	72.7	0.097		3.53	11.0	2	8.2	51.1	0.39	0.63	3.2		0.29	43.6		125	17.0
OREAS 522 (4 Acid) Cert	206		5.66	70.0		12.5	82.0	0.0980		7.93	10.9	2.74	9.32	199	0.440	1.14	7.53		0.290	42.2		135	18.5
Oreas 77b (4 Acid Digest) Meas			2.4	> 10000		58.0	17.2	0.023		3.80	3.4		1.4	29.4	0.25	1.10	6.7		1.37	1.8		2.9	5.9



Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
Oreas 77b (4 Acid Digest) Meas			2.5	> 10000		57.7	16.2	0.022		5.17	4.0		1.4	28.3	0.24	1.07	6.9		1.42	1.9		2.7	6.2
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
A705337 Orig	0.29	2.14	0.4	14.0	360	15.9	49.3	< 0.002	0.02	< 0.05	7.0	< 1	0.5	392	< 0.05	< 0.05	4.1	0.255	0.32	1.1	65	< 0.1	7.8
A705337 Dup	0.62	2.16	0.9	14.1	350	15.4	49.5	< 0.002	0.02	< 0.05	6.9	< 1	0.6	383	< 0.05	< 0.05	4.2	0.288	0.31	1.1	70	0.1	7.7
Method Blank	0.06		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.09	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.6		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			> 10000				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			> 10000				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.8		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas	13.3		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 98 (4 Acid) Meas			
OREAS 98 (4 Acid) Cert			
DNC-1a Meas	2.1		37.9
DNC-1a Cert	2.0		38.0
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas	3.2	28	183
OREAS 904 (4 ACID) Cert	3.14	26.3	171
SBC-1 Meas	3.6		124
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.6	45	89.4
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.6		58.5
OREAS 45d (4-Acid) Cert	1.33		141
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.7	352	129
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 522 (4 Acid) Meas	2.0		106
OREAS 522 (4 Acid) Cert	1.97		112
Oreas 77b (4 Acid Digest) Meas			34.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 77b (4 Acid Digest) Cert			37.9
Oreas 77b (4 Acid Digest) Meas			36.1
Oreas 77b (4 Acid Digest) Cert			37.9
A705337 Orig	0.9	65	16.6
A705337 Dup	0.9	65	10.5
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	



Report No.: A19-15072-1C
Report Date: 04-Dec-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

23 Rock samples were submitted for analysis.

Table with 2 columns: Analytical package(s) requested, Testing Date. Row 1: 1C-Exp 50g, GOP PGE ICP-MS (Fire Assay-ICPMS), 2019-11-21 14:25:56

REPORT A19-15072-1C

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Notes:

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY:

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Pd	Pt	Au
Unit Symbol	ppb	ppb	ppb
Lower Limit	1	1	2
Method Code	FA-MS	FA-MS	FA-MS
A583351	< 1	< 1	2
A583352	< 1	< 1	3
A583353	< 1	< 1	< 2
A583354	1	< 1	3
A583355	6	7	8
A583356	< 1	< 1	8
A583357	< 1	< 1	9
A583358	< 1	< 1	< 2
A583359	< 1	< 1	6

Analyte Symbol	Pd	Pt	Au
Unit Symbol	ppb	ppb	ppb
Lower Limit	1	1	2
Method Code	FA-MS	FA-MS	FA-MS
PK2 Meas	5720	4710	4610
PK2 Cert	5918	4749	4785
A583356 Orig	< 1	< 1	8
A583356 Dup	< 1	< 1	8
Method Blank	< 1	< 1	< 2
Method Blank	< 1	< 1	< 2



Report No.: A19-15072-Au  
 Report Date: 04-Dec-19  
 Date Submitted: 05-Nov-19  
 Your Reference: RAV

Canadian Orebodies Inc.  
 141 Adelaide Street West, Suite 301  
 Toronto ON M5H 3L5  
 Canada

ATTN: Fraser Laschinger (inv)

## CERTIFICATE OF ANALYSIS

23 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	GOP AA-Au (Au - Fire Assay AA)	2019-11-19 12:05:21

REPORT **A19-15072-Au**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Esemé, Ph.D.  
 Quality Control Coordinator

**ACTIVATION LABORATORIES LTD.**  
 1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
 TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
 E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A705076	30
A705077	6
A705078	< 5
A705079	< 5
A705080	< 5
A705081	< 5
A705082	9
A705083	< 5
A705084	< 5
A705085	< 5
A705086	< 5
A583351	< 5
A583352	< 5
A583353	8
A583354	< 5
A583355	8
A583356	8
A583357	10
A583358	< 5
A583359	6
A583360	< 5
A583361	13
A583362	< 5



Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 254 Fire Assay Meas	2470
OREAS 254 Fire Assay Cert	2550
OREAS 217 (Fire Assay) Meas	339
OREAS 217 (Fire Assay) Cert	338
A705085 Orig	< 5
A705085 Dup	< 5
A583359 Orig	6
A583359 Dup	6
Method Blank	< 5
Method Blank	< 5



Report No.: A19-15072-TD
Report Date: 04-Dec-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

23 Rock samples were submitted for analysis.

Table with 2 columns: The following analytical package(s) were requested: and Testing Date:
Row 1: UT-6M-RedPine | QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS) | 2019-11-18 12:41:06

REPORT A19-15072-TD

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-15072

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A705076	1.27	3.43	< 0.2	330	0.92	0.63	4.55	5.90	28.6	14.3	34	1.66	276	3.30	10.5	0.17	1.2	1.49	1.85	13.0	6.1	0.14	706
A705077	0.29	5.97	< 0.2	540	0.60	0.18	1.09	1.49	31.2	9.9	17	3.16	68.3	13.0	13.3	1.31	3.7	0.621	0.44	13.8	15.6	1.10	1270
A705078	0.16	7.65	< 0.2	100	0.67	0.03	4.37	0.14	37.4	27.6	72	0.39	44.0	5.73	19.4	0.18	1.6	0.065	0.35	15.7	6.3	3.73	830
A705079	0.26	6.84	1.0	290	0.80	0.16	1.78	0.19	46.2	6.2	134	1.70	44.4	7.76	17.3	0.18	3.1	0.092	0.57	22.0	19.5	3.99	871
A705080	0.48	7.52	< 0.2	140	0.71	0.16	4.65	1.97	29.1	22.6	76	0.78	55.8	6.36	19.1	0.29	2.0	0.096	0.43	11.2	13.2	2.82	1050
A705081	0.23	7.89	< 0.2	100	0.83	0.09	3.64	0.30	33.3	30.1	82	0.44	41.1	6.84	20.7	0.38	2.5	0.063	0.27	13.9	12.2	3.10	1640
A705082	0.26	5.86	1.3	120	0.49	0.28	1.82	2.49	42.6	16.5	142	0.98	112	9.90	14.9	0.16	2.8	0.573	0.88	20.2	24.6	3.38	815
A705083	0.40	6.56	< 0.2	170	0.85	0.14	2.68	0.26	46.8	5.3	109	1.33	24.0	6.82	15.8	0.12	2.9	0.057	0.63	24.1	10.1	3.67	870
A705084	0.02	1.62	< 0.2	20	< 0.05	0.02	3.87	0.04	1.55	8.9	45	0.21	28.3	3.07	4.56	0.16	0.1	0.008	0.11	0.7	3.1	1.37	598
A705085	0.40	6.73	< 0.2	130	0.73	0.12	2.79	2.95	51.9	28.4	117	1.34	73.6	7.90	16.5	0.28	3.4	0.129	0.53	23.2	15.0	4.08	917
A705086	0.14	8.73	< 0.2	880	2.02	0.07	2.88	0.20	60.8	6.2	15	2.61	38.0	4.55	14.8	0.11	3.3	0.037	2.32	31.9	13.9	1.16	776
A583351	0.02	0.17	1.0	< 10	0.06	0.01	0.01	0.05	0.48	104	416	< 0.05	2.3	5.01	1.01	0.30	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	24.5	470
A583352	0.02	0.12	1.8	< 10	0.10	< 0.01	< 0.01	< 0.02	0.24	98.2	592	< 0.05	< 0.2	4.59	0.91	0.41	< 0.1	0.005	< 0.01	< 0.5	< 0.2	24.2	449
A583353	0.02	0.16	4.1	< 10	0.05	0.01	< 0.01	0.03	0.24	113	743	< 0.05	< 0.2	5.52	1.03	0.45	< 0.1	< 0.005	< 0.01	< 0.5	< 0.2	24.2	386
A583354	0.06	3.10	1.0	10	0.20	0.02	0.53	0.04	14.4	13.0	44	0.19	85.4	3.12	8.01	0.23	1.3	< 0.005	0.06	6.5	2.9	1.11	599
A583355	0.17	5.46	4.3	30	0.55	0.12	0.85	0.03	11.4	93.3	91	0.44	392	12.3	17.8	0.50	1.9	0.028	0.21	5.1	9.1	2.84	1360
A583356	0.31	3.94	3.8	< 10	0.09	0.02	0.04	0.04	9.36	42.2	18	0.19	353	9.19	13.3	0.51	2.4	0.159	0.05	5.1	10.3	4.38	806
A583357	0.08	7.68	< 0.2	100	1.86	1.35	2.37	0.04	31.1	7.1	33	1.41	7.9	6.09	18.9	0.31	1.4	0.022	0.89	13.4	11.5	2.48	731
A583358	0.16	6.55	1.7	180	0.78	0.03	0.69	0.20	45.3	7.0	14	0.53	46.4	2.23	14.4	0.20	5.0	0.020	1.00	18.1	4.9	0.34	424
A583359	0.22	7.21	6.4	60	0.82	0.09	1.82	1.33	32.7	22.3	52	1.19	256	4.84	18.6	0.24	3.7	0.216	1.26	13.9	6.3	0.38	270
A583360	0.03	3.75	< 0.2	< 10	0.43	0.04	12.0	0.21	13.7	11.6	47	0.11	34.0	3.69	16.2	0.50	0.2	0.061	0.03	7.5	2.1	0.41	894
A583361	0.42	6.58	1.2	100	0.50	0.76	1.00	4.33	33.2	23.4	26	0.60	255	4.34	16.0	0.17	0.8	0.966	0.22	14.5	4.3	0.95	558
A583362	0.06	2.51	12.0	350	0.51	0.02	0.59	0.19	16.3	4.9	18	0.47	12.1	2.25	5.71	0.18	< 0.1	0.012	0.77	7.9	1.0	0.23	487

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A705076	1.74	0.25	2.4	22.1	260	39.9	63.9	0.004	0.34	0.06	8.5	4	28.5	23.7	0.13	0.77	1.1	0.195	1.70	0.4	52	0.3	11.4
A705077	1.10	0.75	3.6	11.0	360	16.1	21.0	< 0.002	0.05	< 0.05	11.9	1	7.8	10.6	0.17	0.14	2.5	0.322	0.75	0.6	61	0.2	15.1
A705078	0.10	2.07	< 0.1	52.3	780	4.1	13.9	< 0.002	0.12	< 0.05	22.7	< 1	0.2	350	< 0.05	< 0.05	1.6	0.123	0.18	0.4	77	< 0.1	19.7
A705079	0.78	1.60	1.3	10.6	1090	15.3	13.7	< 0.002	0.27	< 0.05	16.0	< 1	1.4	152	< 0.05	< 0.05	1.9	0.377	0.21	0.8	115	< 0.1	9.1
A705080	0.11	1.82	0.3	46.6	740	129	16.3	< 0.002	0.33	< 0.05	22.0	< 1	1.6	303	< 0.05	< 0.05	0.9	0.262	0.25	0.3	91	< 0.1	18.1
A705081	0.13	2.72	0.8	52.4	740	20.0	8.2	< 0.002	0.38	< 0.05	22.7	< 1	1.3	320	< 0.05	< 0.05	0.9	0.373	0.15	0.2	105	< 0.1	18.8
A705082	0.81	2.05	1.8	29.4	1100	7.1	24.8	< 0.002	1.26	0.11	15.8	1	2.6	134	0.11	0.12	1.5	0.427	0.45	0.4	124	0.1	11.2
A705083	0.86	1.89	2.3	9.8	1080	16.5	15.3	< 0.002	0.42	0.07	16.7	< 1	1.4	210	0.12	< 0.05	2.0	0.272	0.23	0.4	110	0.3	11.0
A705084	1.02	0.20	0.4	15.5	40	0.6	4.5	< 0.002	0.03	0.06	6.5	< 1	0.2	30.4	< 0.05	< 0.05	< 0.2	0.071	0.04	< 0.1	89	1.8	3.1
A705085	1.08	1.77	2.7	80.9	1250	13.3	14.9	< 0.002	1.46	0.08	16.9	< 1	1.1	214	0.15	0.07	1.8	0.359	0.21	0.4	123	0.2	14.2
A705086	0.29	3.05	4.1	5.5	1460	12.5	54.9	< 0.002	0.20	0.05	7.3	< 1	1.0	1060	0.23	0.06	4.2	0.262	0.35	1.0	70	0.3	11.5
A583351	0.18	< 0.01	< 0.1	2480	30	0.6	0.3	< 0.002	0.02	0.13	4.3	< 1	0.2	2.7	< 0.05	< 0.05	< 0.2	0.012	< 0.02	< 0.1	12	0.1	0.4
A583352	0.12	< 0.01	0.1	2570	20	0.5	0.1	< 0.002	0.03	0.13	4.3	< 1	< 0.2	1.0	< 0.05	0.05	< 0.2	0.009	< 0.02	< 0.1	12	< 0.1	0.3
A583353	0.18	< 0.01	0.1	2500	20	0.6	0.1	< 0.002	0.02	0.25	4.1	< 1	0.2	0.6	< 0.05	< 0.05	< 0.2	0.012	< 0.02	< 0.1	13	0.4	0.4
A583354	1.15	1.47	2.0	33.6	230	1.0	1.7	0.002	0.73	< 0.05	5.1	1	0.4	25.1	0.16	0.10	1.1	0.138	< 0.02	0.3	43	0.3	6.1
A583355	1.63	1.74	1.2	25.5	410	3.3	4.5	0.005	4.50	0.10	27.5	4	0.7	58.6	< 0.05	0.17	0.8	0.404	0.02	0.2	193	0.1	16.9
A583356	5.02	0.13	3.4	26.1	200	2.7	1.4	0.007	1.17	0.08	9.7	2	0.4	6.6	0.23	0.10	2.0	0.169	< 0.02	0.4	68	0.3	7.2
A583357	0.49	4.63	0.7	9.4	1720	17.4	18.4	0.002	1.32	0.14	16.9	1	1.1	707	< 0.05	0.35	3.7	0.351	0.13	1.0	160	0.3	13.4
A583358	1.62	3.96	7.5	12.7	390	8.2	17.6	0.002	0.94	0.10	5.9	1	0.7	85.8	0.61	0.15	3.2	0.209	0.11	0.9	27	0.5	11.1
A583359	6.35	3.29	4.7	28.0	570	21.4	21.6	0.006	1.67	0.17	9.4	4	1.7	85.5	0.37	0.71	3.0	0.261	0.15	0.9	60	1.2	7.7
A583360	0.30	0.03	< 0.1	30.1	230	4.4	1.7	0.004	0.11	< 0.05	11.8	< 1	< 0.2	557	< 0.05	< 0.05	0.2	0.109	< 0.02	< 0.1	59	< 0.1	13.2
A583361	6.33	3.86	3.1	22.5	390	6.0	17.2	0.003	0.55	0.19	11.1	2	5.9	97.3	0.08	0.79	2.6	0.283	0.05	0.7	59	0.2	18.6
A583362	0.82	0.26	0.9	4.4	280	3.2	15.9	< 0.002	0.28	0.16	2.3	< 1	0.4	55.2	< 0.05	< 0.05	1.1	0.074	0.05	0.3	24	0.2	4.3

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A705076	1.2	2160	56.8
A705077	1.8	563	150
A705078	2.1	109	65.2
A705079	1.1	224	136
A705080	2.0	1550	81.3
A705081	2.2	349	107
A705082	1.3	813	128
A705083	1.2	189	131
A705084	0.3	31	5.0
A705085	1.5	1010	148
A705086	1.4	133	129
A583351	< 0.1	34	2.5
A583352	< 0.1	38	2.2
A583353	< 0.1	29	2.2
A583354	0.7	99	54.3
A583355	2.2	166	70.1
A583356	1.4	250	99.6
A583357	1.5	130	108
A583358	1.3	136	208
A583359	1.0	743	145
A583360	1.2	23	5.7
A583361	2.4	1800	55.7
A583362	0.5	52	3.9

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	
SDC-1 Meas		7.98	< 0.2	660	2.81		1.05		86.8	16.7	47	4.37	30.3	3.93	19.5		1.0		2.03	41.7	35.0	0.88	905	
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00	
Oreas 72a (4 Acid Digest) Meas											153			9.62										
Oreas 72a (4 Acid Digest) Cert											228			9.63										
Oreas 72a (4 Acid Digest) Meas											213			9.12										
Oreas 72a (4 Acid Digest) Cert											228			9.63										
OREAS 101b (4 Acid) Meas									> 500	42.5			434	10.9					1.99	723		1.33	912	
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927	
OREAS 101b (4 Acid) Meas														9.68					2.53			1.19	889	
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927	
OREAS 98 (4 Acid) Meas	44.2					85.6				111			> 10000											
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800.0											
OREAS 98 (4 Acid) Meas																								
OREAS 98 (4 Acid) Cert																								
DNC-1a Meas				90			7.62			53.7	125		105	7.35	13.3					3.6	4.4			
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2			
DNC-1a Meas										52.6				99.2	13.1					3.8	4.5			
DNC-1a Cert										57				100	15					3.6	5.2			
OREAS 13b (4-Acid) Meas	0.92		44.5							69.7	8620		2210											
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000											
OREAS 904 (4 ACID) Meas	0.65	6.61	105	220	7.94	4.05	0.05		84.9	80.4	63	3.84	6560	6.90	15.9	0.23	0.8	0.177	3.13	42.7	15.4	0.60	464	
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410	
OREAS 904 (4 ACID) Meas		6.30		200			0.05				62			7.02					3.77			0.61	458	
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410	
SBC-1 Meas			27.0	300	3.08	0.67		0.33	95.7	20.0	97	8.51	29.5		23.9		3.3			47.4	161			
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163			
SBC-1 Meas				200							86													
SBC-1 Cert				788.0							109													
OREAS 45d (4-Acid) Meas		8.26	6.4	190	0.79	0.32	0.21		36.2	27.5	521	3.96	380	14.7	20.4		1.7	0.089	0.44	17.2	20.5	0.26	534	
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000	
OREAS 45d (4-Acid) Meas		6.65		170			0.19				538			14.3					0.41			0.24	515	
OREAS 45d (4-Acid) Cert		8.150		183.0			0.185				549			14.5					0.412			0.245	490.000	
OREAS 96 (4 Acid) Meas	10.9					26.7				45.6			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Acid) Cert																							
OREAS 96 (4 Acid) Meas	12.2					28.7				49.5			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 923 (4 Acid) Meas		7.10		150			0.53				76			6.91					2.82			1.88	995
OREAS 923 (4 Acid) Cert		7.29		434			0.473				71.0			6.43					2.51			1.69	950
OREAS 923 (4 Acid) Meas		6.81		190			0.51				75			6.67					1.53			1.83	923
OREAS 923 (4 Acid) Cert		7.29		434			0.473				71.0			6.43					2.51			1.69	950
OREAS 621 (4 Acid) Meas		4.99					2.03				45			3.58					1.97			0.48	586
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 522 (4 Acid) Meas		3.27					3.65				26			23.8					3.56			1.18	3430
OREAS 522 (4 Acid) Cert		3.95					3.65				29.6			24.6					2.83			1.12	3970
Oreas 77b (4 Acid Digest) Meas	1.50		1590		0.42	3.35		0.98	26.0	1300		2.45	3150		4.44		1.1	0.111		15.0	16.3		
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
A705084 Orig	0.02	1.61	< 0.2	20	0.07	0.02	3.87	0.03	1.57	8.9	42	0.23	28.6	3.09	4.60	0.16	0.1	0.007	0.11	0.7	3.1	1.38	584
A705084 Dup	0.03	1.64	0.3	20	< 0.05	0.02	3.87	0.05	1.54	8.9	48	0.19	28.1	3.05	4.53	0.17	0.1	0.009	0.11	0.7	3.2	1.36	612
A583362 Orig	0.06	2.37	12.0	330	0.52	0.02	0.58	0.16	15.8	4.7	17	0.48	12.4	2.26	5.45	0.17	< 0.1	0.011	0.78	7.8	1.0	0.23	466
A583362 Dup	0.06	2.65	11.9	370	0.51	0.02	0.60	0.22	16.8	5.1	18	0.46	11.8	2.24	5.96	0.18	< 0.1	0.014	0.76	8.1	1.0	0.23	508
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.53	< 0.1	33.3	570	27.1	76.7			< 0.05	14.7		0.3	172	< 0.05		12.4	0.093	0.63	2.7	29	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
Oreas 72a (4 Acid Digest) Meas									1.72														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.66														
Oreas 72a (4 Acid Digest) Cert									1.74														
OREAS 101b (4 Acid) Meas	18.9			8.3	1010	25.4											38.3	0.347		345	84		118
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas					1070													0.337			76		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 98 (4 Acid) Meas						328			> 10.0	7.38		159	186										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
OREAS 98 (4 Acid) Meas									> 10.0														
OREAS 98 (4 Acid) Cert									15.5														
DNC-1a Meas		1.29	1.6	250		6.5	2.9			0.74	29.4			150				0.252			148		14.3
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas			1.4	238		9.8	3.5			0.39	31.7			151									15.5
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b (4-Acid) Meas	7.98			1930					1.15														
OREAS 13b (4-Acid) Cert	9.0			2247.0000					1.2														
OREAS 904 (4 ACID) Meas	2.50	0.04		40.2	990	12.1	115		0.06	0.79	11.5	3	2.8	25.2	0.16		15.2		0.54	8.3	88	2.0	29.3
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
OREAS 904 (4 ACID) Meas		0.03			1030				0.06												89		
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630												76.0		
SBC-1 Meas	2.12		15.2	78.7		38.1	128			0.93	19.3		3.5	173	1.04		15.8	0.492	0.90	5.4	224	1.5	27.8
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas																		0.471			214		
SBC-1 Cert																		0.51			220.0		
OREAS 45d (4-Acid) Meas	0.26	0.10	0.3	221	360	22.8	40.3		0.04	< 0.05	50.5		0.5	29.8	< 0.05		15.0	0.192	0.25	2.6	119	< 0.1	10.2
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas		0.09			370				0.05									0.678			241		
OREAS 45d (4-Acid) Cert		0.101			420.000				0.049									0.773			235.0		
OREAS 96 (4 Acid) Meas						105			4.27	3.69		42	62.0										
OREAS 96 (4						101			4.19	5.09		40.7	65.6										



Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Acid) Cert																							
OREAS 96 (4 Acid) Meas						112			4.35	3.72		44	67.0										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas		0.31			630				0.72									0.404				99	
OREAS 923 (4 Acid) Cert		0.324			630				0.691									0.405				91.0	
OREAS 923 (4 Acid) Meas		0.30			600				0.71									0.390				96	
OREAS 923 (4 Acid) Cert		0.324			630				0.691									0.405				91.0	
OREAS 621 (4 Acid) Meas		1.24			340				4.31									0.175				34	
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149				31.8	
OREAS 522 (4 Acid) Meas		0.52			760				2.52									0.290				164	
OREAS 522 (4 Acid) Cert		0.633			890				2.50									0.344				164	
Oreas 77b (4 Acid Digest) Meas			3.2	> 10000		63.2	16.3	0.016		4.14	3.1		1.5	31.2	0.27	0.99	6.4		1.38	1.6		3.1	5.7
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
A705084 Orig	1.00	0.20	0.4	15.6	40	0.6	4.6	< 0.002	0.03	0.06	6.6	< 1	0.2	30.8	< 0.05	0.05	< 0.2	0.071	0.04	< 0.1	90	2.1	3.0
A705084 Dup	1.03	0.20	0.3	15.5	40	0.6	4.4	< 0.002	0.03	0.07	6.5	< 1	0.2	30.1	< 0.05	< 0.05	< 0.2	0.071	0.04	< 0.1	89	1.6	3.1
A583362 Orig	0.82	0.25	0.8	4.4	270	3.1	16.0	< 0.002	0.28	0.17	2.3	< 1	0.4	52.9	< 0.05	0.06	1.1	0.070	0.05	0.3	24	0.2	4.3
A583362 Dup	0.82	0.28	0.9	4.4	300	3.3	15.7	< 0.002	0.28	0.16	2.2	< 1	0.4	57.6	< 0.05	< 0.05	1.1	0.078	0.05	0.3	24	0.2	4.3
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.4	95	32.8
SDC-1 Cert	4.00	103.00	290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.3		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 98 (4 Acid) Meas		1330	
OREAS 98 (4 Acid) Cert		1360	
OREAS 98 (4 Acid) Meas		1280	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas	1.9	62	37.0
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	2.0		38.8
DNC-1a Cert	2.0		38.0
OREAS 13b (4-Acid) Meas		119	
OREAS 13b (4-Acid) Cert		133	
OREAS 904 (4 ACID) Meas	3.2	28	54.1
OREAS 904 (4 ACID) Cert	3.14	26.3	171
OREAS 904 (4 ACID) Meas		29	
OREAS 904 (4 ACID) Cert		26.3	
SBC-1 Meas	3.3	190	116
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas		190	
SBC-1 Cert		186	
OREAS 45d (4-Acid) Meas	1.5	46	65.9
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas		49	
OREAS 45d (4-Acid) Cert		45.7	
OREAS 96 (4 Acid) Meas		462	
OREAS 96 (4		457	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Acid) Cert			
OREAS 96 (4 Acid) Meas		463	
OREAS 96 (4 Acid) Cert		457	
OREAS 923 (4 Acid) Meas		368	
OREAS 923 (4 Acid) Cert		345	
OREAS 923 (4 Acid) Meas		362	
OREAS 923 (4 Acid) Cert		345	
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 522 (4 Acid) Meas		30	
OREAS 522 (4 Acid) Cert		30.2	
Oreas 77b (4 Acid Digest) Meas			41.2
Oreas 77b (4 Acid Digest) Cert			37.9
A705084 Orig	0.3	31	5.1
A705084 Dup	0.4	31	4.9
A583362 Orig	0.5	51	3.9
A583362 Dup	0.5	53	3.9
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	

**APPENDIX V**

**Soil Assay Certificates**



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09212-Au  
**Invoice Date:** 25-Jul-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**141 Adelaide Street West, Suite 301**  
**Toronto ON M5H 3L5**  
**Canada**

**ATTN: President Gordon McKinnon**

## CERTIFICATE OF ANALYSIS

94 Humus samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-50-Timmins Au - Fire Assay AA

REPORT **A19-09212-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and is positioned above a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A704701	18
A704703	27
A704705	28
A704707	8
A704709	5
A704711	30
A704713	29
A704715	16
A704716	16
A704718	27
A704720	21
A704722	< 5
A704724	28
A704726	8
A704728	19
A704730	28
A704732	15
A704734	12
A704735	30
A704737	7
A704738	18
A704740	22
A704741	12
A704743	27
A704745	24
A704747	34
A704748	34
A704749	29
A704751	12
A704752	9
A704753	16
A704755	17
A704757	14
A704759	17
A704760	29
A704761	25
A704763	26
A704764	27
A704765	24
A704766	20
A704767	26
A704768	22

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A704769	24
A704770	24
A704771	24
A704773	24
A704774	27
A704775	29
A704776	21
A704777	24
A704778	29
A704779	25
A704780	29
A704781	39
A704783	32
A704784	29
A704785	30
A704787	29
A704788	39
A704790	44
A704792	29
A704794	32
A704795	31
A704796	32
A704797	31
A704798	32
A704799	37
A704800	29
A704802	23
A704803	34
A704804	27
A704805	25
A704806	37
A704807	36
A704808	41
A704809	30
A704810	23
A704811	25
A704812	31
A704813	32
A704814	35
A704815	38
A704816	35
A704817	34

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A704818	39
A704820	26
A704821	39
A704822	27
A704823	31
A704824	40
A704825	35
A704826	35
A704827	27
A704829	28



Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
Oreas 221 (Fire Assay) Meas	1040
Oreas 221 (Fire Assay) Cert	1060
Oreas 221 (Fire Assay) Meas	1060
Oreas 221 (Fire Assay) Cert	1060
Oreas 221 (Fire Assay) Meas	1070
Oreas 221 (Fire Assay) Cert	1060
A704718 Orig	27
A704718 Dup	26
A704737 Orig	6
A704737 Dup	7
A704752 Orig	9
A704752 Dup	9
A704771 Orig	23
A704771 Dup	25
A704783 Orig	34
A704783 Dup	29
A704797 Orig	27
A704797 Dup	34
A704813 Orig	31
A704813 Dup	33
A704824 Orig	37
A704824 Dup	42
Method Blank	5
Method Blank	5
Method Blank	< 5
Method Blank	5
Method Blank	< 5

Quality Analysis ...



Innovative Technologies

**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09212-TD  
**Invoice Date:** 21-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

94 Humus samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS)

REPORT **A19-09212-TD**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-09212

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704701	0.13	0.54	3.1	160	0.11	0.23	0.35	0.57	5.17	1.2	12	0.35	6.7	0.26	0.12	0.06	< 0.1	0.013	0.15	2.9	1.4	0.07	85
A704703	0.15	3.18	1.6	340	0.51	0.34	1.07	0.37	19.1	3.7	32	0.87	8.2	1.15	5.82	0.50	0.4	0.036	0.67	9.9	5.0	0.35	300
A704705	0.19	1.16	2.7	190	0.25	0.35	0.58	0.63	8.93	1.6	13	0.68	8.7	0.56	1.61	0.08	0.3	0.026	0.34	4.7	2.6	0.13	102
A704707	0.23	1.75	3.0	240	0.33	0.41	0.77	0.72	12.2	2.0	24	1.06	8.5	1.02	3.46	0.10	< 0.1	0.030	0.48	6.2	4.0	0.19	213
A704709	0.12	1.99	4.3	230	0.33	0.42	0.62	0.77	12.4	2.2	29	1.03	9.1	1.03	3.27	0.18	< 0.1	0.031	0.54	6.5	3.8	0.23	204
A704711	0.18	2.15	3.3	340	0.47	0.41	0.92	0.84	17.9	2.3	25	1.29	9.6	1.05	1.35	0.24	0.3	0.035	0.62	8.9	4.7	0.29	573
A704713	0.08	1.19	3.1	210	0.28	0.42	0.67	1.19	9.81	1.6	17	0.82	7.3	0.65	1.96	0.11	< 0.1	0.038	0.32	4.9	3.0	0.13	128
A704715	0.22	5.38	< 0.2	220	0.76	0.20	2.71	1.24	60.8	24.7	108	1.31	60.0	5.59	17.1	0.11	0.8	0.069	0.35	25.9	21.6	2.84	1240
A704716	0.27	3.07	1.3	320	0.65	0.37	0.76	0.64	26.6	5.3	51	1.85	19.9	1.33	5.54	0.50	0.4	0.027	0.75	12.9	7.9	0.43	241
A704718	0.21	3.26	3.5	310	0.59	0.37	0.67	0.37	23.2	2.9	29	1.77	26.9	1.23	7.00	0.37	0.2	0.038	0.83	11.2	5.9	0.29	174
A704720	0.19	1.13	0.9	240	0.52	0.29	0.76	0.94	18.6	4.4	15	1.00	10.7	0.49	1.48	0.10	< 0.1	0.033	0.35	8.5	2.8	0.14	562
A704722	0.41	2.26	1.5	190	1.28	0.35	0.34	0.85	51.5	6.8	23	1.42	23.9	0.93	1.93	0.10	0.1	0.032	0.33	22.9	4.1	0.13	192
A704724	0.34	1.70	3.6	180	0.32	0.35	0.87	0.72	10.7	3.3	25	0.73	10.6	1.41	4.38	0.29	0.5	0.048	0.36	5.1	3.3	0.29	328
A704726	0.31	1.53	2.8	290	0.31	0.39	0.79	0.91	11.9	1.5	15	1.15	9.3	0.61	2.00	0.19	0.1	0.027	0.49	5.9	3.8	0.15	192
A704728	0.37	2.25	3.4	320	0.59	0.45	1.03	0.34	22.9	5.4	28	1.66	9.6	0.85	3.60	0.25	0.3	0.037	0.62	11.5	6.0	0.24	279
A704730	0.21	0.90	5.3	210	0.18	0.38	0.61	0.89	8.35	1.4	13	0.74	7.5	0.43	1.15	0.10	< 0.1	0.027	0.30	4.1	2.5	0.11	233
A704732	0.23	2.20	3.4	290	0.38	0.32	1.21	0.90	13.2	4.9	24	0.89	10.8	1.54	4.56	0.08	< 0.1	0.046	0.53	6.3	4.8	0.34	551
A704734	0.38	4.44	3.2	330	0.98	0.25	1.15	2.37	56.7	77.8	68	3.31	44.5	6.11	8.78	< 0.05	0.2	0.067	0.71	17.0	23.4	0.82	8410
A704735	0.93	4.11	8.0	320	1.95	0.45	0.57	0.77	64.7	162	50	5.31	56.7	3.09	7.72	0.10	0.3	0.047	0.73	24.1	15.7	0.39	6720
A704737	0.26	3.40	0.9	390	0.65	0.29	1.01	0.36	25.2	6.6	38	2.14	28.8	1.29	6.53	0.37	0.2	0.022	0.97	12.4	7.1	0.47	432
A704738	0.11	2.15	0.9	320	0.44	0.23	0.94	0.46	12.8	2.3	38	1.00	6.6	0.59	2.41	0.13	< 0.1	0.021	0.65	6.6	3.0	0.26	222
A704740	0.18	0.96	3.6	270	0.30	0.41	0.50	0.76	9.43	2.2	45	0.78	10.3	0.47	0.52	0.08	< 0.1	0.044	0.26	4.7	2.1	0.19	127
A704741	0.29	1.85	2.0	290	0.38	0.32	1.01	0.66	13.3	3.1	32	0.81	53.8	0.83	2.23	0.14	0.2	0.032	0.56	6.6	3.4	0.34	205
A704743	0.31	2.22	1.6	340	0.58	0.36	1.23	0.56	49.4	3.0	30	2.12	7.7	0.87	3.31	< 0.05	0.2	0.035	0.63	36.9	5.1	0.33	220
A704745	0.09	3.01	3.2	370	0.62	0.28	1.03	0.70	21.6	3.6	41	1.67	13.1	1.08	5.34	0.07	< 0.1	0.030	0.89	9.9	4.0	0.46	241
A704747	0.39	1.07	3.2	110	0.25	0.26	0.65	0.38	14.2	5.1	51	0.82	11.2	1.12	1.63	0.06	0.2	0.032	0.18	6.5	1.5	0.41	193
A704748	0.05	4.25	< 0.2	150	0.46	0.37	4.27	0.60	26.2	28.8	437	0.62	9.5	7.38	11.7	0.37	1.5	0.045	0.57	9.6	8.1	2.01	1580
A704749	0.14	2.11	3.4	150	0.35	0.40	0.96	0.67	9.79	3.6	53	1.21	7.3	0.97	4.05	0.13	0.2	0.044	0.28	4.5	2.3	0.32	270
A704751	0.06	5.13	0.3	100	0.43	0.38	3.47	0.55	14.8	21.1	248	0.78	30.8	6.87	16.1	0.44	1.1	0.062	0.30	6.5	5.5	1.91	1450
A704752	0.27	3.32	1.0	350	0.66	0.34	1.17	0.51	26.9	6.0	68	3.38	67.2	2.07	8.25	0.20	0.1	0.038	0.78	12.1	7.0	0.79	329
A704753	0.06	5.35	< 0.2	130	0.75	0.24	4.06	0.19	20.3	22.0	191	0.89	9.9	6.17	16.0	0.19	1.4	0.061	0.34	7.3	6.3	3.10	1020
A704755	0.13	3.65	1.5	350	0.65	0.42	1.43	0.21	25.4	5.0	87	1.57	9.1	2.12	9.19	0.07	0.1	0.036	1.00	12.1	6.3	0.64	587
A704757	0.19	2.56	3.6	380	0.44	0.28	0.77	0.71	17.4	2.0	25	1.57	7.7	0.73	2.94	0.22	0.1	0.022	0.72	8.8	3.8	0.22	172
A704759	0.12	2.26	4.1	290	0.54	0.48	0.71	0.65	15.8	2.6	45	1.25	7.6	0.99	3.95	0.23	0.2	0.028	0.59	7.5	4.2	0.30	219
A704760	0.54	2.35	1.4	350	0.57	0.30	0.83	0.67	27.1	2.7	27	1.55	8.3	0.81	3.23	0.22	0.1	0.037	0.72	14.0	4.6	0.24	178
A704761	0.54	1.30	0.8	220	0.21	0.20	0.72	0.73	10.8	1.4	14	0.92	7.5	0.44	1.36	0.12	0.1	0.015	0.53	5.4	2.7	0.16	367
A704763	0.17	1.37	2.3	300	0.38	0.43	0.57	1.41	11.8	2.1	19	0.80	19.3	0.53	1.47	0.13	< 0.1	0.048	0.43	6.3	2.8	0.15	125
A704764	0.21	4.22	1.9	420	1.00	0.29	1.67	0.47	45.8	11.0	216	1.97	23.2	2.76	9.00	0.14	0.3	0.043	1.05	23.7	11.6	1.04	598
A704765	0.13	3.50	5.3	340	0.78	0.33	1.54	0.63	48.3	16.8	169	1.76	15.1	3.02	7.41	0.10	0.5	0.059	0.76	27.3	12.9	1.05	1100
A704766	0.08	1.00	2.9	60	0.15	0.10	0.21	0.31	6.00	1.2	28	0.17	16.5	0.23	1.37	0.06	0.1	0.014	0.09	3.3	0.7	0.06	118
A704767	0.08	3.14	1.1	260	0.50	0.47	1.13	1.26	26.9	10.5	67	1.41	39.5	2.19	13.5	0.17	< 0.1	0.066	0.53	13.2	6.9	0.93	639
A704768	0.17	2.81	1.0	360	0.58	0.33	0.65	0.45	26.8	9.3	1240	1.34	11.9	1.29	3.94	0.29	0.3	0.030	0.82	13.3	5.8	0.39	448

## Results

## Activation Laboratories Ltd.

## Report: A19-09212

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704769	0.09	1.62	3.2	160	0.27	0.38	0.87	1.30	11.8	4.4	18	1.14	24.1	1.39	4.12	0.27	0.1	0.032	0.36	5.9	3.8	0.40	430
A704770	0.52	2.93	3.7	280	1.05	0.32	1.03	1.76	47.0	169	133	2.62	46.4	2.76	4.80	< 0.05	0.3	0.060	0.39	17.7	10.2	0.44	3770
A704771	0.33	2.39	2.6	240	0.67	0.31	1.72	1.17	37.5	52.4	101	1.98	48.7	1.81	3.37	< 0.05	0.3	0.039	0.40	16.7	7.9	0.60	1050
A704773	0.09	1.70	4.2	220	0.33	0.40	1.00	1.17	15.5	5.6	35	1.16	30.9	1.07	3.96	0.17	< 0.1	0.050	0.35	7.8	4.1	0.35	208
A704774	0.84	1.53	5.6	220	0.35	0.63	0.24	2.93	15.5	2.3	20	0.88	26.9	1.27	3.30	0.14	0.1	0.054	0.45	8.3	3.9	0.12	165
A704775	0.55	2.61	16.2	240	0.61	0.48	0.58	1.26	26.7	15.0	76	2.37	40.3	2.80	7.58	0.13	0.1	0.073	0.56	13.1	8.7	0.44	787
A704776	0.08	2.15	2.7	280	0.44	0.42	0.72	0.81	18.4	7.5	1090	0.78	11.3	1.11	4.46	0.22	0.1	0.044	0.52	9.2	4.4	0.47	400
A704777	0.18	3.03	0.2	410	0.55	0.44	0.73	0.78	31.4	2.9	70	1.35	33.7	1.18	9.11	0.71	0.2	0.037	0.83	15.4	6.4	0.29	638
A704778	0.40	2.99	3.7	310	0.78	0.38	1.20	1.38	34.4	19.3	189	2.65	46.3	1.58	4.58	0.07	0.2	0.041	0.68	18.7	12.1	0.56	763
A704779	0.17	3.62	1.1	440	0.73	0.39	1.04	0.84	28.7	8.6	1070	1.33	13.9	1.24	7.12	0.36	0.6	0.031	1.07	14.1	6.6	0.43	524
A704780	0.22	1.70	3.8	220	0.37	0.42	0.89	0.96	20.0	5.3	20	0.99	31.5	1.13	3.70	0.21	0.1	0.044	0.40	10.8	4.2	0.26	306
A704781	0.13	2.07	3.1	320	0.47	0.54	0.83	1.24	17.0	5.3	279	1.49	12.9	1.04	3.44	0.12	0.3	0.044	0.60	8.5	5.3	0.55	1260
A704783	0.20	1.20	2.3	200	0.40	0.48	0.73	0.65	13.0	3.5	18	0.98	11.9	0.71	2.04	0.09	0.1	0.034	0.34	6.8	3.9	0.14	146
A704784	0.58	4.89	< 0.2	270	1.57	0.23	0.87	0.93	80.8	17.5	106	2.04	49.3	2.10	6.71	< 0.05	< 0.1	0.038	0.60	35.6	24.9	0.54	306
A704785	0.20	1.35	1.5	310	0.42	0.35	0.93	1.52	12.4	5.1	70	1.16	16.0	0.63	1.48	0.13	0.1	0.034	0.48	6.3	3.6	0.20	916
A704787	0.35	1.68	4.1	240	0.40	0.44	0.57	0.89	14.5	3.1	57	1.30	15.7	0.85	3.17	0.15	< 0.1	0.043	0.47	7.3	4.8	0.24	139
A704788	0.90	2.25	2.6	330	0.47	0.31	1.00	0.95	14.3	3.4	138	0.77	9.6	0.80	3.28	0.11	0.2	0.031	0.56	7.3	3.7	0.29	228
A704790	1.08	2.31	2.2	450	0.67	0.47	0.91	0.87	29.0	14.7	34	1.54	14.0	1.09	3.15	0.13	0.2	0.038	0.70	14.0	8.0	0.27	690
A704792	0.14	3.26	1.7	440	0.64	0.25	0.90	0.44	22.5	2.6	239	1.26	7.9	0.91	4.61	0.40	0.4	0.023	0.93	11.4	5.3	0.25	236
A704794	0.52	2.74	2.9	380	0.63	0.48	0.80	1.49	26.3	5.7	46	2.31	20.3	1.14	4.80	0.14	< 0.1	0.040	0.69	13.3	6.6	0.27	223
A704795	0.47	5.89	2.5	430	1.22	0.29	0.81	0.66	43.4	57.5	179	3.60	39.5	3.68	11.6	0.33	1.9	0.048	1.05	21.5	42.4	0.99	833
A704796	0.25	1.65	2.1	390	0.34	0.37	0.98	1.29	14.6	21.9	985	1.35	11.3	0.92	1.44	0.13	0.2	0.028	0.56	7.3	4.5	0.45	3770
A704797	0.53	4.80	2.6	370	1.06	0.28	0.94	0.58	38.9	16.3	406	3.40	35.7	2.71	11.1	0.33	0.4	0.042	0.97	18.6	20.1	0.85	473
A704798	0.14	1.98	2.8	290	0.48	0.41	0.63	1.40	17.4	8.5	704	1.60	17.3	1.07	3.42	0.12	< 0.1	0.048	0.51	8.7	5.2	0.46	670
A704799	0.15	2.07	< 0.2	160	0.87	0.19	2.16	1.35	81.5	13.7	58	0.47	66.6	0.61	0.80	< 0.05	0.2	0.022	0.16	50.5	3.1	0.17	355
A704800	1.17	5.80	1.4	310	2.01	0.36	0.87	0.83	132	213	131	3.54	167	4.21	9.80	< 0.05	0.6	0.061	0.66	63.3	28.2	0.68	5570
A704802	0.14	2.21	4.0	190	0.39	0.34	0.53	0.39	16.0	3.9	46	1.63	26.4	1.08	4.78	0.13	0.3	0.027	0.44	8.4	4.5	0.26	199
A704803	0.07	2.15	2.5	230	0.36	0.38	0.68	0.35	17.9	3.3	45	1.59	13.9	0.98	5.66	0.27	0.1	0.021	0.55	9.1	4.4	0.35	224
A704804	0.06	2.41	3.9	220	0.33	0.22	0.36	0.45	16.5	1.9	34	0.81	12.2	1.11	6.45	0.17	0.2	0.018	0.66	8.3	3.6	0.15	127
A704805	0.16	1.18	4.5	190	0.28	0.42	0.52	0.56	10.3	2.2	52	0.89	11.1	0.60	2.38	0.18	0.1	0.043	0.34	5.4	3.3	0.13	147
A704806	0.08	3.67	1.6	370	0.60	0.23	0.92	0.47	20.8	9.0	850	1.13	10.1	2.13	9.41	0.31	0.1	0.023	1.01	10.1	8.5	0.85	654
A704807	0.16	0.93	10.1	200	0.25	0.25	3.40	1.48	21.9	16.9	35	0.56	10.0	1.93	1.31	0.08	0.2	0.020	0.19	9.0	3.2	0.31	6490
A704808	0.09	0.66	4.5	120	0.21	0.20	3.57	0.65	7.50	9.4	15	0.56	11.4	1.25	1.15	0.11	0.3	0.024	0.15	4.4	2.1	0.35	1590
A704809	0.09	0.42	2.9	90	0.14	0.21	3.35	0.87	4.41	3.0	9	0.33	10.0	1.05	0.65	0.10	0.2	0.020	0.09	2.8	1.4	0.32	908
A704810	0.07	0.65	2.6	90	0.22	0.13	2.98	0.68	8.09	2.6	16	0.46	15.0	0.71	1.09	0.10	0.1	0.014	0.12	5.5	2.3	0.36	347
A704811	0.09	0.74	2.7	120	0.25	0.22	2.37	0.69	10.4	4.4	16	0.37	20.3	1.07	0.92	0.07	0.3	0.025	0.14	7.5	1.8	0.31	671
A704812	0.07	0.42	3.6	90	0.14	0.13	2.84	0.57	5.17	5.3	12	0.33	10.2	1.09	0.39	0.08	0.2	0.016	0.09	3.2	1.3	0.32	1340
A704813	0.09	0.44	1.7	80	0.12	0.14	2.49	0.83	4.02	1.4	8	0.34	11.4	0.49	1.01	0.10	0.2	0.015	0.10	2.1	1.3	0.27	240
A704814	0.11	0.54	2.1	100	0.16	0.15	3.52	0.95	5.94	1.9	13	0.36	13.3	0.93	0.65	0.08	0.2	0.012	0.10	3.4	1.8	0.34	245
A704815	0.09	0.55	3.7	90	0.14	0.19	3.52	0.65	6.56	2.1	12	0.40	12.7	0.73	0.89	0.11	0.2	0.015	0.11	3.6	1.6	0.37	372
A704816	0.08	0.72	0.9	100	0.41	0.12	3.61	0.76	9.47	3.0	15	0.59	11.0	0.74	1.23	0.09	0.3	0.018	0.14	4.6	2.4	0.35	155
A704817	0.32	4.96	2.7	410	1.23	0.23	1.35	1.03	89.8	31.8	220	2.19	18.2	2.90	7.84	< 0.05	0.2	0.049	0.94	32.7	15.5	0.85	613

## Results

## Activation Laboratories Ltd.

## Report: A19-09212

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704818	0.35	1.71	2.6	280	0.35	0.37	0.85	1.11	14.4	6.4	551	1.55	13.5	1.49	2.85	0.10	0.2	0.026	0.52	7.1	3.9	0.53	1650
A704820	0.29	2.79	1.9	380	0.54	0.38	0.71	1.12	32.7	6.9	415	1.82	20.0	0.81	4.66	0.44	1.5	0.043	0.78	16.1	5.6	0.34	253
A704821	0.09	2.05	2.9	250	0.47	0.51	0.73	1.07	19.3	7.0	289	1.58	13.0	1.16	4.55	0.21	0.3	0.052	0.51	9.6	4.3	0.77	363
A704822	0.21	0.60	3.7	140	0.18	0.20	0.70	0.62	6.62	1.7	10	0.56	9.0	0.28	1.17	0.08	< 0.1	0.015	0.17	3.4	1.3	0.12	79
A704823	0.30	1.21	1.3	150	0.55	0.40	1.98	0.69	90.4	5.5	22	0.98	33.4	0.79	2.44	< 0.05	0.2	0.031	0.22	74.2	3.4	0.60	437
A704824	0.32	2.21	6.5	260	0.44	0.48	0.65	1.43	17.5	1.6	24	1.45	20.3	0.78	6.37	0.47	0.8	0.040	0.61	8.7	4.5	0.16	180
A704825	0.33	2.50	2.7	260	0.90	0.48	1.29	1.34	107	23.5	101	2.30	51.5	2.35	4.51	< 0.05	0.4	0.043	0.42	63.2	9.9	1.14	2320
A704826	0.21	2.27	3.0	270	0.47	0.38	0.87	0.63	18.7	5.9	851	0.87	19.1	1.03	4.30	0.08	0.2	0.035	0.65	9.3	4.5	0.39	244
A704827	0.08	1.66	4.6	400	0.33	0.32	0.79	1.24	12.2	3.6	263	0.72	13.0	0.64	1.61	0.10	0.2	0.027	0.48	6.1	3.0	0.22	143
A704829	0.16	1.90	8.6	350	0.40	0.35	0.75	0.94	15.0	26.0	1280	0.93	15.0	3.29	2.68	0.11	0.2	0.036	0.61	7.2	3.4	1.05	533

## Results

## Activation Laboratories Ltd.

## Report: A19-09212

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704701	0.75	0.11	0.5	4.8	600	46.5	6.1	< 0.002	0.15	0.48	0.9	2	0.6	41.1	< 0.05	< 0.05	0.7	0.042	0.12	0.3	9	0.2	1.8
A704703	1.63	1.01	2.5	9.8	580	63.2	21.3	< 0.002	0.10	0.55	4.5	2	1.6	183	< 0.05	< 0.05	2.9	0.277	0.22	1.0	42	0.4	5.8
A704705	1.09	0.28	1.7	5.6	900	67.9	12.8	< 0.002	0.16	0.68	1.6	2	1.5	64.6	0.10	< 0.05	1.3	0.084	0.22	0.5	19	0.2	2.9
A704707	1.13	0.43	1.6	7.4	790	82.2	17.1	< 0.002	0.14	0.71	3.0	2	1.6	80.0	< 0.05	< 0.05	1.8	0.178	0.21	0.7	42	0.4	4.0
A704709	1.12	0.52	3.0	6.9	790	72.0	18.3	< 0.002	0.13	0.82	3.0	2	1.9	95.4	0.07	< 0.05	1.9	0.190	0.27	0.7	36	0.4	4.7
A704711	1.15	0.60	2.4	7.1	880	87.2	21.4	< 0.002	0.13	0.79	3.3	2	1.6	130	0.06	< 0.05	2.4	0.189	0.36	0.8	36	0.5	5.1
A704713	0.97	0.26	1.6	6.4	810	86.5	12.9	< 0.002	0.17	0.71	2.0	2	1.8	58.0	0.09	< 0.05	1.5	0.119	0.25	0.5	24	0.3	3.3
A704715	0.08	1.62	0.3	45.0	470	15.3	13.7	0.002	0.06	< 0.05	15.4	1	0.6	212	< 0.05	< 0.05	2.5	0.120	0.30	0.8	40	< 0.1	13.4
A704716	1.15	0.61	1.6	13.1	710	62.1	27.9	< 0.002	0.09	0.56	4.3	2	1.9	106	0.06	< 0.05	3.1	0.235	0.31	1.1	46	0.4	6.4
A704718	1.20	0.77	1.2	9.0	880	43.4	28.8	< 0.002	0.09	0.45	4.1	2	1.0	117	< 0.05	< 0.05	3.3	0.204	0.32	1.3	38	0.4	6.2
A704720	1.00	0.22	0.6	7.7	1170	78.4	14.2	< 0.002	0.17	0.47	1.8	2	0.8	56.8	0.07	< 0.05	1.4	0.073	0.34	0.6	15	0.2	4.0
A704722	1.34	0.18	1.6	14.1	1880	62.2	15.6	< 0.002	0.22	0.94	2.8	2	1.4	39.0	0.09	0.05	2.5	0.082	0.24	1.4	18	0.3	8.8
A704724	0.53	0.40	0.8	7.0	640	65.5	13.8	< 0.002	0.13	0.56	4.9	2	1.7	59.5	< 0.05	< 0.05	1.6	0.267	0.15	0.6	52	< 0.1	5.0
A704726	1.09	0.34	1.1	6.6	980	81.2	18.8	< 0.002	0.17	0.75	2.0	2	1.1	70.5	< 0.05	< 0.05	1.9	0.124	0.39	0.7	25	0.3	3.8
A704728	1.53	0.53	2.2	8.6	940	105	25.5	< 0.002	0.14	0.87	3.9	2	1.7	108	0.12	< 0.05	2.5	0.161	0.36	1.0	31	0.5	5.4
A704730	1.26	0.17	0.9	5.5	920	70.6	12.2	< 0.002	0.16	0.40	1.6	2	0.6	36.7	< 0.05	< 0.05	1.3	0.068	0.24	0.5	14	0.2	2.5
A704732	1.03	0.60	1.4	8.4	800	61.8	19.2	< 0.002	0.14	0.56	5.6	2	1.0	86.3	< 0.05	< 0.05	1.8	0.272	0.25	0.6	68	0.3	5.3
A704734	8.40	0.74	2.7	20.1	1780	27.4	27.2	0.003	0.11	0.21	6.4	2	1.2	95.5	0.09	0.11	4.1	0.303	0.73	1.6	129	0.6	9.4
A704735	14.3	0.50	2.6	22.0	1860	68.5	40.3	< 0.002	0.14	0.71	5.1	3	2.0	78.4	0.10	0.13	5.0	0.200	0.95	2.8	73	0.7	10.0
A704737	1.13	0.88	0.8	9.6	820	40.7	38.6	< 0.002	0.08	0.33	5.6	2	0.9	140	< 0.05	< 0.05	3.1	0.212	0.40	1.2	45	0.4	6.8
A704738	0.85	0.74	1.0	10.0	690	57.0	21.8	< 0.002	0.15	0.43	2.4	2	0.6	152	< 0.05	< 0.05	1.9	0.130	0.19	0.6	24	0.2	3.7
A704740	0.99	0.20	1.0	10.5	770	101	10.7	< 0.002	0.15	0.78	1.6	2	1.3	55.3	< 0.05	< 0.05	1.3	0.076	0.16	0.5	15	0.2	2.9
A704741	0.84	0.55	2.3	14.7	770	75.6	18.6	< 0.002	0.16	0.56	2.8	2	1.5	103	0.11	< 0.05	1.7	0.130	0.21	0.6	27	0.3	3.8
A704743	5.34	0.59	1.1	14.9	720	87.7	24.1	< 0.002	0.15	0.59	3.3	2	0.5	138	< 0.05	< 0.05	1.9	0.130	0.26	0.7	29	0.2	6.0
A704745	1.11	0.92	1.1	14.1	700	45.2	29.7	< 0.002	0.10	0.42	5.0	2	0.7	177	< 0.05	< 0.05	3.0	0.237	0.24	1.0	35	0.3	6.0
A704747	0.77	0.10	2.2	25.2	950	45.5	9.4	< 0.002	0.17	0.53	3.5	2	1.2	36.7	0.12	< 0.05	0.9	0.090	0.12	0.3	19	0.2	3.5
A704748	0.45	0.87	0.4	83.8	680	38.5	11.4	< 0.002	0.04	0.05	24.0	1	0.5	84.2	< 0.05	< 0.05	1.5	0.309	0.12	0.6	127	< 0.1	11.2
A704749	1.61	0.63	1.9	12.9	740	66.8	10.7	< 0.002	0.13	0.72	4.5	2	1.7	71.7	< 0.05	< 0.05	1.2	0.143	0.12	0.5	37	0.4	3.9
A704751	1.04	1.60	0.3	39.6	620	27.4	9.1	< 0.002	0.04	< 0.05	31.4	1	0.7	155	< 0.05	< 0.05	1.7	0.335	0.12	0.6	165	< 0.1	14.6
A704752	10.8	0.80	< 0.1	17.9	1780	74.5	30.7	< 0.002	0.09	0.12	7.3	2	0.2	162	< 0.05	< 0.05	3.3	0.168	0.29	1.8	62	0.2	7.1
A704753	1.16	2.13	< 0.1	42.3	310	21.2	8.7	< 0.002	0.03	< 0.05	32.1	1	< 0.2	285	< 0.05	< 0.05	1.1	0.144	0.12	0.6	111	< 0.1	15.2
A704755	5.22	1.06	1.5	13.0	480	39.1	31.6	< 0.002	0.06	0.14	7.6	2	0.9	149	< 0.05	< 0.05	3.5	0.326	0.28	1.1	71	0.4	7.4
A704757	2.33	0.84	1.0	6.9	580	64.9	24.6	< 0.002	0.09	0.54	3.1	2	1.0	168	< 0.05	< 0.05	2.4	0.174	0.26	0.9	27	0.3	5.1
A704759	1.98	0.64	1.9	12.3	920	91.0	23.1	< 0.002	0.12	1.11	4.1	3	2.7	134	< 0.05	< 0.05	2.1	0.152	0.25	0.8	31	0.4	5.3
A704760	1.88	0.65	2.9	10.0	900	69.6	29.4	< 0.002	0.13	0.63	3.3	2	1.4	153	0.10	< 0.05	3.9	0.177	0.33	0.9	30	0.4	5.9
A704761	1.20	0.34	1.1	6.5	1160	31.5	21.0	< 0.002	0.16	0.39	1.8	2	0.7	75.7	< 0.05	< 0.05	1.6	0.095	0.18	0.5	16	0.2	3.2
A704763	2.25	0.33	1.6	10.0	890	140	16.2	< 0.002	0.16	0.62	2.0	2	1.1	81.5	< 0.05	< 0.05	1.7	0.099	0.17	0.6	18	0.3	3.7
A704764	0.93	1.32	1.1	37.9	750	55.3	36.1	< 0.002	0.09	0.12	8.0	2	1.5	271	< 0.05	< 0.05	5.7	0.244	0.50	1.6	64	< 0.1	10.4
A704765	1.65	0.94	3.3	34.2	1140	61.1	26.0	< 0.002	0.15	0.47	7.0	2	1.8	187	0.18	0.08	3.1	0.222	0.37	1.1	66	0.4	8.6
A704766	0.72	0.06	0.6	9.6	1170	12.2	3.1	< 0.002	0.25	0.33	3.6	2	0.5	12.1	< 0.05	< 0.05	0.6	0.032	0.05	0.3	13	0.1	2.5
A704767	0.09	0.50	0.1	16.6	910	78.9	22.3	< 0.002	0.05	< 0.05	14.2	1	0.8	64.4	< 0.05	< 0.05	4.1	0.239	0.30	1.5	68	< 0.1	12.5
A704768	0.95	0.79	1.2	48.2	660	71.2	28.7	< 0.002	0.08	0.40	3.8	2	1.5	106	< 0.05	< 0.05	4.0	0.284	0.29	1.3	37	0.2	7.5

## Results

## Activation Laboratories Ltd.

## Report: A19-09212

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704769	1.06	0.21	0.5	13.0	1340	83.8	14.7	0.002	0.16	0.46	5.9	2	0.9	32.6	< 0.05	< 0.05	1.7	0.221	0.19	0.7	52	0.3	6.4
A704770	1.89	0.21	3.2	222	1750	52.8	25.2	< 0.002	0.16	0.50	4.5	2	1.5	57.5	0.09	< 0.05	2.6	0.132	0.33	1.6	41	0.5	11.1
A704771	1.37	0.22	2.5	226	1530	31.8	29.4	< 0.002	0.19	0.59	4.3	2	1.6	66.1	0.08	< 0.05	2.5	0.101	0.26	1.3	27	0.4	8.8
A704773	1.14	0.24	0.3	26.7	1220	79.7	16.4	< 0.002	0.14	0.24	6.6	2	0.3	40.5	< 0.05	< 0.05	2.0	0.153	0.24	0.8	44	0.1	6.8
A704774	1.51	0.23	0.5	28.3	1700	140	18.0	< 0.002	0.14	0.32	2.5	2	0.5	35.6	< 0.05	0.05	2.2	0.102	0.37	0.8	25	0.3	4.7
A704775	1.93	0.29	3.0	96.3	1760	59.5	33.8	< 0.002	0.14	0.66	5.1	2	2.9	55.4	0.12	0.12	2.7	0.190	0.38	1.2	51	0.7	7.0
A704776	1.34	0.55	1.7	53.6	960	99.8	17.7	< 0.002	0.09	0.61	4.0	2	1.3	93.8	< 0.05	< 0.05	3.1	0.201	0.18	0.9	34	0.4	5.9
A704777	0.67	0.61	0.5	11.0	670	76.7	31.9	< 0.002	0.06	0.17	5.7	2	2.3	91.1	< 0.05	< 0.05	4.6	0.328	0.30	1.5	47	< 0.1	9.3
A704778	1.75	0.41	5.0	165	1600	49.6	44.1	< 0.002	0.19	1.48	4.8	2	2.2	84.4	0.09	< 0.05	3.3	0.164	0.42	1.5	38	0.5	8.2
A704779	0.34	1.21	0.9	36.6	630	77.4	37.0	< 0.002	0.07	0.29	4.7	2	2.0	183	0.05	< 0.05	5.6	0.242	0.36	1.6	31	< 0.1	7.1
A704780	1.41	0.23	0.9	10.3	1280	71.2	17.2	< 0.002	0.15	0.56	5.3	2	0.8	50.8	< 0.05	< 0.05	1.9	0.167	0.27	0.7	39	0.3	6.8
A704781	1.72	0.46	0.7	46.3	1120	117	30.6	< 0.002	0.13	0.40	3.6	2	0.9	79.5	< 0.05	0.05	2.5	0.121	0.40	0.9	34	0.3	5.2
A704783	1.34	0.17	0.6	19.5	1180	86.2	18.1	< 0.002	0.19	0.48	2.5	2	1.1	46.1	< 0.05	< 0.05	1.6	0.061	0.24	0.6	22	0.2	4.1
A704784	1.34	0.26	2.1	158	2470	36.9	35.2	< 0.002	0.26	0.28	7.1	3	0.8	58.1	< 0.05	0.05	8.1	0.135	0.39	3.0	39	0.4	13.5
A704785	1.31	0.30	1.3	23.9	1380	78.1	23.3	< 0.002	0.20	0.51	2.2	2	1.4	70.0	0.09	0.05	1.8	0.086	0.41	0.6	22	0.3	3.9
A704787	1.44	0.29	1.9	23.0	1050	93.9	21.4	< 0.002	0.15	0.89	2.9	2	2.1	56.7	< 0.05	< 0.05	2.2	0.130	0.27	0.8	30	0.4	5.0
A704788	1.23	0.66	1.9	14.1	810	59.2	20.2	< 0.002	0.16	0.62	3.1	2	1.4	122	0.07	< 0.05	2.4	0.156	0.19	0.7	28	0.4	4.7
A704790	1.48	0.35	2.7	31.8	1280	102	42.3	< 0.002	0.14	0.80	3.4	2	1.9	86.1	0.08	< 0.05	2.6	0.154	0.47	0.9	37	0.5	6.6
A704792	1.44	1.11	1.3	15.0	670	53.9	34.1	< 0.002	0.08	0.40	3.5	< 1	1.0	156	< 0.05	< 0.05	3.4	0.242	0.25	1.2	34	0.4	6.3
A704794	1.58	0.47	0.4	23.4	1150	81.8	35.2	< 0.002	0.14	0.34	4.3	< 1	< 0.2	98.1	< 0.05	< 0.05	3.2	0.152	0.38	1.2	39	0.3	7.3
A704795	1.66	0.55	5.9	255	1630	36.9	61.1	< 0.002	0.14	0.38	7.5	< 1	1.9	95.3	0.37	< 0.05	7.0	0.234	0.51	2.4	71	0.7	8.9
A704796	1.37	0.36	1.5	36.0	1670	84.7	25.0	< 0.002	0.18	0.44	2.4	< 1	1.1	79.3	0.09	< 0.05	2.0	0.134	0.37	0.9	33	0.4	4.3
A704797	1.39	0.65	1.2	123	1120	27.9	67.1	< 0.002	0.08	0.33	6.8	< 1	1.6	100	< 0.05	< 0.05	4.2	0.204	0.37	1.8	67	0.6	9.0
A704798	1.17	0.33	1.1	52.7	1670	81.4	23.7	< 0.002	0.16	0.61	3.3	< 1	1.1	61.2	< 0.05	< 0.05	2.3	0.157	0.26	0.9	33	0.4	5.8
A704799	4.65	0.09	1.1	122	1610	32.9	7.0	0.008	0.50	0.40	5.5	1	1.0	78.8	< 0.05	0.05	3.1	0.045	0.15	2.0	11	0.2	19.4
A704800	9.82	0.27	5.8	308	2000	41.1	40.2	0.002	0.15	0.45	9.9	< 1	1.8	67.6	0.27	0.15	11.3	0.195	0.70	3.5	67	0.9	25.4
A704802	1.47	0.35	1.7	20.7	1710	49.3	18.7	< 0.002	0.20	0.53	3.1	< 1	1.2	58.8	0.08	< 0.05	2.0	0.129	0.21	0.9	30	0.4	4.9
A704803	1.51	0.35	0.4	21.9	1020	61.8	24.7	< 0.002	0.12	0.34	3.7	< 1	0.5	51.4	< 0.05	< 0.05	2.6	0.165	0.21	0.8	36	0.3	5.6
A704804	1.18	0.48	1.2	11.9	1080	24.7	22.6	< 0.002	0.16	0.32	2.4	< 1	0.5	65.4	< 0.05	< 0.05	2.4	0.162	0.18	0.8	28	0.2	4.9
A704805	1.29	0.20	1.5	14.6	980	81.8	15.6	< 0.002	0.17	0.85	1.9	< 1	2.1	52.1	0.12	< 0.05	1.6	0.094	0.14	0.6	22	0.3	3.6
A704806	0.47	1.07	0.4	68.2	750	32.9	32.3	< 0.002	0.07	0.14	4.9	< 1	1.0	148	< 0.05	< 0.05	3.0	0.217	0.23	1.0	52	< 0.1	5.3
A704807	1.89	0.09	1.3	24.4	1650	36.7	9.8	0.006	0.32	0.55	1.4	< 1	1.2	70.8	< 0.05	0.07	1.8	0.043	0.26	0.5	20	0.2	4.3
A704808	0.80	0.08	1.2	44.1	1010	32.4	8.6	0.003	0.34	0.46	0.9	1	1.5	66.2	0.06	< 0.05	1.2	0.035	0.19	0.6	8	0.2	2.8
A704809	0.80	0.05	0.7	42.1	920	41.9	4.8	0.007	0.35	0.38	0.7	< 1	1.3	63.5	< 0.05	< 0.05	0.8	0.020	0.13	0.3	8	0.1	2.0
A704810	0.73	0.05	0.9	59.5	930	17.9	7.8	0.003	0.38	0.33	1.1	< 1	0.8	56.9	< 0.05	< 0.05	1.2	0.029	0.12	0.4	8	0.7	3.2
A704811	0.95	0.06	1.1	72.6	790	34.1	7.4	0.004	0.35	0.63	1.2	< 1	1.5	50.6	0.06	< 0.05	1.0	0.033	0.17	0.5	13	0.2	4.3
A704812	1.02	0.04	0.6	45.2	890	21.7	4.9	0.003	0.27	0.35	0.5	< 1	0.8	47.9	< 0.05	< 0.05	0.6	0.021	0.11	0.2	8	0.1	2.1
A704813	2.00	0.05	0.7	22.3	960	28.6	4.4	< 0.002	0.43	0.53	0.6	< 1	1.3	40.8	< 0.05	< 0.05	0.6	0.024	0.08	0.2	10	0.1	1.5
A704814	0.96	0.06	1.0	56.4	1080	26.3	5.1	0.005	0.38	0.33	0.9	< 1	1.0	62.8	< 0.05	< 0.05	1.0	0.029	0.12	0.4	8	0.1	2.6
A704815	0.82	0.06	1.0	51.0	1150	29.4	6.0	0.006	0.36	0.52	0.7	1	1.5	63.0	0.06	< 0.05	0.9	0.030	0.14	0.4	8	0.1	2.6
A704816	0.87	0.08	1.1	49.9	930	22.0	6.9	0.002	0.34	0.26	1.2	< 1	0.6	64.8	0.08	< 0.05	1.5	0.038	0.13	0.6	10	0.1	3.1
A704817	2.26	1.03	1.6	280	1940	24.3	34.4	0.007	0.16	0.26	8.2	< 1	0.6	162	< 0.05	0.05	6.5	0.175	0.33	3.6	53	0.4	15.6

## Results

## Activation Laboratories Ltd.

## Report: A19-09212

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704818	1.52	0.43	2.3	41.9	1080	82.4	21.4	< 0.002	0.15	0.73	2.4	< 1	1.7	77.9	0.09	< 0.05	2.4	0.143	0.27	0.7	32	0.6	4.1
A704820	1.39	0.72	4.6	66.2	620	99.2	27.6	< 0.002	0.09	0.72	3.3	< 1	1.9	120	0.26	0.06	4.8	0.275	0.27	1.6	33	0.6	8.0
A704821	1.58	0.53	2.5	74.2	660	119	20.5	< 0.002	0.11	0.69	3.7	1	2.0	99.8	< 0.05	< 0.05	2.8	0.181	0.23	1.0	33	0.6	5.6
A704822	0.92	0.11	0.8	14.9	840	42.0	7.1	< 0.002	0.20	0.42	0.9	< 1	0.6	41.5	< 0.05	< 0.05	0.9	0.058	0.10	0.4	9	0.2	2.1
A704823	1.37	0.10	1.4	370	820	44.8	11.4	< 0.002	0.20	1.15	2.5	< 1	2.2	82.3	< 0.05	< 0.05	1.8	0.057	0.17	2.2	17	0.5	18.7
A704824	1.83	0.56	3.9	13.6	800	94.4	24.5	< 0.002	0.13	1.04	2.5	< 1	3.2	112	0.20	0.06	2.8	0.187	0.26	1.1	29	1.0	5.4
A704825	1.68	0.20	3.4	786	1220	52.4	31.4	< 0.002	0.17	1.06	7.8	< 1	2.7	82.8	0.15	0.07	5.2	0.116	0.44	3.8	33	0.7	22.9
A704826	1.53	0.63	2.4	48.2	690	82.3	23.1	< 0.002	0.13	0.90	3.1	< 1	2.0	105	0.15	< 0.05	2.9	0.171	0.27	1.1	32	0.5	5.4
A704827	1.00	0.47	2.1	22.7	620	62.8	16.9	< 0.002	0.14	0.86	2.2	< 1	1.4	91.4	0.10	0.06	1.9	0.107	0.19	0.6	21	0.3	3.9
A704829	1.65	0.52	2.7	254	730	67.2	19.5	< 0.002	0.14	0.72	2.3	< 1	1.3	88.4	0.06	0.12	2.1	0.125	0.22	0.7	31	0.4	4.0



Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704701	0.2	84	1.1
A704703	0.7	75	31.7
A704705	0.3	44	9.5
A704707	0.5	46	10.8
A704709	0.6	72	12.3
A704711	0.6	121	16.5
A704713	0.4	143	6.2
A704715	1.4	271	34.8
A704716	0.7	72	26.3
A704718	0.8	55	12.9
A704720	0.4	64	2.7
A704722	0.7	49	12.9
A704724	0.6	118	24.9
A704726	0.5	143	7.1
A704728	0.6	47	12.0
A704730	0.3	114	3.8
A704732	0.7	113	6.7
A704734	1.0	539	15.7
A704735	1.0	96	17.5
A704737	0.8	58	22.2
A704738	0.4	49	10.4
A704740	0.3	49	8.1
A704741	0.4	59	11.0
A704743	0.6	33	9.8
A704745	0.7	75	7.2
A704747	0.3	34	9.4
A704748	1.4	71	61.1
A704749	0.5	64	10.1
A704751	1.9	76	41.5
A704752	0.8	57	7.4
A704753	1.8	71	54.7
A704755	1.0	41	11.6
A704757	0.6	35	18.2
A704759	0.6	73	17.7
A704760	0.7	51	13.2
A704761	0.4	156	6.6
A704763	0.4	45	4.8
A704764	1.0	63	29.5
A704765	0.9	79	38.5
A704766	0.2	18	5.1
A704767	1.5	75	7.6
A704768	0.9	73	28.0

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704769	0.8	84	9.9
A704770	1.1	137	22.5
A704771	0.9	90	20.5
A704773	0.8	92	6.2
A704774	0.5	253	6.3
A704775	0.9	170	11.5
A704776	0.7	73	13.5
A704777	1.2	103	16.0
A704778	0.8	131	15.8
A704779	0.9	85	46.1
A704780	0.8	72	8.7
A704781	0.6	116	10.9
A704783	0.4	99	5.8
A704784	1.1	66	6.7
A704785	0.4	131	6.1
A704787	0.6	65	11.5
A704788	0.6	94	26.3
A704790	0.7	64	10.0
A704792	0.8	67	24.7
A704794	0.8	84	4.6
A704795	1.0	111	76.0
A704796	0.5	173	8.9
A704797	1.0	76	20.3
A704798	0.6	176	6.4
A704799	1.5	41	10.1
A704800	2.3	74	23.1
A704802	0.5	62	9.1
A704803	0.7	47	7.5
A704804	0.6	32	10.3
A704805	0.4	90	5.8
A704806	0.7	82	17.3
A704807	0.4	41	12.0
A704808	0.3	43	12.0
A704809	0.2	34	8.1
A704810	0.3	51	7.7
A704811	0.4	41	11.9
A704812	0.2	27	7.3
A704813	0.2	23	6.0
A704814	0.3	19	9.6
A704815	0.2	28	8.8
A704816	0.3	32	10.7
A704817	1.5	90	14.5

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704818	0.5	121	11.9
A704820	1.0	62	102
A704821	0.7	123	40.3
A704822	0.2	70	1.4
A704823	1.3	38	8.2
A704824	0.6	202	51.3
A704825	1.8	63	15.8
A704826	0.6	92	10.8
A704827	0.5	165	21.5
A704829	0.5	59	20.2

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
SDC-1 Meas		7.31	< 0.2	630	2.87		0.99		85.6	17.6	44	4.40	27.9	4.44	24.7		0.6		2.72	38.2	34.6	0.98	895
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.74	< 0.2	630	2.95		1.06		88.4	17.5	43	4.17	27.3	4.88	24.8		0.7		2.63	39.7	34.5	1.03	897
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.97	< 0.2	650	3.04		1.07		91.1	18.3	42	3.91	38.8	5.02	25.6		0.7		2.65	39.7	35.3	1.06	874
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.85	< 0.2	650	2.90		1.07		90.6	17.3	47	4.10	29.0	5.00	16.6		0.8		2.45	42.7	35.1	1.05	910
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
Oreas 72a (4 Acid Digest) Meas											147			8.68									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											153			8.91									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											152			8.83									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
OREAS 101b (4 Acid) Meas														10.4					2.14			1.23	894
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 101b (4 Acid) Meas														10.4					2.22			1.24	941
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 98 (4 Acid) Meas	45.1					93.5				122			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
OREAS 98 (4 Acid) Meas	45.7					91.4				127			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
DNC-1a Meas				100			7.06			57.9	179		89.4	6.47	13.5					3.5	4.7		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				100			7.18			56.3	127		89.7	6.87	13.6					3.4	4.7		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				90			7.16			54.7	129		93.3	6.87	15.1					3.6	4.5		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				90			7.11			56.4	124		99.2	6.82	14.6					3.6	4.8		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
OREAS 13b	0.88		46.0							71.9	9120		2220										

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
(4-Acid) Meas																							
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 13b (4-Acid) Meas	0.94		56.6							76.2	8770		2210										
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 13b (4-Acid) Meas	0.86		48.3							68.4			2110										
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.000										
OREAS 904 (4 ACID) Meas		6.21		200			0.05				61			6.92					3.31			0.60	469
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410
SBC-1 Meas			23.0	840	3.13	0.64		0.30	62.0	21.1	100	6.79	27.0		26.9		3.3			24.9	159		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			17.9	790	3.37	0.65		0.31	106	21.8	96	9.09	27.2		30.1		2.7			48.4	163		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			23.6	760	3.08	0.68		0.33	102	22.0	101	8.05	29.4		23.9		3.4			49.8	160		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			21.9		3.38	0.69		0.40	103	21.6		7.96	29.7		19.3		3.4			46.8	162		
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7			52.5	163		
OREAS 45d (4-Acid) Meas		7.72	8.5	180	0.77	0.27	0.20		34.7	30.4	496	4.13	354	14.6	22.0		2.7	0.091	0.40	15.7	21.0	0.25	533
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas		7.62	5.8	180	0.78	0.33	0.19		35.3	28.9	522	3.36	362	14.3	24.7		1.1	0.085	0.39	15.7	19.8	0.25	525
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 96 (4 Acid) Meas	11.4					26.2				51.5			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.2					27.8				48.4			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.1					26.4				47.1			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 923 (4 Acid) Meas	1.74	7.49	5.5	460	2.38	18.6	0.54	0.32	82.9	23.4	78	7.14	4640	7.20	22.2		3.4	0.500	2.55	41.4	31.0	1.90	1080
OREAS 923 (4	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.87	7.16	3.4	440	2.42	19.2	0.52	0.32	83.3	22.6	72	6.29	4330	6.91	17.6		3.8	0.569	2.44	41.5	29.8	1.83	1000
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 621 (4 Acid) Meas	66.4	5.84	74.1		1.83	3.84	1.95	256	46.5	28.9	30	3.13	3800	3.51	29.9		4.5	1.79	2.12	17.8	13.8	0.51	530
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas	67.0	6.28	69.8		1.64	4.06	2.10	273	45.4	27.4	27	3.04	3700	3.88	28.9		4.6	1.86	2.08	17.4	14.2	0.53	523
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas		6.18					2.08				26			3.84					2.04			0.53	540
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 621 (4 Acid) Meas		6.37					2.12				25			3.92					1.98			0.54	528
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 522 (4 Acid) Meas		3.37					3.33				30			22.4					2.52			1.08	3630
OREAS 522 (4 Acid) Cert		3.95					3.65				29.6			24.6					2.83			1.12	3970
Oreas 77b (4 Acid Digest) Meas		1.52		70			2.40				193			24.2					0.28			2.22	557
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
Oreas 77b (4 Acid Digest) Meas		1.51		80			2.41				200			24.1					0.28			2.21	559
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
A704707 Orig	0.22	1.77	3.4	240	0.34	0.40	0.78	0.64	12.1	2.0	27	1.03	8.4	1.03	3.55	0.09	< 0.1	0.028	0.48	6.1	4.0	0.19	220
A704707 Dup	0.25	1.72	2.6	240	0.32	0.42	0.77	0.80	12.3	2.0	21	1.10	8.7	1.01	3.38	0.12	0.1	0.033	0.47	6.4	4.1	0.19	206
A704728 Orig	0.35	2.33	3.7	320	0.58	0.44	1.06	0.31	22.8	5.7	31	1.68	9.5	0.87	3.59	0.24	0.4	0.036	0.63	11.2	5.9	0.25	310
A704728 Dup	0.38	2.18	3.1	310	0.60	0.46	1.01	0.38	23.1	5.2	26	1.65	9.6	0.82	3.60	0.26	0.1	0.039	0.61	11.8	6.0	0.23	247
A704749 Orig	0.13	2.07	3.1	150	0.36	0.40	0.94	0.61	9.96	3.6	52	1.22	7.4	0.95	4.05	0.13	0.2	0.053	0.28	4.6	2.3	0.31	279
A704749 Dup	0.14	2.14	3.8	160	0.34	0.40	0.98	0.73	9.62	3.5	54	1.19	7.2	0.99	4.06	0.13	0.3	0.035	0.28	4.5	2.4	0.33	261
A704773 Orig	0.09	1.67	4.4	220	0.35	0.40	0.99	1.21	15.3	5.5	30	1.14	31.3	1.07	4.16	0.21	< 0.1	0.046	0.35	7.8	4.2	0.34	209
A704773 Dup	0.09	1.72	4.0	220	0.32	0.39	1.01	1.14	15.8	5.6	40	1.18	30.6	1.08	3.77	0.14	0.2	0.054	0.36	7.8	4.0	0.36	207
A704787 Orig	0.35	1.67	4.0	240	0.39	0.43	0.56	0.83	14.4	2.9	58	1.29	15.1	0.84	2.86	0.16	0.2	0.043	0.47	7.3	4.7	0.24	137
A704787 Dup	0.36	1.69	4.2	240	0.40	0.45	0.57	0.94	14.6	3.2	55	1.31	16.3	0.86	3.48	0.15	< 0.1	0.043	0.48	7.3	4.8	0.24	142
A704807 Orig	0.16	0.93	10.2	200	0.25	0.26	3.42	1.37	22.2	16.9	47	0.58	10.3	1.94	1.16	0.08	0.2	0.026	0.19	9.1	3.3	0.31	6540
A704807 Dup	0.15	0.93	10.1	200	0.24	0.25	3.38	1.58	21.7	17.0	22	0.54	9.6	1.92	1.47	0.08	0.2	0.013	0.19	8.8	3.2	0.31	6440
A704818 Orig	0.35	1.71	2.2	280	0.35	0.37	0.85	1.10	14.0	6.3	503	1.51	13.7	1.48	3.00	0.08	0.2	0.020	0.52	7.0	3.8	0.53	1660

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704818 Dup	0.35	1.70	3.0	280	0.35	0.37	0.85	1.13	14.7	6.6	598	1.59	13.4	1.50	2.70	0.12	0.2	0.031	0.51	7.3	4.0	0.53	1640
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01		< 10				< 0.01				1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01				< 1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01		< 10				< 0.01				2			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		0.3		< 0.05	< 0.01		< 0.02	0.08	< 0.1		< 0.05	< 0.2		0.16	< 0.05	< 0.1	0.009		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	< 0.01		< 0.02	0.01	< 0.1		< 0.05	< 0.2		0.13	< 0.05	< 0.1	0.006		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01				< 1			< 0.01					< 0.01			< 0.01	< 5

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.37	< 0.1	33.0	560	23.3	131			< 0.05	15.6		0.2	167	< 0.05		11.5	0.069	0.62	2.6	29	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.52	< 0.1	32.1	600	22.9	119			< 0.05	14.5		< 0.2	172	< 0.05		11.9	0.072	0.63	2.6	29	0.2	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.56	0.1	32.0	600	26.0	133			< 0.05	15.8		< 0.2	186	< 0.05		11.8	0.068	0.63	2.6	30	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.54	< 0.1	30.7	600	27.4	125			< 0.05	14.5		< 0.2	181	< 0.05		13.1	0.082	0.68	2.9	35	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
Oreas 72a (4 Acid Digest) Meas									1.61														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.65														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.65														
Oreas 72a (4 Acid Digest) Cert									1.74														
OREAS 101b (4 Acid) Meas					1110													0.330			79		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 101b (4 Acid) Meas					1170													0.345			80		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 98 (4 Acid) Meas						369			> 10.0	7.78		133	190										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
OREAS 98 (4 Acid) Meas						360			> 10.0	8.23		143	196										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
DNC-1a Meas		1.30	1.5	261		6.0	3.9			0.71	31.7			138				0.270			131		14.6
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.5	265		6.6	3.9			0.86	31.5			141				0.267			137		15.1
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.5	243		6.2	3.6			0.63	30.2			139				0.272			138		15.1
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.4	241		6.3	3.7			0.60	29.3			141				0.269			137		15.5
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
OREAS 13b	9.90			2310					1.17														



Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
(4-Acid) Meas																							
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas	9.30			2020					1.15														
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas	8.54			1960																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas		0.04			1090				0.06													86	
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630													76.0	
SBC-1 Meas	2.14		14.8	84.8		33.2	61.7			0.92	13.9		3.3	162	0.99		7.6	0.484	0.89	4.4	209	1.7	22.1
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.23		8.0	83.7		33.4	144			0.72	19.7		2.7	175	0.35		15.7	0.482	0.89	5.6	215	1.1	29.3
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.19		15.3	77.6		38.6	151			0.85	19.1		3.4	183	0.99		15.9	0.480	0.89	5.6	217	1.6	29.4
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.01		15.0	76.1		38.0	153			0.80	19.2		3.3	179	1.04		16.0		0.91	5.7		1.6	29.8
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.64	0.10	1.3	231	380	19.4	44.3		0.04	< 0.05	51.4		0.5	29.1	< 0.05		14.1	0.130	0.24	2.5	99	< 0.1	9.6
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.22	0.10	0.1	202	380	22.3	41.5		0.05	< 0.05	47.2		0.5	29.2	< 0.05		14.7	0.241	0.25	2.6	131	< 0.1	10.5
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 96 (4 Acid) Meas						94.6			4.30	4.71		39	62.9										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						106			4.27	3.16		33	61.6										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						102				3.24		32	60.5										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	1.01	0.34	14.1	37.5	710	76.4	173		0.76	1.09	13.0	6	12.9	41.5	0.85		16.5	0.420	0.86	3.0	98	4.7	24.7
OREAS 923 (4	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.00	0.33	13.9	33.2	670	91.5	169		0.73	1.01	12.4	4	13.1	40.4	0.93		16.8	0.397	0.87	3.1	93	5.3	25.4
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 621 (4 Acid) Meas	12.9	1.20	8.3	22.2	360	> 10000	86.9		4.14	13.6	6.1	4	4.9	64.7			4.4	0.185	2.00	2.8	33	1.6	12.3
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas	12.7	1.34	8.7	26.2	390	> 10000	81.8		4.65	15.8	6.3	5	5.2	64.2			4.5	0.181	2.05	2.8	35	1.6	11.9
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas		1.32			380				4.64									0.181				35	
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149				31.8	
OREAS 621 (4 Acid) Meas		1.35			390				4.73									0.184				34	
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149				31.8	
OREAS 522 (4 Acid) Meas		0.58			850				2.29									0.328				158	
OREAS 522 (4 Acid) Cert		0.633			890				2.50									0.344				164	
Oreas 77b (4 Acid Digest) Meas		0.36																0.055				35	
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640				33.6	
Oreas 77b (4 Acid Digest) Meas		0.36																0.054				35	
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640				33.6	
A704707 Orig	1.09	0.44	1.4	7.4	790	80.0	16.6	< 0.002	0.14	0.70	3.1	2	1.6	78.1	< 0.05	< 0.05	1.8	0.182	0.21	0.7	43	0.4	3.9
A704707 Dup	1.16	0.42	1.9	7.3	800	84.4	17.5	< 0.002	0.14	0.72	2.9	2	1.7	81.8	0.06	< 0.05	1.9	0.174	0.22	0.6	42	0.4	4.1
A704728 Orig	1.54	0.56	2.7	8.7	940	103	25.6	< 0.002	0.14	0.87	4.2	2	1.7	114	0.11	< 0.05	2.4	0.164	0.35	1.0	32	0.5	5.5
A704728 Dup	1.52	0.50	1.6	8.4	940	107	25.5	< 0.002	0.14	0.87	3.7	2	1.6	103	0.12	< 0.05	2.6	0.158	0.36	1.0	31	0.4	5.4
A704749 Orig	1.68	0.61	2.1	13.3	730	66.6	10.8	< 0.002	0.13	0.71	4.5	2	1.7	73.4	< 0.05	0.05	1.2	0.144	0.12	0.5	37	0.4	3.9
A704749 Dup	1.54	0.64	1.8	12.6	750	66.9	10.7	< 0.002	0.14	0.72	4.5	2	1.7	70.1	0.11	< 0.05	1.2	0.143	0.12	0.5	37	0.5	3.8
A704773 Orig	1.02	0.24	0.3	27.3	1290	80.6	16.5	< 0.002	0.14	0.25	6.7	2	0.3	40.5	< 0.05	0.06	2.0	0.168	0.24	0.8	44	0.2	6.9
A704773 Dup	1.26	0.25	0.3	26.1	1140	78.7	16.3	< 0.002	0.13	0.23	6.4	2	0.4	40.4	< 0.05	< 0.05	2.0	0.139	0.24	0.7	44	0.1	6.8
A704787 Orig	1.44	0.29	2.3	22.2	1030	92.6	21.2	< 0.002	0.14	0.87	2.8	2	2.3	56.3	0.12	< 0.05	2.2	0.129	0.26	0.8	30	0.4	5.0
A704787 Dup	1.44	0.29	1.4	23.8	1060	95.2	21.7	< 0.002	0.15	0.91	3.0	2	2.0	57.1	< 0.05	< 0.05	2.2	0.132	0.27	0.9	30	0.5	5.0
A704807 Orig	1.91	0.09	1.3	23.8	1660	37.1	9.7	0.006	0.33	0.57	1.4	1	1.2	69.6	< 0.05	0.07	1.8	0.043	0.26	0.5	20	0.2	4.3
A704807 Dup	1.86	0.09	1.3	25.1	1650	36.3	9.9	0.006	0.32	0.52	1.3	< 1	1.3	72.0	0.06	0.07	1.8	0.043	0.26	0.5	19	0.2	4.2
A704818 Orig	1.51	0.42	2.4	41.5	1100	81.3	21.0	< 0.002	0.15	0.70	2.4	< 1	1.6	76.5	0.12	< 0.05	2.2	0.145	0.26	0.7	32	0.5	4.1

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704818 Dup	1.53	0.44	2.2	42.2	1070	83.5	21.7	< 0.002	0.14	0.75	2.3	< 1	1.8	79.4	0.05	< 0.05	2.5	0.141	0.27	0.7	32	0.6	4.2
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank	< 0.05		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	
Method Blank	0.07		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005				< 1	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.2	106	21.6
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.2	112	22.9
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.4	111	29.3
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.5	113	35.6
SDC-1 Cert	4.00	103.00	290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 98 (4 Acid) Meas		1330	
OREAS 98 (4 Acid) Cert		1360	
OREAS 98 (4 Acid) Meas		1320	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas	1.9	60	38.0
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	1.9	64	38.8
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	1.9	62	42.9
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	2.0	62	45.0
DNC-1a Cert	2.0	70	38.0
OREAS 13b		141	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
(4-Acid) Meas			
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas		118	
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas		29	
OREAS 904 (4 ACID) Cert		26.3	
SBC-1 Meas	2.9	190	119
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.3	194	108
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.4	192	141
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.5		139
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.3	47	105
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.4	46	49.8
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 96 (4 Acid) Meas		473	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		458	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.5	376	127
OREAS 923 (4	2.57	345	116

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Acid) Cert			
OREAS 923 (4 Acid) Meas	2.6	359	159
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 621 (4 Acid) Meas	1.0	> 10000	202
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas	1.1	> 10000	203
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 522 (4 Acid) Meas		29	
OREAS 522 (4 Acid) Cert		30.2	
Oreas 77b (4 Acid Digest) Meas		181	
Oreas 77b (4 Acid Digest) Cert		205	
Oreas 77b (4 Acid Digest) Meas		178	
Oreas 77b (4 Acid Digest) Cert		205	
A704707 Orig	0.5	46	10.5
A704707 Dup	0.5	46	11.2
A704728 Orig	0.6	48	14.0
A704728 Dup	0.6	47	10.1
A704749 Orig	0.5	64	9.7
A704749 Dup	0.5	64	10.4
A704773 Orig	0.8	93	5.1
A704773 Dup	0.8	92	7.3
A704787 Orig	0.6	64	15.6
A704787 Dup	0.6	65	7.3
A704807 Orig	0.4	42	11.2
A704807 Dup	0.4	41	12.8
A704818 Orig	0.5	122	11.7

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704818 Dup	0.5	119	12.1
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		3	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank	< 0.1		0.8
Method Blank		< 2	



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09214-Au  
**Invoice Date:** 13-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

35 Soil samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine Total Digestion ICP & ICP/MS

REPORT **A19-09214-Au**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E'.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com



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**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

**CERTIFICATE OF ANALYSIS**

35 Soil samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-50-Timmins QOP AA-Au (Au - Fire Assay AA)

REPORT **A19-09214-Au**

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E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A704702	18
A704704	< 5
A704706	5
A704708	8
A704710	6
A704712	< 5
A704714	6
A704717	12
A704719	15
A704721	10
A704723	9
A704725	6
A704727	10
A704729	11
A704731	9
A704733	12
A704736	< 5
A704739	8
A704742	22
A704744	8
A704746	8
A704750	13
A704754	< 5
A704756	< 5
A704758	18
A704762	< 5
A704772	< 5
A704782	13
A704786	< 5
A704789	< 5
A704791	< 5
A704793	< 5
A704801	9
A704819	5
A704828	< 5

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
Oreas 221 (Fire Assay) Meas	1070
Oreas 221 (Fire Assay) Cert	1060
A704721 Orig	10
A704721 Dup	9
A704744 Orig	8
A704744 Dup	8
A704789 Orig	< 5
A704789 Dup	8
Method Blank	< 5
Method Blank	< 5



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09214-TD  
**Invoice Date:** 13-Aug-19  
**Your Reference:** RAV

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**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

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## Results

## Activation Laboratories Ltd.

## Report: A19-09214

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704702	0.07	6.06	< 0.2	450	1.04	0.14	1.14	0.22	29.7	5.5	55	1.54	13.7	2.99	11.7	0.17	1.9	0.039	1.29	13.5	19.2	0.54	245
A704704	0.05	5.33	< 0.2	480	0.82	0.16	1.22	0.10	30.0	5.1	58	1.21	12.4	2.80	16.3	0.11	1.5	0.036	1.30	14.3	11.9	0.54	361
A704706	0.03	6.42	< 0.2	460	1.10	0.11	1.26	0.15	28.4	7.6	57	1.39	14.3	3.51	10.6	0.17	3.1	0.032	1.48	13.3	21.0	0.64	324
A704708	0.08	5.27	< 0.2	490	0.81	0.20	1.33	0.14	25.7	5.8	53	1.41	7.6	4.43	22.6	0.20	1.7	0.028	1.41	12.2	11.1	0.55	423
A704710	0.04	5.24	1.3	470	0.76	0.23	1.64	0.21	24.3	7.5	57	0.97	13.4	5.32	23.2	0.15	0.1	0.038	1.26	10.7	10.1	0.79	524
A704712	0.08	6.33	0.3	520	1.05	0.13	1.19	0.19	40.7	6.3	48	1.53	11.3	2.96	12.6	0.09	0.2	0.029	1.46	16.6	15.1	0.62	294
A704714	0.05	5.21	< 0.2	470	0.77	0.22	1.09	0.17	28.1	5.5	51	1.60	10.0	5.83	24.0	0.14	0.3	0.039	1.35	12.3	12.8	0.56	359
A704717	0.09	5.80	0.4	560	1.04	0.18	1.25	0.11	31.5	7.2	54	2.85	15.2	3.06	13.5	0.15	1.0	0.036	1.89	16.0	19.2	0.67	365
A704719	0.05	5.55	< 0.2	630	0.93	0.17	1.43	0.09	30.0	4.2	46	2.49	7.9	1.67	13.1	0.08	0.7	0.018	1.90	14.9	9.9	0.59	300
A704721	0.11	5.84	< 0.2	600	1.08	0.15	1.48	0.09	32.8	6.4	44	2.43	5.8	1.74	11.5	0.08	1.5	0.022	1.87	16.5	16.5	0.64	324
A704723	0.12	6.28	< 0.2	560	1.21	0.17	1.34	0.13	42.3	9.3	45	3.61	17.5	3.36	13.1	0.12	0.2	0.029	1.68	18.1	27.6	0.89	417
A704725	0.16	6.18	< 0.2	300	0.96	0.13	1.94	0.26	24.6	18.2	59	1.71	40.8	6.96	21.2	0.11	3.0	0.060	0.92	10.8	34.9	1.15	873
A704727	0.11	5.68	2.2	490	0.97	0.18	1.05	0.34	24.9	4.3	45	1.34	9.2	3.15	18.0	0.12	0.9	0.027	1.32	11.8	11.3	0.45	224
A704729	0.12	6.28	< 0.2	640	1.10	0.14	1.75	0.06	29.2	9.1	48	2.87	5.9	2.31	13.8	0.08	0.3	0.039	1.75	14.0	23.1	0.80	406
A704731	0.07	5.42	1.4	540	0.96	0.26	1.19	0.17	25.1	4.8	51	1.70	25.1	3.48	23.4	0.12	1.1	0.026	1.56	12.9	13.6	0.54	248
A704733	0.06	5.83	< 0.2	340	0.83	0.14	3.17	0.15	21.7	18.2	60	1.01	16.6	7.14	24.1	0.18	1.9	0.067	0.98	10.0	14.8	1.21	1370
A704736	0.54	6.44	1.8	520	1.45	0.25	1.02	0.34	47.8	26.0	77	8.21	62.1	3.78	13.2	0.39	2.6	0.042	1.46	22.2	35.4	0.80	1310
A704739	0.11	6.42	0.9	560	1.32	0.09	1.53	0.08	52.3	10.3	69	1.69	9.0	2.89	10.7	0.26	2.4	0.029	1.68	17.0	19.2	0.84	338
A704742	0.07	5.61	< 0.2	560	1.06	0.13	1.53	0.08	27.7	7.7	67	2.11	13.8	2.84	13.5	0.13	0.2	0.022	1.87	14.3	18.3	0.85	332
A704744	0.67	6.22	< 0.2	520	1.51	0.20	1.28	0.21	85.3	10.4	69	5.82	30.8	2.80	12.5	< 0.05	1.1	0.037	1.55	37.0	31.0	0.71	816
A704746	0.05	5.09	2.8	540	1.04	0.15	1.33	0.11	32.6	5.8	61	2.39	13.9	3.27	14.5	0.13	0.1	0.024	1.76	16.1	13.4	0.63	294
A704750	0.12	6.20	< 0.2	240	0.62	0.72	3.50	0.21	22.4	15.9	180	1.91	24.1	5.18	20.1	0.17	1.5	0.057	0.60	10.4	6.2	1.41	1090
A704754	0.10	6.32	< 0.2	130	0.85	0.19	3.94	0.18	22.0	27.7	187	3.53	30.5	8.22	20.7	0.41	2.1	0.061	0.36	9.0	20.6	3.25	1070
A704756	0.13	4.79	< 0.2	370	0.74	0.38	1.52	0.23	32.7	6.7	124	2.70	17.6	4.96	15.1	0.21	1.6	0.029	1.11	16.2	10.7	0.78	648
A704758	0.07	5.51	< 0.2	560	1.00	0.22	1.27	0.13	26.6	5.1	47	3.18	5.0	2.64	22.6	0.11	2.3	0.033	1.67	13.5	14.0	0.59	266
A704762	0.15	6.31	1.5	460	1.13	0.12	1.07	0.26	29.0	5.0	50	1.96	11.6	3.22	11.8	0.07	0.2	0.034	1.56	14.5	14.1	0.39	209
A704772	0.24	5.48	1.8	490	1.07	0.22	1.19	0.58	41.1	92.0	795	4.56	60.4	4.01	12.8	0.09	0.3	0.037	1.38	18.7	35.5	1.81	1320
A704782	0.07	5.23	1.8	480	0.84	0.21	1.29	0.20	25.5	13.1	581	1.91	12.1	3.16	15.6	0.14	0.1	0.026	1.54	12.4	15.5	1.63	338
A704786	0.23	5.23	0.5	500	0.90	0.17	1.34	0.14	27.3	15.2	453	2.39	9.7	3.70	15.1	0.12	0.2	0.033	1.60	13.8	15.0	1.56	423
A704789	0.67	5.76	< 0.2	510	0.93	0.14	1.36	0.16	24.8	6.4	173	1.81	7.6	2.36	14.7	0.14	0.3	0.027	1.58	12.8	13.7	0.75	259
A704791	0.30	6.14	< 0.2	650	1.15	0.17	0.96	0.10	40.9	12.1	92	3.37	12.0	2.67	15.8	0.11	0.3	0.037	2.19	19.7	30.9	0.88	556
A704793	0.11	5.59	1.7	520	1.27	0.20	1.34	0.20	20.1	6.8	102	1.75	5.5	2.71	18.9	0.16	0.2	0.030	1.56	10.3	15.1	0.54	346
A704801	0.86	8.98	1.5	440	2.46	0.37	0.78	0.66	106	81.9	184	5.88	255	5.78	17.9	0.09	2.3	0.076	1.02	47.6	61.0	1.29	3760
A704819	0.07	5.68	< 0.2	500	1.06	0.13	1.53	0.09	20.5	19.0	491	1.88	5.8	3.17	11.7	0.41	3.0	0.015	1.54	9.9	13.4	1.71	390
A704828	0.05	5.46	< 0.2	500	0.85	0.14	1.38	0.12	23.0	14.4	642	1.18	9.8	3.72	14.1	0.17	0.2	0.020	1.52	11.3	12.9	1.17	355

## Results

## Activation Laboratories Ltd.

## Report: A19-09214

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704702	0.10	1.47	0.2	13.6	330	17.5	39.3	< 0.002	0.04	< 0.05	6.8	< 1	0.5	230	< 0.05	< 0.05	4.7	0.134	0.25	1.4	37	< 0.1	6.7
A704704	0.07	1.45	< 0.1	12.6	250	17.1	37.6	< 0.002	0.03	< 0.05	8.1	< 1	< 0.2	213	< 0.05	< 0.05	4.7	0.073	0.29	1.4	29	< 0.1	7.8
A704706	0.17	1.71	0.2	19.1	270	14.3	39.4	< 0.002	0.03	< 0.05	6.9	< 1	0.5	239	< 0.05	< 0.05	4.0	0.146	0.28	1.0	40	< 0.1	7.8
A704708	0.06	1.53	0.1	12.2	210	18.6	42.7	< 0.002	0.02	< 0.05	7.9	< 1	0.2	224	< 0.05	< 0.05	3.7	0.136	0.26	1.1	53	< 0.1	8.1
A704710	0.10	1.72	0.2	15.7	310	18.1	37.1	< 0.002	0.02	< 0.05	9.4	< 1	< 0.2	290	< 0.05	< 0.05	3.2	0.244	0.25	1.1	96	< 0.1	8.4
A704712	0.15	1.59	0.2	16.4	380	16.3	41.3	< 0.002	0.03	< 0.05	6.0	< 1	0.3	229	< 0.05	< 0.05	5.0	0.258	0.29	1.2	58	< 0.1	7.5
A704714	0.06	1.47	0.2	10.7	310	20.2	43.4	< 0.002	0.03	< 0.05	8.0	< 1	< 0.2	223	< 0.05	< 0.05	4.0	0.152	0.28	1.2	68	< 0.1	7.6
A704717	0.08	1.71	< 0.1	16.9	260	20.7	56.2	< 0.002	0.02	< 0.05	6.6	< 1	0.4	239	< 0.05	< 0.05	4.6	0.121	0.38	1.3	32	< 0.1	7.9
A704719	0.05	1.89	0.3	13.0	120	20.1	56.1	< 0.002	0.01	< 0.05	7.4	< 1	< 0.2	270	< 0.05	< 0.05	4.5	0.068	0.35	1.3	16	< 0.1	7.8
A704721	< 0.05	2.01	0.1	16.3	140	17.6	56.6	< 0.002	0.01	< 0.05	6.7	< 1	< 0.2	290	< 0.05	< 0.05	4.8	0.068	0.35	1.3	14	< 0.1	8.3
A704723	0.09	1.75	0.2	19.3	270	16.2	57.8	< 0.002	0.02	< 0.05	7.9	< 1	0.4	271	< 0.05	< 0.05	5.1	0.248	0.44	1.7	49	< 0.1	9.8
A704725	0.07	1.40	< 0.1	19.9	300	13.0	32.6	< 0.002	0.03	< 0.05	21.2	< 1	< 0.2	165	< 0.05	< 0.05	3.4	0.198	0.24	0.9	116	< 0.1	16.0
A704727	0.16	1.57	0.2	11.5	350	20.0	39.7	0.002	0.05	< 0.05	5.7	< 1	0.3	246	< 0.05	< 0.05	3.7	0.227	0.26	1.1	71	< 0.1	6.2
A704729	0.09	2.21	0.2	17.3	130	17.4	60.7	< 0.002	0.01	< 0.05	8.1	< 1	< 0.2	363	< 0.05	< 0.05	3.3	0.214	0.39	1.0	43	< 0.1	8.5
A704731	0.07	1.72	0.1	16.6	220	22.0	50.3	< 0.002	0.03	< 0.05	6.6	< 1	< 0.2	271	< 0.05	< 0.05	3.7	0.132	0.31	1.1	58	< 0.1	6.9
A704733	0.07	1.72	< 0.1	18.5	230	12.0	31.0	< 0.002	0.02	< 0.05	23.6	< 1	< 0.2	180	< 0.05	< 0.05	2.7	0.217	0.19	0.7	120	< 0.1	17.0
A704736	5.50	1.21	4.4	34.0	660	17.9	67.6	< 0.002	0.05	0.13	7.7	< 1	1.2	181	0.27	< 0.05	6.2	0.350	0.94	3.0	93	0.4	10.4
A704739	0.27	2.08	2.2	33.1	530	14.8	50.5	< 0.002	0.02	< 0.05	7.6	< 1	0.7	314	0.11	< 0.05	5.2	0.237	0.30	0.9	55	< 0.1	8.0
A704742	0.16	1.88	0.3	30.1	180	16.1	54.9	< 0.002	0.01	< 0.05	7.2	< 1	0.2	293	< 0.05	< 0.05	4.0	0.265	0.33	1.1	68	< 0.1	7.6
A704744	7.89	1.55	3.3	52.9	630	16.9	60.7	< 0.002	0.04	0.08	7.5	< 1	0.8	248	0.17	< 0.05	7.1	0.326	0.59	2.2	74	0.3	15.2
A704746	1.69	1.74	1.7	18.6	690	19.6	53.8	< 0.002	0.02	< 0.05	6.0	< 1	0.4	285	< 0.05	< 0.05	4.7	0.319	0.33	1.4	85	0.2	8.1
A704750	0.24	1.81	< 0.1	41.7	150	12.2	17.3	< 0.002	0.01	< 0.05	24.0	< 1	< 0.2	185	< 0.05	< 0.05	2.6	0.120	0.15	0.9	68	< 0.1	12.8
A704754	30.4	2.17	2.7	54.5	430	8.4	14.0	0.003	0.02	< 0.05	34.6	< 1	0.4	276	0.08	< 0.05	1.3	0.471	0.13	0.5	238	< 0.1	16.6
A704756	1.64	1.17	0.1	22.4	450	17.9	36.3	< 0.002	0.04	< 0.05	8.7	< 1	0.6	163	< 0.05	< 0.05	4.3	0.152	0.30	1.4	63	< 0.1	8.7
A704758	0.25	1.84	< 0.1	14.0	230	21.1	54.9	0.002	0.02	< 0.05	6.2	< 1	< 0.2	310	< 0.05	< 0.05	4.0	0.077	0.33	1.1	29	< 0.1	6.9
A704762	2.27	1.51	2.9	18.9	630	16.3	46.2	< 0.002	0.04	0.08	5.9	< 1	0.5	219	0.06	0.09	4.9	0.258	0.28	1.3	61	0.4	7.4
A704772	1.30	1.08	3.5	419	770	21.6	81.3	< 0.002	0.05	0.10	8.7	< 1	1.0	168	0.13	< 0.05	5.0	0.340	0.36	1.8	82	0.4	10.0
A704782	0.79	1.53	1.3	126	690	16.3	55.5	< 0.002	0.02	< 0.05	7.8	< 1	0.5	207	0.08	0.05	3.7	0.316	0.30	1.1	81	0.2	7.1
A704786	0.06	1.57	0.1	110	350	15.8	66.3	< 0.002	0.02	< 0.05	7.7	< 1	< 0.2	219	< 0.05	< 0.05	4.5	0.172	0.35	1.2	46	< 0.1	8.1
A704789	0.09	1.84	0.3	35.5	260	16.7	57.8	< 0.002	0.03	< 0.05	5.7	< 1	0.3	245	< 0.05	< 0.05	4.0	0.243	0.30	1.1	47	< 0.1	7.0
A704791	< 0.05	1.44	< 0.1	51.9	230	16.6	104	< 0.002	0.01	< 0.05	7.2	< 1	< 0.2	207	< 0.05	< 0.05	6.0	0.093	0.49	1.6	24	< 0.1	8.3
A704793	0.41	1.95	0.4	25.3	670	23.3	61.6	< 0.002	0.02	< 0.05	5.5	< 1	0.6	261	< 0.05	< 0.05	3.9	0.267	0.33	1.1	64	< 0.1	6.0
A704801	9.41	0.42	9.6	702	1080	20.5	68.8	0.002	0.07	0.21	11.5	< 1	1.7	93.3	0.61	0.07	15.8	0.315	0.82	3.1	100	0.9	19.6
A704819	0.39	2.17	1.0	157	390	14.4	48.6	< 0.002	0.01	< 0.05	6.7	< 1	0.5	285	0.06	< 0.05	2.8	0.189	0.25	0.8	50	< 0.1	5.6
A704828	0.14	1.94	0.2	134	200	15.1	48.5	< 0.002	0.02	< 0.05	6.0	< 1	< 0.2	273	< 0.05	< 0.05	3.7	0.260	0.24	0.9	73	< 0.1	6.6

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704702	0.8	40	102
A704704	1.0	28	74.8
A704706	0.9	31	129
A704708	1.0	38	80.2
A704710	1.1	55	15.3
A704712	0.9	53	22.4
A704714	1.0	76	26.7
A704717	1.0	56	61.2
A704719	1.0	37	48.9
A704721	1.0	35	86.8
A704723	1.1	76	25.5
A704725	1.9	174	136
A704727	0.7	36	76.3
A704729	1.0	49	33.6
A704731	0.8	45	72.4
A704733	2.0	86	83.4
A704736	1.2	133	125
A704739	0.8	39	125
A704742	1.0	37	25.7
A704744	1.6	76	73.2
A704746	1.0	37	23.4
A704750	1.6	93	68.0
A704754	1.9	83	83.5
A704756	1.0	42	69.5
A704758	0.8	37	104
A704762	0.8	39	33.3
A704772	1.1	134	29.8
A704782	0.9	67	19.3
A704786	1.0	75	17.3
A704789	0.9	51	32.7
A704791	1.1	75	24.1
A704793	0.8	82	14.6
A704801	2.0	134	91.8
A704819	0.7	58	132
A704828	0.8	61	24.0



Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
SDC-1 Meas		7.74	< 0.2	630	2.87		1.06		85.6	17.6	43	4.40	27.9	4.88	24.7		0.6		2.63	38.2	34.6	1.03	897
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.97	< 0.2	650	2.95		1.07		88.4	17.5	42	4.17	27.3	5.02	24.8		0.7		2.65	39.7	34.5	1.06	874
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.85	< 0.2	650	3.04		1.07		91.1	18.3	47	3.91	38.8	5.00	25.6		0.7		2.45	39.7	35.3	1.05	910
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas			< 0.2		2.90				90.6	17.3		4.10	29.0		16.6		0.8			42.7	35.1		
SDC-1 Cert			0.220		3.00				93.00	18.0		4.00	30.000		21.00		8.30			42.00	34.0		
Oreas 72a (4 Acid Digest) Meas											147			8.68									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											153			8.91									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											152			8.83									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
OREAS 101b (4 Acid) Meas														10.4					2.14			1.23	894
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 101b (4 Acid) Meas														10.4					2.22			1.24	941
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 98 (4 Acid) Meas	45.1					93.5				122			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
OREAS 98 (4 Acid) Meas	45.7					91.4				127			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
DNC-1a Meas				100			7.18			57.9	127		89.4	6.87	13.5					3.5	4.7		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				90			7.16			56.3	129		89.7	6.87	13.6					3.4	4.7		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				90			7.11			54.7	124		93.3	6.82	15.1					3.6	4.5		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas										56.4			99.2		14.6					3.6	4.8		
DNC-1a Cert										57			100		15					3.6	5.2		
OREAS 13b	0.88		46.0							71.9	9120		2220										

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
(4-Acid) Meas																							
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 13b (4-Acid) Meas	0.94		56.6							76.2	8770		2210										
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 13b (4-Acid) Meas	0.86		48.3							68.4			2110										
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.000										
OREAS 904 (4 ACID) Meas		6.21		200			0.05				61			6.92					3.31			0.60	469
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410
SBC-1 Meas			23.0	840	3.13	0.64		0.30	62.0	21.1	100	6.79	27.0		26.9		3.3			24.9	159		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			17.9	790	3.37	0.65		0.31	106	21.8	96	9.09	27.2		30.1		2.7			48.4	163		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			23.6	760	3.08	0.68		0.33	102	22.0	101	8.05	29.4		23.9		3.4			49.8	160		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			21.9		3.38	0.69		0.40	103	21.6		7.96	29.7		19.3		3.4			46.8	162		
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7			52.5	163		
OREAS 45d (4-Acid) Meas		7.72	8.5	180	0.77	0.27	0.20		34.7	30.4	496	4.13	354	14.6	22.0		2.7	0.091	0.40	15.7	21.0	0.25	533
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas		7.62	5.8	180	0.78	0.33	0.19		35.3	28.9	522	3.36	362	14.3	24.7		1.1	0.085	0.39	15.7	19.8	0.25	525
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 96 (4 Acid) Meas	11.4					26.2				51.5			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.2					27.8				48.4			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.1					26.4				47.1			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 923 (4 Acid) Meas	1.74	7.49	5.5	460	2.38	18.6	0.54	0.32	82.9	23.4	78	7.14	4640	7.20	22.2		3.4	0.500	2.55	41.4	31.0	1.90	1080
OREAS 923 (4	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.87	7.16	3.4	440	2.42	19.2	0.52	0.32	83.3	22.6	72	6.29	4330	6.91	17.6		3.8	0.569	2.44	41.5	29.8	1.83	1000
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 621 (4 Acid) Meas	66.4	6.28	74.1		1.83	3.84	2.10	256	46.5	28.9	27	3.13	3800	3.88	29.9		4.5	1.79	2.08	17.8	13.8	0.53	523
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas	67.0	6.18	69.8		1.64	4.06	2.08	273	45.4	27.4	26	3.04	3700	3.84	28.9		4.6	1.86	2.04	17.4	14.2	0.53	540
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas		6.37					2.12				25			3.92					1.98			0.54	528
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 522 (4 Acid) Meas		3.37					3.33				30			22.4					2.52			1.08	3630
OREAS 522 (4 Acid) Cert		3.95					3.65				29.6			24.6					2.83			1.12	3970
Oreas 77b (4 Acid Digest) Meas		1.52		70			2.40				193			24.2					0.28			2.22	557
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
Oreas 77b (4 Acid Digest) Meas		1.51		80			2.41				200			24.1					0.28			2.21	559
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
A704717 Orig	0.10	5.80	0.3	560	1.07	0.19	1.26	0.09	32.3	7.3	56	2.93	15.6	3.11	14.2	0.16	0.6	0.038	1.89	16.2	19.4	0.68	370
A704717 Dup	0.09	5.80	0.6	560	1.01	0.18	1.25	0.13	30.8	7.1	53	2.76	14.8	3.01	12.9	0.15	1.4	0.034	1.89	15.9	18.9	0.66	360
A704750 Orig	0.12	6.21	< 0.2	240	0.66	0.72	3.46	0.18	22.7	15.7	176	1.96	24.4	5.17	19.9	0.15	1.3	0.050	0.60	10.7	6.2	1.39	1060
A704750 Dup	0.12	6.18	< 0.2	240	0.59	0.72	3.53	0.24	22.2	16.1	183	1.86	23.9	5.20	20.4	0.18	1.8	0.065	0.59	10.2	6.1	1.42	1110
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01		< 10				< 0.01				1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01				< 1			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank	< 0.01		< 10				< 0.01				2			< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		0.3		< 0.05	< 0.01		< 0.02	0.08	< 0.1		< 0.05	< 0.2		0.16	< 0.05	< 0.1	0.009		< 0.5	< 0.2		
Method Blank	< 0.01		< 10				< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	< 0.01		< 0.02	0.01	< 0.1		< 0.05	< 0.2		0.13	< 0.05	< 0.1	0.006		< 0.5	< 0.2		

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.52	< 0.1	33.0	600	23.3	131			< 0.05	15.6		0.2	167	< 0.05		11.5	0.072	0.62	2.6	29	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.56	< 0.1	32.1	600	22.9	119			< 0.05	14.5		< 0.2	172	< 0.05		11.9	0.068	0.63	2.6	30	0.2	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.54	0.1	32.0	600	26.0	133			< 0.05	15.8		< 0.2	186	< 0.05		11.8	0.082	0.63	2.6	35	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas			< 0.1	30.7		27.4	125			< 0.05	14.5		< 0.2	181	< 0.05		13.1		0.68	2.9		< 0.1	
SDC-1 Cert			21.00	38.0		25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00		0.70	3.10		0.80	
Oreas 72a (4 Acid Digest) Meas									1.61														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.65														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.65														
Oreas 72a (4 Acid Digest) Cert									1.74														
OREAS 101b (4 Acid) Meas					1110													0.330			79		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 101b (4 Acid) Meas					1170													0.345			80		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 98 (4 Acid) Meas						369			> 10.0	7.78		133	190										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
OREAS 98 (4 Acid) Meas						360			> 10.0	8.23		143	196										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
DNC-1a Meas		1.37	1.5	261		6.0	3.9			0.71	31.7			138				0.267			137		14.6
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.5	265		6.6	3.9			0.86	31.5			141				0.272			138		15.1
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.5	243		6.2	3.6			0.63	30.2			139				0.269			137		15.1
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas			1.4	241		6.3	3.7			0.60	29.3			141									15.5
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b	9.90			2310					1.17														

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
(4-Acid) Meas																							
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas	9.30			2020					1.15														
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas	8.54			1960																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas		0.04			1090				0.06													86	
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630													76.0	
SBC-1 Meas	2.14		14.8	84.8		33.2	61.7			0.92	13.9		3.3	162	0.99		7.6	0.484	0.89	4.4	209	1.7	22.1
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.23		8.0	83.7		33.4	144			0.72	19.7		2.7	175	0.35		15.7	0.482	0.89	5.6	215	1.1	29.3
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.19		15.3	77.6		38.6	151			0.85	19.1		3.4	183	0.99		15.9	0.480	0.89	5.6	217	1.6	29.4
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.01		15.0	76.1		38.0	153			0.80	19.2		3.3	179	1.04		16.0		0.91	5.7		1.6	29.8
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.64	0.10	1.3	231	380	19.4	44.3		0.04	< 0.05	51.4		0.5	29.1	< 0.05		14.1	0.130	0.24	2.5	99	< 0.1	9.6
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.22	0.10	0.1	202	380	22.3	41.5		0.05	< 0.05	47.2		0.5	29.2	< 0.05		14.7	0.241	0.25	2.6	131	< 0.1	10.5
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 96 (4 Acid) Meas						94.6			4.30	4.71		39	62.9										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						106			4.27	3.16		33	61.6										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						102				3.24		32	60.5										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	1.01	0.34	14.1	37.5	710	76.4	173		0.76	1.09	13.0	6	12.9	41.5	0.85		16.5	0.420	0.86	3.0	98	4.7	24.7
OREAS 923 (4	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.00	0.33	13.9	33.2	670	91.5	169		0.73	1.01	12.4	4	13.1	40.4	0.93		16.8	0.397	0.87	3.1	93	5.3	25.4
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 621 (4 Acid) Meas	12.9	1.34	8.3	22.2	390	> 10000	86.9		4.65	13.6	6.1	4	4.9	64.7			4.4	0.181	2.00	2.8	35	1.6	12.3
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas	12.7	1.32	8.7	26.2	380	> 10000	81.8		4.64	15.8	6.3	5	5.2	64.2			4.5	0.181	2.05	2.8	35	1.6	11.9
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas		1.35			390				4.73									0.184			34		
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149			31.8		
OREAS 522 (4 Acid) Meas		0.58			850				2.29									0.328			158		
OREAS 522 (4 Acid) Cert		0.633			890				2.50									0.344			164		
Oreas 77b (4 Acid Digest) Meas		0.36																0.055			35		
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640			33.6		
Oreas 77b (4 Acid Digest) Meas		0.36																0.054			35		
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640			33.6		
A704717 Orig	0.07	1.71	< 0.1	17.3	250	21.0	57.4	< 0.002	0.02	< 0.05	6.6	< 1	0.3	242	< 0.05	< 0.05	4.6	0.126	0.39	1.3	31	< 0.1	8.0
A704717 Dup	0.09	1.71	0.2	16.4	260	20.3	55.1	< 0.002	0.02	< 0.05	6.5	< 1	0.4	236	< 0.05	< 0.05	4.5	0.115	0.38	1.3	33	< 0.1	7.8
A704750 Orig	0.19	1.81	< 0.1	41.0	150	12.2	17.7	< 0.002	0.01	< 0.05	24.4	< 1	< 0.2	184	< 0.05	< 0.05	2.7	0.115	0.15	1.0	64	< 0.1	12.4
A704750 Dup	0.29	1.80	< 0.1	42.3	150	12.2	17.0	< 0.002	0.01	< 0.05	23.6	< 1	< 0.2	186	< 0.05	< 0.05	2.6	0.125	0.14	0.9	72	< 0.1	13.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	< 0.05		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	0.07		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.2	112	21.6
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.2	111	22.9
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.4	113	29.3
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.5		35.6
SDC-1 Cert	4.00		290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 98 (4 Acid) Meas		1330	
OREAS 98 (4 Acid) Cert		1360	
OREAS 98 (4 Acid) Meas		1320	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas	1.9	64	38.0
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	1.9	62	38.8
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	1.9	62	42.9
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	2.0		45.0
DNC-1a Cert	2.0		38.0
OREAS 13b		141	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
(4-Acid) Meas			
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas		118	
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas		29	
OREAS 904 (4 ACID) Cert		26.3	
SBC-1 Meas	2.9	190	119
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.3	194	108
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.4	192	141
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.5		139
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.3	47	105
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.4	46	49.8
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 96 (4 Acid) Meas		473	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		458	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.5	376	127
OREAS 923 (4	2.57	345	116



Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Acid) Cert			
OREAS 923 (4 Acid) Meas	2.6	359	159
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 621 (4 Acid) Meas	1.0	> 10000	202
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas	1.1	> 10000	203
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 522 (4 Acid) Meas		29	
OREAS 522 (4 Acid) Cert		30.2	
Oreas 77b (4 Acid Digest) Meas		181	
Oreas 77b (4 Acid Digest) Cert		205	
Oreas 77b (4 Acid Digest) Meas		178	
Oreas 77b (4 Acid Digest) Cert		205	
A704717 Orig	1.0	56	45.2
A704717 Dup	1.0	56	77.2
A704750 Orig	1.6	92	60.2
A704750 Dup	1.6	95	75.7
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		3	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank	< 0.1		0.8



Report No.: A19-15068-Au
Report Date: 04-Dec-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

9 Humus samples were submitted for analysis.

Table with 2 columns: The following analytical package(s) were requested: and Testing Date:
1A2-50-Timmins | GOP AA-Au (Au - Fire Assay AA) | 2019-12-04 14:00:06

REPORT A19-15068-Au

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Handwritten signature of Emmanuel Esemé

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A705324	< 5
A705326	< 5
A705327	19
A705329	< 5
A705331	< 5
A705332	< 5
A705334	< 5
A705336	< 5
A705338	11

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 254 Fire Assay Meas	2460
OREAS 254 Fire Assay Cert	2550
OREAS 217 (Fire Assay) Meas	352
OREAS 217 (Fire Assay) Cert	338
Method Blank	< 5
Method Blank	< 5



Report No.: A19-15068-TD
Report Date: 04-Dec-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

9 Humus samples were submitted for analysis.

Table with 2 columns: The following analytical package(s) were requested: and Testing Date:
Row 1: UT-6M-RedPine | QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS) | 2019-11-19 11:34:44

REPORT A19-15068-TD

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-15068

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A705324	0.04	1.53	4.9	190	0.33	0.35	0.66	0.75	12.7	2.4	17	0.64	10.0	0.73	3.95	0.09	< 0.1	0.034	0.40	6.4	3.3	0.21	202
A705326	0.14	2.60	5.0	260	0.47	0.38	1.51	0.56	19.3	11.2	32	1.37	16.0	2.48	7.14	0.47	0.7	0.041	0.60	9.3	7.0	0.28	656
A705327	0.05	1.44	9.3	240	0.31	0.46	0.67	0.73	13.1	1.8	17	1.16	11.4	0.57	3.43	0.08	< 0.1	0.029	0.37	6.6	3.5	0.13	99
A705329	0.12	2.19	7.9	260	0.34	0.46	0.95	0.62	14.5	4.2	44	0.87	11.0	1.25	4.72	0.17	0.4	0.040	0.40	7.4	4.5	0.44	233
A705331	0.32	1.15	4.3	200	0.19	0.38	1.01	0.86	11.0	3.6	23	0.72	23.3	0.60	2.42	0.11	0.3	0.026	0.26	5.7	2.7	0.23	166
A705332	0.20	1.44	5.6	260	0.32	0.41	0.84	1.01	12.7	1.8	16	0.78	8.7	0.48	2.85	0.13	< 0.1	0.033	0.42	6.5	3.5	0.12	128
A705334	0.21	1.26	3.1	280	0.32	0.35	1.34	1.25	10.3	3.6	29	1.05	12.4	0.59	2.38	0.09	< 0.1	0.030	0.38	5.3	3.5	0.30	1320
A705336	0.09	1.23	4.8	220	0.33	0.31	0.67	0.45	12.1	1.4	12	0.73	8.6	0.41	2.39	0.09	< 0.1	0.025	0.40	6.2	2.7	0.10	183
A705338	0.19	1.85	4.9	260	0.36	0.41	1.01	0.92	16.8	2.5	30	1.07	9.9	0.74	3.72	0.17	< 0.1	0.031	0.51	8.6	4.3	0.22	377

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A705324	1.15	0.35	0.7	11.6	710	51.8	13.1	< 0.002	0.16	0.78	2.5	1	0.8	71.3	< 0.05	< 0.05	1.8	0.130	0.16	0.6	24	0.4	4.1
A705326	2.02	0.57	1.3	12.7	570	53.3	18.8	0.003	0.13	0.52	6.1	1	1.6	88.1	< 0.05	< 0.05	2.5	0.236	0.25	0.8	82	0.1	6.8
A705327	1.23	0.28	1.1	9.1	670	69.9	14.1	< 0.002	0.18	1.13	2.5	1	1.7	59.9	< 0.05	< 0.05	2.0	0.114	0.24	0.6	21	0.4	4.0
A705329	1.13	0.46	2.6	16.3	680	71.2	14.1	< 0.002	0.15	1.12	4.4	1	2.3	63.1	0.06	0.05	2.1	0.213	0.27	0.7	37	0.6	5.0
A705331	1.10	0.22	1.7	13.7	820	55.1	10.5	< 0.002	0.19	0.87	3.0	1	1.7	43.0	0.09	< 0.05	1.4	0.098	0.19	0.5	20	0.3	3.7
A705332	1.33	0.33	0.7	8.3	840	73.8	15.6	< 0.002	0.17	1.03	2.2	1	1.0	64.3	< 0.05	< 0.05	1.9	0.101	0.35	0.7	17	0.3	4.1
A705334	1.08	0.26	0.9	12.1	1080	69.8	16.6	< 0.002	0.18	0.81	2.6	1	1.7	76.2	< 0.05	< 0.05	1.4	0.082	0.30	0.5	21	0.3	3.6
A705336	1.01	0.32	1.0	6.6	780	61.2	15.0	< 0.002	0.14	0.63	2.1	1	0.6	65.5	< 0.05	< 0.05	2.2	0.084	0.15	0.6	15	0.2	3.3
A705338	1.49	0.40	1.2	11.0	930	76.3	21.4	< 0.002	0.16	0.85	2.7	1	1.3	78.8	< 0.05	< 0.05	2.1	0.164	0.21	0.7	25	0.3	5.2

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A705324	0.5	47	6.1
A705326	0.8	48	32.3
A705327	0.4	42	6.7
A705329	0.6	98	28.5
A705331	0.4	79	9.8
A705332	0.4	75	3.0
A705334	0.4	265	2.9
A705336	0.4	116	2.8
A705338	0.6	124	5.4



Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	
Oreas 72a (4 Acid Digest) Meas			2.0							155	149		305	9.09										
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63										
Oreas 72a (4 Acid Digest) Meas			5.7							154			303											
Oreas 72a (4 Acid Digest) Cert			14.7							157			316											
OREAS 101b (4 Acid) Meas									> 500	45.0			411	10.5					2.03	770		1.27	863	
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927	
OREAS 101b (4 Acid) Meas									> 500	44.3			388								788			
OREAS 101b (4 Acid) Cert									1325	45			412								754			
OREAS 98 (4 Acid) Meas	45.1					89.1				114			> 10000											
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0											
DNC-1a Meas										58.6			96.8		13.1						3.9	5.0		
DNC-1a Cert										57			100		15						3.6	5.2		
OREAS 13b (4-Acid) Meas	0.97		53.7							77.9			2310											
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.0 000											
OREAS 904 (4 ACID) Meas	0.65	6.33	99.5	200	9.10	4.03	0.05		88.0	84.0	62	3.78	5860	6.87	14.9	0.22	5.0	0.204	2.65	45.0	18.1	0.60	421	
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410	
SBC-1 Meas			25.2		3.13	0.69		0.37	114	23.3		8.34	30.9		23.7		3.5				53.2	175		
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7				52.5	163		
OREAS 45d (4-Acid) Meas		7.81	8.7	180	0.78	0.34	0.20		39.7	31.5	524	3.80	383	14.2	21.0		2.4	0.098	0.43	17.9	22.9	0.25	512	
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000	
OREAS 45d (4-Acid) Meas			9.1		0.79	0.37			39.1	30.4		4.02	359		20.4		1.7	0.089		18.3	21.6			
OREAS 45d (4-Acid) Cert			13.8		0.79	0.31			37.20	29.50		3.910	371		21.20		3.830	0.096		16.9	21.5			
OREAS 96 (4 Acid) Meas	12.0					27.7				49.6			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 96 (4 Acid) Meas	11.6					26.7				49.7			> 10000											
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300											
OREAS 923 (4 Acid) Meas	1.70	7.31	5.3	430	2.54	20.3	0.51	0.34	87.8	23.5	80	6.74	4150	6.42	17.6		3.8	0.501	2.18	45.1	33.2	1.75	970	
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950	
OREAS 522 (4 Acid) Meas	1.21		429		0.69	8.62			57.2	518		0.63	7900		12.8		3.1	0.191		50.3	15.3			
OREAS 522 (4 Acid) Cert	1.31		490		0.700	8.72			148	550		0.640	9160		16.0		2.96	0.230		171	16.2			
Oreas 77b (4 Acid Digest) Meas	1.53		1510		0.43	3.41		0.91	28.2	1430		2.15	2860		3.80		1.2	0.104		15.6	15.7			

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
Oreas 77b (4 Acid Digest) Meas	1.50		1390		0.40	3.40		1.09	26.6	1490		2.17	2900		3.66		1.1	0.089		14.8	15.3		
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
Method Blank	< 0.01		< 0.2		< 0.05	0.11		< 0.02	0.01	< 0.1		< 0.05	0.3		0.08	< 0.05	< 0.1	< 0.005		< 0.5	0.6		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.5		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.7		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	< 5
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 72a (4 Acid Digest) Meas				6650					1.64														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas				6690																			
Oreas 72a (4 Acid Digest) Cert				6930.000																			
OREAS 101b (4 Acid) Meas	16.2			8.7	970	22.0											38.7	0.286		372	76		133
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas	19.4			8.2		21.6											37.4			371			136
OREAS 101b (4 Acid) Cert	20.1			8.2		23											36.4			387			133
OREAS 98 (4 Acid) Meas						308				8.76		152	187										
OREAS 98 (4 Acid) Cert						345				20.1		158	206										
DNC-1a Meas			1.3	267		5.7	3.6			0.69	34.7			145									17.2
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b (4-Acid) Meas	9.12			2280																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas	2.13	0.03		41.3	880	10.2	145		0.06	1.11	12.7	3	2.9	26.1	0.78		15.8		0.52	9.0	67	2.5	34.0
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
SBC-1 Meas	2.24		13.4	85.2		34.1	144			0.94	22.2		3.4	182	0.98		16.2		0.88	5.8		1.6	33.2
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.48	0.09	0.8	238	350	20.9	42.2		0.04	< 0.05	58.6		0.8	32.2	< 0.05		15.6	0.183	0.26	2.8	113	0.1	12.1
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.37		0.2	238		20.8	41.3			< 0.05	56.2		0.6	30.2	< 0.05		16.0		0.27	2.9		0.1	11.5
OREAS 45d (4-Acid) Cert	2.500		14.50	231.0		21.8	42.1			0.82	49.30		2.78	31.30	1.02		14.5		0.27	2.63		1.62	9.53
OREAS 96 (4 Acid) Meas						97.4				3.65		41	64.1										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						94.4				3.30		41	61.8										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	0.96	0.31	12.8	39.6	630	82.5	138		0.68	1.20	14.1	6	13.0	40.7	0.95		17.1	0.408	0.85	3.1	95	4.3	26.9
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 522 (4 Acid) Meas	189		4.7	65.3		11.6	72.7	0.097		3.53	11.0	2	8.2	51.1	0.39	0.63	3.2		0.29	43.6		125	17.0
OREAS 522 (4 Acid) Cert	206		5.66	70.0		12.5	82.0	0.0980		7.93	10.9	2.74	9.32	199	0.440	1.14	7.53		0.290	42.2		135	18.5
Oreas 77b (4 Acid Digest) Meas			2.4	> 10000		58.0	17.2	0.023		3.80	3.4		1.4	29.4	0.25	1.10	6.7		1.37	1.8		2.9	5.9

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
Oreas 77b (4 Acid Digest) Meas			2.5	> 10000		57.7	16.2	0.022		5.17	4.0		1.4	28.3	0.24	1.07	6.9		1.42	1.9		2.7	6.2
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
Method Blank	0.06		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.09	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.6		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			> 10000				< 0.01										< 0.005			< 1	
Method Blank		< 0.01			< 10				< 0.01										< 0.005			< 1	
Method Blank		< 0.01			> 10000				< 0.01										< 0.005			< 1	
Method Blank		< 0.01			< 10				< 0.01										< 0.005			< 1	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.8		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas	13.3		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 98 (4 Acid) Meas			
OREAS 98 (4 Acid) Cert			
DNC-1a Meas	2.1		37.9
DNC-1a Cert	2.0		38.0
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas	3.2	28	183
OREAS 904 (4 ACID) Cert	3.14	26.3	171
SBC-1 Meas	3.6		124
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.6	45	89.4
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.6		58.5
OREAS 45d (4-Acid) Cert	1.33		141
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.7	352	129
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 522 (4 Acid) Meas	2.0		106
OREAS 522 (4 Acid) Cert	1.97		112
Oreas 77b (4 Acid Digest) Meas			34.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 77b (4 Acid Digest) Cert			37.9
Oreas 77b (4 Acid Digest) Meas			36.1
Oreas 77b (4 Acid Digest) Cert			37.9
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	



Report No.: A19-15070-Au  
 Report Date: 22-Nov-19  
 Date Submitted: 05-Nov-19  
 Your Reference: RAV

Canadian Orebodies Inc.  
 141 Adelaide Street West, Suite 301  
 Toronto ON M5H 3L5  
 Canada

ATTN: Fraser Laschinger (inv)

## CERTIFICATE OF ANALYSIS

7 Soil samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	GOP AA-Au (Au - Fire Assay AA)	2019-11-19 12:05:21

REPORT **A19-15070-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Esemé, Ph.D.  
 Quality Control Coordinator

**ACTIVATION LABORATORIES LTD.**  
 1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
 TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
 E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A705325	< 5
A705328	6
A705330	< 5
A705333	< 5
A705335	< 5
A705337	< 5
A705339	< 5



Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 254 Fire Assay Meas	2540
OREAS 254 Fire Assay Cert	2550
OREAS 217 (Fire Assay) Meas	331
OREAS 217 (Fire Assay) Cert	338
Method Blank	< 5
Method Blank	< 5



Report No.: A19-15070-TD
Report Date: 22-Nov-19
Date Submitted: 05-Nov-19
Your Reference: RAV

Canadian Orebodies Inc.
141 Adelaide Street West, Suite 301
Toronto ON M5H 3L5
Canada

ATTN: Fraser Laschinger (inv)

CERTIFICATE OF ANALYSIS

7 Soil samples were submitted for analysis.

Table with 2 columns: Analytical package(s) requested and Testing Date. Row 1: UT-6M-RedPine, QOP Total/QOP Ultratrace- 4acid Digest (Total Digestion ICPOES/ICPMS), 2019-11-19 11:34:44

REPORT A19-15070-TD

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Handwritten signature of Emmanuel Esemé

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A19-15070

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A705325	0.04	5.81	3.1	400	0.80	0.22	0.91	0.12	26.4	4.2	86	1.02	24.0	5.92	19.2	0.38	3.3	0.047	1.18	13.5	14.1	0.43	231
A705328	0.09	5.68	1.6	440	0.87	0.17	1.32	0.21	24.4	6.0	56	1.32	9.8	3.03	12.9	0.32	3.4	0.034	1.35	12.2	14.6	0.53	275
A705330	0.04	6.41	1.4	360	0.90	0.19	1.85	0.19	25.9	13.7	96	1.27	14.4	4.42	14.9	0.30	2.5	0.040	1.10	12.5	16.0	1.41	576
A705333	0.06	6.74	1.8	730	1.28	0.16	1.67	0.12	30.8	7.5	29	0.74	13.3	3.36	18.0	0.16	2.7	0.034	1.66	11.2	20.4	0.62	325
A705335	0.08	5.91	3.2	490	1.14	0.17	1.49	0.23	29.2	8.7	59	1.74	11.2	4.26	14.0	0.20	0.1	0.044	1.53	13.2	19.3	0.80	385
A705337	0.04	6.45	2.4	630	1.31	0.17	1.38	0.21	32.1	6.1	39	1.51	5.7	3.18	16.1	0.13	< 0.1	0.031	1.69	14.2	19.0	0.57	299
A705339	0.18	5.78	2.2	460	0.81	0.21	1.34	0.25	46.7	6.9	69	2.29	13.9	4.54	17.0	0.15	0.3	0.048	1.37	22.4	15.5	1.57	626

Results

Activation Laboratories Ltd.

Report: A19-15070

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A705325	0.98	1.23	1.2	13.1	280	22.0	33.8	< 0.002	0.05	0.11	6.8	1	1.1	196	0.05	< 0.05	5.2	0.298	0.28	1.3	95	0.2	6.6
A705328	0.39	1.77	0.4	15.8	210	14.2	37.0	< 0.002	0.03	0.06	8.0	< 1	0.8	266	< 0.05	< 0.05	3.8	0.206	0.29	0.9	52	< 0.1	6.4
A705330	0.24	1.61	0.1	39.3	310	13.1	34.2	< 0.002	0.03	0.07	16.0	< 1	0.7	211	< 0.05	< 0.05	3.6	0.208	0.24	0.9	72	< 0.1	10.0
A705333	0.21	2.46	0.2	14.3	190	17.0	40.3	< 0.002	0.02	< 0.05	6.2	< 1	0.3	513	< 0.05	< 0.05	3.0	0.189	0.26	0.8	58	< 0.1	5.9
A705335	0.69	1.81	1.0	22.1	370	14.8	47.5	< 0.002	0.03	< 0.05	9.3	< 1	0.5	278	< 0.05	< 0.05	4.0	0.291	0.30	1.0	83	< 0.1	8.1
A705337	0.46	2.15	0.6	14.1	360	15.7	49.4	< 0.002	0.02	< 0.05	7.0	< 1	0.6	387	< 0.05	< 0.05	4.2	0.271	0.31	1.1	67	< 0.1	7.8
A705339	0.11	1.59	< 0.1	14.5	320	19.0	51.1	< 0.002	0.07	< 0.05	12.1	< 1	0.4	211	< 0.05	< 0.05	3.7	0.241	0.33	1.0	72	< 0.1	9.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A705325	0.8	28	113
A705328	0.7	29	122
A705330	1.1	63	87.9
A705333	0.6	48	99.2
A705335	0.9	91	12.5
A705337	0.9	65	13.6
A705339	1.2	195	28.9

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Oreas 72a (4 Acid Digest) Meas			2.0							155	149		305	9.09									
Oreas 72a (4 Acid Digest) Cert			14.7							157	228		316	9.63									
Oreas 72a (4 Acid Digest) Meas			5.7							154			303										
Oreas 72a (4 Acid Digest) Cert			14.7							157			316										
OREAS 101b (4 Acid) Meas									> 500	45.0			411	10.5					2.03	770		1.27	863
OREAS 101b (4 Acid) Cert									1325	45			412	10.7					2.36	754		1.23	927
OREAS 101b (4 Acid) Meas									> 500	44.3			388								788		
OREAS 101b (4 Acid) Cert									1325	45			412								754		
OREAS 98 (4 Acid) Meas	45.1					89.1				114			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
DNC-1a Meas										58.6			96.8		13.1						3.9	5.0	
DNC-1a Cert										57			100		15						3.6	5.2	
OREAS 13b (4-Acid) Meas	0.97		53.7							77.9			2310										
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.0 000										
OREAS 904 (4 ACID) Meas	0.65	6.33	99.5	200	9.10	4.03	0.05		88.0	84.0	62	3.78	5860	6.87	14.9	0.22	5.0	0.204	2.65	45.0	18.1	0.60	421
OREAS 904 (4 ACID) Cert	0.551	6.30	98.0	194	7.86	4.05	0.0460		86.0	83.0	54.0	3.79	6120	6.68	16.7	0.180	5.00	0.220	3.31	43.2	16.7	0.556	410
SBC-1 Meas			25.2		3.13	0.69		0.37	114	23.3		8.34	30.9		23.7		3.5				53.2	175	
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7				52.5	163	
OREAS 45d (4-Acid) Meas		7.81	8.7	180	0.78	0.34	0.20		39.7	31.5	524	3.80	383	14.2	21.0		2.4	0.098	0.43	17.9	22.9	0.25	512
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas			9.1		0.79	0.37			39.1	30.4		4.02	359		20.4		1.7	0.089			18.3	21.6	
OREAS 45d (4-Acid) Cert			13.8		0.79	0.31			37.20	29.50		3.910	371		21.20		3.830	0.096			16.9	21.5	
OREAS 96 (4 Acid) Meas	12.0					27.7				49.6			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.6					26.7				49.7			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 923 (4 Acid) Meas	1.70	7.31	5.3	430	2.54	20.3	0.51	0.34	87.8	23.5	80	6.74	4150	6.42	17.6		3.8	0.501	2.18	45.1	33.2	1.75	970
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 522 (4 Acid) Meas	1.21		429		0.69	8.62			57.2	518		0.63	7900		12.8		3.1	0.191			50.3	15.3	
OREAS 522 (4 Acid) Cert	1.31		490		0.700	8.72			148	550		0.640	9160		16.0		2.96	0.230			171	16.2	
Oreas 77b (4 Acid Digest) Meas	1.53		1510		0.43	3.41		0.91	28.2	1430		2.15	2860		3.80		1.2	0.104			15.6	15.7	

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
Oreas 77b (4 Acid Digest) Meas	1.50		1390		0.40	3.40		1.09	26.6	1490		2.17	2900		3.66		1.1	0.089		14.8	15.3		
Oreas 77b (4 Acid Digest) Cert	1.62		2050		0.470	3.44		1.20	27.7	1550		2.32	3430		4.61		1.15	0.112		15.8	18.8		
A705337 Orig	0.04	6.41	2.7	620	1.30	0.17	1.39	0.21	32.6	6.4	37	1.55	5.6	3.21	16.4	0.17	0.2	0.035	1.67	14.2	19.2	0.58	299
A705337 Dup	0.04	6.49	2.1	640	1.32	0.17	1.37	0.22	31.7	5.8	41	1.47	5.8	3.16	15.7	0.10	< 0.1	0.028	1.71	14.2	18.8	0.57	299
Method Blank	< 0.01		< 0.2		< 0.05	0.11		< 0.02	0.01	< 0.1		< 0.05	0.3		0.08	< 0.05	< 0.1	< 0.005		< 0.5	0.6		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.5		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank	< 0.01		< 0.2		< 0.05	0.05		< 0.02	< 0.01	< 0.1		< 0.05	0.7		< 0.05	< 0.05	< 0.1	< 0.005		< 0.5	0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					> 10.0			> 50.0	< 5
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 72a (4 Acid Digest) Meas				6650					1.64														
Oreas 72a (4 Acid Digest) Cert				6930.000					1.74														
Oreas 72a (4 Acid Digest) Meas				6690																			
Oreas 72a (4 Acid Digest) Cert				6930.000																			
OREAS 101b (4 Acid) Meas	16.2			8.7	970	22.0											38.7	0.286		372	76		133
OREAS 101b (4 Acid) Cert	20.1			8.2	1118	23											36.4	0.35		387	77		133
OREAS 101b (4 Acid) Meas	19.4			8.2		21.6											37.4			371			136
OREAS 101b (4 Acid) Cert	20.1			8.2		23											36.4			387			133
OREAS 98 (4 Acid) Meas						308				8.76		152	187										
OREAS 98 (4 Acid) Cert						345				20.1		158	206										
DNC-1a Meas			1.3	267		5.7	3.6			0.69	34.7			145									17.2
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b (4-Acid) Meas	9.12			2280																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas	2.13	0.03		41.3	880	10.2	145		0.06	1.11	12.7	3	2.9	26.1	0.78		15.8		0.52	9.0	67	2.5	34.0
OREAS 904 (4 ACID) Cert	2.12	0.0340		40.1	980	10.6	130		0.0630	1.48	11.2	3.30	2.83	27.2	0.540		14.3		0.520	8.43	76.0	2.12	31.5
SBC-1 Meas	2.24		13.4	85.2		34.1	144			0.94	22.2		3.4	182	0.98		16.2		0.88	5.8		1.6	33.2
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.48	0.09	0.8	238	350	20.9	42.2		0.04	< 0.05	58.6		0.8	32.2	< 0.05		15.6	0.183	0.26	2.8	113	0.1	12.1
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.37		0.2	238		20.8	41.3			< 0.05	56.2		0.6	30.2	< 0.05		16.0		0.27	2.9		0.1	11.5
OREAS 45d (4-Acid) Cert	2.500		14.50	231.0		21.8	42.1			0.82	49.30		2.78	31.30	1.02		14.5		0.27	2.63		1.62	9.53
OREAS 96 (4 Acid) Meas						97.4				3.65		41	64.1										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						94.4				3.30		41	61.8										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	0.96	0.31	12.8	39.6	630	82.5	138		0.68	1.20	14.1	6	13.0	40.7	0.95		17.1	0.408	0.85	3.1	95	4.3	26.9
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 522 (4 Acid) Meas	189		4.7	65.3		11.6	72.7	0.097		3.53	11.0	2	8.2	51.1	0.39	0.63	3.2		0.29	43.6		125	17.0
OREAS 522 (4 Acid) Cert	206		5.66	70.0		12.5	82.0	0.0980		7.93	10.9	2.74	9.32	199	0.440	1.14	7.53		0.290	42.2		135	18.5
Oreas 77b (4 Acid Digest) Meas			2.4	> 10000		58.0	17.2	0.023		3.80	3.4		1.4	29.4	0.25	1.10	6.7		1.37	1.8		2.9	5.9



Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
Oreas 77b (4 Acid Digest) Meas			2.5	> 10000		57.7	16.2	0.022		5.17	4.0		1.4	28.3	0.24	1.07	6.9		1.42	1.9		2.7	6.2
Oreas 77b (4 Acid Digest) Cert			3.26	113000		61.0	19.1	0.0220		9.100	3.51		1.59	34.4	0.280	1.35	6.61		1.37	1.71		3.07	6.55
A705337 Orig	0.29	2.14	0.4	14.0	360	15.9	49.3	< 0.002	0.02	< 0.05	7.0	< 1	0.5	392	< 0.05	< 0.05	4.1	0.255	0.32	1.1	65	< 0.1	7.8
A705337 Dup	0.62	2.16	0.9	14.1	350	15.4	49.5	< 0.002	0.02	< 0.05	6.9	< 1	0.6	383	< 0.05	< 0.05	4.2	0.288	0.31	1.1	70	0.1	7.7
Method Blank	0.06		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.09	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.6		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank	< 0.05		< 0.1	0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			> 10000				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			> 10000				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas	13.8		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 101b (4 Acid) Meas	13.3		
OREAS 101b (4 Acid) Cert	13.9		
OREAS 98 (4 Acid) Meas			
OREAS 98 (4 Acid) Cert			
DNC-1a Meas	2.1		37.9
DNC-1a Cert	2.0		38.0
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas	3.2	28	183
OREAS 904 (4 ACID) Cert	3.14	26.3	171
SBC-1 Meas	3.6		124
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.6	45	89.4
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.6		58.5
OREAS 45d (4-Acid) Cert	1.33		141
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.7	352	129
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 522 (4 Acid) Meas	2.0		106
OREAS 522 (4 Acid) Cert	1.97		112
Oreas 77b (4 Acid Digest) Meas			34.8

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Oreas 77b (4 Acid Digest) Cert			37.9
Oreas 77b (4 Acid Digest) Meas			36.1
Oreas 77b (4 Acid Digest) Cert			37.9
A705337 Orig	0.9	65	16.6
A705337 Dup	0.9	65	10.5
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	

**APPENDIX VI**

**Lake Sediment Assay Certificates**



**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09217-Au  
**Invoice Date:** 13-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

10 Lake Sediments samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-50-Timmins QOP AA-Au (Au - Fire Assay AA)

REPORT **A19-09217-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E' and 'S'.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09217-Au  
**Invoice Date:** 13-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

**CERTIFICATE OF ANALYSIS**

10 Lake Sediments samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine Total Digestion ICP & ICP/MS

REPORT **A19-09217-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
A704951	19
A704952	20
A704953	28
A704954	16
A704955	34
A704956	31
A704957	27
A704958	23
A704959	33
A704960	31

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
Oreas 221 (Fire Assay) Meas	1030
Oreas 221 (Fire Assay) Cert	1060
Method Blank	< 5
Method Blank	< 5





**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09217-TD  
**Invoice Date:** 13-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

## CERTIFICATE OF ANALYSIS

10 Lake Sediments samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-50-Timmins QOP AA-Au (Au - Fire Assay AA)

REPORT **A19-09217-TD**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and is positioned above a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1  
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

**Date Submitted:** 17-Jul-19  
**Invoice No.:** A19-09217-TD  
**Invoice Date:** 13-Aug-19  
**Your Reference:** RAV

**Canadian Orebodies Inc.**  
**147 Brock Avenue**  
**Timmins ON P4N 7N9**  
**Canada**

**ATTN: Fraser Laschinger**

**CERTIFICATE OF ANALYSIS**

10 Lake Sediments samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-6M-RedPine Total Digestion ICP & ICP/MS

REPORT **A19-09217-TD**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5  
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A19-09217

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
A704951	0.15	2.63	< 0.2	120	0.59	0.06	2.31	1.66	75.7	10.8	29	0.99	76.6	0.75	2.27	< 0.05	0.7	0.023	0.24	47.6	6.4	0.21	165
A704952	0.09	2.20	< 0.2	130	0.49	0.07	1.13	0.78	54.7	8.7	27	1.03	52.8	0.75	2.90	< 0.05	0.7	0.016	0.25	41.0	5.0	0.21	140
A704953	0.22	3.07	< 0.2	180	0.62	0.07	1.57	1.47	66.9	10.1	31	1.00	71.6	1.73	2.89	< 0.05	0.2	0.020	0.27	46.2	5.6	0.18	363
A704954	0.15	2.80	< 0.2	120	0.53	0.06	1.10	1.11	54.2	9.3	26	0.89	62.4	1.06	2.94	< 0.05	0.5	0.016	0.23	34.7	4.7	0.16	238
A704955	0.11	2.72	3.5	140	0.50	0.08	1.15	1.02	57.6	9.7	27	1.02	52.9	1.01	3.51	< 0.05	0.7	0.014	0.29	41.4	5.1	0.21	200
A704956	0.17	4.76	< 0.2	410	1.05	0.12	1.47	0.70	53.9	16.0	189	1.99	25.0	2.20	8.11	< 0.05	0.4	0.020	1.28	29.8	19.9	1.09	425
A704957	0.24	3.84	< 0.2	320	0.91	0.16	1.35	0.96	54.2	15.1	120	1.95	32.5	2.51	7.27	< 0.05	0.3	0.027	0.76	30.1	19.4	0.86	435
A704958	0.21	4.19	< 0.2	340	1.06	0.15	1.46	1.11	58.8	25.8	307	1.96	42.7	2.20	8.09	< 0.05	0.7	0.028	1.01	32.7	20.9	1.28	451
A704959	0.20	4.36	< 0.2	330	1.08	0.14	1.53	1.17	60.4	22.5	212	1.91	37.7	2.38	8.84	< 0.05	0.3	0.039	0.98	32.2	20.8	1.23	465
A704960	0.18	4.35	0.8	370	0.95	0.12	1.60	0.76	58.1	24.9	349	1.73	38.3	2.14	8.76	< 0.05	0.3	0.034	1.11	32.5	18.1	1.25	427

Results

Activation Laboratories Ltd.

Report: A19-09217

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
A704951	5.18	0.14	1.8	20.2	850	7.0	13.1	0.007	0.95	0.15	5.2	1	0.3	40.7	0.11	< 0.05	4.2	0.061	0.26	1.4	26	0.5	18.4
A704952	1.06	0.24	2.0	20.7	720	8.3	11.1	< 0.002	0.57	0.13	5.0	< 1	0.4	47.1	0.11	< 0.05	4.6	0.082	0.18	1.0	22	0.3	15.6
A704953	1.40	0.20	2.2	17.7	2220	6.9	11.7	0.002	0.57	0.12	4.6	1	0.3	49.0	0.07	0.10	4.0	0.082	0.28	1.2	38	0.3	16.4
A704954	1.14	0.16	1.9	17.9	1190	6.9	10.3	< 0.002	0.52	0.11	4.2	1	0.3	32.8	0.08	< 0.05	3.7	0.072	0.27	1.1	30	0.3	13.2
A704955	0.70	0.27	2.1	20.8	810	10.7	11.7	< 0.002	0.48	0.14	5.5	< 1	0.4	50.2	0.13	< 0.05	4.5	0.094	0.21	1.1	31	0.2	15.7
A704956	1.06	1.06	3.8	262	1050	11.6	49.5	< 0.002	0.22	0.14	7.2	< 1	0.6	172	0.09	< 0.05	6.8	0.216	0.40	2.4	50	0.4	12.8
A704957	1.03	0.42	1.8	263	2490	18.9	38.8	< 0.002	0.28	0.09	6.3	< 1	0.4	97.5	0.09	< 0.05	5.6	0.137	0.32	1.8	51	0.4	11.5
A704958	1.80	0.77	4.9	460	1080	13.6	46.9	0.003	0.43	0.20	8.3	< 1	0.9	149	0.16	0.07	7.1	0.205	0.57	3.0	50	0.5	15.1
A704959	1.48	0.72	4.7	399	1280	12.9	43.2	0.002	0.35	0.16	7.5	< 1	0.8	129	0.10	0.08	6.8	0.203	0.51	2.7	55	0.7	14.5
A704960	1.69	0.96	4.8	453	960	14.7	45.5	0.003	0.46	0.17	8.3	< 1	0.8	161	0.06	0.06	7.2	0.202	0.50	3.0	48	0.4	15.0

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
A704951	1.4	200	26.4
A704952	1.3	110	27.2
A704953	1.3	204	11.5
A704954	1.1	162	19.6
A704955	1.4	143	29.3
A704956	1.3	117	27.2
A704957	1.0	139	14.2
A704958	1.4	149	43.3
A704959	1.3	156	21.1
A704960	1.5	123	22.7

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
SDC-1 Meas		7.74	< 0.2	630	2.87		1.06		85.6	17.6	43	4.40	27.9	4.88	24.7		0.6		2.63	38.2	34.6	1.03	897
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.97	< 0.2	650	2.95		1.07		88.4	17.5	42	4.17	27.3	5.02	24.8		0.7		2.65	39.7	34.5	1.06	874
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas		7.85	< 0.2	650	3.04		1.07		91.1	18.3	47	3.91	38.8	5.00	25.6		0.7		2.45	39.7	35.3	1.05	910
SDC-1 Cert		8.34	0.220	630	3.00		1.00		93.00	18.0	64.00	4.00	30.000	4.82	21.00		8.30		2.72	42.00	34.0	1.02	880.00
SDC-1 Meas			< 0.2		2.90				90.6	17.3		4.10	29.0		16.6		0.8			42.7	35.1		
SDC-1 Cert			0.220		3.00				93.00	18.0		4.00	30.000		21.00		8.30			42.00	34.0		
Oreas 72a (4 Acid Digest) Meas											147			8.68									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											153			8.91									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
Oreas 72a (4 Acid Digest) Meas											152			8.83									
Oreas 72a (4 Acid Digest) Cert											228			9.63									
OREAS 101b (4 Acid) Meas														10.4					2.14			1.23	894
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 101b (4 Acid) Meas														10.4					2.22			1.24	941
OREAS 101b (4 Acid) Cert														10.7					2.36			1.23	927
OREAS 98 (4 Acid) Meas	45.1					93.5				122			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
OREAS 98 (4 Acid) Meas	45.7					91.4				127			> 10000										
OREAS 98 (4 Acid) Cert	45.1					97.2				121			14800 0.0										
DNC-1a Meas				100			7.18			57.9	127		89.4	6.87	13.5					3.5	4.7		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				90			7.16			56.3	129		89.7	6.87	13.6					3.4	4.7		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas				90			7.11			54.7	124		93.3	6.82	15.1					3.6	4.5		
DNC-1a Cert				118			8.21			57	270		100	6.97	15					3.6	5.2		
DNC-1a Meas										56.4			99.2		14.6					3.6	4.8		
DNC-1a Cert										57			100		15					3.6	5.2		
OREAS 13b	0.88		46.0							71.9	9120		2220										

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
(4-Acid) Meas																							
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 13b (4-Acid) Meas	0.94		56.6							76.2	8770		2210										
OREAS 13b (4-Acid) Cert	0.86		57							75	8650.000		2327.000										
OREAS 13b (4-Acid) Meas	0.86		48.3							68.4			2110										
OREAS 13b (4-Acid) Cert	0.86		57							75			2327.000										
OREAS 904 (4 ACID) Meas		6.21		200			0.05				61			6.92					3.31			0.60	469
OREAS 904 (4 ACID) Cert		6.30		194			0.0460				54.0			6.68					3.31			0.556	410
SBC-1 Meas			23.0	840	3.13	0.64		0.30	62.0	21.1	100	6.79	27.0		26.9		3.3			24.9	159		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			17.9	790	3.37	0.65		0.31	106	21.8	96	9.09	27.2		30.1		2.7			48.4	163		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			23.6	760	3.08	0.68		0.33	102	22.0	101	8.05	29.4		23.9		3.4			49.8	160		
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	108.0	22.7	109	8.2	31.0		27.0		3.7			52.5	163		
SBC-1 Meas			21.9		3.38	0.69		0.40	103	21.6		7.96	29.7		19.3		3.4			46.8	162		
SBC-1 Cert			25.7		3.20	0.70		0.40	108.0	22.7		8.2	31.0		27.0		3.7			52.5	163		
OREAS 45d (4-Acid) Meas		7.72	8.5	180	0.77	0.27	0.20		34.7	30.4	496	4.13	354	14.6	22.0		2.7	0.091	0.40	15.7	21.0	0.25	533
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 45d (4-Acid) Meas		7.62	5.8	180	0.78	0.33	0.19		35.3	28.9	522	3.36	362	14.3	24.7		1.1	0.085	0.39	15.7	19.8	0.25	525
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		37.20	29.50	549	3.910	371	14.5	21.20		3.830	0.096	0.412	16.9	21.5	0.245	490.000
OREAS 96 (4 Acid) Meas	11.4					26.2				51.5			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.2					27.8				48.4			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 96 (4 Acid) Meas	11.1					26.4				47.1			> 10000										
OREAS 96 (4 Acid) Cert	11.5					26.3				49.9			39300										
OREAS 923 (4 Acid) Meas	1.74	7.49	5.5	460	2.38	18.6	0.54	0.32	82.9	23.4	78	7.14	4640	7.20	22.2		3.4	0.500	2.55	41.4	31.0	1.90	1080
OREAS 923 (4	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5
Method Code	TD-MS	TD-ICP	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.87	7.16	3.4	440	2.42	19.2	0.52	0.32	83.3	22.6	72	6.29	4330	6.91	17.6		3.8	0.569	2.44	41.5	29.8	1.83	1000
OREAS 923 (4 Acid) Cert	1.60	7.29	7.61	434	2.42	21.4	0.473	0.420	83.0	23.1	71.0	6.70	4230	6.43	20.3		3.42	0.520	2.51	42.2	31.4	1.69	950
OREAS 621 (4 Acid) Meas	66.4	6.28	74.1		1.83	3.84	2.10	256	46.5	28.9	27	3.13	3800	3.88	29.9		4.5	1.79	2.08	17.8	13.8	0.53	523
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas	67.0	6.18	69.8		1.64	4.06	2.08	273	45.4	27.4	26	3.04	3700	3.84	28.9		4.6	1.86	2.04	17.4	14.2	0.53	540
OREAS 621 (4 Acid) Cert	69.0	6.40	77.0		1.69	3.93	1.97	284	46.6	29.3	37.1	3.28	3630	3.70	24.6		4.41	1.83	2.20	21.6	14.2	0.507	532
OREAS 621 (4 Acid) Meas		6.37					2.12				25			3.92					1.98			0.54	528
OREAS 621 (4 Acid) Cert		6.40					1.97				37.1			3.70					2.20			0.507	532
OREAS 522 (4 Acid) Meas		3.37					3.33				30			22.4					2.52			1.08	3630
OREAS 522 (4 Acid) Cert		3.95					3.65				29.6			24.6					2.83			1.12	3970
Oreas 77b (4 Acid Digest) Meas		1.52		70			2.40				193			24.2					0.28			2.22	557
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
Oreas 77b (4 Acid Digest) Meas		1.51		80			2.41				200			24.1					0.28			2.21	559
Oreas 77b (4 Acid Digest) Cert		1.94		118			3.06				280			29.9					0.361			2.59	640
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank		< 0.01		< 10			< 0.01				1			< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01				< 1			< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	< 5
Method Blank		< 0.01		< 10			< 0.01				2			< 0.01					< 0.01			< 0.01	
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		0.3		< 0.05	< 0.01		< 0.02	0.08	< 0.1		< 0.05	< 0.2		0.16	< 0.05	< 0.1	0.009		< 0.5	< 0.2		
Method Blank		< 0.01		< 10			< 0.01							< 0.01					< 0.01			< 0.01	
Method Blank	< 0.01		< 0.2		< 0.05	< 0.01		< 0.02	0.01	< 0.1		< 0.05	< 0.2		0.13	< 0.05	< 0.1	0.006		< 0.5	< 0.2		



Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
SDC-1 Meas		1.52	< 0.1	33.0	600	23.3	131			< 0.05	15.6		0.2	167	< 0.05		11.5	0.072	0.62	2.6	29	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.56	< 0.1	32.1	600	22.9	119			< 0.05	14.5		< 0.2	172	< 0.05		11.9	0.068	0.63	2.6	30	0.2	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas		1.54	0.1	32.0	600	26.0	133			< 0.05	15.8		< 0.2	186	< 0.05		11.8	0.082	0.63	2.6	35	< 0.1	
SDC-1 Cert		1.52	21.00	38.0	690	25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00	0.606	0.70	3.10	102.00	0.80	
SDC-1 Meas			< 0.1	30.7		27.4	125			< 0.05	14.5		< 0.2	181	< 0.05		13.1		0.68	2.9		< 0.1	
SDC-1 Cert			21.00	38.0		25.00	127.00			0.54	17.00		3.00	180.00	1.20		12.00		0.70	3.10		0.80	
Oreas 72a (4 Acid Digest) Meas									1.61														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.65														
Oreas 72a (4 Acid Digest) Cert									1.74														
Oreas 72a (4 Acid Digest) Meas									1.65														
Oreas 72a (4 Acid Digest) Cert									1.74														
OREAS 101b (4 Acid) Meas					1110													0.330			79		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 101b (4 Acid) Meas					1170													0.345			80		
OREAS 101b (4 Acid) Cert					1118													0.35			77		
OREAS 98 (4 Acid) Meas						369			> 10.0	7.78		133	190										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
OREAS 98 (4 Acid) Meas						360			> 10.0	8.23		143	196										
OREAS 98 (4 Acid) Cert						345			15.5	20.1		158	206										
DNC-1a Meas		1.37	1.5	261		6.0	3.9			0.71	31.7			138				0.267			137		14.6
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.5	265		6.6	3.9			0.86	31.5			141				0.272			138		15.1
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas		1.37	1.5	243		6.2	3.6			0.63	30.2			139				0.269			137		15.1
DNC-1a Cert		1.40	3	247		6.3	5			0.96	31			144				0.29			148		18.0
DNC-1a Meas			1.4	241		6.3	3.7			0.60	29.3			141									15.5
DNC-1a Cert			3	247		6.3	5			0.96	31			144									18.0
OREAS 13b	9.90			2310					1.17														

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
(4-Acid) Meas																							
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas	9.30			2020					1.15														
OREAS 13b (4-Acid) Cert	9.0			2247.000					1.2														
OREAS 13b (4-Acid) Meas	8.54			1960																			
OREAS 13b (4-Acid) Cert	9.0			2247.000																			
OREAS 904 (4 ACID) Meas		0.04			1090				0.06													86	
OREAS 904 (4 ACID) Cert		0.0340			980				0.0630													76.0	
SBC-1 Meas	2.14		14.8	84.8		33.2	61.7			0.92	13.9		3.3	162	0.99		7.6	0.484	0.89	4.4	209	1.7	22.1
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.23		8.0	83.7		33.4	144			0.72	19.7		2.7	175	0.35		15.7	0.482	0.89	5.6	215	1.1	29.3
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.19		15.3	77.6		38.6	151			0.85	19.1		3.4	183	0.99		15.9	0.480	0.89	5.6	217	1.6	29.4
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8	0.51	0.89	5.76	220.0	1.60	36.5
SBC-1 Meas	2.01		15.0	76.1		38.0	153			0.80	19.2		3.3	179	1.04		16.0		0.91	5.7		1.6	29.8
SBC-1 Cert	2.40		15.3	82.8		35.0	147			1.01	20.0		3.3	178.0	1.10		15.8		0.89	5.76		1.60	36.5
OREAS 45d (4-Acid) Meas	0.64	0.10	1.3	231	380	19.4	44.3		0.04	< 0.05	51.4		0.5	29.1	< 0.05		14.1	0.130	0.24	2.5	99	< 0.1	9.6
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 45d (4-Acid) Meas	0.22	0.10	0.1	202	380	22.3	41.5		0.05	< 0.05	47.2		0.5	29.2	< 0.05		14.7	0.241	0.25	2.6	131	< 0.1	10.5
OREAS 45d (4-Acid) Cert	2.500	0.101	14.50	231.0	420.000	21.8	42.1		0.049	0.82	49.30		2.78	31.30	1.02		14.5	0.773	0.27	2.63	235.0	1.62	9.53
OREAS 96 (4 Acid) Meas						94.6			4.30	4.71		39	62.9										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						106			4.27	3.16		33	61.6										
OREAS 96 (4 Acid) Cert						101			4.19	5.09		40.7	65.6										
OREAS 96 (4 Acid) Meas						102				3.24		32	60.5										
OREAS 96 (4 Acid) Cert						101				5.09		40.7	65.6										
OREAS 923 (4 Acid) Meas	1.01	0.34	14.1	37.5	710	76.4	173		0.76	1.09	13.0	6	12.9	41.5	0.85		16.5	0.420	0.86	3.0	98	4.7	24.7
OREAS 923 (4	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4

Analyte Symbol	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.01	0.1	0.2	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1	0.1	0.1
Method Code	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS
Acid) Cert																							
OREAS 923 (4 Acid) Meas	1.00	0.33	13.9	33.2	670	91.5	169		0.73	1.01	12.4	4	13.1	40.4	0.93		16.8	0.397	0.87	3.1	93	5.3	25.4
OREAS 923 (4 Acid) Cert	0.930	0.324	14.1	35.8	630	83.0	166		0.691	1.29	13.1	6.54	13.3	43.0	1.11		16.5	0.405	0.860	3.06	91.0	4.85	26.4
OREAS 621 (4 Acid) Meas	12.9	1.34	8.3	22.2	390	> 10000	86.9		4.65	13.6	6.1	4	4.9	64.7			4.4	0.181	2.00	2.8	35	1.6	12.3
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas	12.7	1.32	8.7	26.2	380	> 10000	81.8		4.64	15.8	6.3	5	5.2	64.2			4.5	0.181	2.05	2.8	35	1.6	11.9
OREAS 621 (4 Acid) Cert	13.6	1.31	8.61	26.2	359	13600	84.0		4.48	139	6.24	5.64	5.25	91.0			7.48	0.149	1.96	2.83	31.8	2.35	11.1
OREAS 621 (4 Acid) Meas		1.35			390				4.73									0.184			34		
OREAS 621 (4 Acid) Cert		1.31			359				4.48									0.149			31.8		
OREAS 522 (4 Acid) Meas		0.58			850				2.29									0.328			158		
OREAS 522 (4 Acid) Cert		0.633			890				2.50									0.344			164		
Oreas 77b (4 Acid Digest) Meas		0.36																0.055			35		
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640			33.6		
Oreas 77b (4 Acid Digest) Meas		0.36																0.054			35		
Oreas 77b (4 Acid Digest) Cert		0.434																0.0640			33.6		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	< 0.05		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1
Method Blank		< 0.01			< 10				< 0.01									< 0.005			< 1		
Method Blank	0.07		< 0.1	< 0.2		< 0.5	< 0.1	< 0.002		< 0.05	< 0.1	< 1	< 0.2	< 0.2	< 0.05	< 0.05	< 0.2		< 0.02	< 0.1		< 0.1	< 0.1

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
SDC-1 Meas	3.2	112	21.6
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.2	111	22.9
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.4	113	29.3
SDC-1 Cert	4.00	103.00	290.00
SDC-1 Meas	3.5		35.6
SDC-1 Cert	4.00		290.00
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
Oreas 72a (4 Acid Digest) Meas			
Oreas 72a (4 Acid Digest) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 101b (4 Acid) Meas			
OREAS 101b (4 Acid) Cert			
OREAS 98 (4 Acid) Meas		1330	
OREAS 98 (4 Acid) Cert		1360	
OREAS 98 (4 Acid) Meas		1320	
OREAS 98 (4 Acid) Cert		1360	
DNC-1a Meas	1.9	64	38.0
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	1.9	62	38.8
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	1.9	62	42.9
DNC-1a Cert	2.0	70	38.0
DNC-1a Meas	2.0		45.0
DNC-1a Cert	2.0		38.0
OREAS 13b		141	

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
(4-Acid) Meas			
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas		118	
OREAS 13b (4-Acid) Cert		133	
OREAS 13b (4-Acid) Meas			
OREAS 13b (4-Acid) Cert			
OREAS 904 (4 ACID) Meas		29	
OREAS 904 (4 ACID) Cert		26.3	
SBC-1 Meas	2.9	190	119
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.3	194	108
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.4	192	141
SBC-1 Cert	3.64	186	134.0
SBC-1 Meas	3.5		139
SBC-1 Cert	3.64		134.0
OREAS 45d (4-Acid) Meas	1.3	47	105
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 45d (4-Acid) Meas	1.4	46	49.8
OREAS 45d (4-Acid) Cert	1.33	45.7	141
OREAS 96 (4 Acid) Meas		473	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas		458	
OREAS 96 (4 Acid) Cert		457	
OREAS 96 (4 Acid) Meas			
OREAS 96 (4 Acid) Cert			
OREAS 923 (4 Acid) Meas	2.5	376	127
OREAS 923 (4	2.57	345	116

Analyte Symbol	Yb	Zn	Zr
Unit Symbol	ppm	ppm	ppm
Lower Limit	0.1	2	0.5
Method Code	TD-MS	TD-ICP	TD-MS
Acid) Cert			
OREAS 923 (4 Acid) Meas	2.6	359	159
OREAS 923 (4 Acid) Cert	2.57	345	116
OREAS 621 (4 Acid) Meas	1.0	> 10000	202
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas	1.1	> 10000	203
OREAS 621 (4 Acid) Cert	0.990	52200	168
OREAS 621 (4 Acid) Meas		> 10000	
OREAS 621 (4 Acid) Cert		52200	
OREAS 522 (4 Acid) Meas		29	
OREAS 522 (4 Acid) Cert		30.2	
Oreas 77b (4 Acid Digest) Meas		181	
Oreas 77b (4 Acid Digest) Cert		205	
Oreas 77b (4 Acid Digest) Meas		178	
Oreas 77b (4 Acid Digest) Cert		205	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		3	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank		< 2	
Method Blank	< 0.1		< 0.5
Method Blank		< 2	
Method Blank	< 0.1		0.8

## **APPENDIX VII**

### **Act Labs Analytical Descriptions**

## Sample Preparation Packages

To obtain meaningful analytical results, it is imperative that sample collection and preparation be done properly. Actlabs can advise on sampling protocol for your field program if requested. Once the samples arrive in the laboratory, Actlabs will ensure that they are prepared properly. As a routine practice with rock and core, the entire sample is crushed to a nominal -2 mm, mechanically split to obtain a representative sample and then pulverized to at least 95% -105 microns ( $\mu\text{m}$ ). All of our steel mills are now mild steel and do not introduce Cr or Ni contamination. Quality of crushing and pulverization is routinely checked as part of our quality assurance program. Samples submitted in an unorganized fashion will be subject to a sorting surcharge and may substantially slow turnaround time. Providing an accurate detailed sample list by e-mail will also aid in improving turnaround time and for Quality Control purposes.

### Rock, Core and Drill Cuttings

Code RX1	Crush (< 7 kg) up to 80% passing 2 mm, riffle split (250 g) and pulverize (mild steel) to 95% passing 105 $\mu\text{m}$ included cleaner sand	\$11.75
Code RX1-ORE	Crush up to 90% passing 2 mm	add \$2.10
Code RX1+500	500 grams pulverized	add \$1.25
Code RX1+800	800 grams pulverized	add \$2.25
Code RX1+1000	1000 grams pulverized	add \$2.75
Code RX1-SD	Crush (< 7 kg) up to 80% passing 2 mm, rotary split (250 g) and pulverized (mild steel) to 95% passing 105 $\mu\text{m}$	\$10.75
Code RX1-SD-ORE	Crush up to 90% passing 2 mm	add \$2.10
Code RX3	Oversize charge per kilogram for crushing	\$1.25
Code RX4	Pulverization only (mild steel) (coarse pulp or crushed rock) (< 800 g)	\$7.50
Code RX5	Pulverize ceramic (100 g)	\$18.75
Code RX6	Hand pulverize small samples (agate mortar & pestle) (<5g)	\$18.75
Code RX7	Crush and split (< 5 kg )	\$5.50
Code RX8	Sample prep only surcharge, no analyses	\$4.75
Code RX9	Compositing (per composite) dry weight	\$2.75
Code RX10	Weight (kg) as received	\$2.25
Code RX11	Checking quality of pulps or rejects prepared by other labs and issuing report	\$10.00
Code RX12	Ball Mill preparation	on request
Code RX13	Rod Mill preparation	on request
Code RX14	Core cutting	on request
Code RX15	Special Preparation/Hour	\$68.25
Code RX16	Specific Gravity on Core	\$14.00
Code RX16-W	Specific Gravity (WAX) on friable samples	\$18.00
Code RX17	Specific Gravity on the pulp	\$17.00
Code RX17-GP	Specific Gravity on the pulp by gas pycnometer	\$18.00

**Note:** Larger sample sizes than listed above can be pulverized at additional cost.

### Soils, Stream and Lake Bottom Sediments, and Heavy Minerals

Code S1	Drying (60°C) and sieving (-177 $\mu\text{m}$ ) save all portions	\$4.25
Code S1 DIS	Drying (60°C) and sieving (-177 $\mu\text{m}$ ), discard oversize	\$3.75
Code S1-230	Drying (60°C) and sieving (-63 $\mu\text{m}$ ), save oversize	\$5.75
Code S1-230 DIS	Drying (60°C) and sieving (-63 $\mu\text{m}$ ), discard oversize	\$5.25
Code S2	Lake bottom sediment preparation crush & sieve (-177 $\mu\text{m}$ )	\$9.00
Code S3	Alternate size fractions and bracket sieving, add	\$2.75
Code S4	Selective Extractions or SGH drying (40°C) & sieving (-177 $\mu\text{m}$ )	\$4.25
Code S5	Wet or damp samples submitted in plastic bags, add	\$2.10
Code S6	Separating -2 micron material	\$28.25
Code S7mi	Methylene iodide heavy mineral separation specific gravity can be customized (100 grams)	\$73.75
Code S7w	Sodium polytungstate heavy mineral separation specific gravity can be customized (100 grams)	\$73.75
Code S8	Sieve analysis (4 sieve sizes) coarser than 53 $\mu\text{m}$	\$40.00
Code S9	Particle size analysis (laser)	\$102.00

Our Sample Preparation pricing is all-inclusive including: sorting, drying, labeling, new reject bags, using cleaner sand between each sample and crushing samples up to 7 kg (for RX1 and RX1-SD).



Riffle Splitting



Sample Pulverizers



# Sample Preparation

## Sample Preparation Packages

### Biogeochemical Samples

Code B1	Drying and blending humus	\$5.75
Code B2	Drying and macerating vegetation	\$7.00
Code B3	Dry ashing	\$10.25
Code B4	Washing vegetation	\$5.00
Code B5	Samples submitted in plastic bags, add	\$2.35

### Special Digestion Procedures

Code MDI	Microwave digestion - closed vessel	\$46.00
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## Sample Submission, Storage and Return

When submitting samples, please indicate on the Request for Analysis form if you require sample storage, disposal or if you require samples to be returned after analysis. For returns, please include all necessary shipping information e.g., courier, account number, etc. Return of samples is done at cost + 15%. The reject portion of samples prepared by Actlabs will be retained for a period of not more than 60 days from the date of final report. Pulps and rejects stored at the customer's request will be subject to a storage charge (see sample submittal sheet for charges) billed quarterly. Irradiated material will be discarded after 30 days unless prior arrangements are made. Return of radioactive material requires a Nuclear Safety Commission licence. Cost per shipment of radioactive materials is \$200.00 plus shipping costs. Disposal of soil, sediment or vegetation samples, which have entered Canada under a CFIA permit, will incur a disposal cost for larger sample volumes.

All soil, sediment and vegetation coming from outside Canada require incineration prior to disposal under CFIA regulations. All pulps and rejects will be returned to the client at cost + 15%. Disposal costs are additional. Pulps and rejects will incur a storage fee after the free period listed.

RTRN	Return of all reject portions and/or pulps	At cost + 15%
INCIN	Incineration of soil, sediment and vegetation samples from outside Canada (for samples up to 0.5 kg; samples over 0.5 kg will have higher incineration costs)	\$0.50
H&R	Handling and retrieval of stored sample material	\$57.75/hour
DISP	Disposal of pulps and reject to landfill site	\$0.45
STORE 1	Monthly storage of reject after 60 days	\$0.30
STORE 2	Monthly storage of pulps after 90 days	\$0.15
STORE 3	Monthly storage of sieve rejects after 3 months	\$0.20

## Gold and Silver Analyses

### Gold and Silver Analyses - Geochem

Code	Method	Sample Weight (g)	Metric Range	Price
1A1	Au Fire Assay - INAA	30	1 - 20,000 ppb	\$20.50
1A2	Au Fire Assay - AA	30	5 - 5,000 ppb	\$17.00
1A2B-30	Au Fire Assay - AA	30	5 - 10,000 ppb	\$17.50
1A2-50	Au Fire Assay - AA	50	5 - 5,000 ppb	\$19.50
1A2B-50	Au Fire Assay - AA	50	5 - 10,000 ppb	\$20.00
1A2-ICP	Au Fire Assay - ICP-OES	30	2 - 30,000 ppb	\$18.00
1A2-ICP-50	Au Fire Assay - ICP-OES	50	2 - 30,000 ppb	\$20.25
1A2-ICPMS	Au Fire Assay - ICP-MS	30	0.5 - 30,000 ppb	\$26.25
1A6	Au BLEG - ICP-MS	1,000	0.1 - 10,000 ppb	\$40.00
1A6-50	Au Cyanide Extraction - ICP-MS	50	0.02 - 1,000 ppb	\$15.00
	Ag or Cu add-on, for each additional, add			\$5.00
1A8	Au Aqua Regia - ICP-MS	30	0.2 - 2,000 ppb	\$18.00
1E-Ag	Ag Aqua Regia - ICP-OES	0.5	0.2 - 100 ppm	\$6.75



### Gold and Silver Analyses - Assay

Code	Method	Sample Weight (g)	Metric Range	Price
1A3-30	Au Fire Assay - Gravimetric	30	0.03 - 10,000 g/T	\$22.75
1A3-50	Au Fire Assay - Gravimetric	50	0.02 - 10,000 g/T	\$24.00
1A3-Ag (Au,Ag)	Au, Ag Fire Assay - Gravimetric	30	0.03 - 10,000 g/T (Au) 3 - 10,000 g/T (Ag)	\$26.25
1A4 *	Au Fire Assay - Metallic Screen	500	0.03 g/T	\$79.50
1A4-1000 *	Au Fire Assay - Metallic Screen	1,000	0.03 g/T	\$90.75
8-Ag	Ag Fire Assay - Gravimetric	30	3 - 10,000 g/T	\$25.50

When submitting samples for Au and Ag analysis, or Au, Pt Pd and Rh analysis, please try to ensure you send two-times the listed weight.

## Gold, Platinum, Palladium and Rhodium

Code	Method	Sample Weight (g)	Range (ppb)				Price
			Au	Pt	Pd	Rh	
1C-Exploration	Fire Assay - ICP-MS	30	2 - 30,000	1 - 30,000	1 - 30,000		\$22.75
1C-EXP 2	Fire Assay - ICP-MS	30	1 - 30,000	0.5 - 30,000	0.5 - 30,000		\$25.00
1C-research	Fire Assay - ICP-MS	30	1 - 30,000	0.1 - 30,000	0.1 - 30,000		\$36.25
1C-Rhodium	Fire Assay - ICP-MS	30	-	-	-	5 - 10,000	\$34.25
1C-OES	Fire Assay - ICP-OES	30	2 - 30,000	5 - 30,000	5 - 30,000		\$20.75
8 Au Pt Pd	Fire Assay - ICP-OES	30	0.001 - 1000 g/T	0.001 - 1000 g/T	0.001 - 1000 g/T		\$51.25

## Platinum Group Elements

Code	Method	Sample Weight (g)	Range (ppb)							Price
			Os	Ir	Ru	Rh	Pt	Pd	Au	
1B1	NiS Fire Assay - INAA	25	2	0.1	5	0.2	5 †	2	0.5	1-2 samples \$363.25 3+ samples \$181.75
1B2	NiS Fire Assay - ICP-MS	50	-	1	1	1	1	1	1	1-2 samples \$363.25 3+ samples \$181.75

### Organic Sample Surcharge - \$1.25/sample for Fire Assay packages

#### Notes:

Use of 50 gram sample for fire assay may not provide optimum recovery.

For proper fire assay fusion, Actlabs may reduce the sample weights to 15 g or smaller at its discretion.

\* A representative 500 gram or 1000 gram (or customized) sample split is sieved at 149µm, with assays performed on the entire +149 µm fraction and two splits of the -149 µm fraction. It is important not to overpulverize the sample too finely; as tests have shown gold will plate out on the mill and be lost. When assays have been completed on the coarse and fine portions of the bulk sample, a final assay is calculated based on the weight of each fraction.

† Detection limits for Pt are increased with high Au/Pt ratios and limits for other elements will be affected by abnormally high Au, Sb and Cu content.

Samples with high Au can be reanalyzed by Code 1C exploration or research. Zn concentrates are not amenable to the nickel sulphide fire assay. Au results by Code 1B1 or 1B2 can be low by nickel sulphide fire assay. For accurate Au values, please request Code 1C-exploration.

# Trace Element Geochemistry & Digestion Specific Assays

## Aqua Regia "Partial" Digestion

This digestion uses a combination of concentrated hydrochloric and nitric acids to leach sulphides, some oxides and some silicates. Mineral phases which are hardly (if at all) attacked include barite, zircon, monazite, sphene, chromite, gahnite, garnet, ilmenite, rutile and cassiterite. The balance of silicates and oxides are only slightly to moderately attacked, depending on the degree of alteration. Generally, but not always, most base metals and gold are usually dissolved.

**NOTE:** Results from acid digestions may be lab dependent or lab operator dependent. Actlabs has automated this aspect of digestion using a microprocessor designed hotbox to accurately reproduce digestion conditions every time.

**NOTE:** For Code Ultratrace 1, Code Ultratrace 2 and Code UT-1M, Au is semi-quantitative due to the small sample size.

### Hg add-on by cold vapour FIMS

Code 1G (5 ppb)      add \$10.25

### Assays

Package	Code 8 - AR ICP-OES	Code 8 - AR ICP-MS
Ag	3 ppm	-
As	0.01 %	0.0004 - 1 %
Bi	-	0.0001 - 1 %
Cd	0.003 %	-
Co	0.003 %	0.0001 - 1 %
Cs	-	0.0001 - 1 %
Cu	0.001 %	0.0001 - 1 %
Fe	0.003 %	-
Ga	-	0.0001 - 1 %
Ge	-	0.0001 - 1 %
Hg	0.001 %	-
In	-	0.0001 - 1 %
Li	-	0.0001 - 1 %
Mo	-	0.0001 - 1 %
Ni	0.003 %	0.0001 - 1 %
Pb	0.003 %	0.0001 - 1 %
Re	-	0.0001 - 1 %
Se	-	0.0001 - 1 %
Sn	-	0.0003 - 1 %
Te	-	0.0001 - 1 %
Th	-	0.0001 - 1 %
Tl	-	0.0001 - 1 %
U	-	0.0001 - 1 %
W	-	0.0001 - 1 %
Zn	0.001 %	0.0001 - 1 %
<b>One Element</b>	<b>\$12.75</b>	<b>\$16.00</b>
<b>Each Additional Element</b>	<b>\$2.25</b>	<b>\$2.25</b>
<b>All Elements</b>	<b>\$18.00</b>	<b>\$21.50</b>

Package	ICP-OES		ICP-MS		ICP-OES + ICP-MS
	1E	1E3	UT-1M	Ultratrace 1	Ultratrace 2
Ag	0.2 - 100 ppm	0.2 - 100 ppm	0.1 - 100 ppm	0.002 - 100 ppm	0.002 - 100 ppm
Al	-	0.01 - 10 %	0.01 - 8 %	0.01 - 8 %	0.01 - 8 %
As	-	2 - 10,000 ppm	0.5 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm
Au	-	-	0.5 - 1,000 ppb	0.5 - 10,000 ppb	0.5 - 10,000 ppb
B	-	10 - 10,000 ppm	20 - 2,000 ppm	1 - 5,000 ppm	1 - 5,000 ppm
Ba	-	10 - 10,000 ppm	1 - 10,000 ppm	0.5 - 6,000 ppm	0.5 - 6,000 ppm
Be	-	0.5 - 1,000 ppm	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm
Bi	-	2 - 10,000 ppm	0.1 - 2,000 ppm	0.02 - 2,000 ppm	0.02 - 2,000 ppm
Ca	-	0.01 - 10 %	0.01 - 25 %	0.01 - 25 %	0.01 - 25 %
Cd	0.5 - 2,000 ppm	0.5 - 2,000 ppm	0.1 - 2,000 ppm	0.01 - 2,000 ppm	0.01 - 1,000 ppm
Ce	-	-	-	0.01 - 10,000 ppm	0.01 - 10,000 ppm
Co	-	1 - 10,000 ppm	0.1 - 5,000 ppm	0.1 - 5,000 ppm	0.1 - 5,000 ppm
Cr	-	1 - 10,000 ppm	1 - 10,000 ppm	1 - 10,000 ppm	1 - 10,000 ppm
Cs	-	-	-	0.02 - 500 ppm	0.02 - 500 ppm
Cu	1 - 10,000 ppm	1 - 10,000 ppm	0.2 - 10,000 ppm	0.2 - 10,000 ppm	0.2 - 10,000 ppm
Dy	-	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm
Er	-	-	-	0.1 - 1,000 ppm	0.1 ppm
Eu	-	-	-	0.1 - 100 ppm	0.1 ppm
Fe	-	0.01 - 30 %	0.01 - 30 %	0.01 - 30 %	0.01 - 30 %
Ga	-	10 - 10,000 ppm	1 - 1,000 ppm	0.02 - 500 ppm	0.02 - 500 ppm
Gd	-	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm
Ge	-	-	-	0.1 - 500 ppm	0.1 - 500 ppm
Hf	-	-	-	0.1 - 500 ppm	0.1 - 500 ppm
Hg	1 - 10,000 ppm	1 - 10,000 ppm	0.01 - 50 ppm	10 - 10,000 ppb	10 - 10,000 ppb
Ho	-	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm
In	-	-	-	0.02 - 500 ppm	0.02 - 500 ppm
K	-	0.01 - 10 %	0.01 - 5 %	0.01 - 5 %	0.01 - 5 %
La	-	10 - 10,000 ppm	1 - 10,000 ppm	0.5 - 10,000 ppm	0.5 - 1,000 ppm
Li	-	-	-	0.1 - 10,000 ppm	0.1 - 10,000 ppm
Lu	-	-	-	0.1 - 100 ppm	0.1 - 100 ppm
Mg	-	0.01 - 25 %	0.01 - 10 %	0.01 - 10 %	0.01 - 10 %
Mn	2 - 100,000 ppm	5 - 100,000 ppm	1 - 10,000 ppm	1 - 10,000 ppm	1 - 10,000 ppm
Mo	2 - 10,000 ppm	1 - 10,000 ppm	0.1 - 10,000 ppm	0.01 - 10,000 ppm	0.01 - 10,000 ppm
Na	-	0.001 - 10 %	0.001 - 5 %	0.001 - 5 %	0.001 - 5 %
Nb	-	-	-	0.1 - 500 ppm	0.1 - 500 ppm
Nd	-	-	-	0.02 - 5,000 ppm	0.02 - 5,000 ppm
Ni	1 - 10,000 ppm	1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm
P	-	0.001 - 5 %	0.001 - 5 %	0.001 - 5 %	0.001 - 5 %
Pb	2 - 5,000 ppm	2 - 5,000 ppm	0.1 - 5,000 ppm	0.1 - 5,000 ppm	0.1 - 5,000 ppm
Pr	-	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm
Rb	-	-	-	0.1 - 500 ppm	0.1 - 500 ppm
Re	-	-	-	0.001 - 100 ppm	0.001 - 100 ppm
S +	0.001 - 20 %	0.01 - 20 %	1 - 20 %	1 - 20 %	0.001 - 20 %
Sb	-	2 - 10,000 ppm	0.1 - 500 ppm	0.02 - 500 ppm	0.02 - 500 ppm
Sc	-	1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm
Se	-	-	0.5 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm
Sm	-	-	-	0.1 - 100 ppm	0.1 - 100 ppm
Sn	-	-	-	0.05 - 200 ppm	0.05 - 200 ppm
Sr	-	1 - 10,000 ppm	1 - 5,000 ppm	0.5 - 5,000 ppm	0.5 - 5,000 ppm
Ta	-	-	-	0.05 - 50 ppm	0.05 - 50 ppm
Tb	-	-	-	0.1 - 100 ppm	0.1 - 100 ppm
Te	-	1 - 500 ppm	0.2 - 500 ppm	0.02 - 500 ppm	0.02 - 500 ppm
Th	-	20 - 10,000 ppm	0.1 - 200 ppm	0.1 - 200 ppm	0.1 - 200 ppm
Ti	-	0.01 - 10 %	0.001 - 10 %	0.001 - 10 %	0.01 - 10 %
Tl	-	2 - 10,000 ppm	0.1 - 500 ppm	0.02 - 500 ppm	0.02 - 500 ppm
Tm	-	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm
U	-	10 - 10,000 ppm	-	0.1 - 10,000 ppm	0.1 - 10,000 ppm
V	-	1 - 10,000 ppm	2 - 1,000 ppm	1 - 1,000 ppm	1 - 1,000 ppm
W	-	10 - 200 ppm	0.1 - 200 ppm	0.1 - 200 ppm	0.1 - 200 ppm
Y	-	1 - 1,000 ppm	-	0.01 - 500 ppm	0.01 - 500 ppm
Yb	-	-	-	0.1 - 200 ppm	0.1 - 200 ppm
Zn	1 - 10,000 ppm	2 - 10,000 ppm	1 - 5,000 ppm	0.1 - 5,000 ppm	0.1 - 5,000 ppm
Zr	-	1 - 10,000 ppm	-	0.1 - 5,000 ppm	0.1 - 5,000 ppm
<b>Price:</b>	<b>\$12.25</b>	<b>\$13.00</b>	<b>\$17.75</b>	<b>\$22.00</b>	<b>\$25.00</b>

Extraction of each element by Aqua Regia Digestion is dependent on mineralogy  
+ Sulphide sulphur and soluble sulphates are extracted

## 4-Acid "Near Total" Digestion

This acid attack is the most vigorous digestion used in geochemistry. It will employ hydrochloric, nitric, perchloric and hydrofluoric acids. Even with this digestion, certain minerals (barite, gahnite, chromite, cassiterite, etc.) may only be partially dissolved or stable in solution. Other minerals including zircon, sphene and magnetite may not be totally dissolved. Most other silicates will be dissolved, however some elements will be erratically volatilized, including As, Sb, Cr, U and Au.

Near-Total digestion **cannot** be used to obtain accurate determinations of REE, Ta, Nb, As, Sb, Sn, Hg, Cr, Au and U.

**NOTE:** Results from acid digestions may be lab dependent or lab operator dependent. Actlabs has automated this aspect of digestion using a microprocessor designed hotbox to accurately reproduce digestion conditions every time.

### Hg add-on by cold vapour FIMS

Code 1G (5 ppb)      add \$10.25

### Assays

Package	Code 8 - 4 Acid ICP-OES	Code 8 - 4 Acid ICP-MS
Ag	3 ppm	1 - 10,000 ppm
Bi	-	0.0001 - 1 %
Cd	0.003 %	0.0001 - 1 %
Co	0.003 %	0.0001 - 1 %
Cu	0.001 %	0.0001 - 1 %
Li	0.001 %	-
Mo	0.003 %	0.0001 - 1 %
Ni	0.003 %	0.0001 - 1 %
Pb	0.003 %	0.0001 - 1 %
Se	-	0.0001 - 1 %
Sn	-	0.0001 - 1 %
Tl	-	0.0001 - 1 %
U	-	0.0001 - 1 %
Zn	0.001 %	0.0001 - 1 %
<b>One Element</b>	<b>\$14.75</b>	<b>\$17.00</b>
<b>Each Additional Element</b>	<b>\$2.25</b>	<b>\$2.25</b>
<b>All Elements</b>	<b>\$20.50</b>	<b>\$22.75</b>

Package	ICP-OES	ICP-MS		ICP-OES + ICP-MS	
	1F2	UT-4M	Ultratrace 4	Ultratrace 6	UT-6M
Ag	0.3 - 100 ppm	0.1 - 100 ppm	0.05 - 100 ppm	0.05 - 100 ppm	0.01 - 100 ppm
Al	0.01 - 50 %	0.01 - 20 %	0.01 - 10 %	0.01 - 10 %	0.01 - 50 %
As	3 - 5,000 ppm	1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.2 - 10,000 ppm
B	-	-	20 - 6,000 ppm	-	-
Ba	7 - 1,000 ppm	1 - 10,000 ppm	1 - 5,000 ppm	1 - 5,000 ppm	10 - 10,000 ppm
Be	1 - 10,000 ppm	1 - 1,000 ppm	0.1 - 1,000 ppm	0.1 - 1,000 ppm	0.05 - 1,000 ppm
Bi	2 - 10,000 ppm	0.1 - 4,000 ppm	0.02 - 2,000 ppm	0.02 - 2,000 ppm	0.01 - 10,000 ppm
Ca	0.01 - 70 %	0.01 - 40 %	0.01 - 50 %	0.01 - 50 %	0.01 - 50 %
Cd	0.3 - 2,000 ppm	0.1 - 4,000 ppm	0.1 - 1,000 ppm	0.1 - 1,000 ppm	0.02 - 1,000 ppm
Ce	-	1 - 2,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.01 - 500 ppm
Co	1 - 10,000 ppm	0.2 - 4,000 ppm	0.1 - 500 ppm	0.1 - 500 ppm	0.1 - 10,000 ppm
Cr	1 - 10,000 ppm	1 - 10,000 ppm	1 - 5,000 ppm	1 - 5,000 ppm	1 - 10,000 ppm
Cs	-	0.1 - 10,000 ppm	0.05 - 100 ppm	0.05 - 100 ppm	0.05 - 500 ppm
Cu	1 - 10,000 ppm	0.1 - 10,000 ppm	0.2 - 10,000 ppm	0.2 - 10,000 ppm	0.2 - 10,000 ppm
Dy	-	-	0.1 - 5,000 ppm	0.1 - 5,000 ppm	-
Er	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm	-
Eu	-	-	0.05 - 100 ppm	0.05 - 100 ppm	-
Fe	0.01 - 50 %	0.01 - 60 %	0.01 - 50 %	0.01 - 50 %	0.01 - 50 %
Ga	1 - 10,000 ppm	-	0.1 - 500 ppm	0.1 - 500 ppm	0.05 - 10,000 ppm
Gd	-	-	0.1 - 5,000 ppm	0.1 - 5,000 ppm	-
Ge	-	-	0.1 - 500 ppm	0.1 - 500 ppm	0.05 - 500 ppm
Hf	-	0.1 - 1,000 ppm	0.1 - 500 ppm	0.1 - 500 ppm	0.1 - 500 ppm
Hg	1	-	10 - 10,000 ppb	10 - 10,000 ppb	-
Ho	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm	-
In	-	-	0.1 - 100 ppm	0.1 - 100 ppm	0.005 - 500 ppm
K	0.01 - 10 %	0.01 - 10 %	0.01 - 5 %	0.01 - 5 %	0.01 - 10 %
La	-	0.1 - 2,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.5 - 10,000 ppm
Li	1 - 10,000 ppm	0.1 - 2,000 ppm	0.5 - 400 ppm	0.5 - 400 ppm	0.2 - 10,000 ppm
Lu	-	-	0.1 - 100 ppm	0.1 - 100 ppm	-
Mg	0.01 - 50 %	0.01 - 30 %	0.01 - 50 %	0.01 - 50 %	0.01 - 50 %
Mn	1 - 100,000 ppm	1 - 10,000 ppm	1 - 10,000 ppm	1 - 10,000 ppm	5 - 100,000 ppm
Mo	1 - 10,000 ppm	0.1 - 4,000 ppm	0.05 - 10,000 ppm	0.1 - 10,000 ppm	0.05 - 10,000 ppm
Na	0.01 - 10 %	0.001 - 10 %	0.01 - 3 %	0.01 - 3 %	0.01 - 10 %
Nb	-	0.1 - 2,000 ppm	0.1 - 500 ppm	0.1 - 500 ppm	0.1 - 500 ppm
Nd	-	-	0.1 - 10,000 ppm	0.1 - 10,000 ppm	-
Ni	1 - 10,000 ppm	0.1 - 10,000 ppm	0.5 - 5,000 ppm	0.5 - 5,000 ppm	0.2 - 10,000 ppm
P	0.001 - 10 %	0.001 - 5 %	-	0.001 - 10 %	10 - 10,000 ppm
Pb	3 - 5,000 ppm	0.1 - 5,000 ppm	0.5 - 5,000 ppm	0.5 - 5,000 ppm	0.5 - 10,000 ppm
Pr	-	-	0.1 - 5,000 ppm	0.1 - 1,000 ppm	-
Rb	-	0.1 - 2,000 ppm	0.2 - 500 ppm	0.2 - 5,000 ppm	0.1 - 10,000 ppm
Re	-	-	0.001 - 100 ppm	0.001 - 100 ppm	0.002 - 50 ppm
S +	0.01 - 20 %	1 - 10 %	-	0.01 - 20 %	0.01 - 10 %
Sb	5 - 10,000 ppm	0.1 - 4,000 ppm	0.1 - 500 ppm	0.1 - 500 ppm	0.05 - 10,000 ppm
Sc	4 - 10,000 ppm	1 - 200 ppm	-	1 - 5,000 ppm	0.1 - 10,000 ppm
Se	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm	1 - 1,000 ppm
Sm	-	-	0.1 - 100 ppm	0.1 - 100 ppm	-
Sn	-	0.1 - 2,000 ppm	1 - 200 ppm	1 - 200 ppm	0.2 - 500 ppm
Sr	1 - 10,000 ppm	1 - 10,000 ppm	0.2 - 10,000 ppm	0.2 - 1,000 ppm	0.2 - 10,000 ppm
Ta	-	0.1 - 2,000 ppm	0.1 - 1,000 ppm	0.1 - 1,000 ppm	0.05 - 100 ppm
Tb	-	-	0.1 - 100 ppm	0.1 - 100 ppm	-
Te	2 - 10,000 ppm	-	0.1 - 500 ppm	0.1 - 500 ppm	0.05 - 500 ppm
Th	-	0.1 - 4,000 ppm	0.1 - 500 ppm	0.1 - 500 ppm	0.2 - 10,000 ppm
Ti	0.01 - 10 %	0.001 - 10 %	-	0.0005 - 10 %	0.005 - 10 %
Tl	5 - 10,000 ppm	0.05 - 10,000 ppm	0.05 - 500 ppm	0.05 - 500 ppm	0.02 - 10,000 ppm
Tm	-	-	0.1 - 1,000 ppm	0.1 - 1,000 ppm	-
U	10 - 10,000 ppm	0.1 - 4,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm
V	2 - 10,000 ppm	4 - 10,000 ppm	1 - 10,000 ppm	1 - 1,000 ppm	1 - 10,000 ppm
W	5 - 10,000 ppm	0.1 - 200 ppm	0.1 - 200 ppm	0.1 - 200 ppm	0.1 - 10,000 ppm
Y	1 - 1,000 ppm	0.1 - 2,000 ppm	0.1 - 10,000 ppm	0.1 - 10,000 ppm	0.1 - 500 ppm
Yb	-	-	0.1 - 5,000 ppm	0.1 - 5,000 ppm	-
Zn	1 - 10,000 ppm	1 - 10,000 ppm	0.2 - 10,000 ppm	0.2 - 10,000 ppm	2 - 10,000 ppm
Zr	5 - 10,000 ppm	0.1 - 2,000 ppm	1 - 5,000 ppm	1 - 5,000 ppm	0.5 - 500 ppm
<b>Price:</b>	<b>\$17.00</b>	<b>\$21.25</b>	<b>\$24.00</b>	<b>\$35.00</b>	<b>\$28.50</b>

Extraction of each element by 4-Acid Digestion is dependent on mineralogy + Sulphide sulphur and soluble sulphates are extracted

**APPENDIX VIII**

**Statement of Expenditures**

## STATEMENT of EXPENDITURES

The following is a breakdown of expenditures related to the 2019 field program on the Black Raven Property.

### Labour:

#### Preparation, field work, travel

Labour	\$ 37,050.00
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#### Prepare maps etc.

Drafting & digitizing	\$ 3,453.00
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#### Report Writing

Report Writing	\$ 13,612.50
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### Associated Costs:

Meals & Groceries	\$ 2,087.71
Field Supplies	\$ 509.53
Ground Transportation	\$ 752.00
Camp Rental	\$ 1,650.00
Trench Gear Rental	\$ 1,200.00
Motel	\$ 873.92
Courier	\$ 118.13
Generator fuel	\$ 343.48
Helicopter	\$ 25,400.00

### Analytical Costs:

Actlabs (89 grab samples)	\$ 3,726.00
Actlabs (96 humus samples)	\$ 3,288.00
Actlabs (37 B horizon samples)	\$ 1,248.75
Actlabs (7 lake sediment samples)	\$ <u>239.75</u>

TOTAL EXPENDITURES	\$ <b>95,127.77</b>
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## TOTAL EXPENDITURES BY CLAIM-CELL

Cell No.	Rock Samples Collected per Cell	B Horizon Soil Samples Collected per Cell	Humus Soil Samples Collected per Cell	Lake Sediment Samples Collected per Cell	Expenditure per Cell
108954	1				\$ 417.27
131218	1				\$ 417.27
145288	1				\$ 417.27
154317	2	3	4		\$ 3,720.68
164048	1				\$ 417.27
169663			10		\$ 4,125.20
182461	2	3	10		\$ 6,195.80
213209	4	7	13		\$ 9,915.98
213987		1	4		\$ 2,062.10
213988	1			5	\$ 2,479.87
226444	1			1	\$ 829.79
227108	9	4	5		\$ 7,466.11
261453	27	1	14		\$ 17,455.03
265573	10	3	10		\$ 9,548.96
285773	1	12	13		\$ 10,724.27
309831	1	1	7		\$ 3,716.93
316554	2				\$ 834.54
327335	4				\$ 1,669.08
329118		2	6		\$ 3,299.16
331866	2				\$ 834.54
337751	9				\$ 3,890.43
344703				1	\$ 412.52
540862	4				\$ 1,714.08
540863	1				\$ 417.27
540880	5				\$ 2,146.35
<b>Total</b>	<b>89</b>	<b>37</b>	<b>96</b>	<b>7</b>	<b>\$ 95,127.77</b>

**APPENDIX IX**

**List of Mining Cells-Claims  
(Table IV)**



Township / Area	Tenure ID	Tenure Type	Anniversary Date
CIRRUS LAKE AREA,LORNA LAKE AREA	101897	Boundary Cell Mining Claim	2020-10-11
MARTINET LAKE AREA	102615	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	102642	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	102643	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	102644	Boundary Cell Mining Claim	2020-09-07
CIRRUS LAKE AREA,MARTINET LAKE AREA	102675	Boundary Cell Mining Claim	2021-06-25
CIRRUS LAKE AREA,MARTINET LAKE AREA	102676	Boundary Cell Mining Claim	2021-06-25
MARTINET LAKE AREA,SEELEY LAKE AREA	102677	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA,SEELEY LAKE AREA	102678	Boundary Cell Mining Claim	2020-08-12
MARTINET LAKE AREA	102705	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	102706	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	102710	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	102711	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	102842	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	102843	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	102978	Boundary Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	103113	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	103118	Single Cell Mining Claim	2020-09-08
O NEILL,SEELEY LAKE AREA	103119	Single Cell Mining Claim	2020-09-08
O NEILL	103120	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	103130	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	103199	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	103200	Single Cell Mining Claim	2020-09-08
O NEILL	103247	Single Cell Mining Claim	2021-06-27
O NEILL,PIC	103248	Single Cell Mining Claim	2021-06-27
O NEILL	103249	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	103302	Boundary Cell Mining Claim	2020-09-10
MARTINET LAKE AREA	103314	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	103315	Single Cell Mining Claim	2020-09-07
COTTE,O NEILL	103537	Boundary Cell Mining Claim	2020-10-28
COTTE	104776	Single Cell Mining Claim	2021-04-28
PIC	104777	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	104813	Boundary Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	104814	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	105018	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	105019	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	106056	Single Cell Mining Claim	2020-04-28
WABIKOBA LAKE AREA	107362	Single Cell Mining Claim	2021-06-13
LORNA LAKE AREA	108374	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	108375	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	108376	Boundary Cell Mining Claim	2021-04-28
COTTE	108954	Single Cell Mining Claim	2021-04-28
PIC	108955	Single Cell Mining Claim	2021-04-28
PIC	108956	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	109293	Single Cell Mining Claim	2020-04-28
COTTE	109417	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	109844	Single Cell Mining Claim	2021-04-28
COTTE	110168	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	110529	Single Cell Mining Claim	2020-04-28
COTTE	110658	Single Cell Mining Claim	2020-04-28
O NEILL	110953	Boundary Cell Mining Claim	2020-08-30
COTTE	110993	Single Cell Mining Claim	2020-10-28
O NEILL	111012	Single Cell Mining Claim	2020-08-30
SEELEY LAKE AREA	112193	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	112194	Single Cell Mining Claim	2020-09-08
WABIKOBA LAKE AREA	112222	Single Cell Mining Claim	2021-06-13
O NEILL	112802	Boundary Cell Mining Claim	2020-08-30
O NEILL	112803	Single Cell Mining Claim	2020-08-30
COTTE	112971	Single Cell Mining Claim	2021-04-28
COTTE	113629	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	114499	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA,LORNA LAKE AREA	114643	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	115397	Boundary Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	115398	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	115399	Boundary Cell Mining Claim	2020-12-15
LORNA LAKE AREA	115400	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	115444	Single Cell Mining Claim	2020-12-15

SEELEY LAKE AREA	115502	Single Cell Mining Claim	2020-12-15
CIRRUS LAKE AREA,LORNA LAKE AREA	117213	Boundary Cell Mining Claim	2020-10-11
O NEILL	117372	Single Cell Mining Claim	2021-06-27
LORNA LAKE AREA	117417	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA	117987	Boundary Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	118020	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	118023	Single Cell Mining Claim	2020-09-07
O NEILL	118040	Single Cell Mining Claim	2021-04-26
LORNA LAKE AREA	118163	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	118289	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	118290	Single Cell Mining Claim	2021-05-10
COTTE	118632	Single Cell Mining Claim	2021-04-28
COTTE	118633	Single Cell Mining Claim	2021-04-28
COTTE	118634	Single Cell Mining Claim	2021-04-28
O NEILL	118808	Boundary Cell Mining Claim	2020-10-28
PIC	120222	Single Cell Mining Claim	2021-04-28
PIC	120223	Single Cell Mining Claim	2020-04-28
COTTE	121583	Single Cell Mining Claim	2021-04-28
COTTE,LORNA LAKE AREA	122180	Single Cell Mining Claim	2020-04-28
MARTINET LAKE AREA,SEELEY LAKE AREA	124502	Boundary Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	125031	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	125061	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	125062	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	125063	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	125064	Single Cell Mining Claim	2020-09-07
O NEILL	125087	Single Cell Mining Claim	2021-04-26
SEELEY LAKE AREA	125691	Single Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	125692	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	125694	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	125695	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	126385	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	126477	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	126478	Boundary Cell Mining Claim	2020-09-08
LORNA LAKE AREA	127163	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	127164	Boundary Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	127165	Boundary Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	127166	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	127167	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA	127168	Boundary Cell Mining Claim	2020-09-10
PIC	127912	Single Cell Mining Claim	2021-04-28
PIC	127913	Single Cell Mining Claim	2020-04-28
COTTE,PIC	127914	Single Cell Mining Claim	2021-04-28
PIC	127915	Single Cell Mining Claim	2021-04-28
COTTE,ROUS LAKE AREA	128168	Single Cell Mining Claim	2021-04-28
COTTE	128169	Boundary Cell Mining Claim	2020-10-28
COTTE	128191	Single Cell Mining Claim	2020-10-28
COTTE,LORNA LAKE AREA	128668	Single Cell Mining Claim	2021-04-28
COTTE	129407	Single Cell Mining Claim	2021-04-28
COTTE	129868	Single Cell Mining Claim	2020-04-28
COTTE	129869	Single Cell Mining Claim	2021-04-28
O NEILL	130374	Single Cell Mining Claim	2020-08-30
SEELEY LAKE AREA	131218	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	131219	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	131220	Single Cell Mining Claim	2020-09-08
COTTE	131234	Single Cell Mining Claim	2021-04-28
COTTE,PIC	131565	Single Cell Mining Claim	2021-04-28
PIC	131566	Single Cell Mining Claim	2021-04-28
PIC	131567	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	132584	Boundary Cell Mining Claim	2020-08-18
COTTE,LORNA LAKE AREA	132932	Single Cell Mining Claim	2021-04-28
COTTE,LORNA LAKE AREA	132933	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	133308	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	133309	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	133310	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	133337	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	134095	Single Cell Mining Claim	2021-04-28
COTTE	134960	Single Cell Mining Claim	2020-04-28
COTTE	135217	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	138141	Single Cell Mining Claim	2020-10-28

WABIKOBA LAKE AREA	138443	Boundary Cell Mining Claim	2021-03-24
ROUS LAKE AREA	138807	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	138829	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	139047	Single Cell Mining Claim	2020-09-10
COTTE	139232	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	139236	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	139237	Single Cell Mining Claim	2020-09-10
WABIKOBA LAKE AREA	139512	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	139513	Single Cell Mining Claim	2021-06-13
COTTE	139951	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	140344	Single Cell Mining Claim	2020-09-08
WABIKOBA LAKE AREA	140367	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	140368	Single Cell Mining Claim	2021-06-13
O NEILL	140426	Single Cell Mining Claim	2020-08-30
O NEILL	140427	Single Cell Mining Claim	2020-08-30
COTTE	140470	Single Cell Mining Claim	2020-10-28
O NEILL	140481	Single Cell Mining Claim	2020-08-30
COTTE,LORNA LAKE AREA	140656	Single Cell Mining Claim	2020-04-28
COTTE	140951	Single Cell Mining Claim	2021-04-28
COTTE	140952	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	141342	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	141343	Boundary Cell Mining Claim	2021-05-10
ROUS LAKE AREA	142371	Boundary Cell Mining Claim	2021-04-28
COTTE	143002	Single Cell Mining Claim	2021-04-28
COTTE	143297	Single Cell Mining Claim	2021-04-28
COTTE	143298	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	143767	Single Cell Mining Claim	2021-04-26
LORNA LAKE AREA	143810	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	143887	Single Cell Mining Claim	2021-04-28
COTTE	144272	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	144291	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	144536	Single Cell Mining Claim	2020-09-24
WABIKOBA LAKE AREA	144960	Single Cell Mining Claim	2021-06-13
LORNA LAKE AREA	145042	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	145043	Boundary Cell Mining Claim	2020-09-10
COTTE	145288	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	145661	Single Cell Mining Claim	2021-04-28
COTTE	145663	Single Cell Mining Claim	2020-10-28
SEELEY LAKE AREA	145795	Single Cell Mining Claim	2020-09-08
COTTE	145854	Single Cell Mining Claim	2020-10-28
COTTE	145855	Single Cell Mining Claim	2020-10-28
COTTE	145906	Single Cell Mining Claim	2021-04-28
COTTE	145907	Single Cell Mining Claim	2021-04-28
O NEILL	146377	Single Cell Mining Claim	2020-08-30
COTTE	146418	Single Cell Mining Claim	2020-10-28
COTTE	146419	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	146428	Single Cell Mining Claim	2020-04-28
O NEILL	148227	Single Cell Mining Claim	2021-06-27
COTTE	148270	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA,SEELEY LAKE AREA	149311	Boundary Cell Mining Claim	2020-08-30
LORNA LAKE AREA	150885	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	151322	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	151371	Single Cell Mining Claim	2021-05-10
O NEILL,SEELEY LAKE AREA	152014	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	152093	Boundary Cell Mining Claim	2020-08-30
MARTINET LAKE AREA	152972	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	152973	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	152974	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	153032	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	153033	Boundary Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	153054	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	153056	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	153057	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	153059	Single Cell Mining Claim	2021-05-09
O NEILL	153073	Single Cell Mining Claim	2021-06-27
MARTINET LAKE AREA	153074	Single Cell Mining Claim	2021-05-09
LORNA LAKE AREA	153523	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA,SEELEY LAKE AREA	153524	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	153525	Single Cell Mining Claim	2020-12-15

LORNA LAKE AREA,SEELEY LAKE AREA	153526	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	153528	Boundary Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	153571	Single Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	153674	Single Cell Mining Claim	2021-05-10
O NEILL	154071	Single Cell Mining Claim	2020-08-30
SEELEY LAKE AREA	154182	Boundary Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	154183	Boundary Cell Mining Claim	2020-09-08
LORNA LAKE AREA	154317	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	154318	Single Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	154439	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA,SEELEY LAKE AREA	154459	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	154460	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA,SEELEY LAKE AREA	154461	Single Cell Mining Claim	2020-08-30
SEELEY LAKE AREA	154941	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	155015	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	155101	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	155102	Boundary Cell Mining Claim	2020-09-07
COTTE	155800	Single Cell Mining Claim	2021-04-28
COTTE	155801	Single Cell Mining Claim	2021-04-28
COTTE	155802	Single Cell Mining Claim	2021-04-28
COTTE	155803	Single Cell Mining Claim	2021-04-28
COTTE	155921	Single Cell Mining Claim	2021-04-28
COTTE,PIC	155922	Single Cell Mining Claim	2020-04-28
PIC	155923	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA,ROUS LAKE AREA	156499	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	156500	Boundary Cell Mining Claim	2021-04-28
COTTE	157125	Single Cell Mining Claim	2020-04-28
COTTE	157384	Single Cell Mining Claim	2021-04-28
COTTE	157385	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	157928	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	158088	Single Cell Mining Claim	2020-09-24
COTTE	158285	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	158540	Boundary Cell Mining Claim	2021-03-24
COTTE	158737	Single Cell Mining Claim	2021-04-28
COTTE	158738	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	159138	Boundary Cell Mining Claim	2020-09-10
COTTE	159391	Single Cell Mining Claim	2020-10-28
SEELEY LAKE AREA	159896	Single Cell Mining Claim	2020-09-08
WABIKOBA LAKE AREA	159913	Single Cell Mining Claim	2021-06-13
COTTE	159957	Single Cell Mining Claim	2021-04-28
O NEILL	160488	Boundary Cell Mining Claim	2020-09-08
O NEILL	160489	Single Cell Mining Claim	2020-08-30
O NEILL	160490	Boundary Cell Mining Claim	2020-08-30
O NEILL	160491	Single Cell Mining Claim	2020-08-30
O NEILL	161052	Single Cell Mining Claim	2020-10-28
COTTE,O NEILL,PIC	161053	Single Cell Mining Claim	2020-10-28
COTTE	162105	Single Cell Mining Claim	2021-04-28
COTTE	162106	Single Cell Mining Claim	2021-04-28
COTTE,LORNA LAKE AREA	162622	Single Cell Mining Claim	2021-04-28
COTTE	162623	Single Cell Mining Claim	2021-04-28
COTTE	162763	Boundary Cell Mining Claim	2021-03-06
CIRRUS LAKE AREA	163406	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	163407	Boundary Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA,LORNA LAKE AREA	164048	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA	164175	Boundary Cell Mining Claim	2020-10-11
COTTE	164392	Single Cell Mining Claim	2021-04-28
COTTE	164393	Single Cell Mining Claim	2021-04-28
COTTE	164663	Single Cell Mining Claim	2021-04-28
COTTE	164789	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	166597	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	166598	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	166599	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	166600	Boundary Cell Mining Claim	2021-04-28
COTTE	166669	Single Cell Mining Claim	2021-04-28
O NEILL	167182	Boundary Cell Mining Claim	2020-09-08
O NEILL	167183	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	168157	Single Cell Mining Claim	2020-08-30
MARTINET LAKE AREA	169597	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	169598	Single Cell Mining Claim	2020-09-07

MARTINET LAKE AREA	169624	Single Cell Mining Claim	2020-09-07
CIRRUS LAKE AREA	169663	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	169694	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	169695	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	169697	Single Cell Mining Claim	2021-05-09
LORNA LAKE AREA	170101	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	170102	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	170141	Single Cell Mining Claim	2021-05-10
O NEILL	170228	Single Cell Mining Claim	2021-06-27
LORNA LAKE AREA	170321	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	170322	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	170323	Single Cell Mining Claim	2020-09-07
O NEILL,SEELEY LAKE AREA	171558	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	171648	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	171649	Boundary Cell Mining Claim	2020-09-08
O NEILL	171692	Single Cell Mining Claim	2020-08-30
O NEILL	171693	Single Cell Mining Claim	2020-08-30
COTTE	171783	Single Cell Mining Claim	2021-04-28
COTTE	171784	Single Cell Mining Claim	2021-04-28
COTTE	171785	Single Cell Mining Claim	2021-04-28
COTTE	171786	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	172242	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	172444	Boundary Cell Mining Claim	2020-08-30
ROUS LAKE AREA	172723	Boundary Cell Mining Claim	2020-10-28
COTTE	172860	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	173019	Boundary Cell Mining Claim	2021-03-24
LORNA LAKE AREA	173137	Boundary Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	173805	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	173806	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	173807	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	173867	Boundary Cell Mining Claim	2020-09-08
COTTE	173937	Single Cell Mining Claim	2021-04-28
COTTE,PIC	174062	Single Cell Mining Claim	2021-04-28
PIC	174063	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	174407	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	174409	Single Cell Mining Claim	2021-06-13
O NEILL	174431	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	174490	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	174491	Boundary Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	174492	Boundary Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	174493	Boundary Cell Mining Claim	2020-08-12
LORNA LAKE AREA	174494	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	174495	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	174496	Boundary Cell Mining Claim	2020-09-10
COTTE,LORNA LAKE AREA	174744	Single Cell Mining Claim	2021-04-28
COTTE	174745	Boundary Cell Mining Claim	2020-10-28
O NEILL	174977	Single Cell Mining Claim	2020-09-08
COTTE	175018	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	175024	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	175025	Single Cell Mining Claim	2020-04-28
O NEILL	175032	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	175322	Single Cell Mining Claim	2020-04-28
COTTE	175472	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	176182	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	176183	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	176262	Boundary Cell Mining Claim	2021-04-28
O NEILL	176835	Single Cell Mining Claim	2020-08-30
COTTE,PIC	176870	Single Cell Mining Claim	2021-04-28
COTTE	177791	Single Cell Mining Claim	2021-04-28
COTTE	177792	Single Cell Mining Claim	2021-04-28
COTTE	177793	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	178159	Single Cell Mining Claim	2020-04-28
COTTE,LORNA LAKE AREA	179624	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	180130	Boundary Cell Mining Claim	2021-04-28
ROUS LAKE AREA	180131	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	181501	Single Cell Mining Claim	2021-04-28
MARTINET LAKE AREA	182418	Boundary Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	182460	Single Cell Mining Claim	2021-06-25
CIRRUS LAKE AREA,MARTINET LAKE AREA	182461	Single Cell Mining Claim	2021-06-25

MARTINET LAKE AREA	182462	Boundary Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	182495	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	182497	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	182498	Single Cell Mining Claim	2020-09-07
CIRRUS LAKE AREA	182941	Single Cell Mining Claim	2021-04-26
CIRRUS LAKE AREA,LORNA LAKE AREA	182942	Boundary Cell Mining Claim	2020-08-18
O NEILL	183025	Single Cell Mining Claim	2020-08-30
O NEILL	183026	Single Cell Mining Claim	2021-04-26
SEELEY LAKE AREA	183138	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	183139	Single Cell Mining Claim	2020-09-07
CIRRUS LAKE AREA	183539	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	183540	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	183541	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	183542	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	183605	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	183621	Single Cell Mining Claim	2021-04-28
COTTE	183858	Single Cell Mining Claim	2021-04-28
COTTE	183859	Single Cell Mining Claim	2021-04-28
PIC	184229	Single Cell Mining Claim	2020-04-28
PIC	184230	Single Cell Mining Claim	2021-04-28
O NEILL	185108	Single Cell Mining Claim	2020-09-08
O NEILL	185855	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	186108	Single Cell Mining Claim	2021-04-28
O NEILL	186577	Boundary Cell Mining Claim	2020-10-28
COTTE,PIC	187873	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	188426	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	188427	Single Cell Mining Claim	2020-09-07
O NEILL	188451	Single Cell Mining Claim	2021-04-26
O NEILL	188452	Single Cell Mining Claim	2021-04-26
LORNA LAKE AREA,SEELEY LAKE AREA	188567	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	188568	Single Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	188569	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA,SEELEY LAKE AREA	188570	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	188571	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA,ROUS LAKE AREA	188941	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	188942	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	189075	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	189076	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	189215	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	189216	Single Cell Mining Claim	2021-05-10
O NEILL	189831	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	189839	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	189840	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	189914	Single Cell Mining Claim	2020-09-08
ROUS LAKE AREA	190136	Boundary Cell Mining Claim	2020-10-28
O NEILL	190464	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	190512	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	190513	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	190514	Boundary Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	190517	Boundary Cell Mining Claim	2020-08-12
LORNA LAKE AREA	190519	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	190520	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	190534	Boundary Cell Mining Claim	2020-09-07
ROUS LAKE AREA	190785	Single Cell Mining Claim	2021-04-28
COTTE,ROUS LAKE AREA	190786	Single Cell Mining Claim	2021-04-28
COTTE	190787	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	190808	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	190933	Single Cell Mining Claim	2020-04-28
COTTE	191386	Single Cell Mining Claim	2021-04-28
COTTE	191387	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	191481	Boundary Cell Mining Claim	2021-06-13
LORNA LAKE AREA	191662	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA,LORNA LAKE AREA	191739	Boundary Cell Mining Claim	2020-08-18
LORNA LAKE AREA	191941	Boundary Cell Mining Claim	2021-04-26
LORNA LAKE AREA,ROUS LAKE AREA	192208	Single Cell Mining Claim	2021-04-28
COTTE	192233	Single Cell Mining Claim	2020-10-28
COTTE	192234	Single Cell Mining Claim	2020-10-28
COTTE	192235	Single Cell Mining Claim	2020-10-28
COTTE	192938	Single Cell Mining Claim	2021-04-28

SEELEY LAKE AREA	192966	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	192967	Single Cell Mining Claim	2020-09-08
WABIKOBA LAKE AREA	192990	Single Cell Mining Claim	2021-06-13
O NEILL	193047	Single Cell Mining Claim	2020-08-30
O NEILL	193105	Boundary Cell Mining Claim	2020-08-30
COTTE	193293	Single Cell Mining Claim	2020-04-28
COTTE	193294	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	193931	Single Cell Mining Claim	2021-06-13
COTTE	194007	Boundary Cell Mining Claim	2020-10-28
COTTE	194008	Single Cell Mining Claim	2020-10-28
COTTE	194538	Boundary Cell Mining Claim	2020-10-28
COTTE	194539	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	194546	Single Cell Mining Claim	2020-04-28
COTTE,LORNA LAKE AREA	194547	Single Cell Mining Claim	2020-04-28
O NEILL	194552	Single Cell Mining Claim	2020-08-30
COTTE	194989	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	195703	Boundary Cell Mining Claim	2020-09-24
LORNA LAKE AREA	195754	Boundary Cell Mining Claim	2021-04-28
O NEILL	196345	Boundary Cell Mining Claim	2021-06-27
O NEILL,PIC	196346	Single Cell Mining Claim	2021-06-27
O NEILL,PIC	196347	Single Cell Mining Claim	2021-06-27
PIC	196384	Single Cell Mining Claim	2020-04-28
COTTE	196700	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	196793	Boundary Cell Mining Claim	2020-08-18
MARTINET LAKE AREA,SEELEY LAKE AREA	196966	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	197712	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA,SEELEY LAKE AREA	199370	Single Cell Mining Claim	2020-12-15
COTTE,PIC	199898	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	200394	Single Cell Mining Claim	2021-01-17
ROUS LAKE AREA	201112	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	201970	Single Cell Mining Claim	2020-04-28
ROUS LAKE AREA	202283	Boundary Cell Mining Claim	2020-10-28
COTTE,ROUS LAKE AREA	202926	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	203104	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	203105	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	203106	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	203107	Single Cell Mining Claim	2020-04-28
CIRRUS LAKE AREA	203224	Boundary Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	203225	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	203226	Single Cell Mining Claim	2020-09-24
WABIKOBA LAKE AREA	203633	Single Cell Mining Claim	2021-06-13
LORNA LAKE AREA	203857	Single Cell Mining Claim	2020-09-10
COTTE,LORNA LAKE AREA	203887	Boundary Cell Mining Claim	2021-04-28
COTTE	203888	Boundary Cell Mining Claim	2021-04-28
COTTE	203889	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	203894	Single Cell Mining Claim	2020-09-10
COTTE	204321	Single Cell Mining Claim	2021-04-28
COTTE	204699	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	204799	Boundary Cell Mining Claim	2020-08-18
LORNA LAKE AREA,SEELEY LAKE AREA	205439	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	206864	Boundary Cell Mining Claim	2020-12-15
LORNA LAKE AREA	206865	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	206866	Boundary Cell Mining Claim	2020-09-10
MARTINET LAKE AREA	206921	Single Cell Mining Claim	2020-09-07
O NEILL	207034	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	207049	Single Cell Mining Claim	2020-09-08
COTTE	207397	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	207469	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	207470	Single Cell Mining Claim	2020-12-15
O NEILL	207667	Single Cell Mining Claim	2020-08-30
O NEILL	207668	Single Cell Mining Claim	2021-04-26
MARTINET LAKE AREA	207669	Single Cell Mining Claim	2021-05-09
LORNA LAKE AREA	208402	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	208403	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	208404	Boundary Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	208946	Single Cell Mining Claim	2020-09-08
O NEILL	208981	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	209022	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	209023	Boundary Cell Mining Claim	2020-08-12

MARTINET LAKE AREA,SEELEY LAKE AREA	209036	Single Cell Mining Claim	2020-09-07
ROUS LAKE AREA	209586	Single Cell Mining Claim	2021-04-28
COTTE	210028	Single Cell Mining Claim	2021-04-28
COTTE	210029	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	210276	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	210536	Boundary Cell Mining Claim	2021-03-24
CIRRUS LAKE AREA	210732	Single Cell Mining Claim	2020-09-24
COTTE,LORNA LAKE AREA,ROUS LAKE AREA	210954	Single Cell Mining Claim	2021-04-28
COTTE	210958	Single Cell Mining Claim	2020-10-28
COTTE	210959	Boundary Cell Mining Claim	2020-10-28
COTTE	210960	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	211140	Single Cell Mining Claim	2020-09-10
COTTE	211684	Single Cell Mining Claim	2021-04-28
COTTE	212058	Boundary Cell Mining Claim	2020-10-28
CIRRUS LAKE AREA	212389	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	212390	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	213209	Single Cell Mining Claim	2021-04-28
COTTE,PIC	213592	Single Cell Mining Claim	2020-04-28
PIC	213593	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	213986	Single Cell Mining Claim	2021-06-25
CIRRUS LAKE AREA	213987	Single Cell Mining Claim	2021-06-25
CIRRUS LAKE AREA	213988	Single Cell Mining Claim	2021-06-25
SEELEY LAKE AREA	213989	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA	215326	Boundary Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	215491	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	215492	Single Cell Mining Claim	2020-12-15
O NEILL	215848	Boundary Cell Mining Claim	2020-10-28
ROUS LAKE AREA	216098	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	216906	Single Cell Mining Claim	2020-08-18
LORNA LAKE AREA	216907	Boundary Cell Mining Claim	2020-08-18
MARTINET LAKE AREA	217808	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	217809	Boundary Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	217810	Boundary Cell Mining Claim	2020-09-07
ROUS LAKE AREA	218025	Single Cell Mining Claim	2020-10-28
ROUS LAKE AREA	218026	Single Cell Mining Claim	2020-10-28
MARTINET LAKE AREA	218353	Single Cell Mining Claim	2021-06-25
LORNA LAKE AREA	218384	Single Cell Mining Claim	2020-09-07
O NEILL	218403	Single Cell Mining Claim	2020-08-30
O NEILL	218404	Single Cell Mining Claim	2020-08-30
MARTINET LAKE AREA	218405	Single Cell Mining Claim	2021-05-09
CIRRUS LAKE AREA,LORNA LAKE AREA	218479	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	218983	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	218984	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	219011	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	219581	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	219632	Single Cell Mining Claim	2020-09-08
MARTINET LAKE AREA	219703	Single Cell Mining Claim	2020-09-07
O NEILL,PIC	220406	Single Cell Mining Claim	2021-06-27
LORNA LAKE AREA	220451	Boundary Cell Mining Claim	2020-09-10
MARTINET LAKE AREA	220459	Single Cell Mining Claim	2020-09-07
COTTE	221182	Single Cell Mining Claim	2021-04-28
COTTE	221183	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	221907	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	221908	Single Cell Mining Claim	2021-04-28
COTTE,LORNA LAKE AREA	221909	Single Cell Mining Claim	2021-04-28
COTTE	221910	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	222016	Single Cell Mining Claim	2020-04-28
COTTE	222059	Single Cell Mining Claim	2021-04-28
COTTE	223162	Single Cell Mining Claim	2020-04-28
COTTE	223460	Single Cell Mining Claim	2021-04-28
COTTE	224068	Single Cell Mining Claim	2021-04-28
COTTE	224069	Single Cell Mining Claim	2021-04-28
COTTE	224173	Single Cell Mining Claim	2021-04-28
COTTE	224174	Single Cell Mining Claim	2021-04-28
MARTINET LAKE AREA	225739	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	225740	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	225766	Boundary Cell Mining Claim	2020-09-07
ROUS LAKE AREA,LORNA LAKE AREA,MARTINET LAKE AREA,SEELEY LAKE A	225795	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	225822	Single Cell Mining Claim	2020-09-07



MARTINET LAKE AREA	225844	Single Cell Mining Claim	2021-05-09
MARTINET LAKE AREA	225845	Single Cell Mining Claim	2021-05-09
LORNA LAKE AREA	226265	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	226266	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	226267	Boundary Cell Mining Claim	2020-12-15
LORNA LAKE AREA	226268	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	226269	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	226270	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	226444	Boundary Cell Mining Claim	2020-09-07
ROUS LAKE AREA	226828	Single Cell Mining Claim	2020-10-28
ROUS LAKE AREA	226829	Boundary Cell Mining Claim	2020-10-28
LORNA LAKE AREA	227107	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	227108	Single Cell Mining Claim	2021-05-10
COTTE	227482	Single Cell Mining Claim	2021-04-28
COTTE	227483	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	227743	Boundary Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	227814	Boundary Cell Mining Claim	2020-09-08
O NEILL	228376	Single Cell Mining Claim	2021-06-27
O NEILL	228377	Single Cell Mining Claim	2020-08-30
MARTINET LAKE AREA	228446	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	228447	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA,SEELEY LAKE AREA	228448	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	228449	Boundary Cell Mining Claim	2020-09-07
COTTE	228520	Single Cell Mining Claim	2021-04-28
PIC	228647	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	228678	Single Cell Mining Claim	2020-08-30
WABIKOBA LAKE AREA	228813	Single Cell Mining Claim	2021-06-13
LORNA LAKE AREA	229495	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	229496	Single Cell Mining Claim	2020-04-28
COTTE	229497	Single Cell Mining Claim	2021-04-28
COTTE	229498	Single Cell Mining Claim	2021-04-28
COTTE	230770	Single Cell Mining Claim	2020-10-28
COTTE	230823	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	230863	Boundary Cell Mining Claim	2020-10-11
COTTE	231135	Single Cell Mining Claim	2020-04-28
COTTE	231136	Single Cell Mining Claim	2021-04-28
COTTE	231137	Single Cell Mining Claim	2021-04-28
COTTE	232703	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	234055	Single Cell Mining Claim	2020-08-18
LORNA LAKE AREA	234056	Boundary Cell Mining Claim	2020-08-18
LORNA LAKE AREA	234057	Boundary Cell Mining Claim	2020-08-18
LORNA LAKE AREA	236075	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA,ROUS LAKE AREA	236076	Single Cell Mining Claim	2021-04-28
COTTE	237732	Single Cell Mining Claim	2020-04-28
COTTE	237733	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	238773	Single Cell Mining Claim	2020-10-28
ROUS LAKE AREA	238774	Single Cell Mining Claim	2020-10-28
COTTE	239196	Boundary Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA,LORNA LAKE AREA	239199	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	239200	Boundary Cell Mining Claim	2020-09-10
WABIKOBA LAKE AREA	239692	Boundary Cell Mining Claim	2021-03-24
WABIKOBA LAKE AREA	240172	Single Cell Mining Claim	2021-06-13
LORNA LAKE AREA	240297	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA	240571	Single Cell Mining Claim	2020-09-24
COTTE	240794	Single Cell Mining Claim	2021-04-28
COTTE,PIC	240795	Single Cell Mining Claim	2020-04-28
SEELEY LAKE AREA	241076	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	241077	Single Cell Mining Claim	2020-09-08
WABIKOBA LAKE AREA	241106	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	241107	Boundary Cell Mining Claim	2021-06-13
O NEILL	241669	Boundary Cell Mining Claim	2020-08-30
O NEILL	241670	Single Cell Mining Claim	2020-08-30
O NEILL	241671	Boundary Cell Mining Claim	2020-08-30
COTTE,LORNA LAKE AREA	241718	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	241719	Single Cell Mining Claim	2020-04-28
O NEILL	241724	Single Cell Mining Claim	2020-08-30
CIRRUS LAKE AREA	242288	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	242289	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	242290	Single Cell Mining Claim	2020-09-24

O NEILL	242934	Boundary Cell Mining Claim	2020-08-30
COTTE	244867	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	246074	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	246075	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	246076	Single Cell Mining Claim	2021-04-28
COTTE,O NEILL	246568	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	246971	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	246972	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	247293	Single Cell Mining Claim	2020-09-24
WABIKOBA LAKE AREA	247666	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	247667	Boundary Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	247753	Boundary Cell Mining Claim	2021-03-24
COTTE	248105	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	248367	Single Cell Mining Claim	2020-04-28
COTTE,O NEILL	248605	Boundary Cell Mining Claim	2020-10-28
LORNA LAKE AREA	248861	Single Cell Mining Claim	2020-04-28
COTTE	249773	Single Cell Mining Claim	2020-10-28
COTTE,LORNA LAKE AREA	249780	Single Cell Mining Claim	2021-04-28
O NEILL	249796	Boundary Cell Mining Claim	2020-08-30
LORNA LAKE AREA	250354	Boundary Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	250706	Single Cell Mining Claim	2020-08-12
COTTE	251011	Single Cell Mining Claim	2021-04-28
COTTE	251012	Single Cell Mining Claim	2021-04-28
O NEILL	251854	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	252904	Single Cell Mining Claim	2021-04-28
COTTE	254412	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA,ROUS LAKE AREA	255753	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	255754	Single Cell Mining Claim	2021-04-28
COTTE	256414	Single Cell Mining Claim	2020-04-28
COTTE	256415	Single Cell Mining Claim	2020-04-28
COTTE	257145	Single Cell Mining Claim	2020-10-28
COTTE	257244	Boundary Cell Mining Claim	2021-03-06
LORNA LAKE AREA	257636	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	257637	Boundary Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	257640	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA	257641	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	257642	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	257663	Single Cell Mining Claim	2020-09-07
COTTE	257806	Single Cell Mining Claim	2020-04-28
COTTE	257807	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	257993	Single Cell Mining Claim	2020-04-28
COTTE	258033	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA,ROUS LAKE AREA	258124	Single Cell Mining Claim	2021-04-28
COTTE	258125	Boundary Cell Mining Claim	2021-03-06
CIRRUS LAKE AREA	258761	Boundary Cell Mining Claim	2020-09-24
LORNA LAKE AREA	259146	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	259147	Single Cell Mining Claim	2020-04-28
WABIKOBA LAKE AREA	259276	Boundary Cell Mining Claim	2021-03-24
COTTE	259406	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	259868	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA,LORNA LAKE AREA	259929	Single Cell Mining Claim	2020-08-18
O NEILL	261252	Single Cell Mining Claim	2020-08-30
CIRRUS LAKE AREA	261453	Single Cell Mining Claim	2021-06-25
SEELEY LAKE AREA	261454	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	261455	Boundary Cell Mining Claim	2020-09-08
COTTE	261980	Single Cell Mining Claim	2021-04-28
COTTE	262719	Single Cell Mining Claim	2021-04-28
O NEILL	263011	Single Cell Mining Claim	2020-08-30
O NEILL	263012	Single Cell Mining Claim	2021-06-27
COTTE,PIC	263040	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA,LORNA LAKE AREA	263327	Boundary Cell Mining Claim	2020-08-18
O NEILL,SEELEY LAKE AREA	263866	Boundary Cell Mining Claim	2020-09-08
COTTE	264432	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA,SEELEY LAKE AREA	265504	Single Cell Mining Claim	2021-05-10
MARTINET LAKE AREA	265516	Single Cell Mining Claim	2020-09-07
CIRRUS LAKE AREA	265573	Single Cell Mining Claim	2021-06-25
CIRRUS LAKE AREA,MARTINET LAKE AREA	265574	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	265607	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	265612	Single Cell Mining Claim	2021-05-09

SEELEY LAKE AREA	266111	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	266223	Single Cell Mining Claim	2020-09-07
COTTE	266395	Single Cell Mining Claim	2020-04-28
COTTE	266396	Single Cell Mining Claim	2021-04-28
COTTE,PIC	266645	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	266848	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	266849	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	266975	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	267565	Boundary Cell Mining Claim	2020-09-08
LORNA LAKE AREA,ROUS LAKE AREA	267738	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	267739	Single Cell Mining Claim	2021-04-28
COTTE	268523	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	268529	Single Cell Mining Claim	2020-04-28
O NEILL	268534	Boundary Cell Mining Claim	2020-08-30
LORNA LAKE AREA	271445	Boundary Cell Mining Claim	2020-08-30
COTTE,O NEILL	271777	Single Cell Mining Claim	2020-10-28
MARTINET LAKE AREA	272994	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	272995	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	273027	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	273028	Single Cell Mining Claim	2021-06-25
LORNA LAKE AREA,SEELEY LAKE AREA	273380	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	273382	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	273383	Single Cell Mining Claim	2020-09-10
MARTINET LAKE AREA	273560	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	273561	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	273562	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	273578	Single Cell Mining Claim	2021-05-09
MARTINET LAKE AREA	273579	Single Cell Mining Claim	2021-05-09
LORNA LAKE AREA	274324	Boundary Cell Mining Claim	2021-05-10
COTTE	274471	Single Cell Mining Claim	2020-04-28
COTTE	274472	Single Cell Mining Claim	2020-04-28
COTTE	274473	Single Cell Mining Claim	2021-04-28
O NEILL	274951	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	275040	Single Cell Mining Claim	2020-09-08
O NEILL	275596	Single Cell Mining Claim	2020-08-30
O NEILL	275597	Single Cell Mining Claim	2021-06-27
O NEILL	275598	Single Cell Mining Claim	2021-06-27
O NEILL	275599	Single Cell Mining Claim	2021-06-27
O NEILL,PIC	275600	Single Cell Mining Claim	2021-06-27
O NEILL,PIC	275601	Boundary Cell Mining Claim	2021-06-27
SEELEY LAKE AREA	275653	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	275667	Boundary Cell Mining Claim	2020-09-07
LORNA LAKE AREA	275798	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	275955	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	275956	Single Cell Mining Claim	2020-04-28
COTTE	275995	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	276536	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA,SEELEY LAKE AREA	276537	Single Cell Mining Claim	2020-09-10
COTTE	276572	Boundary Cell Mining Claim	2021-03-06
CIRRUS LAKE AREA	277241	Single Cell Mining Claim	2020-09-24
SEELEY LAKE AREA	277793	Single Cell Mining Claim	2020-09-08
CIRRUS LAKE AREA	278068	Boundary Cell Mining Claim	2020-10-11
CIRRUS LAKE AREA	278827	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	278828	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	279384	Boundary Cell Mining Claim	2021-04-28
O NEILL	279492	Single Cell Mining Claim	2020-08-30
CIRRUS LAKE AREA	279605	Single Cell Mining Claim	2020-10-11
COTTE,LORNA LAKE AREA	281541	Single Cell Mining Claim	2020-04-28
COTTE	282084	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	282717	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	283424	Single Cell Mining Claim	2020-08-18
LORNA LAKE AREA	283425	Boundary Cell Mining Claim	2020-08-18
LORNA LAKE AREA	283560	Boundary Cell Mining Claim	2020-08-30
MARTINET LAKE AREA	285039	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	285040	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	285075	Single Cell Mining Claim	2020-09-07
ROUS LAKE AREA	285435	Single Cell Mining Claim	2020-10-28
ROUS LAKE AREA	285436	Boundary Cell Mining Claim	2020-10-28
LORNA LAKE AREA	285504	Single Cell Mining Claim	2020-12-15

LORNA LAKE AREA	285505	Boundary Cell Mining Claim	2020-12-15
LORNA LAKE AREA	285507	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	285550	Single Cell Mining Claim	2021-05-10
SEELEY LAKE AREA	285612	Single Cell Mining Claim	2020-12-15
MARTINET LAKE AREA	285621	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	285622	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA	285644	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	285645	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	285646	Single Cell Mining Claim	2021-05-09
LORNA LAKE AREA	285772	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	285773	Boundary Cell Mining Claim	2020-09-07
COTTE	286104	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	286126	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	286412	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	286413	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	286414	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	286631	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	287046	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	287115	Single Cell Mining Claim	2020-09-08
PIC	287213	Single Cell Mining Claim	2020-04-28
PIC	287214	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	287706	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	287708	Boundary Cell Mining Claim	2020-08-12
COTTE,LORNA LAKE AREA	287998	Single Cell Mining Claim	2021-04-28
COTTE	287999	Single Cell Mining Claim	2021-04-28
COTTE	288000	Boundary Cell Mining Claim	2020-10-28
LORNA LAKE AREA	288477	Boundary Cell Mining Claim	2021-04-28
COTTE	288704	Single Cell Mining Claim	2021-04-28
O NEILL	289931	Boundary Cell Mining Claim	2020-10-28
O NEILL,PIC	289932	Boundary Cell Mining Claim	2020-10-28
LORNA LAKE AREA	290761	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	290762	Boundary Cell Mining Claim	2021-04-28
ROUS LAKE AREA	290763	Boundary Cell Mining Claim	2021-04-28
COTTE	290902	Single Cell Mining Claim	2020-04-28
COTTE	290903	Single Cell Mining Claim	2020-04-28
MARTINET LAKE AREA	292377	Single Cell Mining Claim	2020-09-07
LORNA LAKE AREA	292445	Single Cell Mining Claim	2020-09-07
O NEILL	292461	Single Cell Mining Claim	2020-08-30
O NEILL	292462	Single Cell Mining Claim	2021-04-26
O NEILL	292463	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	292945	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	292946	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	293072	Single Cell Mining Claim	2020-09-07
ROUS LAKE AREA	293475	Boundary Cell Mining Claim	2020-10-28
ROUS LAKE AREA	294111	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	294134	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	294426	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	294427	Single Cell Mining Claim	2020-09-08
O NEILL	294476	Single Cell Mining Claim	2020-08-30
O NEILL	294477	Single Cell Mining Claim	2021-06-27
WABIKOBA LAKE AREA	294815	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	294816	Boundary Cell Mining Claim	2021-06-13
LORNA LAKE AREA	295492	Single Cell Mining Claim	2020-04-28
SEELEY LAKE AREA	295878	Single Cell Mining Claim	2020-12-15
SEELEY LAKE AREA	295879	Single Cell Mining Claim	2020-09-08
COTTE,PIC	298104	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	299471	Single Cell Mining Claim	2020-04-28
COTTE,LORNA LAKE AREA	299472	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	299473	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA	299474	Single Cell Mining Claim	2020-04-28
PIC	299572	Single Cell Mining Claim	2021-04-28
PIC	299573	Single Cell Mining Claim	2020-04-28
COTTE	300013	Single Cell Mining Claim	2021-04-28
COTTE	302972	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	303368	Single Cell Mining Claim	2020-12-15
ROUS LAKE AREA	303414	Boundary Cell Mining Claim	2021-04-28
ROUS LAKE AREA	303415	Boundary Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	303925	Single Cell Mining Claim	2021-05-10
ROUS LAKE AREA	304346	Single Cell Mining Claim	2021-04-28

COTTE	304981	Single Cell Mining Claim	2020-04-28
COTTE	304982	Single Cell Mining Claim	2021-04-28
COTTE	305796	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	306149	Boundary Cell Mining Claim	2020-10-28
LORNA LAKE AREA	306334	Single Cell Mining Claim	2020-04-28
CIRRUS LAKE AREA	306558	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	306559	Single Cell Mining Claim	2020-09-24
ROUS LAKE AREA	306787	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	306975	Boundary Cell Mining Claim	2021-03-24
WABIKOBA LAKE AREA	306976	Single Cell Mining Claim	2021-03-24
LORNA LAKE AREA	307227	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	307228	Single Cell Mining Claim	2020-09-10
COTTE	307305	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	307605	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	307606	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA,LORNA LAKE AREA	307690	Single Cell Mining Claim	2020-08-18
COTTE	307878	Single Cell Mining Claim	2020-10-28
PIC	307956	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA,SEELEY LAKE AREA	307985	Boundary Cell Mining Claim	2021-04-26
COTTE	308216	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	308717	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	308738	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	308739	Single Cell Mining Claim	2021-04-28
COTTE,LORNA LAKE AREA	308740	Boundary Cell Mining Claim	2021-04-28
COTTE	309034	Single Cell Mining Claim	2020-10-28
O NEILL	309049	Single Cell Mining Claim	2020-08-30
CIRRUS LAKE AREA	309831	Single Cell Mining Claim	2021-06-25
SEELEY LAKE AREA	309832	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	309833	Boundary Cell Mining Claim	2020-08-12
COTTE	309861	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	310153	Boundary Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	310154	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	310239	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	310240	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	310435	Single Cell Mining Claim	2021-01-17
COTTE	310512	Single Cell Mining Claim	2021-04-28
COTTE	310513	Single Cell Mining Claim	2021-04-28
COTTE	311799	Single Cell Mining Claim	2020-04-28
LORNA LAKE AREA,ROUS LAKE AREA	312564	Single Cell Mining Claim	2021-04-28
COTTE,ROUS LAKE AREA	313521	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	313535	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	313764	Single Cell Mining Claim	2021-03-24
CIRRUS LAKE AREA	313824	Boundary Cell Mining Claim	2020-09-24
LORNA LAKE AREA	313970	Single Cell Mining Claim	2020-09-10
WABIKOBA LAKE AREA	314224	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	314225	Boundary Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	314226	Single Cell Mining Claim	2021-06-13
LORNA LAKE AREA	314360	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA,ROUS LAKE AREA	314936	Single Cell Mining Claim	2021-04-28
COTTE	314937	Boundary Cell Mining Claim	2020-10-28
SEELEY LAKE AREA	315093	Single Cell Mining Claim	2020-09-08
WABIKOBA LAKE AREA	315115	Boundary Cell Mining Claim	2021-06-13
COTTE	315180	Single Cell Mining Claim	2021-04-28
O NEILL	315703	Single Cell Mining Claim	2020-08-30
COTTE	315730	Single Cell Mining Claim	2020-10-28
COTTE	315731	Single Cell Mining Claim	2020-10-28
COTTE	316179	Single Cell Mining Claim	2021-04-28
COTTE	316180	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	316554	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	316555	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	316556	Single Cell Mining Claim	2020-08-12
COTTE	316586	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	316871	Boundary Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	316872	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	316932	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	316933	Single Cell Mining Claim	2021-04-28
COTTE	317318	Single Cell Mining Claim	2021-04-28
O NEILL	317543	Boundary Cell Mining Claim	2021-06-27
O NEILL,PIC	317544	Boundary Cell Mining Claim	2021-06-27

PIC	317587	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	317906	Boundary Cell Mining Claim	2020-08-18
O NEILL,SEELEY LAKE AREA	318369	Single Cell Mining Claim	2020-09-08
O NEILL,SEELEY LAKE AREA	318370	Single Cell Mining Claim	2020-09-08
LORNA LAKE AREA	318808	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA	319968	Boundary Cell Mining Claim	2020-12-15
LORNA LAKE AREA	319969	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	320108	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA,ROUS LAKE AREA	320109	Boundary Cell Mining Claim	2021-04-28
MARTINET LAKE AREA	321594	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	321595	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	321620	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	321621	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	321658	Boundary Cell Mining Claim	2021-06-25
LORNA LAKE AREA	321686	Single Cell Mining Claim	2020-09-07
O NEILL	321707	Single Cell Mining Claim	2021-06-27
SEELEY LAKE AREA	322207	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA	322952	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	322953	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	322954	Boundary Cell Mining Claim	2021-05-10
MARTINET LAKE AREA	322978	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	323060	Boundary Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	323061	Single Cell Mining Claim	2020-09-08
O NEILL	323676	Single Cell Mining Claim	2021-06-27
LORNA LAKE AREA	323725	Single Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	323726	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA	323845	Single Cell Mining Claim	2021-04-28
COTTE,LORNA LAKE AREA	323867	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	324247	Single Cell Mining Claim	2020-09-07
COTTE	324490	Single Cell Mining Claim	2021-04-28
COTTE	324491	Single Cell Mining Claim	2021-04-28
COTTE	324492	Single Cell Mining Claim	2021-04-28
COTTE	324493	Single Cell Mining Claim	2021-04-28
COTTE,PIC	325126	Single Cell Mining Claim	2021-04-28
COTTE	325127	Single Cell Mining Claim	2021-04-28
COTTE	325325	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	326453	Boundary Cell Mining Claim	2021-03-24
CIRRUS LAKE AREA	326585	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	326586	Boundary Cell Mining Claim	2020-09-24
LORNA LAKE AREA	326731	Single Cell Mining Claim	2020-09-10
CIRRUS LAKE AREA,LORNA LAKE AREA	327101	Single Cell Mining Claim	2020-08-18
COTTE	327335	Single Cell Mining Claim	2021-04-28
COTTE	327403	Boundary Cell Mining Claim	2020-10-28
COTTE,O NEILL	327404	Boundary Cell Mining Claim	2020-10-28
COTTE	327405	Single Cell Mining Claim	2020-10-28
SEELEY LAKE AREA	327805	Single Cell Mining Claim	2020-09-08
O NEILL	327906	Single Cell Mining Claim	2020-09-08
O NEILL	327907	Single Cell Mining Claim	2020-08-30
COTTE	328450	Single Cell Mining Claim	2020-10-28
O NEILL	328470	Single Cell Mining Claim	2020-08-30
LORNA LAKE AREA	329118	Boundary Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	329349	Boundary Cell Mining Claim	2020-08-12
O NEILL,PIC	329652	Single Cell Mining Claim	2020-10-28
LORNA LAKE AREA	330757	Single Cell Mining Claim	2020-08-18
CIRRUS LAKE AREA	331583	Boundary Cell Mining Claim	2020-09-24
COTTE	331866	Single Cell Mining Claim	2021-04-28
SEELEY LAKE AREA	332337	Boundary Cell Mining Claim	2020-08-12
COTTE	332357	Single Cell Mining Claim	2021-04-28
COTTE	332373	Single Cell Mining Claim	2021-04-28
COTTE	332374	Single Cell Mining Claim	2021-04-28
COTTE	332620	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	333158	Boundary Cell Mining Claim	2020-08-30
LORNA LAKE AREA	333159	Boundary Cell Mining Claim	2020-08-30
LORNA LAKE AREA	333939	Boundary Cell Mining Claim	2020-09-10
LORNA LAKE AREA	333940	Boundary Cell Mining Claim	2020-09-10
ROUS LAKE AREA	334802	Single Cell Mining Claim	2021-04-28
COTTE	334935	Single Cell Mining Claim	2021-04-28
COTTE	334936	Single Cell Mining Claim	2021-04-28
COTTE	334937	Single Cell Mining Claim	2021-04-28

COTTE	334938	Single Cell Mining Claim	2021-04-28
WABIKOBA LAKE AREA	335107	Single Cell Mining Claim	2021-06-13
WABIKOBA LAKE AREA	335157	Boundary Cell Mining Claim	2021-03-24
WABIKOBA LAKE AREA	335158	Boundary Cell Mining Claim	2021-03-24
WABIKOBA LAKE AREA	335159	Boundary Cell Mining Claim	2021-03-24
LORNA LAKE AREA	335258	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	335259	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA,SEELEY LAKE AREA	335260	Single Cell Mining Claim	2020-09-10
LORNA LAKE AREA	335261	Boundary Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	335365	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	335387	Boundary Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	335388	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	335389	Single Cell Mining Claim	2020-12-15
LORNA LAKE AREA,SEELEY LAKE AREA	335606	Boundary Cell Mining Claim	2021-04-26
COTTE	335798	Single Cell Mining Claim	2021-04-28
ROUS LAKE AREA	335799	Single Cell Mining Claim	2021-04-28
COTTE	335800	Single Cell Mining Claim	2021-04-28
O NEILL	336018	Single Cell Mining Claim	2021-06-27
O NEILL	336019	Single Cell Mining Claim	2021-06-27
SEELEY LAKE AREA	336073	Single Cell Mining Claim	2020-08-12
SEELEY LAKE AREA	336092	Boundary Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	336093	Boundary Cell Mining Claim	2020-09-07
SEELEY LAKE AREA	336523	Single Cell Mining Claim	2020-09-08
SEELEY LAKE AREA	336524	Boundary Cell Mining Claim	2020-09-08
LORNA LAKE AREA	336853	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	336854	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	336855	Single Cell Mining Claim	2020-04-28
COTTE,LORNA LAKE AREA	336856	Single Cell Mining Claim	2021-04-28
COTTE	337047	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA	337748	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	337749	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	337750	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	337751	Single Cell Mining Claim	2020-09-24
CIRRUS LAKE AREA	337752	Single Cell Mining Claim	2020-09-24
LORNA LAKE AREA	337804	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	337826	Single Cell Mining Claim	2021-04-28
COTTE	338440	Single Cell Mining Claim	2021-04-28
COTTE	338805	Single Cell Mining Claim	2021-04-28
COTTE	339796	Single Cell Mining Claim	2021-04-28
COTTE	339797	Single Cell Mining Claim	2021-04-28
LORNA LAKE AREA	340871	Boundary Cell Mining Claim	2021-04-28
LORNA LAKE AREA,ROUS LAKE AREA	341662	Single Cell Mining Claim	2021-04-28
CIRRUS LAKE AREA,MARTINET LAKE AREA	341867	Single Cell Mining Claim	2021-01-17
MARTINET LAKE AREA	343990	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	343991	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	344048	Single Cell Mining Claim	2021-06-25
MARTINET LAKE AREA,SEELEY LAKE AREA	344049	Single Cell Mining Claim	2021-06-25
LORNA LAKE AREA	344067	Single Cell Mining Claim	2020-09-07
MARTINET LAKE AREA	344068	Single Cell Mining Claim	2021-05-09
ROUS LAKE AREA	344362	Single Cell Mining Claim	2020-10-28
MARTINET LAKE AREA	344595	Single Cell Mining Claim	2021-05-09
SEELEY LAKE AREA	344695	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA,SEELEY LAKE AREA	344696	Single Cell Mining Claim	2020-09-10
SEELEY LAKE AREA	344697	Single Cell Mining Claim	2020-08-12
LORNA LAKE AREA	344703	Single Cell Mining Claim	2020-09-07
CIRRUS LAKE AREA	345092	Single Cell Mining Claim	2021-04-26
LORNA LAKE AREA	345349	Single Cell Mining Claim	2021-05-10
LORNA LAKE AREA	345350	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	345351	Boundary Cell Mining Claim	2021-05-10
LORNA LAKE AREA	500840	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA	500841	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA,WABIKOBA LAKE AREA	500842	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA,WABIKOBA LAKE AREA	500843	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA	500844	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA	500845	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA	500846	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA,WABIKOBA LAKE AREA	500847	Single Cell Mining Claim	2021-04-10
LORNA LAKE AREA,WABIKOBA LAKE AREA	500848	Single Cell Mining Claim	2020-04-10
LORNA LAKE AREA	500849	Single Cell Mining Claim	2021-04-10









LORNA LAKE AREA	540865	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540866	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540867	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540868	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540869	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540870	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540871	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540872	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540873	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540874	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540875	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540876	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540877	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540878	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540879	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540880	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540881	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540882	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540883	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540884	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540885	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540886	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540887	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540888	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540889	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540890	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540891	Single Cell Mining Claim	2021-02-05
LORNA LAKE AREA	540892	Single Cell Mining Claim	2021-02-05
MARTINET LAKE AREA	540893	Single Cell Mining Claim	2021-02-05
MARTINET LAKE AREA	540894	Single Cell Mining Claim	2021-02-05
MARTINET LAKE AREA	540895	Single Cell Mining Claim	2021-02-05
MARTINET LAKE AREA	540896	Single Cell Mining Claim	2021-02-05
MARTINET LAKE AREA	540897	Single Cell Mining Claim	2021-02-05
MARTINET LAKE AREA	540898	Single Cell Mining Claim	2021-02-05

# **APPENDIX X**

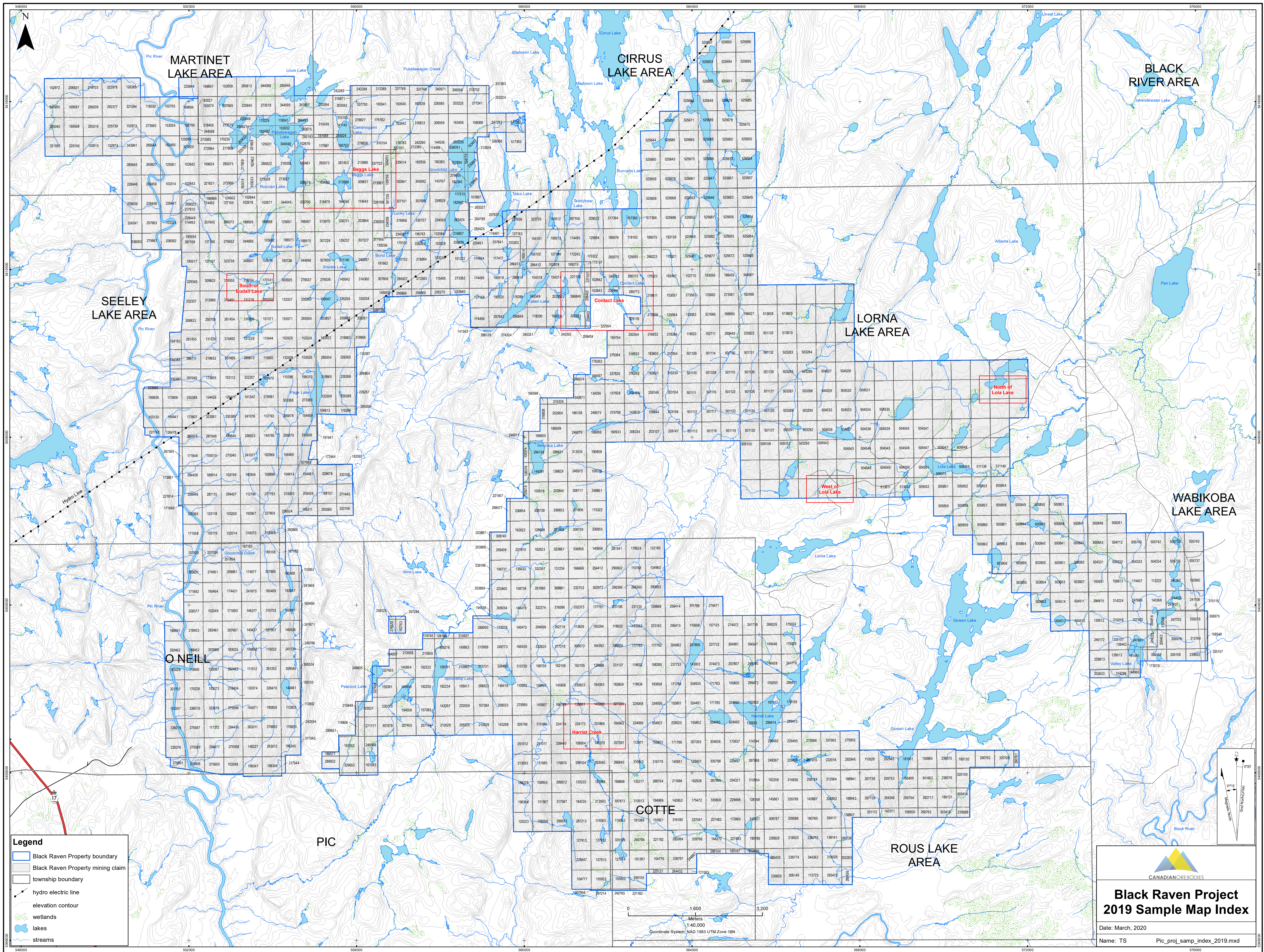
## **Daily Logs**

Daily Log RAV Project June - October 2019

Date	B. Maclachlan days	Activities	C. Robertson days	Activities
18-Jun-2019	1	Prospecting Harvey-2	1	Prospecting Harvey-2
19-Jun-2019	1	Prospecting Harvey-2	1	Prospecting Harvey-2
20-Jun-2019	1	Prospecting Harvey-2	1	Prospecting Harvey-2
21-Jun-2019	1	Prospecting Harvey-2	1	Prospecting Harvey-2
22-Jun-2019	1	Flew to Contact Lake	1	Flew to Contact Lake
23-Jun-2019	1	Prospecting Quartz Slope	1	Prospecting Quartz Slope
24-Jun-2019	1	Rain day	1	Rain day
25-Jun-2019	1	Rain day	1	Rain day
26-Jun-2019	1	Soil sampling	1	Soil sampling
27-Jun-2019	1	Laid out hose, lake sediment sampling	1	Laid out hose, lake sediment sampling
28-Jun-2019	1	Washing outcrop	1	Washing outcrop
29-Jun-2019	1	Rolling hose, sampling	1	Rolling hose, sampling
30-Jun-2019	1	Soil sampling east of CLGO	1	Soil sampling east of CLGO
1-Jul-2019	1	Packed up camp, flew to Beggs Lake	1	Packed up camp, flew to Beggs Lake
2-Jul-2019	1	Prospecting 16gpt	1	Prospecting 16gpt
3-Jul-2019	1	Prospecting east of 16gpt	1	Prospecting east of 16gpt
4-Jul-2019	1	Set up pump, laid out hose	1	Set up pump, laid out hose
5-Jul-2019	1	Washing outcrop	1	Washing outcrop
6-Jul-2019	1	Picked up supplies in Marathon	1	Picked up supplies in Marathon
7-Jul-2019	1	Washing outcrop	1	Washing outcrop
8-Jul-2019	1	Soil sampling near the 16gpt	1	Soil sampling near the 16gpt
9-Jul-2019	1	Prospecting SW of Beggs Lk	1	Prospecting SW of Beggs Lk
10-Jul-2019	1	Rain day	1	Rain day
11-Jul-2019	1	Soil sampling at ABC & GC	1	Soil sampling at ABC & GC
12-Jul-2019	1	Soil sampling at ABC & GC	1	Soil sampling at ABC & GC
13-Jul-2019	1	Soil sampling east of Beggs	1	Soil sampling east of Beggs
14-Jul-2019	1	Flew camp out	1	Flew camp out
15-Jul-2019	1	Drove to Timmins	1	Drove to Timmins
4-Aug-2020	1	Drove to Marathon	1	Drove to Marathon
5-Aug-2020	1	Organize gear	1	Organize gear
6-Aug-2020	1	Flew to Harvey-1	1	Flew to Harvey-1
7-Aug-2020	1	Rain day	1	Rain day
8-Aug-2020	1	Prospecting south & across mag low	1	Prospecting south & across mag low
9-Aug-2020	1	Prospecting N & NE of Cu showing	1	Prospecting N & NE of Cu showing
10-Aug-2020	1	Prospecting to the NE & at 45ppb	1	Prospecting to the NE & at 45ppb
29-Oct-2020	1	Prospecting at Mag Lake	1	Prospecting at Mag Lake
30-Oct-2020	1	Prospecting SW of Budall Lk	1	Prospecting SW of Budall Lk
Total Days	37		37	


# **APPENDIX XI**

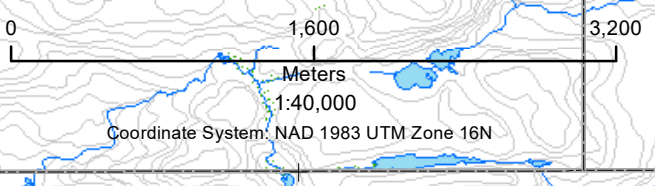
## **Map Sheets**

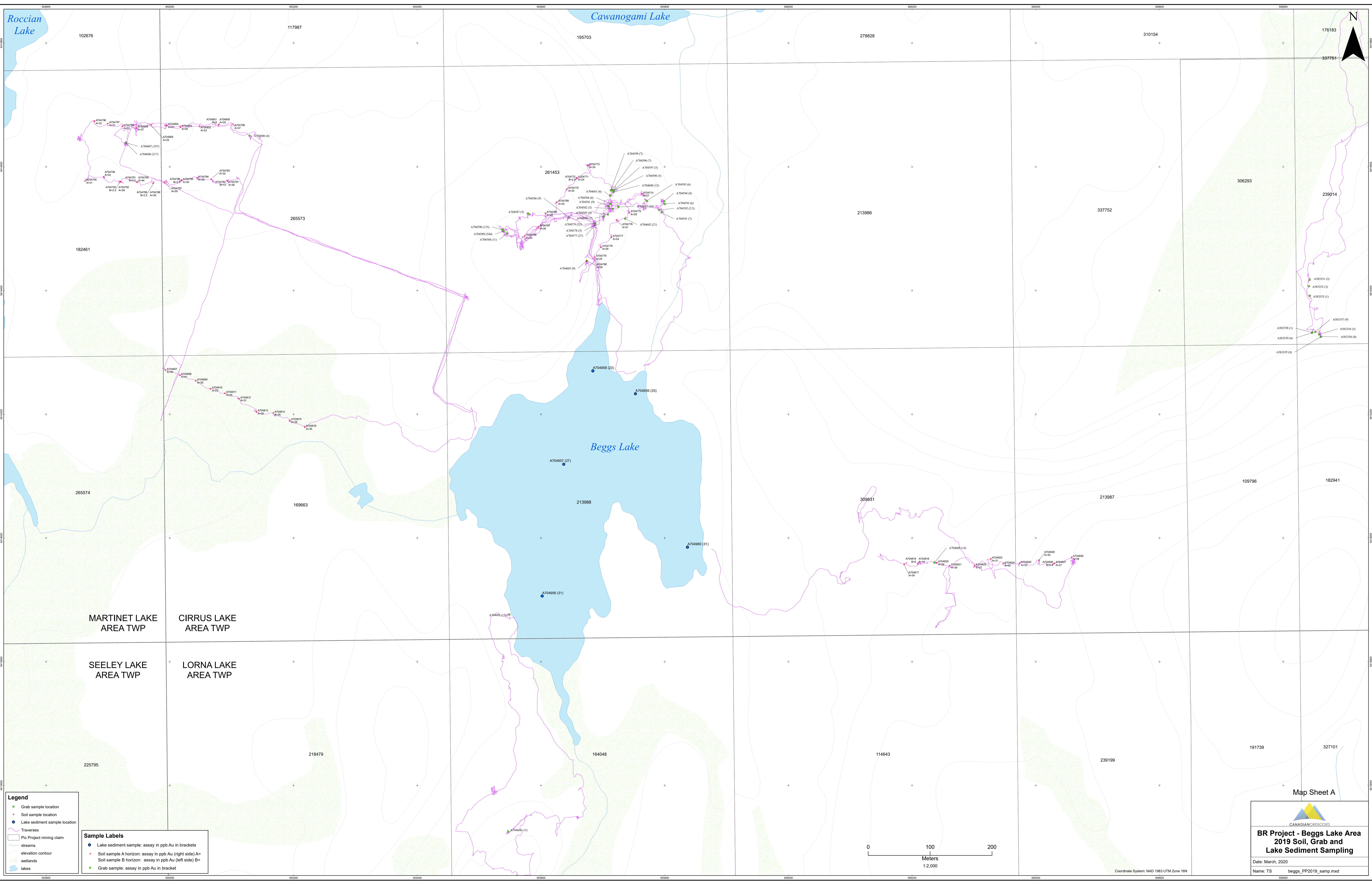


**Legend**

- Black Raven Property boundary
- Black Raven Property mining claim
- township boundary
- hydro electric line
- elevation contour
- wetlands
- lakes
- streams

  
**Black Raven Project**  
**2019 Sample Map Index**  
 Date: March, 2020  
 Name: TS      Pic\_proj\_samp\_index\_2019.mxd



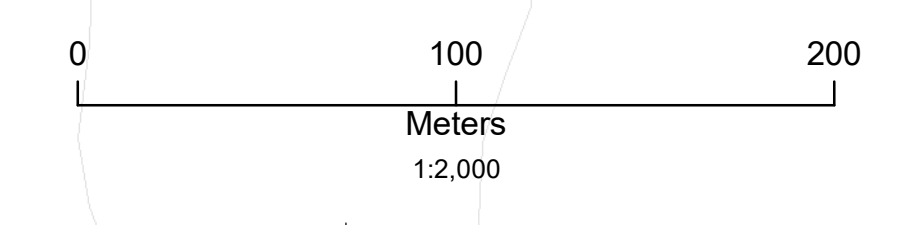


**Legend**

- Grab sample location
- Soil sample location
- Lake sediment sample location
- Traverses
- Pic Project mining claim
- streams
- elevation contour
- wetlands
- lakes

**Sample Labels**

- Lake sediment sample: assay in ppb Au in brackets
- Soil sample A horizon: assay in ppb Au (right side) A=
- Soil sample B horizon: assay in ppb Au (left side) B=
- Grab sample: assay in ppb Au in bracket



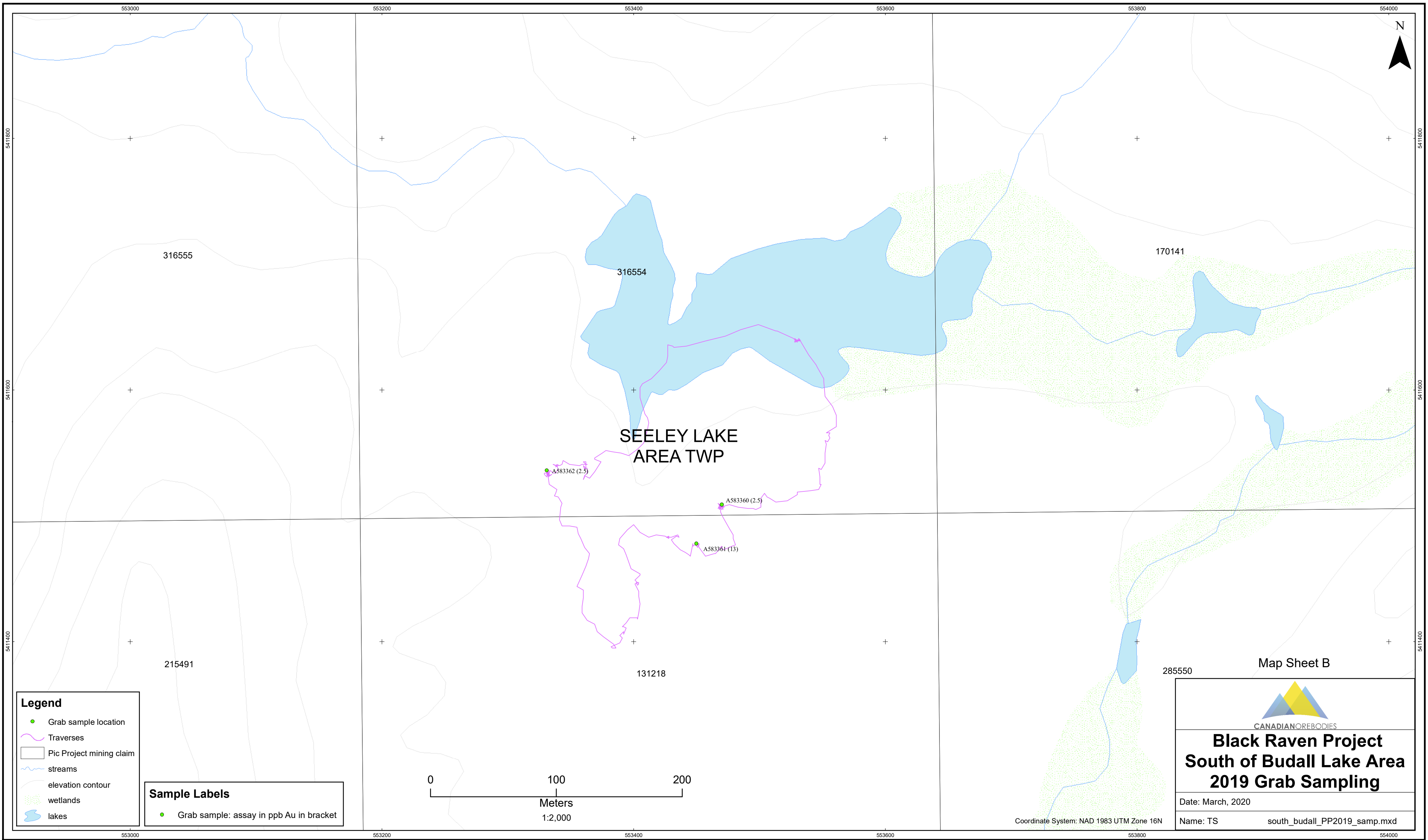
Map Sheet A

**BR Project - Beggs Lake Area  
2019 Soil, Grab and  
Lake Sediment Sampling**

Date: March, 2020  
Name: TS beggs\_PP2019\_samp.mxd

Coordinate System: NAD 1983 UTM Zone 16N



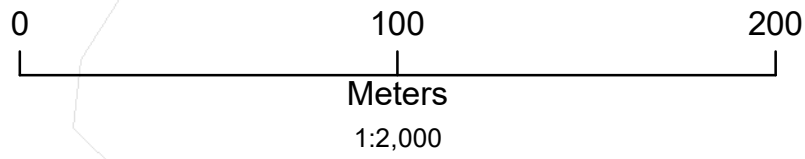


**Legend**


- Grab sample location
- Traverses
- Pic Project mining claim
- streams
- elevation contour
- wetlands
- lakes

**Sample Labels**

- Grab sample: assay in ppb Au in bracket



Map Sheet B

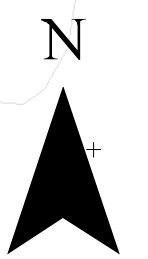
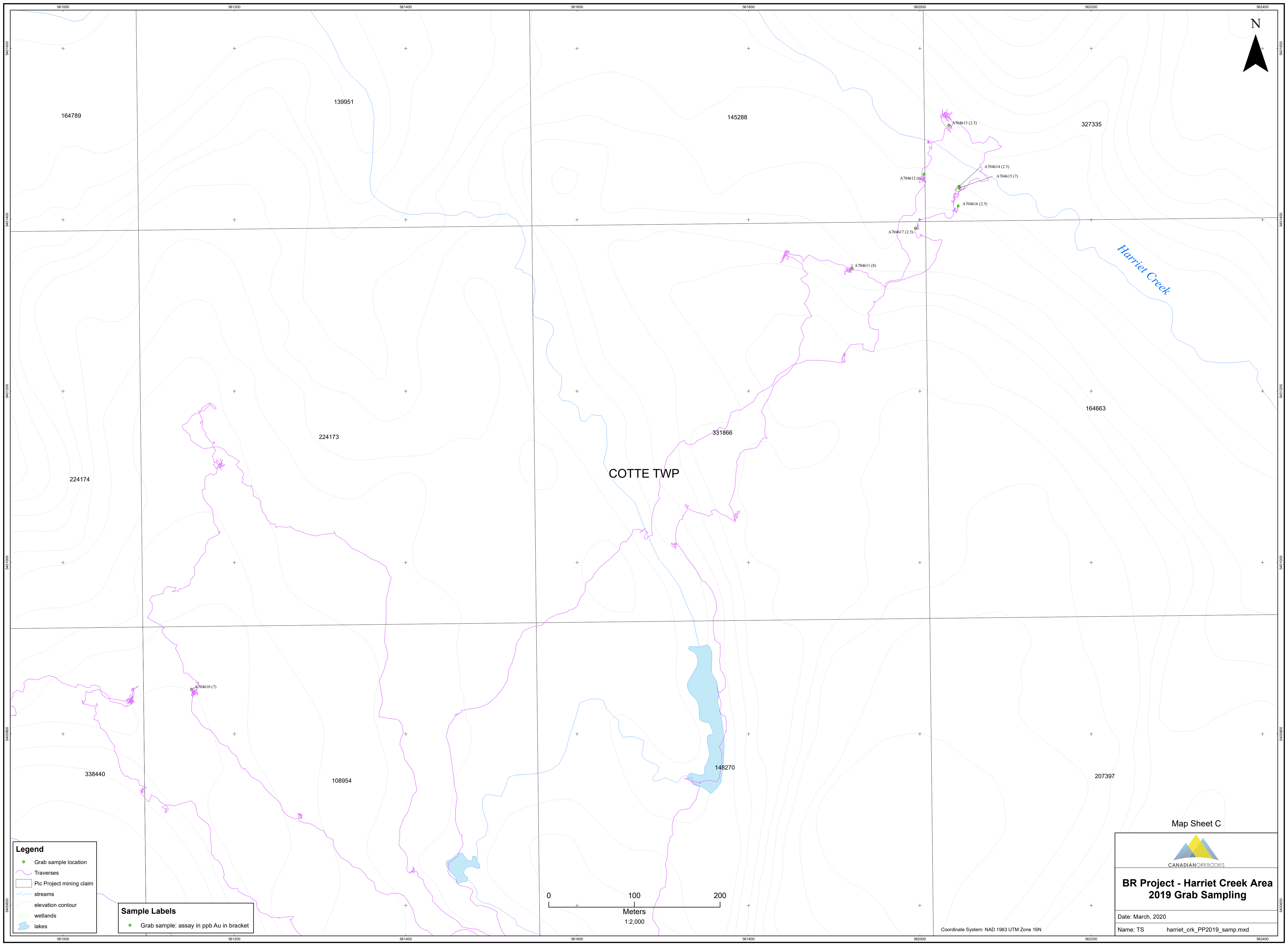


**Black Raven Project**  
**South of Budall Lake Area**  
**2019 Grab Sampling**

Date: March, 2020

Name: TS      south\_budall\_PP2019\_samp.mxd

Coordinate System: NAD 1983 UTM Zone 16N



COTTE TWP

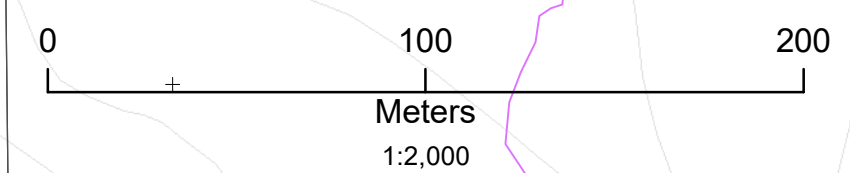
Harriet Creek

**Legend**

- Grab sample location
- Traverses
- Plo Project mining claim
- streams
- elevation contour
- wetlands
- lakes

**Sample Labels**

- Grab sample: assay in ppb Au in bracket



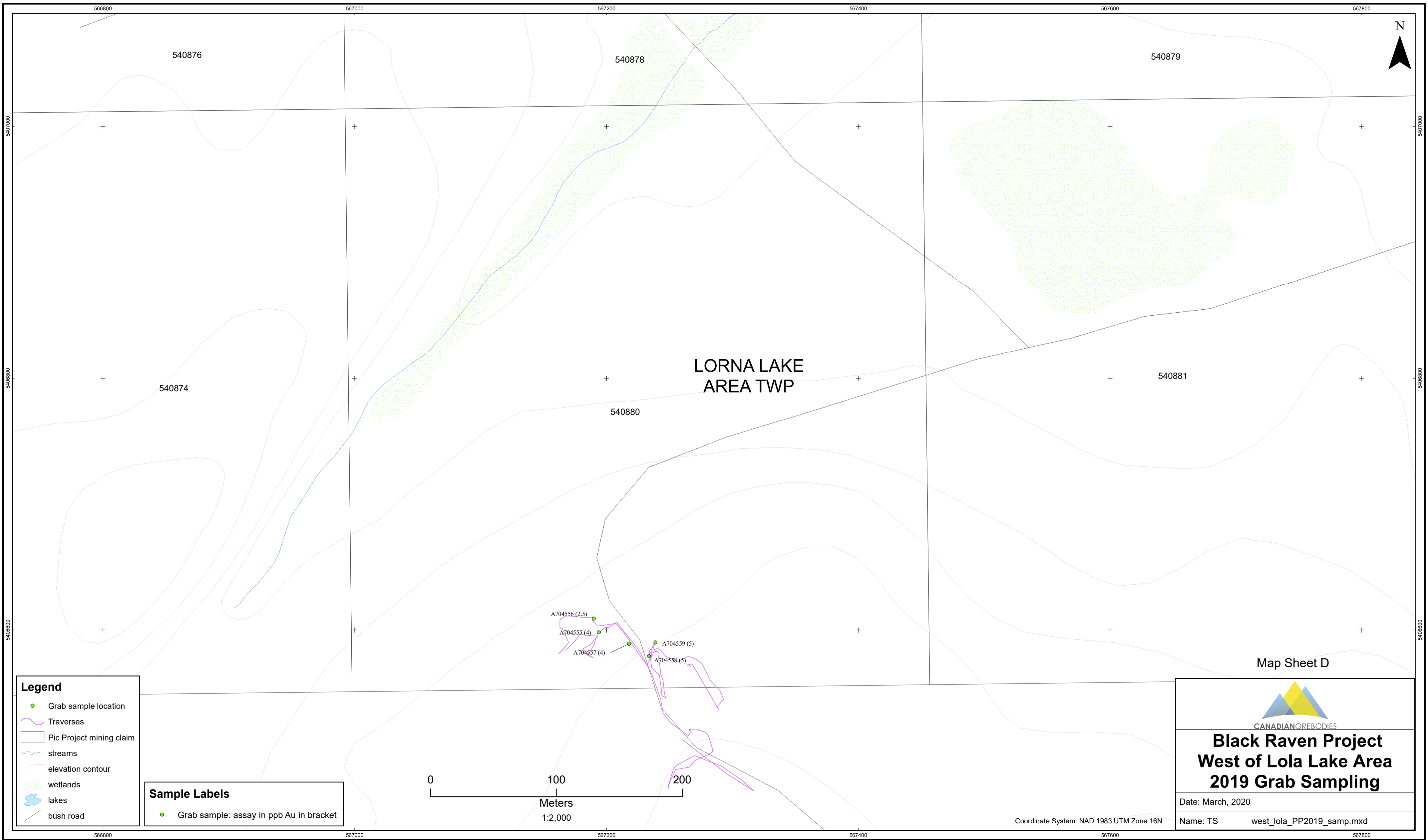
Map Sheet C



**BR Project - Harriet Creek Area  
2019 Grab Sampling**

Date: March, 2020  
Name: TS harriet\_crk\_PP2019\_samp.mxd

Coordinate System: NAD 1983 UTM Zone 16N



LORNA LAKE  
AREA TWP

Map Sheet D



**Black Raven Project  
West of Lola Lake Area  
2019 Grab Sampling**

Date: March, 2020  
Name: TS west\_lola\_PP2019\_samp.mxd

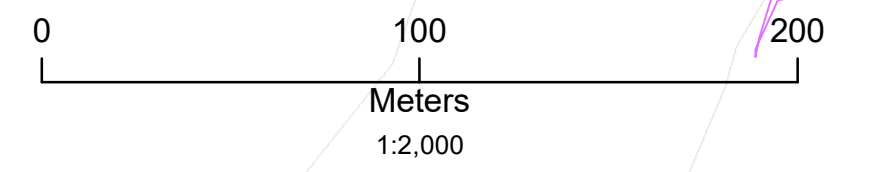
Coordinate System: NAD 1983 UTM Zone 16N

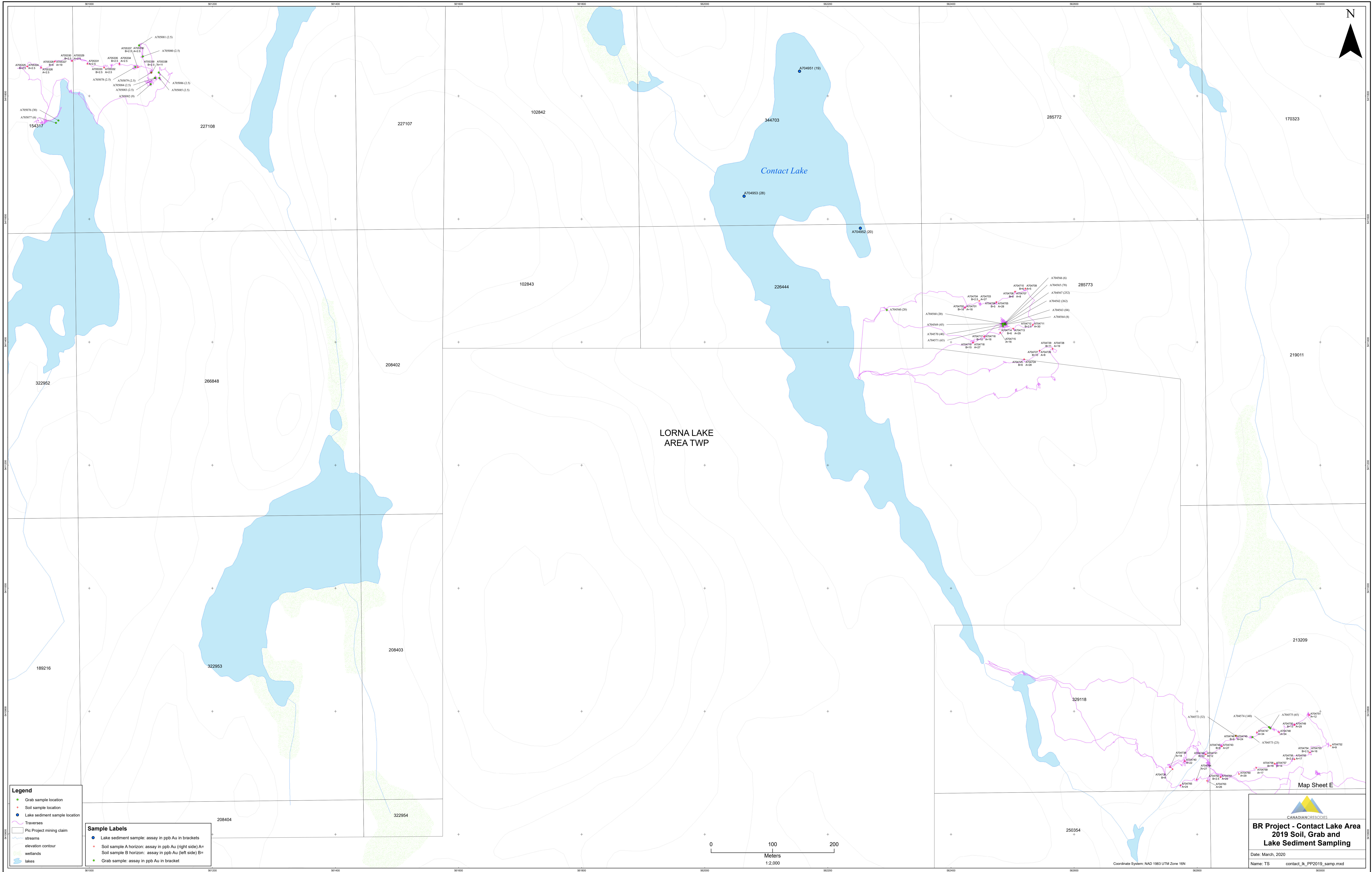
**Legend**

- Grab sample location
- Traverses
- Pic Project mining claim
- streams
- elevation contour
- wetlands
- lakes
- bush road

**Sample Labels**

- Grab sample: assay in ppb Au in bracket



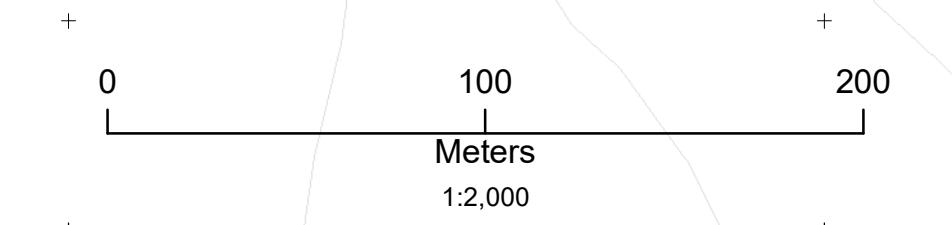


**Legend**

- Grab sample location
- Soil sample location
- Lake sediment sample location
- Traverses
- P/C Project mining claim
- streams
- elevation contour
- wetlands
- lakes

**Sample Labels**

- Lake sediment sample: assay in ppb Au in brackets
- Soil sample A horizon: assay in ppb Au (right side) A=
- Soil sample B horizon: assay in ppb Au (left side) B=
- Grab sample: assay in ppb Au in bracket

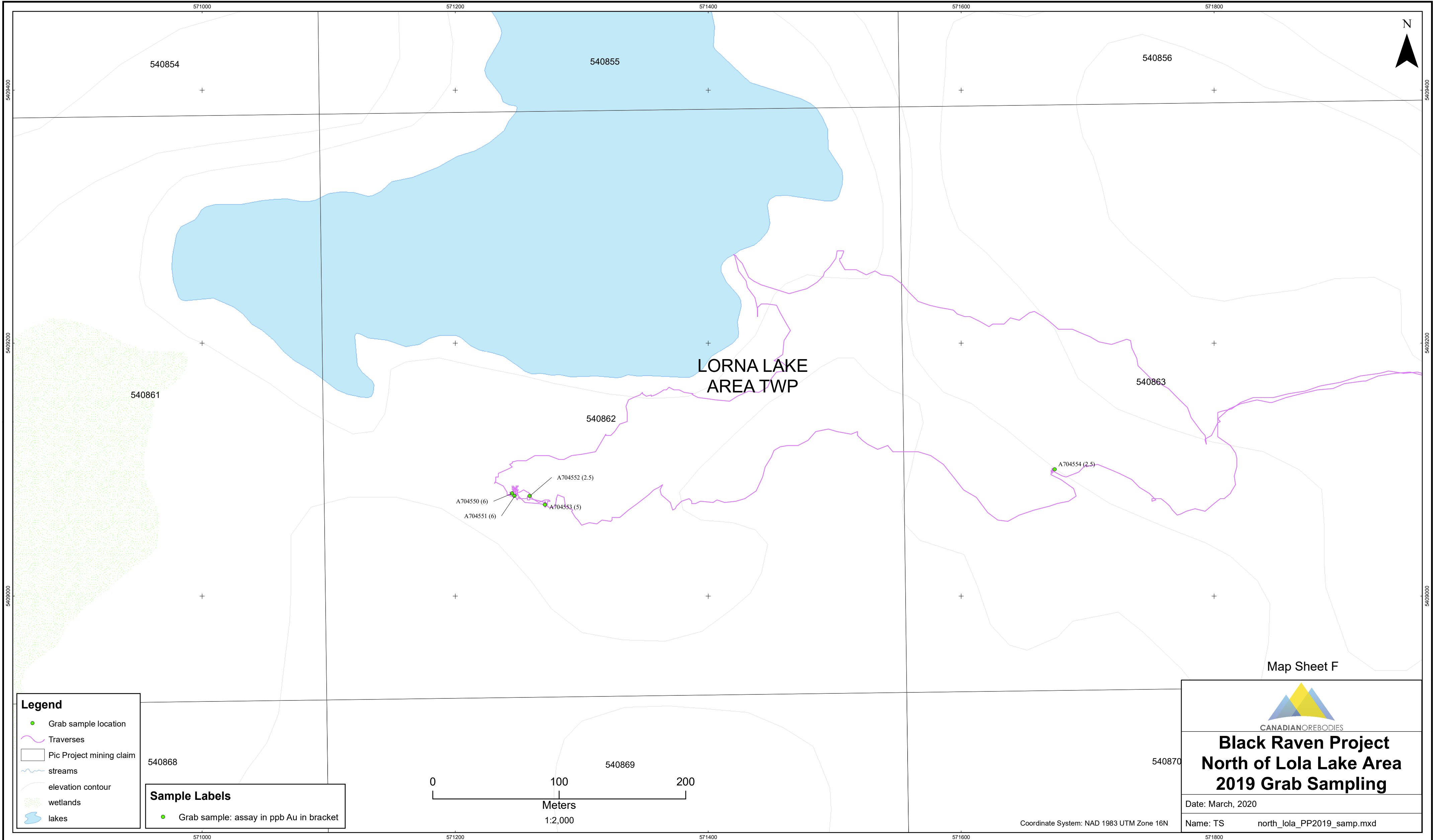


CANADIAN GEOSCIENCES

**BR Project - Contact Lake Area  
2019 Soil, Grab and  
Lake Sediment Sampling**

Date: March, 2020  
Name: TS      contact\_lk\_PP2019\_samp.mxd

Map Sheet E

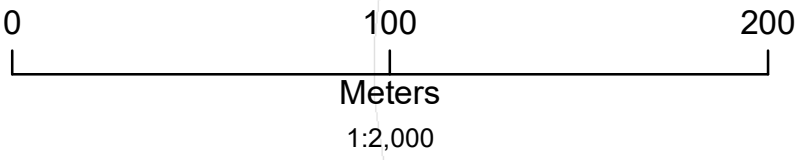


**Legend**


- Grab sample location
- Traverses
- Pic Project mining claim
- streams
- elevation contour
- wetlands
- lakes

**Sample Labels**

- Grab sample: assay in ppb Au in bracket



Map Sheet F

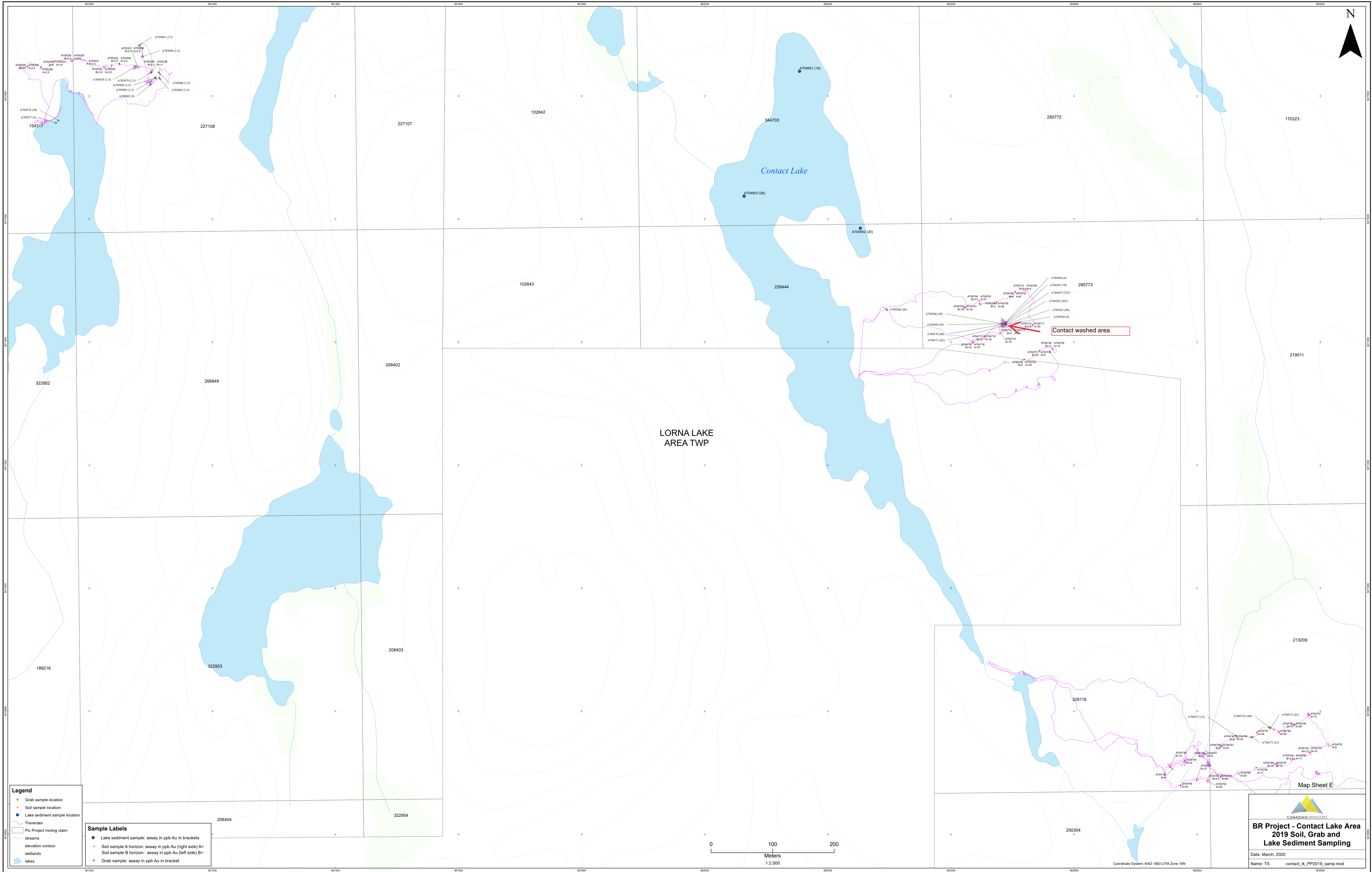


**Black Raven Project**  
**North of Lola Lake Area**  
**2019 Grab Sampling**

Date: March, 2020

Name: TS      north\_lola\_PP2019\_samp.mxd

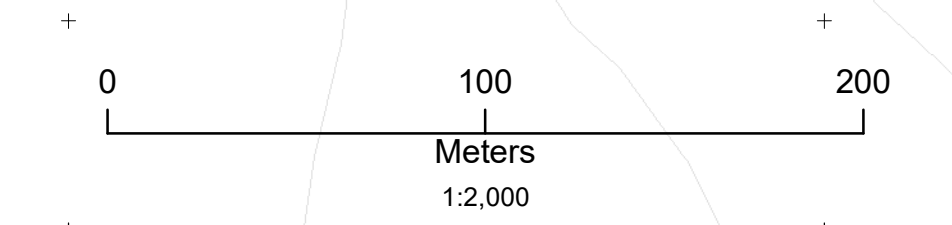
Coordinate System: NAD 1983 UTM Zone 16N



- Legend**
- Grab sample location
  - Soil sample location
  - Lake sediment sample location
  - Traverses
  - Pic Project mining claim
  - streams
  - elevation contour
  - wetlands
  - lakes

**Sample Labels**

- Lake sediment sample: assay in ppb Au in brackets
- Soil sample A horizon: assay in ppb Au (right side) A=
- Soil sample B horizon: assay in ppb Au (left side) B=
- Grab sample: assay in ppb Au in bracket



CANADIAN GEOSCIENCES

**BR Project - Contact Lake Area  
2019 Soil, Grab and  
Lake Sediment Sampling**

Date: March, 2020  
Name: TS      contact\_lk\_PP2019\_samp.mxd

Map Sheet E

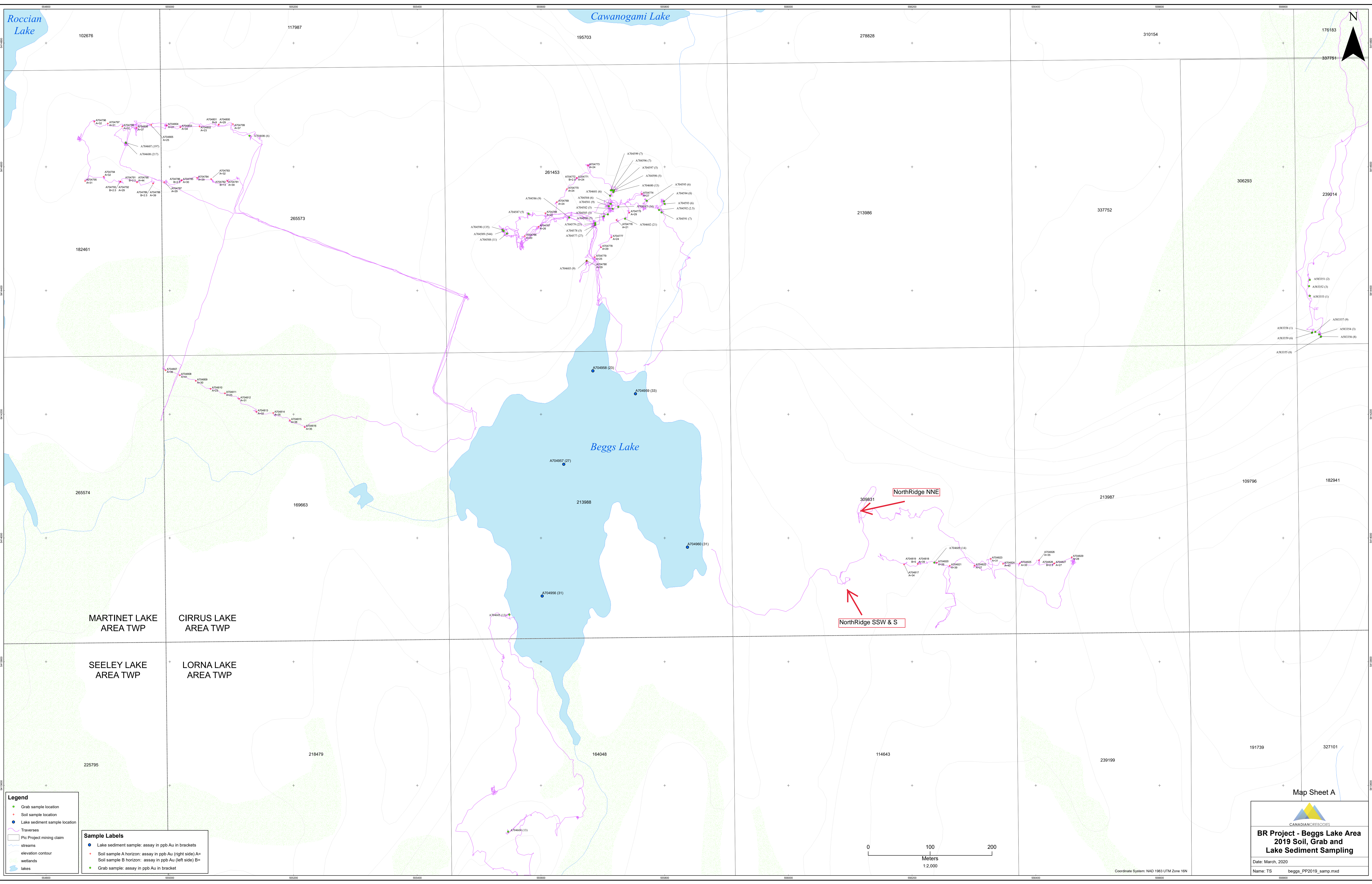
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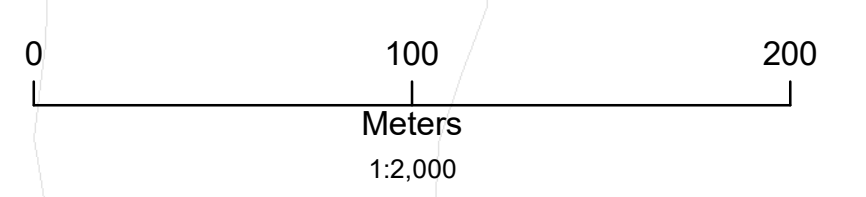


**Legend**

- Grab sample location
- Soil sample location
- Lake sediment sample location
- Traverses
- Pic Project mining claim
- streams
- elevation contour
- wetlands
- lakes

**Sample Labels**

- Lake sediment sample: assay in ppb Au in brackets
- Soil sample A horizon: assay in ppb Au (right side) A=
- Soil sample B horizon: assay in ppb Au (left side) B=
- Grab sample: assay in ppb Au in bracket



Map Sheet A

**BR Project - Beggs Lake Area  
2019 Soil, Grab and  
Lake Sediment Sampling**

Date: March, 2020  
Name: TS beggs\_PP2019\_samp.mxd

Coordinate System: NAD 1983 UTM Zone 16N

