

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

**Assessment Report
Title Page and Summary**

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

TOTAL COST: \$44,750.00

AUTHOR(S): Ed Kruchkowski

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): July 1 to October 10 2017

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5670376

PROPERTY NAME: Ruby Silver

CLAIM NAME(S) (on which the work was done): 1033139

COMMODITIES SOUGHT: Gold, silver, copper, lead and zinc

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 104A 039

MINING DIVISION: Skeena

NTS/BCGS: 104 A 001

LATITUDE: 56 ° 02 ' 57 " LONGITUDE: 129 ° 51 ' 03 " (at centre of work)

OWNER(S):

1) Rick Kasum

2) _____

MAILING ADDRESS:

General Delivery

Stewart BC, V0T 1W0

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

1) Decade Resources Ltd

2) _____

MAILING ADDRESS:

426 King Street

Stewart BC, V0T 1W0

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

Upper Triassic to Lower Jurassic Unuk River Formation unconformably overlain, to the east, by the Middle Jurassic Salmon River sedimentary rocks. An Eocene stock is located north of the Ruby Silver showing. Quartz veins and quartz-carbonate stockworks host pyrite, chalcopyrite, galena and sphalerite.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: ARIS 20308, 21172, 29433 and 31956

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock 60 rock		1033139	\$44,750.00
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
TOTAL COST:			\$44,750.00

**Assessment Report On
Exploration Program On:**

Mineral Claim # 1049876

Statement of exploration # 5670376

**Located
21 kilometres North of
Stewart, British Columbia in
Skeena Mining Division**

**NTS 104A/4W
LATITUDE 56 02' 57"N
LONGITUDE 129 51' 03"W**

**On Behalf of
Decade Resources Ltd
Stewart, BC**

by

Edward Kruchkowski, B.Sc., P. Geo.

January 17 2018

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SUMMARY

The Ruby Silver property is located about 321 kilometers north of Stewart, British Columbia in the Skeena Mining Division. In the Ruby Silver area, the property is underlain by Hazelton Group rocks of the Upper Triassic to Lower Jurassic Unuk River Formation unconformably overlain, to the east, by the Middle Jurassic Salmon River Formation. An augite diorite stock intrudes the Unuk River Formation, north of the property. In the upper portions of the Roosevelt Ridge-Ore Mountain area, the property is underlain by north to north-northeast striking, steeply dipping argillites and slates of the Middle Jurassic Salmon River Formation.

The property consists of 4 claims totaling 4300.38 hectares in the Golden Triangle district of British Columbia.

The property lies within a belt of Jurassic volcanic rocks extending from the Kitsault area, south of Stewart, to north of the Stikine River. This belt is host to numerous gold and gold-silver deposits, in a variety of geological settings, including the former Eskay Creek Mine and past producing Snip, Premier-Big Missouri, Granduc, Scottie Gold and SB properties.

The claims cover the Ruby Silver showing consisting of a quartz-carbonate vein containing blebs and disseminations of pyrite and chalcopyrite, locally forming up to 10 per cent of the vein. Malachite and azurite staining is present. The vein is up to 1.5 metres wide, strikes 110 degrees and dips 68 degrees southwest. The adit follows the footwall of the vein, which, in turn, appears to follow a porphyritic dike. Historic sampling of the vein mineralization in the tunnels assayed from 0.7 to 11.0 grams per tonne gold, 15.4 to 115.2 grams per tonne silver and trace to 9.3 per cent copper over widths of 0.3 to 1.8 metres (Property File - Cited in Thios Resources Inc., Prospectus April, 1987).

Within the property boundaries, in near proximity to the Kasum claims, the Lakeshore showing (not owned by Kasum) has mineralization which occurs in the sediments, close to the contacts with a series of felsic dikes. Some mineralization occurs in the dikes themselves as fracture fillings and along joints. Mineralization comprises predominantly pyrite and pyrrhotite with lesser arsenopyrite, sphalerite, galena and chalcopyrite in a siliceous gangue. The sulphides form discontinuous, north trending and west dipping gash veins and pods up to 3 metres across; widths are typically less than 0.5 metre. The discrete mineral accumulations extend over a north to northeast length of about 150 metres, approximately parallel to the fault. The individual gash veins and pods, especially those hosted in dikes, tend to trend slightly oblique to the fault. A sample was collected in 1984 from the adit, 4.95 metres from the portal, near the south end of the exposed mineralization. The sample assayed 3.4 grams per tonne gold, 139.5 grams per tonne silver, 0.19 per cent copper, 1.0 per cent lead and 0.62 per cent zinc across a width of 27 centimetres. In 1979, a grab sample collected from a new discovery, approximately 210 metres south-southeast of the adit, assayed 26.4 grams per tonne gold, 1033.7 grams per tonne silver, 0.21 per cent copper, 11.75 per cent lead and 6.93 per cent zinc.

On the Lead Coil A showing (not on Kasum claims), discontinuous mineralization occurs along both the faulted, vertical contacts of a 20 metre wide, northwest trending granodiorite dike. This dike can be traced for about 400 metres and appears to split into two 5 to 15 metre wide dikes to the southeast. The mineralization comprises quartz veins and lenses containing pyrite, galena, sphalerite and chalcopyrite hosted in crushed and sheared argillite. The lenses, or swelling of the veins, appear to coincide with flexures in the dike walls. The longest continuous vein is exposed over a length of about 45 metres in the adit; channel sampling in 1980 indicated negligible values for this. In 1984, channel samples were taken from a trench on the mineralization between the east and west branches of the dike, about 350 metres south-southeast of the adit. One sample assayed 4.46 grams per tonne gold, 231.7 grams per tonne silver, 0.08 per cent copper, 0.44 per cent lead and 0.12 per cent zinc across a width of 30 centimetres.

The Roosevelt Ridge area contains abundant quartz +/-carbonate veins as well as breccia, stockwork and replacement zones. Great majority of them are barren but some are mineralized with pyrite, sphalerite, galena, chalcopyrite and malachite. Sulphide content ranges from trace to 5%. The veins are up to 0.6 metre wide and 40 metres long. The biggest mineralized vein is 20-30 cm wide and 5 metres long. Breccia, stockwork and replacement zones are up to 4-5 metres in size. In addition to mineralization in place, there are also numerous boulders which feature very similar host rocks and mineralization. Several of those boulders yielded highly anomalous results in gold and base metals. The highest gold assay obtained from in situ samples collected in the previous years returned 7.51 g/t Au and 3.45% Zn over 0.25m. The sample came from 5 metres long and 20-30 cm wide quartz vein with 3-5% sphalerite. Another gold result came from a float 15x10 cm in size containing 25% pyrite, 1% sphalerite and 1-2% arsenopyrite. It assayed 9.0 g/t Au, 0.25% Zn and > 1% As. A float sample collected in 2006, a selective grab from a large (0.7 m across) boulder of argillite cut by quartz stockwork with pyrite and sphalerite assayed 5.56 g/t Au and 3.56% Zn.

In the 2017 geochemical program, a total of 60 float and bedrock samples were collected. Sampling was carried out along the ridge top along Roosevelt Ridge with one sample from the Ruby Silver area. Samples were taken of any sulphide bearing bedrock or float boulders. Sampling indicated values ranging from <5 ppb to 6.92 g/t gold, <0.2 to 24.9 g/t silver, < 1 ppm to 3.21 % copper, <2 ppm to 0.31 % lead and 3ppm to 4.15 % zinc.

It is recommended that the next exploration phase consist of further sampling to define the bedrock sources of the indicated mineralization in previous geochemical sampling. Work should be along Roosevelt Ridge, also to check for possible extensions to the Lakeshore and Lead Coil A showing as well as locate the 3 tunnels and veins on the Ruby Silver showing.

Estimated cost of the program is \$150,000.00.

INTRODUCTION

Rick Kasum owns a 100% interest in the claims in the Ruby Silver property. Decade Resources Ltd performed the assessment work on behalf of Mr. Kasum. This report is being prepared in order to summarize the 2017 sampling results on the 4 claims comprising the property.

Location and Access

The claims in the property are contiguous and are located about 21 kilometers north of Stewart, British Columbia. They encompass part of the Bitter Creek valley, Le Sueur Creek and Ore Mountain along Roosevelt Ridge. The claim area is approximately 56 degrees 02 minutes 57 seconds latitude and 129 degrees 51 minutes 03 seconds longitude on NTS sheet 104A/4W. Figure 1 shows the location of the claim area.

The Ruby Silver showings are accessed via Highway 37A to Le Sueur Creek where an overgrown old mine road leads to within walking distance of the Ruby Silver adit on the north side of Le Sueur Creek. The old mine road is present in a gravel pit on the east side of Highway 37A just before the No 1 bridge over the Bear River. The showings are 1500 metres east of the confluence of American Creek and the Bear River.

Access to the Roosevelt Ridge and Ore Mountain area at the present time is by helicopter from Stewart about 21 kilometers to the south of the claim area. The west side of the Ore Mountain area has a hiking trail that starts at Clements Lake near the SW portion of the claims that leads to the area of the Lakeshore showings. This trail is maintained by the BC Forest service.

Physiography and Topography

The area of the Ruby Silver property claims encompasses steep mountain slopes typical of the Coast Range region of British Columbia. The property is situated along north-south trending Roosevelt Ridge. Slopes range from moderate to precipitous. Elevations vary from about 200 meters along Bitter Creek to about 2000 meters along the Ore Mountain Peak. The upper slopes of the property above 1500 meters are mainly rock outcrops, talus slopes and permanent ice.

Spruce and hemlock trees as well as small patches of tag spruce are present along the lower slopes of the mountain valleys, particularly the north facing edges. Alders grow along avalanche slopes and moraines. Alpine grasses, heather and arctic willow grows in patches along the talus, moraine and outcrops in the upper regions of the property.

PROPERTY OWNERSHIP

The property consists of 4 modified grid claims totaling 4300.38 ha. Relevant claim information is summarized below:

<u>Name</u>	<u>Tenure #</u>	<u>Area (ha)</u>	<u>Expiry Date</u>
Chicken Feed 1	1033139	541.90	January 5 2020
Ruby 1	1049876	1806.46	February 7 2020
Ruby 2	1049877	1518.71	February 7 2020
Ruby 3	1049878	433.31	February 7 2020
Total		4300.38 ha	

The claims are owned 100 % by Rick Kasum and Decade Resources Ltd performed the evaluation work. Numerous small claims are owned by other claim holders within the large land holdings owned by Rick Kasum.

Claims location is shown in Figure 2 copied from MINFILE database. All the claims are situated in the Skeena Mining Division in the Province of British Columbia.

PREVIOUS WORK

The first lode gold exploration carried out in the Stewart area occurred in the upper reaches of Bitter Creek approximately several km south of the Ruby claim area in the early 1900 period.

In 1910, the Portland Dreadnought Mining Company carried out tunnelling and open cutting on a group of 3 claims which presumably covered the Ruby Silver showing. In 1920, Le Sueur held the Ruby Silver group over the showing and conducted further work. In 1924, Ruby Silver Mines, was formed and acquired the Ruby Silver claims (Ruby, Ruby 1, Star, Stirling, Pershing and Pershing 1) and Ruby Silver Extension claims (Ruby 2-5). That year the Ruby Silver adit, on the Ruby claim, had been driven at least 46 metres; several crosscuts were also driven. Further work was done the following year; this work probably included extension of the adit to about 62 metres. The company name was changed in 1929 to Ruby Silver Copper Mines. No further work was reported until 1984 when D. Brownlee acquired the Ruby Silver group and conducted an evaluation the following year. In 1986, Thios Resources Inc. acquired the property and subsequently entered into a joint venture with Adrian Resources Ltd. The joint venture conducted geological, geochemical and geophysical (VLF-EM and magnetometer) surveys on the property in 1990 (Minfile).

Numerous showings are present in the area of Ore mountain which forms the south portion of the property. These showings are covered by small claims that do not belong to Rick Kasum but give the history and mineral potential of the area.

In 1925, the Ore Mountain Mining Co. Ltd. acquired the Lake Shore claim (Lot 4808). During 1925-28, two crosscut tunnels, 18 metres and 116 metres long, respectively, and several opencuts were emplaced on the mineralization. Only minor surface work was reported during 1929-32. In 1955, the claim was acquired by Rufus-Argenta Mines

Limited. In 1966, the company name was changed to Crest Ventures Limited. During 1966-67, Crest Silver Company Limited, a subsidiary of Crest Ventures, acquired the claim and carried out some geological mapping. During 1970-73, Ardo Mines Ltd. optioned the property and carried out prospecting, magnetometer and electromagnetic surveys. During 1979-80, Beaver Gold Resources Inc. acquired the property and carried out mapping, prospecting and sampling. In 1984, the property was owned by Grey Silver Mines Ltd. That year Maralgo Mines Limited optioned the property and flew an airborne VLF-EM and magnetometer survey over the area and conducted geological mapping, prospecting and sampling on the occurrence. No further work was reported until 1989 when Grey Silver Mines performed geological mapping, sampling and soil surveys in the area. The following year Varitech Resources Ltd. conducted a program of geological mapping, prospecting, sampling and soil, VLF-EM and magnetometer surveys in the area. The showing was resampled that year (Minfile).

In 1925, the Ore Mountain Mining Co. acquired the Lead Coil (Lot 4811) and Silver Band (Lot 4810) claims. During 1925-28, an adit 21 metres long was driven on the Silver Band claim and several opencuts were emplaced on the exposed mineralization in the western part of the adjacent Lead Coil claim. Only minor surface work was reported during 1929-32. The claims were subsequently acquired by Rufus-Argenta Mines. In 1966, the company name was changed to Crest Ventures Limited. That year Crest Silver Company Limited, a subsidiary of Crest Ventures, acquired the claims and during 1966-67 carried out some geological mapping. During 1970-73, Ardo Mines Ltd. optioned the property carried out prospecting, magnetometer and electromagnetic surveys. During 1979-80, Beaver Gold Resources Inc. acquired the property and carried out mapping, prospecting and sampling. In 1984, the property was owned by Grey Silver Mines Ltd. That year Maralgo Mines Limited optioned the property and flew an airborne VLF-EM and magnetometer survey over the area and conducted geological mapping, prospecting and sampling on the occurrence. No further work was reported until 1989 when Grey Silver Mines performed geological mapping, sampling and soil surveys in the area. The following year Varitech Resources Ltd. conducted a program of geological mapping, prospecting, sampling and soil, VLF-EM and magnetometer surveys in the area. The showing was resampled that year (Minfile).

The area of Roosevelt Ridge was sampled extensively by Auramex Resource Corp in the 2006 and 2007 exploration seasons. The highest gold assay obtained from in situ samples collected in the previous years came from 2007 sample # 86994 which returned 7.51 g/t Au and 3.45% Zn over 0.25m.

In a 2009, VTEM anomalies were detected in the property area during an airborne survey carried out by Auramex Resource Corp. The survey was conducted by Geotech LTD of Aurora, Ontario.

Auramex conducted prospecting over the areas of geophysical anomalies in 2010. The highest 2010 gold result came from sample # AR10-41, a float 15x10 cm in size containing 25% pyrite, 1% sphalerite and 1-2% arsenopyrite. It assayed 9.0 g/t Au, 0.25% Zn and > 1% As. A float sample collected in 2006 (sample 188127), a selective grab from

a large (0.7 m across) boulder of argillite cut by quartz stockwork with pyrite and sphalerite assayed 5.56 g/t Au and 3.56% Zn.

Personnel and Operations

During the sampling program, all personnel were accommodated in Stewart, BC. An A-Star helicopter owned by Mustang Helicopters was used to transport personnel to and from the higher portions of the property area along Roosevelt Ridge. E. Kruchkowski, geologist directed the program on behalf of Decade Resources. Personnel involved in the program included as follows:

Alex Walus	Contract Geologist	September 2 to 6 and 12	6 days
Krzys Mastalerz	Contract Geologist	September 2 to 6 and 12	6 days
Dirk Meckert	Contract Geologist	September 2 to 6 and 15	6 days
Thomas Bauer	Geological Assistant	September 2 to 6 and 15	6 days
Matthew Wesley	Geological Assistant	September 2 to 6 and 12	6 days
Steve Stannus	Geological Assistant	September 12	1 day
Rick Kasum	Prospector	August 30	1 day
Lawrence Tseng	Contract Geologist	August 30	1 day

One day was spent by Alex Walus and Krzys Mastalerz assisted by Steve Stannus and Matthew Wesley trying to locate the 3 tunnels on the Ruby Silver Property. In addition, Rick Kasum and Lawrence Tseng spent one day clearing the old mine trail and trying to locate the tunnels.

Dirk Meckert and Thomas Bauer also spent one day hiking up the Ore Mountain Trail from Clements Lake to see if any showings existed along this trail.

Samples collected in the program were analyzed by Activation Laboratories Ltd in Kamloops BC.

GEOLOGICAL SURVEYS

Regional Geology

The claims comprising the Ruby Silver Property lie in the Stewart area, east of the Coast Crystalline Complex and within the western boundary of the Bowser Basin. Rocks in the area belong to the Mesozoic Hazelton Group and Bowser Lake Group that have been intruded by plugs of both Cenozoic and Mesozoic age.

According to C.F. Greig, in G.S.C. Open File 2931, the western portion of the claim area is underlain by Lower Jurassic volcanic rocks overlain by the Lower to Middle Jurassic Salmon River Formation at the east edge of the claims. The Salmon River formation is in turn overlain by the Upper Jurassic Bowser Lake sediments, east of the claim holdings.

At the base of the Hazelton Group is the lower Lower Jurassic Marine (submergent) and non-marine (emergent) volcanoclastic Unuk River Formation. This is overlain at steep discordant angles by a second, lithologically similar, middle Lower Jurassic volcanic cycle (Betty Creek Formation), in turn overlain by an upper Lower Jurassic tuff horizon (Mt. Dilworth Formation). Middle Jurassic non-marine sediments with minor volcanics of the Salmon River Formation unconformably overlie the above sequence.

The lower Lower Jurassic Unuk River Formation forms a north-northwesterly trending belt extending from Alice Arm to the Iskut River. It consists of green, red and purple volcanic breccia, volcanic conglomerate, sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and coal. Also included in the sequence are pillow lavas and volcanic flows.

In the property area, the Unuk River Formation is unconformably overlain by middle Lower Jurassic rocks from the Betty Creek Formation. The Betty Creek Formation is another cycle of troughfilling sub-marine pillow lavas, broken pillow breccias, andesitic and basaltic flows, green, red, purple and black volcanic breccia, with self erosional conglomerate, sandstone and siltstone and minor crystal and lithic tuffs, chert, limestone and lava.

The upper Lower Jurassic Mt. Dilworth Formation consists of a thin sequence varying from black carbonaceous tuffs to siliceous massive tuffs and felsic ash flows. Minor sediments and limestone are present in the sequence. Locally pyritic varieties form strong gossans.

The Middle Jurassic Salmon River Formation is a late to post volcanic episode of banded, predominantly dark colored siltstone, greywacke, sandstone, intercalated claystone, minor limestone, argillite, conglomerate, littoral deposits, volcanic sediments and minor flows.

Overlying the above sequences are the Upper Jurassic Bowser Lake Group rocks. These rocks mark the western edge of the Bowser Basin and are also located as remnants on mountaintops in the Stewart area. These rocks consist of dark grey to black clastic rocks including silty mudstone and thick beds of massive, dark green to dark grey, fine to medium grained arkosic litharenite.

According to E.W. Grove, the majority of the rocks from the Hazelton Group were derived from the erosion of andesitic volcanoes subsequently deposited as overlapping lenticular beds varying laterally in grain size from breccia to siltstone. Alldrick's work to the north of Stewart has shown several volcanic centers in the surveyed area. Lower Jurassic volcanic centers in the Unuk River Formation are located in the Big Missouri Premier area and in the Brucejack Lake area. Volcanic centers within the Lower Jurassic Betty Creek Formation are located in the Mitchell Glacier and Knipple Glacier areas.

The granodiorites of the Coast Plutonic Complex largely engulf the Mesozoic volcanic terrain to the west. East of these (in the property area), smaller intrusive plugs range from quartz monzonite to granite to highly felsic. Some are likely related to the late

phase offshoots of the Coast plutonism, other is synvolcanic and Tertiary. Double plunging, northwesterly - trending synclinal folds of the Salmon River and underlying Betty Creek Formations dominate the structural setting of the area. These folds are locally disrupted by small east-over thrusts on strikes parallel to the major fold axis, cross-axis steep angled faults which locally turn beds, selective tectonization of tuff units and major northwest faults which turn beds.

Local Geology

Figure 3 shows the general property geology after Massey, MacIntyre, Desjardins and Cooney -2005-1(Digital Map of British Columbia).

This map indicates that property is underlain by undivided sedimentary rocks of middle-upper Jurassic age intruded by an Eocene age stock.

Assessment work has shown that the Ruby Silver showing is underlain by Hazelton Group rocks of the Upper Triassic to Lower Jurassic Unuk River Formation unconformably overlain, to the east, by the Middle Jurassic Salmon River Formation. An augite diorite stock intrudes the Unuk River Formation, north of the property.

The immediate area of the above showing is underlain by Unuk River Formation argillites and siltstones that are locally overlain by andesitic to dacitic volcanoclastics. A prominent north-northeast trending fault lies just west of the showing.

The Roosevelt Ridge area is underlain by north to north-northeast striking, steeply dipping argillites and slates of the Middle Jurassic Salmon River Formation. This area lies close to the unconformable contact of these rocks with the underlying volcanics of the Lower Jurassic Unuk River Formation. The rocks are cut by several north to northwest trending narrow felsic dikes that belong to the Portland Canal dike swarm.

Mineralization

Exploration programs on the area of the Ruby Silver property have indicated mineralization within the present claim group as follows:

The claims cover the Ruby Silver showing consisting of a quartz-carbonate vein containing blebs and disseminations of pyrite and chalcopyrite, locally forming up to 10 per cent of the vein. Malachite and azurite staining is present. The vein is up to 1.5 metres wide, strikes 110 degrees and dips 68 degrees southwest. The adit follows the footwall of the vein, which, in turn, appears to follow a porphyritic dike. Historic sampling of the vein mineralization in the tunnels assayed from 0.7 to 11.0 grams per tonne gold, 15.4 to 115.2 grams per tonne silver and trace to 9.3 per cent copper over widths of 0.3 to 1.8 metres (Property File - Cited in Thios Resources Inc., Prospectus April, 1987).

Within the property boundaries, in near proximity to the Kasum claims, the Lakeshore showing (not owned by Kasum) has mineralization which occurs in the sediments, close to the contacts with a series of felsic dikes. Some mineralization occurs in the dikes themselves as fracture fillings and along joints. Mineralization comprises predominantly pyrite and pyrrhotite with lesser arsenopyrite, sphalerite, galena and chalcopyrite in a siliceous gangue. The sulphides form discontinuous, north trending and west dipping gash veins and pods up to 3 metres across; widths are typically less than 0.5 metre. The discrete mineral accumulations extend over a north to northeast length of about 150 metres, approximately parallel to the fault. The individual gash veins and pods, especially those hosted in dikes, tend to trend slightly oblique to the fault. A sample was collected in 1984 from the adit, 4.95 metres from the portal, near the south end of the exposed mineralization. The sample assayed 3.4 grams per tonne gold, 139.5 grams per tonne silver, 0.19 per cent copper, 1.0 per cent lead and 0.62 per cent zinc across a width of 27 centimetres. In 1979, a grab sample collected from a new discovery, approximately 210 metres south-southeast of the adit, assayed 26.4 grams per tonne gold, 1033.7 grams per tonne silver, 0.21 per cent copper, 11.75 per cent lead and 6.93 per cent zinc.

On the Lead Coil A showing (not on Kasum claims), discontinuous mineralization occurs along both the faulted, vertical contacts of a 20 metre wide, northwest trending granodiorite dike. This dike can be traced for about 400 metres and appears to split into two 5 to 15 metre wide dikes to the southeast. The mineralization comprises quartz veins and lenses containing pyrite, galena, sphalerite and chalcopyrite hosted in crushed and sheared argillite. The lenses, or swelling of the veins, appear to coincide with flexures in the dike walls. The longest continuous vein is exposed over a length of about 45 metres in the adit; channel sampling in 1980 indicated negligible values for this. In 1984, channel samples were taken from a trench on the mineralization between the east and west branches of the dike, about 350 metres south-southeast of the adit. One sample assayed 4.46 grams per tonne gold, 231.7 grams per tonne silver, 0.08 per cent copper, 0.44 per cent lead and 0.12 per cent zinc across a width of 30 centimetres.

The Roosevelt Ridge area contains abundant quartz +/-carbonate veins as well as breccia, stockwork and replacement zones. Great majority of them are barren but some are mineralized with pyrite, sphalerite, galena, chalcopyrite and malachite. Sulphide content ranges from trace to 5%. The veins are up to 0.6 metre wide and 40 metres long. The biggest mineralized vein is 20-30 cm wide and 5 metres long. Breccia, stockwork and replacement zones are up to 4-5 metres in size. In addition to mineralization in place, there are also numerous boulders which feature very similar host rocks and mineralization. Several of those boulders yielded highly anomalous results in gold and base metals. The highest gold assay obtained from in situ samples collected in the previous years returned 7.51 g/t Au and 3.45% Zn over 0.25m. The sample came from 5 metres long and 20-30 cm wide quartz vein with 3-5% sphalerite. Another gold result came from a float 15x10 cm in size containing 25% pyrite, 1% sphalerite and 1-2% arsenopyrite. It assayed 9.0 g/t Au, 0.25% Zn and > 1% As. A float sample collected in 2006, a selective grab from a large (0.7 m across) boulder of argillite cut by quartz stockwork with pyrite and sphalerite assayed 5.56 g/t Au and 3.56% Zn.

Due to the presence of numerous showings in the project area, it is recommended that further work is undertaken to locate additional showings.

GEOCHEMICAL SAMPLING

Introduction

During the period July 1 to October 10, 2017 reconnaissance rock geochemical samples were taken from the area of the Ruby Silver claim area. The area of the sampling is shown in Figure 4 and sample locations in Figure 5 a scale of 1: 10,000. Icefield boundaries have been taken from the most recent government topographic maps, however, these are often inaccurate: pronounced ablation in Stewart during the past years has exposed much new rock outcrop and reduced the size of snow and icefields considerably.

Altogether 60 rock samples were taken with locations for the all samples shown on Figure 5.

Field Procedure and Laboratory Technique

Rock samples were taken in the field with a prospector's pick and collected in standard plastic sample bag. Grab samples were taken to ascertain character of mineralization at any specific locality. These samples consisted generally of three to ten representative pieces with total sample weight ranging between 0.5 to 2.0 kgs.

All rock were analyzed at the Activation laboratories facility in Kamloops BC. Rock samples were first crushed to minus 10 mesh (70 % of sample) using jaw and cone crushers. Then 250 grams of the minus 10-mesh material was pulverized to minus 150 mesh using a ring pulverizer. Method of analysis is reported on the assay certificates. Appendix I has the analysis for the rock samples collected. Appendix II has the GPS locations, type of sample and brief descriptions.

Anomalous Zones

Rock geochemical sampling was principally restricted to float sampling of any identified mineralized rocks in the North Glacier valley, Goat Valley and Goat Cirque areas.

In the 2017 geochemical program, a total of 60 float and bedrock samples were collected. Sampling was carried out along outcrops and float samples in the area of previously indicated gold bearing rocks. An attempt was also made to locate the area of the Ruby Silver tunnels and the indicated high gold values. Samples were taken of any sulphide bearing bedrock or float boulders. Sampling indicated values ranging from <5 ppb to 6.92 g/t gold, <0.2 to 24.9 g/t silver, < 1 ppm to 3.21 % copper, <2 ppm to 0.31 % lead and 3ppm to 4.15 % zinc.

Figure 4 shows the area sampled and Figure 5 shows the location of the samples with accompanying assay results for gold, silver, copper, lead and zinc.

Further geochemical surveys are recommended to locate the area of the Ruby Silver adits as well as sampling to locate the high gold bearing boulders on Roosevelt Ridge.

INTERPRETATION AND CONCLUSIONS

1. The Ruby Silver property is located about 21 kilometers north of Stewart, British Columbia in the Skeena Mining Division. It covers a series of fault related quartz veins and breccia zones in an area of Jurassic Hazelton pyroclastic volcanic and sedimentary rocks, intruded by an Eocene stock.
2. The property consists of 4 claims totaling 4300.38 hectares in the Golden Triangle district of British Columbia.
3. The claims cover the Ruby Silver showing consisting of a quartz-carbonate vein containing blebs and disseminations of pyrite and chalcopyrite, locally forming up to 10 per cent of the vein. Historic sampling of the vein mineralization in the tunnels assayed from 0.7 to 11.0 grams per tonne gold, 15.4 to 115.2 grams per tonne silver and trace to 9.3 per cent copper over widths of 0.3 to 1.8 metres (Property File - Cited in Thios Resources Inc., Prospectus April, 1987).
4. The Roosevelt Ridge area contains abundant quartz +/-carbonate veins as well as breccia, stockwork and replacement zones. In addition to mineralization in place, there are also numerous boulders which feature very similar host rocks and mineralization. Several of those boulders yielded highly anomalous results in gold and base metals. The highest gold assay obtained from in situ samples collected in the previous years returned 7.51 g/t Au and 3.45% Zn over 0.25m. Another gold result came from a float 15x10 cm in size containing 25% pyrite, 1% sphalerite and 1-2% arsenopyrite. It assayed 9.0 g/t Au, 0.25% Zn and > 1% As. A float sample collected in 2006, a selective grab from a large (0.7 m across) boulder of argillite cut by quartz stockwork with pyrite and sphalerite assayed 5.56 g/t Au and 3.56% Zn.
5. In the 2017 geochemical program, a total of 60 float and bedrock samples were collected. Sampling was carried out along the ridge top along Roosevelt Ridge with one sample from the Ruby Silver area. Samples were taken of any sulphide bearing bedrock or float boulders. Sampling indicated values ranging from <5 ppb to 6.92 g/t gold, <0.2 to 24.9 g/t silver, < 1 ppm to 3.21 % copper, <2 ppm to 0.31 % lead and 3ppm to 4.15 % zinc.

6. It is recommended that the next exploration phase consist of further sampling to define the bedrock sources of the indicated mineralization in previous geochemical sampling. Work should be along Roosevelt Ridge, also to check for possible extensions to the Lakeshore and Lead Coil A showing as well as locate the 3 tunnels and veins on the Ruby Silver showing.
7. Estimated cost of the program is \$150,000.00.

RECOMMENDATIONS AND BUDGET

It is recommended that the next exploration phase consist of further sampling in the area of the Ruby Silver, Roosevelt Ridge and other know gold showings in the project area.

Estimated Cost of the Program

Geochemical assays, 200 samples @ \$25/sample	\$5,000.00
2 Geologists, 20 days @ \$700.00/ day	\$28,000.00
2 Field assistants, 20 days @ \$300.00/day	\$12,000.00
Accommodation and food (in Stewart)	\$2,000.00
Vehicle rental	\$2,000.00
Freight	\$1,000.00
Report	\$5,000.00
Drafting	\$2,000.00
Helicopter 40 hours @ \$1,800.00/hour	\$72,000.00
Contingency	\$11,000.00
Total	\$150,000.00

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9. WALUS, A., (2010): Assessment Report on Technical Work- Bear Property. ARIS 31956.

CERTIFICATE of AUTHORS' QUALIFICATIONS

I, Edward R. Kruchkowski, geologist, residing at 23 Templeside Bay, N.E., in the City of Calgary, in the Province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.
2. I have been practicing my profession continuously since graduation.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia.
5. I am a consulting geologist working on behalf of Resources Ltd.
6. This report is based on the supervision of sampling as well as conducting some of the geochemical survey.
7. This report is based on a review of reports, documents, maps and other technical data on the property area.
8. I am familiar with these types of deposits having conducted exploration programs on these types of occurrences in the Stewart region.

Date:

E.R. Kruchkowski, B.Sc.

STATEMENT OF EXPLORATION COSTS

E Kruchkowski - geologist 2 days @ \$700.00/day September 2 and 3, 2017	\$1,400.00
Alex Walus – geologist 6 days @ \$650.00/day September 2 to 6 and 12, 2017	\$3,900.00
Dirk Meckert – geologist 6 days @ \$650.00/day September 2 to 6 and 15, 2017	\$3,900.00
Krzys Mastalerz – geologist 6 days @ \$650.00/day September 2 to 6 and September 12, 2017	\$3,900.00
Thomas Bauer – geological assistant 6 days @ \$300.00/day September 2 to 6 and 15, 2017	\$1,800.00
Matthew Wesley – geological assistant 5 days @ \$300.00/day September 2 to 6 and September 12, 2017	\$1,800.00
Steve Stannus – geological assistant 1 days @ \$300.00/day September 12, 2017	\$300.00
Rick Kasum- 1 day @ \$600.00/day August 30, 2017	\$600.00
Lawrence Tseng-geologist 1 day @ \$650.00/day August 30, 2017	\$650.00
Report Writing	\$2,100.00
Drafting	\$1,500.00
Sample analysis – 60 geochemical samples @ \$35	\$2,100.00
Truck use 6 days – 2 @ \$100.00/day	\$1,200.00
Hotel and Meal Expenses 34-man days @ \$150.00/day	\$5,100.00
Helicopter - 7 hours @ \$1,800.00/hour	\$12,600.00
Sample Delivery to Kamloops	\$1,000.00
Geological supplies	\$200.00
Pro-rated travel time for geologists and assistants	\$700.00
Total	<u>\$44,700.00</u>

Appendix I
Analysis Results

Results

Activation Laboratories Ltd.

Report: A17-10633

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	< 5	1.3	< 0.5	52	194	15	< 1	41	13	0.76	75	< 10	210	< 0.5	< 2	0.04	< 1	3	2.40	< 10	< 1	0.52	20
LJ-2	< 5	1.7	< 0.5	37	32	32	< 1	43	8	0.84	45	< 10	46	< 0.5	< 2	0.05	4	3	1.94	< 10	< 1	0.56	12
LJ-3	< 5	0.5	< 0.5	9	22	5	< 1	26	5	0.68	159	< 10	160	< 0.5	< 2	< 0.01	< 1	3	1.92	< 10	< 1	0.50	15
LJ-4	< 5	< 0.2	< 0.5	5	393	2	< 1	12	14	1.02	8	< 10	178	0.6	< 2	0.07	2	1	1.61	< 10	< 1	0.61	15
LJ-5	< 5	0.9	< 0.5	17	1010	3	1	33	11	0.75	35	< 10	61	< 0.5	< 2	0.29	7	6	2.23	< 10	< 1	0.44	18
LJ-6	< 5	0.5	< 0.5	5	32	4	1	16	13	1.59	9	12	78	0.8	< 2	0.05	2	1	1.60	< 10	< 1	0.98	22
LJ-7	< 5	1.8	< 0.5	13	37	3	1	23	12	0.99	29	< 10	56	< 0.5	< 2	0.07	2	4	1.69	< 10	< 1	0.65	13
LJ-8	< 5	1.7	< 0.5	13	1050	6	< 1	22	25	0.87	33	< 10	99	0.5	< 2	0.12	5	7	2.32	< 10	< 1	0.48	20
A17-35	8	4.8	1.4	18	4960	4	< 1	17	44	0.26	30	< 10	87	< 0.5	< 2	> 10.0	3	2	2.33	< 10	< 1	0.14	< 10
A17-36	7	1.2	9.8	45	655	27	70	12	686	0.86	75	< 10	19	< 0.5	< 2	1.78	7	13	3.60	< 10	< 1	0.39	< 10
A17-37	< 5	< 0.2	0.8	12	639	1	12	17	88	1.59	27	< 10	134	0.5	< 2	0.79	9	7	3.73	< 10	< 1	0.40	19
A17-38	6	0.2	< 0.5	55	437	2	118	10	147	2.98	13	11	326	0.9	< 2	0.40	17	92	5.29	< 10	< 1	0.58	17
A17-39	22	3.7	1.8	27	845	2	4	10	217	1.49	70	< 10	307	0.6	< 2	0.16	5	4	5.17	< 10	< 1	0.48	33
A17-90	< 5	0.8	< 0.5	12	137	3	1	28	15	0.76	23	< 10	262	< 0.5	< 2	0.02	< 1	6	2.41	< 10	< 1	0.57	12
A17-91	< 5	< 0.2	< 0.5	10	1290	10	< 1	6	102	0.67	4	< 10	174	< 0.5	< 2	1.27	4	4	2.42	< 10	< 1	0.32	15
A17-92	< 5	1.8	< 0.5	27	47	6	< 1	126	68	0.75	64	< 10	46	< 0.5	< 2	0.19	2	6	2.11	< 10	< 1	0.45	20
A17-93	< 5	< 0.2	0.8	16	1670	< 1	13	12	380	1.90	3	< 10	177	< 0.5	< 2	4.70	24	86	6.30	< 10	< 1	0.39	< 10
A17-94	< 5	6.0	1.1	23	73	4	< 1	52	202	0.55	46	< 10	49	< 0.5	< 2	0.02	2	11	2.10	< 10	< 1	0.39	14
A17-104	< 5	< 0.2	1.5	11	124	2	1	15	157	0.58	2	< 10	101	< 0.5	< 2	0.10	2	17	1.11	< 10	< 1	0.21	< 10
A17-105	71	3.4	10.8	48	192	14	< 1	788	2080	1.03	7	< 10	186	< 0.5	< 2	0.17	3	11	2.14	< 10	2	0.41	57
A17-106	139	0.3	0.5	4	1820	2	3	6	97	0.19	2720	< 10	30	< 0.5	< 2	0.09	2	20	2.39	< 10	< 1	0.10	< 10
A17-107	1180	3.2	< 0.5	3	7720	< 1	2	140	128	0.26	> 10000	< 10	50	< 0.5	< 2	3.76	5	7	8.70	< 10	< 1	0.18	< 10
A17-108	< 5	0.6	< 0.5	1560	1300	< 1	2	4	41	2.19	16	23	708	1.1	< 2	1.81	5	10	3.68	< 10	< 1	1.55	13
A17-125	7	0.3	< 0.5	29	346	12	< 1	18	19	0.35	63	< 10	202	< 0.5	< 2	0.41	5	9	2.37	< 10	< 1	0.05	< 10
A17-126	< 5	< 0.2	< 0.5	10	1140	1	< 1	< 2	21	0.03	4	< 10	470	< 0.5	< 2	> 10.0	< 1	< 1	0.09	< 10	< 1	0.02	< 10
A17-127	< 5	0.4	< 0.5	21	282	3	2	32	38	1.85	129	< 10	54	< 0.5	< 2	0.02	1	7	4.39	10	< 1	0.16	< 10
A17-128	< 5	< 0.2	< 0.5	11	75	2	< 1	3	10	0.34	15	< 10	183	< 0.5	< 2	0.63	< 1	11	1.13	< 10	< 1	0.16	< 10
A17-129	< 5	< 0.2	< 0.5	26	191	3	2	16	27	1.40	80	< 10	66	< 0.5	< 2	0.05	4	10	3.74	< 10	< 1	0.17	24
A17-130	< 5	< 0.2	< 0.5	15	668	< 1	3	5	50	1.27	24	10	18	< 0.5	< 2	1.13	9	7	4.68	< 10	< 1	0.25	13
A17-131	< 5	< 0.2	< 0.5	33	743	1	5	15	142	1.49	32	13	236	1.2	< 2	0.39	13	7	4.14	< 10	< 1	0.93	20
A17-132	28	10.6	129	15	7980	340	< 1	1380	8940	0.03	145	< 10	29	< 0.5	< 2	8.95	5	7	1.32	< 10	2	0.02	< 10
A17-133	27	33.5	0.7	24	123	44	4	410	179	0.88	734	13	34	< 0.5	< 2	0.24	14	3	4.00	< 10	5	0.73	12
A17-134	102	1.9	8.1	10	738	8	2	122	745	0.89	1510	< 10	49	< 0.5	< 2	0.34	10	6	2.71	< 10	7	0.55	14
A17-135	< 5	10.3	30.4	12	10900	36	< 1	117	2980	0.07	39	< 10	52	< 0.5	< 2	> 10.0	6	2	0.96	< 10	4	0.06	< 10
A17-136	< 5	16.4	97.9	30	11100	99	2	1810	7480	0.07	228	< 10	38	< 0.5	< 2	> 10.0	12	2	1.33	< 10	12	0.05	< 10
A17-137	< 5	0.5	2.9	24	1600	2	28	148	423	0.47	19	< 10	96	< 0.5	< 2	6.14	7	13	4.18	< 10	< 1	0.24	< 10
A17-138	< 5	1.3	3.6	13	7010	15	24	97	293	0.67	12	< 10	100	< 0.5	< 2	> 10.0	6	16	3.92	< 10	< 1	0.30	< 10
A17-139	< 5	< 0.2	< 0.5	19	1370	1	5	4	64	0.61	13	< 10	114	< 0.5	< 2	1.48	3	12	2.55	< 10	< 1	0.13	< 10
A17-140	6	0.6	1.9	31	711	3	7	21	188	0.72	11	< 10	70	< 0.5	< 2	1.03	5	24	2.47	< 10	< 1	0.11	11
A17-141	< 5	1.2	42.1	8	4010	11	6	570	6000	0.39	296	< 10	26	< 0.5	< 2	9.51	11	10	3.35	< 10	3	0.02	< 10
A17-142	347	8.7	4.6	14	6110	3	1	558	1290	0.85	283	< 10	94	< 0.5	< 2	0.04	3	9	3.59	< 10	< 1	0.53	16
A17-143	60	1.6	18.5	1	29200	< 1	2	134	2930	0.37	462	< 10	49	< 0.5	< 2	0.12	< 1	4	14.9	< 10	< 1	0.28	11

Results

Activation Laboratories Ltd.

Report: A17-10633

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-144	183	> 100	238	232	3470	1	2	> 5000	> 10000	0.38	47	< 10	33	< 0.5	< 2	1.80	4	6	2.52	< 10	9	0.28	< 10
A17-145	8	0.3	0.6	56	1370	< 1	11	18	176	0.68	51	< 10	157	< 0.5	< 2	3.61	9	14	3.67	< 10	< 1	0.40	< 10
A17-146	9	1.4	6.4	28	1020	4	2	364	1180	0.76	54	< 10	135	< 0.5	< 2	0.07	3	5	2.38	< 10	< 1	0.38	29
A17-147	< 5	4.3	< 0.5	3	68	1	< 1	105	16	0.02	8	< 10	13	< 0.5	3	0.03	< 1	15	0.35	< 10	< 1	0.01	< 10
A17-148	< 5	0.9	2.7	9	554	2	3	64	351	1.02	18	15	52	0.7	< 2	2.51	8	8	1.80	< 10	< 1	0.62	18
DM-41	< 5	< 0.2	< 0.5	6	732	3	1	< 2	19	1.58	4	< 10	123	0.7	< 2	0.43	2	5	2.69	< 10	< 1	0.43	39
DM-42	26	< 0.2	< 0.5	15	2870	1	18	6	23	1.81	71	10	122	< 0.5	< 2	9.81	4	22	4.76	< 10	< 1	0.39	12
DM-43	< 5	< 0.2	< 0.5	3	1460	3	2	< 2	10	0.40	35	< 10	86	< 0.5	< 2	3.56	1	6	1.42	< 10	< 1	0.22	25
DM-44	< 5	< 0.2	< 0.5	24	2310	< 1	13	< 2	21	2.37	< 2	< 10	45	< 0.5	< 2	> 10.0	4	18	4.94	< 10	< 1	0.06	< 10
DM-45	< 5	< 0.2	< 0.5	2	1340	3	< 1	11	22	0.39	< 2	< 10	50	< 0.5	< 2	4.98	< 1	7	2.53	< 10	< 1	0.12	17
DM-46	1880	24.9	0.6	> 10000	247	2	7	5	35	0.37	29	< 10	20	< 0.5	< 2	0.38	6	10	3.84	< 10	< 1	0.15	< 10
DM-47	< 5	< 0.2	< 0.5	22	972	5	< 1	< 2	13	0.73	6	11	127	< 0.5	< 2	1.97	2	9	1.76	< 10	< 1	0.42	32
DM-48	41	0.9	1.4	54	258	4	11	13	153	0.45	47	< 10	175	< 0.5	< 2	0.08	5	17	1.48	< 10	< 1	0.15	17
DM-49	75	1.7	< 0.5	39	650	34	24	63	23	1.08	295	< 10	119	< 0.5	< 2	0.12	14	10	7.65	< 10	< 1	0.48	< 10
DM-50	14	0.8	< 0.5	169	1000	2	1	5	21	0.18	22	< 10	87	< 0.5	< 2	1.19	< 1	13	2.19	< 10	< 1	0.08	< 10
DM-51	< 5	< 0.2	< 0.5	38	2060	< 1	12	3	25	1.24	3	< 10	102	< 0.5	< 2	> 10.0	5	12	3.27	< 10	< 1	0.29	11
DM-52	< 5	0.3	0.6	132	979	4	13	8	49	0.51	3	< 10	38	< 0.5	< 2	6.78	3	17	2.17	< 10	< 1	0.07	< 10
DM-53	< 5	0.6	1.4	108	512	2	5	67	80	0.32	< 2	< 10	36	< 0.5	< 2	1.20	3	19	1.71	< 10	< 1	0.05	< 10
DM-54	11	0.2	< 0.5	69	773	1	49	12	53	1.85	72	< 10	60	0.5	< 2	1.19	12	49	4.11	< 10	< 1	0.17	19
DM-55	< 5	< 0.2	< 0.5	4	349	4	< 1	3	15	0.65	7	< 10	116	< 0.5	< 2	0.06	1	7	2.39	< 10	< 1	0.34	30
DM-56	< 5	< 0.2	< 0.5	26	302	2	9	< 2	14	0.36	3	< 10	25	< 0.5	< 2	0.13	2	28	1.11	< 10	< 1	0.05	< 10
DM-57	< 5	< 0.2	< 0.5	15	1720	< 1	12	< 2	16	0.98	4	< 10	44	< 0.5	< 2	5.39	6	33	2.43	< 10	< 1	0.10	< 10
DM-58	> 5000	4.6	320	845	67	2	4	347	> 10000	0.11	4910	< 10	< 10	< 0.5	< 2	0.01	2	24	3.95	< 10	2	0.05	< 10
DM-59	9	< 0.2	0.6	19	3150	< 1	9	3	101	0.47	15	< 10	46	< 0.5	< 2	> 10.0	2	10	2.21	< 10	< 1	0.12	< 10
DM-60	9	< 0.2	< 0.5	30	2570	< 1	14	< 2	37	1.14	9	< 10	65	< 0.5	< 2	8.86	7	40	4.86	< 10	< 1	0.25	< 10
DM-61	55	< 0.2	< 0.5	4	1880	< 1	6	2	35	0.58	366	< 10	66	< 0.5	< 2	5.17	3	16	1.60	< 10	< 1	0.14	< 10
DM-74	7	< 0.2	< 0.5	8	1510	1	< 1	3	36	0.36	2	< 10	312	< 0.5	< 2	1.96	5	10	2.61	< 10	< 1	0.20	23
DM-75	56	< 0.2	< 0.5	1	4010	< 1	< 1	8	12	0.37	41	< 10	72	< 0.5	< 2	> 10.0	4	7	2.63	< 10	< 1	0.14	< 10
DM-76	12	1.5	< 0.5	3880	2080	< 1	< 1	5	47	0.58	< 2	< 10	43	< 0.5	3	4.05	3	6	1.82	< 10	< 1	0.12	10
DM-77	< 5	< 0.2	< 0.5	4	1100	< 1	< 1	4	22	0.28	3	< 10	88	< 0.5	< 2	0.56	2	11	1.42	< 10	< 1	0.27	27
DM-78	< 5	0.2	< 0.5	49	152	1	< 1	5	5	0.30	< 2	< 10	457	< 0.5	< 2	0.08	2	11	0.89	< 10	< 1	0.31	29
DM-79	< 5	< 0.2	< 0.5	183	438	1	< 1	< 2	7	0.25	< 2	< 10	264	< 0.5	< 2	0.41	1	15	1.09	< 10	< 1	0.30	20
DM-80	< 5	< 0.2	< 0.5	21	888	2	< 1	7	12	0.52	9	< 10	301	< 0.5	< 2	0.43	3	11	1.32	< 10	< 1	0.45	30
DM-81	< 5	< 0.2	< 0.5	19	705	2	< 1	2	7	0.29	< 2	< 10	136	< 0.5	< 2	0.72	1	18	1.44	< 10	< 1	0.29	30
DM-82	< 5	0.2	< 0.5	221	595	1	1	< 2	7	0.35	< 2	< 10	279	< 0.5	< 2	1.10	< 1	13	0.88	< 10	< 1	0.37	29
DM-83	< 5	< 0.2	< 0.5	28	766	2	< 1	2	8	0.24	< 2	< 10	83	< 0.5	< 2	1.36	1	23	1.47	< 10	< 1	0.29	20
DM-84	< 5	0.2	< 0.5	71	185	1	< 1	3	6	0.31	< 2	< 10	118	< 0.5	< 2	0.24	1	11	1.05	< 10	< 1	0.35	29
DM-85	< 5	0.2	< 0.5	217	239	1	< 1	2	7	0.37	< 2	< 10	201	< 0.5	< 2	0.22	2	16	0.96	< 10	< 1	0.36	39
DM-111	< 5	< 0.2	< 0.5	10	2080	9	3	8	13	0.34	26	< 10	40	< 0.5	< 2	5.17	5	7	3.58	< 10	< 1	0.11	17
DM-112	< 5	< 0.2	< 0.5	57	281	5	2	9	3	0.43	37	< 10	43	< 0.5	< 2	0.91	7	14	2.27	< 10	< 1	0.30	13
DM-113	< 5	< 0.2	< 0.5	45	397	6	< 1	< 2	6	1.00	61	17	116	0.8	< 2	1.25	2	3	1.43	< 10	< 1	0.58	25
DM-114	< 5	< 0.2	< 0.5	< 1	241	< 1	< 1	< 2	5	0.15	< 2	< 10	417	< 0.5	< 2	1.41	< 1	< 1	0.24	< 10	< 1	0.01	< 10

Results

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Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-115	< 5	< 0.2	< 0.5	64	2150	2	2	< 2	7	0.05	2	< 10	373	< 0.5	< 2	> 10.0	< 1	1	2.26	< 10	< 1	0.02	< 10
DM-116	< 5	< 0.2	< 0.5	86	2960	3	1	< 2	4	0.03	9	< 10	73	< 0.5	< 2	> 10.0	< 1	2	3.33	< 10	< 1	0.02	< 10
DM-117	< 5	< 0.2	< 0.5	1	280	4	< 1	< 2	8	1.10	< 2	< 10	96	0.5	< 2	1.72	< 1	3	2.93	< 10	< 1	0.28	30
DM-118	< 5	< 0.2	< 0.5	26	556	2	11	2	81	0.64	21	< 10	124	< 0.5	< 2	1.76	5	28	1.71	< 10	< 1	0.09	< 10
DM-119	< 5	< 0.2	8.0	43	601	< 1	28	12	1100	1.94	< 2	< 10	68	< 0.5	< 2	1.65	7	52	3.32	< 10	< 1	0.12	< 10
DM-120	< 5	< 0.2	< 0.5	8	301	3	< 1	< 2	11	1.42	24	14	211	0.7	< 2	0.27	3	5	2.80	< 10	< 1	0.42	32
DM-121	6	22.4	3.3	121	40	5	4	419	346	0.86	149	< 10	< 10	< 0.5	< 2	0.54	1	8	14.5	< 10	< 1	0.97	< 10
DM-122	< 5	2.9	0.6	8	178	9	1	122	124	0.47	127	< 10	28	< 0.5	< 2	0.01	< 1	5	10.7	< 10	< 1	1.87	57
DM-123	5	5.9	0.6	16	679	10	< 1	161	49	0.72	41	11	89	1.9	6	> 10.0	< 1	7	2.60	< 10	< 1	0.44	32
DM-124	3010	5.7	10.5	120	691	5	< 1	1440	769	0.76	31	< 10	121	0.5	< 2	1.30	6	6	0.99	< 10	< 1	0.54	27
DM-125	31	6.6	< 0.5	54	151	47	2	155	146	0.82	188	< 10	38	< 0.5	< 2	0.05	10	4	3.78	< 10	< 1	0.68	12
DM-126	> 5000	47.1	< 0.5	> 10000	320	395	11	663	155	0.45	738	< 10	< 10	< 0.5	< 2	0.05	40	2	17.8	< 10	< 1	0.36	11
DM-127	> 5000	> 100	318	> 10000	125	20	3	> 5000	> 10000	0.21	3980	< 10	15	< 0.5	98	0.03	2	21	1.34	< 10	4	0.09	< 10
DM-128	1640	1.5	0.9	34	5620	3	4	104	81	0.09	550	< 10	13	< 0.5	< 2	0.09	12	9	15.7	< 10	< 1	0.05	< 10
DM-129	> 5000	17.2	28.7	261	1180	3	2	2240	1250	0.36	5000	< 10	154	< 0.5	7	0.10	2	24	2.16	< 10	< 1	0.20	< 10
DM-130	638	> 100	246	212	469	2	2	2240	> 10000	0.05	6310	< 10	< 10	< 0.5	247	0.02	14	18	5.86	< 10	< 1	0.03	< 10
DM-131	732	5.2	3.4	29	2550	5	2	69	298	0.04	312	< 10	32	< 0.5	25	0.01	10	27	4.50	< 10	< 1	0.02	< 10
DM-132	1650	> 100	542	714	1060	1	3	3120	> 10000	0.08	791	< 10	< 10	< 0.5	290	0.05	9	19	6.85	< 10	< 1	0.04	< 10
DM-133	12	1.8	18.1	30	6460	6	3	312	1960	0.07	88	< 10	59	< 0.5	< 2	9.76	3	4	8.92	< 10	< 1	0.05	< 10
DM-134	< 5	1.7	4.6	5	4140	16	4	717	473	0.06	36	< 10	95	< 0.5	< 2	4.24	< 1	9	15.9	< 10	< 1	0.04	< 10
DM-135	< 5	1.1	< 0.5	15	900	2	< 1	25	45	0.58	5	< 10	179	< 0.5	4	2.03	3	6	1.61	< 10	< 1	0.45	19
DM-136	< 5	< 0.2	0.6	6	244	3	< 1	19	83	0.32	2	< 10	202	< 0.5	< 2	0.31	< 1	22	0.79	< 10	< 1	0.24	24
DM-137	6	0.2	13.3	37	2970	1	1	8	771	0.95	19	< 10	91	< 0.5	< 2	8.67	10	18	3.62	< 10	< 1	0.45	< 10
DM-138	< 5	< 0.2	0.6	4	2610	3	< 1	12	23	0.04	24	< 10	537	< 0.5	< 2	4.73	2	21	1.01	< 10	< 1	0.02	< 10
DM-139	3620	15.1	2.1	361	79	< 1	6	102	13	0.27	> 10000	< 10	< 10	< 0.5	101	0.07	29	4	20.1	< 10	< 1	0.18	< 10
DM-140	16	0.7	< 0.5	13	365	7	3	24	31	0.06	509	< 10	44	< 0.5	< 2	0.45	8	53	2.98	< 10	< 1	0.03	< 10
DM-141	8	1.4	4.9	233	1740	2	1	21	312	0.07	14	< 10	50	< 0.5	6	2.97	3	16	5.16	< 10	< 1	0.04	< 10
DM-142	5	0.9	1.1	10	3370	< 1	5	208	433	0.24	91	< 10	88	< 0.5	< 2	4.76	14	9	5.34	< 10	< 1	0.15	< 10
DM-143	8	0.4	< 0.5	16	327	2	2	5	23	0.18	20	< 10	54	< 0.5	< 2	0.10	2	21	0.96	< 10	< 1	0.11	< 10
AGKM-01	144	9.5	3.1	96	4620	2	2	72	140	0.03	247	< 10	19	< 0.5	38	6.39	9	7	5.52	< 10	< 1	0.02	< 10
AGKM-02	< 5	< 0.2	2.3	25	3160	2	< 1	10	14	0.03	15	< 10	581	< 0.5	< 2	> 10.0	< 1	7	0.90	< 10	< 1	0.02	< 10
AGKM-03	< 5	7.7	12.7	5	762	2	< 1	2220	5670	0.36	10	< 10	293	< 0.5	6	0.42	3	15	1.54	< 10	3	0.13	< 10
AGKM-04	< 5	< 0.2	< 0.5	24	1450	< 1	9	11	67	1.97	5	< 10	305	< 0.5	< 2	5.14	10	9	3.42	< 10	< 1	0.46	13
AGKM-05	< 5	0.3	< 0.5	26	75	14	9	20	47	1.57	3	< 10	80	0.6	< 2	0.34	11	4	2.67	< 10	< 1	0.72	24
AGKM-06	< 5	0.3	20.6	9	1710	4	< 1	24	1590	0.34	353	< 10	106	< 0.5	< 2	6.00	3	12	2.42	< 10	< 1	0.15	12
AGKM-07	< 5	< 0.2	< 0.5	2	899	2	< 1	4	67	0.18	377	< 10	55	< 0.5	< 2	2.40	1	18	2.38	< 10	< 1	0.08	< 10
AGKM-08	< 5	0.2	0.6	14	377	6	11	16	211	1.39	53	< 10	37	< 0.5	< 2	0.36	8	4	3.36	< 10	< 1	0.57	13
AGKM-09	< 5	0.2	7.0	8	1400	1	6	9	377	1.30	10	< 10	50	< 0.5	< 2	4.17	16	3	5.87	< 10	< 1	0.22	< 10
AGKM-10	5	0.6	0.8	11	704	4	1	18	214	0.85	13	< 10	32	< 0.5	< 2	3.49	9	3	3.13	< 10	< 1	0.48	10
AGKM-11	< 5	0.4	4.6	14	767	2	< 1	14	218	0.12	81	< 10	55	< 0.5	< 2	1.79	< 1	18	0.92	< 10	< 1	0.05	< 10
AGKM-12	< 5	1.8	14.4	17	2940	45	5	401	1430	1.18	298	< 10	39	0.6	< 2	5.81	16	10	11.5	< 10	< 1	< 0.01	< 10
AGKM-13	< 5	0.5	1.3	6	3730	24	4	22	134	1.32	347	< 10	37	< 0.5	< 2	7.64	8	2	6.40	< 10	< 1	0.26	< 10

Results

Activation Laboratories Ltd.

Report: A17-10633

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-14	< 5	0.8	32.4	15	5100	8	4	902	7260	1.11	374	< 10	43	< 0.5	< 2	> 10.0	16	13	4.97	< 10	4	0.01	< 10
AGKM-15	7	0.8	0.7	11	883	4	3	152	195	0.54	97	< 10	80	< 0.5	< 2	0.33	4	11	4.11	< 10	< 1	0.27	11
AGKM-16	< 5	< 0.2	1.2	51	1880	6	24	5	148	1.36	8	< 10	114	< 0.5	< 2	> 10.0	6	3	5.72	< 10	< 1	0.21	< 10
AGKM-17	< 5	< 0.2	1.4	22	1530	4	7	20	166	0.99	23	< 10	61	< 0.5	< 2	8.32	6	2	4.16	< 10	< 1	0.24	< 10
AGKM-12a	< 5	< 0.2	0.9	3	4950	8	2	29	113	0.71	244	< 10	29	< 0.5	< 2	> 10.0	6	3	4.15	< 10	< 1	0.06	< 10
AGKM-14a	< 5	4.5	8.5	12	316	22	1	2140	1070	0.19	31	< 10	113	< 0.5	< 2	0.39	9	14	1.64	< 10	3	0.10	< 10
GGKM-01	< 5	< 0.2	< 0.5	3	859	2	< 1	10	34	0.19	4	< 10	139	< 0.5	< 2	1.43	1	11	0.64	< 10	< 1	0.11	< 10
GGKM-02	117	8.9	< 0.5	116	367	27	10	415	58	0.81	389	< 10	< 10	< 0.5	< 2	0.34	63	4	11.5	< 10	< 1	0.62	< 10
GGKM-03	< 5	< 0.2	< 0.5	56	86	4	2	9	12	0.24	15	< 10	259	< 0.5	< 2	0.10	1	26	0.54	< 10	< 1	0.33	21
GGKM-04	12	8.2	< 0.5	20	39	28	2	407	15	0.57	1520	< 10	24	< 0.5	< 2	0.01	4	8	2.55	< 10	< 1	0.51	11
GGKM-05	31	3.0	< 0.5	24	1360	20	4	319	94	0.29	382	< 10	34	< 0.5	< 2	0.25	23	20	3.41	< 10	< 1	0.22	< 10
GGKM-06	< 5	0.3	< 0.5	9	6000	< 1	< 1	37	143	0.39	9	< 10	110	< 0.5	< 2	> 10.0	8	2	5.46	< 10	< 1	0.31	< 10
GGKM-07	< 5	< 0.2	< 0.5	13	2510	1	3	14	60	0.44	242	< 10	102	< 0.5	< 2	3.36	15	7	3.69	< 10	< 1	0.42	< 10
GGKM-08	< 5	< 0.2	< 0.5	30	4150	2	< 1	8	17	0.30	< 2	10	937	< 0.5	< 2	8.27	3	13	1.39	< 10	< 1	0.16	< 10
GGKM-09	670	0.9	< 0.5	173	3760	2	1	14	35	0.74	124	< 10	73	< 0.5	< 2	8.29	7	4	3.22	< 10	< 1	0.52	< 10
GGKM-10	< 5	0.4	< 0.5	5	2260	5	3	67	110	0.30	28	< 10	1220	0.9	< 2	3.96	3	10	12.4	< 10	< 1	0.08	< 10
GGKM-11	30	0.6	< 0.5	5	60	12	< 1	28	4	0.24	71	< 10	134	< 0.5	< 2	0.03	1	13	1.20	< 10	< 1	0.33	12
GGKM-12	114	10.9	383	215	1610	2	2	128	> 10000	0.39	125	< 10	33	< 0.5	21	0.57	15	12	4.16	< 10	< 1	0.27	< 10
GGKM-13	91	1.3	< 0.5	2	26	8	< 1	58	35	0.35	48	< 10	350	< 0.5	< 2	< 0.01	< 1	7	0.69	< 10	< 1	0.39	44
GGKM-14	381	16.1	0.8	219	73	62	7	166	62	0.44	244	< 10	< 10	< 0.5	< 2	< 0.01	43	7	8.71	< 10	< 1	0.40	15
GGKM-15	17	0.3	< 0.5	6	67	12	1	15	25	0.28	33	< 10	200	< 0.5	< 2	< 0.01	2	15	0.66	< 10	< 1	0.33	23
GGKM-16	1930	15.4	1.1	59	466	31	8	664	144	0.36	645	< 10	< 10	< 0.5	25	0.02	106	6	10.5	< 10	< 1	0.33	13
GGKM-17	8	1.1	1.0	54	2020	2	2	18	116	0.67	12	< 10	190	< 0.5	< 2	1.54	7	13	2.26	< 10	< 1	0.44	14
GGKM-18	191	1.2	0.6	9	713	2	2	46	57	0.09	114	< 10	46	< 0.5	3	0.02	8	17	3.05	< 10	< 1	0.06	< 10
RRKM-01	8	< 0.2	< 0.5	11	4130	6	9	< 2	52	0.82	6	< 10	140	< 0.5	< 2	> 10.0	4	8	6.31	< 10	< 1	0.18	< 10
RRKM-02	8	< 0.2	< 0.5	23	3100	< 1	14	< 2	9	0.60	3	< 10	88	< 0.5	< 2	> 10.0	5	6	7.05	< 10	< 1	0.23	< 10
RRKM-03	8	< 0.2	< 0.5	13	4570	< 1	19	< 2	6	0.60	4	< 10	79	< 0.5	< 2	> 10.0	5	8	7.84	< 10	< 1	0.16	< 10
RRKM-04	6	< 0.2	< 0.5	6	3550	< 1	3	< 2	7	0.20	< 2	< 10	25	< 0.5	< 2	> 10.0	2	1	6.05	< 10	< 1	0.01	18
RRKM-05	9	< 0.2	< 0.5	247	4440	< 1	14	< 2	3	0.72	12	< 10	66	< 0.5	< 2	> 10.0	7	17	5.52	< 10	< 1	0.13	< 10
RRKM-06	13	0.7	1.4	23	2830	69	53	86	87	0.49	26	< 10	82	< 0.5	< 2	9.93	7	9	5.84	< 10	< 1	0.22	11
RRKM-07	< 5	0.5	0.9	38	603	13	23	317	75	0.32	23	< 10	38	< 0.5	< 2	2.74	6	18	2.79	< 10	< 1	0.11	< 10
RRKM-08	< 5	1.2	11.1	8	2240	6	12	3080	581	0.27	5	< 10	94	< 0.5	< 2	> 10.0	6	3	5.68	< 10	< 1	0.08	30
RRKM-09	10	< 0.2	< 0.5	5	3130	2	11	16	15	0.36	8	< 10	106	< 0.5	< 2	9.21	5	12	4.71	< 10	< 1	0.10	< 10
RRKM-10	< 5	< 0.2	< 0.5	32	2260	1	13	2	6	0.31	18	< 10	48	< 0.5	< 2	> 10.0	7	13	2.99	< 10	< 1	0.11	< 10
RRKM-11	6	< 0.2	< 0.5	74	1610	2	31	4	12	0.52	15	< 10	103	< 0.5	< 2	> 10.0	9	16	2.90	< 10	< 1	0.17	< 10
RRKM-12	< 5	< 0.2	< 0.5	< 1	840	4	2	< 2	11	0.57	7	< 10	91	< 0.5	< 2	6.68	2	6	3.92	< 10	< 1	0.24	18
RRKM-13	< 5	< 0.2	< 0.5	11	5320	< 1	5	< 2	5	0.12	< 2	< 10	30	< 0.5	< 2	> 10.0	2	4	8.16	< 10	< 1	0.05	13
RRKM-14	< 5	< 0.2	< 0.5	35	2330	2	17	< 2	10	0.53	5	< 10	55	< 0.5	< 2	9.61	5	9	5.88	< 10	< 1	0.21	10
RRKM-31	< 5	< 0.2	< 0.5	2	481	2	< 1	< 2	16	0.88	4	< 10	263	< 0.5	< 2	0.70	< 1	5	2.09	< 10	< 1	0.22	29
RRKM-32	< 5	< 0.2	< 0.5	3	342	5	< 1	8	29	0.65	133	15	116	< 0.5	< 2	0.44	1	4	2.13	< 10	< 1	0.32	32
RRKM-33	< 5	< 0.2	< 0.5	32	182	4	3	11	27	1.72	159	20	68	< 0.5	< 2	0.09	3	9	4.53	10	< 1	0.32	< 10
RRKM-34	< 5	< 0.2	< 0.5	15	557	< 1	3	9	82	1.52	49	18	85	< 0.5	< 2	0.32	4	7	4.86	10	< 1	0.26	15

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-35	< 5	< 0.2	< 0.5	18	826	< 1	3	8	76	1.64	28	21	19	0.5	< 2	0.79	11	8	4.77	< 10	< 1	0.24	14
RRKM-36	< 5	< 0.2	< 0.5	12	1380	< 1	6	< 2	22	2.92	4	< 10	1120	0.9	< 2	5.80	9	7	7.58	10	< 1	0.57	22
RRKM-37	< 5	< 0.2	< 0.5	97	566	< 1	4	20	86	2.06	10	18	225	0.8	< 2	0.78	11	11	4.72	10	< 1	0.21	14
RRKM-38	< 5	< 0.2	< 0.5	13	552	< 1	2	5	51	1.49	28	12	30	< 0.5	< 2	0.57	5	8	4.49	< 10	< 1	0.20	12
VKM-01	< 5	1.2	1.0	2	2490	38	3	202	69	0.14	22	< 10	482	1.0	< 2	3.41	< 1	6	21.8	< 10	< 1	0.05	< 10
VKM-02	< 5	1.6	0.7	9	194	3	2	61	100	0.57	137	< 10	28	< 0.5	< 2	0.02	5	10	2.89	< 10	< 1	0.54	16
VKM-03	< 5	0.4	< 0.5	6	233	3	2	29	49	0.61	105	< 10	30	< 0.5	< 2	0.06	2	23	3.40	< 10	< 1	0.32	12
VKM-04	< 5	5.0	0.6	11	125	13	2	227	64	0.36	228	< 10	21	< 0.5	< 2	0.01	16	16	3.37	< 10	< 1	0.37	18
VKM-05	< 5	1.7	10.4	15	167	18	3	445	558	1.14	89	< 10	11	< 0.5	< 2	0.10	8	9	8.65	10	< 1	0.28	17
VKM-06	< 5	0.4	< 0.5	5	139	3	8	22	89	1.53	58	24	504	1.1	< 2	0.06	1	16	1.41	< 10	< 1	0.78	< 10
VKM-07	< 5	9.6	1.5	22	57	3	4	492	149	1.65	589	58	< 10	1.8	< 2	< 0.01	15	24	5.29	< 10	< 1	1.01	< 10
VKM-08	< 5	0.2	0.9	6	787	< 1	7	43	190	2.72	8	23	582	1.9	< 2	0.62	7	26	5.91	10	< 1	0.84	19
VKM-09	< 5	2.1	< 0.5	28	45	1	< 1	297	81	0.90	206	16	276	0.7	< 2	0.10	< 1	8	3.70	< 10	< 1	0.70	18
VKM-16	< 5	2.1	< 0.5	7	41	2	< 1	70	55	0.87	48	20	621	1.1	< 2	0.15	1	10	1.94	< 10	< 1	0.59	26
VKM-17	14	4.2	< 0.5	5	30	14	1	284	25	0.82	268	18	39	0.7	< 2	< 0.01	< 1	14	6.43	< 10	1	0.93	< 10
VKM-18	31	8.8	0.6	70	48	20	3	208	46	0.38	121	< 10	< 10	< 0.5	< 2	0.04	< 1	8	10.8	< 10	< 1	0.31	< 10
VKM-19	< 5	0.9	< 0.5	6	63	4	< 1	75	18	0.45	103	< 10	68	< 0.5	< 2	0.17	2	9	3.35	< 10	< 1	0.42	16
RSKM-01	9	0.3	< 0.5	76	1100	4	41	5	34	1.45	7	< 10	77	0.7	< 2	0.73	11	24	4.70	< 10	< 1	0.42	16

Results

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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
LJ-1	0.04	0.059	0.047	0.25	3	2	13	< 0.01	< 20	< 1	< 2	< 10		3	< 10	5	8				
LJ-2	0.04	0.056	0.041	1.47	< 2	2	9	< 0.01	< 20	< 1	< 2	< 10		4	< 10	5	13				
LJ-3	0.03	0.038	0.020	0.45	2	1	54	< 0.01	< 20	< 1	< 2	< 10		3	< 10	3	10				
LJ-4	0.05	0.065	0.047	0.32	< 2	2	10	< 0.01	< 20	< 1	< 2	< 10		3	< 10	5	7				
LJ-5	0.06	0.104	0.048	0.82	2	2	27	< 0.01	< 20	< 1	< 2	< 10		3	< 10	10	10				
LJ-6	0.09	0.020	0.048	0.92	< 2	2	10	< 0.01	< 20	< 1	< 2	< 10		5	< 10	5	11				
LJ-7	0.05	0.058	0.046	1.00	< 2	1	14	< 0.01	< 20	< 1	< 2	< 10		3	< 10	5	12				
LJ-8	0.06	0.111	0.048	0.76	< 2	2	16	< 0.01	< 20	< 1	< 2	< 10		3	< 10	7	12				
A17-35	0.07	0.020	0.025	0.92	12	3	392	< 0.01	< 20	< 1	< 2	< 10		11	< 10	16	4				
A17-36	0.50	0.060	0.101	2.79	32	8	64	< 0.01	< 20	< 1	4	< 10		101	< 10	11	6				
A17-37	0.21	0.042	0.062	0.03	11	3	17	< 0.01	< 20	< 1	< 2	< 10		37	< 10	6	5				
A17-38	1.81	0.048	0.104	0.32	2	8	53	< 0.01	< 20	< 1	< 2	< 10		68	< 10	8	3				
A17-39	0.16	0.027	0.056	0.14	17	4	14	< 0.01	< 20	< 1	< 2	< 10		33	< 10	5	3				
A17-90	0.05	0.052	0.039	0.29	< 2	2	8	< 0.01	< 20	< 1	< 2	< 10		4	< 10	4	9				
A17-91	0.10	0.117	0.042	< 0.01	< 2	3	53	< 0.01	< 20	< 1	< 2	< 10		3	< 10	9	5				
A17-92	0.04	0.072	0.036	1.35	< 2	2	25	< 0.01	< 20	< 1	< 2	< 10		2	< 10	5	8				
A17-93	0.87	0.036	0.055	0.03	3	23	234	< 0.01	< 20	< 1	< 2	< 10		105	< 10	8	2				
A17-94	0.03	0.078	0.023	1.18	< 2	1	24	< 0.01	< 20	< 1	< 2	< 10		2	< 10	3	10				
A17-104	0.14	0.128	0.024	0.01	< 2	< 1	14	0.02	< 20	< 1	< 2	< 10		9	< 10	2	11				
A17-105	0.26	0.093	0.078	0.04	2	2	66	0.03	< 20		2	< 2	< 10		18	< 10	6	4			
A17-106	0.04	0.021	0.007	0.27	3	< 1	11	< 0.01	< 20	< 1	< 2	< 10		1	< 10	1	2				
A17-107	0.38	0.020	0.013	1.76	12	2	238	< 0.01	< 20	< 1	< 2	< 10		5	< 10	10	10				
A17-108	0.33	0.025	0.115	0.11	10	10	49	0.06	< 20	< 1	< 2	< 10		94	< 10	8	4				
A17-125	0.02	0.225	0.136	0.10	< 2	3	127	< 0.01	< 20	< 1	< 2	< 10		18	< 10	5	4				
A17-126	0.27	0.027	0.047	0.12	< 2	< 1	3510	< 0.01	< 20	< 1	< 2	< 10		29	< 10	2	< 1				
A17-127	1.76	0.110	0.030	0.48	5	8	13	< 0.01	< 20	< 1	< 2	< 10		132	< 10	2	3				
A17-128	0.10	0.126	0.071	0.04	< 2	< 1	138	< 0.01	< 20	< 1	< 2	< 10		15	< 10	1	2				
A17-129	1.07	0.155	0.023	0.81	2	6	16	< 0.01	< 20	< 1	< 2	< 10		84	< 10	5	5				
A17-130	1.20	0.117	0.110	2.70	< 2	8	66	< 0.01	< 20	< 1	< 2	< 10		59	< 10	6	8				
A17-131	0.30	0.052	0.081	0.06	6	6	19	< 0.01	< 20		4	< 2	< 10		33	< 10	8	4			
A17-132	0.05	0.016	0.006	0.87	15	6	338	< 0.01	< 20	< 1	< 2	< 10		2	< 10	5	< 1				
A17-133	0.03	0.023	0.202	1.99	84	3	15	< 0.01	< 20	< 1	7	< 10		42	< 10	5	4				
A17-134	0.14	0.054	0.091	1.55	31	2	20	< 0.01	< 20	< 1	3	< 10		18	< 10	4	7				
A17-135	0.06	0.018	0.012	0.57	7	1	665	< 0.01	< 20	< 1	3	< 10		6	< 10	4	< 1				
A17-136	0.05	0.018	0.011	0.94	32	< 1	481	< 0.01	< 20	< 1	< 2	< 10		4	< 10	5	1				
A17-137	1.42	0.043	0.070	0.14	< 2	3	315	< 0.01	< 20	< 1	< 2	< 10		18	< 10	12	2				
A17-138	0.40	0.037	0.040	0.26	5	3	256	< 0.01	< 20	< 1	< 2	< 10		19	< 10	7	2				
A17-139	0.48	0.077	0.029	0.14	< 2	2	81	< 0.01	< 20	< 1	< 2	< 10		8	< 10	4	1				
A17-140	0.38	0.121	0.052	0.72	< 2	5	52	0.02	< 20	< 1	< 2	< 10		40	< 10	5	2				
A17-141	0.10	0.015	0.012	1.10	5	1	440	< 0.01	< 20	< 1	5	< 10		10	< 10	4	2				
A17-142	0.04	0.022	0.027	0.03	5	2	6	< 0.01	< 20		3	< 2	< 10		7	< 10	4	11			

Results

Activation Laboratories Ltd.

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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
A17-143	0.26	0.019	0.018	0.06	13	1	46	< 0.01	< 20	< 1	4	< 10	3	< 10	10	11					
A17-144	0.44	0.033	0.020	2.76	98	< 1	35	< 0.01	< 20	1	< 2	< 10	5	< 10	4	9		95		6.27	3.01
A17-145	0.26	0.034	0.085	0.06	28	5	112	< 0.01	< 20	< 1	< 2	< 10	26	< 10	7	1					
A17-146	0.04	0.085	0.019	0.09	< 2	3	10	< 0.01	< 20	< 1	< 2	< 10	5	< 10	7	9					
A17-147	< 0.01	0.021	< 0.001	0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	< 1	99	< 1	< 1					
A17-148	0.17	0.042	0.043	1.28	8	2	112	< 0.01	< 20	< 1	< 2	< 10	17	< 10	6	14					
DM-41	0.45	0.057	0.036	0.02	< 2	2	10	< 0.01	< 20	< 1	< 2	< 10	2	< 10	10	10					
DM-42	1.15	0.019	0.081	0.58	< 2	10	243	< 0.01	< 20	< 1	< 2	< 10	45	< 10	17	2					
DM-43	0.03	0.078	0.027	0.04	< 2	5	166	< 0.01	< 20	1	< 2	< 10	< 1	< 10	26	10					
DM-44	2.46	0.016	0.030	0.11	< 2	4	1280	< 0.01	< 20	< 1	< 2	< 10	48	< 10	14	1					
DM-45	0.07	0.059	0.028	0.01	< 2	8	55	< 0.01	< 20	< 1	< 2	< 10	4	< 10	17	5					
DM-46	0.12	0.022	0.016	2.63	< 2	< 1	23	< 0.01	< 20	< 1	< 2	< 10	2	< 10	3	4			3.21		
DM-47	0.15	0.065	0.036	0.06	< 2	3	83	< 0.01	< 20	2	< 2	< 10	3	< 10	9	8					
DM-48	0.07	0.027	0.013	0.15	2	2	12	< 0.01	< 20	< 1	< 2	< 10	21	< 10	3	< 1					
DM-49	0.09	0.019	0.132	0.09	12	6	17	< 0.01	< 20	< 1	< 2	< 10	53	< 10	5	3					
DM-50	0.08	0.018	0.018	0.13	< 2	1	24	< 0.01	< 20	< 1	< 2	< 10	6	< 10	11	2					
DM-51	0.92	0.024	0.040	0.11	< 2	3	938	< 0.01	< 20	< 1	< 2	< 10	35	< 10	8	1					
DM-52	0.45	0.024	0.023	0.05	< 2	2	622	< 0.01	< 20	< 1	< 2	< 10	32	< 10	5	1					
DM-53	0.16	0.025	0.013	< 0.01	< 2	< 1	45	< 0.01	< 20	< 1	< 2	< 10	11	< 10	2	< 1					
DM-54	1.36	0.081	0.108	0.26	4	6	60	< 0.01	< 20	< 1	< 2	< 10	95	< 10	8	3					
DM-55	0.05	0.102	0.026	0.02	< 2	2	8	< 0.01	< 20	< 1	< 2	< 10	2	< 10	5	9					
DM-56	0.20	0.043	0.019	< 0.01	< 2	< 1	11	< 0.01	< 20	< 1	< 2	< 10	14	< 10	< 1	< 1					
DM-57	0.81	0.048	0.049	0.01	< 2	5	428	< 0.01	< 20	2	< 2	< 10	37	< 10	5	1					
DM-58	< 0.01	0.018	0.003	5.13	47	< 1	4	< 0.01	< 20	< 1	< 2	< 10	3	< 10	< 1	1	6.92				4.15
DM-59	0.35	0.028	0.020	0.02	< 2	3	475	< 0.01	< 20	3	< 2	< 10	16	< 10	11	< 1					
DM-60	2.47	0.037	0.062	0.06	< 2	11	441	< 0.01	< 20	< 1	< 2	< 10	44	< 10	10	1					
DM-61	0.32	0.030	0.024	0.09	3	1	249	< 0.01	< 20	2	< 2	< 10	8	< 10	6	< 1					
DM-74	0.06	0.117	0.070	0.26	2	6	146	0.03	< 20	< 1	< 2	< 10	20	< 10	8	4					
DM-75	0.22	0.027	0.021	1.19	< 2	5	685	< 0.01	< 20	< 1	< 2	< 10	5	< 10	27	2					
DM-76	0.30	0.110	0.040	0.33	< 2	6	259	< 0.01	< 20	3	< 2	< 10	9	< 10	20	7					
DM-77	0.02	0.030	0.031	< 0.01	< 2	3	9	< 0.01	< 20	< 1	< 2	< 10	2	< 10	5	13					
DM-78	0.01	0.026	0.024	0.12	2	1	9	< 0.01	< 20	< 1	< 2	< 10	2	< 10	3	11					
DM-79	< 0.01	0.027	0.024	0.38	< 2	2	12	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	4	15					
DM-80	0.04	0.021	0.022	0.21	4	2	10	< 0.01	< 20	< 1	< 2	< 10	5	< 10	6	16					
DM-81	0.02	0.021	0.027	0.50	< 2	2	19	< 0.01	< 20	< 1	< 2	< 10	2	< 10	6	18					
DM-82	0.03	0.024	0.024	0.18	< 2	2	74	< 0.01	< 20	4	< 2	< 10	2	< 10	6	14					
DM-83	0.04	0.022	0.025	0.72	< 2	2	70	< 0.01	< 20	< 1	< 2	< 10	1	< 10	5	14					
DM-84	0.01	0.021	0.025	0.50	2	1	15	< 0.01	< 20	1	< 2	< 10	2	< 10	4	14					
DM-85	0.02	0.021	0.027	0.38	2	1	14	< 0.01	< 20	2	< 2	< 10	3	< 10	5	16					
DM-111	2.03	0.095	0.047	1.11	< 2	7	140	< 0.01	< 20	< 1	< 2	< 10	33	< 10	20	7					
DM-112	0.16	0.044	0.012	1.67	< 2	2	53	< 0.01	< 20	< 1	< 2	< 10	12	< 10	3	2					
DM-113	0.15	0.048	0.056	0.50	< 2	4	60	< 0.01	< 20	< 1	< 2	< 10	2	< 10	12	8					

Results

Activation Laboratories Ltd.

Report: A17-10633

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
DM-114	0.15	0.020	0.002	0.13	< 2	< 1	2790	< 0.01	< 20	1	< 2	< 10	4	< 10	< 1	< 1					
DM-115	4.21	0.020	0.008	0.06	< 2	< 1	1110	< 0.01	< 20	< 1	< 2	< 10	4	< 10	3	< 1					
DM-116	3.70	0.016	0.004	0.89	< 2	< 1	943	< 0.01	< 20	< 1	< 2	< 10	29	< 10	6	< 1					
DM-117	0.84	0.091	0.055	0.02	< 2	5	71	< 0.01	< 20	< 1	< 2	< 10	5	< 10	15	10					
DM-118	0.46	0.039	0.025	< 0.01	< 2	1	131	< 0.01	< 20	< 1	< 2	< 10	23	< 10	4	2					
DM-119	1.61	0.087	0.091	0.05	< 2	5	162	< 0.01	< 20	< 1	< 2	< 10	80	< 10	8	2					
DM-120	0.37	0.070	0.059	0.21	< 2	4	50	< 0.01	< 20	< 1	< 2	< 10	3	< 10	11	7					
DM-121	0.02	0.036	0.011	16.2	57	< 1	12	< 0.01	< 20	< 1	< 2	< 10	23	< 10	3	13					
DM-122	0.03	0.087	0.172	3.06	12	1	132	0.02	< 20	1	< 2	< 10	30	< 10	2	7					
DM-123	0.37	1.21	0.081	0.56	9	5	158	< 0.01	< 20	< 1	< 2	< 10	68	< 10	27	18					
DM-124	0.06	0.026	0.006	0.32	7	< 1	61	< 0.01	< 20	2	< 2	< 10	1	< 10	7	28					
DM-125	0.05	0.019	0.029	1.36	11	1	13	< 0.01	< 20	< 1	2	< 10	12	< 10	5	30					
DM-126	0.03	0.017	0.051	14.0	47	1	5	< 0.01	< 20	< 1	7	< 10	9	< 10	5	15	12.4		1.34		
DM-127	0.01	0.016	0.011	2.69	> 10000	< 1	23	< 0.01	< 20	3	< 2	< 10	2	< 10	< 1	1	25.3	210	1.79	6.94	1.71
DM-128	0.16	0.014	0.003	3.04	47	2	3	< 0.01	< 20	5	< 2	< 10	6	< 10	4	5					
DM-129	0.01	0.021	0.017	0.22	436	2	16	< 0.01	< 20	< 1	< 2	< 10	7	< 10	2	2	15.2				
DM-130	< 0.01	0.016	0.001	4.70	44	< 1	1	< 0.01	< 20	6	< 2	< 10	1	< 10	< 1	2		110			1.47
DM-131	< 0.01	0.015	< 0.001	1.45	21	< 1	8	< 0.01	< 20	< 1	< 2	< 10	1	< 10	< 1	1					
DM-132	0.03	0.015	0.002	5.01	206	< 1	2	< 0.01	< 20	5	< 2	< 10	2	< 10	< 1	2		171			3.35
DM-133	0.19	0.014	0.013	0.26	27	< 1	743	< 0.01	< 20	< 1	< 2	< 10	5	< 10	7	3					
DM-134	0.25	0.014	0.017	0.50	11	< 1	287	< 0.01	< 20	3	< 2	< 10	10	< 10	2	5					
DM-135	0.07	0.068	0.052	0.24	< 2	1	78	0.05	< 20	< 1	< 2	< 10	7	< 10	7	10					
DM-136	0.02	0.095	0.005	< 0.01	3	< 1	15	< 0.01	< 20	< 1	< 2	< 10	2	< 10	5	29					
DM-137	0.49	0.040	0.062	0.87	< 2	10	294	< 0.01	< 20	< 1	< 2	< 10	40	< 10	8	2					
DM-138	0.01	0.022	0.006	0.10	5	< 1	360	< 0.01	< 20	2	< 2	< 10	17	< 10	2	< 1					
DM-139	< 0.01	0.017	0.024	13.8	107	< 1	6	< 0.01	< 20	< 1	< 2	< 10	7	1550	1	7					
DM-140	0.02	0.020	0.010	0.92	11	< 1	112	< 0.01	< 20	2	< 2	< 10	11	< 10	< 1	1					
DM-141	0.03	0.022	0.003	1.21	6	< 1	145	< 0.01	< 20	4	< 2	< 10	1	< 10	2	1					
DM-142	0.09	0.019	0.042	0.01	9	3	83	< 0.01	< 20	< 1	< 2	< 10	13	< 10	12	2					
DM-143	0.02	0.023	0.015	< 0.01	17	1	7	< 0.01	< 20	< 1	< 2	< 10	7	< 10	1	< 1					
AGKM-01	0.02	0.015	0.010	2.13	11	< 1	247	< 0.01	< 20	< 1	< 2	< 10	12	< 10	2	2					
AGKM-02	0.03	0.020	0.013	0.09	6	< 1	317	< 0.01	< 20	< 1	< 2	< 10	9	< 10	3	< 1					
AGKM-03	0.06	0.080	0.030	0.10	4	< 1	21	< 0.01	< 20	< 1	< 2	< 10	6	< 10	2	3					
AGKM-04	0.68	0.036	0.129	0.12	< 2	3	285	< 0.01	< 20	< 1	< 2	< 10	18	< 10	7	2					
AGKM-05	0.19	0.044	0.192	0.78	< 2	3	28	< 0.01	< 20	1	< 2	< 10	15	< 10	5	2					
AGKM-06	0.08	0.025	0.043	0.10	3	3	610	< 0.01	< 20	< 1	< 2	< 10	8	< 10	8	2					
AGKM-07	0.03	0.039	0.019	< 0.01	< 2	2	24	< 0.01	< 20	< 1	< 2	< 10	6	< 10	5	2					
AGKM-08	0.32	0.037	0.055	1.24	5	3	17	< 0.01	< 20	2	< 2	< 10	19	< 10	5	5					
AGKM-09	0.83	0.070	0.115	1.31	4	7	154	< 0.01	< 20	< 1	< 2	< 10	97	< 10	10	3					
AGKM-10	0.18	0.053	0.070	1.87	4	2	124	< 0.01	< 20	< 1	< 2	< 10	17	< 10	7	7					
AGKM-11	0.01	0.029	0.014	0.05	3	< 1	150	< 0.01	< 20	< 1	< 2	< 10	5	< 10	6	< 1					

Results

Activation Laboratories Ltd.

Report: A17-10633

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
AGKM-12	0.53	0.015	0.020	1.70	6	4	320	0.02	< 20	< 1	< 2	< 10	73	< 10	5	4					
AGKM-13	0.63	0.017	0.057	1.80	5	2	605	< 0.01	< 20	< 1	3	< 10	21	< 10	7	6					
AGKM-14	0.43	0.018	0.024	1.20	4	3	352	< 0.01	< 20	< 1	7	< 10	38	11	6	2					
AGKM-15	0.07	0.036	0.085	0.80	16	2	37	< 0.01	< 20	< 1	< 2	< 10	11	< 10	5	5					
AGKM-16	2.27	0.030	0.187	0.78	< 2	5	602	< 0.01	< 20	< 1	< 2	< 10	63	< 10	14	3					
AGKM-17	0.51	0.032	0.049	0.84	3	3	462	< 0.01	< 20	< 1	< 2	< 10	24	< 10	8	3					
AGKM-12a	0.43	0.021	0.033	1.35	3	1	648	< 0.01	< 20	< 1	< 2	< 10	12	< 10	7	4					
AGKM-14a	0.01	0.068	0.067	0.28	3	1	567	< 0.01	< 20	< 1	2	< 10	6	< 10	2	3					
GGKM-01	0.01	0.023	0.024	0.01	< 2	1	35	< 0.01	< 20	< 1	< 2	< 10	2	< 10	4	3					
GGKM-02	0.06	0.020	0.056	10.9	14	2	17	< 0.01	< 20	< 1	5	< 10	23	< 10	4	19					
GGKM-03	< 0.01	0.024	0.003	0.09	2	< 1	14	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	3	23					
GGKM-04	0.03	0.019	0.048	2.02	28	1	9	< 0.01	< 20	< 1	28	< 10	14	< 10	2	10					
GGKM-05	0.01	0.019	0.051	1.23	8	2	12	< 0.01	< 20	< 1	8	< 10	6	< 10	6	12					
GGKM-06	1.89	0.020	0.030	0.65	< 2	4	482	< 0.01	< 20	< 1	< 2	< 10	32	< 10	12	3					
GGKM-07	0.58	0.025	0.061	0.49	2	6	100	< 0.01	< 20	1	< 2	< 10	21	< 10	5	5					
GGKM-08	0.09	0.028	0.050	0.02	< 2	5	463	< 0.01	< 20	2	< 2	< 10	8	< 10	21	1					
GGKM-09	0.21	0.018	0.070	0.84	7	6	386	< 0.01	< 20	1	< 2	< 10	21	< 10	16	2					
GGKM-10	0.16	0.027	0.011	0.03	19	1	160	< 0.01	< 20	3	< 2	< 10	53	< 10	5	4					
GGKM-11	< 0.01	0.025	0.002	0.71	< 2	< 1	7	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	1	17					
GGKM-12	0.06	0.031	0.031	1.76	3	1	11	< 0.01	< 20	< 1	< 2	< 10	10	13	3	8					2.24
GGKM-13	< 0.01	0.024	0.008	0.08	< 2	< 1	7	< 0.01	< 20	3	< 2	< 10	1	< 10	3	52					
GGKM-14	0.02	0.019	0.003	9.37	9	< 1	2	< 0.01	< 20	6	3	< 10	2	< 10	3	31					
GGKM-15	< 0.01	0.025	0.004	0.11	2	< 1	4	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	3	23					
GGKM-16	< 0.01	0.021	0.006	10.9	14	< 1	3	< 0.01	< 20	2	< 2	< 10	2	< 10	4	49					
GGKM-17	0.19	0.026	0.055	0.07	12	3	32	< 0.01	< 20	< 1	< 2	< 10	19	< 10	5	4					
GGKM-18	< 0.01	0.022	0.007	1.33	3	< 1	5	< 0.01	< 20	< 1	< 2	< 10	2	91	1	2					
RRKM-01	1.43	0.022	0.026	0.11	3	3	352	< 0.01	< 20	< 1	< 2	< 10	24	< 10	14	2					
RRKM-02	2.71	0.024	0.028	0.06	< 2	3	485	< 0.01	< 20	< 1	< 2	< 10	25	< 10	17	2					
RRKM-03	1.87	0.026	0.025	0.05	3	4	460	< 0.01	< 20	< 1	< 2	< 10	24	< 10	15	2					
RRKM-04	4.39	0.023	0.006	0.02	< 2	7	713	< 0.01	< 20	< 1	< 2	< 10	10	< 10	16	1					
RRKM-05	3.36	0.021	0.021	0.14	< 2	10	483	< 0.01	< 20	< 1	< 2	< 10	32	< 10	15	1					
RRKM-06	2.54	0.034	0.094	0.66	6	3	360	< 0.01	< 20	< 1	< 2	< 10	77	< 10	20	4					
RRKM-07	0.60	0.049	0.045	0.49	3	3	185	< 0.01	< 20	< 1	< 2	< 10	29	< 10	9	2					
RRKM-08	2.08	0.018	0.012	0.13	3	12	507	< 0.01	< 20	< 1	< 2	< 10	21	< 10	64	1					
RRKM-09	1.00	0.040	0.043	0.06	3	4	184	< 0.01	< 20	< 1	< 2	< 10	26	< 10	13	1					
RRKM-10	0.57	0.019	0.010	0.51	< 2	2	398	< 0.01	< 20	< 1	< 2	< 10	8	< 10	8	< 1					
RRKM-11	0.30	0.023	0.019	0.15	3	2	520	< 0.01	< 20	< 1	< 2	< 10	16	< 10	7	< 1					
RRKM-12	0.23	0.080	0.048	0.02	< 2	9	62	< 0.01	< 20	3	< 2	< 10	8	< 10	25	6					
RRKM-13	2.13	0.017	0.008	0.01	< 2	14	204	< 0.01	< 20	< 1	< 2	< 10	18	< 10	23	2					
RRKM-14	1.90	0.028	0.035	0.04	3	4	266	< 0.01	< 20	< 1	< 2	< 10	20	< 10	12	2					
RRKM-31	0.50	0.167	0.047	0.27	< 2	4	139	< 0.01	< 20	< 1	< 2	< 10	5	< 10	11	12					
RRKM-32	0.13	0.110	0.052	0.19	< 2	3	84	< 0.01	< 20	< 1	< 2	< 10	3	< 10	9	9					

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
RRKM-33	1.85	0.097	0.023	0.96	< 2	8	16	< 0.01	< 20	< 1	< 2	< 10	117	< 10	2	4					
RRKM-34	1.58	0.125	0.112	0.70	< 2	10	33	0.15	< 20	< 1	< 2	< 10	95	< 10	9	13					
RRKM-35	1.76	0.115	0.110	2.66	< 2	14	38	0.32	< 20	< 1	< 2	< 10	115	< 10	14	19					
RRKM-36	1.38	0.032	0.093	0.11	3	8	209	0.02	< 20	< 1	< 2	< 10	87	< 10	16	4					
RRKM-37	1.54	0.102	0.084	0.45	< 2	14	84	0.34	< 20	< 1	< 2	< 10	127	< 10	15	13					
RRKM-38	1.30	0.112	0.112	1.56	< 2	13	45	0.34	< 20	3	< 2	< 10	95	< 10	13	20					
VKM-01	0.03	0.022	0.010	0.05	15	< 1	216	< 0.01	< 20	< 1	< 2	< 10	16	< 10	5	6					
VKM-02	0.03	0.036	0.008	1.94	22	2	8	< 0.01	< 20	< 1	< 2	< 10	19	< 10	2	13					
VKM-03	0.11	0.029	0.022	1.76	22	3	10	< 0.01	< 20	< 1	2	< 10	27	< 10	3	10					
VKM-04	0.01	0.033	0.020	2.62	25	1	8	< 0.01	< 20	< 1	< 2	< 10	10	< 10	1	11					
VKM-05	0.31	0.023	0.063	5.56	48	3	16	< 0.01	< 20	< 1	< 2	< 10	49	< 10	6	19					
VKM-06	0.11	0.020	0.032	0.02	12	5	9	< 0.01	< 20	< 1	< 2	< 10	61	< 10	5	3					
VKM-07	0.16	0.020	0.008	5.39	87	10	13	< 0.01	< 20	< 1	5	< 10	100	< 10	2	17					
VKM-08	0.71	0.021	0.112	0.04	5	16	118	< 0.01	< 20	< 1	< 2	< 10	136	< 10	12	6					
VKM-09	0.07	0.029	0.130	0.38	21	3	24	< 0.01	< 20	< 1	< 2	< 10	43	< 10	4	6					
VKM-16	0.06	0.030	0.121	0.18	12	4	20	< 0.01	< 20	1	< 2	< 10	53	< 10	6	6					
VKM-17	0.07	0.031	0.015	1.32	157	7	13	< 0.01	< 20	< 1	< 2	< 10	109	< 10	< 1	3					
VKM-18	0.01	0.025	0.063	12.0	20	1	9	< 0.01	< 20	< 1	6	< 10	19	< 10	3	24					
VKM-19	0.02	0.033	0.112	0.95	12	3	17	< 0.01	< 20	< 1	< 2	< 10	34	< 10	3	4					
RSKM-01	0.60	0.027	0.067	0.04	4	6	30	< 0.01	< 20	< 1	< 2	< 10	55	< 10	11	2					

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas		25.6	2.1	1030	790	12	29	579	637	0.31	341	< 10	192	0.7	1280	0.71	4	6	20.1	< 10	2	0.03	< 10
GXR-1 Cert		31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90	0.050	7.50
GXR-1 Meas		29.8	2.4	1090	822	13	36	603	659	0.33	367	< 10	172	0.8	1360	0.74	5	6	21.6	< 10	2	0.03	< 10
GXR-1 Cert		31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90	0.050	7.50
GXR-4 Meas		3.0	< 0.5	6080	134	290	33	39	65	2.55	91	< 10	36	1.3	17	0.81	12	52	2.80	< 10	< 1	1.58	44
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-4 Meas		3.2	< 0.5	6530	146	308	36	42	70	2.75	99	< 10	40	1.4	12	0.87	12	56	3.02	10	< 1	1.71	48
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.2	< 0.5	62	1000	1	18	86	114	6.37	222	< 10	882	0.9	< 2	0.16	11	74	5.02	20	< 1	1.00	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	65	1070	1	20	89	119	6.76	233	< 10	952	0.9	< 2	0.17	12	79	5.27	20	< 1	1.08	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
CDN-SE-1 Meas																							
CDN-SE-1 Cert																							
CDN-SE-1 Meas																							
CDN-SE-1 Cert																							
MP-1b Meas																							
MP-1b Cert																							
OxQ75 Meas																							
OxQ75 Cert																							
OxQ75 Meas																							
OxQ75 Cert																							
OxQ75 Meas																							
OxQ75 Cert																							
CPB-2 Meas																							
CPB-2 Cert																							
CZN-4 Meas																							
CZN-4 Cert																							
SQ47 Meas																							
SQ47 Cert																							
OxK110 Meas																							
OxK110 Cert																							
OXN117 Meas																							
OXN117 Cert																							
SdAR-M2 (U.S.G.S.) Meas			5.1	239		13	44	794	823				121	4.7	< 2		12	9		< 10	< 1		43
SdAR-M2 (U.S.G.S.) Cert			5.1	236.00 00		13	49	808	760				990	6.6	1.05		12.4	49.6		17.6	1.44		46.6
CCU-1e Meas																							
CCU-1e Cert																							
OREAS 214 Meas	2910																						
OREAS 214 Cert	3030																						
OREAS 214 Meas	2900																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 214 Cert	3030																						
OREAS 214 Meas	3040																						
OREAS 214 Cert	3030																						
OREAS 214 Meas	2870																						
OREAS 214 Cert	3030																						
OREAS 218 Meas	526																						
OREAS 218 Cert	531																						
OREAS 218 Meas	511																						
OREAS 218 Cert	531																						
OREAS 218 Meas	537																						
OREAS 218 Cert	531																						
OREAS 218 Meas	530																						
OREAS 218 Cert	531																						
OREAS 218 Meas	512																						
OREAS 218 Cert	531																						
OREAS 218 Meas	525																						
OREAS 218 Cert	531																						
A17-36 Orig	7																						
A17-36 Dup	6																						
A17-39 Orig		3.8	1.8	27	855	2	4	11	218	1.51	72	< 10	314	0.6	< 2	0.17	5	5	5.21	< 10	< 1	0.49	34
A17-39 Dup		3.6	1.8	27	835	2	4	10	215	1.47	69	< 10	301	0.6	< 2	0.16	5	4	5.14	< 10	< 1	0.47	33
A17-126 Orig	< 5																						
A17-126 Dup	< 5																						
A17-128 Orig		< 0.2	< 0.5	10	72	2	< 1	3	10	0.34	15	< 10	181	< 0.5	< 2	0.62	< 1	10	1.12	< 10	< 1	0.16	< 10
A17-128 Dup		< 0.2	< 0.5	11	78	2	< 1	3	10	0.35	15	< 10	186	< 0.5	< 2	0.64	< 1	11	1.14	< 10	< 1	0.16	< 10
A17-131 Orig	< 5																						
A17-131 Dup	5																						
A17-141 Orig		1.2	42.4	8	4030	11	5	575	6030	0.40	298	< 10	25	< 0.5	< 2	9.54	11	10	3.36	< 10	3	0.02	< 10
A17-141 Dup		1.1	41.7	8	3990	11	8	565	5960	0.39	295	< 10	26	< 0.5	< 2	9.47	11	10	3.34	< 10	3	0.02	< 10
A17-146 Orig	9																						
A17-146 Dup	8																						
DM-43 Orig	< 5	< 0.2	< 0.5	3	1460	3	2	< 2	10	0.40	35	< 10	86	< 0.5	< 2	3.56	1	6	1.42	< 10	< 1	0.22	25
DM-43 Split PREP DUP	< 5	< 0.2	< 0.5	2	1430	3	< 1	5	10	0.46	37	< 10	98	< 0.5	< 2	3.52	< 1	5	1.45	< 10	< 1	0.25	23
DM-46 Orig		24.8	0.6	> 10000	246	2	7	5	35	0.36	29	< 10	17	< 0.5	12	0.38	6	10	3.83	< 10	< 1	0.14	< 10
DM-46 Dup		24.9	0.6	> 10000	248	2	6	6	35	0.38	30	< 10	22	< 0.5	< 2	0.38	6	11	3.84	< 10	< 1	0.15	< 10
DM-52 Orig	< 5																						
DM-52 Dup	< 5																						
DM-57 Orig	< 5																						
DM-57 Dup	< 5																						
DM-81 Orig		< 0.2	< 0.5	19	710	2	< 1	2	7	0.30	< 2	< 10	125	< 0.5	< 2	0.73	1	16	1.46	< 10	< 1	0.30	30
DM-81 Dup		< 0.2	< 0.5	20	699	2	1	2	7	0.29	2	< 10	147	< 0.5	< 2	0.71	1	19	1.41	< 10	< 1	0.29	30
DM-84 Orig	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-84 Dup	< 5																						
DM-120 Orig		< 0.2	< 0.5	8	301	3	< 1	< 2	11	1.41	25	14	210	0.7	< 2	0.27	3	5	2.79	< 10	< 1	0.43	32
DM-120 Dup		< 0.2	< 0.5	7	301	3	< 1	< 2	11	1.43	24	14	211	0.7	< 2	0.27	3	5	2.81	< 10	< 1	0.42	32
DM-124 Orig	3210																						
DM-124 Dup	2800																						
DM-127 Orig																							
DM-127 Dup																							
DM-129 Orig	> 5000																						
DM-129 Dup	> 5000																						
DM-130 Orig	638	> 100	246	212	469	2	2	2240	> 10000	0.05	6310	< 10	< 10	< 0.5	247	0.02	14	18	5.86	< 10	< 1	0.03	< 10
DM-130 Split PREP DUP	544	> 100	208	172	398	1	1	1950	> 10000	0.06	5700	< 10	< 10	< 0.5	219	0.02	13	12	5.29	< 10	< 1	0.03	< 10
DM-130 Orig																							
DM-130 Split PREP DUP																							
DM-132 Orig		> 100	546	719	1070	1	2	3140	> 10000	0.08	794	< 10	< 10	< 0.5	293	0.05	9	18	6.87	< 10	< 1	0.04	< 10
DM-132 Dup		> 100	539	709	1060	1	4	3100	> 10000	0.07	787	< 10	< 10	< 0.5	288	0.05	9	19	6.82	< 10	< 1	0.04	< 10
DM-143 Orig	5																						
DM-143 Dup	11																						
AGKM-03 Orig		7.7	12.7	5	758	2	< 1	2210	5660	0.36	10	< 10	292	< 0.5	6	0.42	3	14	1.53	< 10	2	0.13	< 10
AGKM-03 Dup		7.7	12.8	5	765	2	1	2240	5680	0.36	9	< 10	295	< 0.5	6	0.42	3	15	1.55	< 10	3	0.13	< 10
AGKM-15 Orig	7																						
AGKM-15 Dup	6																						
GGKM-01 Orig	< 5																						
GGKM-01 Dup	< 5																						
GGKM-02 Orig		8.9	< 0.5	116	369	27	11	415	58	0.80	389	< 10	< 10	< 0.5	< 2	0.34	63	5	11.5	< 10	< 1	0.61	< 10
GGKM-02 Dup		8.9	< 0.5	116	365	27	9	415	58	0.82	390	< 10	< 10	< 0.5	< 2	0.34	63	4	11.5	< 10	< 1	0.62	< 10
GGKM-12 Orig																							
GGKM-12 Dup																							
GGKM-16 Orig	1940	15.6	1.2	59	469	31	8	671	145	0.36	651	< 10	< 10	< 0.5	25	0.02	107	5	10.5	< 10	< 1	0.33	13
GGKM-16 Dup	1910	15.3	1.0	59	463	31	9	658	142	0.36	640	< 10	< 10	< 0.5	25	0.02	106	6	10.4	< 10	< 1	0.34	13
GGKM-18 Orig	191	1.2	0.6	9	713	2	2	46	57	0.09	114	< 10	46	< 0.5	3	0.02	8	17	3.05	< 10	< 1	0.06	< 10
GGKM-18 Split PREP DUP	248	1.6	< 0.5	8	724	2	2	50	45	0.09	107	< 10	57	< 0.5	6	0.02	7	15	2.86	< 10	< 1	0.05	< 10
RRKM-10 Orig		< 0.2	< 0.5	32	2280	1	13	3	6	0.31	18	< 10	48	< 0.5	< 2	> 10.0	7	13	3.02	< 10	< 1	0.11	< 10
RRKM-10 Dup		< 0.2	< 0.5	32	2240	1	13	2	7	0.30	17	< 10	48	< 0.5	< 2	> 10.0	7	13	2.96	< 10	< 1	0.11	< 10
RRKM-12 Orig	< 5																						
RRKM-12 Dup	< 5																						
RRKM-33 Orig	< 5																						
RRKM-33 Dup	< 5																						
VKM-02 Orig		1.5	0.7	9	192	3	2	61	99	0.56	134	< 10	26	< 0.5	< 2	0.02	5	10	2.84	< 10	< 1	0.53	16
VKM-02 Dup		1.6	0.8	10	197	4	1	62	102	0.58	140	< 10	30	< 0.5	< 2	0.02	5	10	2.94	< 10	< 1	0.55	17
VKM-16 Orig	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
VKM-16 Dup	< 5																						
RSKM-01 Orig		0.3	< 0.5	78	1120	4	43	5	34	1.47	7	< 10	78	0.7	< 2	0.74	11	25	4.78	< 10	< 1	0.42	16
RSKM-01 Dup		0.3	< 0.5	75	1080	4	40	5	35	1.43	7	< 10	76	0.7	< 2	0.71	11	24	4.62	< 10	< 1	0.41	16
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank		< 0.2	< 0.5	2	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
GXR-1 Meas	0.12	0.043	0.036	0.17	63	< 1	146	< 0.01	< 20	13	< 2	26	71	115	22	12					
GXR-1 Cert	0.217	0.0520	0.0650	0.257	122	1.58	275	0.036	2.44	13.0	0.390	34.9	80.0	164	32.0	38.0					
GXR-1 Meas	0.12	0.044	0.039	0.17	68	1	155	< 0.01	< 20	13	< 2	28	76	122	23	13					
GXR-1 Cert	0.217	0.0520	0.0650	0.257	122	1.58	275	0.036	2.44	13.0	0.390	34.9	80.0	164	32.0	38.0					
GXR-4 Meas	1.44	0.125	0.115	1.54	2	6	72	0.12	< 20	< 1	< 2	< 10	72	< 10	11	8					
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186					
GXR-4 Meas	1.55	0.135	0.124	1.66	< 2	7	77	0.13	< 20	< 1	< 2	< 10	78	< 10	12	9					
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186					
GXR-6 Meas	0.35	0.070	0.031	0.01	4	22	33		< 20	< 1	< 2	< 10	155	< 10	6	14					
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110					
GXR-6 Meas	0.38	0.074	0.033	0.01	3	24	36		< 20	< 1	< 2	< 10	164	< 10	7	16					
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110					
CDN-SE-1 Meas																		638			
CDN-SE-1 Cert																		712			
CDN-SE-1 Meas																		740			
CDN-SE-1 Cert																		712			
MP-1b Meas																			3.07	2.16	17.0
MP-1b Cert																			3.07	2.09	16.7
OxQ75 Meas																		157			
OxQ75 Cert																		153.9			
OxQ75 Meas																		154			
OxQ75 Cert																		153.9			
OxQ75 Meas																		167			
OxQ75 Cert																		153.9			
CPB-2 Meas																			0.123	63.9	5.93
CPB-2 Cert																			0.1213	63.52	6.04
CZN-4 Meas																			0.416	0.181	56.1
CZN-4 Cert																			0.403	0.1861	55.07
SQ47 Meas																		130			
SQ47 Cert																		122.3			
OxK110 Meas																	3.65				
OxK110 Cert																	3.602				
OXN117 Meas																	7.46				
OXN117 Cert																	7.679				
SdAR-M2 (U.S.G.S.) Meas						2	22		< 20			< 10	17	< 10	17	7					
SdAR-M2 (U.S.G.S.) Cert						4.1	144		14.2			2.53	25.2	2.8	32.7	259					
CCU-1e Meas																				0.671	2.92
CCU-1e Cert																				0.703	3.02
OREAS 214 Meas																					
OREAS 214 Cert																					

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn	
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%	
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001	
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES	
OREAS 214 Meas																						
OREAS 214 Cert																						
OREAS 214 Meas																						
OREAS 214 Cert																						
OREAS 214 Meas																						
OREAS 214 Cert																						
OREAS 218 Meas																						
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OREAS 218 Cert																						
OREAS 218 Meas																						
OREAS 218 Cert																						
OREAS 218 Meas																						
OREAS 218 Cert																						
OREAS 218 Meas																						
OREAS 218 Cert																						
A17-36 Orig																						
A17-36 Dup																						
A17-39 Orig	0.16	0.029	0.057	0.14	17	4	15	< 0.01	< 20	3	< 2	< 10	33	< 10	5	3						
A17-39 Dup	0.16	0.026	0.055	0.14	16	4	14	< 0.01	< 20	< 1	< 2	< 10	32	< 10	5	3						
A17-126 Orig																						
A17-126 Dup																						
A17-128 Orig	0.10	0.124	0.070	0.04	< 2	< 1	137	< 0.01	< 20	< 1	< 2	< 10	15	< 10	1	2						
A17-128 Dup	0.10	0.127	0.071	0.04	< 2	< 1	139	< 0.01	< 20	< 1	< 2	< 10	15	< 10	1	2						
A17-131 Orig																						
A17-131 Dup																						
A17-141 Orig	0.10	0.015	0.012	1.08	5	1	439	< 0.01	< 20	< 1	5	< 10	10	< 10	4	2						
A17-141 Dup	0.10	0.016	0.012	1.11	5	1	441	< 0.01	< 20	1	5	< 10	9	< 10	4	2						
A17-146 Orig																						
A17-146 Dup																						
DM-43 Orig	0.03	0.078	0.027	0.04	< 2	5	166	< 0.01	< 20	1	< 2	< 10	< 1	< 10	26	10						
DM-43 Split PREP DUP	0.04	0.089	0.026	0.04	< 2	5	166	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	26	10						
DM-46 Orig	0.12	0.022	0.016	2.55	2	< 1	23	< 0.01	< 20	< 1	< 2	< 10	2	< 10	3	4						
DM-46 Dup	0.12	0.021	0.016	2.71	< 2	< 1	24	< 0.01	< 20	< 1	< 2	< 10	1	< 10	3	4						
DM-52 Orig																						
DM-52 Dup																						
DM-57 Orig																						
DM-57 Dup																						
DM-81 Orig	0.02	0.021	0.028	0.51	< 2	2	20	< 0.01	< 20	< 1	< 2	< 10	2	< 10	6	17						

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Ag	Cu	Pb	Zn
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	g/tonne	%	%	%
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.03	3	0.001	0.003	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA- GRA	FA- GRA	ICP- OES	ICP- OES	ICP- OES
DM-81 Dup	0.02	0.021	0.027	0.50	< 2	2	19	< 0.01	< 20	< 1	< 2	< 10	2	< 10	6	18					
DM-84 Orig																					
DM-84 Dup																					
DM-120 Orig	0.36	0.069	0.059	0.21	< 2	4	50	< 0.01	< 20	< 1	< 2	< 10	4	< 10	11	7					
DM-120 Dup	0.37	0.071	0.059	0.21	< 2	4	49	< 0.01	< 20	< 1	< 2	< 10	3	< 10	11	7					
DM-124 Orig																					
DM-124 Dup																					
DM-127 Orig																		211			
DM-127 Dup																		208			
DM-129 Orig																					
DM-129 Dup																					
DM-130 Orig	< 0.01	0.016	0.001	4.70	44	< 1	1	< 0.01	< 20	6	< 2	< 10	1	< 10	< 1	2		110	0.021	0.208	1.47
DM-130 Split PREP DUP	< 0.01	0.018	0.002	4.16	46	< 1	< 1	< 0.01	< 20	3	< 2	< 10	1	< 10	< 1	2		92	0.015	0.175	1.16
DM-130 Orig																			118		
DM-130 Split PREP DUP																			92		
DM-132 Orig	0.03	0.016	0.002	5.16	208	< 1	2	< 0.01	< 20	4	< 2	< 10	2	< 10	< 1	2					
DM-132 Dup	0.03	0.014	0.002	4.86	205	< 1	2	< 0.01	< 20	5	< 2	< 10	2	< 10	< 1	2					
DM-143 Orig																					
DM-143 Dup																					
AGKM-03 Orig	0.06	0.080	0.029	0.10	4	< 1	21	< 0.01	< 20	1	< 2	< 10	6	< 10	2	3					
AGKM-03 Dup	0.06	0.080	0.030	0.10	4	< 1	21	< 0.01	< 20	< 1	< 2	< 10	6	< 10	2	3					
AGKM-15 Orig																					
AGKM-15 Dup																					
GGKM-01 Orig																					
GGKM-01 Dup																					
GGKM-02 Orig	0.06	0.021	0.056	10.9	15	2	17	< 0.01	< 20	< 1	5	< 10	23	< 10	4	19					
GGKM-02 Dup	0.06	0.020	0.056	10.9	13	2	17	< 0.01	< 20	3	5	< 10	24	< 10	4	19					
GGKM-12 Orig																			0.020	0.013	2.23
GGKM-12 Dup																			0.020	0.013	2.25
GGKM-16 Orig	< 0.01	0.021	0.006	10.9	15	< 1	3	< 0.01	< 20	2	3	< 10	2	< 10	4	49					
GGKM-16 Dup	< 0.01	0.021	0.006	10.8	14	< 1	3	< 0.01	< 20	1	< 2	< 10	2	< 10	4	49					
GGKM-18 Orig	< 0.01	0.022	0.007	1.33	3	< 1	5	< 0.01	< 20	< 1	< 2	< 10	2	91	1	2					
GGKM-18 Split PREP DUP	< 0.01	0.021	0.007	1.25	4	< 1	5	< 0.01	< 20	< 1	< 2	< 10	1	64	1	1					
RRKM-10 Orig	0.58	0.019	0.010	0.51	< 2	2	401	< 0.01	< 20	< 1	< 2	< 10	8	< 10	8	< 1					
RRKM-10 Dup	0.56	0.019	0.009	0.51	< 2	2	395	< 0.01	< 20	< 1	< 2	< 10	8	< 10	8	< 1					
RRKM-12 Orig																					
RRKM-12 Dup																					
RRKM-33 Orig																					
RRKM-33 Dup																					

Appendix II
Sample Locations and Descriptions

Sample #	Coordinates (NAD 83)		Sample type	Description
	Easting	Northing		
DM41	448125	6213337	Grab	Light green grey colored fine grained intrusive. Limonitic weathering and local manganese crust. 5% quartz carbonate veining. No visible sulphides.
DM42	448142	6213332	Grab	Carbonate and limonitic overprinting of intrusive. Some quartz carbonate veining and brecciation with sharp contact to adjacent Wacke. No visible Sulphides.
DM43	448183	6213326	Grab	Pinkish hue on fresh breaks in intrusive with carbonate and limonitic overprinting. Some quartz carbonate veinlets with occasional rusty spots but no visible sulphides.
DM44	448218	6218823	Grab	Quartz carbonate vein in black Shale contains trace pyrite.
DM45	448241	6213348	Grab	Carbonate healed Breccia with lots of limonite in narrow dike. No visible sulphides.
DM46	448303	6213385	Grab	Quartz carbonate vein at dike contact to brecciated Shale contains unevenly distributed chalcopyrite.
DM47	448356	6213376	Grab	Local quartz carbonate stockwork in light grey intrusive shows minor malachite staining and trace arsenopyrite.
DM48	448434	6213496	Grab	Quartz healed Breccia at faulted contact between intrusive dike and Shale. No visible sulphides.
DM49	448434	6213496	Grab	Ground up Shale with gossanous crust from fault. Strike 120/90
DM50	448438	6213498	Grab	Quartz vein with limonite pockets in carbonate limonite overprinted intrusive.
DM51	448452	6213511	Grab	Folded quartz carbonate vein in Shale near dike contact. No visible sulphides.
DM52	448457	6213542	Grab	1m section of argillite with quartz healed brecciation showing trace chalcopyrite in quartz.
DM53	448511	6213560	Float	Angular quartz vein cobble with traces of disseminated pyrite. Several fragments in area may indicate source close by.
DM54	448540	6213456	Grab	Quartz healed argillite Breccia at contact to intrusive dike. No visible sulphides.
DM55	448520	6213323	Grab	Small quartz stockwork in intrusive dike shows hematite staining and manganese crust locally. No visible sulphides.
DM56	448848	6213155	Grab	Quartz veining and Argillite Breccia, 0.5m wide. Trace pyrite and sphalerite in quartz.
DM57	448392	6213099	Grab	Quartz carbonate blowout in Argillite. No visible sulphides.
DM58	448372	6213140	Grab	Narrow Breccia zone in Argillite with fine grained accumulations of pyrite. Trending 70.
DM59	448372	6213140	Grab	Crosscutting quartz vein cuts off mineralisation to the East. Trending 120, barren.
DM60	448372	6213140	Grab	Gossanous quartz carbonate siderite limonite structure also striking 120.
DM61	448368	6213150	Grab	Quartz healed Breccia in Argillite. Trending 70, barren

DM111	448737	6213896	Grab	Light grey fine grained dike with limonitic weathering contains fine disseminated pyrite and galena.
DM112	448746	6213889	Grab	Argillite near contact with dike contains finely disseminated grey sulphides.
DM113	448746	6213889	Grab	Limonite stained dike also contains finely disseminated grey sulphides.
DM114	448721	6213732	Grab	Thin baryte vein along sliver of limestone in intrusive dike. No visible sulphides.
DM115	448717	6213744	Grab	Folded Limestone with thin quartz carbonate veining. Veining contains very fine disseminated grey sulphides.
DM116	448717	6213744	Grab	Carbonate in fold apex is riddled with quartz carbonate veinlets containing uneven disseminations of pyrite sphalerite and rare galena.
DM117	448567	6213765	Grab	Light grey intrusive dike is riddled with limonite covered fractures.
DM118	448624	6213772	Grab	Quartz carbonate veining in Shale with local gossan.
DM119	448604	6213815	Grab	Local quartz carbonate healed Breccia with trace chalcopyrite.
DM120	448681	6213886	Grab	Light grey intrusive dike riddled with quartz chlorite veinlets near Shale contact. Locally very fine disseminated sulphides in intrusive.

Sample Label	UTM Coordinates		Sample Type	Description
	Easting	Northing		
RRKM-01	448,051	6,213,374	Subcrop	Black tuffaceous mudstone/shale with rusty/limonitic carbonate-quartz veins to breccia zones; barite?; tr-1% diss Py
RRKM-02	448,106	6,213,440	Grab	Incipient breccia zones of carbonate-quartz matrix, up to 20 cm wide, cut through black tuffaceous mudstone, gossaneous; tr-0.5% diss Py
RRKM-03	448,096	6,213,509	Grab	Dark grey to black silty turbidites cut by numerous carbonate-quartz veins and veinlets; diss Py tr.-0.5%
RRKM-04	448,148	6,213,533	Grab	Greyish-green, thick bedded volcanoclastics cut by orange-brownish carbonate discontinuous veins and lenses, up to 5-7 cm wide; diss/cubed Py tr.-0.5%
RRKM-05	448,165	6,213,567	Grab	5-30 cm wide irregular zone of carbonate-quartz veining, slightly limonitic/yellowish; locally slickensided; diss Py 1-3%, tr.-0.5% Cpy
RRKM-06	448,189	6,213,636	Grab	Carbonate-quartz lenses and zones of brecciation near the contact between black (tuffaceous?) sediments and andesitic tuff
RRKM-07	448,170	6,213,635	Grab	Zone of strong fracturing, shearing and slickensiding in andesite/dacite tuff with numerous quartz veinlets; diss to

				semimassive Py 1-7%, tr-0.5% Ga, tr. Cpy
RRKM-08	448,200	6,213,649	Grab	About 100 cm wide zone of intense brecciation and quartz-carbonate veining in a footwall of a fault; host rock are black tuffaceous sediments; Py tr.-1%, Ga 2%
RRKM-09	448,226	6,213,716	Grab	About 150 cm wide zone of carbonate-quartz veinig along a fault/shear zone, some brecciation; tr.-1% Py
RRKM-10	448,260	6,213,762	Grab	5-8 cm wide carbonate-quartz vein and associated veinlets in dark grey tuffaceous mudstone/fine grained tuffaceous sediments; blebs of Py 2-4%
RRKM-11	448,250	6,213,834	Grab	White-to-slightly yellowish quartz-carbonate vein along a fault/shear zon; tr. Py
RRKM-12	448,261	6,213,851	Grab	Orange weathered carbonate vein-to-breccia at the contact between folded black sedimets (tuffaceous?) and massive andesite volcanics
RRKM-13	448,322	6,213,937	Subcrop	Rusty-orange carbonate-quartz vein-to-breccia in dark grey tuffaceous sediments; limonite and goethite; no visible sulphides
RRKM-14	448,381	6,214,073	Grab	A zone of rusty-orange carbonate-quartz veins, discontinuous, at length of approximatelt 5 m; no visible sulphide mineralization
RRKM-31	448,688	6,214,094	Grab	Pale greenish andesite/dacite dyke, about 1.6 m wide, cutting throughou thin to medium bedded black to grey calcareous, fine grained sediments; slightly gossaneous and fractured; Py cubed and along fractures 2-3%
RRKM-32	448,738	6,214,122	Grab	Pale greenish andesite/dacite dyke, about 1.4 m wide, cutting throughou thin to medium bedded black to grey calcareous, fine grained sediments; slightly gossaneous and fractured, associated quartz veinlets; diss and fracture-controlled Py 2-3%
RRKM-33	448,782	6,213,965	Grab	Black to dark grey tuffaceous/calcareous sediments, slightly siliceous and strongly fractured; diss Py 1-1.5%
RRKM-34	448,862	6,213,940	Grab	Pale greenish-grey, coarse andesite/dacite Tuff, slightly siliceous, strongly gossaneous along fractures; diss Py 0.5-1.5%
RRKM-35	449,007	6,213,999	Grab	Grey, crystal-rich andesite/dacite metatuff (or flow), moderately silicified; Py flood: disseminations and stringers, Py 3-7%, locally up to 7-10%
RRKM-36	449,066	6,214,000	Grab	Irregular lenses (and veins?) of reddish jasperoid/chert/quartz along the contact of grey sediments (calcareous) and dacite; no visible sulphides
RRKM-37	449,061	6,213,934	Grab	Grey, distinctly silicified andesite/dacite metatuff/flow(?) to distinctly fragmental lapilli tuff; diss Py 3-5%
RRKM-38	448,985	6,213,935	Grab	Grey, crystal-rich andesite/dacite metatuff (or flow?), irregular gossaneous patches; diss Py 2-3%

Abbreviations: Py - pyrite, Po - pyrrhotite, Cpy - chalcopyrite, Ga - galena, Sph - Sphalerite; diss - disseminated, tr. - trace

Coordinates (NAD 83)		Sample type	Description
Easting	Northing		
448658	6214167	grab	Siltstone cut by veinlets of limonitic quartz.
448877	6214142	grab	Massive mudstone/limestone with some white-bluish stain on surface.
448984	6214192	grab	Andesite crystall tuff with minor disseminated pyrite, abundant limonite on fractures.
448671	6214180	grab	Quartz vein 20-30 cm wide with minor disseminated pyrite, orientation 330/60 S.
448783	6213869	grab	Grab from dark gray massive chert with some disseminated extremely fine grained sulphides.
448844	6213863	grab	Altered andesitic rock with 5-7% extremely fine grained pyrite. The zone is 15-20 metres in size.



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BRITISH

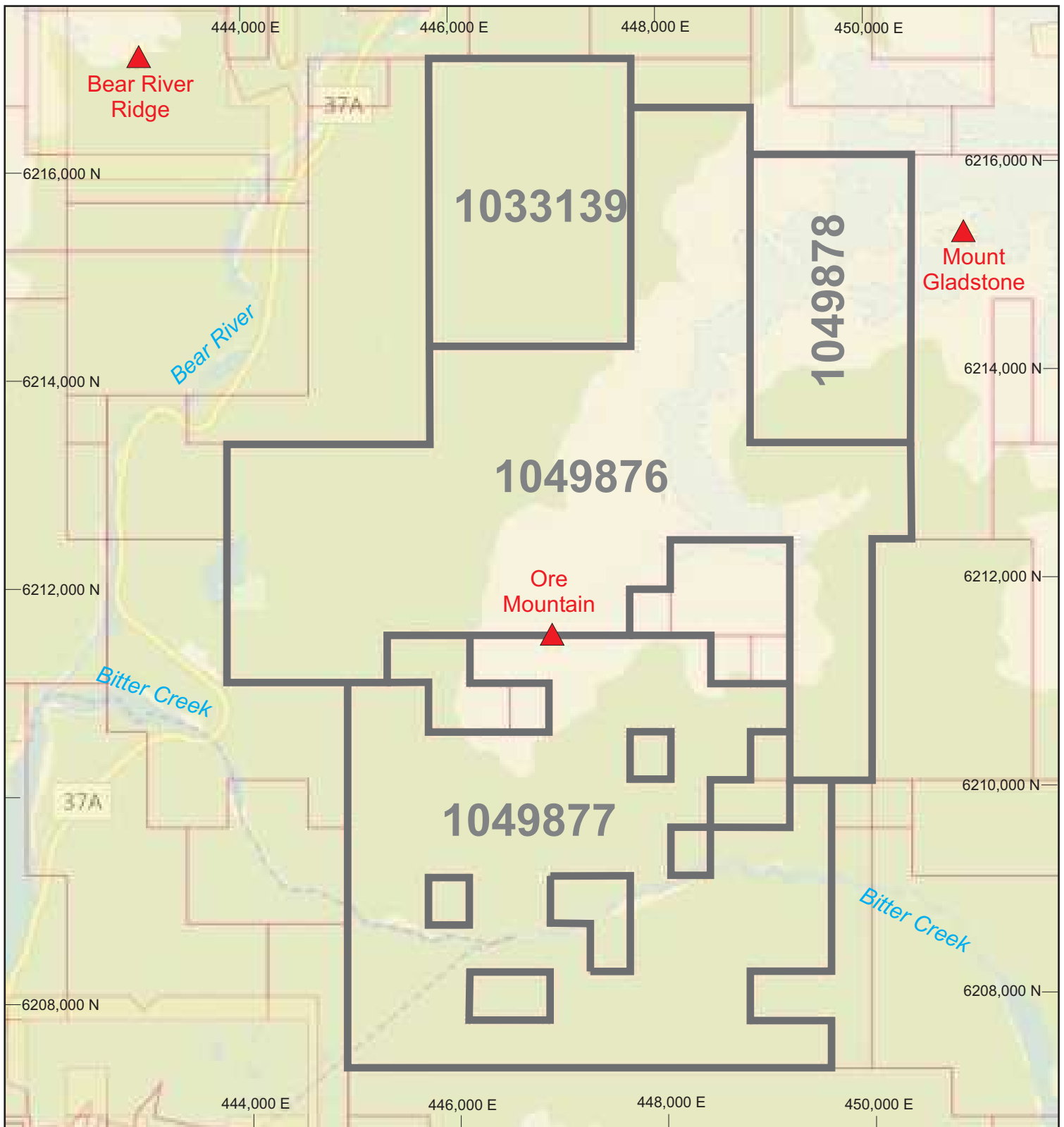
COLUMBIA

PACIFIC

OCEAN

Kilometres
0 50

To accompany report by Ed Kruchkowski	
DECADE RESOURCES LTD.	
RUBY SILVER PROPERTY SKEENA MINING DIVISION, B.C.	
LOCATION MAP	
NTS: 104A/4W	SCALE: As Shown
DATE: Jan., 2018	FIGURE: 1



To accompany report by E. Kruchkowski



2 km



Background map from:
<http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace2/Pages/default.aspx>

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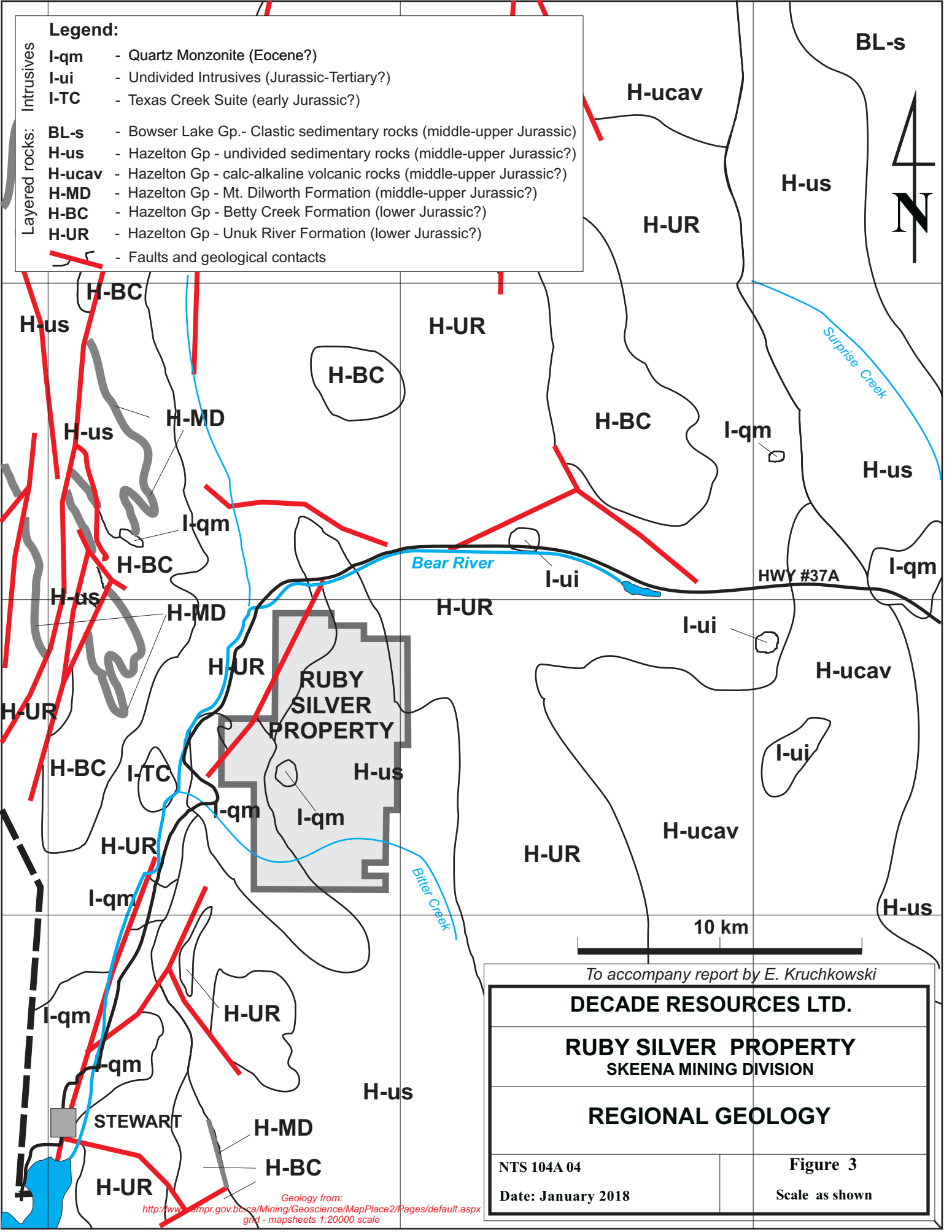
CLAIM MAP

NTS 104A 04

Date: January 2018

Figure 2

Scale as shown



Legend:

Intrusives

- I-qm - Quartz Monzonite (Eocene?)
- I-ui - Undivided Intrusives (Jurassic-Tertiary?)
- I-TC - Texas Creek Suite (early Jurassic?)

Layered rocks:

- BL-s - Bowser Lake Gp.- Clastic sedimentary rocks (middle-upper Jurassic)
- H-us - Hazelton Gp - undivided sedimentary rocks (middle-upper Jurassic?)
- H-ucav - Hazelton Gp - calc-alkaline volcanic rocks (middle-upper Jurassic?)
- H-MD - Hazelton Gp - Mt. Dilworth Formation (middle-upper Jurassic?)
- H-BC - Hazelton Gp - Betty Creek Formation (lower Jurassic?)
- H-UR - Hazelton Gp - Unuk River Formation (lower Jurassic?)

Red lines - Faults and geological contacts



10 km

To accompany report by E. Kruchkowski

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REGIONAL GEOLOGY

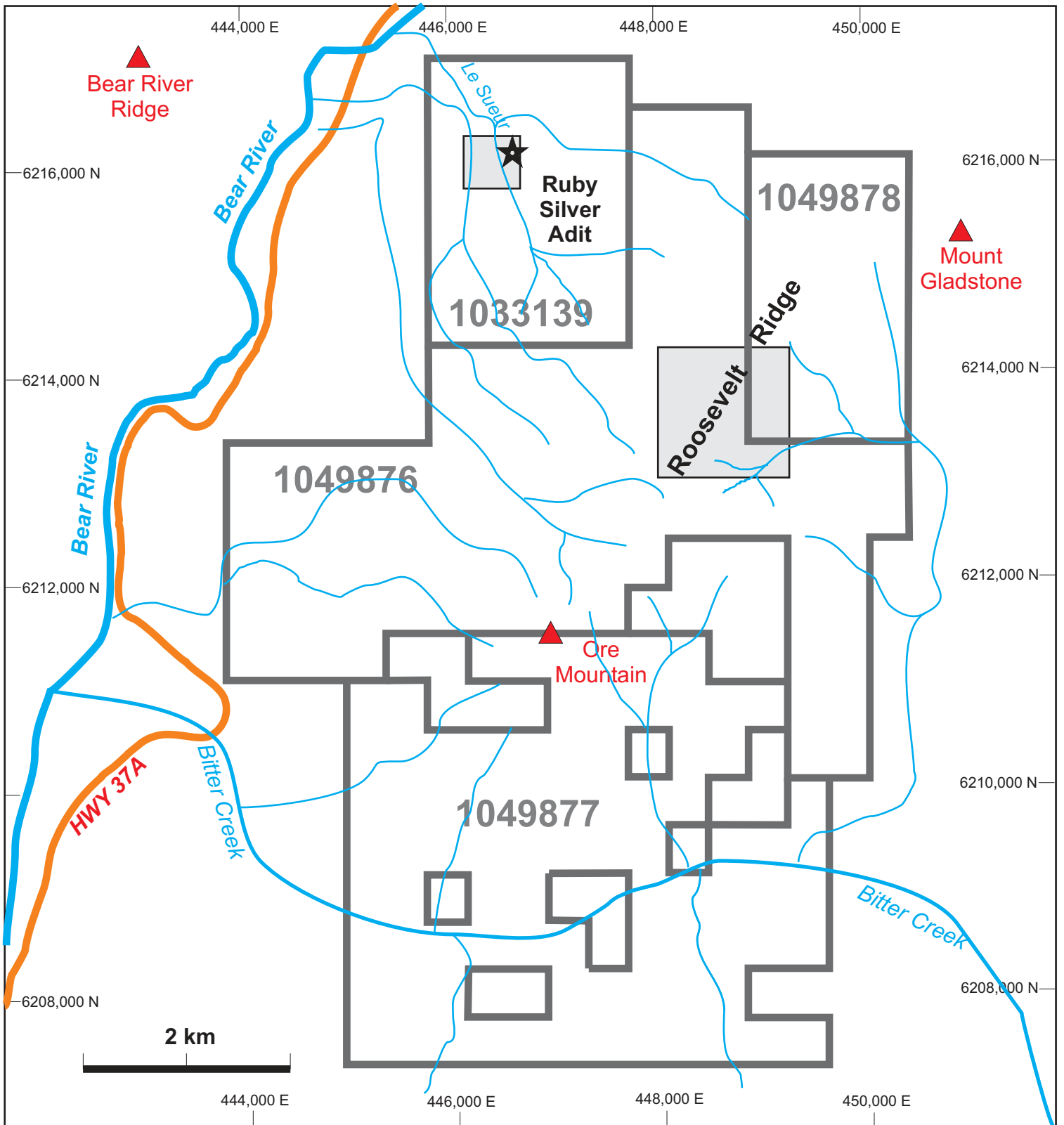
NTS 104A 04

Date: January 2018

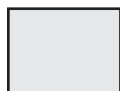
Figure 3

Scale as shown

Geology from:
<http://www.camp.gov.bc.ca/Mining/Geoscience/MapPlace2/Pages/default.aspx>
 gnd - mapsheets 1:20000 scale



To accompany report by E. Kruchkowski



Area of sampling
(For details see Fig. 5)

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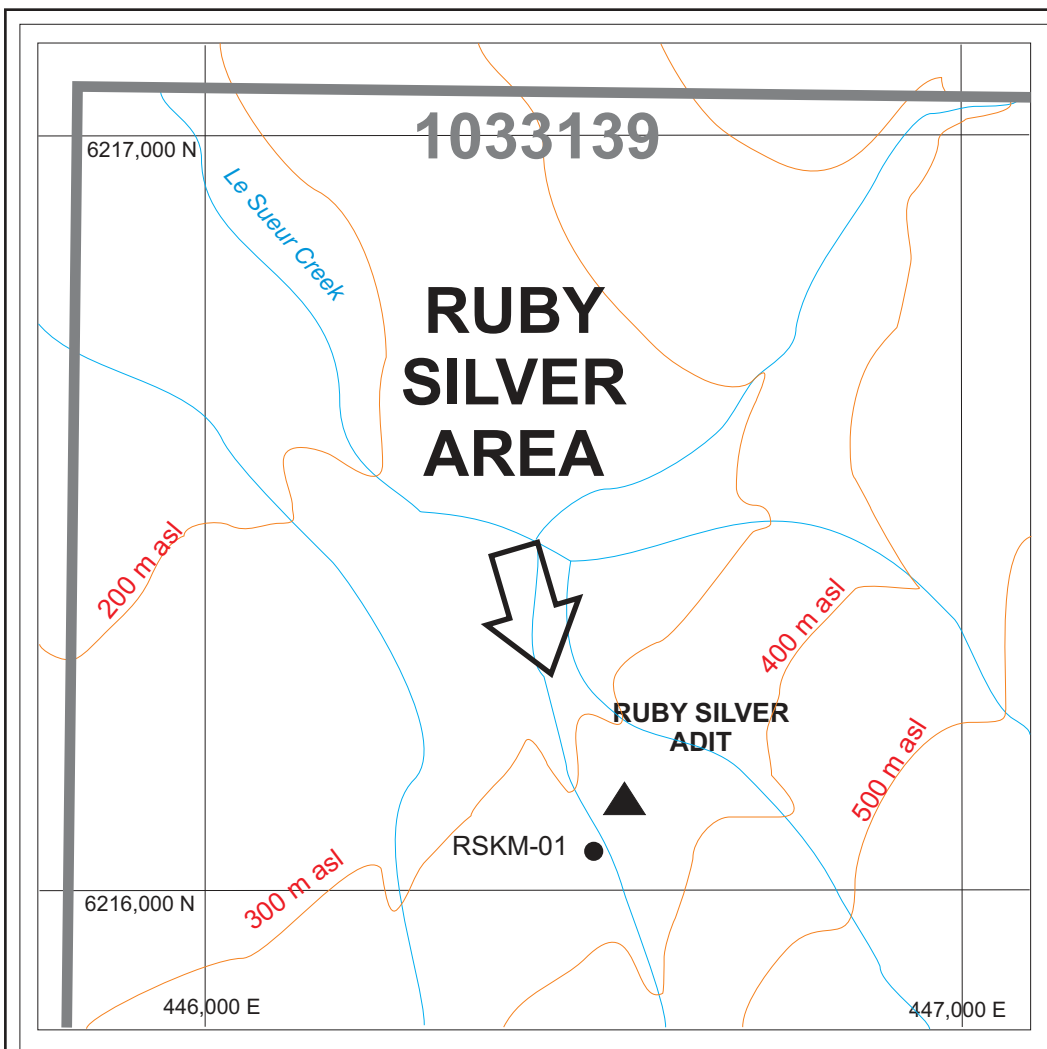
AREA OF SAMPLING

NTS 104A 04

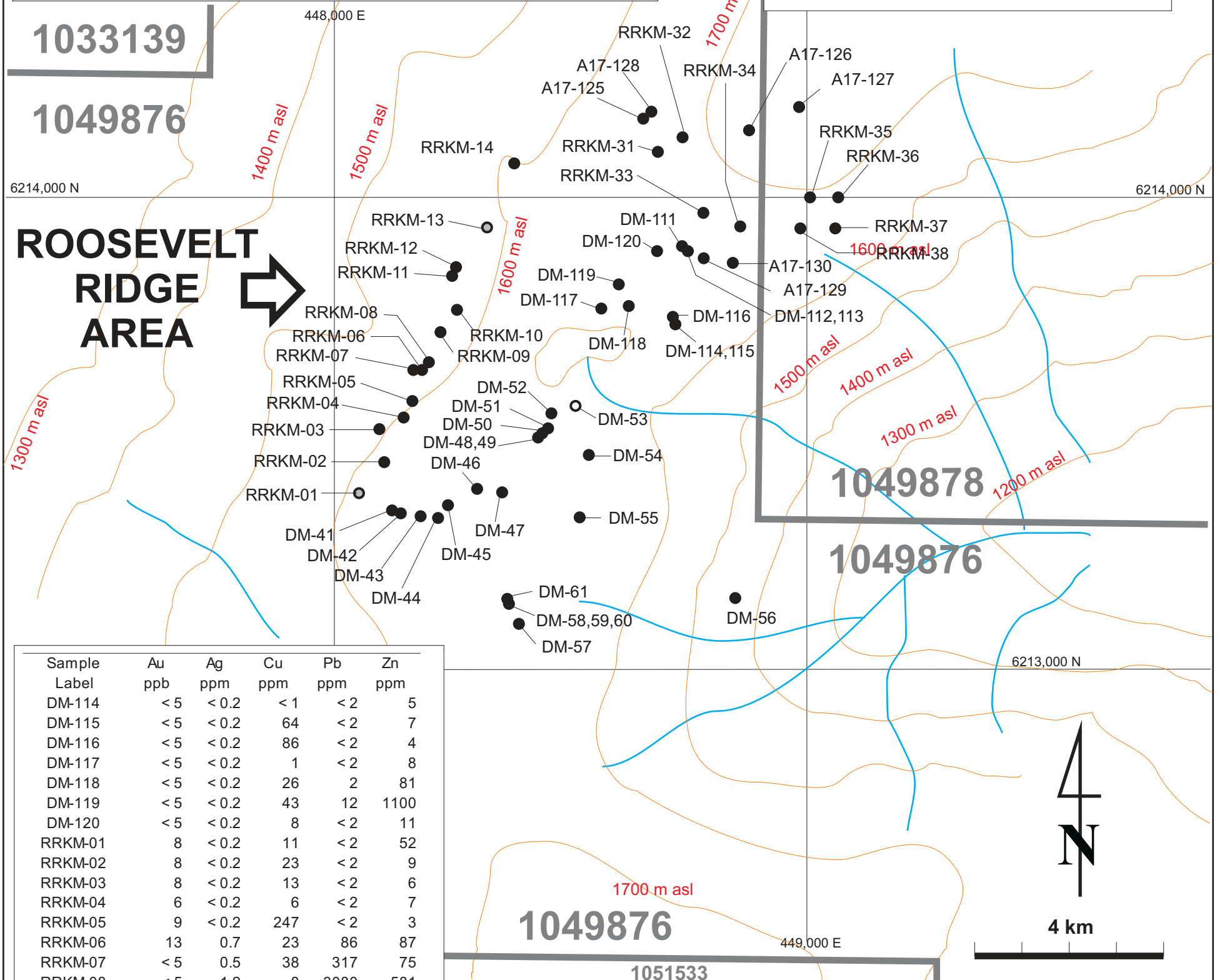
Date: January 2018

Figure 4

Scale as shown



Sample Label	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
A17-125	7	0.3	29	18	19
A17-126	< 5	< 0.2	10	< 2	21
A17-127	< 5	0.4	21	32	38
A17-128	< 5	< 0.2	11	3	10
A17-129	< 5	< 0.2	26	16	27
A17-130	< 5	< 0.2	15	5	50
DM-41	< 5	< 0.2	6	< 2	19
DM-42	26	< 0.2	15	6	23
DM-43	< 5	< 0.2	3	< 2	10
DM-44	< 5	< 0.2	24	< 2	21
DM-45	< 5	< 0.2	2	11	22
DM-46	1880	24.9	3.21%	5	35
DM-47	< 5	< 0.2	22	< 2	13
DM-48	41	0.9	54	13	153
DM-49	75	1.7	39	63	23
DM-50	14	0.8	169	5	21
DM-51	< 5	< 0.2	38	3	25
DM-52	< 5	0.3	132	8	49
DM-53	< 5	0.6	108	67	80
DM-54	11	0.2	69	12	53
DM-55	< 5	< 0.2	4	3	15
DM-56	< 5	< 0.2	26	< 2	14
DM-57	< 5	< 0.2	15	< 2	16
DM-58	6.92 g/t	4.6	845	347	4.15%
DM-59	9	< 0.2	19	3	101
DM-60	9	< 0.2	30	< 2	37
DM-61	55	< 0.2	4	2	35
DM-111	< 5	< 0.2	10	8	13
DM-112	< 5	< 0.2	57	9	3
DM-113	< 5	< 0.2	45	< 2	6



Sample Label	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
DM-114	< 5	< 0.2	< 1	< 2	5
DM-115	< 5	< 0.2	64	< 2	7
DM-116	< 5	< 0.2	86	< 2	4
DM-117	< 5	< 0.2	1	< 2	8
DM-118	< 5	< 0.2	26	2	81
DM-119	< 5	< 0.2	43	12	1100
DM-120	< 5	< 0.2	8	< 2	11
RRKM-01	8	< 0.2	11	< 2	52
RRKM-02	8	< 0.2	23	< 2	9
RRKM-03	8	< 0.2	13	< 2	6
RRKM-04	6	< 0.2	6	< 2	7
RRKM-05	9	< 0.2	247	< 2	3
RRKM-06	13	0.7	23	86	87
RRKM-07	< 5	0.5	38	317	75
RRKM-08	< 5	1.2	8	3080	581
RRKM-09	10	< 0.2	5	16	15
RRKM-10	< 5	< 0.2	32	2	6
RRKM-11	6	< 0.2	74	4	12
RRKM-12	< 5	< 0.2	< 1	< 2	11
RRKM-13	< 5	< 0.2	11	< 2	5
RRKM-14	< 5	< 0.2	35	< 2	10
RRKM-31	< 5	< 0.2	2	< 2	16
RRKM-32	< 5	< 0.2	3	8	29
RRKM-33	< 5	< 0.2	32	11	27
RRKM-34	< 5	< 0.2	15	9	82
RRKM-35	< 5	< 0.2	18	8	76
RRKM-36	< 5	< 0.2	12	< 2	22
RRKM-37	< 5	< 0.2	97	20	86
RRKM-38	< 5	< 0.2	13	5	51
RSKM-01	9	0.3	76	5	34

Legend:

1033139 Claim boundary And tenure number

Rock Samples and Labels:

- DM-55 ● Grab from bedrock
- DM-54 ○ Grab from subcrop
- DM-53 ○ Float

To accompany report by E. Kruchkowski

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SAMPLE LOCATION MAP

NTS 104A 04 Figure 5

Date: January 2018 Scale 1 : 10,000

