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# **Report on Rock Geochemistry Sky Lake Property Pickle Lake, Ontario**

**Patricia Mining Division, Ontario**

**51° 14' N, 90° 39' W**

**NTS 52O07SE, 52O02NE, 52O02NW**

FOR



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## TABLE OF CONTENTS

INTRODUCTION AND PROPERTY DESCRIPTION.....	1
REGIONAL GEOLOGY.....	5
Physiography and Vegetation.....	5
Regional Geology and Economic Mineralization.....	5
PROPERTY GEOLOGY .....	7
PREVIOUS WORK .....	7
SUMMARY OF GEOCHEMICAL WORK COMPLETED.....	10
Description of Samples .....	10
Whole Rock Major Element Oxide Analyses .....	16
Trace Element Analyses .....	19
Gold Assay Results.....	20
Discussion of Geochemical Results .....	21
CONCLUSIONS AND RECOMMENDATIONS.....	23
REFERENCES .....	24
PERSONNEL.....	25
STATEMENT OF QUALIFICATIONS.....	26
APPENDICES.....	28

## LIST OF TABLES

Table 1. Patented mining claims on which 2017 sampling was performed. ....	3
Table 2. Outcrop sample locations and rock types. ....	13

## LIST OF FIGURES

Figure 1. Sky Lake Property Location. ....	1
Figure 2. Sky Lake Property (orange) and Koval Property within.....	2
Figure 3. 2017 sample location map. ....	4
Figure 4. Regional Geology. Geopoly from MRD 126 (2011). ....	6
Figure 5. LeMaitre (1989) TAS Diagram of Sample Major Oxide Analytical Data, plotted by report ID. Inset of yellow-dashed section.....	17
Figure 6. AFM Diagram of major oxide analytical data, plotted by report ID. A) samples 1-31 B) samples 32-63. ....	18
Figure 7. La/Yb vs. Yb plot of felsic volcanic rocks by report ID. Inset of F-series rhyolite identifiers. ....	19

Figure 8. Zr/Y vs. Y plot of felsic volcanic rocks by report ID. Inset for F-series rhyolite identifiers .....20  
Figure 9. 2017 sampling area with generalized geological interpretation.....22

**LIST OF APPENDICES**

Appendix A: Laboratory Procedures  
Appendix B: Geochemical Certificates of Analysis  
Appendix C: Geochemical Results (i) major element, (ii) trace elements, and (iii) gold assays.

**LIST OF MAPS**

Map 1: Outcrop sample location map. Scale 1:5000

## INTRODUCTION AND PROPERTY DESCRIPTION

The Sky Lake property is located approximately 35 km southwest of the Town of Pickle Lake, Ontario, and north of Lake St. Joseph (figure 1). The property consists of 494 single cell mining claims and 20 boundary cell mining claims, covering an area of approximately 105 square kilometres (figure 2). The central portion of the property is covered by 29 patented claims optioned from Barrick Gold Corporation by Tri Origin Exploration (figure 2). These patents were initially staked in the 1950s following the discovery of gold at surface, and the property was subsequently known as the Koval Property. Tri Origin is conducting mineral exploration programs on the unpatented and patent mining claims in the search for lode gold deposits.



Figure 1. Sky Lake Property Location.

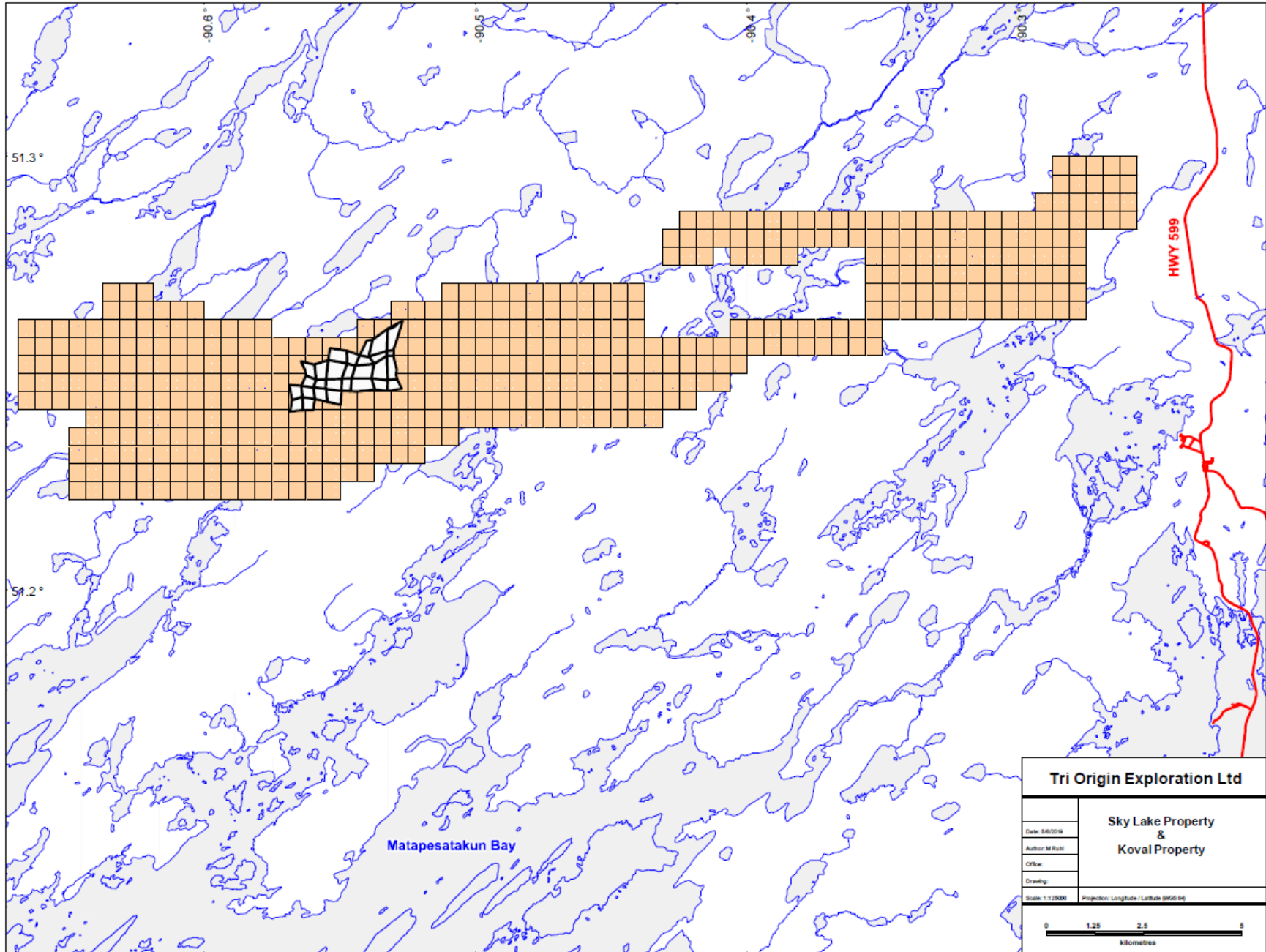


Figure 2. Sky Lake Property (orange) and Koval Property within.

This report presents and discusses results of gold assay and major element oxide and trace element analyses from rock samples collected during the 2017 Mapping and Prospecting Program. Please refer to the *Report on the 2017 Field Work Koval Option, Sky Lake Property, Pickle Lake, Ontario*, filed on September 8<sup>th</sup>, 2017 for additional details on the field work and sampling methods. In total, 54 samples were collected and sent for laboratory analysis from the 2017 field program. Of those, 33 were assayed for gold, 54 were analyzed for a suite of trace elements, and 39 were analyzed for major element oxides. Single cell mining claims and overlapping patented claims on which sampling was completed are listed in Table 1. All sampling was completed within the Koval Property (figure 3).

**Table 1. Patented mining claims on which 2017 sampling was performed.**

Patented Claim	Overlapping single cell mining claims	Mining Claim Anniversary Date
PAT-7098	105665, 172734, 344356	9-Jan-2019
PAT-7100	172719, 256710, 105665	9-Jan-2019
PAT-7101	172734	9-Jan-2019
PAT-7103	239977, 172719, 219883	9-Jan-2019
PAT-7104	219883, 172734	9-Jan-2019
PAT-7105	172734	9-Jan-2019
PAT-7106	295263, 172734, 138778	9-Jan-2019
PAT-7107	345531, 219883, 138033	9-Jan-2019
PAT-7108	138033	9-Jan-2019
PAT-7109	138033, 287131, 295263	9-Jan-2019
PAT-7112	293984, 138033, 220606, 287131	9-Jan-2019
PAT-7113	220606, 287131, 104715, 287132	9-Jan-2019

This summary is also an addition to the *Report on Major Oxide and Trace Element Rock Geochemistry, Sky Lake Property, Pickle Lake, Ontario*, filed on November 18<sup>th</sup>, 2016. Geochemistry plots include the recent samples collected during 2017, as well as major element oxide and trace element data from 24 rock samples collected on the Sky Lake property in October 2016. Gold assays from previous reports are not included here. Sample type and location details of outcrop samples are listed in Table 2 in the “Description of Samples” section. A sample location map is appended to this report.

Samples were sent for whole rock geochemical analysis (major element oxide and trace element) in order to better understand the composition, trace element signature, chemostratigraphy, and prospectivity of volcanic rocks at the Sky Lake property. Compilation work is ongoing to review historic geological data and compare the recorded data to Tri Origin’s recent rock geochemical analyses to develop a better understanding of the geology underlying the claim group.



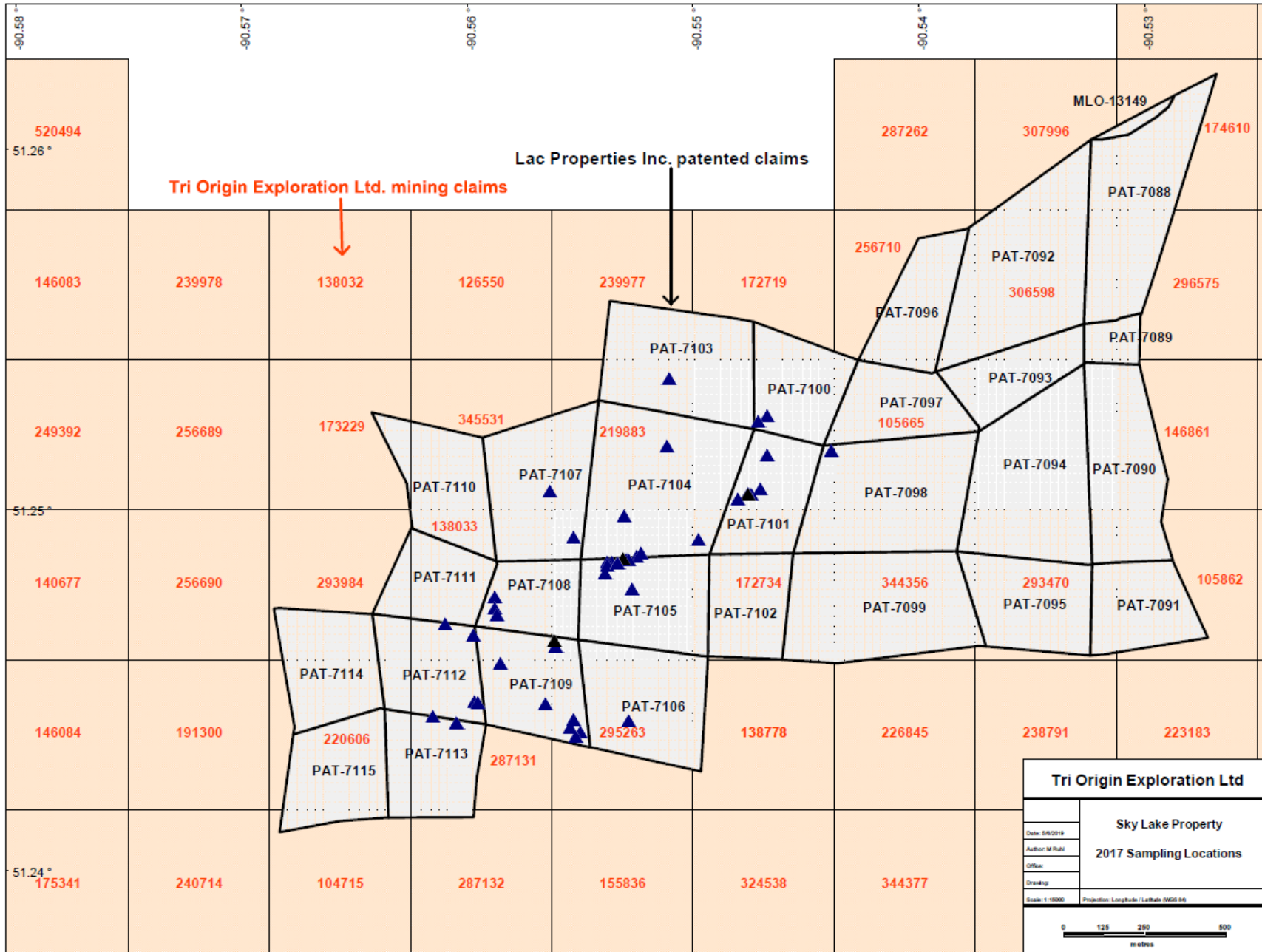


Figure 3. 2017 sample location map.



## REGIONAL GEOLOGY

### Physiography and Vegetation

Drainage of the property area is southward via Matapesatakun Creek from Bancroft Lake to Lake St. Joseph, 374 m above sea level. Maximum relief is on the order of 35 m, with the highest elevations on southwest-trending drumlins distributed across the property. Most of the area is covered either by water (lakes, ponds, and streams) and overburden, typically low-lying swamps, muskeg, and boulder tills. Mature birch forest is sporadic and mostly associated with the well-drained soil of the drumlins. Overburden is generally less than 10 m in thickness. Outcrop is generally less than 1% of the area, and more common in the northeast portion of the property between Bancroft Lake and Matapesatakun Bay.

### Regional Geology and Economic Mineralization

The following is summarized from Jolliffe (1996). The Sky Lake property is situated within the Archean Meen-Dempster greenstone belt of the Uchi Subprovince, a part of the Superior Province (figure 3). The area is characterized by several arcuate, deformed and coalescing greenstone belts, consisting of predominantly mafic to intermediate volcanic flows, which have been intruded by numerous granitic to ultramafic intrusive bodies. The metamorphic grade ranges from greenschist to amphibolite facies. The greenstone belt also consists of subordinate amounts of felsic to mafic pyroclastic rocks, sedimentary rocks, and iron formation. Felsic quartz-feldspar porphyry dykes are commonly found intruding all lithologies.

Historically, gold production in the Pickle Lake area has been from structurally-controlled vein-type deposits or sulphide-rich bodies spatially associated with, or contained within, bands of Algonian (chert-magnetite) iron formation. The most important of these were the past producing Pickle Crow and Central Patricia mines (operated from 1935 to 1966 and 1934 to 1951, respectively) which collectively produced 2,068,020 ounces of gold from 4,966,820 tons of ore for an average grade of 0.416 ounces of gold per ton. The past producing Golden Patricia Mine of Barrick Gold Corp., located about 40 km west-northwest of the Sky Lake property within the Meen-Dempster greenstone belt, also produced 619,796 ounces of gold from 1,216,165 tonnes of milled ore (Ministry of Northern Development and Mines, MDI File MDI52O06SE00005). The gold mineralization was hosted by sulphidic rocks and quartz veins within sheared mafic volcanic rocks in close proximity to banded iron formation.

Ultramafic intrusive rocks of the Uchi Subprovince are also known to host copper-nickel mineralization. The past producing Thierry Mine, located 30 km north-northeast of the Sky Lake property, produced 113.6 million pounds of copper, 2.8 million pounds of nickel, 17,500 ounces of platinum, 47,000 ounces of palladium, 17,000 ounces of gold, and 900,000 ounces of silver from 5.8 million tons of ore between 1976 and 1982 (Ministry of Northern Development and Mines, MDI File MDI52O08NW00003).

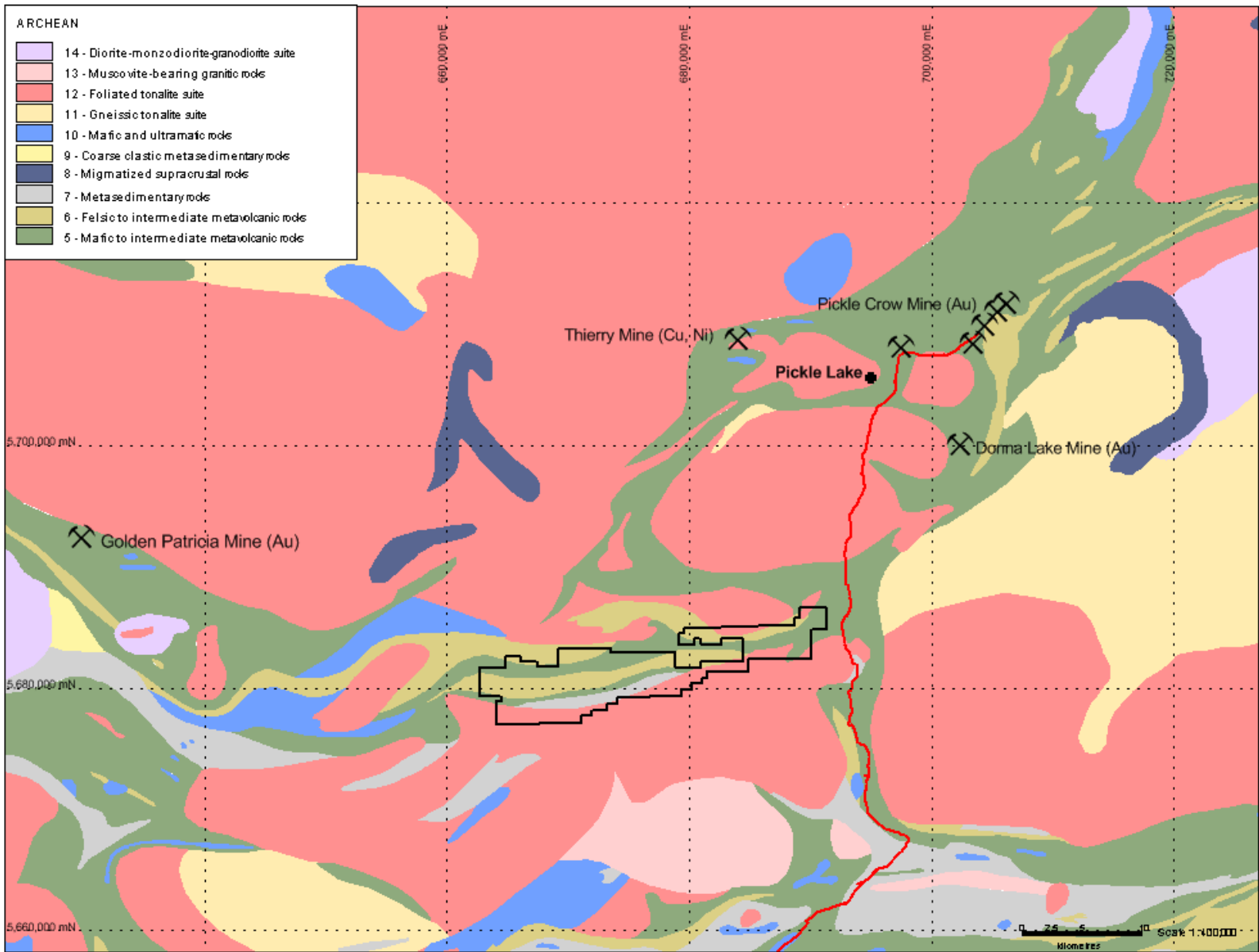


Figure 4. Regional Geology. Geopoly from MRD 126 (2011).

## **PROPERTY GEOLOGY**

The geology of the Sky Lake property is poorly understood due to a lack of detailed mapping. Results discussed in this report are from samples collected in the east-central portion of the property in and around the Koval patent claims. This is the area of most abundant outcrop and, importantly, where gold deposits were discovered and partially delineated by drilling during the 1950's.

The east-central part of the Sky Lake property is underlain by a west-southwest trending, vertical to steeply south-dipping assemblage of metavolcanic and metasedimentary rocks with minor intrusive rocks. The northern 1/3 is dominated by mafic volcanic massive and pillowed flows with intercalated tuff and volcanoclastic rock. The southern margin of this mafic unit is marked by chemical sedimentary rocks (silicate & oxide facies iron formation). A gabbro/diabase dyke or small stock is indicated on previous maps to be located in the north-central part of the mafic unit however current mapping in this area was unable to locate the intrusion. Feldspar porphyry dykes and sills outcrop locally and granitic intrusions have been intersected in drilling.

South of the thick northern mafic volcanic unit intermittently exposed fine clastic metasedimentary rock (mainly argillite, siltstone) and a felsic tuffaceous volcanic rock form a unit approximately 100 metres thick. South of this sedimentary unit, the central part of the area is underlain by what previous mappers had termed the 'Central Intermediate-Mafic Volcanic' (CIMV) unit. It is comprised of intermediate volcanoclastic rocks enclosed by massive mafic volcanic flows and tuffs at the north and massive and pillowed flows with pillow breccia at the south of the CIMV. A number of Intercalated fine clastic metasedimentary, volcanoclastic and felsic volcanic rocks are included within the CIMV unit.

Intermediate to felsic tuffaceous volcanic rocks and adjacent volcanoclastic rocks within the central portion of the CIMV unit are host to historical gold zones on the Koval patent claims. The patented claims also contain gold occurrences associated with the iron formation at the northeast part of the claim group. East of the patented claims the intermediate rocks are believed to occur under thin cover and their strike extent warrants additional field mapping and prospecting.

South of the CIMV unit a sequence of intercalated sedimentary rock up to 300 metres thick and a felsic volcanic unit of unknown extent underlie the remaining portion of the Koval property.

## **PREVIOUS WORK**

The first recorded discovery of gold in the Meen-Dempster greenstone belt was made in 1954 by prospector Ben Ohman near Bancroft Lake (Scratch, 1984) on the Koval property. The discovery of gold on the Koval property initiated a staking and exploration rush in the Meen-Dempster belt, and a number of exploration programs were conducted on, around, and along strike of the mineralization at the Koval property.

- During the 1950s and 1960s, Hasaga Gold Mines and Pickle Crow Gold Mines conducted early stage exploration activities, including ground geophysical surveys, diamond drilling, stripping, and geologic mapping on and around the Koval property.
- In 1969, Newconex Canadian Exploration conducted ground electromagnetic and geological surveys on their “Ed” claim block at the western end of Tri Origin’s present-day claim block. They delineated zones of auriferous pyrite.
- Union Miniere Exploration and Mining Corporation Ltd. conducted extensive airborne and ground geophysical surveys and 4465 m of diamond drilling in 1971-1972. One of these holes was collared on Tri Origin’s property, but the rest of the work was done to the north and east of the claims which are the subject of the present report. There is no record of any samples having been assayed from that hole.
- During the 1970s to mid-1980s, LAC Minerals held the Koval property and conducted extensive exploration activities around the property, including airborne and ground geophysical surveys, geologic mapping, soil sampling, and diamond drilling.
- In 1983-84 Moss Resources Ltd. conducted geological mapping and magnetic, VLF-EM and IP geophysical surveys as well as rock and humus geochemistry. This was followed by a 20 hole, 1522.78 m diamond drill program.
- During July and August, 1984 Golden Maverick Resources conducted reconnaissance geological mapping and rock and humus geochemistry. A total of 53 rock samples and 572 humus samples were collected and analyzed for Au, Ag, As, Sb, Mo, and Ba. They also carried out limited diamond drilling between 1984 and 1988.
- In September 1988 Bond Gold mapped the area they referred to as the Caley Lake claim block, to the west of the Sky Lake property, and drilled three holes in October of that year. No assay results were reported.
- In 1996, Moss Resources drilled a total of 808.3 m in eight BQ diamond drill holes at the southwest of the patent claims.
- In 2009, Aeroquest flew a helicopter-borne AeroTEM survey for Tri Origin Exploration.
- In 2010 a picketed grid was cut for Tri Origin. Geochemical surveys (soil and humus) and prospecting and geological mapping was completed.
- In 2011 a picketed grid was cut for Tri Origin. Geochemical surveys (soil and humus), prospecting and geological mapping was completed. An IP survey and ground magnetics survey was completed on portions of the cut grid in 2011.
- In 2012 Tri Origin completed geochemical surveys (soil and humus), prospecting and geological mapping. Seven diamond drill holes were drilled to test IP anomalies by Tri Origin Exploration.
- In 2015 a series of lines were cut and picketed by Tri Origin Exploration. Geochemical surveys (soil and humus), prospecting and geological mapping was completed. An IP survey was completed on the cut lines in 2015.
- In 2016 Koval patent claims were optioned from Barrick Gold and included in the Sky Lake Property.
- In 2017 a series of lines were cut and picketed for Tri Origin. Prospecting and geological mapping was completed on the newly acquired Koval claims.

- In 2017 Tri Origin conducted a mapping and prospecting programing, focusing on Koval Claims. 89 samples were collected. 54 samples were sent to SGS Laboratories in Lakefield, ON. Of those, 33 were assayed for gold, 54 were analyzed for a suite of trace elements, and 39 were analyzed for major element oxides.

## **SUMMARY OF GEOCHEMICAL WORK COMPLETED**

Analyses were conducted by SGS Mineral Services in Lakefield, Ontario. Outcrop samples were assayed for gold, as well as analyzed for major element oxides, trace elements, and some for additional rare earth elements. Gold was assayed by fire assay and measured by atomic absorption spectroscopy. Major element oxide analysis was prepared by borate fusion and analysed using XRF, and trace element analysis was prepared by sodium peroxide fusion and analysed with ICP-AES and ICP-MS.

Rock samples selected for analysis were initially characterised and selected based on field terminology and descriptions taken at the collection site. Geochemical comparisons were made using ternary and binary classification diagrams produced in IgPet 12. Whole rock samples have been plotted on AFM and binary classification diagrams to better understand the geochemical nature of the rocks. Trace elements have been plotted on binary plots of La, Yb, Zr, and Y.

Table 2 lists all sample locations and type of analysis performed on each sample. A sample location map is appended. Date is the year in which the sample was sent to the lab for analysis. Report ID samples 1 to 24 were originally analysed in 2016. They are included for comparison only on whole rock geochemical plots in this report. Type of analysis is outlined for each sample, where *G* is for gold assaying, *T* is for trace element analyses, and *M* is for major element oxide analysis. Table is sorted by Date, then by Report ID. Field rock type was interpreted prior to geochemical analyses. Rock types have been interpreted from plots of geochemical results and updated in a separate column in Table 2.

### **Description of Samples**

Field classification of samples collected for analysis was based on outcrop mapping and hand sample description in the field. Additional sample examination was conducted at Tri Origin's office to better define mineralogy of samples, identify rock alteration and select representative samples which would be best suited for major element analyses.

Tri Origin Exploration spent five days in August 2017 characterizing and confirming geological units based on previous geological mapping. Outcrop data are listed in table 2. Seven (7) major rock units were identified, sampled and located. Generalized descriptions of rock units are as follows. At the north part of the Koval Property, a thick mafic volcanic unit consisting of massive and lesser pillowed flows was observed. It correlates with a regionally extensive unit of massive flows previously mapped by Tri Origin east and west of Koval. The rock consists of a weakly foliated, fine grained biotite and chlorite rich matrix with elongated amphibole phenocrysts.

A fine-grained, magnetite-bearing mafic rock containing abundant garnet phenocrysts up to 5mm and, in places, 10mm in diameter outcrops along the southern edge of northern mafic unit (figure 6). This rock is interpreted as a silicate facies, lean iron formation. East of Tri Origin's Sky Lake property gold occurrences are reported in sulphide-rich portions of iron formation which appear to be a strike extension of the garnet-rich rocks.

South of the mafic volcanic unit is a continuous unit of volcanoclastic, sedimentary and felsic tuff that is up to 100m in width. This unit consists of fine grained, banded ash with feldspar



phenocrysts and quartz eyes. South of the sedimentary and felsic tuff unit three clusters of north-south trending trenches were located and sampled. These are referred to as west trench, central trench and east trench (figure 7 and 8). The west trench contains 6-8 small trenches ~2x5m in size. At central trench, historic trenches were overgrown by vegetation and only 2 sulphidic outcrops were located. The east trench contained 6-8 small trenches ~2x5m in size. Rocks at the west trench consist primarily of fine grained foliated and altered volcanoclastic rocks with sericite alteration and, in many places are gossanous due to weathered sulphide. A thin unit of garnet-rich volcanoclastic rock that contains a variable abundance of magnetite occurs at the centre of west trench. A white, siliceous rock containing over 5% disseminated pyrite and 1% disseminated arsenopyrite forms a unit a few metres thick across the west trench area. The siliceous unit could not be traced along strike due to thick moss cover. The west trench had up to 0.5m wide bands of altered, locally magnetic felsic volcanic rock. Black, prismatic tourmaline was observed in one section of the felsic volcanic rock in the west trench area. The central trench is 200 metres east and appears to be along strike of west trench. Blasted trenches were partially filled by overburden and covered by vegetation. Samples taken from nearby outcrops may not be representative of gold-bearing rock which was the focus of prospecting during the 1950's. Outcrop at the central trench area is fine grained intermediate tuff (and thin flows) containing decimetre-scale folded quartz veins (figure 9). East trench consists of altered siliceous rocks with sericite alteration and abundant gossan staining. The siliceous rocks are also pyrite and arsenopyrite-bearing and appear similar to the siliceous rocks in the west trench. The east trench also contains a thin mafic volcanic unit that could not be traced due to overburden cover.

Immediately south of the trenched areas an amygdaloidal mafic volcanic rock was mapped. It contains abundant 1 to 3 mm weathered amygdules on fresh surface which are carbonate-filled in fresh surface. This unit is very characteristic in outcrop, at least 3m in thickness and was noted to extend along strike for at least 800 metres before outcrop exposure was lost.

The central part of the Koval property is underlain by narrow units of intermediate volcanic rock and interflow volcanoclastic sediment. These rocks are highly variable in composition however this mixed package of rocks can be traced for the length of the property. The volcanoclastic rocks are very fine to fine grained and are defined by a fissile cleavage that may define bedding planes. Coarser grained units are lighter grey in colour, less foliated and thicker bedded. Outcrop exposure is limited however these rocks may represent a transition from tuffaceous volcanic rocks to "greywacke-like" sedimentary units. Thin felsic tuff beds are observed within the unit and are approximately 1m in thickness, fine grained, and were identified in outcrop over a strike length of a few hundred metres.

Altered mafic volcanic rock was well exposed in outcrop along the southern margin of the volcanoclastic unit. Alteration is defined by abundant fine-grained chlorite within a relatively soft "felty" matrix. Radiating euhedral amphibole (?) crystals are also characteristic of this rock (figure 11). These rocks occur as thin, <2m, massive beds or flows within intermediate volcanic rock and crystal tuff.

At the south portion of the Koval Property, a thin felsic volcanic unit was observed. The unit consists of highly altered sericite-rich tuff, compositionally banded rhyolite flows and fine grained crystal tuff. These rocks occur as thin (~1m wide) beds intercalated between outcroppings of intermediate or mafic volcanic rock. Crystal tuffs contain smoky-coloured quartz eyes averaging 3 millimetres in diameter. More mapping is needed to confirm the extent of the felsic unit.

The degree of alteration is variable across the property and could not be mapped in detail due to limited outcrop exposure and time available. All trenches observed contained gossanous and altered rock. Quartz boudins and crosscutting veins, ranging from 1cm to 20cm wide, were observed throughout most of the trenched areas. The eastern trenched area had a higher degree of sericite alteration compared to the trenched area to the west. Increased alteration was apparent due to more intense foliation and chalky, white weathering of the rock. Sericite and chlorite alteration, as well as hematite staining was also observed at the southern extent of Koval Property.

Sulphide mineralization in trenched areas was consistently greater than 3% and up to 10% where observed. Disseminated arsenopyrite was found in the western trenched area within quartz veins and intermediate and felsic volcanic flows. Silicate facies iron formation contained ~1% of disseminated sulphide (pyrite and pyrrhotite) where observed in parts of the garnet-bearing outcrops north of the river.

**Table 2. Outcrop sample locations and rock types.**

Field ID	Sample ID	Report ID	Type	Northing NAD 83/15	Easting NAD 83/15	Elev. NAD 83/15	Rock Type from field classification	Rock Type Interpreted from Geochem Plots	Date
SKYFK001	651033	1	T, M	5679395	663188		Mafic volcanic	Basalt	2016
PC2-OC2	651034	2	T, M	5681444	670990		Mafic volcanic massive	Picro-basalt	2016
PC2-OC31	651035	3	T, M	5681723	672669		Mafic volcanic	Tephrite	2016
PC2-OC32A	651036	4	T, M	5681788	672833		Mafic volcanic	Picro-basalt	2016
PC2-OC34	651037	5	T, M	5681823	672698		Mafic volcanic	Picro-basalt	2016
SL-12-01 197-197.2m	651038	6	T, M	5679323	670200		Mafic Volcanic Tuff	Low silica basalt (sediments?)	2016
SL-12-02 133.0m	651039	7	T, M	5680031	669200		Mafic Massive Flow	Basalt	2016
MH-OC15-005	651040	8	T, M	5679362	672430		Intermediate to felsic tuffs	Rhyolite	2016
MH-OC15-028	651041	9	T, M	5679585	670587		Intermediate tuff (schist)	Basalt	2016
SKYFK006	651042	10	T, M	5679054	662889		Felsic Tuff	Andesite	2016
PC2-OC15	651043	11	T, M	5680382	670614		Quartz Feldspar Porphyry	Trachyte (Foid-bearing syenite)	2016
SL-12-01 33.5-33.7m	651044	12	T, M	5679229	670200		Felsic Volcanic Flow	Dacite	2016
SL-12-01 71.9-72.1m	651045	13	T, M	5679251	670200		Felsic Crystal Tuff / Felsic Tuff	Dacite	2016
SL-12-05 113.9-114.0m	651046	14	T, M	5679381	668906		Quartz Feldspar Porphyry	Trachyte (Foid-bearing syenite)	2016
SL-12-07 133.8-133.9m	651047	15	T, M	5678484	668692		Quartz Feldspar Porphyry	Trachyte (Foid-bearing syenite)	2016
FRK-SL15-005	651048	16	T, M	5681215	672468		Felsic Tuff	Dacite	2016
FRK-SL15-014	651049	17	T, M	5679776	672567		Felsic Tuff	Rhyolite	2016
FRK-SL15-023	651050	18	T, M	5681455	672818		Felsic Volcanic (flow?)	Rhyolite	2016
FRK-SL15-029	652351	19	T, M	5680589	669511		Intermediate-Mafic Volcanic	Andesite	2016
FRK-SL15-047	652352	20	T, M	5679622	671840		Felsic-Intermediate Tuff	Dacite	2016
MH-OC15-033	652353	21	T, M	5679890	671123		felsic volcanics, rhyolitic flow	Dacite	2016
PC2-OC1	652354	22	T, M	5681085	671011		Felsic metavolcanic tuff	Basaltic andesite	2016
FRK-SL15-024	652355	23	T, M	5681420	672762		Felsic-Intermediate Tuff?	Dacite	2016
MH-OC15-007	652356	24	T, M	5681340	672897		intermediate tuff/schist	Andesite	2016
FRK-SL17-025	521001	25	G,T,M	5679818	670802	387	Felsic Volcanic Quartz Eye Crystal Tuff	Dacite	2018
FRK-SL17-024	521002	26	G,T,M	5679778	670653	384	Felsic Volcanic Quartz Eye Crystal Tuff	Andesite	2018
FRK-SL17-019	521003	27	G,T,M	5679792	670272	367	Felsic flow (rhyolite?)	Rhyolite	2018
MJR-SL17-003	521005	28	T,M	5679811	670196	393	Intermediate Volcanic flow	Dacite	2018
FRK-SL17-022	521007	29	T,M	5679791	670622	378	Intermediate to Mafic Volcanic Flow	Basalt	2018
NMP-SL17-006	521010	30	T,M	5680383	670998	396	Intermediate Volcanic	Low silica basalt	2018

Field ID	Sample ID	Report ID	Type	Northing NAD 83/15	Easting NAD 83/15	Elev. NAD 83/15	Rock Type from field classification	Rock Type Interpreted from Geochem Plots	Date
NMP-SL17-012	521012	31	T,M	5679815	670632	389	Mafic Tuff (?) with Alteration Zone	Low silica basalt	2018
FRK-SL17-003	521013	32	T,M	5679858	670335	371	Mafic Flow?	Picro-basalt	2018
JMV-SL17-002	521014	33	G,T,M	5680063	670314	387	Felsic-Intermediate Tuff	Rhyolite	2018
MJR-SL17-004	521015	34	T,M	5680098	670225	393	Intermediate Volcanic flow	Rhyolite	2018
MJR-SL17-020	521016	35	T,M	5680041	670570	389	Mafic Volcanic flow	Picro-basalt	2018
FRK-SL17-006	521017	36	T,M	5680184	670376	378	Mafic Tuff	Picro-basalt	2018
JMV-SL17-001	521018	37	T,M	5680128	670385	391	Mafic	Picro-basalt	2018
FRK-SL17-027	521020	38	T,M	5680268	670716	385	Felsic flow (rhyolite?)	Trachy-andesite	2018
FRK-SL17-008	521021	39	T,M	5680152	670377	387	Felsic Tuff?	Rhyolite	2018
NMP-SL17-009	521022	40	T,M	5680673	671399	385	Metamorphosed Mafic Volcanic with Felsic Lapilli	Low silica basalt	2018
NMP-SL17-018	521023	41	T,M	5680668	670892	393	Magnetic Banded Unit	Tephrite	2018
MJR-SL17-024	521024	42	T,M	5680875	670891	391	Mafic Volcanic to IV	Basaltic andesite	2018
MJR-SL17-021	521025	43	T,M	5680516	670535	385	Mafic Volcanic flow (amphibolite)	Basalt	2018
NMP-SL17-020	521026	44	T,M	5680774	671199	393	Metamorphosed Intermediate Volcanic	Basaltic andesite	2018
MJR-SL17-025	521027	45	T,M	5680754	671173	385	Intermediate Volcanic flow	Picro-basalt	2018
MJR-SL17-026	521028	46	G,T,M	5680512	671117	382	Felsic Volcanic flow	>84% SiO <sub>2</sub> and <3 Na + K	2018
MJR-SL17-013	521029	47	G,T,M	5680527	671149	381	Intermediate Volcanic flow	>84% SiO <sub>2</sub> and <3 Na + K	2018
NMP-SL17-008	521030	48	G,T,M	5680528	671151	390	Quartz Vein	>84% SiO <sub>2</sub> and <3 Na + K	2018
NMP-SL17-007	521031	49	G,T,M	5680527	671157	389	Felsic Volcanic Tuff	>84% SiO <sub>2</sub> and <3 Na + K	2018
JMV-SL17-009	521032	50	G,T,M	5680531	671149	373	Sericite Alteration	Dacite	2018
FRK-SL17-018	521033	51	G,T,M	5680546	671186	400	Intermediate Tuff	Basaltic trachy-andesite	2018
MJR-SL17-013A	521034	52	G,T,M	5680527	671149	381	Intermediate volcanic	Tephrite	2018
MJR-SL17-013B	521035	53	G,T,M	5680527	671149	381	Magnetic felsic volcanic with sulphides	>84% SiO <sub>2</sub> and <3 Na + K	2018
MJR-SL17-013C	521036	54	G,T,M	5680527	671149	381	Qtz with sulphides and sericite alt	Quartz vein	2018
JMV-SL17-003	521042	55	G,T,M	5680315	670779	387	Mafic-Intermediate	Low silica basalt	2018
FRK-SL17-013	521046	56	G,T,M	5680292	670721	392	Intermediate to Mafic Volcanic Tuff	Tephrite (high Na and K)	2018
FRK-SL17-010	521048	57	G,T,M	5680302	670752	388	Intermediate Tuff	Trachy-andesite	2018
FRK-SL17-009	521049	58	G,T,M	5680303	670752	387	Intermediate Tuff	Dacite	2018
FRK-SL17-015	521050	59	T, M	5680378	670614	382	Felsic Volcanic Quartz Eye Crystal Tuff	Rhyolite	2018
FRK-SL17-016	521051	60	T, M	5680448	670768	386	Felsic Volcanic Quartz Eye Crystal Tuff	Dacite	2018
FRK-SL17-017	521052	61	T, M	5680652	671203	380	Felsic Tuff	Dacite	2018

Field ID	Sample ID	Report ID	Type	Northing NAD 83/15	Easting NAD 83/15	Elev. NAD 83/15	Rock Type from field classification	Rock Type Interpreted from Geochem Plots	Date
FRK-SL17-019b	521053	62	G,T,M	5679792	670272	367	Felsic flow (rhyolite?)	>84% SiO <sub>2</sub> and <3 Na + K	2018
MJR-SL17-019B	521054	63	T, M	5680057	670566	394	Felsic Tuff	Dacite	2018
MJR-SL17-016	521004	64	G, T	5679859	670324	392	Intermediate Volcanic flow	**No major oxide data	2018
FRK-SL17-023	521006	65	G, T	5679765	670640	374	Intermediate to Felsic Tuff	**	2018
FRK-SL17-001	521008	66	G, T	5679983	670401	390	Intermediate Tuff	**	2018
JMV-SL17-011	521009	67	G, T	5679860	670543	389	Intermediate Tuff	**	2018
JMV-SL17-013	521011	68	G, T	5680223	670800	395	Intermediate sediments	**	2018
MJR-SL17-019	521019	69	G, T	5680057	670566	394	Felsic Tuff	**	2018
MJR-SL17-009	521037	70	G, T	5680324	670811	396	Intermediate Volcanic flow	**	2018
MJR-SL17-008	521038	71	G, T	5680315	670768	382	Intermediate Volcanic flow	**	2018
MJR-SL17-008b	521039	72	G, T	5680315	670768	382	Intermediate Volcanic flow	**	2018
JMV-SL17-006	521040	73	G, T	5680306	670733	394	Intermediate	**	2018
JMV-SL17-004	521041	74	G, T	5680313	670780	385	Mafic-Intermediate	**	2018
NMP-SL17-003	521043	75	G, T	5680334	670822	395	Intermediate Volcanic	**	2018
NMP-SL17-001	521044	76	G, T	5680313	670785	387	Magnetic Banded Unit	**	2018
FRK-SL17-014	521045	77	G, T	5680304	670721	394	Intermediate to Mafic Volcanic Tuff	**	2018
FRK-SL17-011	521047	78	G, T	5680301	670752	386	Intermediate Tuff	**	2018

### **Whole Rock Major Element Oxide Analyses**

All original analytical results are appended in Appendix B and amalgamated in Appendix C. 39 samples from 2018 were analysed for major element oxides. Analytical results were plotted on a Total alkali silica (TAS) binary diagram and on an AFM diagram. 24 samples from 2016 are also included on these plots. Some samples of volcanoclastic and sedimentary rock were also plotted on the TAS diagram and their “volcanic” classification should be disregarded. However, characterization of alteration trends in these rocks may be possible with additional sampling.

Plotting the major oxide analytical data, normalized to 100%, on a TAS binary diagram (Fig. 5) demonstrates that the volcanic rocks vary geochemically from basalt to rhyolite, and are fairly consistent with their field terms. Generally, rock samples described in the field as mafic volcanic rocks plotted as subalkaline picro-basalt to basalt. Rocks described as intermediate volcanic rocks had a larger spread in the plotting than the mafic rocks and plotted mostly as dacite. Rocks described in the field as felsic volcanic rocks had the largest variation in geochemistry, and plotted from andesite to rhyolite. Six samples, described as either felsic volcanic flows and tuffs, quartz veins, or being highly sericitic, contained greater than 80% SiO<sub>2</sub> and had relatively low Na<sub>2</sub>O + K<sub>2</sub>O values. These plotted off the TAS diagram. Further examination of these rocks is required and may assist with characterising alteration associated with gold mineralization. Three samples described (in core logs and in geological mapping) as quartz-feldspar porphyry plotted along the boundaries between dacite, rhyolite, and trachydacite and plot on a QAPF diagram as foid-bearing syenites.

Plotting the same rocks on an AFM diagram (Fig. 6) shows that all mafic volcanic rocks plot in the tholeiitic field. Three samples characterised as trachy-basalt, basaltic trachy-andesite and trachy-andesite lie near the tholeiitic calc-alkaline boundary. The majority of intermediate and felsic volcanic rocks trend towards the calc-alkaline field. Samples of quartz-feldspar porphyry have been omitted from this diagram.



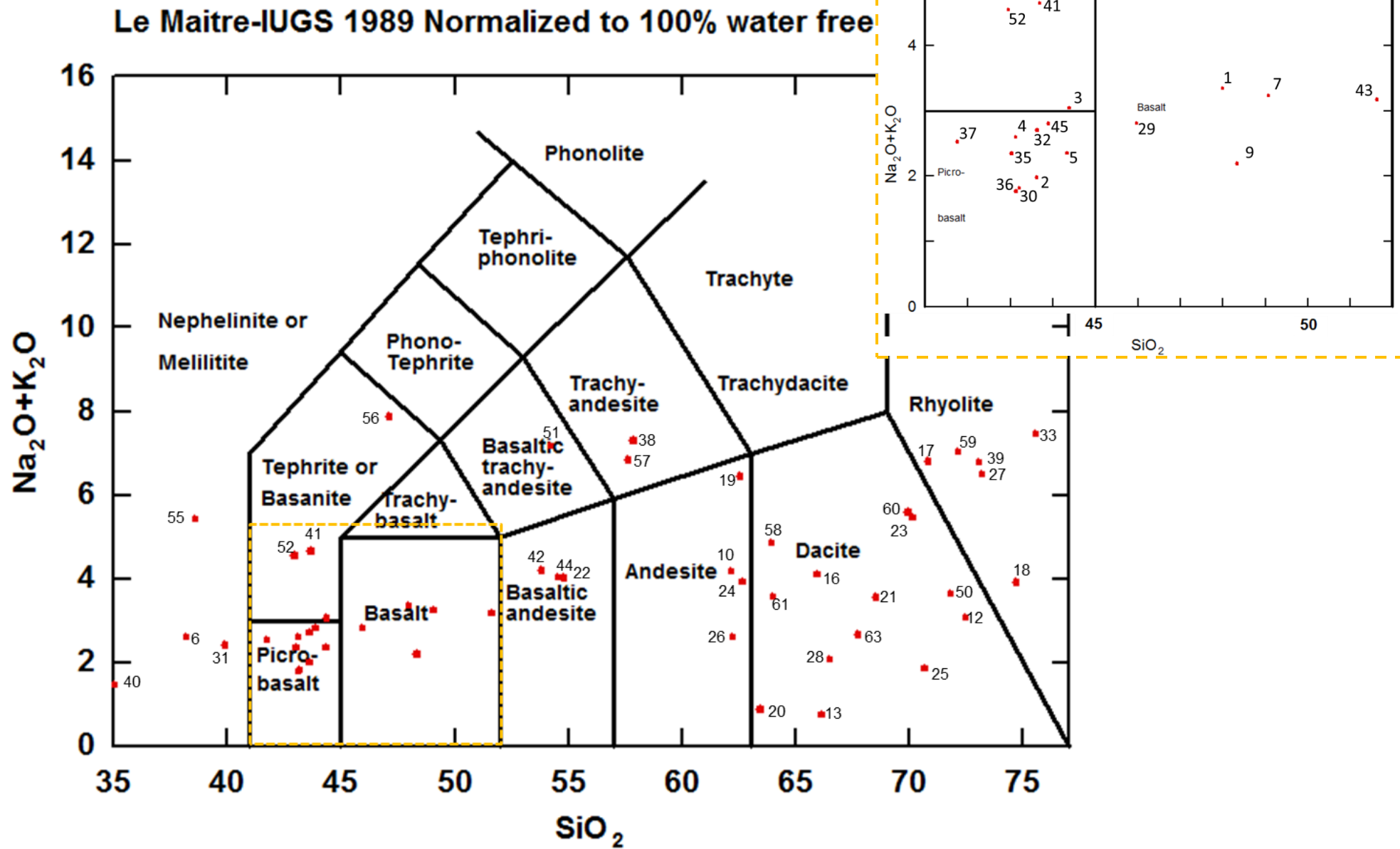
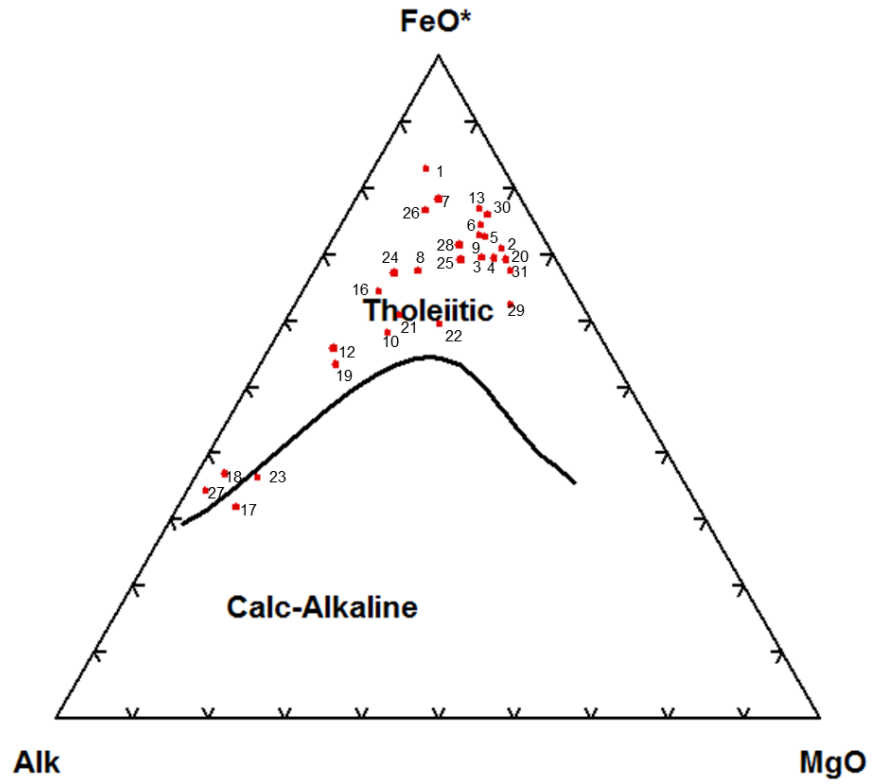


Figure 5. LeMaitre (1989) TAS Diagram of Sample Major Oxide Analytical Data, plotted by report ID. Inset of yellow-dashed section.

A)



B)

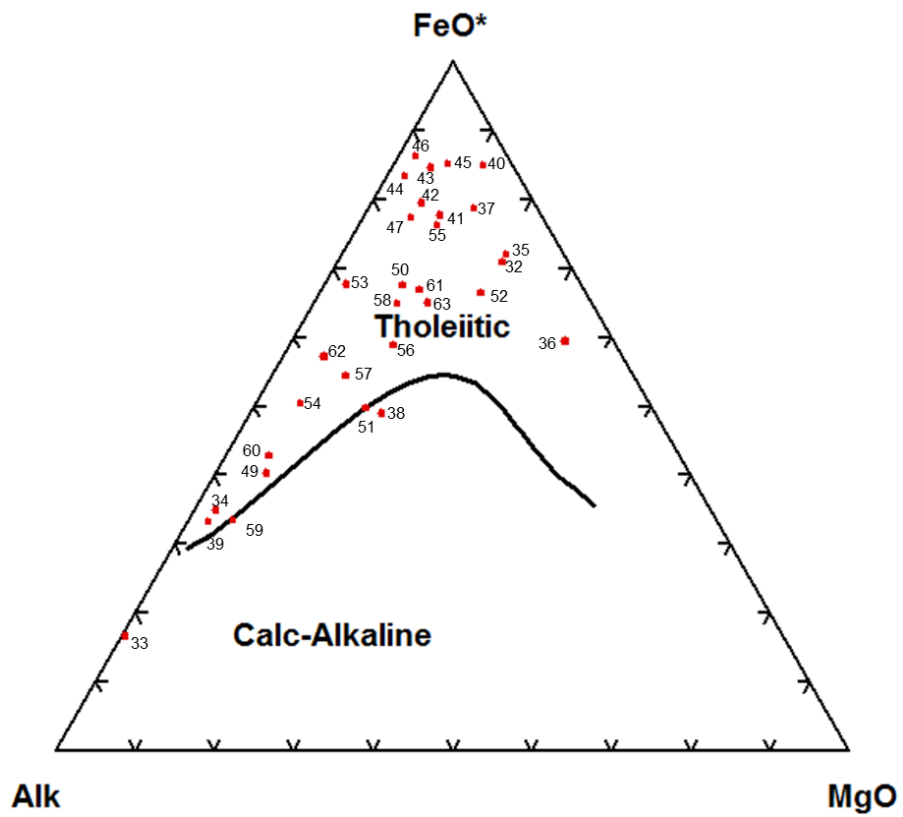


Figure 6. AFM Diagram of major oxide analytical data, plotted by report ID. A) samples 1-31 B) samples 32-63.

## Trace Element Analyses

All original analytical results are appended in Appendix B, and amalgamated in Appendix C. 54 samples were sent in for trace element analysis. Analytical results of felsic volcanic rocks were plotted using La, Yb, Zr, and Y content. 21 dacite or rhyolite samples were chosen from TAS plots. Nine felsic volcanic samples from 2016 are also included on these plots.

Trace element plots of intermediate to felsic volcanic rocks using La, Yb, Zr, and Y demonstrate that felsic rocks from the Sky Lake property generally fall into the FI type of rhyolite, with a weak to very weak trend toward FII type (Fig. 7 and 8). Samples 33, 34, and 39 have Zr/Y values of greater than 70. These samples also plot off the standard TAS diagram because of their high silica content, and are the most calc-alkaline of all samples. They do not plot on the La/Yb vs. Yb plot because Y content is below detection limit. These samples were all collected relatively close to each other in the northwestern side of the sampling area.

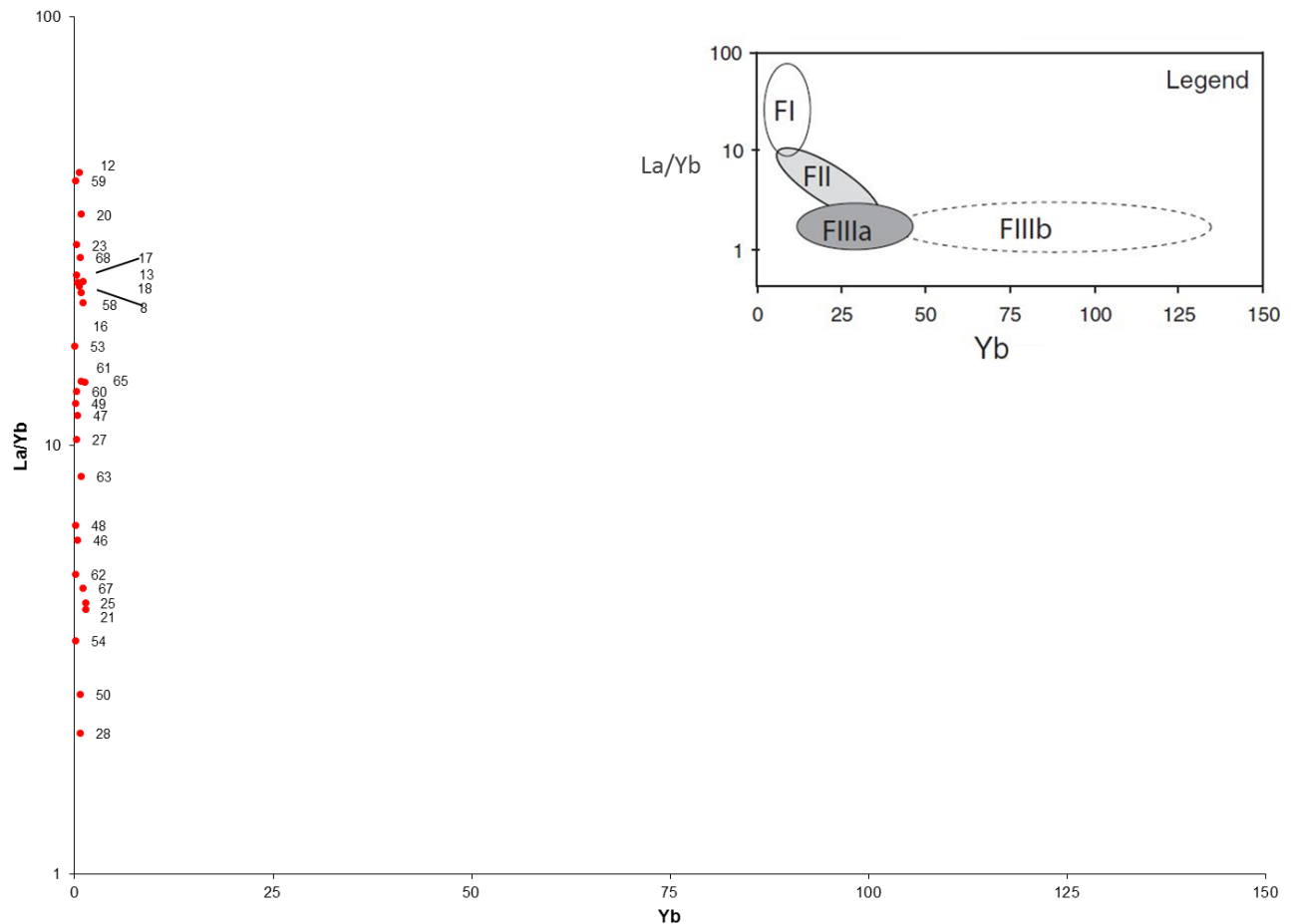


Figure 7. La/Yb vs. Yb plot of felsic volcanic rocks by report ID. Inset of F-series rhyolite identifiers.

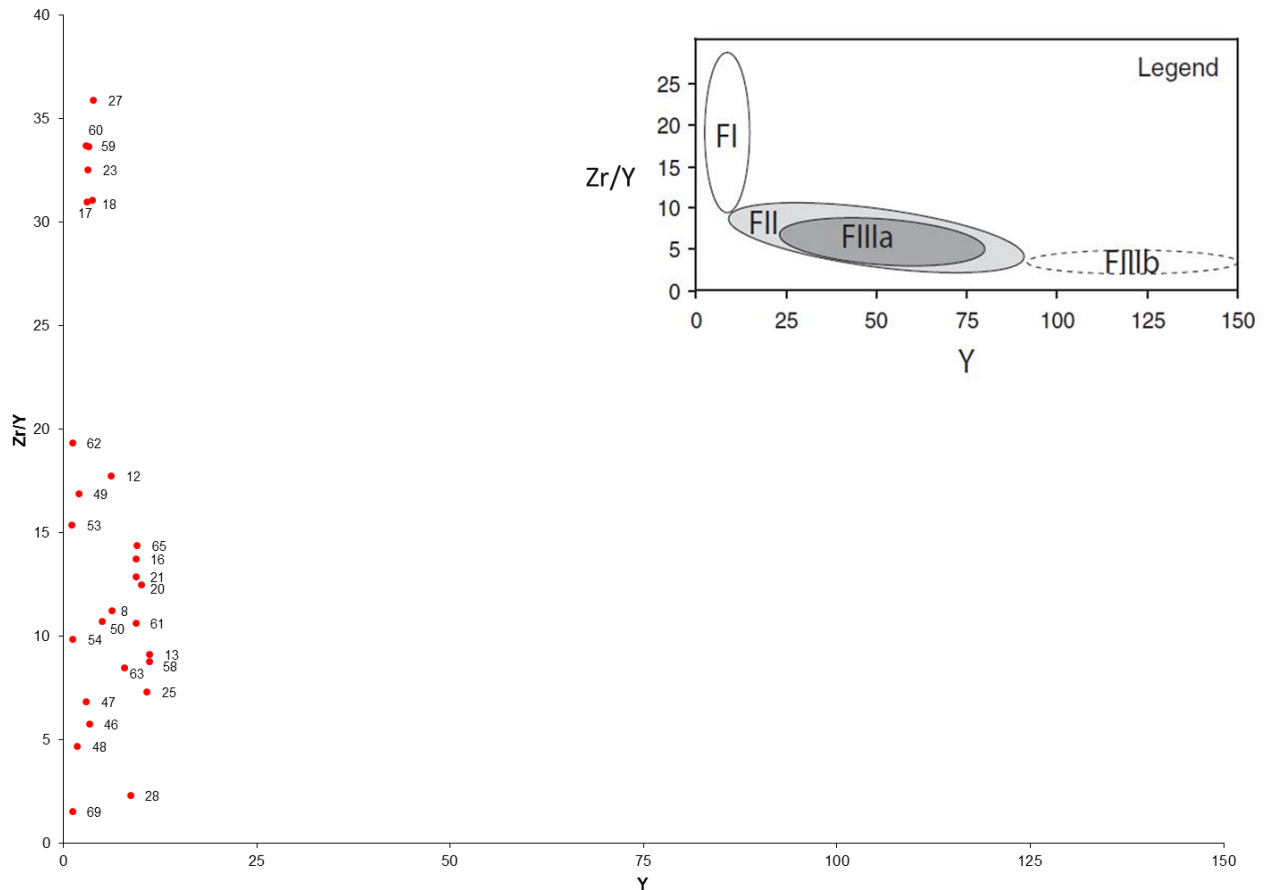


Figure 8. Zr/Y vs. Y plot of felsic volcanic rocks by report ID. Inset for F-series rhyolite identifiers

### Gold Assay Results

All analytical results are appended in Appendix B. 33 samples were assayed for Au. Sampling was concentrated in two of the three main historic trenched areas. Three clusters of north-south trending trenches were located and sampled during the 2017 mapping and sampling program. These are referred to as west trench, central trench and east trench (map 1).

Of the 33 samples sent for Au assay, seven returned values greater than 1000 ppb, nine returned values between 100 and 900, and 17 returned values less than 100. Sample 521047 returned the highest gold value of 5056 ppb. This sample was collected from the western trenched area and described as gossanous intermediate volcanic with minor quartz veining and minor sulphide content. Three other samples returned gold values of 1232, 899, and 768 ppb Au from the western trenched area. Rocks at the west trench consist primarily of fine grained foliated and altered volcanoclastic rock with sericite alteration and, in many places are gossanous due to weathered sulphide. A thin unit of garnet-rich volcanoclastic rock that contains a variable abundance of magnetite occurs at the centre of west trench. A white, siliceous rock containing over 5% disseminated pyrite and 1% disseminated arsenopyrite forms a unit a few metres thick across the west trench area. The siliceous unit could not be traced along strike due to thick moss cover. The west trench had up to 0.5m wide bands of altered,

locally magnetic felsic volcanic rock. Black, prismatic tourmaline was observed in one section of the felsic volcanic rock in the west trench area.

From the eastern trenched area 521028 returned a gold value of 4633 ppb, 521032 of 2701 ppb, 521030 of 2281 ppb, and 521029 of 2237 ppb. The eastern trenched area consists of altered siliceous rocks with sericite alteration and abundant gossan staining. The siliceous rocks are also pyrite and arsenopyrite-bearing and appear similar to the siliceous rocks in the west trench. The east trench also contains a thin mafic volcanic unit that could not be traced due to overburden cover. Only one sample was collected from the central trenched area and it was not assayed for Au.

Only one sample returned a value of greater than 1000 ppb Au outside of the trenched areas. Sample 521053 contained 1180 ppb Au. It was collected from a poorly exposed outcrop on the western extent of the 2017 mapping area, within a fine grained rhyolite with trace disseminated pyrite. Other than sample 521053, outcrops west of the trenched areas returned values less than 41 ppb Au.

### **Discussion of Geochemical Results**

In general, geochemical results supported rock types interpreted from the field. These results will be used to more precisely map the generalized geology shown on Figure 9. Geochemical results from 2017 field mapping show no discernible difference between mafic samples collected in the north vs. the south parts of the property. Mafic volcanic samples were primarily micro-basalts and all tholeiitic. Similarly, whole rock analysis showed no distinction between mapped northern and southern felsic units.

All samples that plotted as greater than 80% SiO<sub>2</sub> (and were non-quartz veins) contained over 600 ppb Au. Four out of the seven highest returning Au samples were the high silica samples. Over 200 ppb Au was only observed in samples that plotted as intermediate to felsic on the TAS diagram. There appears to be no significant correlation between high Au assay values and the F-series rhyolite trends. In addition, samples returned negligible amounts of associated Ag, Cu, Ni, Zn, and Pb.

Five (5) samples containing over 700 ppb Au, also contained greater than 3000 ppm arsenic. These samples were sulphidic gossanous and had sericite alteration. Two samples returned 2237 and 657 ppb Au and 7584 and 1552 ppb antimony, respectively.

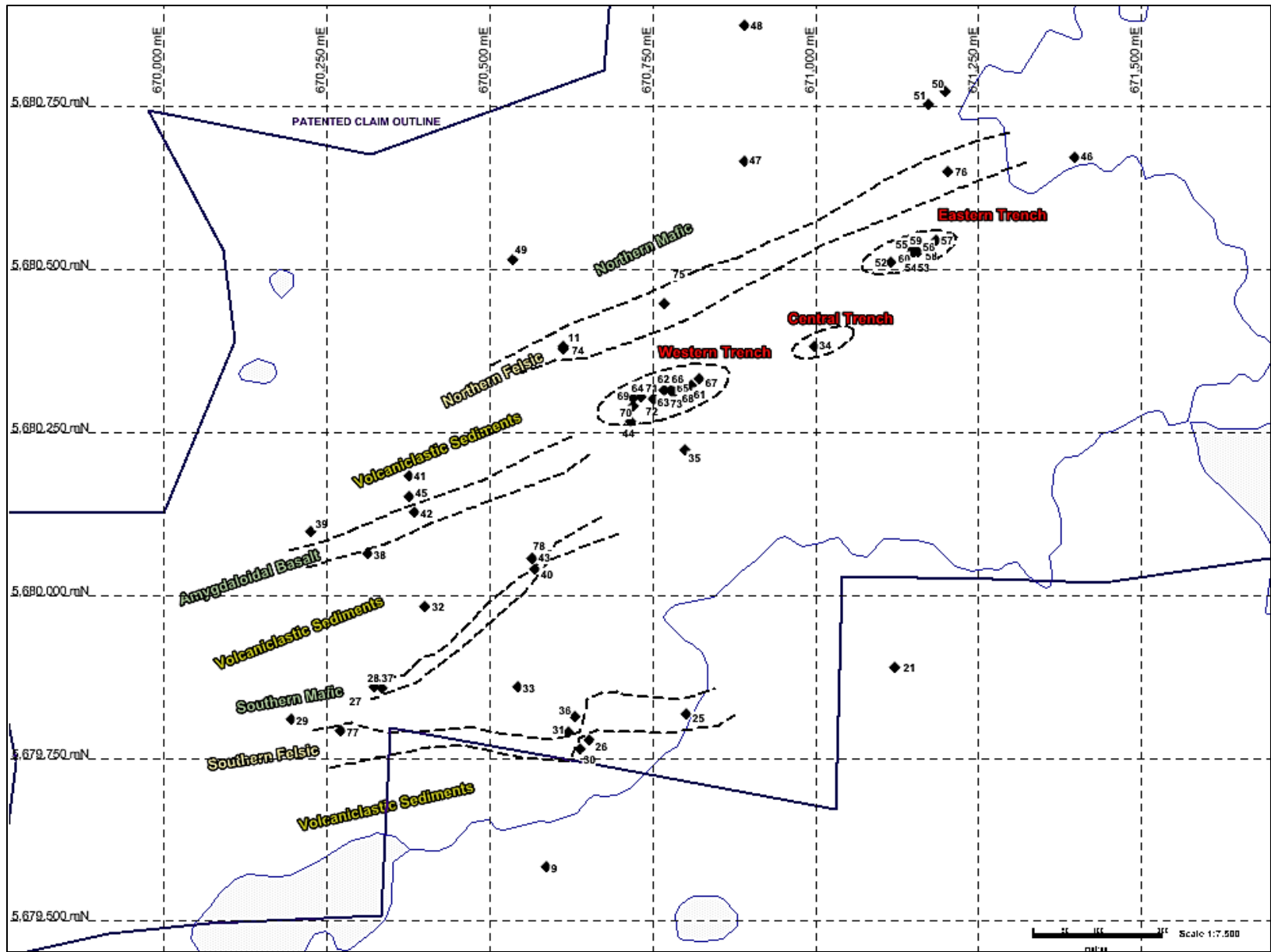


Figure 9. 2017 sampling area with generalized geological interpretation.



## **CONCLUSIONS AND RECOMMENDATIONS**

The work above resulted in several significant findings that will be used in the planning of future exploration work on the Sky Lake property.

Mafic volcanic rocks (less than 50% SiO<sub>2</sub>) exhibit a relatively tight cluster on classification diagrams. Data is not sufficient to distinguish alteration trends that might be associated with gold mineralization.

Felsic volcanic rocks (rhyolite and dacite) samples taken from the CIMV unit exhibit a large spread on classification diagrams. This spread is apparent in Si, Na, K and other major element values. Much of this is interpreted to be due to rock alteration related to gold mineralization. Data density is not sufficient along strike from known gold occurrences to allow detailed studies and possible vectoring toward new occurrences. Similarly, felsic volcanic samples taken outside of the CIMV unit also exhibit significant variability. This variability may also be due to alteration associated with gold mineralization. If so, this study has demonstrated the potential for discovery of new gold occurrences in previously unexplored rocks.

## REFERENCES

- Hewton, M. Kendle, F. 2015. Report on the 2015 Geologic Mapping Program Sky Lake Property, Pickle Lake, Ontario for Tri Origin Exploration Ltd. 50pp.
- Hewton, M. Kendle, F. 2016. Report on Major Oxide and Trace Element Rock Geochemistry
- Jolliffe, T.S. 1996. Report on Diamond Drilling, Koval Property, Patricia Mining Division, Northwestern Ontario for Moss Resources, Inc. 90pp. AFRI 52O02NE001.
- Sky Lake Property, Pickle Lake, Ontario for Tri Origin Exploration Ltd. 29pp.
- Ministry of Northern Development and Mines, MDI File MDI52O06SE00005. Golden Patricia Mine.
- Ministry of Northern Development and Mines, MDI File MDI52O08NW00003. Thierry Mine.
- Ontario Geological Survey 2011. 1:250 000 scale bedrock geology of Ontario; Ontario Geological Survey, Miscellaneous Release–Data 126 - Revision 1.
- Scratch, R, 1984. Report on Reconnaissance Geologic Mapping and Humus Sampling of the Golden Maverick Resources Corporation – Bancroft Lake Project currently under option to Kennco Explorations (Canada) Ltd. 87pp. AFRI 52O08SW0019.

## PERSONNEL

The following geologists were employed by Tri Origin during the preparation of this report during November and December 2018.

Monique Ruhl	Contract Geologist	Beaverton, Ontario
Rob McEwan	Contract Geologist	Grand Bend, Ontario

Sampling was conducted in August 2017 by:

Frank Kendle	Sr contract geologist	Queensville, Ontario
Monique Ruhl	Contract geologist	Beaverton, Ontario
Nickie Patrizio	Contract geologist	Waterloo, Ontario
Mackenzie Valliant	Geology student	Waterloo, Ontario

and, additional sample review and classification was completed during August 2017 by Frank Kendle, Monique Ruhl and Nickie Patrizio and June 2018 by Monique Ruhl. All work was supervised by Robert Valliant, CEO of Tri Origin.

## STATEMENT OF QUALIFICATIONS

I, **Monique Ruhl**, of 422 Bay St., Beaverton, ON, do hereby certify that:

1. I am employed as a contract geologist by Tri Origin Exploration Ltd.
2. I graduated with a bachelor's degree in earth science (BSc. Geology) from Dalhousie University in 2016
3. Hold a GIT (Geoscientist-in-Training) membership with the Association of Professional Geoscientists of Ontario (membership number 10457).
4. I have worked as a geologist for a total of two years.
5. I am responsible for the technical report titled "Report on the 2017 Sampling Program, Koval Option Sky Lake Property, Pickle Lake, Ontario".
6. My knowledge of the property as described herein was obtained by fieldwork and literature review.
7. I have no direct interest, nor do I expect to receive any interest in the mining claims that comprise the Sky Lake Property within the Patricia Mining district.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 10th day of December, 2018.

A handwritten signature in black ink, appearing to read "Monique Ruhl". The signature is written in a cursive, flowing style.

Monique Ruhl

I, **Robert McEwan**, 30 Erin Place, Grand Bend, ON, do hereby certify that:

1. I am employed as a contract geologist by Tri Origin Exploration Ltd.
2. I graduated with a bachelor's degree in earth science (BSc. Geology) from Dalhousie University in 2016
3. I have worked as a geologist for a total of one year.
4. I am responsible for the technical report titled "Report on the 2017 Sampling Program, Koval Option Sky Lake Property, Pickle Lake, Ontario".
5. My knowledge of the property as described herein was obtained by fieldwork and literature review.
6. I have no direct interest, nor do I expect to receive any interest in the mining claims that comprise the North Abitibi Property within Hoblitzell Township in the Larder Lake Mining division.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 10th day of December, 2018.

A handwritten signature in black ink, appearing to read 'R. McEwan', with a large, stylized initial 'R'.


Robert McEwan

## APPENDICES



## **APPENDIX A**

### **LABORATORY PROCEDURES**

	<p align="center"><b>Minerals Services Geochemistry Lakefield Laboratory</b></p>	<p>Revision <b>0.0</b> Doc Type <b>Method Summary</b> Method No: <b>GE_FAA313</b> Code Service <b>Testing</b> Issued Date <b>02/Sep/2014</b></p>
<p><b>Minerals Services</b></p>	<p align="center"><b>Determination Gold by Lead Fusion Fire Assay and Atomic Absorption Spectrometry in Exploration samples</b> [30g ; Au; AAS]</p>	<p>Approved by <b>L. Ng</b></p>

**1. Parameter(s) measured, unit(s):**

Gold (Au); in ppb

**2. Typical sample size:**

30 g

**3. Type of sample applicable (media):**

Crushed and Pulverized rocks

**4. Sample preparation technique used:**

Weighed representative samples are mixed with flux and fused using lead oxide at 1100°C, followed by cupellation of the resulting lead button. The bead is dissolved using HCl and HNO<sub>3</sub> and the resulting solution is submitted for analysis

**5. Method of analysis used:**

The digested sample solution is analyzed by Flame Atomic Absorption Spectrometer (AAS).

**6. Data reduction by:**

Computer, on line, data fed to SGS Laboratory Information Management System with secure audit trail.

**7. Figures of Merit:**

This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of reference materials, replicates, duplicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, reporting limit, specificity and measurement uncertainty.

The Reporting Limit has been determined according to the following:

Element	Reporting Limit (ppb)	Upper Limit (ppb)
Au	5.0	10,000

**8. Quality control:**


Quality control materials include method blanks, duplicates and reference materials and are randomly inserted with the frequency set according to method protocols at ~14%. Quality

control materials will also include BRM (Barren reference materials, or preparations blanks) and replicates if samples have been taken through the sample reduction process. Instrument calibration is performed for each batch or work order and calibration checks are analyzed within each analytical run.

**9. Accreditation:**

The Standards Council of Canada has accredited this test in conformance with the requirements of ISO/IEC 17025. See [www.scc.ca](http://www.scc.ca) for scope of accreditation.

Note: Scopes of accreditation are site specific, please check with the local representative.

	<p style="text-align: center;"><b>Minerals Services Geochemistry Lakefield Laboratory</b></p>	<p>Revision <b>0.6</b> Doc Type <b>Method Summary</b> Method No: <b>GE_ICM90A</b> Code Service <b>Testing</b> Issued Date <b>13/Jul/2015</b></p>
<p><b>Minerals Services</b></p>	<p><b>Determination of Fifty-five (55) Elements in Exploration Samples using Sodium Peroxide Fusion and a Combination of Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) and Inductively Coupled Plasma Mass Spectrometry (ICP-MS)</b></p> <p>[Na<sub>2</sub>O<sub>2</sub>; HNO<sub>3</sub>; C<sub>4</sub>H<sub>6</sub>O<sub>3</sub>; Ag, Al; As; Ba; Be; Bi; Ca; Cd; Ce; Co; Cr; Cs; Cu; Dy; Er; Eu; Fe; Ga; Gd; Ge; Hf; Ho; In; K; La; Li; Lu; Mg; Mn; Mo; Nb; Nd; Ni; P; Pb; Pr; Rb; Sb; Sc; Sm; Sn; Sr; Ta; Tb; Th; Tl; Ti; Tm; U; V; W; Y; Yb, Zn; Zr]</p>	<p>Approved by <b>S. Meyers</b></p>

**1. Parameter(s) measured, unit(s):**

Silver (Ag); Arsenic (As); Barium (Ba); Beryllium (Be); Bismuth (Bi); Cadmium (Cd); Cerium (Ce); Cobalt (Co); Chromium (Cr); Cesium (Cs); Copper (Cu); Dysprosium (Dy); Erbium (Er); Europium (Eu); Gallium (Ga); Gadolinium (Gd); Germanium (Ge); Hafnium (Hf); Holmium (Ho); Indium (In); Lanthanum (La); Lithium (Li); Lutetium (Lu); Manganese (Mn); Molybdenum (Mo); Niobium (Nb); Neodymium (Nd); Nickel (Ni); Lead (Pb); Praseodymium (Pr); Rubidium (Rb); Antimony (Sb); Scandium (Sc); Samarium (Sm); Tin (Sn); Strontium (Sr); Tantalum (Ta); Terbium (Tb); Thorium (Th); Thallium (Tl); Thulium (Tm); Uranium (U); Vanadium (V); Tungsten (W); Yttrium (Y); Ytterbium (Yb); Zinc (Zn); Zirconium (Zr), in ppm  
Aluminum (Al); Calcium (Ca); Iron (Fe); Potassium (K); Magnesium (Mg); Phosphorus (P); Titanium (Ti) in %  
Boron (B), Selenium (Se), Tellurium (Te) in ppm and Sulfur (S) and Silica (Si) in % can be added as additional

**2. Typical sample size:**

0.1 g

**3. Type of sample applicable (media):**

Crushed and Pulverized rocks, soils and sediments

**4. Sample preparation technique used:**

Weighed representative samples are digested fused in glassy carbon crucibles using sodium peroxide (Na<sub>2</sub>O<sub>2</sub>). The resultant cake is dissolved in HNO<sub>3</sub>.

**5. Method of analysis used:**

The digested sample solution is analyzed by inductively coupled plasma Mass Spectrometer (ICP-MS) and inductively coupled plasma Optical Emission Spectrometer (ICP-OES).

**6. Data reduction by:**

Computer, on line, data fed to SGS Laboratory Information Management System with secure audit trail.

## 7. Figures of Merit:

This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of reference materials, replicates, duplicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, reporting limit, specificity and measurement uncertainty.

The Reporting Limit has been determined according to the following:

Element	Reporting Limit (ppm)	Upper Limit	Element	Reporting Limit (ppm)	Upper Limit	Element	Reporting Limit (ppm)	Upper Limit	Element	Reporting Limit (ppm)	Upper Limit
<b>Ag</b>	1.00	0.1%	<b>Er</b>	0.05	0.10%	<b>Mn</b>	10	10%	<b>Ta</b>	0.5	1.0%
<b>Al</b>	0.01(%)	25%	<b>Eu</b>	0.05	0.10%	<b>Mo</b>	2.00	1.0%	<b>Tb</b>	0.05	0.10%
<b>As</b>	5.00	10%	<b>Fe</b>	0.01(%)	25%	<b>Nb</b>	1.00	1.0%	<b>Th</b>	0.10	0.10%
<b>Ba</b>	10	1.0%	<b>Ga</b>	1.00	0.10%	<b>Nd</b>	0.10	1.0%	<b>Ti</b>	0.01(%)	25%
<b>Be</b>	5.00	0.25%	<b>Gd</b>	0.05	0.10%	<b>Ni</b>	5.00	1.0%	<b>Tl</b>	0.50	0.10%
<b>Bi</b>	0.10	0.10%	<b>Ge</b>	1.00	0.10%	<b>P</b>	0.01(%)	25%	<b>Tm</b>	0.05	0.10%
<b>Ca</b>	0.1(%)	25%	<b>Hf</b>	1.00	1.0%	<b>Pb</b>	5.00	1.0%	<b>U</b>	0.05	0.1%
<b>Cd</b>	0.20	1.0%	<b>Ho</b>	0.05	0.10%	<b>Pr</b>	0.05	0.1%	<b>V</b>	5.00	1.0%
<b>Ce</b>	0.10	1.0%	<b>In</b>	0.20	0.10%	<b>Rb</b>	0.20	1.0%	<b>W</b>	1.00	1.0%
<b>Co</b>	0.50	1.0%	<b>K</b>	0.1(%)	25%	<b>Sb</b>	0.10	1.0%	<b>Y</b>	0.50	0.1%
<b>Cr</b>	10	5%	<b>La</b>	0.10	1.0%	<b>Sc</b>	5.00	5.0%	<b>Yb</b>	0.10	0.1%
<b>Cs</b>	0.10	1.0%	<b>Li</b>	10	5.0%	<b>Sm</b>	0.10	0.1%	<b>Zn</b>	5.00	1.0%
<b>Cu</b>	10	1.0%	<b>Lu</b>	0.05	0.10%	<b>Sn</b>	1.00	1.0%	<b>Zr</b>	0.50	1.0%
<b>Dy</b>	0.05	0.1%	<b>Mg</b>	0.01(%)	25%	<b>Sr</b>	10	0.5%			
<b>B</b>	10	10%	<b>S</b>	0.01	35%	<b>Se</b>	0.2	0.1%	<b>Si</b>	0.1(%)	35%
<b>Te</b>	0.1	0.1%									


## 8. Quality control:

Quality control materials include method blanks, duplicates and reference materials and are randomly inserted with the frequency set according to method protocols at ~14%. Quality control materials will also include BRM (Barren reference materials, or preparations blanks) and replicates if samples have been taken through the sample reduction process. Instrument calibration is performed for each batch or work order and calibration checks are analyzed within each analytical run.

## 9. Accreditation:

The Standards Council of Canada has accredited this test in conformance with the requirements of ISO/IEC 17025. See [www.scc.ca](http://www.scc.ca) for scope of accreditation.

Note: Scopes of accreditation are site specific, please check with the local representative.

	<b>Minerals Services</b> <b>Geochemistry</b> <b>Lakefield Laboratory</b>	Revision <b>2.7</b> Doc Type <b>Method Summary</b> Method No: <b>GO/GC/GT_XR</b> Code <b>F76V</b> Service <b>Testing</b> Issued Date <b>23/Sep/2014</b>
<i>Minerals Services</i>	<b>Preparation and Determination of Major Element Oxides, LOI and Rare Earth Oxides by Borate Fusion and Xray Fluorescence Spectrometry</b> [SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , MgO, CaO, Na <sub>2</sub> O, K <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , MnO, TiO <sub>2</sub> , Cr <sub>2</sub> O <sub>3</sub> ; V <sub>2</sub> O <sub>5</sub> ; LOI; additions BaO; Ce <sub>2</sub> O <sub>3</sub> ; Nd <sub>2</sub> O <sub>3</sub> , La <sub>2</sub> O <sub>3</sub> ; Pr <sub>2</sub> O <sub>3</sub> , Sm <sub>2</sub> O <sub>3</sub> ; Nb <sub>2</sub> O <sub>5</sub> , ThO <sub>2</sub> , Ta <sub>2</sub> O <sub>5</sub> ; SnO <sub>2</sub> ; SrO; ZrO <sub>2</sub> ; HfO <sub>2</sub> ; Y <sub>2</sub> O <sub>3</sub> ; WO <sub>3</sub> ; U <sub>3</sub> O <sub>8</sub> ; Co; Ni ; XRF]	Approved by <b>K. Patel</b>

**1. Parameter(s) measured, unit(s):**

Silicon Dioxide (SiO<sub>2</sub>), Aluminum Oxide (Al<sub>2</sub>O<sub>3</sub>), Iron(III) Oxide (Fe<sub>2</sub>O<sub>3</sub>), Magnesium Oxide (MgO), Calcium Oxide (CaO), Sodium Oxide (Na<sub>2</sub>O), Potassium Oxide (K<sub>2</sub>O), Phosphorus Pentoxide (P<sub>2</sub>O<sub>5</sub>), Manganese Oxide (MnO), Titanium Dioxide (TiO<sub>2</sub>), Chromium (III) Oxide (Cr<sub>2</sub>O<sub>3</sub>), Vanadium Oxide (V<sub>2</sub>O<sub>5</sub>), LOI, in %  
Barium Oxide (BaO), Cerium (III) Oxide (Ce<sub>2</sub>O<sub>3</sub>), Neodymium Oxide (Nd<sub>2</sub>O<sub>3</sub>), Lanthanum Oxide (La<sub>2</sub>O<sub>3</sub>), Praseodymium Oxide (Pr<sub>2</sub>O<sub>3</sub>), Samarium Oxide (Sm<sub>2</sub>O<sub>3</sub>), Niobium Pentoxide (Nb<sub>2</sub>O<sub>5</sub>), Thorium Dioxide (ThO<sub>2</sub>), Tantalum Pentoxide (Ta<sub>2</sub>O<sub>5</sub>), Tin Dioxide (SnO<sub>2</sub>) Uranium Oxide (U<sub>3</sub>O<sub>8</sub>), Cobalt (Co), Nickel (Ni), Strontium Oxide (SrO), Zirconium Dioxide (ZrO<sub>2</sub>), Hafnium Oxide (HfO<sub>2</sub>), Yttrium Oxide (Y<sub>2</sub>O<sub>3</sub>), Tungsten Trioxide (WO<sub>3</sub>) in % can be added as additions

**2. Typical sample size:**

0.2 to 0.5g

**3. Type of sample applicable (media):**

Rocks, oxide ores, concentrates and catalysts

**4. Sample preparation technique used:**

Samples are crushed and pulverized according to client specified instructions or default preparation procedures. This method is used to report, in percentage, the whole rock suite (SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, MgO, CaO, Na<sub>2</sub>O, K<sub>2</sub>O, P<sub>2</sub>O<sub>5</sub>, MnO, TiO<sub>2</sub>, Cr<sub>2</sub>O<sub>3</sub>, V<sub>2</sub>O<sub>5</sub>). Sample preparation entails the formation of a homogenous glass disk by the fusion of the sample and a lithium tetraborate/lithium metaborate mixture. The LOI is determined separately and gravimetrically at 1000°C.

**5. Method of analysis used:**

The prepared disks are analyzed by wavelength dispersion X-ray fluorescence (WD-XRF). The LOI is included in the matrix correction calculations, which are performed by the XRF software.

**6. Data reduction by:**

Computer, on line, data fed to Laboratory Information Management System with secure audit trail.

**7. Figures of Merit:**

This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of reference materials, replicates, duplicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, reporting limit, specificity and measurement uncertainty.

Element	Report Limit %
SiO2	0.01
Al2O3	0.01
MgO	0.01
Na2O	0.01
K2O	0.01
CaO	0.01
P2O5	0.01
TiO2	0.01
Cr2O3	0.01
V2O5	0.01
Fe2O3	0.01
MnO	0.01
LOI	-10

\*upper limit for all elements is 100%. A negative LOI indicates a gain on ignition

**8. Quality control:**

Quality control materials include method blanks, duplicates and reference materials and are randomly inserted with the frequency set according to method protocols at ~14% for exploration and ore grade analysis and 20% for process control analysis. Quality control materials will also include BRM (Barren reference materials, or preparations blanks) and replicates if samples have been taken through the sample reduction process. Party quality samples are assayed in duplicate, umpire quality samples are in triplicate. Calibration materials that cover the range upon method set-up; calibration check performed daily.

**9. Accreditation:**

The Standards Council of Canada has accredited this test in conformance with the requirements of ISO/IEC 17025. See [www.palcan.scc.ca](http://www.palcan.scc.ca) for scope of accreditation.

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**APPENDIX B**

**GEOCHEMICAL CERTIFICATES OF ANALYSIS**





**Certificate of Analysis**  
**Work Order : LK1801790**  
**[Report File No.: 0000016370]**

Date: August 21, 2018

To: **Robert\_Valliant**  
**TRI-ORIGIN EXPLORATION LTD**  
125 DON HILLOCK DRIVE UNIT 18  
ON L4G 0H8

P.O. No.: -  
Project No.: SKY LAKE 2017  
Samples: 15  
Received: Jul 20, 2018  
Pages: Page 1 to 8  
(Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
15	G_WGH79	Weighing of samples and reporting of weights
15	G_DRY10	Dry samples to 3.0kg, 105°C
15	G_CRU21	Crush to 3kg, 2mm, 75% passing
15	G_PUL45	Pulverize 250g, Cr steel, 75 microns, 85% passing
15	ZMS_ICM40B	Package Price - GE_ICM40B (GE_IC40A+GE_IC40M)
15	GE_IC40A	@Package, ICPAES after Multi-Acid Digest
15	GE_IC40M	@Package, ICPMS after Multi-Acid Digest
15	GE_FAI313	@Au, Pt, Pd, FAS, ICP-AES, 30g - 5ml

Certified By :   
Brett Pipher  
Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
n.a. = Not applicable -- = No result  
\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 0.001 kg	@Ag GE_ICM40B 0.02 ppm	@Al GE_ICM40B 0.01 %	@Ba GE_ICM40B 1 ppm	@Ca GE_ICM40B 0.01 %	@Cr GE_ICM40B 1 ppm	@Cu GE_ICM40B 0.5 ppm	@Fe GE_ICM40B 0.01 %
521004	0.821	0.04	5.69	308	1.45	115	39.1	1.23
521006	0.674	0.03	9.94	310	1.25	206	61.3	4.80
521008	0.941	0.03	7.63	394	3.23	195	36.8	3.48
521009	0.546	0.04	8.81	211	2.77	202	49.8	6.44
521011	0.763	<0.02	8.13	324	1.35	120	37.1	4.72
521019	0.933	<0.02	0.31	23	0.26	120	12.1	0.59
521037	1.800	<0.02	0.62	72	0.91	216	11.6	1.48
521038	1.334	<0.02	8.71	1015	1.65	106	20.8	10.7
521039	0.648	0.06	8.00	803	1.86	132	20.5	7.53
521040	0.632	0.08	7.58	375	1.64	101	48.5	7.73
521041	1.096	0.03	8.39	1300	4.37	174	24.2	4.64
521043	0.855	0.18	9.92	378	2.41	143	39.1	8.89
521044	1.055	0.18	4.24	106	3.78	125	40.1	7.19
521045	0.606	0.18	9.69	1243	1.71	107	31.4	5.48
521047	3.029	0.38	7.47	494	2.12	138	25.9	7.48
*Rep 521047		0.35	7.41	536	2.11	146	33.4	7.46

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Element	@K	@Li	@Mg	@Mn	@Na	@Ni	@P	@S
Method	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B
Det.Lim.	0.01	1	0.01	2	0.01	0.5	100	0.01
Units	%	ppm	%	ppm	%	ppm	ppm	%
521004	0.84	28	0.48	180	2.55	20.2	319	0.04
521006	1.97	50	1.26	561	1.62	20.7	334	0.12
521008	2.48	48	1.95	777	0.93	62.3	839	0.15
521009	0.56	63	2.49	1395	1.75	46.5	272	0.14
521011	1.46	58	1.23	414	2.77	30.6	452	0.06
521019	0.05	6	0.08	88	0.06	10.4	141	<0.01
521037	0.33	5	0.26	346	0.03	12.0	282	0.47
521038	3.16	35	1.38	5331	1.70	31.6	1122	0.19
521039	2.13	26	1.01	2866	2.51	28.0	1139	0.31
521040	2.85	23	1.07	2348	1.69	35.9	1149	0.82
521041	4.96	37	3.17	1492	0.40	138	1273	0.18
521043	3.43	38	1.82	1904	0.42	34.2	1173	2.04
521044	2.55	19	1.99	2924	0.28	27.5	796	2.69
521045	4.70	18	1.13	1262	1.58	31.7	1360	0.54
521047	3.19	28	1.71	1954	0.48	34.4	1325	1.00
*Rep 521047	3.12	28	1.71	1941	0.47	34.0	1323	0.99

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Element Method Det.Lim. Units	@Sr	@Ti	@V	@Zn	@Zr	@As	@Be	@Bi
	GE_ICM40B 0.5 ppm	GE_ICM40B 0.01 %	GE_ICM40B 2 ppm	GE_ICM40B 1 ppm	GE_ICM40B 0.5 ppm	GE_ICM40B 1 ppm	GE_ICM40B 0.1 ppm	GE_ICM40B 0.04 ppm
521004	366	0.09	28	37	35.4	3	1.3	0.12
521006	514	0.53	196	92	138	68	1.1	0.38
521008	310	0.36	118	53	84.6	314	1.0	0.09
521009	202	0.48	212	100	57.8	<1	0.6	0.11
521011	324	0.29	96	58	116	14	1.1	0.22
521019	23.6	0.01	7	8	1.8	12	0.3	<0.04
521037	38.8	0.07	16	8	27.2	7	0.2	<0.04
521038	433	0.42	119	50	142	2370	2.0	0.45
521039	505	0.38	87	38	121	957	2.3	0.28
521040	292	0.39	115	63	79.1	2541	1.4	0.44
521041	533	0.50	203	77	127	521	1.7	0.11
521043	279	0.48	164	80	137	60	2.1	0.17
521044	399	0.20	174	46	68.4	187	0.9	0.11
521045	387	0.49	134	58	162	731	1.9	0.12
521047	521	0.38	185	53	128	1131	1.3	0.11
*Rep 521047	536	0.38	184	54	126	1115	1.4	0.11

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Element Method Det.Lim. Units	@Cd GE_ICM40B 0.02 ppm	@Ce GE_ICM40B 0.05 ppm	@Co GE_ICM40B 0.1 ppm	@Cs GE_ICM40B 1 ppm	@Ga GE_ICM40B 0.1 ppm	@Hf GE_ICM40B 0.02 ppm	@In GE_ICM40B 0.02 ppm	@La GE_ICM40B 0.1 ppm
521004	0.05	48.1	6.3	2	8.7	0.91	<0.02	21.1
521006	<0.02	30.8	8.8	4	20.0	3.83	0.05	18.2
521008	0.04	32.5	13.4	7	14.1	2.13	0.04	13.1
521009	0.10	10.8	17.8	2	14.8	1.52	0.05	5.1
521011	0.04	46.8	8.6	6	15.5	2.80	0.03	21.9
521019	<0.02	4.06	1.4	<1	0.8	0.04	<0.02	1.5
521037	<0.02	13.7	3.4	1	1.3	0.62	<0.02	6.2
521038	0.04	45.2	12.0	9	18.1	3.89	0.04	19.6
521039	<0.02	48.6	10.8	6	13.2	3.05	<0.02	20.1
521040	0.04	37.6	20.5	8	12.6	2.56	0.03	15.3
521041	0.06	71.3	26.1	14	15.9	2.85	0.04	29.7
521043	0.05	53.8	8.8	15	20.5	3.29	0.03	22.9
521044	0.05	27.5	6.8	7	6.7	1.45	<0.02	11.2
521045	0.02	34.0	12.0	10	19.2	3.73	0.04	11.1
521047	0.02	51.7	10.1	7	12.9	2.86	0.03	20.4
*Rep 521047	0.03	51.4	10.0	7	13.0	2.82	0.03	20.2

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Element Method Det.Lim. Units	@Lu GE_ICM40B 0.01 ppm	@Mo GE_ICM40B 0.05 ppm	@Nb GE_ICM40B 0.1 ppm	@Pb GE_ICM40B 0.5 ppm	@Rb GE_ICM40B 0.2 ppm	@Sb GE_ICM40B 0.05 ppm	@Sc GE_ICM40B 0.5 ppm	@Se GE_ICM40B 2 ppm
521004	0.06	4.21	1.9	9.3	24.4	0.24	2.8	<2
521006	0.24	2.98	7.7	10.8	54.0	0.32	22.8	<2
521008	0.16	3.30	3.6	8.3	80.0	9.97	15.9	<2
521009	0.20	0.63	3.7	4.1	19.8	0.21	25.3	<2
521011	0.15	1.85	5.1	11.2	52.5	0.93	10.4	<2
521019	0.01	1.51	0.4	1.2	2.8	0.96	0.9	<2
521037	0.03	5.25	1.4	1.1	12.6	1.00	1.6	<2
521038	0.22	1.29	6.5	18.7	91.7	7.08	10.9	<2
521039	0.16	2.45	5.8	16.6	65.5	4.54	9.0	<2
521040	0.13	7.11	5.1	14.7	91.8	9.72	10.0	<2
521041	0.22	1.29	5.5	9.3	119	2.69	19.2	<2
521043	0.21	1.60	6.6	12.7	135	1.75	15.1	<2
521044	0.09	13.6	2.6	7.0	77.8	1.68	6.3	<2
521045	0.18	2.52	7.2	16.3	114	2.96	13.0	<2
521047	0.15	3.76	5.0	14.0	83.6	5.05	10.5	<2
*Rep 521047	0.15	3.64	5.1	13.9	84.2	5.03	10.3	2

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Element Method Det.Lim. Units	@Sn GE_ICM40B 0.3 ppm	@Ta GE_ICM40B 0.05 ppm	@Tb GE_ICM40B 0.05 ppm	@Te GE_ICM40B 0.05 ppm	@Th GE_ICM40B 0.2 ppm	@Tl GE_ICM40B 0.02 ppm	@U GE_ICM40B 0.05 ppm	@W GE_ICM40B 0.1 ppm
521004	0.7	0.19	0.28	<0.05	1.8	0.16	0.61	0.3
521006	1.4	0.90	0.23	0.17	6.1	0.32	1.49	4.0
521008	0.8	0.30	0.40	<0.05	3.8	1.72	0.94	102
521009	0.7	0.39	0.20	<0.05	0.9	0.17	0.23	1.2
521011	0.8	0.52	0.30	<0.05	5.8	0.35	1.46	1.5
521019	0.4	<0.05	<0.05	<0.05	<0.2	0.03	<0.05	87.9
521037	0.4	0.08	0.11	<0.05	1.2	0.11	0.31	5.7
521038	1.0	0.50	0.44	0.10	5.9	1.19	1.43	157
521039	0.6	0.42	0.42	0.05	5.2	0.87	1.19	140
521040	0.8	0.34	0.32	<0.05	4.8	1.05	1.09	135
521041	0.7	0.48	0.59	<0.05	5.9	1.45	0.96	33.7
521043	0.8	0.57	0.46	0.42	6.5	1.73	1.35	126
521044	0.4	0.15	0.23	0.15	2.2	0.97	0.56	21.6
521045	1.0	0.48	0.40	<0.05	6.2	1.10	1.47	63.3
521047	0.6	0.34	0.42	<0.05	4.6	1.05	1.11	60.4
*Rep 521047	0.6	0.34	0.41	<0.05	4.5	1.05	1.09	57.8

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Final : LK1801790 Order:

Report File No.: 0000016370

Element	@Y	@Yb	@Au
Method	GE_ICM40B	GE_ICM40B	GE_FAI313
Det.Lim.	0.1	0.1	1
Units	ppm	ppm	ppb
521004	5.0	0.4	4
521006	9.6	1.3	14
521008	10.4	1.0	41
521009	8.7	1.1	4
521011	7.9	0.8	5
521019	1.2	<0.1	2
521037	3.0	0.2	14
521038	13.0	1.3	41
521039	10.7	0.9	123
521040	8.1	0.7	22
521041	15.4	1.3	242
521043	13.0	1.3	899
521044	6.6	0.5	1232
521045	11.1	1.0	67
521047	10.5	0.9	5056
*Rep 521037			19
*Rep 521047	10.3	0.9	

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**Certificate of Analysis**  
**Work Order : LK1801791**  
**[Report File No.: 0000016551]**

**Date:** August 30, 2018

**To: Robert\_Valliant**  
**TRI-ORIGIN EXPLORATION LTD**  
125 DON HILLOCK DRIVE UNIT 18  
ON L4G 0H8

**P.O. No.:** -  
**Project No.:** SKY LAKE 2017  
**Samples:** 21  
**Received:** Jul 20, 2018  
**Pages:** Page 1 to 9  
(Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
21	G_WGH79	Weighing of samples and reporting of weights
21	G_DRY10	Dry samples to 3.0kg, 105°C
21	G_CRU21	Crush to 3kg, 2mm, 75% passing
21	G_PUL45	Pulverize 250g, Cr steel, 75 microns, 85% passing
21	ZMS_ICM40B	Package Price - GE_ICM40B (GE_IC40A+GE_IC40M)
21	GE_IC40A	@Package, ICPAES after Multi-Acid Digest
21	GE_IC40M	@Package, ICPMS after Multi-Acid Digest
21	GO_XRF76V	@Ore grade Borate fusion, XRF (0.5g plus 1g LOI)

**Comments:**

Assays not suitable for commercial exchange.

Certified By :   
Brett Pipher  
Project Coordinator

**SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
n.a. = Not applicable -- = No result  
\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 0.001 kg	@Ag GE_ICM40B 0.02 ppm	@Al GE_ICM40B 0.01 %	@Ba GE_ICM40B 1 ppm	@Ca GE_ICM40B 0.01 %	@Cr GE_ICM40B 1 ppm	@Cu GE_ICM40B 0.5 ppm	@Fe GE_ICM40B 0.01 %
521005	0.374	<0.02	5.40	93	3.64	236	41.3	5.00
521007	0.644	<0.02	8.19	138	6.40	210	1.1	7.37
521010	1.236	<0.02	7.48	27	7.38	125	149	10.1
521012	0.730	0.06	9.97	68	4.52	263	98.5	9.41
521013	0.608	<0.02	8.45	41	5.84	197	50.3	9.15
521015	0.864	<0.02	6.46	429	0.70	151	9.7	1.14
521016	0.693	<0.02	8.14	67	6.78	263	112	9.17
521017	0.372	0.14	8.11	630	7.97	610	42.8	6.66
521018	1.314	<0.02	8.06	48	8.04	160	12.5	9.84
521020	0.810	0.05	8.71	414	3.07	62	53.7	3.97
521021	1.313	<0.02	7.76	338	1.00	71	3.9	1.32
521022	0.650	<0.02	7.83	257	8.20	217	55.2	13.9
521023	1.418	0.05	7.68	56	4.15	33	208	11.9
521024	0.970	<0.02	6.73	291	2.79	63	24.9	9.44
521025	0.655	<0.02	6.48	105	4.15	59	10.6	10.6
521026	1.531	<0.02	7.11	306	2.49	77	1.1	9.28
521027	0.502	<0.02	7.28	102	4.55	45	9.3	12.3
521050	1.196	<0.02	7.63	533	1.07	82	3.3	1.46
521051	0.464	<0.02	8.42	570	2.24	99	8.5	1.75
521052	0.824	0.06	7.93	266	2.45	191	48.9	4.33
521054	1.002	<0.02	7.73	178	3.33	175	50.5	3.24
*Rep 521054		<0.02	7.65	175	3.23	175	49.9	3.16

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Element Method Det.Lim. Units	@K GE_ICM40B 0.01 %	@Li GE_ICM40B 1 ppm	@Mg GE_ICM40B 0.01 %	@Mn GE_ICM40B 2 ppm	@Na GE_ICM40B 0.01 %	@Ni GE_ICM40B 0.5 ppm	@P GE_ICM40B 100 ppm	@S GE_ICM40B 0.01 %
521005	0.18	11	1.97	837	1.56	62.8	300	0.01
521007	0.48	57	5.73	1424	2.01	211	234	<0.01
521010	0.21	12	4.26	1585	1.44	66.6	346	0.24
521012	0.29	72	6.15	1202	1.86	207	186	0.02
521013	0.18	26	4.68	1407	2.28	163	394	<0.01
521015	0.93	8	0.13	101	3.25	5.1	143	0.04
521016	0.16	25	4.61	1949	1.91	191	1672	0.12
521017	0.90	84	6.62	1515	0.69	296	2649	0.03
521018	0.21	26	2.81	1708	2.04	125	472	0.02
521020	0.41	20	2.24	752	5.55	48.2	1365	0.07
521021	0.61	13	0.16	110	4.61	1.7	178	0.02
521022	0.54	48	3.18	4241	0.87	273	1329	0.07
521023	0.13	23	2.47	1616	4.25	30.5	771	0.04
521024	0.97	20	1.24	1398	2.80	3.2	909	0.03
521025	0.49	11	1.03	1890	2.36	5.7	1346	0.01
521026	0.81	33	0.43	2385	2.71	1.1	1677	0.03
521027	0.22	17	1.68	2331	2.38	<0.5	371	0.33
521050	1.89	29	0.39	233	3.74	14.3	314	<0.01
521051	1.07	19	0.35	270	3.35	13.7	290	<0.01
521052	1.03	47	1.31	504	1.90	44.7	486	1.01
521054	0.55	33	1.14	632	1.66	30.2	709	0.14
*Rep 521054	0.54	33	1.15	622	1.61	29.9	710	0.15

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Element Method Det.Lim. Units	@Sr	@Ti	@V	@Zn	@Zr	@As	@Be	@Bi
	GE_ICM40B 0.5 ppm	GE_ICM40B 0.01 %	GE_ICM40B 2 ppm	GE_ICM40B 1 ppm	GE_ICM40B 0.5 ppm	GE_ICM40B 1 ppm	GE_ICM40B 0.1 ppm	GE_ICM40B 0.04 ppm
521005	201	0.31	104	64	20.0	11	0.3	0.05
521007	577	0.35	125	85	35.7	30	0.5	<0.04
521010	153	0.82	386	106	15.9	2	0.3	<0.04
521012	288	0.59	208	109	49.4	6	0.2	0.06
521013	479	0.61	176	117	31.2	<1	0.2	<0.04
521015	260	0.07	5	32	121	4	1.1	0.06
521016	736	0.47	251	103	96.8	98	0.4	0.07
521017	471	0.78	282	104	195	158	1.2	0.07
521018	309	0.61	205	126	52.6	10	0.2	<0.04
521020	856	0.46	135	69	140	132	0.8	0.16
521021	372	0.08	3	55	150	<1	0.9	0.11
521022	139	0.58	234	116	29.4	182	0.5	0.10
521023	583	0.89	199	131	95.0	<1	0.9	<0.04
521024	291	0.58	111	98	150	<1	0.9	0.07
521025	199	0.60	51	129	110	<1	0.8	0.05
521026	234	0.63	3	87	250	<1	1.4	<0.04
521027	202	1.70	224	124	69.3	<1	0.5	0.13
521050	528	0.15	38	32	101	<1	0.8	<0.04
521051	496	0.17	42	44	111	<1	1.2	0.08
521052	288	0.28	97	59	99.8	<1	1.1	0.26
521054	324	0.28	74	65	66.8	1	0.7	0.12
*Rep 521054	316	0.27	74	64	68.5	<1	0.7	0.11

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Element Method Det.Lim. Units	@Cd GE_ICM40B 0.02 ppm	@Ce GE_ICM40B 0.05 ppm	@Co GE_ICM40B 0.1 ppm	@Cs GE_ICM40B 1 ppm	@Ga GE_ICM40B 0.1 ppm	@Hf GE_ICM40B 0.02 ppm	@In GE_ICM40B 0.02 ppm	@La GE_ICM40B 0.1 ppm
521005	0.06	4.61	17.7	<1	10.0	0.55	0.04	1.7
521007	0.10	9.41	32.3	8	12.9	0.99	0.04	3.7
521010	0.08	8.73	39.0	<1	17.3	0.45	0.08	2.9
521012	0.07	5.39	44.5	5	16.6	1.26	0.05	2.3
521013	0.08	6.58	40.6	<1	15.5	0.85	0.06	2.2
521015	<0.02	18.1	0.9	4	16.5	3.14	<0.02	8.4
521016	0.10	62.6	36.8	<1	13.9	2.16	0.06	25.1
521017	0.13	123	41.5	12	15.1	4.08	0.06	47.8
521018	0.13	14.5	39.1	<1	15.8	1.45	0.06	5.7
521020	0.08	60.2	16.0	6	18.1	3.16	0.04	24.6
521021	<0.02	20.8	0.8	6	18.3	3.80	<0.02	8.3
521022	0.11	45.0	50.2	5	14.2	0.60	0.06	17.2
521023	0.11	29.5	43.4	<1	16.7	2.01	0.06	10.8
521024	0.04	27.9	25.6	1	17.2	3.63	0.06	11.3
521025	0.14	29.8	23.4	<1	17.9	2.73	0.08	13.1
521026	0.05	38.2	11.1	3	21.4	6.11	0.11	15.7
521027	0.08	12.2	37.2	<1	19.0	1.78	0.07	5.9
521050	0.05	17.3	4.8	2	17.3	2.39	<0.02	8.3
521051	0.03	10.9	5.5	2	19.6	2.59	<0.02	4.0
521052	0.08	29.1	11.1	4	16.0	2.36	0.03	12.7
521054	0.09	17.8	9.4	8	16.4	1.68	0.03	7.6
*Rep 521054	0.08	17.3	9.3	8	16.6	1.76	0.03	7.4

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Element Method Det.Lim. Units	@Lu GE_ICM40B 0.01 ppm	@Mo GE_ICM40B 0.05 ppm	@Nb GE_ICM40B 0.1 ppm	@Pb GE_ICM40B 0.5 ppm	@Rb GE_ICM40B 0.2 ppm	@Sb GE_ICM40B 0.05 ppm	@Sc GE_ICM40B 0.5 ppm	@Se GE_ICM40B 2 ppm
521005	0.11	2.26	1.1	3.8	3.7	0.09	11.3	<2
521007	0.16	0.25	1.3	3.5	15.3	0.23	13.7	<2
521010	0.34	0.70	3.5	1.6	2.5	0.21	38.6	<2
521012	0.17	0.29	1.9	3.5	9.7	0.15	19.3	<2
521013	0.22	0.55	1.8	2.6	2.8	0.26	18.7	<2
521015	<0.01	0.87	5.1	8.2	27.7	1.22	0.6	<2
521016	0.37	0.77	5.1	7.0	2.7	1.33	29.2	<2
521017	0.28	0.37	12.8	8.1	34.2	2.96	29.8	<2
521018	0.24	0.65	1.7	2.4	1.8	0.76	20.5	<2
521020	0.17	0.30	6.8	10.8	14.8	3.91	11.4	<2
521021	0.01	1.81	6.2	13.2	27.8	1.14	0.6	<2
521022	0.32	0.27	5.2	2.5	12.6	4.63	26.6	<2
521023	0.25	1.19	13.4	3.3	1.0	0.62	7.4	<2
521024	0.41	0.78	6.9	4.4	35.0	0.12	24.5	<2
521025	0.43	1.38	5.6	5.0	9.9	0.36	27.5	<2
521026	0.70	0.96	10.6	4.3	24.1	0.08	17.8	<2
521027	0.24	0.87	3.4	6.1	2.1	0.21	47.4	<2
521050	0.05	0.41	1.7	11.1	60.1	0.17	3.7	<2
521051	0.05	1.07	2.1	14.7	45.5	0.16	4.1	<2
521052	0.14	1.72	4.9	11.4	47.6	0.32	10.2	<2
521054	0.14	2.80	3.7	7.0	41.7	0.15	7.6	<2
*Rep 521054	0.14	2.93	3.8	6.9	42.7	0.15	7.7	<2

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Element Method Det.Lim. Units	@Sn GE_ICM40B 0.3 ppm	@Ta GE_ICM40B 0.05 ppm	@Tb GE_ICM40B 0.05 ppm	@Te GE_ICM40B 0.05 ppm	@Th GE_ICM40B 0.2 ppm	@Tl GE_ICM40B 0.02 ppm	@U GE_ICM40B 0.05 ppm	@W GE_ICM40B 0.1 ppm
521005	0.6	0.06	0.23	<0.05	0.4	0.06	0.10	1.1
521007	0.9	0.19	0.31	<0.05	0.6	0.14	0.11	0.8
521010	0.9	0.22	0.58	<0.05	0.3	<0.02	0.09	1.0
521012	0.7	0.24	0.27	<0.05	0.8	0.06	0.17	0.6
521013	0.8	0.19	0.45	<0.05	0.6	<0.02	0.11	0.4
521015	1.1	0.40	0.10	<0.05	5.8	0.17	1.69	1.9
521016	0.7	0.22	0.69	<0.05	3.4	<0.02	0.59	2.4
521017	1.1	0.64	0.98	<0.05	8.6	0.20	1.52	3.5
521018	0.8	0.13	0.47	<0.05	0.8	<0.02	0.16	0.3
521020	1.0	0.33	0.54	<0.05	5.1	0.07	1.09	0.4
521021	1.1	0.49	0.13	<0.05	7.5	0.17	2.05	0.5
521022	0.8	0.23	0.62	<0.05	2.5	0.08	0.40	22.3
521023	1.4	0.84	0.65	<0.05	1.2	<0.02	0.24	1.8
521024	0.9	0.45	0.57	<0.05	3.6	0.22	0.76	5.7
521025	1.2	0.39	0.71	<0.05	3.1	0.05	0.57	0.6
521026	0.9	0.68	1.07	<0.05	5.5	0.06	1.24	0.7
521027	0.7	0.23	0.37	0.07	1.6	<0.02	0.34	0.7
521050	0.7	0.12	0.11	<0.05	3.7	0.24	0.87	0.4
521051	0.8	0.16	0.10	<0.05	3.2	0.15	0.93	0.4
521052	0.7	0.27	0.28	0.15	5.1	0.35	1.32	2.6
521054	0.7	0.25	0.23	<0.05	2.1	0.38	0.56	13.7
*Rep 521054	0.7	0.24	0.24	<0.05	2.1	0.43	0.59	13.9

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Element	@Y	@Yb	@LOI	@SiO2	@Al2O3	@Fe2O3	@MgO	@CaO
Method	GE_ICM40B	GE_ICM40B	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V
Det.Lim.	0.1	0.1	-10.000	0.01	0.01	0.01	0.01	0.01
Units	ppm	ppm	%	%	%	%	%	%
521005	8.7	0.8	1.05	70.0	10.2	7.56	3.27	5.26
521007	11.1	1.0	1.71	49.4	15.1	11.3	9.20	9.46
521010	22.3	2.3	1.25	48.3	13.5	15.7	6.90	11.0
521012	10.9	1.1	3.86	43.1	18.3	14.5	9.93	6.62
521013	16.6	1.5	1.74	48.0	15.5	14.3	7.61	8.74
521015	1.3	<0.1	1.28	78.0	12.5	1.68	0.25	0.99
521016	24.3	2.3	2.30	47.0	14.8	14.3	7.44	9.96
521017	23.5	1.9	1.80	45.7	14.9	10.3	10.8	11.8
521018	16.5	1.6	3.25	45.5	14.9	15.3	4.69	12.1
521020	14.2	1.1	0.815	60.2	16.1	6.00	3.70	4.44
521021	1.7	<0.1	0.731	73.7	14.9	1.97	0.29	1.41
521022	21.2	2.3	2.50	40.2	14.2	21.7	5.28	12.3
521023	20.0	1.7	0.552	49.9	14.1	18.2	4.07	6.08
521024	24.3	2.7	1.01	59.6	12.7	14.5	2.11	4.09
521025	27.2	2.8	0.397	58.5	12.1	16.4	1.76	6.15
521026	44.9	4.7	0.168	60.7	13.7	14.5	0.75	3.69
521027	15.2	1.5	1.29	50.0	13.3	19.1	2.82	6.72
521050	3.0	0.2	1.23	72.4	14.5	2.15	0.66	1.50
521051	3.3	0.3	1.11	70.7	15.9	2.59	0.61	3.15
521052	9.4	0.9	2.08	66.2	15.1	6.62	2.24	3.57
521054	7.9	0.9	1.56	68.9	14.3	4.73	1.90	4.64
*Rep 521054	8.0	0.9						
*Rep 521016			2.10	46.8	14.6	14.3	7.42	9.92

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Element Method Det.Lim. Units	@K20 GO_XRF76V 0.01 %	@Na20 GO_XRF76V 0.01 %	@TiO2 GO_XRF76V 0.01 %	@MnO GO_XRF76V 0.01 %	@P2O5 GO_XRF76V 0.01 %	@Cr2O3 GO_XRF76V 0.01 %	@V2O5 GO_XRF76V 0.01 %	Sum GO_XRF76V 0 %
521005	0.21	1.96	0.54	0.12	0.07	0.05	0.02	100.3
521007	0.55	2.47	0.61	0.20	0.06	0.04	0.02	100.1
521010	0.24	1.79	1.46	0.21	0.08	0.02	0.07	100.6
521012	0.33	2.26	1.06	0.16	0.04	0.05	0.03	100.3
521013	0.21	2.76	1.10	0.20	0.09	0.04	0.03	100.3
521015	1.13	4.28	0.12	0.01	0.03	0.04	<0.01	100.3
521016	0.19	2.37	0.98	0.27	0.39	0.05	0.05	100.1
521017	1.01	0.86	1.37	0.21	0.61	0.12	0.05	99.5
521018	0.25	2.50	1.08	0.24	0.11	0.03	0.04	100.0
521020	0.48	7.10	0.80	0.10	0.30	0.01	0.03	100.1
521021	0.75	6.07	0.13	0.02	0.03	0.02	<0.01	100.1
521022	0.60	1.06	1.01	0.59	0.32	0.04	0.04	99.9
521023	0.14	5.17	1.56	0.22	0.18	<0.01	0.04	100.3
521024	1.14	3.49	1.05	0.19	0.22	0.02	0.02	100.1
521025	0.59	3.00	1.06	0.27	0.32	0.01	<0.01	100.5
521026	0.98	3.49	1.12	0.33	0.41	0.01	<0.01	99.8
521027	0.25	2.94	3.06	0.33	0.09	<0.01	0.04	99.9
521050	2.22	4.82	0.26	0.03	0.07	0.02	0.01	99.9
521051	1.27	4.37	0.29	0.04	0.06	0.02	<0.01	100.2
521052	1.24	2.44	0.51	0.07	0.11	0.04	0.02	100.3
521054	0.64	2.05	0.48	0.09	0.16	0.04	<0.01	99.5
*Rep 521016	0.18	2.34	0.98	0.27	0.39	0.05	0.04	99.4

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**Certificate of Analysis**  
**Work Order : LK1801793**  
**[Report File No.: 0000016834]**

Date: September 18, 2018

To: **Robert\_Valliant**  
**TRI-ORIGIN EXPLORATION LTD**  
 125 DON HILLOCK DRIVE UNIT 18  
 ON L4G 0H8

P.O. No.: -  
 Project No.: SKY LAKE 2017  
 Samples: 18  
 Received: Jul 20, 2018  
 Pages: Page 1 to 10  
 (Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
18	G_WGH79	Weighing of samples and reporting of weights
18	G_DRY10	Dry samples to 3.0kg, 105°C
18	G_CRU21	Crush to 3kg, 2mm, 75% passing
18	G_PUL45	Pulverize 250g, Cr steel, 75 microns, 85% passing
18	ZMS_ICM40B	Package Price - GE_ICM40B (GE_IC40A+GE_IC40M)
18	GE_IC40A	@Package, ICPAES after Multi-Acid Digest
18	GE_IC40M	@Package, ICPMS after Multi-Acid Digest
18	GE_FAI313	@Au, Pt, Pd, FAS, ICP-AES, 30g - 5ml
18	GO_XRF76V	@Ore grade Borate fusion, XRF (0.5g plus 1g LOI)
1	GO_ICP41Q	ICP-OES after 4-Acid digest-Ore-Grade Analyses

**Comments:**

Assays not suitable for commercial exchange.

Certified By :   
 Brett Pipher  
 Project Coordinator

*SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>*

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
 n.a. = Not applicable -- = No result  
 \*INF = Composition of this sample makes detection impossible by this method  
 M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
 Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
 Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 kg	@Ag GE_ICM40B ppm	@Al GE_ICM40B %	@Ba GE_ICM40B ppm	@Ca GE_ICM40B %	@Cr GE_ICM40B ppm	@Cu GE_ICM40B ppm	@Fe GE_ICM40B %
521001	0.772	0.10	5.59	184	2.26	162	47.6	3.84
521002	0.617	0.17	7.38	130	2.32	199	66.8	5.50
521003	1.305	0.04	8.02	670	0.66	133	5.1	1.29
521014	0.495	0.02	7.68	531	0.19	146	5.5	0.55
521028	1.305	1.76	1.89	64	0.02	309	14.9	3.82
521029	0.767	3.51	2.43	166	0.06	232	49.6	2.87
521030	1.550	0.43	0.62	72	0.03	156	13.7	1.29
521031	0.741	3.68	4.03	343	0.03	123	25.6	0.82
521032	0.933	1.68	5.25	173	0.02	263	44.7	3.82
521033	0.904	0.14	10.8	605	2.43	300	102	3.51
521034	0.580	0.88	9.28	214	2.62	331	121	8.33
521035	0.581	0.76	2.12	222	0.02	201	21.3	1.15
521036	1.087	0.19	2.25	338	0.03	192	5.2	0.62
521042	1.109	0.03	7.17	822	5.47	68	9.6	10.9
521046	1.072	0.19	10.5	645	2.85	88	32.3	5.99
521048	1.757	0.18	9.90	985	2.63	73	35.0	3.77
521049	1.237	0.10	6.60	729	2.16	95	6.8	4.80
521053	0.802	2.22	2.61	263	0.01	203	11.3	0.97
*Rep 521053		2.11	2.59	259	0.01	187	11.6	0.95

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Element Method Det.Lim. Units	@K	@Li	@Mg	@Mn	@Na	@Ni	@P	@S
	GE_ICM40B 0.01 %	GE_ICM40B 1 ppm	GE_ICM40B 0.01 %	GE_ICM40B 2 ppm	GE_ICM40B 0.01 %	GE_ICM40B 0.5 ppm	GE_ICM40B 100 ppm	GE_ICM40B 0.01 %
521001	0.67	37	1.68	520	0.88	21.2	261	0.18
521002	0.55	40	1.21	470	1.59	32.1	396	0.53
521003	1.78	31	0.15	129	3.27	1.6	230	0.02
521014	0.83	9	0.02	20	4.69	2.7	<100	0.03
521028	1.01	19	0.12	64	0.10	50.9	<100	3.90
521029	1.28	15	0.24	140	0.08	84.5	<100	1.82
521030	0.25	3	0.08	44	0.03	9.7	<100	0.21
521031	2.39	20	0.20	66	0.09	55.7	191	0.37
521032	2.74	28	0.29	105	0.08	51.6	<100	2.12
521033	4.56	58	1.49	590	1.32	161	303	1.62
521034	3.45	86	4.43	670	0.65	306	364	4.00
521035	1.06	7	0.08	41	0.05	91.5	<100	0.87
521036	1.17	9	0.11	42	0.04	6.4	<100	0.06
521042	4.37	46	2.54	5586	0.66	37.1	1124	0.14
521046	6.31	30	2.36	2288	0.77	48.1	1376	1.46
521048	2.92	20	1.04	792	2.81	39.3	1507	0.89
521049	3.93	21	1.23	1805	0.37	30.4	1765	0.34
521053	1.40	8	0.10	41	0.05	12.7	<100	0.54
*Rep 521053	1.39	8	0.10	41	0.04	11.9	<100	0.53

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Element Method Det.Lim. Units	@Sr	@Ti	@V	@Zn	@Zr	@As	@Be	@Bi
	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B	GE_ICM40B
	0.5 ppm	0.01 %	2 ppm	1 ppm	0.5 ppm	1 ppm	0.1 ppm	0.04 ppm
521001	223	0.38	92	78	78.8	4	0.6	0.23
521002	349	0.48	127	78	106	1	0.7	0.46
521003	209	0.08	4	31	140	<1	1.0	0.10
521014	178	0.01	2	14	50.3	4	1.1	0.07
521028	25.0	0.08	99	17	19.5	3721	0.4	<0.04
521029	43.9	0.10	52	29	20.4	5237	0.3	<0.04
521030	26.0	0.04	17	11	8.4	3189	<0.1	<0.04
521031	54.9	0.14	29	44	33.7	362	0.5	<0.04
521032	36.8	0.21	148	21	54.6	>10000	0.6	0.42
521033	194	0.35	286	107	70.8	7092	0.7	0.07
521034	2122	0.55	256	80	105	362	4.7	<0.04
521035	10.7	0.06	34	36	16.9	1025	0.3	0.04
521036	34.5	0.08	32	10	12.8	106	0.3	<0.04
521042	425	0.36	77	54	107	300	1.3	<0.04
521046	796	0.49	136	67	159	14	2.1	0.19
521048	343	0.41	97	70	158	218	1.2	0.13
521049	326	0.31	93	37	97.9	3067	1.5	0.07
521053	17.9	0.09	44	6	23.2	1595	0.5	<0.04
*Rep 521053	17.6	0.09	44	7	23.1	1558	0.4	<0.04

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Element Method Det.Lim. Units	@Cd GE_ICM40B 0.02 ppm	@Ce GE_ICM40B 0.05 ppm	@Co GE_ICM40B 0.1 ppm	@Cs GE_ICM40B 1 ppm	@Ga GE_ICM40B 0.1 ppm	@Hf GE_ICM40B 0.02 ppm	@In GE_ICM40B 0.02 ppm	@La GE_ICM40B 0.1 ppm
521001	0.07	13.5	9.4	5	12.0	2.41	0.04	6.0
521002	0.02	31.4	11.1	4	15.2	3.19	0.03	19.1
521003	<0.02	7.58	0.4	4	19.0	4.02	0.02	3.1
521014	<0.02	14.5	0.3	2	17.2	2.45	<0.02	6.2
521028	0.03	6.45	13.7	2	9.2	0.58	0.02	2.4
521029	0.10	10.7	16.5	2	5.8	0.63	0.03	4.7
521030	0.04	3.08	1.4	<1	1.6	0.23	<0.02	1.3
521031	0.13	6.15	10.6	2	7.0	0.72	0.02	2.5
521032	0.05	4.13	5.0	4	12.2	1.37	0.09	2.1
521033	0.12	33.6	48.9	12	18.5	1.97	0.09	13.9
521034	0.06	89.6	51.6	30	16.7	2.31	0.04	32.0
521035	0.05	4.17	9.6	1	5.2	0.44	<0.02	1.7
521036	0.03	1.78	0.9	2	4.2	0.33	0.03	0.7
521042	0.07	55.6	12.9	11	11.3	2.85	<0.02	24.4
521046	0.03	73.5	16.1	17	21.9	4.11	0.03	31.6
521048	0.05	66.7	15.5	5	14.3	4.23	0.04	28.4
521049	0.02	46.4	11.2	6	16.0	2.61	0.03	20.4
521053	0.04	2.17	2.8	2	6.6	0.58	0.02	1.0
*Rep 521053	0.04	2.08	2.6	2	6.6	0.59	<0.02	1.0

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Element Method Det.Lim. Units	@Lu GE_ICM40B 0.01 ppm	@Mo GE_ICM40B 0.05 ppm	@Nb GE_ICM40B 0.1 ppm	@Pb GE_ICM40B 0.5 ppm	@Rb GE_ICM40B 0.2 ppm	@Sb GE_ICM40B 0.05 ppm	@Sc GE_ICM40B 0.5 ppm	@Se GE_ICM40B 2 ppm
521001	0.22	3.79	4.4	6.2	25.0	0.09	11.8	<2
521002	0.23	3.63	5.9	6.8	17.5	<0.05	14.9	<2
521003	0.04	2.34	5.1	7.8	48.1	0.19	0.8	<2
521014	<0.01	0.72	4.8	8.5	32.9	0.32	<0.5	<2
521028	0.06	8.09	0.5	9.5	24.0	3203	4.1	<2
521029	0.06	2.09	<0.1	16.3	30.1	7584	6.6	2
521030	0.03	5.80	0.4	1.6	6.9	21.5	1.9	<2
521031	0.04	1.47	0.3	16.8	45.0	1552	2.5	<2
521032	0.12	3.64	0.9	8.8	62.5	83.8	13.3	3
521033	0.28	1.02	2.1	5.4	128	171	38.4	<2
521034	0.28	2.63	4.0	4.1	117	18.4	34.8	2
521035	0.02	3.10	0.4	4.1	24.6	136	2.2	<2
521036	0.02	4.41	0.5	1.2	25.6	7.42	2.5	<2
521042	0.18	3.88	5.0	12.0	112	3.31	8.7	<2
521046	0.19	1.66	4.8	30.6	140	2.73	12.8	<2
521048	0.17	0.93	3.9	14.1	71.5	7.91	11.8	<2
521049	0.13	5.76	4.2	13.8	79.7	17.8	7.1	<2
521053	0.03	1.86	0.4	10.0	31.5	789	3.1	<2
*Rep 521053	0.03	1.64	0.4	9.6	30.5	771	3.1	<2

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Element Method Det.Lim. Units	@Sn GE_ICM40B 0.3 ppm	@Ta GE_ICM40B 0.05 ppm	@Tb GE_ICM40B 0.05 ppm	@Te GE_ICM40B 0.05 ppm	@Th GE_ICM40B 0.2 ppm	@Tl GE_ICM40B 0.02 ppm	@U GE_ICM40B 0.05 ppm	@W GE_ICM40B 0.1 ppm
521001	1.1	0.35	0.26	0.05	1.9	0.21	0.55	1.0
521002	0.7	0.44	0.24	0.14	3.0	0.18	0.81	9.7
521003	1.3	0.40	0.17	<0.05	5.2	0.29	1.70	3.1
521014	1.1	0.69	0.06	<0.05	3.6	0.25	2.54	0.7
521028	0.5	<0.05	0.09	<0.05	0.8	0.91	0.18	7.1
521029	0.4	<0.05	0.10	<0.05	0.7	1.34	0.18	1.1
521030	0.3	<0.05	<0.05	<0.05	0.3	0.48	0.06	23.3
521031	0.6	<0.05	0.09	<0.05	1.2	2.08	0.26	8.7
521032	0.7	<0.05	0.11	0.15	1.5	3.76	0.32	27.9
521033	0.7	0.18	0.49	<0.05	2.1	9.67	0.49	815
521034	0.7	0.26	0.91	<0.05	3.0	8.84	0.71	50.5
521035	0.4	<0.05	<0.05	<0.05	0.4	1.44	0.10	7.7
521036	0.4	<0.05	<0.05	<0.05	0.3	1.37	0.08	7.2
521042	0.7	0.30	0.51	<0.05	4.2	1.62	1.04	71.9
521046	0.9	0.35	0.61	0.10	6.1	1.67	1.49	48.5
521048	0.8	0.27	0.59	<0.05	5.7	1.04	1.48	79.7
521049	0.7	0.22	0.47	<0.05	3.5	1.21	0.98	54.6
521053	0.4	<0.05	<0.05	<0.05	0.4	1.72	0.12	4.4
*Rep 521053	0.4	<0.05	<0.05	<0.05	0.4	1.69	0.11	3.6

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Element Method Det.Lim. Units	@Y GE_ICM40B 0.1 ppm	@Yb GE_ICM40B 0.1 ppm	@Au GE_FAI313 1 ppb	@LOI GO_XRF76V -10.000 %	@SiO2 GO_XRF76V 0.01 %	@Al2O3 GO_XRF76V 0.01 %	@Fe2O3 GO_XRF76V 0.01 %	@MgO GO_XRF76V 0.01 %
521001	10.8	1.4	9	1.94	72.6	10.5	5.91	2.84
521002	8.7	1.3	21	3.71	64.0	14.0	8.66	2.06
521003	3.9	0.3	261	1.35	73.1	15.3	1.96	0.27
521014	0.7	<0.1	3	1.07	75.1	15.0	0.82	0.06
521028	3.4	0.4	4633	3.54	84.3	3.67	5.72	0.27
521029	3.0	0.4	2237	2.19	84.0	4.67	4.22	0.61
521030	1.8	0.2	2281	1.12	94.0	1.69	1.95	0.35
521031	2.0	0.2	657	1.71	84.8	7.74	1.22	0.36
521032	5.1	0.8	2701	6.08	67.5	10.4	5.72	1.52
521033	15.4	1.8	19	3.88	53.3	20.5	5.41	2.80
521034	18.6	2.0	85	4.99	44.7	17.8	13.3	7.35
521035	1.1	0.1	602	1.49	90.9	4.22	1.72	0.13
521036	1.3	0.2	28	0.902	91.7	4.34	0.92	0.19
521042	13.8	1.1	11	6.23	41.4	13.3	17.9	4.26
521046	14.6	1.3	123	3.25	48.8	19.7	9.50	3.86
521048	14.1	1.1	189	1.98	58.5	18.6	5.79	1.81
521049	11.2	0.9	768	1.87	65.7	12.2	7.37	2.18
521053	1.2	0.2	1180	1.59	89.3	5.04	1.42	0.24
*Rep 521028			4976					
*Rep 521053	1.1	0.2						
*Rep 521029				2.27	83.4	4.64	4.19	0.60

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Element Method Det.Lim. Units	@CaO	@K2O	@Na2O	@TiO2	@MnO	@P2O5	@Cr2O3	@V2O5
	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V	GO_XRF76V
	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	%	%	%	%	%	%	%	%
521001	3.38	0.79	1.11	0.67	0.07	0.07	0.05	0.02
521002	3.48	0.64	2.04	0.85	0.06	0.10	0.04	0.02
521003	0.95	2.11	4.36	0.14	0.03	0.05	0.03	<0.01
521014	0.27	1.04	6.37	0.02	0.01	0.02	0.02	<0.01
521028	0.03	1.24	0.12	0.30	<0.01	0.01	0.05	0.01
521029	0.08	1.53	0.09	0.33	0.02	0.02	0.04	<0.01
521030	0.06	0.30	0.04	0.14	<0.01	0.02	0.06	<0.01
521031	0.03	2.80	0.11	0.54	<0.01	0.05	0.05	<0.01
521032	0.04	3.29	0.12	0.74	0.03	0.01	0.06	0.03
521033	3.62	5.29	1.75	1.08	0.09	0.07	0.07	0.06
521034	3.96	3.90	0.83	1.31	0.09	0.09	0.07	0.05
521035	0.03	1.30	0.05	0.20	<0.01	0.02	0.04	<0.01
521036	0.03	1.41	0.03	0.25	<0.01	0.02	0.05	<0.01
521042	8.47	4.97	0.84	0.63	0.81	0.27	0.02	0.02
521046	4.29	7.16	0.97	0.95	0.32	0.33	0.02	0.02
521048	3.89	3.32	3.61	0.85	0.12	0.35	0.02	0.02
521049	3.17	4.51	0.47	0.54	0.26	0.42	0.03	0.03
521053	<0.01	1.65	0.03	0.35	<0.01	0.02	0.05	<0.01
*Rep 521029	0.08	1.53	0.09	0.32	0.02	0.02	0.05	0.01

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Final : LK1801793 Order:

Report File No.: 0000016834

Element Method Det.Lim. Units	Sum	As
	GO_XRF76V	GO_ICP41Q
	0	0.01
	%	%
521001	99.9	N.A.
521002	99.6	N.A.
521003	99.6	N.A.
521014	99.8	N.A.
521028	99.3	N.A.
521029	97.8	N.A.
521030	99.7	N.A.
521031	99.4	N.A.
521032	95.6	3.51
521033	97.9	N.A.
521034	98.4	N.A.
521035	100.1	N.A.
521036	99.9	N.A.
521042	99.1	N.A.
521046	99.2	N.A.
521048	98.8	N.A.
521049	98.8	N.A.
521053	99.7	N.A.
*Rep 521029	97.3	
*Rep 521032		3.50

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## **GEOCHEMICAL RESULTS**

Appendix C  
(i) Major Oxide Samples

Sample ID	Report ID	LOI <10_pct	SiO2 0.01_pct	Al2O3 0.01_pct	Fe2O3 0.01_pct	MgO 0.01_pct	CaO 0.01_pct	K2O 0.01_pct	Na2O 0.01_pct	TiO2 0.01_pct	MnO 0.01_pct	P2O5 0.01_pct	Cr2O3 0.01_pct	V2O5 0.01_pct
651033	1	0.758	54.3	13.9	17.3	2.64	5.53	1.05	2.73	1.3	0.29	0.22	0.02	0.04
651034	2	1.11	48.6	14.3	14.3	8.34	11.1	0.17	2.03	0.81	0.21	0.05	0.03	0.06
651035	3	0.88	49.3	14.8	13.9	7.56	9.65	0.15	3.23	1.02	0.22	0.06	0.03	0.07
651036	4	1.03	47.9	15.4	14.1	8.28	9.84	0.27	2.61	1.06	0.21	0.07	0.03	0.06
651037	5	0.937	49.5	14.7	14.5	7.17	10.1	0.21	2.41	1.09	0.23	0.08	0.03	0.06
651038	6	4.18	42.2	12.5	16.8	7.51	13.7	0.69	2.18	1.01	0.26	0.08	0.03	0.03
651039	7	0.988	54.8	12.9	14.8	3.74	8.4	0.32	3.29	1.22	0.18	0.14	0.02	0.08
651040	8	1.54	79.1	10.3	3.58	1.31	2.03	1.56	0.23	0.35	0.04	0.11	0.04	<0.01
651041	9	3.16	51.7	12.8	11.8	5.55	12	0.89	1.45	0.97	0.19	0.11	0.03	0.04
651042	10	2.2	63.9	15.8	5.05	2.26	6.61	1.85	2.44	0.56	0.09	0.13	0.03	0.02
651043	11	1.02	67.6	17.3	2.8	0.79	1.93	4.97	4.04	0.33	<0.01	0.08	0.02	<0.01
651044	12	1.55	73.2	16.9	2.69	0.74	1.65	1.23	1.86	0.42	0.01	0.12	0.03	0.02
651045	13	1.86	68.5	16.1	5.39	2.14	5.69	0.12	0.64	0.43	0.1	0.14	0.01	0.01
651046	14	2.6	62.1	16.2	4.54	2.95	5.02	2.15	4.35	0.56	0.05	0.28	<0.01	<0.01
651047	15	1	68.7	15.5	2.23	0.98	2.71	3.41	4.75	0.33	0.03	0.15	0.01	<0.01
651048	16	1.74	67.7	15.4	5.92	1.68	2.27	1.95	2.26	0.57	0.04	0.08	0.04	0.02
651049	17	1.5	70.3	15.2	1.98	0.86	2.22	2.55	4.19	0.25	0.02	0.06	0.02	<0.01
651050	18	2.08	73.9	16.7	1.33	0.25	1.18	2.21	1.65	0.46	0.01	0.13	0.04	<0.01
652351	19	2.13	64.3	17.5	5.36	1.82	2.14	3.2	3.41	0.54	0.05	0.16	0.03	0.02
652352	20	1.55	65.9	15.8	5.37	3.4	7.39	0.48	0.41	0.5	0.06	0.19	0.05	0.02
652353	21	1.68	70.5	13.7	5.02	2.16	3.09	1.38	2.26	0.6	0.03	0.06	0.04	0.02
652354	22	0.905	57.9	17.4	7.02	4.35	8.22	1.28	2.95	0.54	0.11	0.16	0.03	0.02
652355	23	0.949	70.3	15.4	1.99	0.82	3.68	1.59	3.88	0.26	<0.01	0.7	0.01	<0.01
652356	24	2.64	64.6	17.1	6.85	1.97	2.24	1.96	2.07	0.6	0.05	0.12	0.04	0.02
521001	25	1.94	72.6	10.5	5.91	2.84	3.38	0.79	1.11	0.67	0.07	0.07	0.05	0.02
521002	26	3.71	64	14	8.66	2.06	3.48	0.64	2.04	0.85	0.06	0.1	0.04	0.02
521003	27	1.35	73.1	15.3	1.96	0.27	0.95	2.11	4.36	0.14	0.03	0.05	0.03	<0.01
521005	28	1.05	70	10.2	7.56	3.27	5.26	0.21	1.96	0.54	0.12	0.07	0.05	0.02
521007	29	1.71	49.4	15.1	11.3	9.2	9.46	0.55	2.47	0.61	0.2	0.06	0.04	0.02
521010	30	1.25	48.3	13.5	15.7	6.9	11	0.24	1.79	1.46	0.21	0.08	0.02	0.07
521012	31	3.86	43.1	18.3	14.5	9.93	6.62	0.33	2.26	1.06	0.16	0.04	0.05	0.03
521013	32	1.74	48	15.5	14.3	7.61	8.74	0.21	2.76	1.1	0.2	0.09	0.04	0.03
521014	33	1.07	75.1	15	0.82	0.06	0.27	1.04	6.37	0.02	0.01	0.02	0.02	<0.01
521015	34	1.28	78	12.5	1.68	0.25	0.99	1.13	4.28	0.12	0.01	0.03	0.04	<0.01
521016	35	2.3	47	14.8	14.3	7.44	9.96	0.19	2.37	0.98	0.27	0.39	0.05	0.05
521017	36	1.8	45.7	14.9	10.3	10.8	11.8	1.01	0.86	1.37	0.21	0.61	0.12	0.05
521018	37	3.25	45.5	14.9	15.3	4.69	12.1	0.25	2.5	1.08	0.24	0.11	0.03	0.04
521020	38	0.815	60.2	16.1	6	3.7	4.44	0.48	7.1	0.8	0.1	0.3	0.01	0.03
521021	39	0.731	73.7	14.9	1.97	0.29	1.41	0.75	6.07	0.13	0.02	0.03	0.02	<0.01
521022	40	2.5	40.2	14.2	21.7	5.28	12.3	0.6	1.06	1.01	0.59	0.32	0.04	0.04
521023	41	0.552	49.9	14.1	18.2	4.07	6.08	0.14	5.17	1.56	0.22	0.18	<0.01	0.04
521024	42	1.01	59.6	12.7	14.5	2.11	4.09	1.14	3.49	1.05	0.19	0.22	0.02	0.02
521025	43	0.397	58.5	12.1	16.4	1.76	6.15	0.59	3	1.06	0.27	0.32	0.01	<0.01
521026	44	0.168	60.7	13.7	14.5	0.75	3.69	0.98	3.49	1.12	0.33	0.41	0.01	<0.01
521027	45	1.29	50	13.3	19.1	2.82	6.72	0.25	2.94	3.06	0.33	0.09	<0.01	0.04

Appendix C  
(i) Major Oxide Samples

Sample ID	Report ID	LOI <10_pct	SiO2 0.01_pct	Al2O3 0.01_pct	Fe2O3 0.01_pct	MgO 0.01_pct	CaO 0.01_pct	K2O 0.01_pct	Na2O 0.01_pct	TiO2 0.01_pct	MnO 0.01_pct	P2O5 0.01_pct	Cr2O3 0.01_pct	V2O5 0.01_pct
521028	46	3.54	84.3	3.67	5.72	0.27	0.03	1.24	0.12	0.3	<0.01	0.01	0.05	0.01
521029	47	2.19	84	4.67	4.22	0.61	0.08	1.53	0.09	0.33	0.02	0.02	0.04	<0.01
521030	48	1.12	94	1.69	1.95	0.35	0.06	0.3	0.04	0.14	<0.01	0.02	0.06	<0.01
521031	49	1.71	84.8	7.74	1.22	0.36	0.03	2.8	0.11	0.54	<0.01	0.05	0.05	<0.01
521032	50	6.08	67.5	10.4	5.72	1.52	0.04	3.29	0.12	0.74	0.03	0.01	0.06	0.03
521033	51	3.88	53.3	20.5	5.41	2.8	3.62	5.29	1.75	1.08	0.09	0.07	0.07	0.06
521034	52	4.99	44.7	17.8	13.3	7.35	3.96	3.9	0.83	1.31	0.09	0.09	0.07	0.05
521035	53	1.49	90.9	4.22	1.72	0.13	0.03	1.3	0.05	0.2	<0.01	0.02	0.04	<0.01
521036	54	0.902	91.7	4.34	0.92	0.19	0.03	1.41	0.03	0.25	<0.01	0.02	0.05	<0.01
521042	55	6.23	41.4	13.3	17.9	4.26	8.47	4.97	0.84	0.63	0.81	0.27	0.02	0.02
521046	56	3.25	48.8	19.7	9.5	3.86	4.29	7.16	0.97	0.95	0.32	0.33	0.02	0.02
521048	57	1.98	58.5	18.6	5.79	1.81	3.89	3.32	3.61	0.85	0.12	0.35	0.02	0.02
521049	58	1.87	65.7	12.2	7.37	2.18	3.17	4.51	0.47	0.54	0.26	0.42	0.03	0.03
521050	59	1.23	72.4	14.5	2.15	0.66	1.5	2.22	4.82	0.26	0.03	0.07	0.02	0.01
521051	60	1.11	70.7	15.9	2.59	0.61	3.15	1.27	4.37	0.29	0.04	0.06	0.02	<0.01
521052	61	2.08	66.2	15.1	6.62	2.24	3.57	1.24	2.44	0.51	0.07	0.11	0.04	0.02
521053	62	1.59	89.3	5.04	1.42	0.24	<0.01	1.65	0.03	0.35	<0.01	0.02	0.05	<0.01
521054	63	1.56	68.9	14.3	4.73	1.9	4.64	0.64	2.05	0.48	0.09	0.16	0.04	<0.01

Appendix C  
(ii) Trace Element Samples

Sample ID	Report ID	Ag 1/0.02_ppm	Al 0.01_pct	Ba 1_ppm	Ca 0.01_pct	Cr 1_ppm	Cu 0.5_ppm	Fe 0.01_pct	K 0.01_pct	Li 1_ppm	Mg 0.01_pct	Mn 2_ppm	Na 0.01_pct	Ni 0.5_ppm	P 0.01_pct/100_ppm	S 0.01_pct	Sr 0.5_ppm	Ti 0.01_pct	V 2_ppm	Zn 1_ppm
651033	1	<1	7.59	349	3.9	94	59	12.3	0.9	23	1.5	2156		17	0.1		161	0.75	201	128
651034	2	<1	7.78	49	7.5	187	15	10	0.2	11	4.79	1570		129	0.02		183	0.47	312	103
651035	3	<1	7.91	99	6.5	218	67	9.86	0.2	<10	4.21	1661		111	0.03		96	0.58	289	98
651036	4	<1	8.24	152	6.7	241	96	9.96	0.3	19	4.78	1665		108	0.03		98	0.6	298	92
651037	5	<1	7.68	34	6.8	177	46	10.2	0.2	15	4.06	1769		79	0.03		111	0.6	282	100
651038	6	<1	6.37	301	9.3	205	61	11.9	0.6	45	4.24	1997		150	0.03		280	0.56	183	115
651039	7	<1	6.78	60	5.7	61	30	10.5	0.3	10	2.13	1418		25	0.06		211	0.69	413	97
651040	8	<1	5.35	499	1.4	195	31	2.55	1.2	39	0.73	315		24	0.05		381	0.19	49	40
651041	9	<1	7.04	310	8.3	275	18	8.4	0.8	19	3.28	1573		66	0.04		379	0.57	179	113
651042	10	<1	8.33	444	4.5	151	26	3.58	1.5	57	1.26	796		31	0.06		427	0.32	72	77
651043	11	<1	8.79	725	1.3	111	<10	1.91	3.6	29	0.44	204		18	0.04		445	0.18	47	45
651044	12	<1	8.87	414	1.1	162	20	1.93	1	19	0.43	324		30	0.05		606	0.24	66	50
651045	13	<1	8.35	79	4	152	41	3.91	0.1	45	1.2	793		35	0.06		125	0.25	74	65
651046	14	<1	7.97	998	3.4	63	49	3.24	1.7	55	1.62	423		42	0.11		1329	0.31	64	56
651047	15	<1	8.11	1518	1.9	69	15	1.59	2.7	28	0.55	252		9	0.06		1377	0.19	27	47
651048	16	<1	8.11	313	1.6	239	16	4.25	1.5	50	0.94	420		12	0.03		471	0.33	91	65
651049	17	<1	8.13	900	1.5	88	11	1.42	2	39	0.49	180		10	0.03		99	0.14	32	48
651050	18	<1	8.72	633	0.8	192	11	0.96	1.7	37	0.14	188		28	0.05		479	0.25	65	56
652351	19	<1	8.89	1004	1.4	153	45	3.78	2.5	28	1.01	471		23	0.07		503	0.3	88	65
652352	20	<1	8.35	194	5	151	<10	3.81	0.4	11	1.94	648		34	0.08		197	0.28	71	84
652353	21	<1	6.97	208	2.1	252	73	3.56	1.1	32	1.17	329		12	0.02		541	0.33	90	77
652354	22	<1	9.15	428	5.6	190	30	4.99	1.1	23	2.47	866		82	0.07		418	0.3	106	70
652355	23	<1	8.14	369	1.9	122	22	1.44	1.3	28	0.48	148		9	<0.01		180	0.14	33	40
652356	24	<1	8.98	364	1.5	259	25	4.86	1.5	34	1.1	438		19	0.05		310	0.33	111	79
521001	25	0.1	5.59	184	2.26	162	47.6	3.84	0.67	37	1.68	520	0.88	21.2	261	0.18	223	0.38	92	78
521002	26	0.17	7.38	130	2.32	199	66.8	5.5	0.55	40	1.21	470	1.59	32.1	396	0.53	349	0.48	127	78
521003	27	0.04	8.02	670	0.66	133	5.1	1.29	1.78	31	0.15	129	3.27	1.6	230	0.02	209	0.08	4	31
521005	28	<0.02	5.4	93	3.64	236	41.3	5	0.18	11	1.97	837	1.56	62.8	300	0.01	201	0.31	104	64
521007	29	<0.02	8.19	138	6.4	210	1.1	7.37	0.48	57	5.73	1424	2.01	211	234	<0.01	577	0.35	125	85
521010	30	<0.02	7.48	27	7.38	125	149	10.1	0.21	12	4.26	1585	1.44	66.6	346	0.24	153	0.82	386	106
521012	31	0.06	9.97	68	4.52	263	98.5	9.41	0.29	72	6.15	1202	1.86	207	186	0.02	288	0.59	208	109
521013	32	<0.02	8.45	41	5.84	197	50.3	9.15	0.18	26	4.68	1407	2.28	163	394	<0.01	479	0.61	176	117
521014	33	0.02	7.68	531	0.19	146	5.5	0.55	0.83	9	0.02	20	4.69	2.7	<100	0.03	178	0.01	2	14
521015	34	<0.02	6.46	429	0.7	151	9.7	1.14	0.93	8	0.13	101	3.25	5.1	143	0.04	260	0.07	5	32
521016	35	<0.02	8.14	67	6.78	263	112	9.17	0.16	25	4.61	1949	1.91	191	1672	0.12	736	0.47	251	103
521017	36	0.14	8.11	630	7.97	610	42.8	6.66	0.9	84	6.62	1515	0.69	296	2649	0.03	471	0.78	282	104
521018	37	<0.02	8.06	48	8.04	160	12.5	9.84	0.21	26	2.81	1708	2.04	125	472	0.02	309	0.61	205	126
521020	38	0.05	8.71	414	3.07	62	53.7	3.97	0.41	20	2.24	752	5.55	48.2	1365	0.07	856	0.46	135	69
521021	39	<0.02	7.76	338	1	71	3.9	1.32	0.61	13	0.16	110	4.61	1.7	178	0.02	372	0.08	3	55
521022	40	<0.02	7.83	257	8.2	217	55.2	13.9	0.54	48	3.18	4241	0.87	273	1329	0.07	139	0.58	234	116
521023	41	0.05	7.68	56	4.15	33	208	11.9	0.13	23	2.47	1616	4.25	30.5	771	0.04	583	0.89	199	131

Appendix C  
(ii) Trace Element Samples

Sample ID	Report ID	Zr 0.5_ppm	As 5/1_ppm	Be 0.5/0.1_ppm	Bi 0.1/0.04_ppm	Cd 0.2/0.02_ppm	Ce 0.1/0.05_ppm	Co 0.5/0.1_ppm	Cs 0.1/1_ppm	Ga 1/0.1_ppm	Hf 1/0.02_ppm	In 0.2/0.02_ppm	La 0.5/0.1_ppm	Lu 0.05/0.01_ppm	Mo 1/0.05_ppm	Nb 1/0.1_ppm
651033	1	116	5	<5	0.2	<0.2	27.6	41.9	3.4	23	3	<0.2	12	0.48	10	6
651034	2	41.4	<5	<5	0.1	<0.2	2.8	56	0.4	16	1	<0.2	1	0.36	26	1
651035	3	52	<5	<5	<0.1	<0.2	6.2	51.8	0.2	17	2	<0.2	1.9	0.36	4	2
651036	4	56.5	<5	<5	<0.1	<0.2	5	49.4	0.9	17	2	<0.2	1.5	0.38	6	2
651037	5	58.3	<5	<5	0.5	<0.2	5.4	44.6	0.6	18	2	<0.2	1.8	0.48	3	2
651038	6	55.7	148	<5	0.2	<0.2	22.1	51.7	18.4	15	2	<0.2	9.6	0.32	3	3
651039	7	96.3	<5	<5	<0.1	<0.2	31.3	52.4	0.3	19	3	<0.2	15	0.37	3	5
651040	8	70.7	9	<5	0.2	<0.2	29.4	8.3	6.7	13	2	<0.2	14.1	0.1	26	4
651041	9	53.3	<5	<5	0.1	<0.2	21.6	38.2	5.1	16	2	<0.2	9	0.25	2	2
651042	10	127	<5	<5	0.2	<0.2	45.6	16.2	15.4	19	3	<0.2	21.9	0.16	3	4
651043	11	120	<5	<5	<0.1	<0.2	18.8	8.3	7.1	28	3	<0.2	8.9	0.05	3	2
651044	12	110	49	<5	<0.1	<0.2	51.3	12.1	3.2	21	3	<0.2	26	0.1	3	3
651045	13	102	57	<5	<0.1	<0.2	54.6	13	0.7	21	3	<0.2	26.5	0.16	3	4
651046	14	149	<5	<5	<0.1	<0.2	100	15.5	5.4	22	4	<0.2	47.3	0.18	<2	10
651047	15	158	<5	<5	0.2	<0.2	88.1	5.3	4.2	20	4	<0.2	40.5	0.08	<2	5
651048	16	129	<5	<5	<0.1	<0.2	44.3	5.1	3.3	18	4	<0.2	23.7	0.16	4	6
651049	17	96	<5	<5	0.3	<0.2	15.3	5.1	5.8	24	3	<0.2	7.5	<0.05	<2	1
651050	18	118	561	<5	0.1	<0.2	20.8	11.1	9.4	22	3	<0.2	9.6	0.07	2	4
652351	19	120	<5	<5	0.2	<0.2	28.5	10.4	2.3	21	3	<0.2	11	0.13	<2	4
652352	20	126	18	<5	<0.1	<0.2	61.7	12.9	2.3	20	3	<0.2	31.1	0.14	2	4
652353	21	121	<5	<5	0.3	<0.2	8.2	7.1	8.8	18	3	<0.2	5.8	0.23	3	5
652354	22	106	<5	<5	0.2	<0.2	47.7	27.7	2.4	19	3	<0.2	22.9	0.2	<2	4
652355	23	104	<5	<5	<0.1	<0.2	17.8	4.7	2.2	21	3	<0.2	8.8	<0.05	<2	2
652356	24	114	41	<5	0.2	<0.2	49.2	10.4	3.4	21	3	<0.2	25.6	0.19	24	6
521001	25	78.8	4	0.6	0.23	0.07	13.5	9.4	5	12	2.41	0.04	6	0.22	3.79	4.4
521002	26	106	1	0.7	0.46	0.02	31.4	11.1	4	15.2	3.19	0.03	19.1	0.23	3.63	5.9
521003	27	140	<1	1	0.1	<0.02	7.58	0.4	4	19	4.02	0.02	3.1	0.04	2.34	5.1
521005	28	20	11	0.3	0.05	0.06	4.61	17.7	<1	10	0.55	0.04	1.7	0.11	2.26	1.1
521007	29	35.7	30	0.5	<0.04	0.1	9.41	32.3	8	12.9	0.99	0.04	3.7	0.16	0.25	1.3
521010	30	15.9	2	0.3	<0.04	0.08	8.73	39	<1	17.3	0.45	0.08	2.9	0.34	0.7	3.5
521012	31	49.4	6	0.2	0.06	0.07	5.39	44.5	5	16.6	1.26	0.05	2.3	0.17	0.29	1.9
521013	32	31.2	<1	0.2	<0.04	0.08	6.58	40.6	<1	15.5	0.85	0.06	2.2	0.22	0.55	1.8
521014	33	50.3	4	1.1	0.07	<0.02	14.5	0.3	2	17.2	2.45	<0.02	6.2	<0.01	0.72	4.8
521015	34	121	4	1.1	0.06	<0.02	18.1	0.9	4	16.5	3.14	<0.02	8.4	<0.01	0.87	5.1
521016	35	96.8	98	0.4	0.07	0.1	62.6	36.8	<1	13.9	2.16	0.06	25.1	0.37	0.77	5.1
521017	36	195	158	1.2	0.07	0.13	123	41.5	12	15.1	4.08	0.06	47.8	0.28	0.37	12.8
521018	37	52.6	10	0.2	<0.04	0.13	14.5	39.1	<1	15.8	1.45	0.06	5.7	0.24	0.65	1.7
521020	38	140	132	0.8	0.16	0.08	60.2	16	6	18.1	3.16	0.04	24.6	0.17	0.3	6.8
521021	39	150	<1	0.9	0.11	<0.02	20.8	0.8	6	18.3	3.8	<0.02	8.3	0.01	1.81	6.2
521022	40	29.4	182	0.5	0.1	0.11	45	50.2	5	14.2	0.6	0.06	17.2	0.32	0.27	5.2
521023	41	95	<1	0.9	<0.04	0.11	29.5	43.4	<1	16.7	2.01	0.06	10.8	0.25	1.19	13.4



**Appendix C**  
**(ii) Trace Element Samples**

Sample ID	Report ID	Pb 20/0.5_ppm	Rb 0.2_ppm	Sb 0.1/0.05_ppm	Sc 0.5_ppm	Se 2_ppm	Sn 1/0.3_ppm	Ta 0.5/0.05_ppm	Tb 0.05_ppm	Te 0.05_ppm	Th 0.1/0.2_ppm	Tl 0.5/0.02_ppm	U 0.05_ppm	W 1/0.1_ppm	Y 0.5/0.1_ppm	Yb 0.1_ppm
651033	1	<5	35.8	0.5	40		1	<0.5	0.7		3.4	<0.5	0.89	2	26.1	3.2
651034	2	<5	2	0.1	45		<1	<0.5	0.49		0.3	<0.5	0.08	1	19.3	2.4
651035	3	<5	1.1	0.5	44		<1	<0.5	0.55		0.3	<0.5	0.08	1	20.7	2.5
651036	4	<5	7.3	0.2	44		1	<0.5	0.57		0.3	<0.5	0.09	1	20.8	2.5
651037	5	8	2.1	0.2	44		<1	<0.5	0.65		0.4	<0.5	0.12	1	26.3	3.1
651038	6	<5	36.6	0.4	24		<1	<0.5	0.57		1.1	<0.5	0.32	2	19.5	2
651039	7	<5	2.6	0.1	41		<1	<0.5	0.56		3	<0.5	0.82	1	20.2	2.3
651040	8	12	44.6	0.2	8		<1	<0.5	0.24		4.7	<0.5	4.25	13	6.3	0.6
651041	9	5	23.4	<0.1	23		<1	<0.5	0.5		1.2	<0.5	0.25	10	16.4	1.7
651042	10	9	68.7	0.2	9		<1	<0.5	0.37		3.5	0.5	0.76	1	10.7	1
651043	11	18	142	<0.1	5		<1	<0.5	0.14		4.7	0.7	1.18	1	3.4	0.3
651044	12	13	31.4	0.3	8		<1	<0.5	0.28		4.3	<0.5	0.74	33	6.2	0.6
651045	13	8	2.3	0.3	10		<1	<0.5	0.41		4.7	<0.5	0.56	54	11.2	1.1
651046	14	20	52.7	0.1	7		<1	<0.5	0.53		10.3	<0.5	2.95	1	13	1.2
651047	15	31	67	0.2	<5		<1	<0.5	0.35		8	0.5	2.83	2	6.8	0.5
651048	16	13	73.8	<0.1	12		<1	<0.5	0.27		5.7	0.5	1.61	4	9.4	1.1
651049	17	13	88.6	0.2	<5		<1	<0.5	0.12		3.4	<0.5	1.23	1	3.1	0.3
651050	18	12	78.3	0.2	5		<1	<0.5	0.14		4.3	<0.5	0.7	54	3.8	0.4
652351	19	17	78	<0.1	11		<1	<0.5	0.25		5.2	0.5	1.66	2	7.6	0.8
652352	20	6	13.4	0.2	8		<1	<0.5	0.4		4.9	<0.5	0.75	2	10.1	0.9
652353	21	7	36.8	<0.1	11		<1	<0.5	0.2		2.1	<0.5	0.56	2	9.4	1.4
652354	22	7	40.5	<0.1	15		<1	<0.5	0.34		3.7	<0.5	0.9	<1	10.7	1.2
652355	23	9	48.5	<0.1	<5		<1	<0.5	0.14		3.5	<0.5	1.26	2	3.2	0.3
652356	24	14	69.7	<0.1	14		<1	<0.5	0.3		6.6	<0.5	1.72	7	10.2	1.2
521001	25	6.2	25	0.09	11.8	<2	1.1	0.35	0.26	0.05	1.9	0.21	0.55	1	10.8	1.4
521002	26	6.8	17.5	<0.05	14.9	<2	0.7	0.44	0.24	0.14	3	0.18	0.81	9.7	8.7	1.3
521003	27	7.8	48.1	0.19	0.8	<2	1.3	0.4	0.17	<0.05	5.2	0.29	1.7	3.1	3.9	0.3
521005	28	3.8	3.7	0.09	11.3	<2	0.6	0.06	0.23	<0.05	0.4	0.06	0.1	1.1	8.7	0.8
521007	29	3.5	15.3	0.23	13.7	<2	0.9	0.19	0.31	<0.05	0.6	0.14	0.11	0.8	11.1	1
521010	30	1.6	2.5	0.21	38.6	<2	0.9	0.22	0.58	<0.05	0.3	<0.02	0.09	1	22.3	2.3
521012	31	3.5	9.7	0.15	19.3	<2	0.7	0.24	0.27	<0.05	0.8	0.06	0.17	0.6	10.9	1.1
521013	32	2.6	2.8	0.26	18.7	<2	0.8	0.19	0.45	<0.05	0.6	<0.02	0.11	0.4	16.6	1.5
521014	33	8.5	32.9	0.32	<0.5	<2	1.1	0.69	0.06	<0.05	3.6	0.25	2.54	0.7	0.7	<0.1
521015	34	8.2	27.7	1.22	0.6	<2	1.1	0.4	0.1	<0.05	5.8	0.17	1.69	1.9	1.3	<0.1
521016	35	7	2.7	1.33	29.2	<2	0.7	0.22	0.69	<0.05	3.4	<0.02	0.59	2.4	24.3	2.3
521017	36	8.1	34.2	2.96	29.8	<2	1.1	0.64	0.98	<0.05	8.6	0.2	1.52	3.5	23.5	1.9
521018	37	2.4	1.8	0.76	20.5	<2	0.8	0.13	0.47	<0.05	0.8	<0.02	0.16	0.3	16.5	1.6
521020	38	10.8	14.8	3.91	11.4	<2	1	0.33	0.54	<0.05	5.1	0.07	1.09	0.4	14.2	1.1
521021	39	13.2	27.8	1.14	0.6	<2	1.1	0.49	0.13	<0.05	7.5	0.17	2.05	0.5	1.7	<0.1
521022	40	2.5	12.6	4.63	26.6	<2	0.8	0.23	0.62	<0.05	2.5	0.08	0.4	22.3	21.2	2.3
521023	41	3.3	1	0.62	7.4	<2	1.4	0.84	0.65	<0.05	1.2	<0.02	0.24	1.8	20	1.7

**Appendix C**  
**(ii) Trace Element Samples**

Sample ID	Report ID	Ag 1/0.02_ppm	Al 0.01_pct	Ba 1_ppm	Ca 0.01_pct	Cr 1_ppm	Cu 0.5_ppm	Fe 0.01_pct	K 0.01_pct	Li 1_ppm	Mg 0.01_pct	Mn 2_ppm	Na 0.01_pct	Ni 0.5_ppm	P 0.01_pct/ 100_ppm	S 0.01_pct	Sr 0.5_ppm	Ti 0.01_pct	V 2_ppm	Zn 1_ppm
521024	42	<0.02	6.73	291	2.79	63	24.9	9.44	0.97	20	1.24	1398	2.8	3.2	909	0.03	291	0.58	111	98
521025	43	<0.02	6.48	105	4.15	59	10.6	10.6	0.49	11	1.03	1890	2.36	5.7	1346	0.01	199	0.6	51	129
521026	44	<0.02	7.11	306	2.49	77	1.1	9.28	0.81	33	0.43	2385	2.71	1.1	1677	0.03	234	0.63	3	87
521027	45	<0.02	7.28	102	4.55	45	9.3	12.3	0.22	17	1.68	2331	2.38	<0.5	371	0.33	202	1.7	224	124
521028	46	1.76	1.89	64	0.02	309	14.9	3.82	1.01	19	0.12	64	0.1	50.9	<100	3.9	25	0.08	99	17
521029	47	3.51	2.43	166	0.06	232	49.6	2.87	1.28	15	0.24	140	0.08	84.5	<100	1.82	43.9	0.1	52	29
521030	48	0.43	0.62	72	0.03	156	13.7	1.29	0.25	3	0.08	44	0.03	9.7	<100	0.21	26	0.04	17	11
521031	49	3.68	4.03	343	0.03	123	25.6	0.82	2.39	20	0.2	66	0.09	55.7	191	0.37	54.9	0.14	29	44
521032	50	1.68	5.25	173	0.02	263	44.7	3.82	2.74	28	0.29	105	0.08	51.6	<100	2.12	36.8	0.21	148	21
521033	51	0.14	10.8	605	2.43	300	102	3.51	4.56	58	1.49	590	1.32	161	303	1.62	194	0.35	286	107
521034	52	0.88	9.28	214	2.62	331	121	8.33	3.45	86	4.43	670	0.65	306	364	4	2122	0.55	256	80
521035	53	0.76	2.12	222	0.02	201	21.3	1.15	1.06	7	0.08	41	0.05	91.5	<100	0.87	10.7	0.06	34	36
521036	54	0.19	2.25	338	0.03	192	5.2	0.62	1.17	9	0.11	42	0.04	6.4	<100	0.06	34.5	0.08	32	10
521042	55	0.03	7.17	822	5.47	68	9.6	10.9	4.37	46	2.54	5586	0.66	37.1	1124	0.14	425	0.36	77	54
521046	56	0.19	10.5	645	2.85	88	32.3	5.99	6.31	30	2.36	2288	0.77	48.1	1376	1.46	796	0.49	136	67
521048	57	0.18	9.9	985	2.63	73	35	3.77	2.92	20	1.04	792	2.81	39.3	1507	0.89	343	0.41	97	70
521049	58	0.1	6.6	729	2.16	95	6.8	4.8	3.93	21	1.23	1805	0.37	30.4	1765	0.34	326	0.31	93	37
521050	59	<0.02	7.63	533	1.07	82	3.3	1.46	1.89	29	0.39	233	3.74	14.3	314	<0.01	528	0.15	38	32
521051	60	<0.02	8.42	570	2.24	99	8.5	1.75	1.07	19	0.35	270	3.35	13.7	290	<0.01	496	0.17	42	44
521052	61	0.06	7.93	266	2.45	191	48.9	4.33	1.03	47	1.31	504	1.9	44.7	486	1.01	288	0.28	97	59
521053	62	2.22	2.61	263	0.01	203	11.3	0.97	1.4	8	0.1	41	0.05	12.7	<100	0.54	17.9	0.09	44	6
521054	63	<0.02	7.73	178	3.33	175	50.5	3.24	0.55	33	1.14	632	1.66	30.2	709	0.14	324	0.28	74	65
521004	64	0.04	5.69	308	1.45	115	39.1	1.23	0.84	28	0.48	180	2.55	20.2	319	0.04	366	0.09	28	37
521006	65	0.03	9.94	310	1.25	206	61.3	4.8	1.97	50	1.26	561	1.62	20.7	334	0.12	514	0.53	196	92
521008	66	0.03	7.63	394	3.23	195	36.8	3.48	2.48	48	1.95	777	0.93	62.3	839	0.15	310	0.36	118	53
521009	67	0.04	8.81	211	2.77	202	49.8	6.44	0.56	63	2.49	1395	1.75	46.5	272	0.14	202	0.48	212	100
521011	68	-0.02	8.13	324	1.35	120	37.1	4.72	1.46	58	1.23	414	2.77	30.6	452	0.06	324	0.29	96	58
521019	69	-0.02	0.31	23	0.26	120	12.1	0.59	0.05	6	0.08	88	0.06	10.4	141	-0.01	23.6	0.01	7	8
521037	70	-0.02	0.62	72	0.91	216	11.6	1.48	0.33	5	0.26	346	0.03	12	282	0.47	38.8	0.07	16	8
521038	71	-0.02	8.71	1015	1.65	106	20.8	10.7	3.16	35	1.38	5331	1.7	31.6	1122	0.19	433	0.42	119	50
521039	72	0.06	8	803	1.86	132	20.5	7.53	2.13	26	1.01	2866	2.51	28	1139	0.31	505	0.38	87	38
521040	73	0.08	7.58	375	1.64	101	48.5	7.73	2.85	23	1.07	2348	1.69	35.9	1149	0.82	292	0.39	115	63
521041	74	0.03	8.39	1300	4.37	174	24.2	4.64	4.96	37	3.17	1492	0.4	138	1273	0.18	533	0.5	203	77
521043	75	0.18	9.92	378	2.41	143	39.1	8.89	3.43	38	1.82	1904	0.42	34.2	1173	2.04	279	0.48	164	80
521044	76	0.18	4.24	106	3.78	125	40.1	7.19	2.55	19	1.99	2924	0.28	27.5	796	2.69	399	0.2	174	46
521045	77	0.18	9.69	1243	1.71	107	31.4	5.48	4.7	18	1.13	1262	1.58	31.7	1360	0.54	387	0.49	134	58
521047	78	0.38	7.47	494	2.12	138	25.9	7.48	3.19	28	1.71	1954	0.48	34.4	1325	1	521	0.38	185	53

Appendix C  
(ii) Trace Element Samples

Sample ID	Report ID	Zr 0.5_ppm	As 5/1_ppm	Be 0.5/0.1_ppm	Bi 0.1/0.04_ppm	Cd 0.2/0.02_ppm	Ce 0.1/0.05_ppm	Co 0.5/0.1_ppm	Cs 0.1/1_ppm	Ga 1/0.1_ppm	Hf 1/0.02_ppm	In 0.2/0.02_ppm	La 0.5/0.1_ppm	Lu 0.05/0.01_ppm	Mo 1/0.05_ppm	Nb 1/0.1_ppm
521024	42	150	<1	0.9	0.07	0.04	27.9	25.6	1	17.2	3.63	0.06	11.3	0.41	0.78	6.9
521025	43	110	<1	0.8	0.05	0.14	29.8	23.4	<1	17.9	2.73	0.08	13.1	0.43	1.38	5.6
521026	44	250	<1	1.4	<0.04	0.05	38.2	11.1	3	21.4	6.11	0.11	15.7	0.7	0.96	10.6
521027	45	69.3	<1	0.5	0.13	0.08	12.2	37.2	<1	19	1.78	0.07	5.9	0.24	0.87	3.4
521028	46	19.5	3721	0.4	<0.04	0.03	6.45	13.7	2	9.2	0.58	0.02	2.4	0.06	8.09	0.5
521029	47	20.4	5237	0.3	<0.04	0.1	10.7	16.5	2	5.8	0.63	0.03	4.7	0.06	2.09	<0.1
521030	48	8.4	3189	<0.1	<0.04	0.04	3.08	1.4	<1	1.6	0.23	<0.02	1.3	0.03	5.8	0.4
521031	49	33.7	362	0.5	<0.04	0.13	6.15	10.6	2	7	0.72	0.02	2.5	0.04	1.47	0.3
521032	50	54.6	>10000	0.6	0.42	0.05	4.13	5	4	12.2	1.37	0.09	2.1	0.12	3.64	0.9
521033	51	70.8	7092	0.7	0.07	0.12	33.6	48.9	12	18.5	1.97	0.09	13.9	0.28	1.02	2.1
521034	52	105	362	4.7	<0.04	0.06	89.6	51.6	30	16.7	2.31	0.04	32	0.28	2.63	4
521035	53	16.9	1025	0.3	0.04	0.05	4.17	9.6	1	5.2	0.44	<0.02	1.7	0.02	3.1	0.4
521036	54	12.8	106	0.3	<0.04	0.03	1.78	0.9	2	4.2	0.33	0.03	0.7	0.02	4.41	0.5
521042	55	107	300	1.3	<0.04	0.07	55.6	12.9	11	11.3	2.85	<0.02	24.4	0.18	3.88	5
521046	56	159	14	2.1	0.19	0.03	73.5	16.1	17	21.9	4.11	0.03	31.6	0.19	1.66	4.8
521048	57	158	218	1.2	0.13	0.05	66.7	15.5	5	14.3	4.23	0.04	28.4	0.17	0.93	3.9
521049	58	97.9	3067	1.5	0.07	0.02	46.4	11.2	6	16	2.61	0.03	20.4	0.13	5.76	4.2
521050	59	101	<1	0.8	<0.04	0.05	17.3	4.8	2	17.3	2.39	<0.02	8.3	0.05	0.41	1.7
521051	60	111	<1	1.2	0.08	0.03	10.9	5.5	2	19.6	2.59	<0.02	4	0.05	1.07	2.1
521052	61	99.8	<1	1.1	0.26	0.08	29.1	11.1	4	16	2.36	0.03	12.7	0.14	1.72	4.9
521053	62	23.2	1595	0.5	<0.04	0.04	2.17	2.8	2	6.6	0.58	0.02	1	0.03	1.86	0.4
521054	63	66.8	1	0.7	0.12	0.09	17.8	9.4	8	16.4	1.68	0.03	7.6	0.14	2.8	3.7
521004	64	35.4	3	1.3	0.12	0.05	48.1	6.3	2	8.7	0.91	-0.02	21.1	0.06	4.21	1.9
521006	65	138	68	1.1	0.38	-0.02	30.8	8.8	4	20	3.83	0.05	18.2	0.24	2.98	7.7
521008	66	84.6	314	1	0.09	0.04	32.5	13.4	7	14.1	2.13	0.04	13.1	0.16	3.3	3.6
521009	67	57.8	-1	0.6	0.11	0.1	10.8	17.8	2	14.8	1.52	0.05	5.1	0.2	0.63	3.7
521011	68	116	14	1.1	0.22	0.04	46.8	8.6	6	15.5	2.8	0.03	21.9	0.15	1.85	5.1
521019	69	1.8	12	0.3	-0.04	-0.02	4.06	1.4	-1	0.8	0.04	-0.02	1.5	0.01	1.51	0.4
521037	70	27.2	7	0.2	-0.04	-0.02	13.7	3.4	1	1.3	0.62	-0.02	6.2	0.03	5.25	1.4
521038	71	142	2370	2	0.45	0.04	45.2	12	9	18.1	3.89	0.04	19.6	0.22	1.29	6.5
521039	72	121	957	2.3	0.28	-0.02	48.6	10.8	6	13.2	3.05	-0.02	20.1	0.16	2.45	5.8
521040	73	79.1	2541	1.4	0.44	0.04	37.6	20.5	8	12.6	2.56	0.03	15.3	0.13	7.11	5.1
521041	74	127	521	1.7	0.11	0.06	71.3	26.1	14	15.9	2.85	0.04	29.7	0.22	1.29	5.5
521043	75	137	60	2.1	0.17	0.05	53.8	8.8	15	20.5	3.29	0.03	22.9	0.21	1.6	6.6
521044	76	68.4	187	0.9	0.11	0.05	27.5	6.8	7	6.7	1.45	-0.02	11.2	0.09	13.6	2.6
521045	77	162	731	1.9	0.12	0.02	34	12	10	19.2	3.73	0.04	11.1	0.18	2.52	7.2
521047	78	128	1131	1.3	0.11	0.02	51.7	10.1	7	12.9	2.86	0.03	20.4	0.15	3.76	5

**Appendix C**  
**(ii) Trace Element Samples**

Sample ID	Report ID	Pb 20/0.5_ppm	Rb 0.2_ppm	Sb 0.1/0.05_ppm	Sc 0.5_ppm	Se 2_ppm	Sn 1/0.3_ppm	Ta 0.5/0.05_ppm	Tb 0.05_ppm	Te 0.05_ppm	Th 0.1/0.2_ppm	Tl 0.5/0.02_ppm	U 0.05_ppm	W 1/0.1_ppm	Y 0.5/0.1_ppm	Yb 0.1_ppm
521024	42	4.4	35	0.12	24.5	<2	0.9	0.45	0.57	<0.05	3.6	0.22	0.76	5.7	24.3	2.7
521025	43	5	9.9	0.36	27.5	<2	1.2	0.39	0.71	<0.05	3.1	0.05	0.57	0.6	27.2	2.8
521026	44	4.3	24.1	0.08	17.8	<2	0.9	0.68	1.07	<0.05	5.5	0.06	1.24	0.7	44.9	4.7
521027	45	6.1	2.1	0.21	47.4	<2	0.7	0.23	0.37	0.07	1.6	<0.02	0.34	0.7	15.2	1.5
521028	46	9.5	24	3203	4.1	<2	0.5	<0.05	0.09	<0.05	0.8	0.91	0.18	7.1	3.4	0.4
521029	47	16.3	30.1	7584	6.6	2	0.4	<0.05	0.1	<0.05	0.7	1.34	0.18	1.1	3	0.4
521030	48	1.6	6.9	21.5	1.9	<2	0.3	<0.05	<0.05	<0.05	0.3	0.48	0.06	23.3	1.8	0.2
521031	49	16.8	45	1552	2.5	<2	0.6	<0.05	0.09	<0.05	1.2	2.08	0.26	8.7	2	0.2
521032	50	8.8	62.5	83.8	13.3	3	0.7	<0.05	0.11	0.15	1.5	3.76	0.32	27.9	5.1	0.8
521033	51	5.4	128	171	38.4	<2	0.7	0.18	0.49	<0.05	2.1	9.67	0.49	815	15.4	1.8
521034	52	4.1	117	18.4	34.8	2	0.7	0.26	0.91	<0.05	3	8.84	0.71	50.5	18.6	2
521035	53	4.1	24.6	136	2.2	<2	0.4	<0.05	<0.05	<0.05	0.4	1.44	0.1	7.7	1.1	0.1
521036	54	1.2	25.6	7.42	2.5	<2	0.4	<0.05	<0.05	<0.05	0.3	1.37	0.08	7.2	1.3	0.2
521042	55	12	112	3.31	8.7	<2	0.7	0.3	0.51	<0.05	4.2	1.62	1.04	71.9	13.8	1.1
521046	56	30.6	140	2.73	12.8	<2	0.9	0.35	0.61	0.1	6.1	1.67	1.49	48.5	14.6	1.3
521048	57	14.1	71.5	7.91	11.8	<2	0.8	0.27	0.59	<0.05	5.7	1.04	1.48	79.7	14.1	1.1
521049	58	13.8	79.7	17.8	7.1	<2	0.7	0.22	0.47	<0.05	3.5	1.21	0.98	54.6	11.2	0.9
521050	59	11.1	60.1	0.17	3.7	<2	0.7	0.12	0.11	<0.05	3.7	0.24	0.87	0.4	3	0.2
521051	60	14.7	45.5	0.16	4.1	<2	0.8	0.16	0.1	<0.05	3.2	0.15	0.93	0.4	3.3	0.3
521052	61	11.4	47.6	0.32	10.2	<2	0.7	0.27	0.28	0.15	5.1	0.35	1.32	2.6	9.4	0.9
521053	62	10	31.5	789	3.1	<2	0.4	<0.05	<0.05	<0.05	0.4	1.72	0.12	4.4	1.2	0.2
521054	63	7	41.7	0.15	7.6	<2	0.7	0.25	0.23	<0.05	2.1	0.38	0.56	13.7	7.9	0.9
521004	64	9.3	24.4	0.24	2.8	<2	0.7	0.19	0.28	-0.05	1.8	0.16	0.61	0.3	5	0.4
521006	65	10.8	54	0.32	22.8	<2	1.4	0.9	0.23	0.17	6.1	0.32	1.49	4	9.6	1.3
521008	66	8.3	80	9.97	15.9	<2	0.8	0.3	0.4	<0.05	3.8	1.72	0.94	102	10.4	1
521009	67	4.1	19.8	0.21	25.3	<2	0.7	0.39	0.2	<0.05	0.9	0.17	0.23	1.2	8.7	1.1
521011	68	11.2	52.5	0.93	10.4	<2	0.8	0.52	0.3	<0.05	5.8	0.35	1.46	1.5	7.9	0.8
521019	69	1.2	2.8	0.96	0.9	<2	0.4	-0.05	-0.05	<0.05	-0.2	0.03	-0.05	87.9	1.2	-0.1
521037	70	1.1	12.6	1	1.6	<2	0.4	0.08	0.11	<0.05	1.2	0.11	0.31	5.7	3	0.2
521038	71	18.7	91.7	7.08	10.9	<2	1	0.5	0.44	0.1	5.9	1.19	1.43	157	13	1.3
521039	72	16.6	65.5	4.54	9	<2	0.6	0.42	0.42	<0.05	5.2	0.87	1.19	140	10.7	0.9
521040	73	14.7	91.8	9.72	10	<2	0.8	0.34	0.32	<0.05	4.8	1.05	1.09	135	8.1	0.7
521041	74	9.3	119	2.69	19.2	<2	0.7	0.48	0.59	<0.05	5.9	1.45	0.96	33.7	15.4	1.3
521043	75	12.7	135	1.75	15.1	<2	0.8	0.57	0.46	0.42	6.5	1.73	1.35	126	13	1.3
521044	76	7	77.8	1.68	6.3	<2	0.4	0.15	0.23	0.15	2.2	0.97	0.56	21.6	6.6	0.5
521045	77	16.3	114	2.96	13	<2	1	0.48	0.4	<0.05	6.2	1.1	1.47	63.3	11.1	1
521047	78	14	83.6	5.05	10.5	<2	0.6	0.34	0.42	<0.05	4.6	1.05	1.11	60.4	10.5	0.9

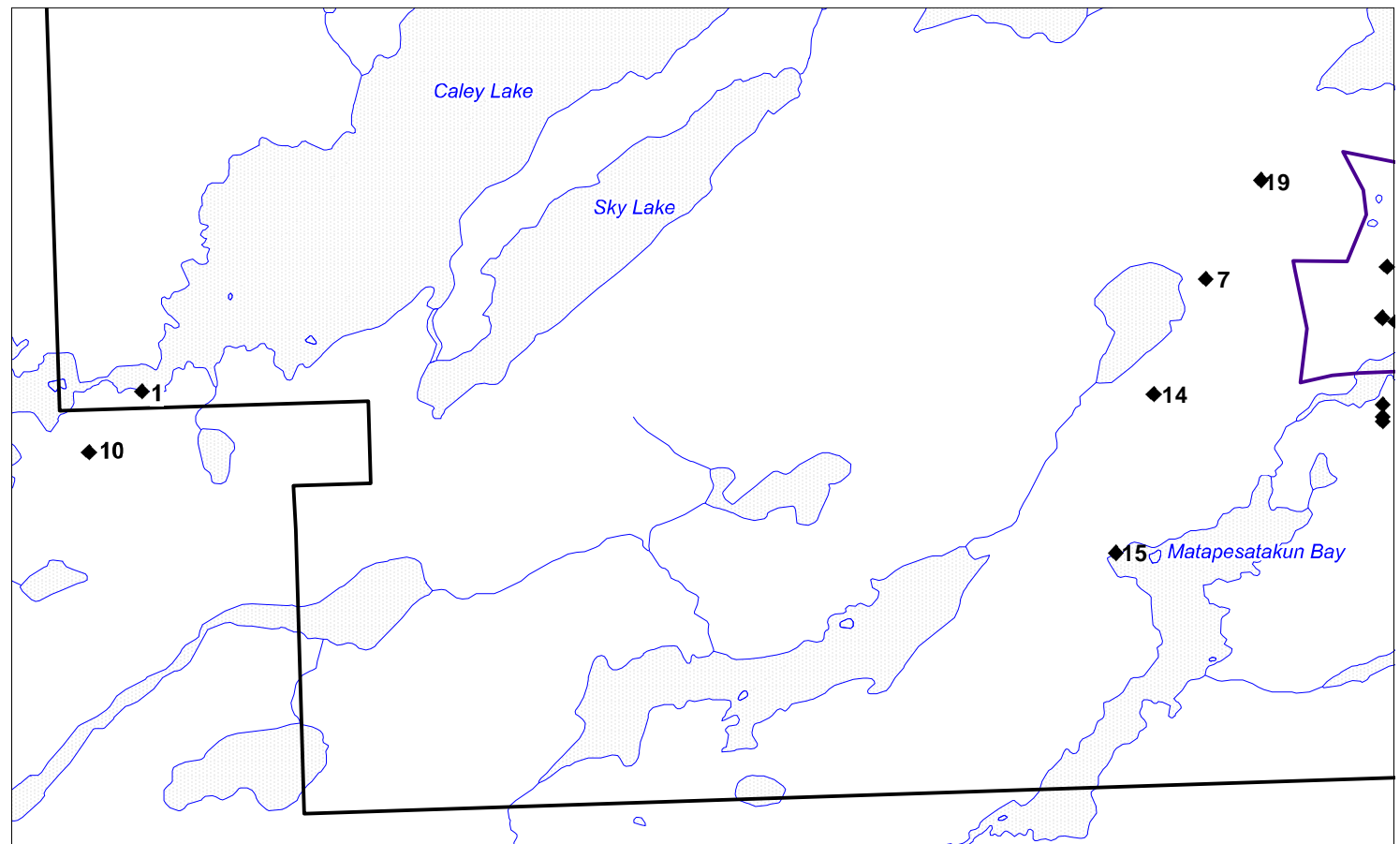
Analyte  
detection limit\_unit

**Appendix C**  
**(iii) Au Assay Samples**

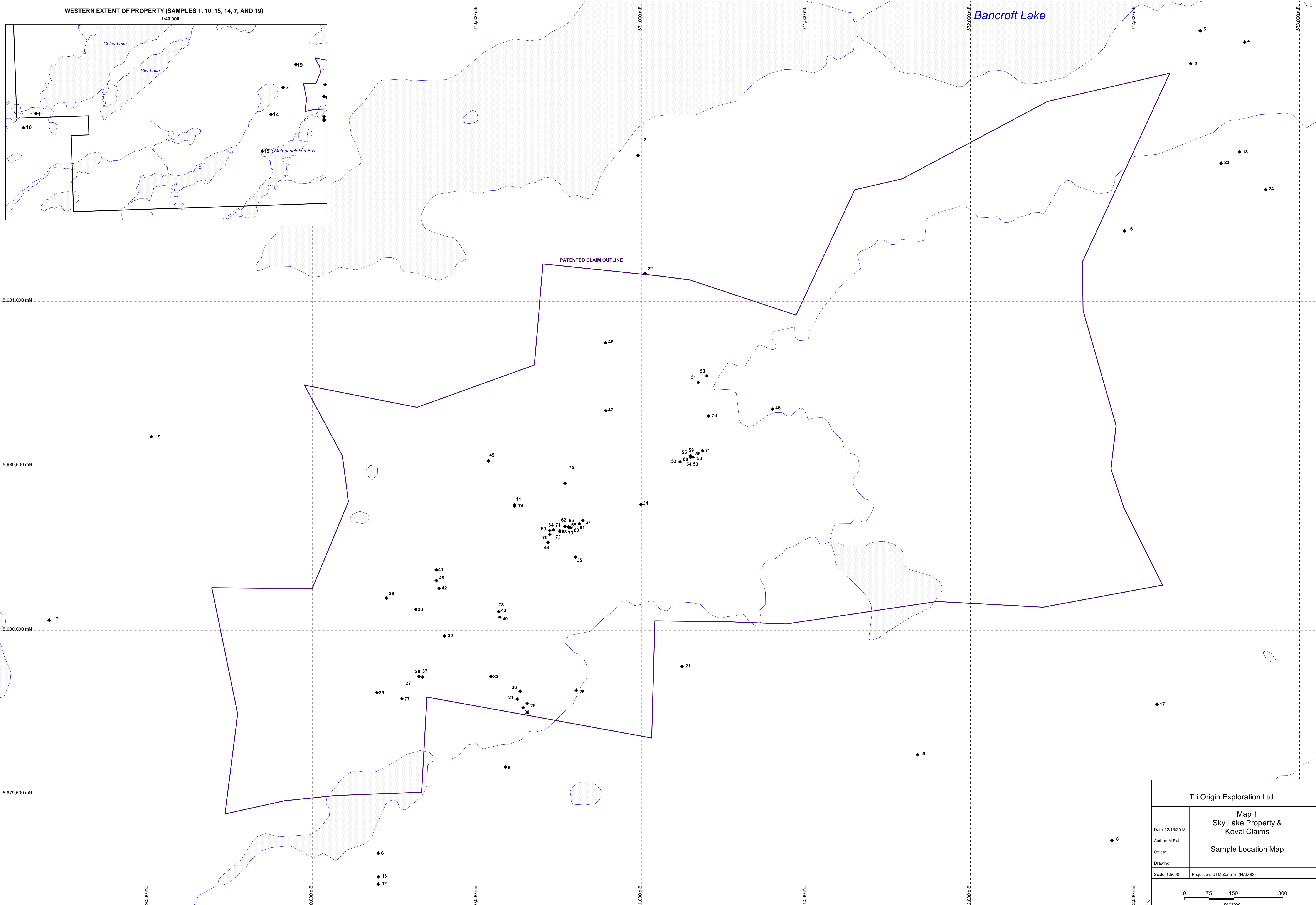
<b>Sample ID</b>	<b>Report ID</b>	<b>Weight 0.001_kg</b>	<b>Au 1_ppb</b>
521001	25	0.772	9
521002	26	0.617	21
521003	27	1.305	261
521014	33	0.495	3
521028	46	1.305	4633
521029	47	0.767	2237
521030	48	1.55	2281
521031	49	0.741	657
521032	50	0.933	2701
521033	51	0.904	19
521034	52	0.58	85
521035	53	0.581	602
521036	54	1.087	28
521042	55	1.109	11
521046	56	1.072	123
521048	57	1.757	189
521049	58	1.237	768
521053	62	0.802	1180
521004	64	0.821	4
521006	65	0.674	14
521008	66	0.941	41
521009	67	0.546	4
521011	68	0.763	5
521019	69	0.933	2
521037	70	1.8	14
521038	71	1.334	41
521039	72	0.648	123
521040	73	0.632	22
521041	74	1.096	242
521043	75	0.855	899
521044	76	1.055	1232
521045	77	0.606	67
521047	78	3.029	5056

WESTERN EXTENT OF PROPERTY (SAMPLES 1, 10, 15, 14, 7, AND 19)

1:40 000



Bancroft Lake



Tri Origin Exploration Ltd	
Map 1 Sky Lake Property & Koval Claims	
Date: 12/13/2018	Sample Location Map
Author: M Ruhl	
Office:	
Drawing:	Projection: UTM Zone 15 (NAD 83)
Scale: 1:5000	