Assessment Report
For
2014 Geological Mapping and Prospecting
In the
Arimathaea East Claim Block, South Swayze Property,
Benneweis Township
Porcupine Mining Division,
Ontario, Canada

Performed by
Trelawney Mining and Exploration Inc.

Mining Claims
539105, 539107, 539108, 539109, 539111, 539112, 539113, 539119, 539120, 539128, 539129, 539136, 539137, 539138, 539139, 539140, 539284, 539285, 539286, 539287, 539288, 539309, 539310, 539311, 539312, 539314, 539323, 539324, 539325, 539328

NTS: 41 P/12

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1.0 SUMMARY

1.1 SUMMARY OF THE 2014 ARIMATHAEA EAST EXPLORATION PROGRAM

The Arimathaea East Claim Block consists of approximately 1,808 hectares of contiguous mining claims that extend through parts of Chester, St. Louis and Benneweis Townships. These claims are located within the Chester Intrusive Complex (CIC) and the south part of the Swayze Greenstone Belt (SGB) bordered by the Kenogamissi Batholith to the north and the Ramsay-Algoma Terrain to the South. The claims are located about 8 km east of Cote Gold deposit, 32 km east of Jerome Mine and 1.8 kilometers east of Highway #144.

Trelawney Mining & Exploration personnel conducted a geological mapping and sampling program that began in late May, 2014 and concluded in late July, 2014. Three geological mapping teams consisting of one geologist and one geological field assistant completed the work over 21 man days.

The geological mapping program was initiated to investigate recent anomalous geophysical results from a 2014 ground I.P. geophysical survey and to map and prospect a relatively under-explored terrain in a prospective area while gaining geological knowledge into the local stratigraphy. The mapping program investigated portions of CIC in the SGB. The SGB, historically has been prospected for Gold and to a lesser extent base metals and is home to several past producing gold mines such as the historic Jerome Mine.

Over the course of the geological mapping program 286 surface grab samples and channel samples (QAQC samples inclusive) were collected and sent for Au-Fire Assay analysis, with 85 samples selected for multi-element ICP-MS analysis. A couple of anomalous gold assays were returned with the highlight being 0.46 g/t Au taken from sample 161546, consisting of quartz veining striking E-W within a weakly altered/mineralized and fractured quartz diorite. Two channel sample cuts were conducted within the mapping area. One channel sample cut was taken within a diorite breccia unit on the northwest margin of Benneweis Lake while the other channel sample cut was taken within a pyrite sericite schist unit near a historic trench on the northeast margin of Benneweis Lake. The results of the channel sampling did not return any anomalous Au values.

2.0 INTRODUCTION

2.1 PURPOSE OF THE REPORT

This report has been prepared to meet requirements for the filing of assessment work under the provisions of the Ontario Mining Act, and describes results of a geological mapping and prospecting program performed by Trelawney Mining and Exploration Inc. in Benneweis Township, within the eastern part of the South Swayze Property, Porcupine Mining District, Ontario.

2.2 TRELAWNEY PROGRAM - OVERVIEW

A geological mapping and prospecting program was carried out on 30 claim units. Namely 539105, 539107, 539108, 539109, 539111, 539112, 539113, 539119, 539120, 539128, 539129, 539136, 539137, 539138, 539139, 539140, 539284, 539285, 539286, 539287, 539288, 539309, 539310, 539311, 539312, 539314, 539323, 539324, 539325, 539328 (Table 1). These claims are held within a block of 113 contiguous claims that is referred to in this report as the Arimathaea East Claim Block, as it is located in claims formerly owned by the now defunct Arimathaea Corporation. All claims in the Arimathaea East Claim Block are now held 100% by Ontario 986813 Ltd.

Following a 2014 winter ground geophysical I.P. survey, Trelawney Mining and Exploration personnel carried out a geological mapping, prospecting and sampling program during the summer 2014 field season on the property. The program focused on geological mapping and prospecting with the geophysical grid, Benneweis Lakeshore, and trails utilized for mapping and prospecting control. Channel rock cuts were carried out in 2 areas of the property and were sampled.

The geological mapping and prospecting program was performed between May 29th - July 31st, 2014. The author was on-site for the duration of this work.

2.3 ONTARIO 986813 LTD. AND TRELAWNEY MINING AND EXPLORATION INC. AND IAMGOLD CORP.

Ontario 986813 Ltd. is a wholly owned (100%) subsidiary of Trelawney Mining and Exploration. In turn, Trelawney Mining and Exploration Inc. is a wholly owned (100%) subsidiary of IAMGOLD Corp.

3.0 ACCESSIBILITY, CLIMATE AND PHYSIOGRAPHY

3.1 ACCESSIBILITY

The Arimathaea East Claim Block lies in the eastern part of the South Swayze Property, immediately adjacent to Highway #144. The South Swayze Property covers a 45 kilometer long section of ground stretching southeast from west of Opeepeesway Lake to east of Highway #144, midway between Timmins and Sudbury (Fig. 1) to the southwest of the town of Gogama.

The property is accessible via a secondary gravel logging road (the Benneweis Road) located approximately 9.6 km north of the intersection of Highway #144 with Highway #560. The Benneweis Road is located on the East side of the Highway.

The Benneweis Road can be followed 1.8 km roughly easterly towards an ATV trail. The ATV trail can be followed north for ~800m at this junction to a boat launch access point on the southwestern edge of Benneweis Lake. Exploration gridlines from the 2014 winter ground IP survey can be accessed by boat.

3.2 CLIMATE AND PHYSIOGRAPHY

The climate on the South Swayze Property is similar to that of Timmins to the north for which Environment Canada indicates that the 10-year temperature range is from +38.9ºC to -45.6ºC. The average annual precipitation in the form of snow and rain is approximately 85 cm and falls evenly throughout the year.

This part of the South Swayze Property is typical of the Ontario northland, with extensive tree cover and limited topographic relief, accompanied by local swamps.

Figure 1: South Swayze Property Location

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 DESCRIPTION AND LOCATION

The Arimathaea East Claim Block, centered at UTM 438500m E 5268000m N, consists of approximately 1,808 hectares of contiguous mining claims that extend through parts of Chester, St. Louis and Benneweis Townships (Fig. 2). The unpatented mining claims that make up this property are listed in Appendix A.

Table 1 summarizes information for the unpatented mining claims involved in the geological mapping and prospecting program. All of the work was performed within these 30 claims.

Figure 2: South Swayze Claim Boundaries

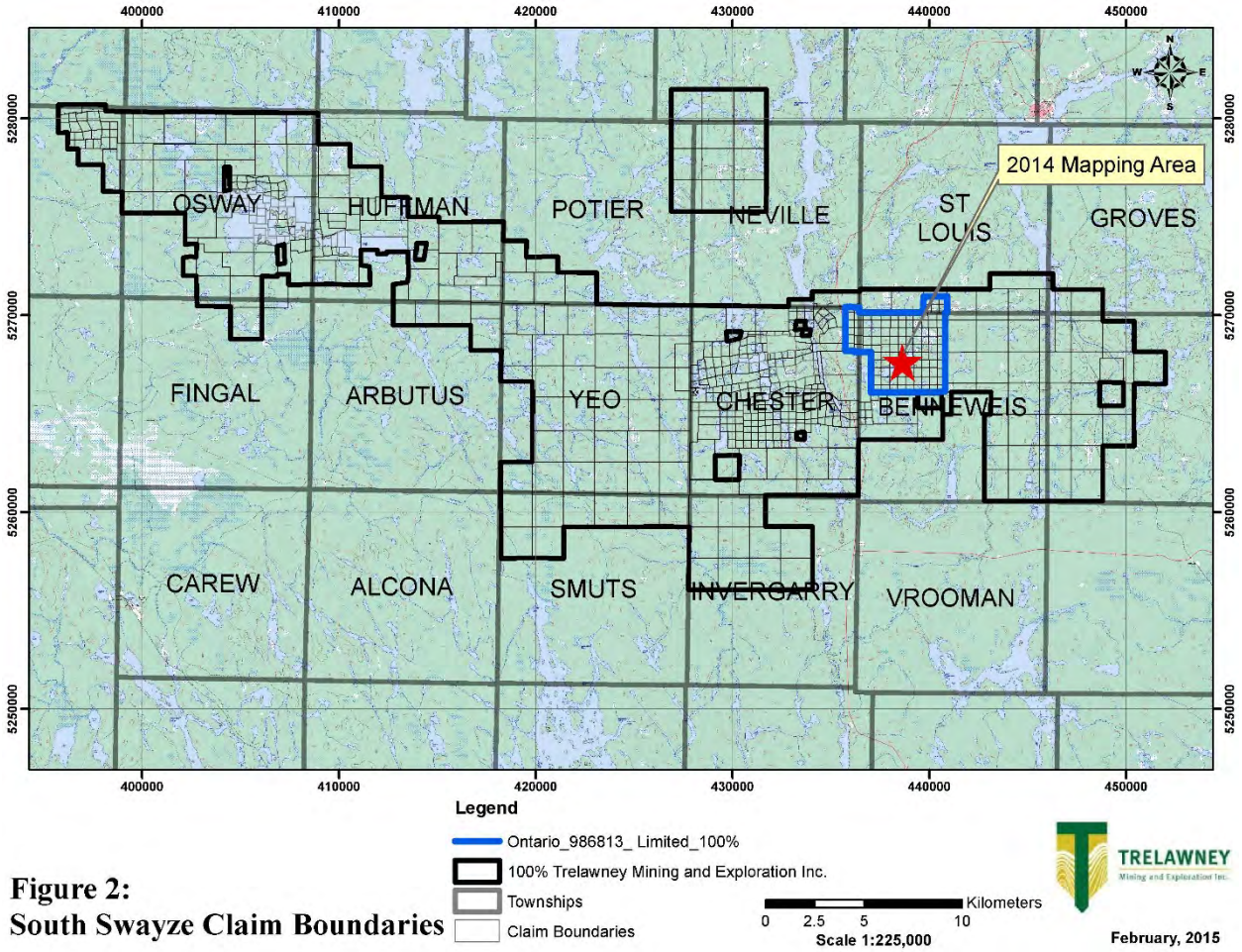


Figure 2:
South Swayze Claim Boundaries

Table 1: Summary of Information for Claims Worked

Township/Area	Claim Number	Claim Units	Approx. Claim Size	Claim Due Date	Status	Percent Option	Work Required
CHESTER	539105	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539107	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539108	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539109	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539111	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539112	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539113	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539119	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539120	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539128	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539129	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539136	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539137	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539138	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539139	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539140	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539284	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539285	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539286	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539287	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539288	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539309	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539310	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539311	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539312	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00

Township/Area	Claim Number	Claim Units	Approx. Claim Size	Claim Due Date	Status	Percent Option	Work Required
BENNEWEIS	539314	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539323	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539324	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539325	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539328	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00

5.0 EXPLORATION HISTORY

5.1 OVERVIEW

Historical gold exploration within the Arimathaea East Claim Block is described briefly below.

5.2 PREVIOUS EXPLORATION WORK – ARIMATHAEA EAST CLAIM BLOCK

1971 – Safari Explorations Ltd. conducted an IP survey across its claims in the Benneweis Township. Safari Explorations Ltd. then conducted a diamond drill program. They completed a single drill hole which targeted an IP anomaly on Benneweis Lake. The diamond drill hole encountered quartz feldspar porphyry units with only minor sulphides present. The drilling width of the QFP unit was reported to range between 85 ft (26m) to 281.5 ft (85.8m).

1971 – Texas Gulf Inc. conducted ground EM and magnetic survey across its claims in the Benneweis Township. Texas Gulf Inc. then conducted a diamond drill program of three holes for a total of 1005 ft (306.3m) depth. Rock types recorded included Gabbro, Granitoid, Andesite and Basalt. The company focused on exploration for Nickel and Copper, with the best sampled intervals within the ddh carrying 2% chalcopyrite.

1971 – Broken Hill Exploration conducted ground EM and VLF survey in Benneweis Township. Broken Hill Exploration then conducted a diamond drill program of three holes for a total of 1001 feet depth. Rock types included Basalt, Granite, Dacite, Diabase and Feldspar Porphyry. Mineralization was sporadic throughout the holes, but some intersection yielded as much as 0.5% Cu over 0.5 feet. Trace gold was recorded in the same intersection that yielded the highest copper value on the program.

1980 – Hargor Resources Inc. conducted an extensive airborne magnetic, VLF and EM survey of the region, spanning the majority of the South Swayze Property.

1981 – Murgold Resources conducted a program (by Norminex Ltd.) of mapping and thin section petrography in Benneweis Township. This report also covered areas of Chester Township.

1981 – National Iron Resources Ltd. completed geological mapping on Benneweis Township with limited success due to lack of outcrop.

1985 – Blue Falcon Mines completed regional airborne magnetic, VLF and EM survey.

1986 – Robert Leliever commissions Terraquest Ltd. to conduct an airborne magnetic, VLF and EM survey of the area.

1988 – Actuate Resources Ltd. completes a geological report written on the “Benneweis Property”. The brief report showed Benneweis Township to have as little as 2% outcrop exposure. Numerous grab samples taken returned no gold values.

1988 – Blue Falcon Mines and Robert Leliever commission a geological report on the “Benneweis Property”. The report was created by M.Alexander B.Sc. and N.Novak, B.Sc. The program included line cutting and geological mapping.

1990 – Blue Falcon Mines conducts the second part of a regional airborne magnetic, VLF and EM survey.

6.0 PREVIOUS EXPLORATION WORK - TRELAWNEY MINING AND EXPLORATION INC.

6.1 ARIMATHAEA EAST CLAIM BLOCK SAMPLING PROGRAM

In 2012, Trelawney Mining and Exploration Inc. conducted a grab sampling program in the Arimathaea East Claim Block. The majority of sampling was conducted in the northwest corner of the Arimathaea East Claim Block. Results of the grab sampling indicated little in the way of auriferous trends.

6.2 ARIMATHAEA EAST GROUND IP SURVEY

During the winter in early 2014 a total of 31.6 km of grid line was cut running N-S centered over Benneweis Lake, followed by an ground IP geophysical survey conducted by Dan Patrie Exploration Ltd. The exploration grid consisted of 12 N-S lines and one E-W baseline, with a 200m line spacing. Both 50m and 100m PDP spacing was used for the survey.

The purpose of this survey was to identify potential IP chargeability targets in an area of favourable geology, structure and historical reports of mineralized porphyry intercepted in the Safari S-1 diamond drill hole, along with a large EM conductor in the Benneweis Lake area. Two IP chargeability anomalies were outlined on the NW and NE sides of Benneweis Lake.

7.0 GEOLOGICAL SETTING

7.1 REGIONAL GEOLOGY

The Arimathaea East Claim Block lies within the southern Swayze Greenstone Belt - a northwest to west-trending belt of metamorphosed Archean volcanic, sedimentary and intrusive rock that is bounded by granitoid batholiths (Ayer et Trowell, 2002). This belt is considered to be a western continuation of the richly mineral-endowed Abitibi Greenstone Belt. Recent geological mapping of this area by the OGS has resulted in a re-interpretation of lithologies east of Highway 144(Figure 3).

A prominent sedimentary band that is up to several kilometers wide and that has been assigned to the late Archean Timiskaming Series strikes for over twenty-six kilometers southeast across this belt. This band is similar in age and composition to a unique group of Timiskaming sedimentary rock in the Kirkland Lake gold camp 230 kilometers to the northeast, has been intruded by intermediate feldspar porphyry and is host to a considerable amount of the gold mineralization, including the Jerome Mine.

The volcanic rock that engulfs the Timiskaming band is assigned to the older Keewatin series, and in this part of the Swayze Greenstone Belt, is mainly mafic and intermediate in composition. Subordinate relatively narrow intercalated sedimentary bands within this volcanic rock are comprised of wacke, siltstone, argillite and iron formation.

Intrusive bodies of tonalite, gabbro, quartz-feldspar porphyry, lamprophyre and diabase are also present.

Shearing is common throughout the southern Swayze, with foliation, shear planes, and primary layering mainly sub-vertical. Several of the deformation zones that are present are thought to be extensions of prominent structures in the Kirkland Lake camp; and these cut Timiskaming rock, younger intrusive feldspar porphyry and older Keewatin volcanic and sedimentary rock in the area.

Metamorphism within the southern part of the Swayze Greenstone Belt is largely upper greenschist facies.

The Arimathaea East Claim Block is located over thirty-two kilometers east-southeast of the Jerome Mine that produced 56,000 ounces of gold and 15,600 ounces of silver between 1939 and 1943, with significant resources remaining (Table 2).

Table 2: Summary of Historic Jerome Mine Resources

Deposit	Tons	Grade (oz/t)	Ounces	Classification
Jerome[1]	577,495	0.20	115,713	Probable + possible

Source: Millard, 1989 (equivalent to Inferred resource under current guidelines);

The Arimathaea East Claim Block is also located immediately east of the Cote Lake Gold Deposit and varied distances east of several historic gold deposits in Chester Township with significant resources (Table 3).

Figure 3: South of Gogama Area Regional Geology, Berger (2012)

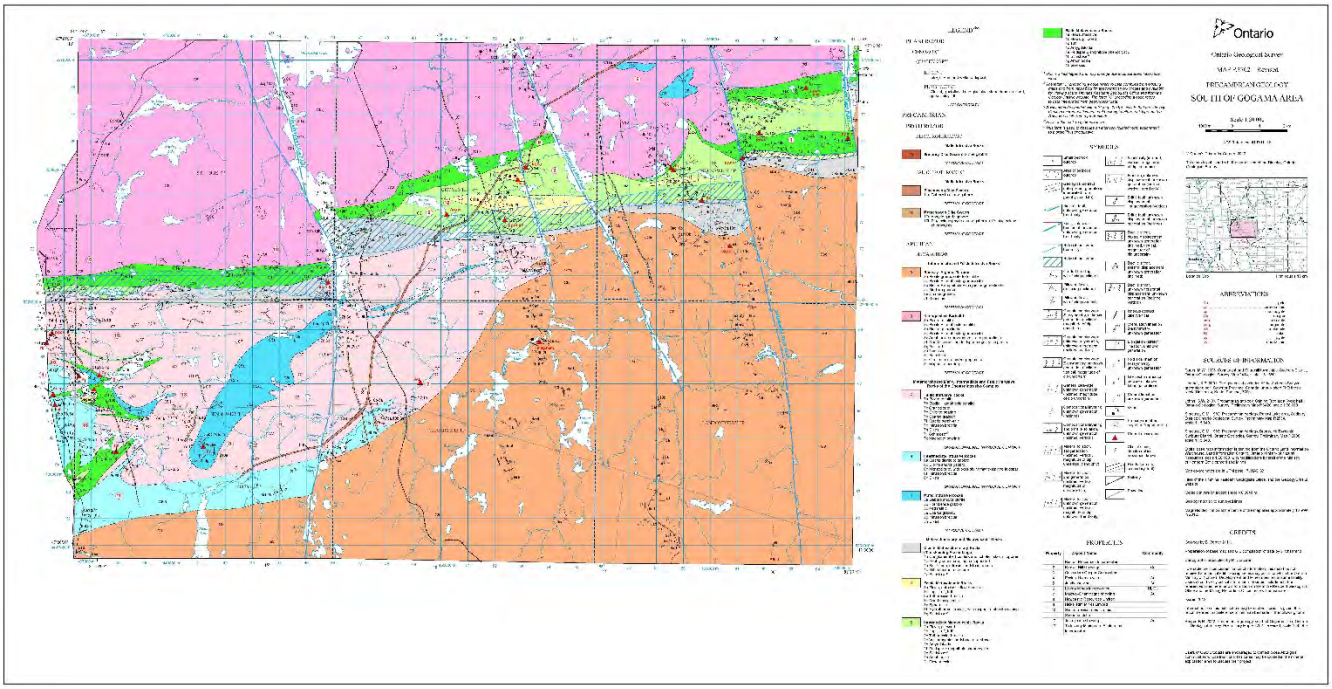


Table 3: Summary of Historic Gold Resources in Chester Township

Deposit	Tons	Grade (oz/t)	Ounces	Classification
Murgold-Chesbar	159,000	0.43	68,400	Measured resource
Young-Shannon	222,000	0.36	77,900	Indicated resource
Jack Rabbit	342,000	0.36	123,000	Indicated resource
Total	**723,000**	**0.37**	**269,300**	
	Additional resources			
Murgold-Chesbar	240,000	0.19	41,800	Inferred resource
Young-Shannon	725,000	0.16	116,000	Inferred resource
Jack Rabbit	100,000	0.36	36,000	Inferred resource
Total	**1,065,000**	**0.19**	**193,800**	

Source: McBride, 2002.

7.2 GEOLOGY – ARIMATHAEA EAST CLAIM BLOCK

The Arimathaea East Claim Block is underlain by a portion of a large intrusive body of tonalite known as the Chester Intrusive Complex. Bodies of mafic to intermediate intrusive cut through the tonalite on a broad scale, particularly in the southeast part of the claims.

8.0 SUMMARY OF ARIMATHAEA EAST 2014 SURFACE EXPLORATION PROGRAM

8.1 SUMMARY OF 2014 EXPLORATION

Trelawney Mining & Exploration personnel conducted the geological mapping and prospecting program on the Arimathaea East block in the Benneweis Township. The work was performed by Mavros Whissell, Adam Waram, Sam Tyler, and Andrew Shea of Sudbury, Ontario and by Jillian Craig of Copper Cliff, Ontario and Brian Tomczuk of St. Catharines, Ontario. The geological mapping program began in late May, 2014 and concluded in late July, 2014.

A total of 286 grab and channel samples (QAQC samples inclusive) were taken and 294 mapping stations were recorded. Two areas were mapped and sampled in the block with the majority of work concentrated on and around the 2014 geophysical grid lines and lakeshore mapping on Benneweis Lake located in the southwestern portion of the block. Part of the focus of the geological mapping was to investigate I.P. chargeability anomalies from the recent spring 2014 geophysical survey. Additional to the grid and shoreline mapping, a small reconnaissance mapping and prospecting program was carried out in the northeast portion of the claim block while scouting for a possible drill access trail from the north. All mapping was carried out at 1:2,500 scale. Sample locations and station numbers were recorded as waypoints with a Garmin 72s hand held GPS, while all out crop traces > 10m were traced with Garmin 72s hand held GPS.

The property geology in the map area in general consists of a large north-easterly trending volcanic package of mafic flows with lesser units of intermediate and felsic volcanic flows. These units dip general steeply to the southeast and are bordered to the southeast by a large tonalitic intrusion (CIC). This large north-easterly trending intermediate intrusive body of diorite to quartz diorite is found running sub-parallel to the metavolcanic package and dipping steeply to the southeast.

A variety of later dikes (mafic dikes, feldspar and quartz porphyry dikes and Matachewan diabase dikes) cross-cut the volcanic / intrusive stratigraphy. Matachewan diabase dikes strike 330° to 350° and dip steeply to the northeast. Some minor small mafic intrusions were identified along the diorite tonalite contact in the northern portion of the mapped area. Minor zones of both diorite and tonalite breccia were identified with minor contact breccia in the volcanics.

Regional foliation and deformation fabric strikes predominantly between 90-110° or 270-300° and dips steeply dipping to the north and south, respectively. Trace to 1-2% disseminated Py +/- Cpy was present locally in many of the volcanic units, and alteration was generally characterized by weak to moderate pervasive chlorite-carbonate +/- hematite. Similar sulphide abundances were noted very locally in the intrusive rock units. Regional metamorphism in the area lies within the upper greenschist facies.

Mineralization / alteration highlights from the mapping and prospecting work include a diorite breccia unit (437316 E, 5267526 N) and a pyrite sericite schist unit (439094 E, 5268189 N), both described in Section 8.2. The pyrite sericite schist unit also fell within a large I.P. chargeability anomaly.

Selective channel sampling was completed over one outcrop area in each of these zones, with sample lengths of 0.5m for a total of 3.5m. No anomalous Au values were returned from the channel sampling. Highlights of the program include one sample 161546, in which 0.46 g/t Au was returned from a quartz vein hosted in a weakly altered, mineralized and fractured quartz diorite unit in the north-easterly portion of the mapped area.

A description of all rock units mapped during the 2014 geological mapping and prospecting campaign can be found in Section 8.2.

8.2 DESCRIPTION OF ROCK UNITS

Field work led to the identification of 11 major rock units.

Description of rock types:

Tonalite to Granodiorite: Unit is grey to green to pink in color dependant on the degree of weathering and dominant alteration type, coarse to medium grained, massive to sheared structure often with mafic enclaves, phaneritic to porphyritic texture. Mineralogy averages 20-30% quartz, 60-70% plagioclase feldspar and minor amounts of biotite +/- amphibole, +/- chlorite, +/- magnetite. Alteration is commonly characterized by weak to moderate pervasive chlorite-carbonate with occasional instances of weak hematite, sericite, magnetite and/or pervasive silicification. Mineralization was commonly interstitial disseminated Py Tr-3% +/- Tr Cpy. Minor carbonate, quartz carbonate veining and quartz veining was observed.

Quartz Porphyry: Unit is grey to light grey to green in color dependant of the degree of weathering and intensity of alteration, coarse grained quartz phenocrysts set in a fine grained groundmass, massive to weakly foliated structure, porphyritic texture. Mineralogy averages 20-30% quartz phenocrysts with 70-80% fine grained plagioclase and mafics. Alteration was dominated by very weak to weak pervasive interstitial chlorite-carbonate. No mineralization within this unit was observed.

Quartz Diorite: Unit is grey green to dark green in color dependant on the degree of weathering and intensity of alteration, coarse to medium grained, massive structure with occasional mafic enclaves, phaneritic to occasional porphyritic (quartz and feldspar) texture. Mineralogy averages from 5-10% quartz, 65-70% plagioclase feldspar, and 10-25% mafics. Alteration was dominated by weak to moderate pervasive chlorite-carbonate and occasional hematite. Mineralization was commonly Tr-3% disseminated interstitial Py +/- Tr-1% disseminated Cpy. Minor carb quartz carbonate and quartz veining was observed.

Diorite to Gabbro: Unit is green to dark green to greenish black in color, fine to medium grained, massive to foliated structure, phaneritic to occasional porphyritic (feldspar) texture. Mineralogy averages from 0-5% quartz, 60-70% plagioclase feldspar and 20-30% mafics. Alteration was dominated by weak to moderate chlorite carbonate with occasional hematite staining of carbonate or feldspar grains. Mineralization was commonly Tr-4% disseminated Py +/- Tr Cpy. Minor carb and quartz carbonate veining was observed.

Feldspar Porphyry: Unit is grey to greenish in color, coarse to fine grained, massive structure, porphyritic texture. Mineralogy averages from 10-20% feldspar phenocrysts, occasional quartz phenocrysts, 80-90% fine to medium grained groundmass of intermediate composition of feldspar, quartz and mafics. Alteration was dominated by weak to moderate pervasive chlorite-carbonate. Tr disseminated Py was observed. Minor quartz veining up to 40% of outcrop was observed.

Diorite Breccia: Matrix supported breccia of a magmatic origin, composed of 60-70% fine to medium grained dioritic matrix with 30-40% angular tonalite fragments/clasts with sharp boundaries ranging from 10cm – 30cm in size. Alteration was commonly weak to moderate chlorite-carbonate +/- biotite alteration pervasively throughout the matrix. Tr disseminated py and minor quartz carbonate veining was observed.

Volcanoclastic Breccia: Matrix supported breccia of volcanic origin, 20-30 felsic-intermediate angular frags and glass up to 10cm in size, mafic groundmass with a strong foliation with fragment elongation parallel to foliation direction, fragments are polymictic. Strong pervasive silicification and Tr disseminated Py was observed.

Matachewan Diabase Dike: North to northwest trending. Finely crystalline dark grey to black containing coarsely crystalline epidote altered plagioclase phenocrysts (1-3%). Moderately to strongly magnetic. Tr disseminated py was observed.

Mafic Volcanic: Unit is light green-grey to dark green in color, fine grained, massive flows to foliated to fragmental structure near contact zones, aphanitic to amygdaloidal texture. Unit composed of fine grained feldspar and mafics. Alteration is commonly weak to moderate pervasive chlorite-carbonate with occasional hematite staining of carbonate. Mineralization is commonly Tr-2% disseminated Py +/- Tr vein hosted Cpy. Minor carbonate and quartz veining, along with occasional quartz boudins was observed.

Intermediate Volcanic: Unit is light grey-green to light green in color, fine grained, massive flows to foliated structure, aphanitic texture. Unit composed of fine grained feldspar and mafics of an intermediate composition. Alteration is commonly weak to moderate pervasive chlorite-carbonate with occasional hematite staining of carbonate. Mineralization is commonly Tr disseminated Py.

Felsic Volcanic: Unit is light grey to grey in color, fine grained, massive flows to foliated structure, aphanitic texture. Unit composed of fine grained feldspar, quartz and minor mafics of a felsic composition. Alteration is commonly weak to moderate pervasive chlorite-carbonate. Mineralization is commonly 1-3% disseminated Py +/- Tr Cpy.

Pyrite Sericite Schist: Unit is medium grey in color with a medium to fine grained texture. Moderately to strongly foliated giving the schistose texture. Unit appears to be strongly sericite altered and silicified as well as strongly foliated with a relict texture with a composition equivalent to Tonalite. The unit hosts 2-4% fine grained disseminated Py and minor trace to <1% Cpy.

9.0 QA/QC

9.1 QUALITY CONTROL AND RESULTS

A geological mapping and prospecting program was carried on the south central portion Arimathaea East block Benneweis, Township consisting of lakeshore mapping and sampling and surface mapping and sampling concentrated along the gridlines cut for a ground IP geophysical survey. The program was carried out from the 29th of May 2014 to the 31st July 2014 by Trelawney Mining and Exploration Ltd. personnel. A small reconnaissance mapping and prospecting program was also carried out in the northeast area of the Arimathaea East block while scouting for potential drill trail access to the area from the north. The purpose of this program was to give geological and structural context to the geophysical anomalies identified by the 2014 IP survey for future diamond drill targeting.

This report covers the assay results from the program received between July 26th 2014 and September 5th 2014. Results by Au Fire Assay for 286 surface rock and rock channel samples for certificates A14-05620-Au, A14-04675-Au, A14-05832-Au, and results by ICP-MS for 85 samples were received to date for certificates A14-04675-TD and A14-05832-TD, including 11 Blanks, and 13 STDs. Standards used were OREAS 204, OREAS 504, OREAS 206 and OREAS 501b. Mean Au values for the standards ranged from 0.248 ppm Au – 2.197 ppm Au. Standards were inserted every 24th sample in rotation with Blank material every 12th sample.

Samples were sent to Activation Laboratories to the Sudbury, Ontario sample preparation facility with all other analysis performed in Mississauga, Ontario. All samples received a standard Au analysis with Fire Assay finish of 5ppb lower detection limit along with a 61 element multi-acid ICP digest with a MS finish. Average turn-around time for Au-Fire Assay from samples being received at the prep-lab to final analysis results was 10 business days, and 13 business days for ICP results.

All blanks used passed falling below the UCL of 0.1 ppm Au with no failures or technician errors. Of the 4 standards used, there were no failures and no technician errors were identified. Customer service from Activation Laboratories was acceptable with good communication, support and reasonable turnaround time. Over all, STDs used for quality control performed well with a 0% failure rate with blanks preforming well with a 0% failure rate. Appendix F provides a supporting table for the QAQC results which details what the upper and lower limits of each Standard are within the second and third standard deviation and where the sample fell within the range. From this table it can be seen that all samples fell within the range of passing limits within the second standard deviation and did not even approach the upper and lower limits of the third standard deviation. This is well within acceptable passing limits. All results for standards and blanks used are shown in table format in Appendix F below.

10.0 CONCLUSIONS AND RECOMMENDATIONS

10.1 CONCLUSIONS

Trelawney Mining and Exploration personnel conducted geological mapping and prospecting on the Benneweis area grid (Arimathaea East Property). The mapping program yielded a detailed lithological map, and significantly added to the understanding of the stratigraphy and structure in the area. The geological mapping also investigated I.P. chargeability anomalies. Although not anomalous in Au, the channel samples taken from the trench hosting the pyrite sericite schist unit were coincident to a rather large I.P. chargeability anomaly. These samples were visibly mineralized with heightened amounts of both pyrite and chalcopyrite which could explain the elevated chargeability signature.

A total of 286 surface rock samples (including 7 saw cut channel samples and 24 QAQC samples) were assayed for Au. Anomalous Au values were returned for only one sample, which returned an assay value of 0.46 g/t Au.

Sample 161546: 0.46 g/t Au

No significant pathfinder elements or base metal enrichments assosciated with Au mineralization were identified from the ICP data collected.

Geological information gathered during this program will assist in the interpretation of geophysical signatures from the 2014 survey along with potential diamond drill targeting in the future.

10.2 RECOMENDATIONS

Additional follow-up work is recommended for areas identified with anomalous Au from surface mapping and prospecting. The following 2 areas should be considered:

- Anomalous E-W Au-bearing vein zone hosted in the weakly altered and mineralized diorite unit identified at surface in the northeast portion of the mapped area – requires prospecting and possibly diamond drill testing at depth.
- The diorite breccia unit mapped in the northeast portion of the grid should be followed-up with prospecting and drill testing (proximal to an IP chargeability anomaly). Despite the absence of anomalous Au, the presence of a well-developed breccia unit and weak hydrothermal alteration are favorable.

REFERENCES

Ayer, J.A and Trowell, N.F. 2002. Geological Compilation of the Swayze Area, Abitibi Greenstone Belt, Ontario Geological Survey, Preliminary Map P.3511, Scale 1:100 000

Berger, B.R. 2012. Precambrian geology, south of Gogama area. Ontario Geological Survey, Preliminary Map P.3762, scale 1:50,000

STATEMENT OF QUALIFICATIONS

Neil Kennedy, B.Sc. (Hons), Geology

Tel: (705) 221-6248

Email: neil_kennedy@iamgold.com

46 Russel Street
Gogama, Ontario
P0M 1W1

I, Neil Kennedy, B.Sc. do hereby certify that:

1. I have been a Senior Exploration Field Geologist for Trelawney Mining and Exploration Inc. since September 07, 2011.

2. I graduated with a B.Sc. (Hons) Major Degree in Geology & Geography from Brandon University in 2011.

3. I am a member of the Prospectors and Developers Association of Canada.

4. I have worked as a Geologist for more than 3 years since my graduation from University.

5. I am responsible for the preparation of this report.

6. I have been involved in the exploration programs in the Arimathaea East, South Swayze, Benneweis Township since early 2012 and was on site from October 31 to November 11, 2014.

Dated the nineteenth day of January, 2015.

Neil Kennedy, B.Sc. (Hons)
Senior Field Exploration Geologist,
Trelawney Mining and Exploration Inc.

STATEMENT OF QUALIFICATIONS – ALAN SMITH

I, Alan Smith, do hereby certify that:

1. I have been the District Manager – Exploration for Trelawney Mining and Exploration Inc., a wholly-owned subsidiary of IAMGOLD, since February, 2013.

2. I graduated with an Honors Bachelor of Science Degree in Geology from the University of Western Ontario in 1984. I completed an M.Sc. Degree in Geology at the University of Western Ontario in 1987.

3. I am a practicing member in good standing with the Association of Professional Geoscientists of Ontario (Membership Number 0201). I am also a Member of the PDAC, CIM, and OPA.

4. I have worked as a Geologist for more than 26 years since graduation from University.

5. I am responsible for the supervision of the 2014 Surface Exploration Program on the Arimathaea East Claim Block, and have reviewed the contents of this assessment report.

6. I have been involved in the Trelawney Mining and Exploration Inc. Ontario Exploration program since February of 2013.

Dated March 11, 2015

Appendices

Appendix A: List of Claims of Arimathaea East Claim Block

Township/Area	Claim Number	Claim Units	Approx. Claim Size	Claim Due Date	Status	Percent Option	Work Required
ST. LOUIS	507667	1	16	2015-Jul-05	A	100% Ontario 986813 Ltd.	$400.00
ST. LOUIS	507668	1	16	2015-Jul-05	A	100% Ontario 986813 Ltd.	$400.00
ST. LOUIS	507669	1	16	2015-Jul-05	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	538523	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	538524	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	538525	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539105	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539106	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539107	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539108	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539109	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539110	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539111	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539112	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539113	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539114	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539115	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
CHESTER	539116	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539117	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539118	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539119	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539120	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539121	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539122	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539123	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539124	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539125	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539126	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00

BENNEWEIS	539127	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539128	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539129	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539136	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539137	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539138	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539139	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539140	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539141	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539142	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539143	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539144	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539145	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539146	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539147	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539148	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539149	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
Township/Area	**Claim Number**	**Claim Units**	**Approx. Claim Size**	**Claim Due Date**	**Status**	**Percent Option**	**Work Required**
BENNEWEIS	539150	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539151	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539152	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539153	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539154	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539155	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00
ST. LOUIS	539181	1	16	2015-Jul-05	A	100% Ontario 986813 Ltd.	$400.00

ST. LOUIS	539182	1	16	2015-Jul-05	A	100% Ontario 986813 Ltd.	$400.00
ST. LOUIS	539183	1	16	2015-Jul-05	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539279	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539280	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539281	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539282	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539283	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539284	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539285	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539286	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539287	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539288	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539289	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539290	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539291	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539292	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539293	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539294	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539295	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539296	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539297	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539298	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539308	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539309	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539310	1	16	2015-May-16	A	100% Ontario 986813 Ltd.	$400.00

BENNEWEIS	539311	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539312	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539313	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539314	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539315	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539316	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539317	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539318	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539319	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539320	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539321	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539322	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539323	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
Township/Area	**Claim Number**	**Claim Units**	**Approx. Claim Size**	**Claim Due Date**	**Status**	**Percent Option**	**Work Required**
BENNEWEIS	539324	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539325	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539326	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539327	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539328	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539404	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539405	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539406	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539407	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539408	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539409	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00

BENNEWEIS	539410	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539411	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539412	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539413	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539414	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539415	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539416	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539417	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539418	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539419	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539420	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00
BENNEWEIS	539421	1	16	2015-May-22	A	100% Ontario 986813 Ltd.	$400.00

Appendix B: 2014 Arimathaea East Project Property Geology Map

Scale 1: 5,000

Arimathaea East Property Surface Geology
Scale 1:5,000

Meters
0 200 400 800

TRELAWNEY
Mining and Exploration Inc.

Geology Interpretation

- Matachewan Diabase Dike
- Mafic Metavolcanic
- Intermediate Metavolcanic
- Intermediate Intrusive
- Porphyry Contact
- Feldspar Porphyry
- Mafic Intrusive
- Felsic Intrusive
- Claim Boundaries Ontario 986813 Ltd

Channels and Trenches

Feature

- Channel
- Trench
- Benneweis Grid 2014 - GPSd

Structural Symbology

Legend

- Brecciated
- Foliation - dip known
- Foliation - dip unknown
- Igneous Contact
- Jointing - dip known
- Shearing - dip known
- Veining - dip known
- Veining - dip unknown

Small bedrock outcrop
Area of bedrock outcrop

Legend

10 Matachewan Dike Swarm
10a Aphyric quartz gabbro
10b Plagioclase phyric quartz gabbro, >1% plagioclase phenocrysts

7 Felsic Intrusive Rocks
7a Biotite tonalite
7b Biotite + amphibole tonalite
7c Granodiorite

6 Intermediate Intrusive Rocks
6a Quartz diorite to gabbro
6b Diorite and/or gabbro

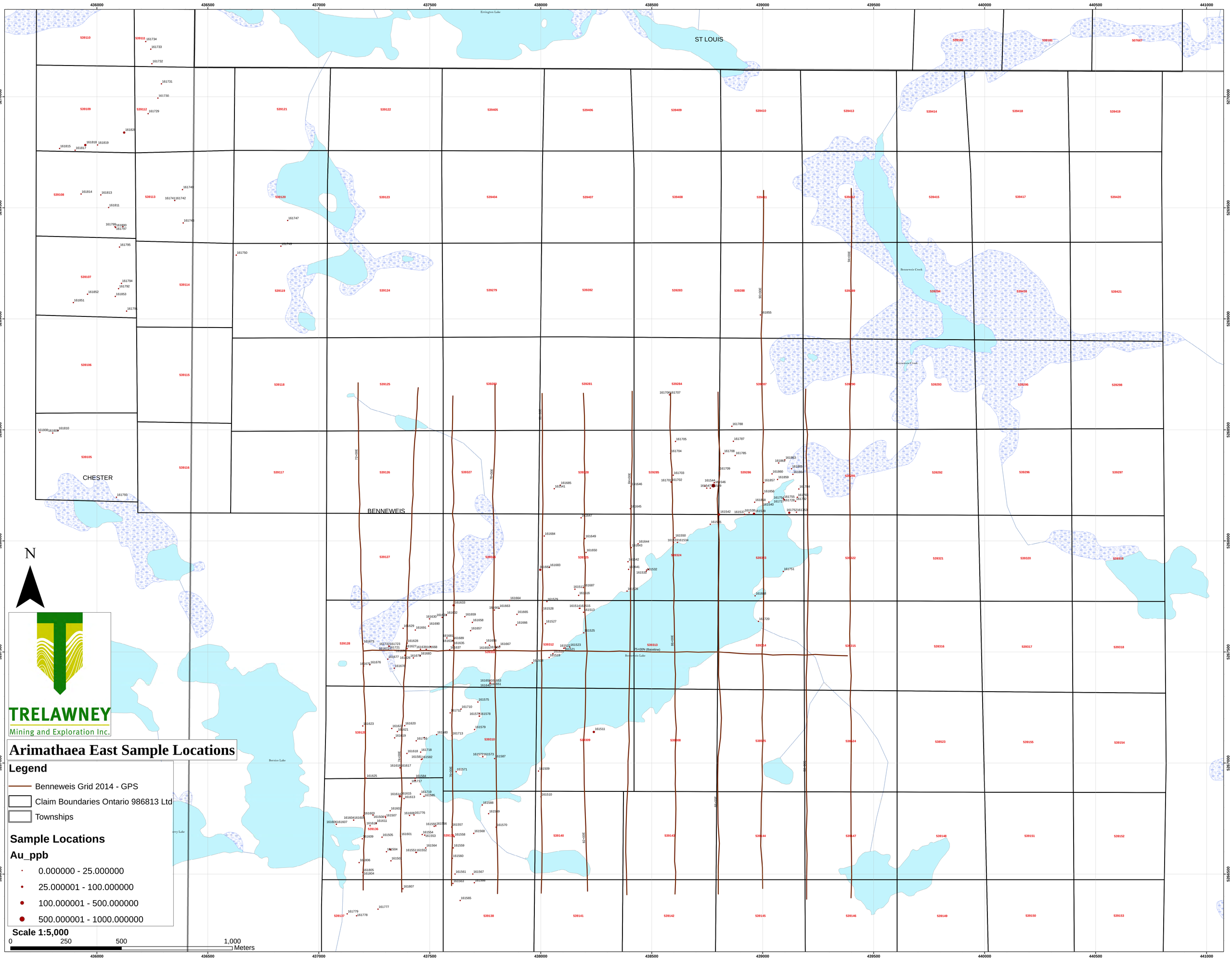
3 Felsic Metavolcanic Rocks
3a Flows, autoclastic flow breccia
3b Lapilli tuff, tuff
3c Tuff breccia, breccia
3d Quartz porphyritic

2 Intermediate Metavolcanic Rocks
2a Flows, pillowed

1 Mafic Metavolcanic Rocks
1a Flows, massive
1b Flows, pillowed

Appendix C: 2014 Arimathaea East Project Sample Location and Gold Assay Results Map

Scale 1:5,00


436000
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5267500
5267000
5266500
ST LOUIS
CHESTER
BENNEWEIS
Errington Lake
Benneweis Creek
Bernice Lake
Benneweis Lake
539110
539111
539182
539181
507667
539109
539112
539121
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539405
539406
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539410
539413
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539138
539141
539142
539145
539146
539149
539150
539153
72+00E
78+00E
84+00E
90+00E
96+00E
30+00N
25+00N (Baseline)
Scale 1:5,000
0
250
500
1,000
Meters
N
TRELAWNEY
Mining and Exploration Inc.
Arimathaea East Sample Locations
Legend
Benneweis Grid 2014 - GPS
Claim Boundaries Ontario 986813 Ltd
Townships
Sample Locations
Au_ppb
0.000000 - 25.000000
25.000001 - 100.000000
100.000001 - 500.000000
500.000001 - 1000.000000

Appendix D: 2014 Sample Descriptions

Header Information					Sample Information					Host Lithology						Mineralization				Comments
Date	Station_No	UTM Easting (Stn)	UTM Northing (Stn)	Elevation (Stn)	Sample_No	Sample Type	UTM Easting	UTM Northing	Elevation	Lithology	Weathering	Color	Texture	Grain Size	Magnetism	Style (Py)	% (Py)	Style (Cpy)	% (Cpy)	Comments
29/05/2014	MW-14-01	437325	5266560	393	161501	Mafic Volcanic	437325	5266560	393	Mafic Volcanic	1	GR	MAS	FG						
29/05/2014	MW-14-02	437323	5266609	405	161502	Diabase Dike	437323	5266609	405	Diabase Dike	1	DGR	MAS	MG	2					
29/05/2014	MW-14-03	437321	5266612	410	161503	Granite	437321	5266612	410	Granite	2	PI	MAS	CG						Possible boulder.
29/05/2014	MW-14-04	437305	5266601	410	161504	Mafic Volcanic	437305	5266601	410	Mafic Volcanic	1	DGR		FG	1	VN	1			
29/05/2014	MW-14-05	437285	5266666	407	161505	Mafic Volcanic	437285	5266666	407	Mafic Volcanic	2	DGR		FG	3	INT	1			This volcanic could be a diabase dike, but the weak foliation suggests otherwise.
29/05/2014	MW-14-06	437299	5266760	412	161506	Quartz Porphyry	437299	5266760	412	Quartz Porphyry	1	GR	PO							
29/05/2014	MW-14-07	437301	5266754	412	161507	Mafic Volcanic	437301	5266754	412	Mafic Volcanic	1	DGR		FG						
29/05/2014	MW-14-09	437244	5266765	410	161508	Quartz Porphyry	437244	5266765	410	Quartz Porphyry	1	LGR	PO							
12/06/2014	JJ-14-01	437989	5266964	403	161509	Tonalite	437990	5266964	404	Tonalite	1	PI	MAS	CG						Possible Granodiorite? Hematite staining or K-spar alt?
12/06/2014	JJ-14-02	438002	5266848	412	161510	Tonalite	438001	5266848	409	Tonalite	1	PI	MAS	CG		DIS	tr			Possible Granodiorite? Hematite staining or K-spar alt?
12/06/2014	JJ-14-05	438241	5267143	394	161511	Tonalite	438239	5267140	396	Tonalite	1	PI	MAS	CG						Possible Granodiorite? Hematite staining or K-spar alt?
13/06/2014	JA-14-01	428193	5267691	405	161513	Quartz Diorite	438193	5267679	405	Quartz Diorite	1	GG	MAS	MG						Small mossy outcropping 20m from lake shore, 3x2m with little exposure
13/06/2014	JA-14-02	438177	5267697	401	161514	Diorite	438177	5267697	401	Diorite	1	DGR	MAS	FG		DIS	tr			Outcrop in forest cover, mostly moss covered with little exposure, observed contact between fg diorite and CG alt'd Tonalite
13/06/2014	JA-14-02	438177	5267697	401	161515	Tonalite	438174	5267697	401	Diorite	1	DGR	MAS	FG		DIS	tr			Outcrop in forest cover, mostly moss covered with little exposure, observed contact between fg diorite and CG alt'd Tonalite
13/06/2014	JA-14-03	438171	5267755	400	161516	Feldspar Porphyry	438171	5267755	400	Feldspar Porphyry	1	GG	PO	PRPH	1	DIS	tr			Needs Lith type Feldspar Porphyry, small moss covered outcrop, fg grn chloritic w/ 2-3mm porphyritic plag, min is diss pyr cubes
13/06/2014	JA-14-04	438155	5267783	402	161517	Feldspar Porphyry	438154	5267783	402	Feldspar Porphyry	1	GG	PO	PRPH	1	DIS	tr			Feldspar porphyry, Small moss covered outcrop North of sample in 03 checked to verify continuation of FP
13/06/2014	JA-14-05	437962	5267451	400	161518	Tonalite	437962	5267451	400	Tonalite	1	DGR	MAS	MG	1					Mossy outcropping on the shore of Benneweis L.
13/06/2014	JA-14-06	438038	5267475	400	161519	Diabase Dike	438038	5267475	400	Diabase Dike	1	GREBLK	MAS	FG	3					20x8m outcrop on north shore of Benneweis L.
13/06/2014	JA-14-07	438055	5267492	400	161520	Diorite	438055	5267492	400	Diorite	2	DGR	MAS	FG		CLS	tr			Station on long ridge of outcrop on North Shore on Benneweis L.
13/06/2014	JA-14-07	438055	5267492	400	161521	Diorite	438104	5267517	400	Diorite	2	DGR	MAS	FG		CLS	tr			Station on long ridge of outcrop on North Shore on Benneweis L.
14/06/2014	JA-14-08	438110	5267518	400	161522	Diorite	438110	5267518	400	Diorite	2	DGR	MAS	FG	2	DIS	tr			
14/06/2014	JA-14-09	438131	5267522	394	161523	Intermediate Volcanic	438131	5267522	394	Intermediate Volcanic	1	GG	MAS	FG						
14/06/2014	JA-14-10	438194	5267586	392	161525	Diabase Dike	438194	5267586	392	Diabase Dike	1	GREBLK	MAS	FG	3	DIS	tr			
14/06/2014	JA-14-11	438289	5267774	400	161526	Quartz Diorite	438389	5267774	400	Quartz Diorite	1	GREBLK	MAS	MG		DIS	tr			
14/06/2014	JA-14-12	438024	5267534	419	161527	Diabase Dike	438021	5267627	419	Diabase Dike	1	GREBLK	MAS	FG	3					
14/06/2014	JA-14-13	438008	5267685	420	161528	Feldspar Porphyry	438008	5267685	420	Feldspar Porphyry	1	DGR	PO	PRPH						Update Litho, Feldspar Porphyry, QV approx 40% of sample,
14/06/2014	JA-14-14	438028	5267727	420	161529	Diorite	438028	5267727	420	Diorite	1	GREBLK	MAS	FG						
16/06/2014	JJ-14-06	438485	5267872	392	161530	Mafic Volcanic	438485	5267872	392	Mafic Volcanic	1	GR	CX	FG		DIS	tr			Contact zone between mafic volcanics and the Tonalite to the west; mafic volcanic is fol and hosts abundant angular fragments of Tonalite
16/06/2014	JJ-14-06	438485	5267872	392	161531	Tonalite	438477	5267869	399	Mafic Volcanic	1	GR	CX	FG		DIS	tr			Contact zone between mafic volcanics and the Tonalite to the west; mafic volcanic is fol and hosts abundant angular fragments of Tonalite
16/06/2014	JJ-14-06b	438485	5267872	392	161532	Quartz Vein	438475	5267862	400	Tonalite	1	WH								
16/06/2014	JJ-14-07	438598	5267993	397	161533	Quartz Porphyry	438598	5267993	397	Quartz Porphyry	1	GY	PO	FG						
16/06/2014	JJ-14-08	438616	5267993	396	161534	Mafic Volcanic	438616	5267993	396	Mafic Volcanic	1	GY	AP	FG		DIS	tr			
16/06/2014	JJ-14-09	438764	5268075	404	161535	Tonalite	438764	5268075	404	Tonalite	1	GR	MAS	CG						
16/06/2014	JJ-14-10	438918	5268120	402	161537	Tonalite	438918	5268120	402	Tonalite	1	WH	MAS	CG						
16/06/2014	JJ-14-10	438918	5268120	402	161538	Quartz Vein	438939	5268127	399	Tonalite	1	WH	MAS	CG						
16/06/2014	JJ-14-10	438918	5268120	402	161539	Quartz Vein	438961	5268122	392	Tonalite	1	WH	MAS	CG						Sample 161539 was taken in the 15cm wide bull qtz vein striking 250
16/06/2014	JJ-14-11	439028	5268175	395	161540	Felsic Volcanic	439028	5268175	395	Felsic Volcanic	1	WH	AP	FG						
16/06/2014	JJ-14-12	439061	5268235	394	161541	Felsic Volcanic	438061	5268235	394	Felsic Volcanic	1	WH	MAS	FG						

Header Information					Sample Information					Host Lithology						Mineralization				Comments
Date	Station_No	UTM Easting (Stn)	UTM Northing (Stn)	Elevation (Stn)	Sample_No	Sample Type	UTM Easting	UTM Northing	Elevation	Lithology	Weathering	Color	Texture	Grain Size	Magnetism	Style (Py)	% (Py)	Style (Cpy)	% (Cpy)	Comments
17/06/2014	JJ-14-13	438804	5268119	404	161542	Tonalite	438804	5268119	404	Tonalite	1	GY	MAS	CG		DIS	tr			
17/06/2014	JJ-14-15	438782	5268262	418	161543	Quartz Vein	438782	5268262	418	Tonalite	1	GY	MAS	CG		DIS	1			Tonalite? Possibly Qtz-Diorite, qtz content is near 20%
17/06/2014	JJ-14-15	438782	5268262	418	161544	Tonalite	438782	5268262	418	Tonalite	1	GY	MAS	CG		DIS	1			Tonalite? Possibly Qtz-Diorite, qtz content is near 20%
17/06/2014	JJ-14-16	438740	5268247	411	161545	Quartz Diorite	438740	5268247	411	Quartz Diorite	2	GY	MAS	CG		DIS	2			Rusty/oxidized with disseminated sulphides
17/06/2014	JJ-14-17	438762	5268261	407	161546	Quartz Diorite	438778	5268249	412	Quartz Diorite	2	GY	MAS	CG		DIS	0.5			
17/06/2014	JJ-14-18	438748	5268238	407	161547	Tonalite	438748	5268238	407	Tonalite	2	GY	MAS	CG		DIS	2			Tonalite? Chloriate altered and appears more quartz rich than a quartz-diorite
17/06/2014	JJ-14-19	438764	5268238	406	161549	Quartz Diorite	438764	5268238	406	Quartz Diorite	2	GY	MAS	MG		DIS	tr			~20% quartz at margin between a quartz-diorite and a tonalite…
18/06/2014	JS-14-01	438608	5268021	394	161550	Diorite	438604	5268014	394	Diorite	2	GG	MAS	MG	1	DIS	4	DIS	0.5	
10/06/2014	BJ-14-01	437438	5266600	404	161551	Quartz Vein	437440	5266597	393	Quartz Porphyry	2	GR		PRPH						Large 60m long ridge of Quartz Porphyry
10/06/2014	BJ-14-01	437438	5266600	404	161552	Quartz Porphyry	437437	5266597	399	Quartz Porphyry	2	GR		PRPH						Large 60m long ridge of Quartz Porphyry
10/06/2014	BJ-14-02	437480	5266675	419	161553	Mafic Volcanic	437477	5266675	418	Mafic Volcanic	2		AP	MG	3	DIS	1			
10/06/2014	BJ-14-03	437467	5266678	418	161554	Diabase Dike	437466	5266678	417	Diabase Dike	2			MG		DIS	1			
10/06/2014	BJ-14-04	437520	5266716	412	161555	Mafic Volcanic	437520	5266715	410	Mafic Volcanic	2	GR	AP	FG						
10/06/2014	BJ-14-05	437527	5266717	407	161556	Diorite	437527	5266717	404	Diorite	2	DGR		MG		DIS	0.1			Foliated on unweathered surface, phylittic foliation
10/06/2014	BJ-14-06	437599	5266719	404	161557	Mafic Volcanic	437599	5266712	408	Mafic Volcanic	1	DGR	AP	FG						
10/06/2014	BJ-14-07	437608	5266668	409	161558	Mafic Volcanic	437610	5266668	408	Mafic Volcanic	1		AP	FG	1	DIS	0.1			
10/06/2014	BJ-14-08	437600	5266620	406	161559	Intermediate Volcanic	437606	5266618	408	Intermediate Volcanic	1		AP	FG						
10/06/2014	BJ-14-09	437603	5266570	407	161560	Diabase Dike	437602	5266571	408	Diabase Dike	1			MG	3					
10/06/2014	BJ-14-10	437614	5266500	412	161561	Diabase Dike	437614	5266500	410	Diabase Dike	1			FG						
10/06/2014	BJ-14-11	437600	5266460	405	161563	Intermediate Volcanic	437604	5266458	408	Intermediate Volcanic	2	GR		FG		DIS	1			
10/06/2014	BJ-14-12	437482	5266617	397	161564	Diabase Dike	437482	5266618	397	Diabase Dike	2	DGR		MG	1	DIS	0.1			
11/06/2014	BJ-14-13	437637	5266383	400	161565	Mafic Volcanic	437637	5266381	403	Mafic Volcanic	2	GY	AP	FG		DIS	1			
11/06/2014	BJ-14-16	437700	5266448	398	161566	Quartz Porphyry	437701	5266461	401	Quartz Porphyry	1	GY	PO	FG						
11/06/2014	BJ-14-18	437696	5266499	402	161567	Diabase Dike	437694	5266500	400	Diabase Dike	1	DGR	MAS	MG	1	DIS	0.5			
11/06/2014	BJ-14-21	437688	5266684	394	161568	Mafic Volcanic	437698	5266683	398	Mafic Volcanic	2		AP	FG	1	FAC	1	VN	tr	
11/06/2014	BJ-14-22	437765	5266772	406	161569	Mafic Volcanic	437765	5266772	405	Mafic Volcanic	1	DGR	AP	FG	3	DIS	0.1			
11/06/2014	BJ-14-23	437801	5266711	399	161570	Intermediate Volcanic	437799	5266711	399	Felsic Volcanic	2	LGR	MAS	FG						
12/06/2014	TS-14-01	437619	5266961	401	161571	Intermediate Volcanic	437619	5266961	401	Intermediate Volcanic	1	GG	MAS							
12/06/2014	TS-14-02	437728	5267033	408	161572	Mafic Volcanic	437739	5267029	405	Mafic Volcanic	1	DGR	MAS			DIS	1			Veins intersect at Y and coalesce into main vein striking closer to 96deg
12/06/2014	TS-14-02	437728	5267033	408	161573	Quartz Vein	437739	5267029	405	Mafic Volcanic	1	DGR	MAS			DIS	1			Veins intersect at Y and coalesce into main vein striking closer to 96deg
12/06/2014	TS-14-03	437718	5267277	403	161575	Quartz Diorite	437717	5267275	403	Quartz Diorite	1	GG	MAS	CG						Sample contains 50% vn and 50% host
12/06/2014	TS-14-04	437726	5267226	402	161576	Tonalite	437723	5267222	403	Tonalite	1	GR	PO	PRPH		DIS	tr			Outcrop heavily jointed, At times unit appears porphyritic w/ blue qtz eyes, elsewhere it is vfg sil matrix, appears to be tonalite took two samples as rep to show difference. Outcrop sketch shown on back of card look at for details about porphryritic areas on outcrop and sample locations. Tonalite unit coarsens across outcrop to the south as it approaches contact to mafic volcanics
12/06/2014	TS-14-04	437726	5267226	402	161577	Mafic Volcanic	437723	5267211	403	Tonalite	1	GR	PO	PRPH		DIS	tr			Outcrop heavily jointed, At times unit appears porphyritic w/ blue qtz eyes, elsewhere it is vfg sil matrix, appears to be tonalite took two samples as rep to show difference. Outcrop sketch shown on back of card look at for details about porphryritic areas on outcrop and sample locations. Tonalite unit coarsens across outcrop to the south as it approaches contact to mafic volcanics
12/06/2014	TS-14-04b	437726	5267226	400	161578	Tonalite	437724	5267211	403	Tonalite	1	BE	MAS	CG						CG tonalite sample taken at contact top mfc volcanic from station above
12/06/2014	TS-14-05	437702	5267151	402	161579	Mafic Volcanic	437702	5267151	402	Mafic Volcanic	1	DGR	MAS	FG	1					
12/06/2014	TS-14-06	437531	5267128	404	161580	Diorite	437531	5267128	404	Diorite	1	DGR	MAS	MG						
12/06/2014	TS-14-07	437466	5267018	407	161581	Syenite Dike	437466	5267018	407	Mafic Volcanic	1	DGR	MAS	FG		DIS	tr			Mfc volcanic w/ irregualr rose pink vfg dike cutting through, 161581 sampled syenite dyke, 161582 sampled mcf volcanic
12/06/2014	TS-14-07	437466	5267018	407	161582	Mafic Volcanic	437462	5267016	407	Mafic Volcanic	1	DGR	MAS	FG		DIS	tr			Mfc volcanic w/ irregualr rose pink vfg dike cutting through, 161581 sampled syenite dyke, 161582 sampled mcf volcanic

12/06/2014	TS-14-08	437437	5266918	410	161583	Mafic Volcanic	437434	5266922	400	Mafic Volcanic	1	DGR				BLB	1-2%			Sample 161583 Amygdaloidal Basalt fg-cg, foliation suggest this over a Feldspar porphyry, well mineralized euhedral py 1-2%. Sample 584 not amygdaloidal but containing a sample of QV boudins and frags w host and approz 1% pyrite. Dip and fol`n changed but dipping to the south quite steeply.
12/06/2014	TS-14-08	437437	5266918	410	161584	Mafic Volcanic	437434	5266931	413	Mafic Volcanic	1	DGR				BLB	1-2%			Sample 161583 Amygdaloidal Basalt fg-cg, foliation suggest this over a Feldspar porphyry, well mineralized euhedral py 1-2%. Sample 584 not amygdaloidal but containing a sample of QV boudins and frags w host and approz 1% pyrite. Dip and fol`n changed but dipping to the south quite steeply.
12/06/2014	TS-14-09	437474	5266850	416	161585	Diabase Dike	437474	5266850	416	Diabase Dike	1	GRBLK	MAS	FG		DIS	tr			
12/06/2014	TS-14-10	437792	5267050	413	161587	Mafic Volcanic	437792	5267020	413	Mafic Volcanic	1	DGR	MAS	FG	1	DIS	1%			Small blocky island beside large island, possibly subcrop
13/06/2014	BR-14-01	437734	5266814	391	161588	Intermediate Volcanic	437737	5266811	390	Intermediate Volcanic	1	GR	SCH	FG						
13/06/2014	BR-14-05	437778	5267362	394	161589	Diorite	437771	5267370	394	Diorite	1	DGR	MAS	MG						Diorite-Volcanic Contact on outcrop, also 2 DDH collars, fol'n measured seems to be localized to diorite while the volcanics appear to be massive, could not get definite orientation on the contacts at the outcrop is mostly covered by overburden.

Header Information					Sample Information					Host Lithology						Mineralization				Comments
Date	**Station_No**	**UTM Easting (Stn)**	**UTM Northing (Stn)**	**Elevation (Stn)**	**Sample_No**	**Sample Type**	**UTM Easting**	**UTM Northing**	**Elevation**	**Lithology**	**Weathering**	**Color**	**Texture**	**Grain Size**	**Magnetism**	**Style (Py)**	**% (Py)**	**Style (Cpy)**	**% (Cpy)**	**Comments**
10/06/2014	WW-14-01	437369	5266670	402	161601	Diabase Dike	437369	5266670	402	Diabase Dike	1		MAS	MG	1	FAC	1			Appears to be a diabase, but it is not magnetic
10/06/2014	WW-14-03	437322	5266785	405	161602	Quartz Porphyry	437322	5266785	405	Quartz Porphyry	1	LGR		PRPH						Extension of porphyry found previous weak
10/06/2014	WW-14-07	437202	5266763	413	161603	Quartz Porphyry	437202	5266763	413	Quartz Porphyry	2	LGR		PRPH						
10/06/2014	WW-14-08	437157	5266743	414	161604	Quartz Porphyry	437157	5266743	414	Mafic Volcanic	2	DGR		FG						
10/06/2014	WW-14-08	437157	5266743	414	161605	Mafic Volcanic	437157	5266743	414	Mafic Volcanic	2	DGR		FG						
10/06/2014	WW-14-09	437079	5266724	407	161606	Felsic Volcanic	437079	5266724	407	Felsic Volcanic	2	LGR		FG						Some Rusting
10/06/2014	WW-14-09	437079	5266724	407	161607	Quartz Vein	437079	5266724	407	Felsic Volcanic	2	LGR		FG						Some Rusting
10/06/2014	WW-14-10	437060	5266748	409	161608	Felsic Volcanic	437409	5266764	411	Felsic Volcanic	2	LGR		FG						
10/06/2014	WW-14-11	437196	5266659	403	161609	Mafic Volcanic	437196	5266659	403	Mafic Volcanic	2	DGR		FG						Possibly Weakly foliated.
10/06/2014	WW-14-12	437231	5266718	399	161610	Mafic Volcanic	437231	5266718	399	Mafic Volcanic	2	DGR		FG	2	DIS	1			Possible Diabase? Fine grained, with weak foliation suggests it is more likely a volcanic. Diabase is not foliated.
10/06/2014	WW-14-13	437259	5266729	405	161611	Mafic Volcanic	437259	5266729	405	Mafic Volcanic	3	DGR		FG						Appears to be phyllite or slate.
11/06/2014	WW-14-14	437384	5266840	389	161613	Felsic Volcanic	437384	5266840	389	Felsic Volcanic	1	GY	MAS	FG		DIS	1	DIS	tr	
11/06/2014	WW-14-15	437365	5266850	405	161614	Felsic Volcanic	437365	5266850	405	Felsic Volcanic	1	GY	MAS	FG		DIS	3			Vein in large covered outcrop - geotool required.
11/06/2014	WW-14-15	437365	5266850	405	161615	Quartz Vein	437365	5266850	405	Felsic Volcanic	1	GY	MAS	FG		DIS	3			Vein in large covered outcrop - geotool required.
11/06/2014	WW-14-16	437366	5266978	408	161616	Diorite	437366	5266978	408	Felsic Volcanic	2	GY	MAS	FG		DIS	1			Contact Area Between Felsic Volcanic and Diorite (CIC). Also note the following for Diorite: 2 weathering, dark grey, medium grained, massive, pv 2 silica alt,
11/06/2014	WW-14-16	437366	5266978	408	161617	Diorite	437366	5266978	408	Felsic Volcanic	2	GY	MAS	FG		DIS	1			Contact Area Between Felsic Volcanic and Diorite (CIC). Also note the following for Diorite: 2 weathering, dark grey, medium grained, massive, pv 2 silica alt,
11/06/2014	WW-14-17	437397	5267043	413	161618	Mafic Volcanic	437397	5267043	413	Mafic Volcanic	1	DGR		FG		DIS	0.5			
11/06/2014	WW-14-18	437342	5267113	414	161619	Quartz Diorite	437342	5267113	414	Quartz Diorite	1	DGR	MAS	MG		DIS	3	DIS	tr	
11/06/2014	WW-14-19	437387	5267168	408	161620	Quartz Diorite	437387	5267168	408	Quartz Diorite	1	DGR	MAS	MG		DIS	3			
11/06/2014	WW-14-20	437354	5267142	415	161621	Mafic Volcanic	437354	5267142	415	Mafic Volcanic	1	DGR		FG		DIS	tr			Outcrop here very flat, difficult to get a good sample.
11/06/2014	WW-14-21	437329	5267156	416	161622	Diorite	437329	5267156	416	Diorite	2	GG	MAS	MG		DIS	2			Possible this is either outcrop or sub-outcrop. Large and angular.
11/06/2014	WW-14-22	437198	5267167	410	161623	Mafic Volcanic	437198	5267167	410	Mafic Volcanic	2	DGR		FG						Need to return to this outcrop to take structural measuement (strike and dip of foliation)
11/06/2014	WW-14-24	437213	5266932	420	161625	Intermediate Volcanic	437213	5266932	420	Intermediate Volcanic	1	GY		FG		DIS	2			This could be a mafic volcanic. The colour appears medium grey, the outcrop is strongly foliated. Located under an uprooted tree.
12/06/2014	WW-14-25	437388	5267485	412	161626	Diorite	437388	5267485	412	Diorite	1	DGR	MAS	MG	2	DIS	0.5			Sample unearthed from overturned tree - note heavy overburden in area
12/06/2014	WW-14-26	437398	5267515	411	161627	Tonalite	437398	5267515	411	Tonalite	2	GR	MAS	MG	1					
12/06/2014	WW-14-27	437398	5267540	414	161628	Tonalite	437398	5267540	414	Tonalite	2	GR	MAS	MG	2					
12/06/2014	WW-14-28	437380	5267607	404	161629	Tonalite	437380	5267607	404	Tonalite	1	GR	MAS	MG						Appear to be outside of previous silica/magnetite altertion zone of tonalite
12/06/2014	WW-14-30	437499	5267649	405	161630	Tonalite	437499	5267649	405	Tonalite	3	GR	MAS	MG						Unearthed from uprooted tree.
12/06/2014	WW-14-31	437556	5267656	410	161631	Tonalite	437556	5267656	410	Tonalite	3	GR	MAS	MG						Appears to have mm scale hematite veins
12/06/2014	WW-14-32	437575	5267667	412	161632	Tonalite	437575	5267667	412	Tonalite	3	GR	MAS	MG						Moderate rusting with 2cm quartz vein in tonalite is sampled.
12/06/2014	WW-14-33	437608	5267710	416	161633	Tonalite	437608	5267710	416	Tonalite	3	GR	MAS	MG						
12/06/2014	WW-14-34	437609	5267561	418	161634	Diorite	437609	5267561	418	Diorite	2	DGR	MAS	MG		DIS	3			Sulphidized Tonalite. Is this proximal to contact with diorite?

12/06/2014	WW-14-35	437606	5267530	418	161635	Tonalite	437606	5267530	418	Tonalite	2	GR	MAS	MG		DIS	2			Approaching/at chargeability anomaly at intersection of line 76+00E and baseline.
12/06/2014	WW-14-36	437590	5267510	411	161637	Diorite	437590	5267510	411	Diorite	3	DGR	MAS	MG	1	DIS	2			Well sulphidized medium grained to coarse grained and rusted/gossanous outcrop of diorite. Note gossan zone is covered in photo
12/06/2014	WW-14-37	437504	5267524	410	161638	Diorite	437504	5267524	410	Diorite	1	DGR	MAS	MG						
12/06/2014	WW-14-38	437458	5267512	404	161639	Diorite	437458	5267512	404	Diorite	2	DGR		MG		DIS	0.1			Weaky foliated. Unable to get measurement on this.
16/06/2014	WW-14-39	437772	5267361	385	161640	Felsic Volcanic	437772	5267361	385	Diorite Breccia	1	DGR		MG		DIS	tr			Contact measured is between felsic volcanic and diorite. Next two samples at this station are listed under WW-14-39-B
15/06/2014	JAB-14-01	437734	5267872	407	161641	Quartz Diorite	438396	5267872	407	Quartz Diorite	2	GR	MAS	MG		DIS	<1			
15/06/2014	JAB-14-02	438393	5267906	404	161642	Diorite	438393	5267906	404	Diorite	1	GG	MAS	MG	2	DIS	<1			
15/06/2014	JAB-14-03	438408	5267970	394	161643	Quartz Diorite	438408	5267970	394	Quartz Diorite	1	DGR	MAS	MG		DIS	<1			
15/06/2014	JAB-14-04	438439	5267987	393	161644	Quartz Diorite	438439	5267987	393	Quartz Diorite	1	DGR	MAS	MG		DIS	<1			

Header Information					Sample Information					Host Lithology						Mineralization				Comments
Date	Station_No	UTM Easting (Stn)	UTM Northing (Stn)	Elevation (Stn)	Sample_No	Sample Type	UTM Easting	UTM Northing	Elevation	Lithology	Weathering	Color	Texture	Grain Size	Magnetism	Style (Py)	% (Py)	Style (Cpy)	% (Cpy)	Comments
15/06/2014	JAB-14-05	438404	5268145	399	161645	Quartz Diorite	438404	5268145	399	Quartz Diorite	1	DGR	MAS	MG		DIS	<1			
15/06/2014	JAB-14-06	438407	5268246	393	161646	Quartz Diorite	438407	5268246	393	Quartz Diorite	1	GR	MAS	MG						
15/06/2014	JAB-14-08	438182	5268104	394	161647	Quartz Diorite	438182	5268104	394	Quartz Diorite	1	GR	MAS	MG						
15/06/2014	JAB-14-09	438199	5268011	396	161649	Quartz Diorite	438199	5268011	396	Quartz Diorite	1	GR	MAS	MG		DIS	<1			
15/06/2014	JAB-14-10	438204	5267948	389	161650	Diorite	438204	5267948	389	Diorite	1	DGR	MAS	MG						
16/06/2014	WW-14-39	437772	5267361	385	161651	Diorite	437772	5267358	391	Diorite Breccia	1	DGR		MG		DIS	tr			Contact measured is between felsic volcanic and diorite. Next two samples at this station are listed under WW-14-39-B
16/06/2014	WW-14-39-A	437772	5267361	385	161652	Diorite Breccia	437772	5267361	385		1									
16/06/2014	WW-14-39-A	437772	5267361	385	161653	Mafic Volcanic	437772	5267361	385		1									
16/06/2014	WW-14-41	437801	5267521	407	161654	Quartz Diorite	437801	5267521	407	Quartz Diorite	2	DGR	MAS	MG		DIS	0.5			Diorite with some rusting, presumably due to sulphides.
16/06/2014	WW-14-42	437769	5267530	414	161655	Diorite	437769	5267530	414	Diorite	1	GY	MAS	MG		DIS	1			
16/06/2014	WW-14-43	437751	5267541	420	161656	Diorite	437751	5267541	420	Diorite	1	LGR	MAS	MG		DIS	1			As with last outcrop, pervasive carbonitization. Could be Fe-Carb as we are in middle of mag low.
16/06/2014	WW-14-44	437684	5267596	417	161657	Mafic Volcanic	437684	5267596	417	Mafic Volcanic	1	GR		FG						Contact between a sheared/foliated mafic dike and diorite host rock
16/06/2014	WW-14-45	437692	5267633	420	161658	Diorite	437692	5267633	420	Diorite	1	LGR	MAS	MG		DIS	2			
16/06/2014	WW-14-46	437658	5267659	417	161659	Quartz Diorite	437658	5267659	417	Quartz Diorite	1	LGR		MG		DIS	tr			Small mm scale shearzone in center of cleared outcrop
17/06/2014	WW-14-48	437790	5267511	403	161660	Quartz Diorite	437790	5267511	403	Quartz Diorite	2	DGR	MAS	MG		DIS	0.5			Some Rusting
17/06/2014	WW-14-50	437791	5267689	423	161661	Mafic Volcanic	437791	5267689	423	Mafic Volcanic	2	GR		FG						Weakly Foliated.
17/06/2014	WW-14-51	437812	5267697	417	161663	Diorite	437812	5267697	417	Diorite	1	GR	MAS	MG		DIS	tr			Unearthed sample was rounded and difficult to obtain. Weakly foliated, but could not get a reasonable measurement due to poor exposure.
17/06/2014	WW-14-52	437860	5267732	414	161664	Diorite	437860	5267732	414	Diorite	1	DGR	MAS	MG		DIS	0.5			The diorite here appears quite fresh, relatively unaltered.
17/06/2014	WW-14-53	437893	5267670	415	161665	Diorite	437893	5267670	415	Diorite	1	GR		FG						Sample appears to be moderately aletered diorite, which changes it to fine grained.
17/06/2014	WW-14-54	437890	5267622	417	161666	Tonalite	437890	5267622	417	Tonalite	1	GY	MAS	MG						Relatively fresh looking tonalite. This is possibly sub-crop.
17/06/2014	WW-14-55	5267528	437818	417	161667		437815	5267526	417	Mafic Volcanic	2	GR		FG						Original card to this was lost. Had to use GPS to find its coordinates, and sample to get rock description. Appears to be another mafic dike.
18/06/2014	WW-14-56	437484	5267512	406	161668	Diorite	437484	5267512	406	Diorite	1	GR	MAS	MG		DIS	tr			Possible sub-crop within BB Anomaly - Weakly Sulphidized.
18/06/2014	WW-14-57	437384	5267507	402	161669	Tonalite	437384	5267507	402	Tonalite	2	GY	MAS	MG		DIS	tr			Contact between diorite and tonalite. Cleared a lot of outcrop for this.
18/06/2014	WW-14-57	437384	5267507	402	161670	Diorite	437344	5267507	402	Tonalite	2	GY	MAS	MG		DIS	tr			Contact between diorite and tonalite. Cleared a lot of outcrop for this.
18/06/2014	WW-14-58	437316	5267526	396	161671	Tonalite	437316	5267526	396	Diorite Breccia	1	GY		FG						Magmatic (not tectonic) breccia between tonalite and diorite. See Pictures. Need to come back to channel sample using saw as outcrop is very flat.
18/06/2014	WW-14-58	437316	5267526	396	161672	Quartz Vein	437316	5267526	396	Diorite Breccia	1	GY		FG						Magmatic (not tectonic) breccia between tonalite and diorite. See Pictures. Need to come back to channel sample using saw as outcrop is very flat.
18/06/2014	WW-14-59	437200	5267537	400	161673	Tonalite	437200	5267537	400	Tonalite	2	GY	MAS	MG						Near base of what could be a morraine. Heavy overburden in areas up to 2m.
18/06/2014	WW-14-60	437202	5267437	405	161675	Tonalite	437202	5267437	405	Tonalite	3	GY	MAS	MG		DIS	tr			
18/06/2014	WW-14-61	437230	5267443	409	161676	Tonalite	437230	5267443	409	Tonalite	2	RE	MAS	MG		DIS	1			Gossanous from py rusting

18/06/2014	WW-14-62	437311	5267468	400	161677	Tonalite	437311	5267468	400	Tonalite	2	RE	MAS	MG						Has specular hematite and some quartz carbonate veining.
19/06/2014	WW-14-63	437340	5267427	391	161678	Tonalite	437340	5267427	391	Tonalite	2	GY	MAS	MG						
19/06/2014	WW-14-64	437426	5267473	410	161679	Feldspar Porphyry	437426	5267473	410	Feldspar Porphyry	1	GY	PO	MG						
19/06/2014	WW-14-65	437457	5267483	418	161680	Diorite	437457	5267483	418	Diorite	1	GY	MAS	MG		DIS	0.5			Outcrop traced.
19/06/2014	WW-14-66	437577	5267563	415	161681	Quartz Diorite	437577	5267563	415	Quartz Diorite	1	GY		FG		DIS	1	DIS	1	
20/06/2014	SSS-14-01	437995	5267870	408	161682	Tonalite	437998	5267870	408	Tonalite	1	GG	MAS	MG		DIS	1			
20/06/2014	SSS-14-02	438039	5267889	409	161683	Quartz vein	438039	5267881	410	Quartz Diorite	1	GR	MAS	MG						
20/06/2014	SSS-14-03	438016	5268019	405	161684	Tonalite	438016	5268022	406	Tonalite	1	GR	MAS	MG						Suspect outcrop
20/06/2014	SSS-14-04	438018	5268247	407	161685	Tonalite	438088	5268251	407	Tonalite	1	GG	MAS	MG						
20/06/2014	SSS-14-06	438200	5267795	409	161687	Feldspar Porphyry	438192	5267790	409	Feldspar Porphyry	2	GR	PO	CG						Lithology and sample type are feldpsar porphyry.
20/06/2014	SSS-14-08	438966	5267753	405	161688	Mafic Volcanic	438966	5267753	405	Mafic Volcanic	1	GR	MAS	FG						Lakeshore outcrop.
23/06/2014	WW-14-67	437604	5267552	420	161689	Diorite	437604	5267552	420	Diorite	2	DGY	MAS	MG		DIS	0.5			
Header Information					**Sample Information**					**Host Lithology**						**Mineralization**				**Comments**
Date	**Station_No**	**UTM Easting (Stn)**	**UTM Northing (Stn)**	**Elevation (Stn)**	**Sample_No**	**Sample Type**	**UTM Easting**	**UTM Northing**	**Elevation**	**Lithology**	**Weathering**	**Color**	**Texture**	**Grain Size**	**Magnetism**	**Style (Py)**	**% (Py)**	**Style (Cpy)**	**% (Cpy)**	**Comments**
23/06/2014	WW-14-68	437495	5267617	417	161690	Tonalite	437495	5267617	417	Tonalite	2	GY	MAS	MG		DIS	1			
23/06/2014	WW-14-69	437435	5267599	412	161691	Tonalite	437435	5267599	412	Tonalite	2	GY	MAS	MG	2	DIS	1	DIS	0.1	Heavy magnetite alteration zone may explain magnetic anomaly on a regional scale. Outcrop traced is large tonalite outcrop bearing this magnetite (alteration zone).
18/06/2014	JS-14-02	438591	5268263	399	161701	Quartz vein	438591	5268263	398	Tonalite	1	GY	PH	CG		DIS	0.5			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-02	438591	5268263	399	161702	Tonalite	438587	5268265	399	Tonalite	1	GY	PH	CG		DIS	0.5			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-03	438608	5268288	400	161703	Quartz Diorite	438597	5268296	404	Quartz Diorite	1	GY	MAS	CG		DIS	tr			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-04	438582	5268403	408	161704	Quartz Diorite	438585	5268394	408	Quartz Diorite	1	GY	MAS	CG		DIS	tr			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-05	438598	5268437	413	161705	Tonalite	438607	5268448	414	Tonalite	1	GY	MAS	CG						
18/06/2014	JS-14-07	438579	5268635	413	161706	Quartz vein	438580	5268658	412	Tonalite	1	GY	MAS	CG		DIS	tr			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-07	438579	5268635	413	161707	Tonalite	438580	5268658	412	Tonalite	1	GY	MAS	CG		DIS	tr			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-13	438835	5268394	406	161708	Tonalite	438824	5268394	405	Tonalite	2	GY	MAS	MG		DIS	0.5			Grey-green, fine-grained mafic enclaves with chl alteration
18/06/2014	JS-14-16	438807	5268327	401	161709	Diorite	438804	5268316	403	Diorite	2	GG	MAS	MG		DIS	tr			
23/06/2014	SS-14-01	437641	5267243	405	161710	Quartz Diorite	437641	5267243	405	Quartz diorite	2	GG	MAS	MG						
23/06/2014	SS-14-02	437592	5267226	410	161711	Quartz Diorite	437592	5267226	410	Quartz diorite	1	GG	MAS	MG		DIS	tr			
23/06/2014	SS-14-03	437600	5267123	402	161713	Diorite	437600	5267123	410	Diorite	2	GG	MAS	MG		DIS	tr			Local foliation but no good surface to take readings
23/06/2014	SS-14-04	437476	5267115	393	161715	Diorite	437476	5267115	393	Diorite	2	GG	MAS	MG						Local foliation but no good surface to take readings
23/06/2014	SS-14-05	437439	5267100	403	161716	Diorite	437439	5267100	403	Diorite	1	GG	MAS	MG						
24/06/2014	TR14-01	437415	5266908	400	161717	Volcaniclastic	437415	5266908	400	Volcaniclastic	1	DGR	HT			DIS	tr			pyroclastic breccia, silicified felsic-int frags up to 10cm, mafic groundmass with a strong foliation with fragment elongation parallel to foliation direction, fragments polymictic
23/06/2014	SS-14-06	437459	5267049	404	161718	Diorite	437459	5267049	404	Diorite	2	GG	MAS	MG		DIS	tr			
24/06/2014	TR14-02	437458	5266860	387	161719	Diabase Dike	437458	5266860	387	Diabase Dike	1	DGR	MAS	FG	3					resemblance to fg diorite unit noted
20/06/2014	SSS-14-07	438981	5267638	405	161720	Mafic Volcanic	438981	5267638	405	Mafic Volcanic	1	GREBLK	MAS	FG		DIS	tr			
31/07/2014	Dead Tree Channel	437315	5267526	396	161721	Diorite Breccia	437315	5267526	396	Diorite Breccia	1	gy	MAS	mg		VN	0.5			
31/07/2014	Dead Tree Channel	437316	5267526	396	161722	Diorite Breccia	437316	5267526	396	Diorite Breccia	1	gy	MAS	mg						
31/07/2014	Dead Tree Channel	437317	5267526	396	161723	Diorite Breccia	437317	5267526	396	Diorite Breccia	1	gy	MAS	mg		VN	1	VN	tr	
31/07/2014	Northeast Channel	439094	5268189	382	161725	Intermediate Volcanic	439094	5268189	382	Intermediate Volcanic	1	GG	MAS	mg		FOL	tr			
31/07/2014	Northeast Channel	439094	5268189	382	161726	Intermediate Volcanic	439094	5268189	382	Intermediate Volcanic	1	GG	MAS	mg		DIS	tr			
31/07/2014	Northeast Channel	439094	5268189	382	161727	Intermediate Volcanic	439094	5268189	382	Intermediate Volcanic	1	GG	MAS	mg		DIS	tr			

31/07/2014	Northeast Channel	439094	5268189	382	161728	Intermediate Volcanic	439094	5268189	382	Intermediate Volcanic	1	GG	MAS	mg		FOL	3			
29/07/2014	ASA14-01	436231	5269924	414	161729	Tonalite	436231	5269924	414	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-02	436275	5269994	412	161730	Tonalite	436275	5269994	412	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-03	436291	5270058	417	161731	Tonalite	436291	5270058	417	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-04	436248	5270149	407	161732	Tonalite	436248	5270149	407	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-05	436243	5270214	399	161733	Tonalite	436243	5270214	399	Tonalite	1	GY	MAS	MG		DIS	0.1			
29/07/2014	ASA14-06	436220	5270249	396	161734	Tonalite	436220	5270249	396	Tonalite	1	GY	MAS	MG		DIS	0.5			Mafic dike has porphyritic k-spar phenocrysts and 0.5% diss pyrite
29/07/2014	ASA14-06	436220	5270249	396	161735	Mafic Dike	436221	5270251	396	Tonalite	1	GY	SHR	MG						
29/07/2014	ASAS14-08	436591	5269866	407	161737	Tonalite	436591	5269866	407	Tonalite	1	GY	MAS	MG						
29/07/2014	ASAS14-11	436440	5269638	409	161738	Tonalite	436424	5269609	409	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-09	436502	5269662	411	161739	Tonalite	436480	5269633	412	Tonalite	1	GY	MAS	MG		DIS	0.5			
29/07/2014	ASA14-13	436386	5269582	412	161740	Tonalite	436386	5269582	412	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-14	436351	5269533	414	161741	Tonalite	436351	5269533	414	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-14	436351	5269533	414	161742	Mafic Dike	436355	5269536	411	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-16	436389	52669432	416	161743	Tonalite	436389	5269432	416	Tonalite	1	GY	MAS	MG						
Header Information					**Sample Information**					**Host Lithology**						**Mineralization**				**Comments**
Date	**Station_No**	**UTM Easting (Stn)**	**UTM Northing (Stn)**	**Elevation (Stn)**	**Sample_No**	**Sample Type**	**UTM Easting**	**UTM Northing**	**Elevation**	**Lithology**	**Weathering**	**Color**	**Texture**	**Grain Size**	**Magnetism**	**Style (Py)**	**% (Py)**	**Style (Cpy)**	**% (Cpy)**	**Comments**
29/07/2014	ASA14-17	436429	5269374	400	161745	Tonalite	436429	5269374	400	Tonalite	1	GY	MAS	MG						
29/07/2014	ASA14-18	436474	5269327	400	161746	Tonalite	436474	5269327	400	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-10	436860	5269443	404	161747	Tonalite	436860	5269443	404	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-11	436829	5269327	401	161749	Tonalite	436829	5269327	401	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-12	436628	5269287	407	161750	Tonalite	436628	5269287	407	Tonalite	1	GY	MAS	MG						
24/06/2014	TR14-03	439093	5267863	383	161751	Tonalite	439093	5267863	383	Tonalite	1	LGR	MAS							unit appears to be more mfc+fg at times w/ mg blue qtz eyes throughout, very strong silicification overprinting texture
24/06/2014	TR14-04	439120	5267127	384	161752	Granodiorite	439120	5268127	384	Granodiorite	1	WH	MAS			DIS	tr	VN	tr	First sample on outcrop 30% Quartz vein in host Granodiorite w/ hematite alteration, mineralization occurs as pyrite with minor chalcopyrite with malachite. The vein itself is brecciated and has no continuous strike across the outcrop. In areas it appears gossanous and vuggy carrying sulphides up to 1%. Second sample 161753 taken along same outcrop is an intensely Sil+Na+Carb altered Granodiorite with no visible sulphides, taken adjacent to the quartz vein trending across
24/06/2014	TR14-04	439120	5267127	384	161753	Granodiorite	439152	5268129	387	Granodiorite	1	WH	MAS			DIS	tr	VN	tr	First sample on outcrop 30% Quartz vein in host Granodiorite w/ hematite alteration, mineralization occurs as pyrite with minor chalcopyrite with malachite. The vein itself is brecciated and has no continuous strike across the outcrop. In areas it appears gossanous and vuggy carrying sulphides up to 1%. Second sample 161753 taken along same outcrop is an intensely Sil+Na+Carb altered Granodiorite with no visible sulphides, taken adjacent to the quartz vein trending across
24/06/2014	TR14-05	439098	5268185	382	161754	Tonalite	439098	5268185	382	Tonalite	1	GY	MAS			DIS	3	DIS	tr	1st sample taken from 3x3m pit/trench on o/c, with qtz boulders and gossanous blasted rock proximal to pit. There are remnants of human activity 40+ years ago scattered about cans, scrap metal etc. Host is severely altered tonalite w/ 3% pyrite and minor chalcopyrite. Second sample is from foliated Tnlt near lake shore and is mineralized from 2-4% pyrite.
24/06/2014	TR14-05	439098	5268185	382	161755	Tonalite	439094	5268189	382	Tonalite	1	GY	MAS			DIS	3	DIS	tr	1st sample taken from 3x3m pit/trench on o/c, with qtz boulders and gossanous blasted rock proximal to pit. There are remnants of human activity 40+ years ago scattered about cans, scrap metal etc. Host is severely altered tonalite w/ 3% pyrite and minor chalcopyrite. Second sample is from foliated Tnlt near lake shore and is mineralized from 2-4% pyrite.
25/06/2014	TW-14-14	437429	5266766	402	161776	Mafic Volcanic	437429	5266766	402	Mafic Volcanic	3	GY	MAS	FG	2	DIS	tr			5-10cm diabase dike, very weathered surface. No visible contact on outcrop
25/06/2014	TW-14-15	437267	5266342	405	161777	Mafic Volcanic	437267	5266342	405	Mafic Volcanic	2	GG	MAS	FG	1	DIS	tr			
25/06/2014	TW-14-16	437175	5266312	405	161778	Mafic Volcanic	437170	5266312	405	Mafic Volcanic	2	GG	MAS	FG		DIS	tr			
25/06/2014	TW-14-17	437128	5266321	404	161779	Mafic Volcanic	437128	5266321	404	Mafic Volcanic	1	GG	MAS	FG		DIS	tr			Qtz-carb amygdules, 2-3mm
24/07/2014	AAR14-01	439148	5268179	400	161782	Intermediate Volcanic	439148	5268179	400	Intermediate Volcanic	1	GR		FG		DIS	0.5			follow up area proximal lake shore trench, pyrite vfg in first sample 161782, coarse and sparser in second sample 161783
24/07/2014	AAR14-01	439148	5268179	400	161783	Intermediate Volcanic	439156	5268197	400	Intermediate Volcanic	1	GR		FG		DIS	0.5			follow up area proximal lake shore trench, pyrite vfg in first sample 161782, coarse and sparser in second sample 161783
24/07/2014	AAR14-02	439163	5268234	400	161784	Intermediate Volcanic	439163	5268234	400	Intermediate Volcanic	1	LGR		FG						
24/07/2014	AAR14-03	438876	5268385	400	161785	Tonalite	438876	5268385	400		1	PI	HT	MG		DIS	tr			Tonalite Breccia' Hem altered mg tonalite w/ mafic enclaves of mfc volcanics, mfc volc are chl alt'd, trace min is hosted in tonalite, 1st photo tonalite w/ volc frag, 2nd photo Bx area. Photos stored in active projects directory on common under sample photos>July 24
24/07/2014	AAR14-04	438868	5268449	400	161787	Tonalite	438868	5268449	400	Tonalite	1	GY	MAS	MG	2			CLS	0.2	Localized mod-strng mag in sample, possible vfg magnetite
24/07/2014	AAR14-05	438861	5268516	400	161788	Tonalite	438861	5268516	400	Tonalite	1	GY	MAS	VCG		BLB	tr			very coarse grained tonalite, megacrystic blue quartz eyes appearing porphyritic
28/07/2014	SA14-01	436134	5269037	406	161791	Tonalite	436134	5269035	406	Tonalite	1	GY	MAS	MG						large blue qtz eyes
28/07/2014	SA14-02	436098	5269136	406	161792	Mafic Volcanic	436098	5269136	406	Mafic Volcanic	1	DGR		FG						
28/07/2014	SA14-02	436098	5269136	406	161793	Tonalite	436088	5268197	406	Mafic Volcanic	1	DGR		FG						

28/07/2014	SA14-03	436106	5269160	406	161794	Tonalite	436111	5269160	407	Tonalite	1	GY	MAS	MG						Diabase located to east of outcrop, contact under overburden but trending at around 340
28/07/2014	SA14-04	436102	5269323	407	161795	Tonalite	436102	5269323	407	Tonalite	1	DGR	MAS	MG						
28/07/2014	SA14-05	436107	5269382	408	161796	Tonalite	436117	5269415	408	Tonalite	1	GY	MAS	MG		DIS	tr			Outcrop covered by old slashpile, tonalite with N trending diabase going through center, tonalite on both sides. QV is irregular and anastomosing across o/c but generally e-w
28/07/2014	SA14-05	436107	5269382	408	161797	Tonalite	436084	5269411	408	Tonalite	1	GY	MAS	MG		DIS	tr			Outcrop covered by old slashpile, tonalite with N trending diabase going through center, tonalite on both sides. QV is irregular and anastomosing across o/c but generally e-w
28/07/2014	SA14-06	436081	5269415	408	161799	Tonalite	436082	5269415	408	Tonalite	1	DGR	MAS	MG		BLB	0.5			Second sample on shoulder of QV has clustered pyr 1-2%
28/07/2014	SA14-06	436081	5269415	408	161800	Tonalite	436084	5269411	408	Tonalite	1	DGR	MAS	MG		BLB	0.5			Second sample on shoulder of QV has clustered pyr 1-2%
23/06/2014	CS-14-02	437200	5266492	407	161804	Mafic Volcanic	437200	5266492	407	Mafic Volcanic	1	GR	AP	FG						
23/06/2014	CS-14-03	437197	5266506	415	161805	Mafic Volcanic	437198	5266508	414	Mafic Volcanic	2	GR	AP	FG						
23/06/2014	CS-14-04	437193	5266550	415	161806	Diabase Dike	437182	5266552	414	Mafic Volcanic	2	GY	AP	FG		DIS	1			Large ridge, mafic volcanics at line 72E then 10m west appears to be a non-magnetic diabase dyke
23/06/2014	CS-14-08	437377	5266433	404	161807	Mafic Volcanic	437379	5266434	406	Mafic Volcanic	2	GR	AP	FG						
30/07/2014	ASA14-17	435743	5268489	413	161808	Tonalite	435743	5268489	413	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-17	435801	5268486	411	161809	Tonalite	435801	5268486	411	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-15	435825	5268497	413	161810	Tonalite	435825	5268497	413	Tonalite	1	GY	MAS	MG						
28/07/2014	SA14-08	436053	5269452	408	161811	Tonalite	436053	5269501	408	Tonalite	1	GY	MAS	MG						
28/07/2014	SA14-09	436018	5269558	406	161813	Tonalite	436018	5269558	406	Tonalite	1	GY	MAS	MG						
28/07/2014	SA14-10	435929	5269562	403	161814	Tonalite	435929	5269562	403	Tonalite	1	GY	MAS	MG						
28/07/2014	SA14-11	435830	5269766	404	161815	Tonalite	435832	5269767	404	Tonalite	1	GY	MAS	MG						
28/07/2014	SA14-13	435907	5269770	410	161817	Tonalite	435902	5269759	410	Tonalite	1	GY	MAS	MG		DIS	TR			Anastamosing QV, white opague with varying orientations

Header Information					Sample Information					Host Lithology						Mineralization				Comments
Date	Station_No	UTM Easting (Stn)	UTM Northing (Stn)	Elevation (Stn)	Sample_No	Sample Type	UTM Easting	UTM Northing	Elevation	Lithology	Weathering	Color	Texture	Grain Size	Magnetism	Style (Py)	% (Py)	Style (Cpy)	% (Cpy)	Comments
28/07/2014	SA14-14	435947	5269787	410	161818	Tonalite	435948	5269783	410	Tonalite	1	GY	MAS	MG				CLS	TR	
28/07/2014	SA14-15	436003	5269788	410	161819	Tonalite	436003	5269783	410	Tonalite	1	LGR	MAS	MG						
28/07/2014	SA14-16	436123	5269839	411	161820	Tonalite	436123	5269839	411	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-09	435894	5269073	409	161851	Tonalite	435894	5269073	409	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-08	435958	5269111	410	161852	Tonalite	435958	5269111	410	Tonalite	1	GY	MAS	MG						
30/07/2014	ASA14-07	436083	5269101	407	161853	Tonalite	436083	5269101	407	Tonalite	1	GY	MAS	MG						
15/08/2014	AR14-08	438990	5269018	413	161855	Tonalite	438990	5269018	413	Tonalite	1	GY	MAS	MG						
15/08/2014	AR14-09	439003	5268213	403	161856	Tonalite	439003	5268213	403	Tonalite	1	GY	MAS	MG						
15/08/2014	AR14-10	439005	5268263	399	161857	Tonalite	439005	5268263	399	Tonalite	1	GY	MAS	MG		DIS	2	VN	tr	
15/08/2014	AR14-11	438964	5268174	399	161858	Tonalite	438964	5268174	399	Tonalite	1	GY	MAS	FG		DIS	0.5			
17/08/2014	AR14-12	439067	5268277	401	161859	Diorite	439067	5268277	401	Tonalite	1	GY	MAS	MG		DIS	2	DIS	tr	
17/08/2014	AR14-12	439067	5268277	401	161860	Tonalite	439042	5268302	401	Tonalite	1	GY	MAS	MG		DIS	2	DIS	tr	
17/08/2014	AR14-13	439072	5268351	401	161861	Tonalite	439072	5268351	401	Tonalite	1	GY	SCH	FG		DIS	1			
17/08/2014	AR14-14	439100	5268365	402	161863	Diorite	439100	5268365	402	Diorite	1	GY	MAS	MG		DIS	1			
17/08/2014	AR14-15	439136	5268300	393	161864	Tonalite	439136	5268300	393	Tonalite	1	GY	MAS	MG		DIS	tr			
17/08/2014	AR14-15	439136	5268300	393	161865	Tonalite	439130	5268325	392	Tonalite	1	GY	MAS	MG		DIS	tr			

Appendix E: 2014 Assay Certificates and Results

Quality Analysis ... *Innovative Technologies*

Date Submitted: 11-Jul-14
Invoice No.: A14-04675
Invoice Date: 26-Jul-14
Your Reference: BENNEWEIS

Trelawney Mining and Exploration
130 King Street West
Suite 2810 - PO Box 182
Toronto ON M5X 1A6
Canada

ATTN: Alan Smith

CERTIFICATE OF ANALYSIS

240 Rock samples were submitted for analysis.

The following analytical package was requested: Code 1A2 Au - Fire Assay AA
Code UT-6 Total Digestion ICP & ICP/MS

REPORT **A14-04675**

Notes:

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

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

SCC Accredited LAB
LAB Accrédité CCN

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

Results

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161501																							
161502	7.5	1.64	3.08	6.17	0.47	6.33	0.2	270	79.9	1640	10.9	3.5	< 10	68.9	3.7	0.7	1.2	0.10	0.45	52.6	1.21	0.06	0.1
161503																							
161504																							
161505																							
161506	11.1	0.24	1.67	5.39	0.82	1.28	0.1	35	22.6	861	2.84	5.6	< 10	11.9	2.8	1.4	0.9	0.34	0.67	4.6	0.94	0.04	0.2
161507																							
161508																							
161509																							
161510																							
161511																							
161512																							
161513																							
161514																							
161515																							
161516	9.4	2.87	1.10	6.93	0.73	3.33	< 0.1	38	34.5	644	5.23	1.2	< 10	22.7	2.1	1.7	0.7	0.06	0.40	17.5	1.05	0.17	< 0.1
161517	7.9	2.62	0.88	4.93	0.57	2.00	< 0.1	51	34.8	531	4.63	1.2	< 10	20.1	1.6	1.3	0.5	0.07	0.28	15.1	0.67	0.33	0.1
161518																							
161519	7.1	1.79	2.51	4.65	0.50	5.63	0.2	301	85.9	1530	10.0	3.1	< 10	58.1	2.7	0.7	0.9	0.26	0.47	48.2	0.90	0.10	0.4
161520																							
161521																							
161522	8.5	1.95	2.65	5.86	0.46	5.84	0.3	202	50.3	1680	11.9	2.3	< 10	56.5	4.9	0.9	1.6	0.13	0.75	50.9	1.64	0.10	0.2
161523	21.7	> 3.00	3.61	7.26	0.13	0.56	< 0.1	76	61.5	534	5.16	2.5	< 10	56.5	1.8	2.0	0.7	0.08	0.23	26.0	1.34	0.02	0.3
161524																							
161525	10.1	1.84	3.00	6.31	0.58	6.37	0.2	177	55.8	1870	13.1	0.9	< 10	68.7	5.3	1.1	1.8	0.09	0.75	52.1	1.82	0.04	0.6
161526																							
161527																							
161528																							
161529	8.8	1.71	2.95	6.19	0.55	6.27	0.2	232	48.9	1840	13.0	1.3	< 10	65.1	4.3	0.9	1.5	0.18	0.87	57.0	1.47	0.09	0.4
161530																							
161531																							
161532																							
161533	26.4	0.34	2.53	5.99	1.13	0.11	< 0.1	20	11.9	277	2.66	5.0	< 10	4.1	2.9	1.9	0.9	0.32	0.62	5.4	0.32	0.07	< 0.1
161534	11.0	2.61	3.93	7.59	0.04	2.79	0.1	134	124	1170	9.79	0.3	< 10	102	3.0	1.1	1.1	0.18	0.07	48.2	0.95	0.53	< 0.1
161535																							
161536																							
161537	6.1	> 3.00	0.15	6.25	0.66	0.56	< 0.1	7	15.9	149	1.24	3.3	< 10	3.1	2.7	1.9	0.9	0.36	0.27	1.7	0.27	0.42	0.4
161538																							
161539																							
161540	15.7	0.60	2.54	6.41	0.71	0.05	< 0.1	38	31.0	339	2.96	4.7	< 10	22.7	1.6	1.6	0.5	0.27	0.43	7.5	0.54	0.44	0.1
161541																							
161542																							
161543	1.2	0.14	0.10	0.34	0.03	0.06	< 0.1	2	68.4	150	1.59	0.2	< 10	5.0	< 0.1	0.2	< 0.1	0.06	0.06	0.6	< 0.05	0.06	< 0.1
161544																							
161545	6.1	> 3.00	0.76	7.63	0.51	2.05	< 0.1	6	15.4	411	4.66	2.1	20	3.4	2.8	1.6	1.0	0.10	0.27	4.1	1.75	0.56	< 0.1
161546																							
161547																							
161548																							
161549	16.8	2.69	2.56	4.41	0.27	0.23	< 0.1	8	19.7	553	6.47	2.7	< 10	2.4	1.3	0.6	0.4	0.29	0.13	12.0	0.16	0.07	< 0.1

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161550	37.3	0.26	3.34	5.50	0.22	3.39	0.2	240	66.8	1270	11.6	0.9	< 10	45.2	3.9	1.9	1.4	0.24	1.18	40.6	1.24	1.91	< 0.1
161551																							
161552																							
161553																							
161554																							
161555																							
161556																							
161557																							
161558																							
161559	36.6	0.69	3.36	8.90	0.86	0.17	0.1	4	9.6	673	6.04	12.0	< 10	1.8	5.0	2.1	1.6	0.57	0.92	6.8	1.36	0.07	< 0.1
161560																							
161561	9.3	2.09	2.84	6.19	0.02	5.89	0.4	176	37.2	2030	9.81	1.2	< 10	46.6	3.3	0.7	1.1	0.30	0.07	43.5	1.12	0.19	< 0.1
161562																							
161563	9.5	2.79	1.69	5.59	0.28	0.36	0.1	16	20.0	723	4.87	7.3	< 10	2.5	4.0	0.8	1.3	0.49	0.10	10.2	1.30	0.12	< 0.1
161564	9.7	1.60	3.19	6.61	0.07	5.77	0.2	277	43.2	1850	11.7	1.3	< 10	60.2	2.7	0.6	0.9	0.45	0.10	53.7	0.95	0.22	0.2
161565																							
161566	15.1	1.83	0.85	5.51	0.74	0.47	0.2	3	24.6	345	2.62	11.1	< 10	2.0	6.1	1.8	2.0	0.62	0.46	1.0	2.13	0.03	< 0.1
161567																							
161568																							
161569	14.1	1.05	2.24	5.93	0.07	3.81	0.3	117	24.8	1940	12.4	1.6	< 10	28.2	3.7	0.7	1.3	0.17	0.22	38.6	1.68	0.15	< 0.1
161570																							
161571	15.0	0.09	2.00	6.16	0.77	0.24	< 0.1	8	11.2	303	3.54	7.2	< 10	5.6	3.0	1.7	0.9	0.27	0.69	9.2	1.25	0.05	0.5
161572	21.0	1.21	3.52	5.41	0.05	0.22	< 0.1	84	14.7	1290	8.51	1.8	< 10	1.1	2.0	0.9	0.6	0.12	0.06	25.4	0.55	0.09	0.3
161573	2.3	> 3.00	0.35	4.70	0.19	1.48	0.7	18	56.6	530	1.83	4.4	< 10	2.5	2.2	1.4	0.7	0.65	0.09	9.7	0.47	0.23	0.2
161574																							
161575																							
161576																							
161577																							
161578																							
161579	25.6	2.16	3.59	7.17	0.38	3.81	0.1	225	240	999	8.49	0.9	< 10	107	1.8	0.8	0.6	0.19	0.31	38.6	0.52	0.09	< 0.1
161580																							
161581																							
161582																							
161583																							
161584																							
161585																							
161586																							
161587																							
161588	15.6	2.16	1.38	5.67	0.63	0.21	0.1	5	24.0	292	2.27	6.8	< 10	1.4	3.4	1.3	1.1	0.27	0.38	3.6	1.66	0.04	< 0.1
161589	19.5	1.29	2.72	7.08	0.25	3.90	< 0.1	70	61.3	889	7.11	1.1	< 10	47.0	2.6	1.2	0.8	0.10	0.13	19.3	1.29	0.43	< 0.1
161601																							
161602																							
161603																							
161604																							
161605																							
161606	18.3	1.51	1.88	5.65	0.56	0.11	< 0.1	12	13.9	266	2.91	6.0	< 10	1.8	2.9	1.5	0.9	0.31	0.26	4.8	0.96	0.06	< 0.1
161607	1.0	0.03	0.05	0.17	0.03	0.04	< 0.1	2	59.7	127	1.21	0.3	< 10	3.3	0.1	0.2	< 0.1	0.08	0.06	0.7	0.11	0.06	< 0.1
161608																							
161609																							
161610																							

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161611																							
161612																							
161613	18.2	0.96	3.07	5.70	0.80	2.24	0.1	88	14.5	1560	6.18	2.9	< 10	12.5	1.6	1.1	0.6	0.11	0.59	21.7	1.12	0.05	0.2
161614																							
161615																							
161616																							
161617																							
161618																							
161619																							
161620	15.0	> 3.00	1.27	8.37	0.89	1.82	0.9	45	25.8	953	6.33	0.7	< 10	18.9	2.9	1.4	1.0	0.22	0.61	14.2	1.49	11.4	< 0.1
161621																							
161622																							
161623	13.2	2.90	2.74	8.08	0.08	6.71	0.1	116	163	1220	7.34	0.2	< 10	171	2.2	0.5	0.8	0.07	0.43	50.7	0.65	0.15	0.4
161624																							
161625	19.4	0.07	3.43	6.96	1.21	3.51	0.2	204	132	1550	7.82	0.9	< 10	124	1.9	1.4	0.6	0.18	1.11	53.3	0.68	0.64	0.6
161626																							
161627																							
161628	5.1	> 3.00	0.29	6.21	0.76	1.24	< 0.1	7	47.8	555	4.30	2.2	< 10	3.3	1.5	1.4	0.6	0.20	0.22	5.4	1.42	0.08	0.1
161629																							
161630																							
161631																							
161632																							
161633																							
161634																							
161635	14.4	> 3.00	1.53	7.11	0.75	3.67	< 0.1	94	27.3	745	4.50	3.0	< 10	47.1	1.5	1.5	0.5	0.14	0.21	16.1	0.67	0.11	< 0.1
161636																							
161637																							
161638	8.0	> 3.00	0.79	6.18	0.32	2.25	< 0.1	46	31.8	608	4.79	4.7	< 10	12.9	4.1	2.0	1.4	0.20	0.73	13.9	1.26	0.34	< 0.1
161639																							
161640																							
161641																							
161642																							
161643	17.6	> 3.00	2.37	7.79	0.69	2.03	< 0.1	17	18.3	625	4.84	0.9	< 10	18.2	2.3	1.6	0.8	0.06	0.43	12.8	1.31	0.19	< 0.1
161644																							
161645																							
161646																							
161647																							
161648																							
161649																							
161650	6.5	2.55	1.88	9.32	0.05	5.93	< 0.1	229	15.7	742	8.24	0.7	< 10	49.3	1.6	0.7	0.6	0.05	0.44	32.8	1.05	0.24	< 0.1
161651																							
161652																							
161653																							
161654	15.0	2.64	1.09	8.07	0.94	3.45	< 0.1	13	21.1	698	5.45	0.7	< 10	10.9	1.5	2.2	0.6	0.07	0.27	13.7	1.67	0.09	< 0.1
161655	7.7	> 3.00	0.75	7.08	0.79	2.24	< 0.1	40	30.6	361	3.15	1.2	< 10	19.7	2.0	1.6	0.7	0.11	0.25	12.6	0.90	0.19	< 0.1
161656	29.7	2.77	4.53	8.86	0.54	3.09	< 0.1	98	151	802	5.51	0.4	< 10	219	0.8	2.2	0.3	0.15	0.30	37.1	0.58	0.18	< 0.1
161657	17.8	2.48	2.78	5.81	0.04	1.25	< 0.1	320	82.7	1100	9.41	2.0	< 10	53.4	2.2	1.0	0.8	0.19	0.17	55.6	0.86	0.14	0.4
161658																							
161659																							
161660	11.9	> 3.00	1.12	7.19	0.50	2.45	< 0.1	30	24.8	713	6.12	1.0	< 10	16.8	2.3	1.3	0.8	0.07	0.26	19.5	1.37	0.16	0.3

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161661	28.1	1.88	5.38	8.31	0.20	1.38	< 0.1	300	22.7	930	11.0	0.6	< 10	69.2	1.6	2.6	0.6	< 0.05	0.22	48.9	0.58	0.12	< 0.1
161662																							
161663																							
161664																							
161665	12.2	2.45	2.99	6.89	0.10	5.12	< 0.1	193	41.5	1140	9.06	0.4	< 10	55.5	2.1	1.1	0.7	0.06	0.35	33.1	1.08	0.15	< 0.1
161666																							
161667																							
161668	42.9	> 3.00	3.98	8.05	0.33	3.74	< 0.1	88	71.1	649	4.12	3.0	< 10	125	2.9	1.9	1.0	0.14	0.17	18.9	0.84	0.10	< 0.1
161669																							
161670	13.8	> 3.00	1.84	7.58	0.37	1.75	< 0.1	100	26.9	1020	8.15	2.7	< 10	31.5	2.7	2.0	1.0	0.11	0.41	29.0	1.41	0.08	< 0.1
161671	4.2	> 3.00	0.18	6.03	0.92	0.51	< 0.1	6	31.7	182	1.94	5.8	< 10	2.5	2.8	1.7	0.9	0.37	0.25	2.1	0.75	0.07	< 0.1
161672	4.6	1.52	0.33	3.78	0.79	0.35	< 0.1	24	49.3	353	3.28	1.1	< 10	6.1	0.8	1.2	0.3	0.14	0.27	3.9	0.44	0.04	< 0.1
161673																							
161674																							
161675																							
161676	5.8	> 3.00	0.32	6.48	0.93	1.33	0.1	7	32.1	379	3.44	2.7	< 10	3.1	3.5	2.7	1.2	0.09	0.24	5.3	1.22	0.52	< 0.1
161677																							
161678																							
161679	4.2	> 3.00	0.45	6.52	0.27	1.85	0.1	34	24.4	379	3.54	4.2	< 10	6.7	3.2	1.8	1.1	0.19	0.28	7.3	1.00	0.54	0.2
161680	7.6	1.82	1.56	5.42	0.21	5.83	0.1	592	76.8	902	8.97	1.1	< 10	33.2	1.0	1.5	0.3	0.14	0.28	37.6	0.55	0.52	0.4
161681																							
161682																							
161683																							
161684																							
161685																							
161686																							
161687	10.1	> 3.00	1.23	7.89	0.64	3.31	< 0.1	34	31.1	875	5.92	0.8	< 10	20.2	2.4	2.5	0.9	< 0.05	0.38	19.0	1.45	0.39	0.2
161688	13.8	2.43	4.52	7.25	0.13	4.74	0.2	164	161	1460	9.27	0.5	< 10	140	2.7	0.9	0.9	0.09	0.31	46.3	0.87	0.20	< 0.1
161689																							
161690	6.1	> 3.00	0.45	5.78	0.81	0.68	0.1	5	21.2	329	2.28	1.7	< 10	2.3	2.5	1.9	0.9	0.22	0.28	2.6	0.88	5.11	0.2
161691	3.4	> 3.00	0.19	6.21	0.91	0.29	< 0.1	8	35.0	254	2.82	5.7	< 10	2.6	2.4	2.1	0.8	0.29	0.44	2.6	0.63	0.11	0.2
161701	0.6	0.08	0.03	0.14	0.02	0.11	< 0.1	4	134	299	1.39	< 0.1	< 10	5.3	< 0.1	0.3	< 0.1	< 0.05	0.06	0.8	< 0.05	0.05	< 0.1
161702	20.5	> 3.00	3.63	9.65	0.26	3.03	< 0.1	279	85.5	1230	10.1	2.0	< 10	62.9	4.9	1.4	1.7	0.20	0.46	40.6	2.33	0.25	0.4
161703																							
161704																							
161705																							
161706																							
161707																							
161708	18.6	> 3.00	3.50	8.77	0.30	2.09	0.1	183	193	1020	10.7	1.5	< 10	88.3	3.0	1.4	1.0	0.26	0.14	32.1	0.99	0.20	0.7
161709																							
161710	10.7	> 3.00	1.12	8.18	0.56	2.77	0.1	25	35.7	721	4.68	1.2	< 10	17.1	3.4	1.5	1.2	0.09	0.22	13.2	1.39	0.52	0.6

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161711	14.9	> 3.00	1.20	8.03	0.69	3.61	< 0.1	33	35.2	811	5.39	1.1	< 10	21.3	2.6	1.5	0.9	0.09	0.24	17.4	1.50	0.06	0.3
161712																							
161713																							
161714																							
161715	11.5	> 3.00	1.18	5.42	0.48	0.81	< 0.1	53	33.2	355	3.16	1.8	< 10	22.5	0.5	0.9	0.2	0.15	0.16	12.3	0.19	0.03	< 0.1
161716																							
161717																							
161718	5.0	> 3.00	0.46	6.48	0.14	3.65	0.1	61	45.5	533	3.80	3.9	< 10	16.2	5.4	1.1	1.7	0.20	0.14	6.5	1.22	0.20	0.4
161719																							
161720																							
161751	5.5	2.99	0.68	5.32	0.73	0.43	0.1	6	23.9	157	1.37	3.0	< 10	8.4	4.6	1.6	1.4	0.25	0.22	4.3	0.82	0.05	0.2
161752																							
161753																							
161754	12.1	0.14	2.41	6.87	1.46	0.06	< 0.1	122	63.5	266	4.89	3.9	< 10	33.5	2.3	1.9	0.7	0.20	0.69	15.6	0.98	1.17	1.3
161755	12.1	0.12	2.49	6.64	1.48	0.19	< 0.1	116	57.0	246	4.38	3.5	< 10	49.5	2.1	1.5	0.7	0.21	0.61	29.0	1.29	0.93	1.0
161774																							
161776																							
161777																							
161778																							
161779	21.4	1.84	3.98	6.20	0.08	0.34	< 0.1	58	21.4	1100	8.68	1.9	< 10	1.1	1.8	0.9	0.6	0.09	0.21	31.1	1.05	0.06	0.5
161804																							
161805																							
161806	13.0	1.66	5.09	6.72	0.10	6.21	0.2	184	138	1550	9.56	1.1	< 10	233	2.3	0.6	0.8	0.13	0.09	60.2	0.88	0.14	< 0.1
161807																							

Results

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161501																							
161502	124	17.3	< 0.1	21.4	28.0	122	100	0.5	0.20	< 0.1	< 1	< 0.1	0.1	165	10.6	23.1	3.0	12.9	3.3	5.0	0.8	5.7	181
161503																							
161504																							
161505																							
161506	39.0	14.8	0.2	33.7	21.3	28.9	208	9.8	1.25	< 0.1	3	0.3	< 0.1	101	20.2	41.9	5.1	19.4	4.3	5.2	0.7	4.4	2.8
161507																							
161508																							
161509																							
161510																							
161511																							
161512																							
161513																							
161514																							
161515																							
161516	36.0	20.9	0.3	38.9	16.8	277	37	0.3	0.20	< 0.1	< 1	< 0.1	< 0.1	314	8.8	21.9	2.5	10.4	2.6	3.7	0.5	3.6	35.7
161517	42.3	17.4	< 0.1	17.7	11.7	142	33	0.5	0.64	< 0.1	2	< 0.1	< 0.1	159	5.0	11.6	1.4	6.2	1.6	2.3	0.4	2.4	27.7
161518																							
161519	108	16.1	1.1	10.9	17.8	153	95	4.6	0.87	< 0.1	4	0.9	0.1	214	7.6	16.6	2.3	9.7	2.5	3.6	0.6	4.3	167
161520																							
161521																							
161522	140	17.6	< 0.1	22.7	36.2	127	90	0.1	0.12	0.1	< 1	< 0.1	< 0.1	176	13.8	30.6	4.0	17.5	4.5	6.7	1.1	7.5	162
161523	68.8	18.2	0.2	5.4	15.1	82.6	105	0.3	0.09	< 0.1	< 1	< 0.1	< 0.1	37	15.0	30.8	3.6	14.4	3.2	4.3	0.6	3.6	4.4
161524																							
161525	161	19.2	0.4	27.5	43.1	127	41	< 0.1	0.12	0.1	< 1	< 0.1	0.1	189	14.3	32.6	4.4	19.5	5.0	7.5	1.2	8.5	177
161526																							
161527																							
161528																							
161529	151	18.6	0.6	36.6	34.5	118	53	< 0.1	0.20	0.1	< 1	0.1	0.1	180	12.4	27.9	3.7	16.1	4.1	6.1	1.0	6.8	180
161530																							
161531																							
161532																							
161533	76.7	11.9	< 0.1	36.8	19.6	18.7	172	6.9	1.16	< 0.1	6	0.6	< 0.1	1130	6.8	15.2	1.6	5.8	1.3	2.2	0.5	3.7	3.6
161534	137	18.1	0.5	0.9	23.4	90.8	8	0.2	0.06	< 0.1	2	< 0.1	< 0.1	18	3.8	9.3	1.4	6.8	2.3	3.9	0.7	4.8	204
161535																							
161536																							
161537	11.5	15.6	1.0	23.8	21.1	117	99	8.6	10.8	< 0.1	6	0.7	0.2	277	13.5	30.3	3.5	12.9	2.9	3.6	0.6	4.2	84.6
161538																							
161539																							
161540	113	15.8	0.5	28.8	12.5	23.1	165	6.3	2.24	< 0.1	4	0.2	0.1	337	24.9	49.8	5.5	19.9	3.8	3.6	0.4	2.4	13.6
161541																							
161542																							
161543	3.9	1.1	0.5	1.0	0.4	8.0	4	0.4	3.54	< 0.1	1	0.3	< 0.1	15	0.3	0.7	< 0.1	0.3	< 0.1	< 0.1	< 0.1	< 0.1	6.0
161544																							
161545	28.1	21.4	0.1	16.5	20.0	249	71	0.4	0.34	< 0.1	1	< 0.1	< 0.1	272	14.7	28.8	3.5	13.7	3.1	4.4	0.7	4.5	75.2
161546																							
161547																							
161548																							
161549	100	17.5	< 0.1	2.6	6.4	34.0	70	6.6	2.96	< 0.1	5	0.8	< 0.1	100	3.2	11.4	1.1	4.2	1.0	1.3	0.2	1.6	2.2

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161550	126	18.9	2.0	18.9	26.5	170	25	1.0	0.19	0.1	10	< 0.1	< 0.1	49	9.5	21.5	2.9	12.5	3.5	5.2	0.9	6.3	167
161551																							
161552																							
161553																							
161554																							
161555																							
161556																							
161557																							
161558																							
161559	108	29.2	0.4	40.3	32.4	32.7	439	15.8	0.79	0.1	6	0.2	0.1	420	25.0	72.0	6.3	24.0	5.5	7.4	1.2	7.5	43.0
161560																							
161561	172	16.3	< 0.1	0.4	23.5	73.7	45	0.4	0.13	0.2	< 1	0.2	< 0.1	10	5.1	12.5	1.8	9.0	2.7	4.1	0.7	5.0	300
161562																							
161563	111	14.5	0.8	7.9	27.6	44.6	275	10.1	2.34	< 0.1	3	0.5	< 0.1	98	24.3	52.1	6.2	24.0	5.3	6.7	1.0	6.2	52.2
161564	131	17.9	1.8	2.9	19.9	147	45	0.4	0.83	< 0.1	< 1	0.2	0.1	15	4.5	10.9	1.6	7.3	2.1	3.4	0.6	4.2	148
161565																							
161566	43.8	20.3	< 0.1	21.4	42.5	45.3	417	16.8	2.44	< 0.1	5	0.1	0.2	437	37.4	81.3	10.0	40.5	9.1	10.7	1.5	9.7	1.9
161567																							
161568																							
161569	128	21.1	1.1	2.7	28.4	107	52	0.4	0.26	0.1	< 1	< 0.1	0.1	20	11.1	27.0	3.7	16.6	4.5	6.4	1.0	6.5	37.2
161570																							
161571	94.1	16.9	0.2	30.9	20.2	32.8	283	6.4	0.89	< 0.1	4	0.1	0.2	547	24.2	50.2	6.1	23.6	5.2	5.7	0.7	4.4	2.1
161572	125	16.1	2.5	1.0	13.5	28.1	63	0.2	0.14	< 0.1	< 1	< 0.1	< 0.1	17	4.0	9.0	1.0	4.3	1.3	1.9	0.4	2.8	25.5
161573	37.5	11.7	2.7	4.7	16.3	64.6	85	7.5	2.26	< 0.1	3	0.6	< 0.1	49	6.8	17.3	2.1	8.2	2.2	2.9	0.5	3.4	34.4
161574																							
161575																							
161576																							
161577																							
161578																							
161579	98.1	17.7	0.1	18.7	12.3	207	26	2.1	0.55	< 0.1	5	0.4	< 0.1	176	1.7	3.9	0.6	2.8	1.1	1.9	0.4	2.7	2.1
161580																							
161581																							
161582																							
161583																							
161584																							
161585																							
161586																							
161587																							
161588	74.8	16.1	< 0.1	22.0	23.1	47.8	257	3.3	1.26	< 0.1	3	< 0.1	< 0.1	306	26.1	55.2	6.7	26.1	5.7	6.3	0.9	5.2	41.3
161589	76.0	20.6	0.4	7.5	18.2	244	33	0.3	0.15	< 0.1	< 1	< 0.1	< 0.1	127	10.6	21.6	2.6	10.7	2.5	3.5	0.6	3.9	33.9
161601																							
161602																							
161603																							
161604																							
161605																							
161606	52.2	15.7	< 0.1	21.1	19.5	32.7	224	5.4	0.54	< 0.1	4	0.3	0.2	133	27.8	59.9	7.1	27.4	5.6	5.9	0.7	4.5	2.0
161607	3.3	0.5	< 0.1	0.9	1.0	6.3	8	0.9	3.77	< 0.1	1	0.3	0.1	6	3.5	8.0	0.9	3.5	0.7	0.6	< 0.1	0.3	3.3
161608																							
161609																							
161610																							

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161611																							
161612																							
161613	97.6	15.6	0.6	24.5	12.2	36.4	109	0.3	0.29	< 0.1	2	0.5	< 0.1	104	15.2	33.8	4.3	17.7	4.2	4.6	0.6	3.1	6.0
161614																							
161615																							
161616																							
161617																							
161618																							
161619																							
161620	294	21.6	0.6	35.2	23.3	249	26	0.2	0.21	< 0.1	2	< 0.1	0.1	488	15.1	33.5	4.3	18.3	4.2	5.4	0.8	5.2	133
161621																							
161622																							
161623	82.8	14.8	17.8	3.8	16.7	86.0	4	< 0.1	0.13	< 0.1	< 1	0.1	< 0.1	41	2.3	6.2	1.0	4.8	1.6	2.6	0.5	3.4	94.6
161624																							
161625	69.8	15.3	1.9	29.2	13.7	32.7	37	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	486	6.6	13.1	1.7	7.7	2.2	3.3	0.5	3.0	259
161626																							
161627																							
161628	49.6	16.3	< 0.1	22.3	11.7	130	83	3.1	1.82	< 0.1	2	0.1	0.1	429	14.5	32.2	3.9	15.3	3.4	3.9	0.5	3.0	4.3
161629																							
161630																							
161631																							
161632																							
161633																							
161634																							
161635	79.0	16.5	5.2	22.5	11.3	99.5	117	1.9	0.42	< 0.1	1	< 0.1	< 0.1	396	14.6	27.5	3.1	11.2	2.3	2.7	0.4	2.3	32.3
161636																							
161637																							
161638	49.6	19.3	0.4	26.1	29.6	170	159	5.1	1.22	< 0.1	2	< 0.1	0.1	173	21.8	48.8	5.8	23.3	5.1	6.4	1.0	6.4	23.2
161639																							
161640																							
161641																							
161642																							
161643	104	19.5	0.5	18.6	18.3	188	29	0.2	0.14	< 0.1	< 1	< 0.1	0.1	379	11.6	25.8	3.1	13.1	3.2	4.1	0.6	4.0	35.3
161644																							
161645																							
161646																							
161647																							
161648																							
161649																							
161650	52.3	25.8	0.3	5.1	12.7	260	18	0.2	0.19	< 0.1	< 1	< 0.1	< 0.1	27	8.6	18.0	2.2	8.5	2.0	2.8	0.4	2.7	12.8
161651																							
161652																							
161653																							
161654	54.6	22.0	< 0.1	37.9	11.4	194	25	0.3	0.21	< 0.1	< 1	< 0.1	< 0.1	300	14.3	30.5	3.6	14.5	3.3	4.0	0.5	3.1	112
161655	24.7	18.3	< 0.1	31.2	15.2	176	38	0.5	0.75	< 0.1	1	< 0.1	0.1	264	14.2	28.5	3.5	14.0	3.0	3.8	0.5	3.5	100
161656	70.9	15.5	7.3	25.0	6.1	215	18	1.2	0.43	< 0.1	2	0.2	< 0.1	254	3.5	7.2	0.9	3.7	0.9	1.3	0.2	1.4	138
161657	136	19.3	1.3	0.5	15.0	73.0	66	4.5	0.94	< 0.1	2	0.3	0.1	34	5.9	14.7	1.8	7.4	2.0	2.9	0.5	3.6	52.4
161658																							
161659																							
161660	68.1	21.6	0.7	19.5	18.6	259	37	0.2	0.10	< 0.1	< 1	< 0.1	0.1	289	11.8	24.7	3.2	13.4	3.2	4.1	0.6	4.2	31.2

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161661	167	22.8	< 0.1	8.6	12.0	54.8	14	< 0.1	0.48	< 0.1	5	< 0.1	< 0.1	72	7.4	16.3	1.9	7.4	1.8	2.4	0.4	2.6	11.6
161662																							
161663																							
161664																							
161665	91.9	15.9	< 0.1	5.1	14.8	125	12	< 0.1	0.08	< 0.1	1	< 0.1	< 0.1	65	2.7	6.5	1.0	4.7	1.5	2.5	0.4	3.2	35.9
161666																							
161667																							
161668	42.0	17.6	< 0.1	11.4	22.5	178	114	3.3	0.50	< 0.1	3	< 0.1	0.1	115	14.8	32.4	4.1	16.4	3.7	4.6	0.8	4.8	10.7
161669																							
161670	110	20.5	0.5	18.7	20.3	252	89	1.9	0.46	< 0.1	1	< 0.1	< 0.1	176	20.7	48.2	6.0	22.9	4.6	5.8	0.8	5.2	27.0
161671	13.9	16.4	< 0.1	25.4	19.8	96.7	205	13.4	1.80	< 0.1	3	0.2	< 0.1	450	26.6	50.9	5.1	17.8	3.5	4.6	0.7	4.4	21.0
161672	27.7	11.0	0.6	24.4	6.0	50.3	39	4.4	3.40	< 0.1	2	0.2	< 0.1	346	7.9	16.5	1.9	7.0	1.5	1.6	0.2	1.3	11.5
161673																							
161674																							
161675																							
161676	24.4	18.9	0.4	23.1	29.7	127	99	0.7	1.00	< 0.1	3	< 0.1	0.2	303	20.6	45.1	5.6	22.0	5.0	6.1	0.9	6.0	43.5
161677																							
161678																							
161679	42.5	18.5	0.6	11.5	27.2	134	163	5.0	1.49	< 0.1	2	< 0.1	0.1	95	14.9	32.9	3.9	14.7	3.6	4.7	0.8	5.2	13.6
161680	65.1	21.9	3.8	2.5	6.6	224	29	3.0	1.36	< 0.1	3	0.3	0.1	98	3.7	8.7	1.1	4.6	1.1	1.5	0.2	1.6	39.8
161681																							
161682																							
161683																							
161684																							
161685																							
161686																							
161687	69.8	21.4	0.2	30.6	20.7	185	30	0.5	0.76	< 0.1	< 1	< 0.1	0.2	256	13.3	28.8	3.7	15.3	3.6	4.6	0.7	4.2	10.9
161688	102	16.3	< 0.1	4.1	20.4	170	18	< 0.1	0.09	< 0.1	< 1	< 0.1	0.1	57	3.3	8.6	1.3	6.7	2.1	3.4	0.6	4.1	98.6
161689																							
161690	32.3	15.0	< 0.1	26.6	20.3	59.9	118	4.7	1.84	< 0.1	3	0.2	0.3	235	25.6	50.6	6.1	23.1	5.1	5.4	0.7	4.4	87.5
161691	19.9	17.5	< 0.1	29.2	19.9	66.1	205	9.0	1.60	< 0.1	3	0.1	0.2	419	19.0	42.8	4.7	17.6	3.8	4.4	0.7	4.1	14.4
161701	4.7	0.5	0.3	0.6	0.5	3.8	2	0.2	6.69	< 0.1	< 1	0.5	0.2	9	0.5	1.2	0.1	0.5	0.1	0.1	< 0.1	0.1	3.8
161702	90.6	30.0	1.5	11.9	38.1	159	74	7.0	0.68	0.2	6	0.2	0.4	114	15.0	31.3	3.8	16.1	4.5	6.8	1.1	7.6	96.4
161703																							
161704																							
161705																							
161706																							
161707																							
161708	89.3	24.6	1.7	7.4	24.0	269	55	4.8	1.15	< 0.1	2	0.2	0.3	151	9.1	19.9	2.5	10.4	2.7	3.8	0.7	4.5	6.7
161709																							
161710	60.5	21.0	0.6	17.4	29.0	185	47	0.8	0.36	< 0.1	1	< 0.1	0.3	232	13.4	34.3	4.7	20.0	4.7	5.7	0.9	5.7	26.2

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161711	73.5	21.5	0.3	26.9	21.8	163	41	0.3	0.20	< 0.1	< 1	< 0.1	0.2	214	15.9	33.8	4.3	17.5	4.0	4.9	0.7	4.6	27.4
161712																							
161713																							
161714																							
161715	39.1	16.7	< 0.1	8.9	4.3	52.3	78	4.4	0.75	< 0.1	2	0.2	0.2	165	2.9	9.4	0.7	2.8	0.7	0.9	0.1	0.9	2.4
161716																							
161717																							
161718	30.6	20.7	0.6	5.0	48.0	278	85	6.6	1.54	< 0.1	3	0.1	0.2	27	13.5	32.6	4.2	16.5	5.0	6.7	1.2	8.4	30.1
161719																							
161720																							
161751	14.7	9.9	< 0.1	25.1	32.5	55.4	178	8.7	1.48	< 0.1	1	0.3	0.2	190	27.0	62.4	7.6	29.0	6.3	7.1	1.1	6.8	11.1
161752																							
161753																							
161754	35.0	17.6	8.4	64.1	18.0	13.3	158	5.1	4.24	< 0.1	4	0.2	0.3	347	16.3	33.1	3.9	14.7	3.2	3.6	0.5	3.5	43.7
161755	41.5	16.2	5.8	57.7	15.5	10.9	146	5.3	1.61	< 0.1	6	0.3	0.4	165	13.9	30.1	3.6	13.7	3.1	3.5	0.5	3.2	179
161776																							
161777																							
161778																							
161779	138	17.8	0.5	4.2	13.4	77.1	73	0.5	0.25	< 0.1	< 1	< 0.1	0.3	24	12.0	26.5	3.4	13.9	3.3	3.8	0.5	3.0	14.9
161801																							
161802																							
161803																							
161804																							
161805																							
161806	107	15.8	0.4	1.9	18.4	125	39	< 0.1	0.18	< 0.1	< 1	< 0.1	0.1	39	5.1	10.7	1.4	6.7	2.0	3.1	0.5	3.8	147
161807																							

Results

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161501																5
161502	0.3	0.5	2.9	0.5	< 0.1	0.2	0.002	0.13	3.5	43	10.7	0.5	0.454	0.051	0.14	8
161503																< 5
161504																< 5
161505																< 5
161506	0.1	0.4	2.6	0.5	0.7	0.6	0.003	0.17	2.7	8	7.1	1.0	0.212	0.025	0.01	< 5
161507																< 5
161508																< 5
161509																< 5
161510																< 5
161511																43
161512																1060
161513																< 5
161514																< 5
161515																< 5
161516	0.1	0.3	1.6	0.3	< 0.1	0.2	0.002	0.27	2.1	13	3.7	0.4	0.259	0.083	0.06	< 5
161517	0.5	0.2	1.2	0.2	< 0.1	0.2	0.004	0.15	2.5	10	2.3	0.2	0.319	0.069	0.05	< 5
161518																< 5
161519	1.3	0.4	2.3	0.4	0.5	0.7	0.005	0.18	4.2	42	3.5	0.5	0.723	0.055	0.13	5
161520																< 5
161521																< 5
161522	0.2	0.7	3.9	0.6	< 0.1	0.1	0.005	0.17	4.0	42	3.4	0.5	0.244	0.072	0.12	< 5
161523	0.2	0.2	1.4	0.2	< 0.1	0.2	0.003	0.07	2.0	21	3.8	0.5	0.193	0.036	< 0.01	< 5
161524																< 5
161525	0.3	0.8	4.3	0.7	< 0.1	< 0.1	0.004	0.20	3.1	43	3.1	0.5	0.213	0.122	0.20	< 5
161526																< 5
161527																5
161528																< 5
161529	0.4	0.6	3.4	0.6	< 0.1	< 0.1	0.005	0.22	12.3	45	3.1	0.5	0.350	0.064	0.17	< 5
161530																< 5
161531																< 5
161532																< 5
161533	< 0.1	0.4	2.5	0.4	0.7	2.1	0.005	0.38	2.1	6	7.6	1.1	0.189	0.022	< 0.01	< 5
161534	0.2	0.5	2.5	0.4	< 0.1	0.1	0.005	< 0.05	5.4	43	1.5	0.1	0.130	0.041	0.23	< 5
161535																< 5
161536																2300
161537	< 0.1	0.4	2.4	0.4	0.8	1.4	0.003	0.13	2.5	3	9.7	1.9	0.0759	0.009	0.07	< 5
161538																< 5
161539																46
161540	0.1	0.3	1.6	0.3	0.6	0.8	0.003	0.52	4.4	8	9.9	1.2	0.187	0.017	0.03	< 5
161541																< 5
161542																33
161543	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3	0.001	< 0.05	0.7	< 1	0.5	< 0.1	0.0163	0.004	< 0.01	< 5
161544																< 5
161545	0.1	0.4	2.3	0.4	< 0.1	0.2	0.004	0.10	3.8	14	5.5	0.8	0.296	0.075	0.20	< 5
161546																460
161547																< 5
161548																< 5
161549	0.3	0.2	1.2	0.2	0.7	3.1	0.004	0.05	0.8	12	3.5	0.4	0.435	0.078	< 0.01	< 5

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161550	0.4	0.6	3.0	0.5	< 0.1	1.4	0.004	0.12	7.3	42	3.1	0.4	0.461	0.048	0.47	5
161551																< 5
161552																< 5
161553																< 5
161554																8
161555																< 5
161556																< 5
161557																< 5
161558																< 5
161559	0.2	0.8	5.0	0.9	1.3	0.7	0.004	0.32	5.1	17	12.0	12.1	0.369	0.036	< 0.01	13
161560																< 5
161561	0.3	0.5	2.7	0.4	< 0.1	0.1	0.003	< 0.05	2.7	42	1.3	0.1	0.300	0.036	0.07	10
161562																2290
161563	0.1	0.6	3.6	0.6	0.7	0.6	0.003	< 0.05	3.9	11	6.6	1.2	0.284	0.032	0.11	< 5
161564	0.5	0.4	2.2	0.4	< 0.1	0.2	0.004	< 0.05	4.7	45	1.4	0.1	0.494	0.028	0.18	6
161565																10
161566	0.2	0.9	5.3	0.9	1.0	0.5	0.002	0.14	4.4	2	8.2	1.8	0.146	0.005	< 0.01	< 5
161567																< 5
161568																< 5
161569	0.2	0.5	2.8	0.5	< 0.1	0.1	0.006	< 0.05	17.4	37	3.6	0.4	0.292	0.123	0.07	< 5
161570																< 5
161571	0.2	0.5	2.9	0.5	0.3	0.6	0.003	0.31	2.6	12	7.6	1.0	0.257	0.029	< 0.01	< 5
161572	0.2	0.3	1.7	0.3	< 0.1	0.2	0.003	< 0.05	8.2	24	2.9	0.4	0.242	0.047	0.15	< 5
161573	0.2	0.3	2.1	0.4	1.3	0.5	0.002	< 0.05	38.5	4	13.9	2.5	0.0721	0.014	0.06	< 5
161574																5
161575																< 5
161576																< 5
161577																< 5
161578																< 5
161579	0.4	0.3	1.4	0.2	0.2	11.2	0.002	0.11	4.4	34	1.8	0.2	0.489	0.024	0.04	< 5
161580																< 5
161581																< 5
161582																< 5
161583																6
161584																< 5
161585																< 5
161586																1050
161587																6
161588	0.1	0.6	3.4	0.6	0.1	0.3	0.004	0.12	4.5	11	5.8	1.1	0.256	0.025	< 0.01	< 5
161589	0.3	0.4	2.3	0.4	< 0.1	0.1	< 0.001	< 0.05	4.8	25	3.7	1.7	0.201	0.041	0.04	< 5
161601																< 5
161602																< 5
161603																< 5
161604																< 5
161605																19
161606	0.2	0.5	2.9	0.5	0.1	0.4	0.002	0.10	2.6	8	7.5	1.2	0.224	0.028	< 0.01	< 5
161607	0.1	< 0.1	0.1	< 0.1	< 0.1	0.3	0.006	< 0.05	1.3	< 1	1.3	0.1	0.0094	0.002	< 0.01	< 5
161608																< 5
161609																< 5
161610																< 5

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161611																< 5
161612																979
161613	0.3	0.2	1.5	0.3	< 0.1	0.1	0.003	0.14	3.4	19	4.3	0.7	0.239	0.060	0.04	< 5
161614																< 5
161615																32
161616																< 5
161617																5
161618																< 5
161619																< 5
161620	0.2	0.4	2.1	0.3	< 0.1	0.1	0.003	0.26	2.8	18	3.8	0.5	0.247	0.100	0.31	< 5
161621																< 5
161622																< 5
161623	0.4	0.3	1.7	0.2	< 0.1	0.1	0.003	< 0.05	0.7	43	0.8	< 0.1	0.183	0.026	0.12	< 5
161624																< 5
161625	0.3	0.3	1.6	0.3	< 0.1	0.1	0.003	0.16	5.2	41	0.7	0.2	0.301	0.027	0.24	17
161626																< 5
161627																< 5
161628	0.2	0.2	1.2	0.2	0.2	0.2	0.003	0.10	1.5	10	4.3	0.6	0.311	0.036	0.01	< 5
161629																< 5
161630																< 5
161631																< 5
161632																< 5
161633																33
161634																< 5
161635	0.4	0.2	1.2	0.2	< 0.1	1.7	0.002	0.09	1.2	13	3.1	0.5	0.264	0.030	0.03	< 5
161636																2270
161637																< 5
161638	0.5	0.6	3.2	0.5	0.4	0.4	0.003	0.07	3.2	13	6.8	1.0	0.256	0.040	0.04	< 5
161639																< 5
161640																< 5
161641																< 5
161642																< 5
161643	0.1	0.3	1.8	0.3	< 0.1	0.1	0.003	0.12	2.3	14	3.9	0.4	0.145	0.092	0.02	< 5
161644																< 5
161645																< 5
161646																< 5
161647																< 5
161648																< 5
161649																< 5
161650	0.3	0.2	1.2	0.2	< 0.1	0.1	0.002	< 0.05	1.7	20	2.3	0.6	0.302	0.020	0.04	< 5
161651																< 5
161652																< 5
161653																< 5
161654	0.2	0.2	1.1	0.2	< 0.1	0.3	0.002	0.21	1.3	14	3.6	0.5	0.149	0.081	0.04	< 5
161655	0.3	0.3	1.5	0.2	< 0.1	0.1	0.002	0.16	1.6	9	3.0	0.5	0.197	0.038	0.15	< 5
161656	0.1	0.1	0.6	< 0.1	0.1	1.0	0.002	0.12	1.5	24	1.3	0.2	0.221	0.013	0.03	< 5
161657	1.3	0.3	1.8	0.3	0.4	1.0	0.002	< 0.05	1.8	36	2.1	0.7	0.773	0.030	0.13	< 5
161658																< 5
161659																< 5
161660	0.1	0.3	1.7	0.3	< 0.1	0.1	0.003	0.12	2.3	15	2.4	0.4	0.266	0.090	0.02	< 5

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161661	0.2	0.2	1.3	0.2	< 0.1	0.2	0.005	0.06	1.0	23	2.2	0.3	0.196	0.020	0.01	< 5
161662																246
161663																< 5
161664																< 5
161665	0.3	0.3	1.7	0.3	< 0.1	0.1	0.002	< 0.05	0.9	41	0.4	< 0.1	0.219	0.016	0.04	< 5
161666																< 5
161667																< 5
161668	0.7	0.4	2.3	0.4	0.1	0.3	0.015	0.05	1.7	24	4.2	0.6	0.268	0.022	0.03	< 5
161669																< 5
161670	0.3	0.4	2.2	0.3	< 0.1	0.1	0.003	0.11	1.9	24	6.5	0.8	0.344	0.057	0.03	< 5
161671	0.2	0.4	2.6	0.4	1.0	1.0	0.002	0.08	3.2	6	9.6	1.4	0.196	0.020	0.03	< 5
161672	0.4	0.1	0.7	0.1	0.3	1.7	0.003	0.09	1.6	6	2.1	0.3	0.135	0.012	0.01	< 5
161673																< 5
161674																< 5
161675																< 5
161676	0.5	0.5	2.7	0.4	< 0.1	0.1	0.002	0.11	2.3	9	8.0	1.0	0.184	0.030	0.09	< 5
161677																< 5
161678																< 5
161679	0.3	0.5	2.6	0.4	0.3	0.4	0.003	< 0.05	3.3	8	8.2	1.4	0.262	0.027	0.03	< 5
161680	1.1	0.1	0.8	0.1	0.3	1.0	0.002	0.09	1.9	19	2.4	0.2	1.00	0.022	0.09	< 5
161681																< 5
161682																43
161683																< 5
161684																< 5
161685																< 5
161686																1520
161687	0.2	0.4	1.9	0.3	< 0.1	0.2	0.002	0.15	1.6	16	2.7	0.4	0.243	0.091	0.02	< 5
161688	0.3	0.4	2.2	0.4	< 0.1	0.1	0.004	< 0.05	9.2	42	0.5	< 0.1	0.203	0.025	0.08	< 5
161689																< 5
161690	0.2	0.3	2.0	0.3	< 0.1	1.5	0.003	0.11	3.2	6	6.9	1.4	0.170	0.011	0.04	< 5
161691	0.3	0.4	2.1	0.3	0.6	2.7	0.003	0.13	2.2	7	8.3	1.2	0.211	0.018	< 0.01	< 5
161701	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3	0.004	< 0.05	0.9	< 1	0.2	< 0.1	0.0077	0.004	< 0.01	< 5
161702	1.0	0.7	3.9	0.6	0.5	1.4	0.003	0.06	2.3	52	3.0	1.0	0.937	0.046	0.13	< 5
161703																< 5
161704																< 5
161705																< 5
161706																< 5
161707																7
161708	0.5	0.5	2.6	0.4	0.3	0.5	0.004	0.05	2.4	39	3.0	0.4	0.555	0.029	0.08	< 5
161709																< 5
161710	0.3	0.5	2.6	0.4	< 0.1	0.1	0.004	0.07	2.1	13	4.5	0.6	0.201	0.076	0.02	< 5

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161711	0.2	0.4	1.9	0.3	< 0.1	0.1	0.003	0.18	1.5	15	3.2	0.5	0.196	0.088	0.03	< 5
161712																1010
161713																< 5
161714																< 5
161715	0.3	< 0.1	0.4	< 0.1	0.4	2.1	0.001	0.06	0.8	7	1.1	0.2	0.214	0.031	< 0.01	< 5
161716																< 5
161717																< 5
161718	0.5	0.8	4.9	0.8	1.2	0.6	< 0.001	< 0.05	5.5	12	13.3	8.1	0.272	0.046	0.03	< 5
161719																< 5
161720																< 5
161751	0.2	0.7	4.1	0.7	0.4	1.0	0.004	0.09	2.2	2	7.3	1.6	0.114	0.008	< 0.01	< 5
161752																70
161753																< 5
161754	0.1	0.4	2.1	0.4	0.4	2.9	0.003	0.70	5.8	18	6.2	0.8	0.382	0.035	1.55	25
161755	0.2	0.3	1.9	0.3	0.4	2.3	0.005	0.63	3.0	16	4.2	0.8	0.443	0.048	1.86	< 5
161774																< 5
161776																< 5
161777																< 5
161778																< 5
161779	0.3	0.3	1.7	0.3	< 0.1	0.1	0.002	< 0.05	1.7	28	2.8	0.4	0.327	0.054	0.03	< 5
161781	0.3	0.7	4.1	0.7	< 0.1	0.1	0.003	0.13	1.3	11	6.4	1.1	0.134	0.027	< 0.01	< 5
161804																< 5
161805																< 5
161806	0.3	0.3	1.9	0.3	< 0.1	< 0.1	0.003	< 0.05	4.0	34	1.8	0.1	0.297	0.023	0.09	5
161807																< 5

QC

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	8.7	0.05	0.21	1.83	0.05	0.79	2.7	79	20.4	847	25.1	0.2	1740	40.0		1.2		32.6	2.87	7.7	0.69	1550	16.3
GXR-1 Cert	8.20	0.0520	0.217	3.52	0.050	0.960	3.30	80.0	12.0	852	23.6	0.960	3900	41.0		1.22		31.0	3.00	8.20	0.690	1380	16.6
GXR-1 Meas																							
GXR-1 Cert																							
GXR-4 Meas	12.4	0.58	1.67	6.04	2.14	0.95	0.1	87	44.7	173	3.25	1.1		40.5		2.2		3.41	2.63	14.3	1.57	20.8	6.2
GXR-4 Cert	11.1	0.564	1.66	7.20	4.01	1.01	0.860	87.0	64.0	155	3.09	6.30		42.0		1.90		4.00	2.80	14.6	1.63	19.0	5.60
GXR-4 Meas																							
GXR-4 Cert																							
SDC-1 Meas	40.3	1.68	0.99	7.50	1.25	0.95		40	45.3	839	5.03	0.8		34.5	4.3	3.3	1.5		4.13	17.6	1.73		
SDC-1 Cert	34.00	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30		38.0	4.10	3.00	1.50		4.00	18.0	1.70		
SDC-1 Meas																							
SDC-1 Cert																							
GXR-6 Meas	37.0	0.10	0.57	> 10.0	0.71	0.14	0.2	127	52.7	988	5.62	1.6		23.9		1.5		0.28	4.19	13.0	0.70	0.23	1.2
GXR-6 Cert	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30		27.0		1.40		1.30	4.20	13.8	0.760	0.290	0.940
GXR-6 Meas																							
GXR-6 Cert																							
SAR-M (U.S.G.S.) Meas	33.5	1.32	0.49	5.66	1.43	0.55	4.4	50	77.3	4660	3.38			45.0		3.0		2.74		10.5		2.29	1.1
SAR-M (U.S.G.S.) Cert	27.4	1.140	0.50	6.30	2.94	0.61	5.27	67.2	79.7	5220	2.99			41.5		2.20		3.64		10.70		1.94	0.39
SAR-M (U.S.G.S.) Meas																							
SAR-M (U.S.G.S.) Cert																							
DNC-1a Meas	5.7							149	153					269						56.3	0.66		
DNC-1a Cert	5.20							148.00	270					247						57.0	0.59		
DNC-1a Meas																							
DNC-1a Cert																							
CDN-GS-1L Meas																							
CDN-GS-1L Cert																							
CDN-GS-1L Meas																							
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OxD108 Meas																							
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OxD108 Cert																							

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
OxD108 Meas																							
OxD108 Cert																							
OxD108 Meas																							
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OxD108 Meas																							
OxD108 Cert																							
SBC-1 Meas	188						0.5	215	90.3			2.8		85.6	3.9	3.9	1.4		8.32	22.4	2.03	0.76	
SBC-1 Cert	163.0						0.40	220.0	109			3.7		82.8	3.80	3.20	1.40		8.2	22.7	1.98	0.70	
SBC-1 Meas																							
SBC-1 Cert																							
161510 Orig																							
161510 Dup																							
161520 Orig																							
161520 Dup																							
161530 Orig																							
161530 Split																							
161530 Orig																							
161530 Dup																							
161545 Orig																							
161545 Dup																							
161550 Orig	37.3	0.26	3.34	5.50	0.22	3.39	0.2	240	66.8	1270	11.6	0.9	< 10	45.2	3.9	1.9	1.4	0.24	1.18	40.6	1.24	1.91	< 0.1
161550 Split	37.3	0.28	3.67	5.98	0.24	3.59	0.2	213	69.4	1290	12.2	0.4	< 10	48.3	3.8	2.1	1.3	0.10	1.23	43.4	1.26	1.90	0.7
161555 Orig																							
161555 Dup																							
161560 Orig																							
161560 Split																							
161565 Orig																							
161565 Dup																							
161580 Orig																							
161580 Dup																							
161601 Orig																							
161601 Split																							
161601 Orig																							
161601 Dup																							
161611 Orig																							
161611 Split																							
161611 Orig																							
161611 Dup																							
161625 Orig	19.7	0.08	3.53	7.16	1.51	3.60	0.2	210	128	1590	7.91	0.9	< 10	127	1.8	1.5	0.6	0.16	1.11	54.5	0.68	0.64	0.8
161625 Dup	19.1	0.07	3.34	6.77	0.90	3.43	0.2	198	137	1510	7.74	0.9	< 10	122	1.9	1.4	0.6	0.20	1.12	52.0	0.68	0.64	0.4
161626 Orig																							
161626 Dup																							
161631 Orig																							
161631 Split																							
161635 Orig	14.2	> 3.00	1.52	7.08	0.71	3.64	0.1	95	28.3	734	4.42	3.0	< 10	46.8	1.4	1.5	0.5	0.15	0.20	15.9	0.64	0.10	< 0.1
161635 Dup	14.5	> 3.00	1.54	7.14	0.80	3.70	< 0.1	92	26.3	757	4.58	3.0	< 10	47.4	1.5	1.6	0.5	0.13	0.22	16.3	0.70	0.12	< 0.1

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161636 Orig																							
161636 Dup																							
161646 Orig																							
161646 Dup																							
161661 Orig	28.1	1.88	5.38	8.31	0.20	1.38	< 0.1	300	22.7	930	11.0	0.6	< 10	69.2	1.6	2.6	0.6	< 0.05	0.22	48.9	0.58	0.12	< 0.1
161661 Split	27.2	1.93	5.59	8.49	0.21	1.41	< 0.1	339	9.5	939	11.1	0.8	< 10	68.8	1.7	3.0	0.5	0.06	0.23	49.0	0.57	0.12	< 0.1
161661 Orig																							
161661 Dup																							
161671 Orig																							
161671 Dup																							
161681 Orig																							
161681 Dup																							
161691 Orig	3.4	> 3.00	0.19	6.21	0.91	0.29	< 0.1	8	35.0	254	2.82	5.7	< 10	2.6	2.4	2.1	0.8	0.29	0.44	2.6	0.63	0.11	0.2
161691 Split	3.2	> 3.00	0.19	6.23	0.95	0.29	0.1	6	24.6	258	2.83	4.3	< 10	2.7	2.2	2.1	0.8	0.12	0.44	2.6	0.65	0.06	0.3
161696 Orig																							
161696 Dup																							
161706 Orig																							
161706 Dup																							
161711 Orig	14.9	> 3.00	1.20	8.03	0.69	3.61	< 0.1	33	35.2	811	5.39	1.1	< 10	21.3	2.6	1.5	0.9	0.09	0.24	17.4	1.50	0.06	0.3
161711 Split	14.4	> 3.00	1.19	7.97	0.80	3.59	< 0.1	34	26.0	840	5.64	1.2	< 10	21.1	2.6	1.4	0.9	0.07	0.25	17.6	1.54	0.05	0.3
161711 Split	14.4	> 3.00	1.19	7.97	0.80	3.59	< 0.1	34	26.0	840	5.64	1.2	< 10	21.1	2.6	1.4	0.9	0.07	0.25	17.6	1.54	0.05	0.3
161716 Dup																							
161751 Orig	5.5	2.99	0.68	5.32	0.73	0.43	0.1	6	23.9	157	1.37	3.0	< 10	8.4	4.6	1.6	1.4	0.25	0.22	4.3	0.82	0.05	0.2
161751 Split	5.5	> 3.00	0.70	5.42	0.75	0.44	< 0.1	7	30.6	160	1.40	6.5	< 10	8.5	4.5	1.5	1.4	0.35	0.22	4.4	0.82	0.03	0.3
161768 Orig																							
161768 Dup																							
161778 Orig																							
161778 Dup																							
161781 Orig	18.1	1.15	2.30	6.03	0.81	0.63	0.1	31	19.6	309	3.04	4.4	< 10	5.8	4.7	1.6	1.5	0.13	0.51	8.8	1.07	0.03	0.3
161781 Dup	17.6	1.11	2.23	5.92	0.88	0.61	0.1	28	13.5	298	2.76	4.2	< 10	5.7	4.7	1.5	1.5	0.12	0.50	8.6	1.05	0.04	0.4
161807 Orig																							
161807 Split																							
161807 Orig																							
161807 Dup																							
161807 Split																							
Method Blank																							
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Method Blank																							
Method Blank	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 10	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02	< 0.1

Analyte Symbol	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi	Se
Unit Symbol	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Method Blank	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 10	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02	< 0.1
Method Blank	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 10	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02	< 0.1
Method Blank	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 10	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02	< 0.1
Method Blank																							

QC

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	812	8.7	406	2.7	28.2	280	19	0.8	17.3	0.8	26	27.9	10.1	678	7.3	14.3		8.4	2.9	4.8	0.9	5.6	1280
GXR-1 Cert	760	13.8	427	14.0	32.0	275	38.0	0.800	18.0	0.770	54.0	122	13.0	750	7.50	17.0		18.0	2.70	4.20	0.830	4.30	1110
GXR-1 Meas																							
GXR-1 Cert																							
GXR-4 Meas	75.3	17.1	97.0	107	13.3	208	38	8.4	314	0.2	7	4.3	1.1	104	54.9	103		39.2	5.8	5.4	0.6	3.0	6460
GXR-4 Cert	73.0	20.0	98.0	160	14.0	221	186	10.0	310	0.270	5.60	4.80	0.970	1640	64.5	102		45.0	6.60	5.25	0.360	2.60	6520
GXR-4 Meas																							
GXR-4 Cert																							
SDC-1 Meas	105	20.3	< 0.1	72.1		173	36	0.2			< 1	< 0.1		662	40.3	86.1		39.3	7.7	8.1	1.2	7.3	34.5
SDC-1 Cert	103.00	21.00	0.220	127.00		180.00	290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00	1.20	6.70	30.00
SDC-1 Meas																							
SDC-1 Cert																							
GXR-6 Meas	132	24.8	240	37.1	11.8	33.9	72	0.5	0.98	< 0.1	< 1	1.1	0.3	1210	12.2	32.8		11.6	2.5	2.8	0.4	2.7	74.4
GXR-6 Cert	118	35.0	330	90.0	14.0	35.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97	0.415	2.80	66.0
GXR-6 Meas																							
GXR-6 Cert																							
SAR-M (U.S.G.S.) Meas	892	14.8	26.6	75.7	33.6	147		1.4	5.18	1.0	3	3.2	0.6	806	57.0	118							345
SAR-M (U.S.G.S.) Cert	930.0	17	38.8	146	28.00	151		29.9	13.1	1.08	2.76	6.0	0.96	801	57.4	122.0							331
SAR-M (U.S.G.S.) Meas																							
SAR-M (U.S.G.S.) Cert																							
DNC-1a Meas	67.6				16.1	139	55					0.8		109	3.6			4.8					118
DNC-1a Cert	70.0				18.0	144.0	38.000					0.96		118	3.6			5.20					100.0
DNC-1a Meas																							
DNC-1a Cert																							
CDN-GS-1L Meas																							
CDN-GS-1L Cert																							
CDN-GS-1L Meas																							
CDN-GS-1L Cert																							
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CDN-GS-1L Meas																							
CDN-GS-1L Cert																							
CDN-GS-1L Meas																							

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
CDN-GS-1L Cert																							
CDN-GS-1L Meas																							
CDN-GS-1L Cert																							
OxD108 Meas																							
OxD108 Cert																							
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OxD108 Meas																							
OxD108 Cert																							
SBC-1 Meas	203	25.6	24.6	119	31.5	178	116	13.0	2.61		3	1.1		792	48.3	102	12.0	44.4	8.9	9.2	1.3	7.2	34.9
SBC-1 Cert	186.0	27.0	25.7	147	36.5	178.0	134.0	15.3	2.40		3.3	1.01		788.0	52.5	108.0	12.6	49.2	9.6	8.5	1.20	7.10	31.0
SBC-1 Meas																							
SBC-1 Cert																							
161510 Orig																							
161510 Dup																							
161520 Orig																							
161520 Dup																							
161530 Orig																							
161530 Split																							
161530 Orig																							
161530 Dup																							
161545 Orig																							
161545 Dup																							
161550 Orig	126	18.9	2.0	18.9	26.5	170	25	1.0	0.19	0.1	10	< 0.1	< 0.1	49	9.5	21.5	2.9	12.5	3.5	5.2	0.9	6.3	167
161550 Split	132	19.8	1.0	19.5	28.0	175	13	0.2	0.22	0.1	7	< 0.1	0.2	47	9.7	22.0	2.9	12.9	3.6	5.3	0.9	6.1	178
161555 Orig																							
161555 Dup																							
161560 Orig																							
161560 Split																							
161565 Orig																							
161565 Dup																							
161580 Orig																							
161580 Dup																							
161601 Orig																							
161601 Split																							
161601 Orig																							
161601 Dup																							
161611 Orig																							

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161611 Split																							
161611 Orig																							
161611 Dup																							
161625 Orig	71.3	15.5	2.2	32.0	14.1	33.1	37	0.3	0.13	< 0.1	< 1	< 0.1	0.1	516	6.6	13.0	1.7	7.7	2.2	3.2	0.5	2.9	266
161625 Dup	68.4	15.1	1.7	26.4	13.3	32.2	36	< 0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	456	6.6	13.2	1.7	7.8	2.3	3.3	0.5	3.0	252
161626 Orig																							
161626 Dup																							
161631 Orig																							
161631 Split																							
161635 Orig	77.6	16.2	5.5	22.0	11.1	97.3	116	2.0	0.54	< 0.1	1	0.1	< 0.1	388	13.9	26.9	2.9	10.7	2.2	2.6	0.4	2.3	31.5
161635 Dup	80.4	16.7	5.0	23.0	11.5	102	119	1.7	0.30	< 0.1	1	< 0.1	< 0.1	405	15.3	28.1	3.2	11.8	2.4	2.7	0.4	2.4	33.2
161636 Orig																							
161636 Dup																							
161646 Orig																							
161646 Dup																							
161661 Orig	167	22.8	< 0.1	8.6	12.0	54.8	14	< 0.1	0.48	< 0.1	5	< 0.1	< 0.1	72	7.4	16.3	1.9	7.4	1.8	2.4	0.4	2.6	11.6
161661 Split	169	22.8	< 0.1	8.6	12.0	53.7	21	0.2	0.67	< 0.1	7	< 0.1	0.2	72	7.5	16.1	1.9	7.4	1.7	2.4	0.4	2.6	23.9
161661 Orig																							
161661 Dup																							
161671 Orig																							
161671 Dup																							
161681 Orig																							
161681 Dup																							
161691 Orig	19.9	17.5	< 0.1	29.2	19.9	66.1	205	9.0	1.60	< 0.1	3	0.1	0.2	419	19.0	42.8	4.7	17.6	3.8	4.4	0.7	4.1	14.4
161691 Split	20.2	17.7	0.4	29.2	18.5	68.6	170	1.0	0.76	< 0.1	2	< 0.1	0.2	431	20.0	45.5	4.9	18.5	3.9	4.4	0.6	3.9	14.3
161696 Orig																							
161696 Dup																							
161706 Orig																							
161706 Dup																							
161711 Orig	73.5	21.5	0.3	26.9	21.8	163	41	0.3	0.20	< 0.1	< 1	< 0.1	0.2	214	15.9	33.8	4.3	17.5	4.0	4.9	0.7	4.6	27.4
161711 Split	70.7	21.2	< 0.1	28.3	22.1	164	42	0.8	0.31	< 0.1	< 1	< 0.1	0.2	223	16.2	35.1	4.4	18.0	4.2	5.0	0.8	4.5	27.4
161711 Split	70.7	21.2	< 0.1	28.3	22.1	164	42	0.8	0.31	< 0.1	< 1	< 0.1	0.2	223	16.2	35.1	4.4	18.0	4.2	5.0	0.8	4.5	27.4
161716 Dup																							
161751 Orig	14.7	9.9	< 0.1	25.1	32.5	55.4	178	8.7	1.48	< 0.1	1	0.3	0.2	190	27.0	62.4	7.6	29.0	6.3	7.1	1.1	6.8	11.1
161751 Split	15.4	10.3	0.8	25.7	32.0	57.5	251	12.3	1.78	< 0.1	1	< 0.1	0.3	191	27.0	62.6	7.6	29.3	6.2	7.1	1.0	6.7	2.6
161768 Orig																							
161768 Dup																							
161778 Orig																							
161778 Dup																							
161781 Orig	51.0	15.4	0.2	27.0	36.9	17.4	172	1.2	0.19	< 0.1	1	< 0.1	0.1	238	28.1	59.0	7.2	27.2	5.8	6.6	1.0	7.0	8.7
161781 Dup	49.1	14.9	< 0.1	27.4	35.5	16.8	157	1.6	0.29	< 0.1	1	< 0.1	0.2	243	27.8	58.2	7.0	26.6	5.6	6.7	1.0	6.9	7.7
161807 Orig																							
161807 Split																							
161807 Orig																							
161807 Dup																							
161807 Split																							
Method Blank																							
Method Blank																							

Analyte Symbol	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Method Blank																							
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Method Blank																							
Method Blank																							
Method Blank																							
Method Blank	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2
Method Blank	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2
Method Blank	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2
Method Blank	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2
Method Blank																							

QC

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
GXR-1 Meas		0.4	2.3	0.3	< 0.1	138		0.50	692	2		35.2	0.0276	0.060	0.25	
GXR-1 Cert		0.430	1.90	0.280	0.175	164		0.390	730	1.58		34.9	0.036	0.0650	0.257	
GXR-1 Meas										2			0.0274	0.062	0.26	
GXR-1 Cert										1.58			0.036	0.0650	0.257	
GXR-4 Meas		0.2	1.0	0.1	0.5	31.3		3.34	43.4	8	20.6	5.2	0.290	0.135	1.76	
GXR-4 Cert		0.210	1.60	0.170	0.790	30.8		3.20	52.0	7.70	22.5	6.20	0.29	0.120	1.77	
GXR-4 Meas										8			0.300	0.139	1.82	
GXR-4 Cert										7.70			0.29	0.120	1.77	
SDC-1 Meas		0.6	3.4		< 0.1	0.1		0.70	23.0	16	14.1	3.3	0.0822	0.056		
SDC-1 Cert		0.65	4.00		1.20	0.80		0.70	25.00	17.00	12.00	3.10	0.606	0.0690		
SDC-1 Meas										16			0.134	0.057		
SDC-1 Cert										17.00			0.606	0.0690		
GXR-6 Meas		0.3	1.6	0.3	< 0.1	0.2		2.45	92.8	18	7.9	1.4		0.029	0.01	
GXR-6 Cert		0.0320	2.40	0.330	0.485	1.90		2.20	101	27.6	5.30	1.54		0.0350	0.0160	
GXR-6 Meas										31				0.038	0.02	
GXR-6 Cert										27.6				0.0350	0.0160	
SAR-M (U.S.G.S.) Meas						0.7		3.00	780	9	20.1	4.7	0.374	0.068		
SAR-M (U.S.G.S.) Cert						9.78		2.7	982	7.83	17.2	3.57	0.38	0.07		
SAR-M (U.S.G.S.) Meas										10			0.248	0.063		
SAR-M (U.S.G.S.) Cert										7.83			0.38	0.07		
DNC-1a Meas			1.9							31			0.297			
DNC-1a Cert			2.0							31			0.29			

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
DNC-1a Meas										31			0.303			
DNC-1a Cert										31			0.29			
CDN-GS-1L Meas																1140
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1090
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1200
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1230
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1240
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1180
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1190
CDN-GS-1L Cert																1160.00
CDN-GS-1L Meas																1140
CDN-GS-1L Cert																1160.00
OxD108 Meas																402
OxD108 Cert																414.000
OxD108 Meas																400
OxD108 Cert																414.000
OxD108 Meas																406
OxD108 Cert																414.000
OxD108 Meas																418
OxD108 Cert																414.000
OxD108 Meas																417
OxD108 Cert																414.000
OxD108 Meas																415
OxD108 Cert																414.000
OxD108 Meas																392
OxD108 Cert																414.000
OxD108 Meas																404
OxD108 Cert																414.000
SBC-1 Meas		0.6	3.2	0.5	0.7	1.6		0.96	31.9	21	22.0	5.4	0.478			
SBC-1 Cert		0.56	3.64	0.54	1.10	1.60		0.89	35.0	20.0	15.8	5.76	0.51			
SBC-1 Meas										22			0.549			
SBC-1 Cert										20.0			0.51			
161510 Orig																< 5
161510 Dup																< 5
161520 Orig																< 5
161520 Dup																< 5
161530 Orig																< 5
161530 Split																< 5
161530 Orig																< 5
161530 Dup																< 5
161545 Orig																< 5
161545 Dup																< 5

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161550 Orig	0.4	0.6	3.0	0.5	< 0.1	1.4	0.004	0.12	7.3	42	3.1	0.4	0.461	0.048	0.47	5
161550 Split	0.3	0.5	3.0	0.5	< 0.1	0.3	0.005	0.12	7.4	44	2.8	0.4	0.355	0.043	0.48	< 5
161555 Orig																< 5
161555 Dup																< 5
161560 Orig																< 5
161560 Split																< 5
161565 Orig																9
161565 Dup																11
161580 Orig																< 5
161580 Dup																6
161601 Orig																< 5
161601 Split																< 5
161601 Orig																< 5
161601 Dup																< 5
161611 Orig																< 5
161611 Split																< 5
161611 Orig																< 5
161611 Dup																< 5
161625 Orig	0.4	0.3	1.5	0.3	< 0.1	0.1	0.002	0.16	5.2	42	0.9	0.2	0.331	0.027	0.24	
161625 Dup	0.3	0.3	1.6	0.3	< 0.1	0.1	0.004	0.17	5.3	40	0.6	0.2	0.271	0.026	0.24	
161626 Orig																< 5
161626 Dup																< 5
161631 Orig																< 5
161631 Split																< 5
161635 Orig	0.4	0.2	1.2	0.2	0.1	2.0	0.003	0.09	1.1	13	3.0	0.4	0.263	0.030	0.03	
161635 Dup	0.5	0.2	1.3	0.2	< 0.1	1.5	0.002	0.09	1.2	13	3.2	0.5	0.265	0.031	0.03	
161636 Orig																2280
161636 Dup																2270
161646 Orig																< 5
161646 Dup																< 5
161661 Orig	0.2	0.2	1.3	0.2	< 0.1	0.2	0.005	0.06	1.0	23	2.2	0.3	0.196	0.020	0.01	< 5
161661 Split	0.2	0.2	1.4	0.2	< 0.1	0.2	0.003	0.06	1.0	23	2.4	0.3	0.302	0.018	0.01	< 5
161661 Orig																< 5
161661 Dup																< 5
161671 Orig																< 5
161671 Dup																< 5
161681 Orig																< 5
161681 Dup																< 5
161691 Orig	0.3	0.4	2.1	0.3	0.6	2.7	0.003	0.13	2.2	7	8.3	1.2	0.211	0.018	< 0.01	< 5
161691 Split	0.3	0.3	2.0	0.3	< 0.1	0.3	0.003	0.11	2.2	7	7.3	1.2	0.155	0.017	< 0.01	< 5
161696 Orig																< 5
161696 Dup																< 5
161706 Orig																< 5
161706 Dup																< 5
161711 Orig	0.2	0.4	1.9	0.3	< 0.1	0.1	0.003	0.18	1.5	15	3.2	0.5	0.196	0.088	0.03	< 5
161711 Split	0.3	0.4	2.0	0.3	< 0.1	< 0.1	0.004	0.14	1.5	16	3.8	0.4	0.246	0.093	0.03	< 5
161711 Split	0.3	0.4	2.0	0.3	< 0.1	< 0.1	0.004	0.14	1.5	16	3.8	0.4	0.246	0.093	0.03	
161716 Dup																< 5

Analyte Symbol	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S	Au
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppb
Detection Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01	5
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP	FA-AA
161751 Orig	0.2	0.7	4.1	0.7	0.4	1.0	0.004	0.09	2.2	2	7.3	1.6	0.114	0.008	< 0.01	< 5
161751 Split	0.2	0.7	4.0	0.6	0.5	1.2	0.003	0.10	2.2	2	8.5	1.6	0.116	0.012	< 0.01	< 5
161768 Orig																< 5
161768 Dup																< 5
161778 Orig																< 5
161778 Dup																< 5
161781 Orig	0.3	0.7	4.2	0.7	< 0.1	0.1	0.003	0.14	1.3	11	6.2	1.1	0.141	0.027	< 0.01	
161781 Dup	0.3	0.7	4.1	0.7	< 0.1	0.1	0.003	0.12	1.3	11	6.7	1.1	0.127	0.026	< 0.01	
161807 Orig																< 5
161807 Split																< 5
161807 Orig																< 5
161807 Dup																< 5
161807 Split																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
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Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank																< 5
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 1	< 0.1	< 0.1	0.0008	< 0.001	< 0.01	
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 1	< 0.1	< 0.1	0.0005	< 0.001	< 0.01	
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 1	< 0.1	< 0.1	< 0.0005	< 0.001	< 0.01	
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 1	< 0.1	< 0.1	0.0006	< 0.001	< 0.01	
Method Blank										< 1			< 0.0005	< 0.001	< 0.01	

Quality Analysis ... *Innovative Technologies*

Date Submitted: 15-Aug-14
Invoice No.: A14-05620
Invoice Date: 22-Aug-14
Your Reference: BENNEWEIS

Trelawney Mining and Exploration
130 King Street West
Suite 2810 - PO Box 182
Toronto ON M5X 1A6
Canada

ATTN: Alan Smith

CERTIFICATE OF ANALYSIS

64 Rock samples were submitted for analysis.

The following analytical package was requested: Code 1A2-Sudbury Au - Fire Assay AA
Code 1A3-50-Sudbury Au - Fire Assay Gravimetric

REPORT **A14-05620**

Notes:
50 g of sample
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1010 Lorne Street Unit West 4, Sudbury, Ontario, Canada, P3C 4R9
TELEPHONE +705 586-3288 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Sudbury@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Detection Limit	5	0.02
Analysis Method	FA-AA	FA-GRA
161721	< 5	
161722	< 5	
161723	< 5	
161724	< 5	
161725	< 5	
161726	< 5	
161727	< 5	
161728	< 5	
161729	< 5	
161730	< 5	
161731	< 5	
161732	< 5	
161733	< 5	
161734	< 5	
161735	< 5	
161736	2230	2.14
161737	< 5	
161738	< 5	
161739	< 5	
161740	< 5	
161741	14	
161742	< 5	
161743	7	
161744	< 5	
161745	< 5	
161746	8	
161747	< 5	
161748	< 5	
161749	< 5	
161750	12	
161782	< 5	
161783	< 5	
161784	< 5	
161785	< 5	
161786	1490	
161787	< 5	
161788	< 5	
161791	< 5	
161792	< 5	
161793	< 5	
161794	14	
161795	< 5	
161796	11	
161797	< 5	
161798	< 5	
161799	6	
161800	< 5	
161808	< 5	
161809	< 5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Detection Limit	5	0.02
Analysis Method	FA-AA	FA-GRA
161810	8	
161811	< 5	
161812	1030	
161813	< 5	
161814	< 5	
161815	< 5	
161817	< 5	
161818	35	
161819	< 5	
161820	45	
161851	< 5	
161852	< 5	
161853	< 5	
161854	< 5	

QC

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Detection Limit	5	0.02
Analysis Method	FA-AA	FA-GRA
OXK94 Meas		3.51
OXK94 Cert		3.56
OXL93 Meas		5.78
OXL93 Cert		5.84
OxD108 Meas	432	
OxD108 Cert	414.000	
OxD108 Meas	420	
OxD108 Cert	414.000	
SG66 Meas	1130	
SG66 Cert	1090	
SG66 Meas	1100	
SG66 Cert	1090	
161730 Orig	< 5	
161730 Dup	< 5	
161740 Orig	< 5	
161740 Dup	< 5	
161750 Orig	12	
161750 Split	11	
161782 Orig	7	
161782 Dup	< 5	
161793 Orig	< 5	
161793 Dup	8	
161810 Orig	8	
161810 Split	< 5	
161811 Orig	< 5	
161811 Dup	< 5	
161820 Orig	45	
161820 Split	62	
161851 Orig	< 5	
161851 Dup	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank		< 0.02
Method Blank		< 0.02

Quality Analysis ... *Innovative Technologies*

Date Submitted: 21-Aug-14
Invoice No.: A14-05832
Invoice Date: 05-Sep-14
Your Reference: BENNEWEIS

Trelawney Mining and Exploration
130 King Street West
Suite 2810 - PO Box 182
Toronto ON M5X 1A6
Canada

ATTN: Alan Smith

CERTIFICATE OF ANALYSIS

11 Rock samples were submitted for analysis.

The following analytical package was requested: Code 1A2-Sudbury Au - Fire Assay AA

REPORT **A14-05832**

Notes:

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

CERTIFIED BY:

Elitsa Hrischeva, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1010 Lorne Street Unit West 4, Sudbury, Ontario, Canada, P3C 4R9
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E-MAIL Sudbury@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 21-Aug-14
Invoice No.: A14-05832
Invoice Date: 05-Sep-14
Your Reference: BENNEWEIS

Trelawney Mining and Exploration
130 King Street West
Suite 2810 - PO Box 182
Toronto ON M5X 1A6
Canada

ATTN: Alan Smith

CERTIFICATE OF ANALYSIS

11 Rock samples were submitted for analysis.

The following analytical package was requested: Code UT-6 Total Digestion ICP & ICP/MS

REPORT **A14-05832**

Notes:

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

CERTIFIED BY:

Elitsa Hrischeva, Ph.D.
Quality Control

SCC Accredited LAB
LAB Accrédité CCN

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

Results

Analyte Symbol	Au	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi
Unit Symbol	ppb	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02
Analysis Method	FA-AA	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161855	< 5	7.1	> 3.00	0.82	5.82	0.50	2.02	0.1	46	18.2	313	2.51	2.3	20	17.7	1.9	1.4	0.6	0.09	0.21	8.8	1.13	0.10
161856	< 5	11.9	1.47	0.62	6.77	2.20	0.60	0.1	41	13.4	187	2.22	2.7	10	7.2	1.3	2.0	0.5	0.12	0.99	5.5	0.66	0.04
161857	7	8.1	> 3.00	1.27	7.75	0.95	2.62	< 0.1	38	19.6	459	5.16	1.3	< 10	19.6	2.6	1.3	0.9	0.07	0.32	35.4	1.49	0.30
161858	< 5	6.7	2.55	1.06	6.18	1.37	1.57	< 0.1	52	13.8	330	2.30	2.8	< 10	15.1	1.0	0.4	0.3	0.11	0.49	10.7	0.65	0.11
161859	< 5	10.3	1.50	3.10	6.47	0.17	6.32	0.2	234	97.2	1450	8.97	0.5	< 10	61.6	3.1	0.7	1.0	0.06	0.61	42.7	1.08	0.54
161860	< 5	7.0	0.08	1.70	5.04	1.78	0.10	< 0.1	19	< 0.5	492	1.76	3.6	< 10	3.0	2.7	0.8	0.9	0.16	0.46	3.5	0.37	0.08
161861	< 5	20.4	> 3.00	2.70	5.96	0.10	1.26	< 0.1	150	51.2	705	5.07	1.6	< 10	38.3	2.1	4.8	0.7	0.06	0.37	23.0	0.64	0.27
161862	257	29.2	2.11	1.26	6.24	1.81	2.42	< 0.1	109	85.9	540	4.20	2.5	< 10	47.1	2.7	2.6	1.0	0.83	10.7	16.4	1.26	1.52
161863	< 5	8.4	1.08	2.64	3.82	0.11	6.03	0.2	386	79.5	1620	10.4	0.8	< 10	79.1	2.5	1.1	0.8	0.13	0.17	54.4	0.78	0.38
161864	< 5	8.6	2.72	1.05	5.86	0.99	1.11	< 0.1	46	22.0	322	2.57	2.0	< 10	20.9	1.6	1.0	0.5	0.21	0.33	9.7	0.73	0.12
161865	14	19.0	2.98	1.74	6.24	1.07	0.51	< 0.1	36	12.2	341	2.49	4.2	< 10	14.4	2.5	2.6	0.8	0.13	0.66	14.7	0.79	0.33

Results

Analyte Symbol	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
161855	0.4	25.0	16.4	4.0	19.6	18.2	233	94	3.6	0.87	< 0.1	< 1	< 0.1	< 0.1	215	40.3	81.4	9.6	32.5	5.2	4.4	0.6	3.4
161856	< 0.1	18.7	25.0	1.1	84.3	12.6	90.7	106	7.4	0.22	< 0.1	6	< 0.1	< 0.1	854	27.3	57.4	6.3	20.4	3.3	3.0	0.4	2.4
161857	0.3	28.9	22.2	1.5	36.4	24.7	180	47	3.4	0.44	< 0.1	13	< 0.1	< 0.1	343	18.8	39.8	4.9	19.2	4.3	4.8	0.7	4.6
161858	< 0.1	70.4	17.2	0.5	46.9	10.2	129	126	5.1	1.27	< 0.1	2	< 0.1	< 0.1	368	15.8	30.2	3.4	11.7	2.2	2.2	0.3	1.8
161859	< 0.1	98.7	22.2	0.5	10.3	26.9	149	18	0.6	0.30	0.2	13	< 0.1	< 0.1	39	5.1	12.2	1.8	8.5	2.7	4.0	0.7	4.9
161860	< 0.1	81.8	15.1	0.5	63.8	23.5	6.8	130	7.8	1.76	< 0.1	2	< 0.1	< 0.1	179	19.6	37.9	4.5	16.0	3.1	3.4	0.5	3.7
161861	< 0.1	67.5	16.4	0.5	4.9	19.4	79.4	48	2.0	0.81	< 0.1	17	< 0.1	< 0.1	58	9.3	18.4	2.2	8.1	1.9	2.7	0.5	3.3
161862	1.9	86.0	17.8	18.2	149	24.8	319	97	11.0	85.3	0.2	5	0.5	< 0.1	951	32.9	63.3	7.9	27.5	5.2	5.1	0.7	4.8
161863	0.9	107	18.7	2.3	1.8	16.3	171	18	3.4	1.58	< 0.1	5	0.3	< 0.1	41	2.5	6.9	1.1	5.8	1.9	2.8	0.5	3.8
161864	0.6	43.2	14.2	1.8	39.9	15.1	125	77	6.6	0.46	< 0.1	3	< 0.1	< 0.1	419	25.7	51.0	5.9	19.7	3.3	3.0	0.4	2.7
161865	< 0.1	55.9	16.9	3.5	49.6	21.7	98.5	155	3.2	0.96	< 0.1	4	< 0.1	< 0.1	333	40.3	80.5	9.0	30.8	5.2	5.1	0.7	4.1

Results

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP
161855	7.2	0.4	0.3	1.7	0.3	0.3	0.3	0.005	0.08	3.5	8	8.4	1.5	0.259	0.049	0.02
161856	1.9	0.6	0.2	1.3	0.2	0.4	1.8	0.003	0.23	2.4	7	8.6	1.2	0.218	0.027	< 0.01
161857	30.8	0.5	0.4	2.1	0.3	< 0.1	1.6	0.005	0.15	2.1	16	5.1	0.9	0.521	0.105	0.59
161858	62.4	0.1	0.1	0.9	0.1	0.4	1.7	0.003	0.28	3.4	9	3.0	2.9	0.217	0.026	0.14
161859	76.5	0.7	0.5	2.8	0.5	< 0.1	0.1	0.006	0.09	6.4	45	1.4	0.3	0.365	0.029	0.52
161860	24.0	0.1	0.4	2.3	0.4	0.6	0.6	0.003	0.27	10.2	6	4.8	1.0	0.161	0.017	< 0.01
161861	11.0	0.4	0.3	2.0	0.3	0.2	2.1	0.003	< 0.05	2.4	26	7.1	1.3	0.304	0.025	0.05
161862	2330	0.4	0.4	2.3	0.4	0.5	2.3	0.005	0.90	20.6	14	18.8	5.2	0.435	0.091	0.35
161863	87.3	0.3	0.4	2.2	0.4	0.4	1.9	0.003	0.08	8.0	28	2.5	0.1	0.765	0.036	0.29
161864	68.2	0.2	0.2	1.5	0.2	0.4	1.0	0.002	0.14	3.2	9	7.5	1.6	0.254	0.040	0.07
161865	81.9	0.2	0.3	2.1	0.4	< 0.1	0.4	0.003	0.22	3.4	6	14.2	1.5	0.247	0.035	0.18

QC

Analyte Symbol	Au	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Hg	Ni	Er	Be	Ho	Ag	Cs	Co	Eu	Bi
Unit Symbol	ppb	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	10	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05	0.02
Analysis Method	FA-AA	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas		7.2	0.05	0.18	1.79	0.04	0.81	2.2	83	7.1	890	23.8	< 0.1	3420	40.1		0.9		33.0	2.61	8.3	0.54	1250
GXR-1 Cert		8.20	0.0520	0.217	3.52	0.050	0.960	3.30	80.0	12.0	852	23.6	0.960	3900	41.0		1.22		31.0	3.00	8.20	0.690	1380
GXR-4 Meas		11.0	0.59	1.65	6.00	2.51	0.98	0.2	87	35.6	149	2.93	0.8		40.5		2.0		3.76	2.44	14.7	1.28	17.2
GXR-4 Cert		11.1	0.564	1.66	7.20	4.01	1.01	0.860	87.0	64.0	155	3.09	6.30		42.0		1.90		4.00	2.80	14.6	1.63	19.0
SDC-1 Meas		36.5	1.71	0.96	7.45	2.10	1.01		48	43.0	865	4.67	0.6		35.7	3.9	3.4	1.4		3.95	19.0	1.48	
SDC-1 Cert		34.00	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30		38.0	4.10	3.00	1.50		4.00	18.0	1.70	
GXR-6 Meas		35.7	0.11	0.56	> 10.0	1.47	0.17	0.2	182	51.0	1080	5.33	2.3		24.6		1.3		0.38	3.96	14.1	0.60	0.18
GXR-6 Cert		32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30		27.0		1.40		1.30	4.20	13.8	0.760	0.290
SAR-M (U.S.G.S.) Meas		27.7	1.22	0.41	4.88	2.28	0.51	4.3	66	81.2	5150	2.96			41.0		2.6		4.10		10.9		1.82
SAR-M (U.S.G.S.) Cert		27.4	1.140	0.50	6.30	2.94	0.61	5.27	67.2	79.7	5220	2.99			41.5		2.20		3.64		10.70		1.94
DNC-1a Meas		5.1							143	132					269						58.8	0.60	
DNC-1a Cert		5.20							148.00	270					247						57.0	0.59	
OxD108 Meas	434																						
OxD108 Cert	414.000																						
SBC-1 Meas		169						0.4	214	67.1			2.7		88.2	4.0	3.8	1.4		8.34	23.8	1.89	0.68
SBC-1 Cert		163.0						0.40	220.0	109			3.7		82.8	3.80	3.20	1.40		8.2	22.7	1.98	0.70
SG66 Meas	1050																						
SG66 Cert	1090																						
DMMAS 116 Meas																							
DMMAS 116 Cert																							
161855 Orig		7.1	> 3.00	0.80	5.78	0.50	1.99	0.1	45	18.4	309	2.45	2.4	20	17.4	1.8	1.3	0.6	0.08	0.21	8.6	1.12	0.11
161855 Dup		7.1	> 3.00	0.83	5.86	0.51	2.04	0.1	48	18.1	317	2.56	2.1	20	17.9	1.9	1.4	0.6	0.10	0.21	9.0	1.15	0.08
161864 Orig	< 5																						
161864 Dup	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank		< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 10	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02
Method Blank		< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 10	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02

QC

Analyte Symbol	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	15.1	771	12.8	410	3.0	30.0	294	19	0.8	17.3	0.7	25	26.0	9.1	678	6.6	12.6		7.3	2.5	3.8	0.7	4.7
GXR-1 Cert	16.6	760	13.8	427	14.0	32.0	275	38.0	0.800	18.0	0.770	54.0	122	13.0	750	7.50	17.0		18.0	2.70	4.20	0.830	4.30
GXR-4 Meas	5.8	82.1	18.4	97.9	131	13.9	217	37	9.0	303	0.2	6	4.5	1.1	146	50.8	92.4		36.8	5.6	4.2	0.5	2.7
GXR-4 Cert	5.60	73.0	20.0	98.0	160	14.0	221	186	10.0	310	0.270	5.60	4.80	0.970	1640	64.5	102		45.0	6.60	5.25	0.360	2.60
SDC-1 Meas		105	21.5	< 0.1	115		174	35	1.4			< 1	0.1		659	40.1	82.7		36.9	7.2	7.0	1.0	6.8
SDC-1 Cert		103.00	21.00	0.220	127.00		180.00	290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00	1.20	6.70
GXR-6 Meas	1.0	128	31.6	306	78.7	12.8	39.1	94	2.8	1.95	< 0.1	1	1.3	< 0.1	1300	12.3	32.2		11.5	2.4	2.4	0.4	2.5
GXR-6 Cert	0.940	118	35.0	330	90.0	14.0	35.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97	0.415	2.80
SAR-M (U.S.G.S.) Meas	1.1	889	18.6	37.4	127	30.0	136		25.7	12.3	1.0	3	4.5	0.8	718	43.7	91.9						
SAR-M (U.S.G.S.)	0.39	930.0	17	38.8	146	28.00	151		29.9	13.1	1.08	2.76	6.0	0.96	801	57.4	122.0						

Analyte Symbol	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Cert																							
DNC-1a Meas		67.5				17.0	141	36					0.6		109	3.6			4.7				
DNC-1a Cert		70.0				18.0	144.0	38.000					0.96		118	3.6			5.20				
OxD108 Meas																							
OxD108 Cert																							
SBC-1 Meas		188	26.3	25.2	142	33.3	185	111	12.0	2.18		3	1.0		828	50.8	101	12.6	46.3	9.0	8.5	1.2	7.3
SBC-1 Cert		186.0	27.0	25.7	147	36.5	178.0	134.0	15.3	2.40		3.3	1.01		788.0	52.5	108.0	12.6	49.2	9.6	8.5	1.20	7.10
SG66 Meas																							
SG66 Cert																							
DMMAS 116 Meas																							
DMMAS 116 Cert																							
161855 Orig	0.4	24.8	16.2	5.7	19.5	17.8	231	96	2.5	1.22	< 0.1	< 1	< 0.1	< 0.1	213	40.4	82.0	9.7	32.9	5.3	4.4	0.6	3.3
161855 Dup	0.3	25.2	16.6	2.3	19.8	18.6	236	92	4.6	0.51	< 0.1	1	< 0.1	< 0.1	218	40.3	80.7	9.6	32.2	5.2	4.4	0.6	3.4
161864 Orig																							
161864 Dup																							
Method Blank																							
Method Blank																							
Method Blank	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

QC

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	1090		0.4	1.9	0.3	< 0.1	123		0.36	616	2	3.4	30.3	0.0258	0.057	0.25
GXR-1 Cert	1110		0.430	1.90	0.280	0.175	164		0.390	730	1.58	2.44	34.9	0.036	0.0650	0.257
GXR-4 Meas	6380		0.2	0.9	0.1	0.5	32.5		2.95	42.6	8	15.0	5.3	0.290	0.132	1.77
GXR-4 Cert	6520		0.210	1.60	0.170	0.790	30.8		3.20	52.0	7.70	22.5	6.20	0.29	0.120	1.77
SDC-1 Meas	31.9		0.6	3.1		< 0.1	0.1		0.62	23.7	17	13.4	5.6	0.147	0.055	
SDC-1 Cert	30.00		0.65	4.00		1.20	0.80		0.70	25.00	17.00	12.00	3.10	0.606	0.0690	
GXR-6 Meas	68.4		0.3	1.6	0.3	0.1	0.9		1.99	87.6	28	5.9	1.5		0.036	0.01
GXR-6 Cert	66.0		0.0320	2.40	0.330	0.485	1.90		2.20	101	27.6	5.30	1.54		0.0350	0.0160
SAR-M (U.S.G.S.) Meas	337						7.9		2.36	799	9	15.0	3.5	0.387	0.067	
SAR-M (U.S.G.S.) Cert	331						9.78		2.7	982	7.83	17.2	3.57	0.38	0.07	
DNC-1a Meas	98.7			1.9							31			0.269		
DNC-1a Cert	100.0			2.0							31			0.29		
OxD108 Meas																
OxD108 Cert																
SBC-1 Meas	31.4		0.6	3.2	0.5	0.6	1.5		0.87	33.2	21	16.9	5.7	0.486		
SBC-1 Cert	31.0		0.56	3.64	0.54	1.10	1.60		0.89	35.0	20.0	15.8	5.76	0.51		
SG66 Meas																
SG66 Cert																
DMMAS 116 Meas											7					
DMMAS 116 Cert											6.30					
161855 Orig	5.8	0.3	0.3	1.7	0.3	0.2	0.2	0.006	0.09	3.5	8	7.6	1.5	0.251	0.049	0.02

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Sc	Th	U	Ti	P	S
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	1	0.1	0.1	0.0005	0.001	0.01
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-ICP	TD-MS	TD-MS	TD-ICP	TD-ICP	TD-ICP
161855 Dup	8.6	0.5	0.3	1.7	0.3	0.3	0.3	0.004	0.07	3.5	8	9.1	1.5	0.267	0.049	0.02
161864 Orig																
161864 Dup																
Method Blank																
Method Blank																
Method Blank	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 1	< 0.1	< 0.1	< 0.0005	< 0.001	< 0.01
Method Blank	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 1	< 0.1	< 0.1	0.0005	< 0.001	< 0.01

Appendix F: QA/QC Sample Results Table

QA/QC Results - Blanks

Start Date 7/26/2014 End Date 8/22/2014

Lab: ActLabs Blank Code: BLKDIA Warning: 0.1 AU PPM

Total Samples	Passed	Failed
11	11	0

Date	Cert	Samp	Pass	Fail
7/26/2014	A14-04675	161524	0.0025	
7/26/2014	A14-04675	161548	0.0025	
7/26/2014	A14-04675	161574	0.005	
7/26/2014	A14-04675	161624	0.0025	
7/26/2014	A14-04675	161648	0.0025	
7/26/2014	A14-04675	161674	0.0025	
7/26/2014	A14-04675	161698	0.0025	
8/22/2014	A14-05620	161724	0.0025	
8/22/2014	A14-05620	161748	0.0025	
7/26/2014	A14-04675	161774	0.0025	
8/22/2014	A14-05620	161798	0.0025	

QA/QC Results - Standards

From Date 7/26/2014 To Date 8/22/2014

Lab: ActLabs Standard: OREAS 204 Mean:1.043 AU PPM

		Limits	
		2s	3s
Upper		1.12	1.158
Lower	0	0.966	0.927

Total Samples	Passed	Failed
5	5	0

Date	Cert	Samp	Pass	Fail
7/26/2014	A14-04675	161512	1.06	
7/26/2014	A14-04675	161612	0.979	
8/22/2014	A14-05620	161712	1.01	
8/22/2014	A14-05620	161812	1.03	
7/26/2014	A14-04675	161586	1.05	

QA/QC Results - Standards

From Date 7/26/2014 To Date 8/22/2014

Lab: ActLabs Standard: OREAS 206 Mean:2.197 AU PPM

		Limits	
		2s	3s
Upper		2.36	2.441
Lower	0	2.035	1.953

Total Samples	Passed	Failed
4	4	0

Date	Cert	Samp	Pass	Fail
7/26/2014	A14-04675	161562	2.29	
7/26/2014	A14-04675	161536	2.3	
7/26/2014	A14-04675	161636	2.27	

8/22/2014	A14-05620	161736	2.14	

QA/QC Results - Standards

From Date 09/05/2014 To Date 26/07/2014

Lab: ActLabs Standard: OREAS 501b Mean:0.248 AU PPM

		Limits	
		2s	3s
Upper		0.267	0.276
Lower	0	0.229	0.219

Total Samples	Passed	Failed
2	2	0

Date	Cert	Samp	Pass	Fail
09/05/2014	A14-05832	161862	0.257	
26/07/2014	A14-04675	161662	0.246	

QA/QC Results - Standards

From Date 7/26/2014 To Date 8/22/2014

Lab: ActLabs Standard: OREAS 504 Mean:1.48 AU PPM

		Limits	
		2s	3s
Upper		1.56	1.6
Lower	0	1.4	1.36

Total Samples	Passed	Failed
2	5	0

Date	Cert	Samp	Pass	Fail
8/22/2014	A14-05620	161786	1.49	
7/26/2014	A14-04675	161686	1.52	