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**Assessment Report  
Boyer Lake Unpatented Claims  
2017 Soil Sampling Program  
Rubicon Minerals Corp.  
September 11, 2017 to November 30, 2017**

Boyer Lake Township Area  
Kenora Mining District  
Ontario, Canada

NTS: 52F/07  
NAD83 / UTM zone 15N

Prepared for

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November 30, 2017

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## 1.0 SUMMARY

Rubicon Minerals Corporation completed a soil geochemical sampling program between 16 and 22 September, 2017 on the Boyer Lake Property comprised of 5 unpatented mining claims covering an area of 752 hectares, located in Boyer Lake Township (G-2572), Kenora – Division 10.

The program was designated as a reconnaissance survey, to test anomalous gold within soil B-horizon and evaluate future exploration methodology to target potential gold mineralization within the area.

A total of 140 samples, (40 to 50 m distance between sampling stations) were collected over the property with a terrain which prove to be difficult and the collection of material varies from relatively easy to extremely difficult to sometimes impossible.

The reconnaissance soil sampling defined few gold trends along some of the topographic lines.

The survey yielded positive results and recommendations for follow-up programs were made.

## 2.0 INTRODUCTION

This report is prepared to summarize exploration work performed by Rubicon Minerals Corporation on the 5 unpatented mineral claims located within Boyer Lake property, being submitted to the Ministry of Northern Development and Mines for assessment credit. Expenditures of \$25,336 are being submitted for assessment credit incurred for the collection, processing, interpretation and reporting of geochemical soil sampling program between September 11, 2017 and November 30, 2017.

A total of 140 samples were collected within the property boundary. All samples were collected from soil B-horizon and submitted to Activation Laboratories Ltd. and analyzed for Au and other trace elements.

All work was supervised by Mark Ross P.Geo, Chief Geologist.

## 3.0 PROPERTY DESCRIPTION, LOCATION AND ACCESS

The property is located approximately 56 km south of Dryden, south east of Twin Narrows Lake and near Highway 502 with an access via forestry roads. **(Fig.1)**

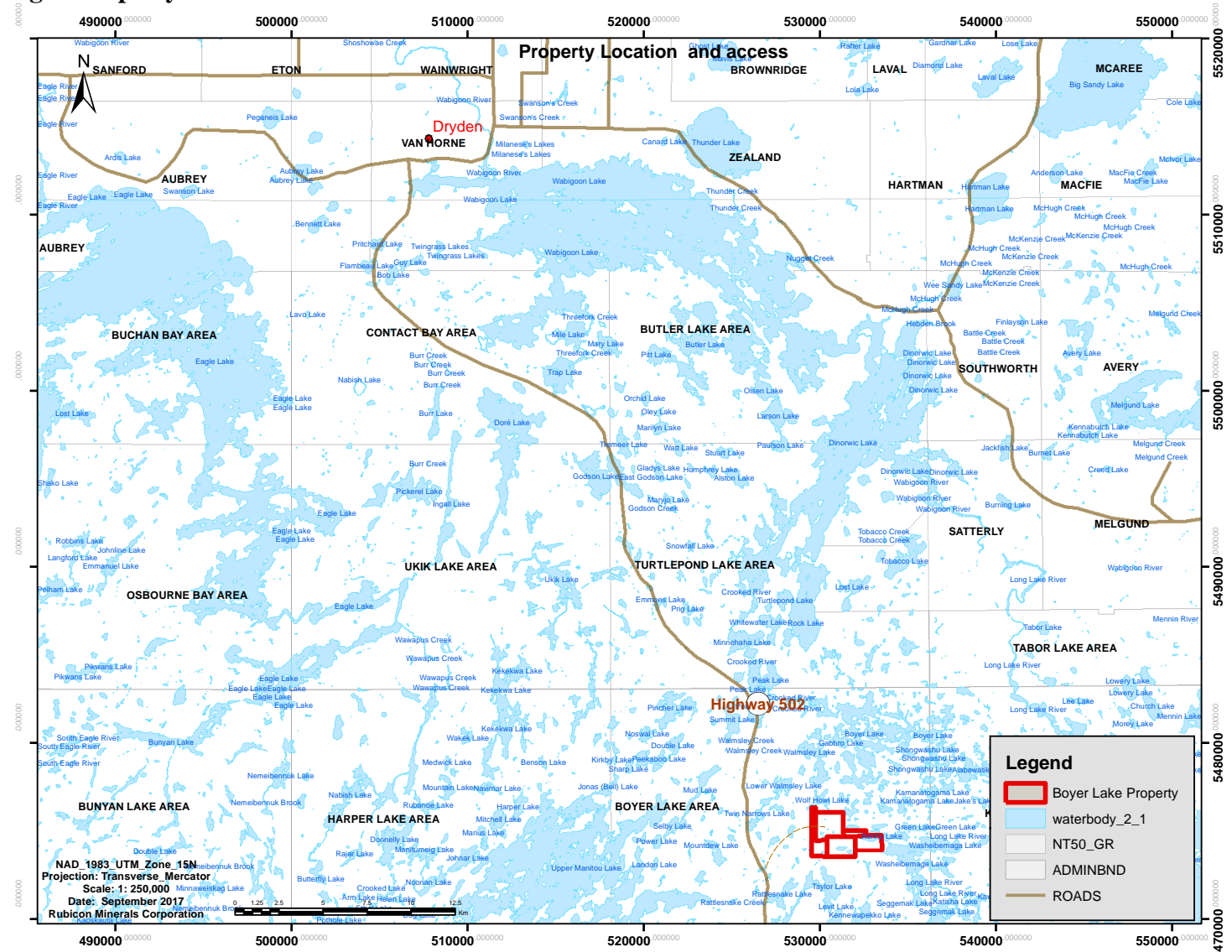
Historically this area was very remote and accessible by float plane until approximately 2004 when logging roads and logging activities opened the area extensively.

The Boyer Lake Property, comprised of K 4266829, K 4268352, K 4268353, K 4268354, K 4271605 unpatented mineral claims totaling 47 units or 752 hectares, recorded 100% in Rubicon Minerals Corporation name within MNDM is located in Boyer Lake Township (G-2572), Kenora – Division 10 and lies within N.T.S. 52F/07. **(Fig. 2)**

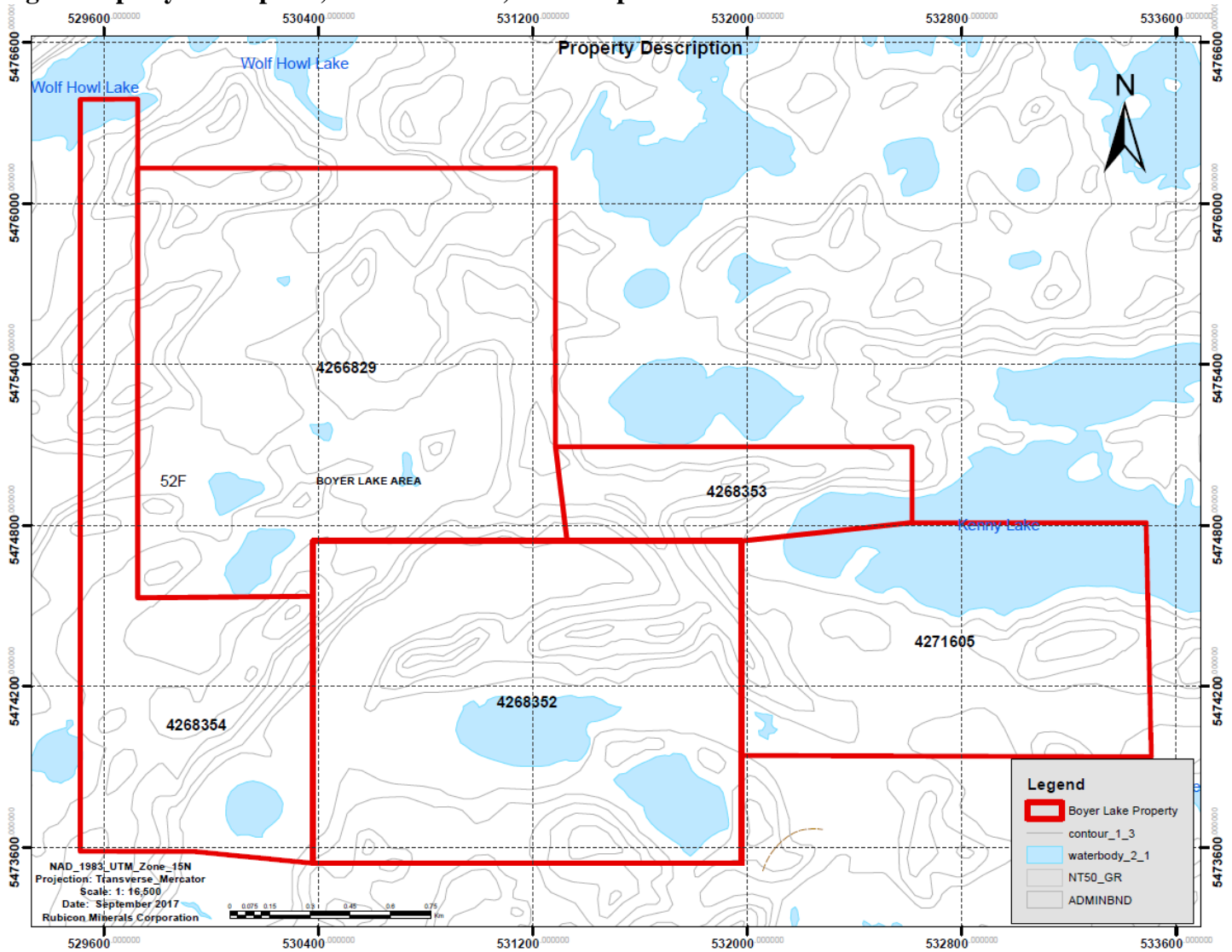
**Table 1. Mining claims pertinent to the report list:**

Claim ID	Township Area	Mining District	Units	Recorded Owner	Recording Date	Claim Due Date	Work Required	Client Number	Tenure Type	Status MNDM
4266829	BOYER LAKE AREA	KENORA	15	RUBICON MINERALS CORPORATION	1/19/2012	19-Jan-18	6000	301254	Unpatented	Active
4268352	BOYER LAKE AREA	KENORA	12	RUBICON MINERALS CORPORATION	1/5/2012	05-Jan-18	4800	301254	Unpatented	Active
4268353	BOYER LAKE AREA	KENORA	3	RUBICON MINERALS CORPORATION	1/5/2012	05-Jan-18	1200	301254	Unpatented	Active
4268354	BOYER LAKE AREA	KENORA	7	RUBICON MINERALS CORPORATION	1/5/2012	05-Jan-18	2800	301254	Unpatented	Active
4271605	BOYER LAKE AREA	KENORA	10	RUBICON MINERALS CORPORATION	6/14/2012	14-Jun-18	4000	301254	Unpatented	Active

**Fig. 1 Property Location and Access**



**Fig. 2 Property Description, Claims outline, Township**



#### 4.0 PHYSIOGRAPHY

Within the area the terrain is quite rugged. Hills generally strike at 55 to 65 degrees and are controlled by the underlying rock units. Hills up to 45 -55 meters were encountered with generally steep cliff like sides.

The property is surrounded by a number of lakes, some of the larger ones include Wolf Howl Lake, Henny Lake, Washeibemaga Lake and at south of the property Taylor Lake.

Hill tops are covered with pine, spruce, balsam and willow, low lying areas are covered by poplar, thick balsam, hazel willow and in the wet areas, dense cedar.

## 5.0 EXPLORATION HISTORY

C.E. Blackburn and assistants mapped the area during the 1974 and 1975 field seasons and the results of this work were published by the Ontario Division of Mines, in 1976, as map number P.1187, Boyer Lake area.

Essex Minerals in 1982, carried out a detailed ground VLF (very low frequency) electromagnetic and magnetic survey, conducted using a Geonics Model EM-16 receiver.

## 6.0 REGIONAL GEOLOGY

The property lies within the Eagle-Wabigoon-Manitou Lakes Greenstone Belt (EWMGB) which is one of a series of six interconnected greenstone belts that make up the western part of the Wabigoon Subprovince in Northwestern Ontario. The greenstone belt is an arcuate structure 20 km wide and 80 km long. It extends from Lower Manitou Lake in the southwest to Bending Lake on the east, tapering at either end (Blackburn 1982).

The Manitou-Stormy Lakes Greenstone belt is early Precambrian in age. A number of thick volcanic-sedimentary sequences make up the greenstone supracrustal sequence. It consists of mafic to felsic coherent lavas and associated intrusions, pyroclastic rocks, as well as sedimentary sequences. The sedimentary rocks are both intercalated and overlying the volcanic rocks. Mafic and felsic rocks of batholithic, stock and sill like intrude these supracrustal sequences at various levels.

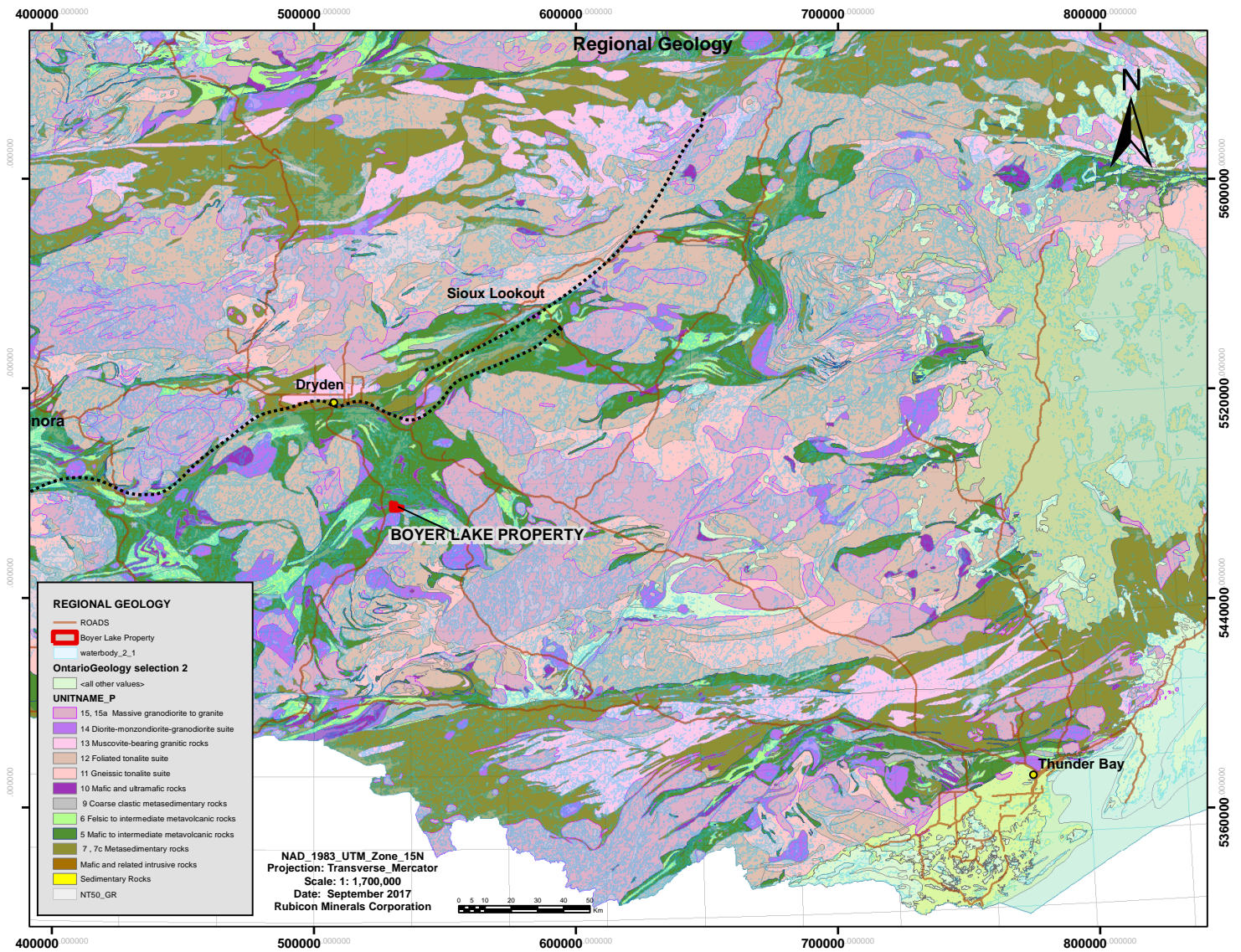
Broadly, the greenstone belt consists of three parts: a lower mafic volcanic unit named Wapageisi group which occupies the south part of the belt. Intermediate to felsic volcanic and sedimentary units (Manitou Lake and Stormy Lake) comprise the middle part of the belt, and a mafic to intermediate volcanic unit (Upper Wabigoon Volcanic and Boyer Lake groups) occupies the northern part of the belt (Blackburn et al., 1991). The mafic and lesser felsic volcanic groups occupy the age range of 2732 Ma (Blackburn et al., 1991) to 2722 Ma (Davis 1989) which is unconformably overlain by the Stormy Lake Group interpreted to be deposited from 2703 to 2696 Ma (Davis 1989).

The metamorphic grade in the Manitou-Stormy Greenstone Belt is predominantly greenschist facies and increases to amphibolite facies along the contacts with the younger granitoid rocks.

Structurally, the belt is dominated by the terrain-scale Manitou Straits Fault which strikes northeast. A notable fault is the Mosher Bay-Washeibemaga Lake Fault located in the center of the belt, which thrusts the Boyer Lake Group over Manitou and Stormy Lake groups. (**Figure 3b**)

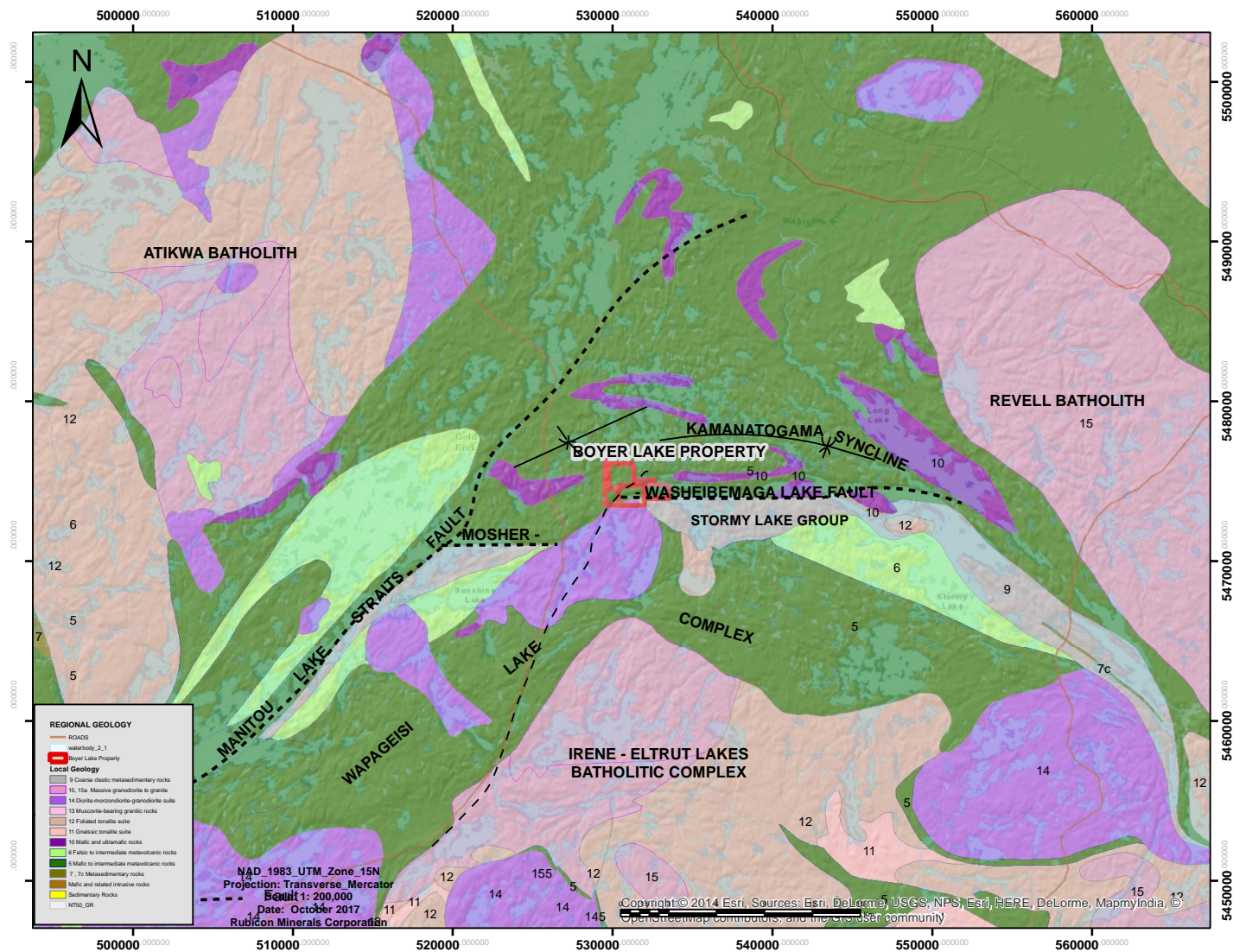
The supracrustal rocks are intruded by a number of granitic bodies including the Atikwa batholith to the northwest, the Irene-Eltrut Lakes batholith, and the Revel batholith to the west. Two small plutons intrude the rocks: The Scattergood Lake pluton (~2700 Ma), and the Taylor Lake Pluton (~2695 Ma) located directly to the south of the Boyer Lake Property.

**Figure 3 a: Geology of the Eagle-Wabigoon-Manitou Lakes Greenstone Belt (Scale 1:1,700,000)**





**Figure 3 b: Regional Geology (Scale 1:200,000)**



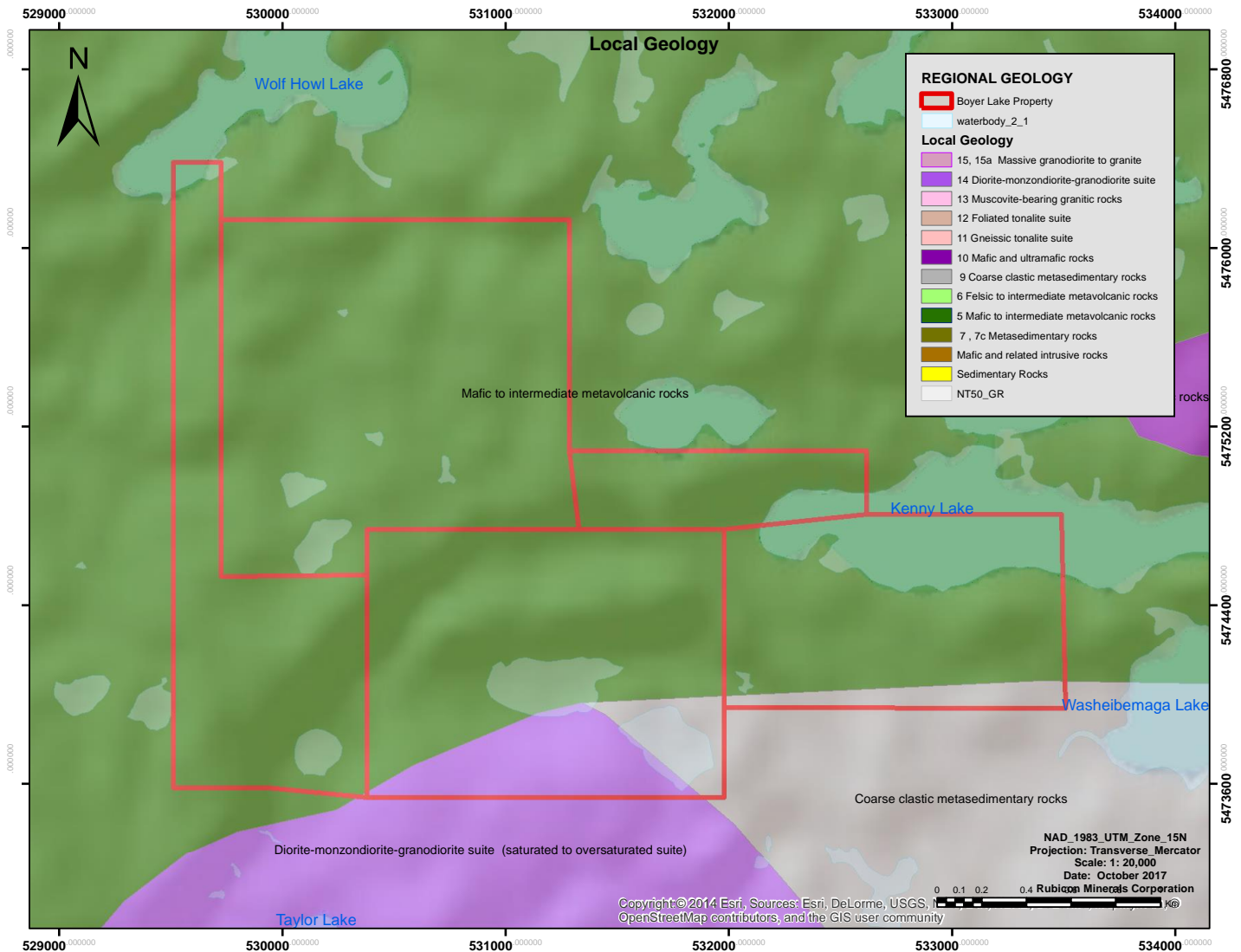
## 7.0 LOCAL GEOLOGY

The largest part of property is underlain by series of early Precambrian, northeast trending, mafic metavolcanic rocks. The mafic to intermediate metavolcanic rocks are monotonous units and consists mainly of massive and pillowed flows which could be locally brecciated. **Figure 4**

The south east area of the property is underlain by a diorite - monzodiorite - granodiorite suite (part of the large 11 by 6 km large Taylor Lake intrusion) and coarse clastic metasedimentary rocks including conglomerates, breccia and sandstone with a wide range of matrix and clast compositions.

These rocks form part of the Manitou Lakes – Stormy Lake metavolcanic – metasedimentary belt, an arcuate structure, extending from Lower Manitou Lake on the west to Bending Lake on the east. The Boyer Lake unpatented claims are situated close to the geographical center of the belt.

**Figure 4: Local Geology**



## 8.0 EXPLORATION WORK PREFORMED, RESULTS AND RECOMMENDATIONS

The work conducted on 4 of the 5 unpatented claims of the Boyer Lake Property, consisted of a geochemical soil sampling program intended as a reconnaissance survey for anomalous gold within the soil B-horizon

A total of 140 samples, (40 to 50 m distance between sampling stations) were collected between September 16<sup>th</sup> and the 22<sup>nd</sup>, 2017. Rugged terrain determined the sample location and spacing. (Figure 5)

Sample material was obtained by digging with a shovel into the B-horizon and collecting part of the soil. Coarse rocks fragments and roots were removed before putting the material in the sample bags.

Average sample-depth is in the order of 0.3 to 0.7 m and the material collected (1.5-3.0 kg) generally consisted of fine-medium grained sand, (Fe-rich or Si-rich) to coarse grained sand grading to gravel, (Fe-rich).

Sample locations descriptions and the depths at which the samples were taken are listed below. **(Table 2)**

All samples were properly labelled and shipped to Activation Laboratory in Thunder Bay for analysis using FA-AA analysis method for Au (ppb) and AR-ICP for others trace elements (ppm/%).

Samples were plotted and results displayed. **(Figure 6)**

Values that returned below detection limit for the assay method used were entered into the database as half of the detection limit value for the purpose of plotting the results in GIS.

From a total of 140 soil samples collected, 47 were collected within unpatented claim 4268352 border (33.57%) mainly located at north side, underlain by mafic to intermediate metavolcanic rocks. The highest Au (ppb) results were identified from sample PED42079, Au (45 ppb) and PED42114, Au (63 ppb) and anomalous area “1” defined.

The other multi elements chosen to be plotted and considered to be closely associated with Au occurrences are Cu (ppm), As (ppm), Hg (ppm) and Sb (ppm). Slightly elevated values of the chosen trace elements were obtained from the assay of samples collected within 4268352 and no correlation possible to be established with Au anomalous area “1”.

A total of 57 soil samples were collected within unpatented claim 4266829 border, representing 40.71% from total number of samples collected on the Boyer Lake Property.

The highest Au (ppb) results were identified from sample PED42140, Au (110 ppb), PED42139, Au (43 ppb) and PED42129, Au (61 ppb), 3 samples out of 12 from the group located on the North West corner of claim 4266829 and concluded to Au anomalous area “2”.

7 samples collected within 4266829 were located near South West corner of the claim boundary from which PED42089, Au (36 ppb) and PED42088, Au (10 ppb) returned slightly highest Au results.

On the eastern area of claim 4266829, 38 soil samples were collected from which three samples PED42017, Au (44 ppb), PED42008, Au (33 ppb) and PED42082, Au (33 ppb) returned the most elevated Au (ppb) and concluded to Au anomalous “3” defined from a combination of results of the sampling located on the claim 4266529 and the sampling located on the north area of claim 4268354.

Modest elevated values of the chosen trace elements were obtained from the assay of samples collected within 4266829 and no correlation it was possible to be established with Au anomalous area “2”.

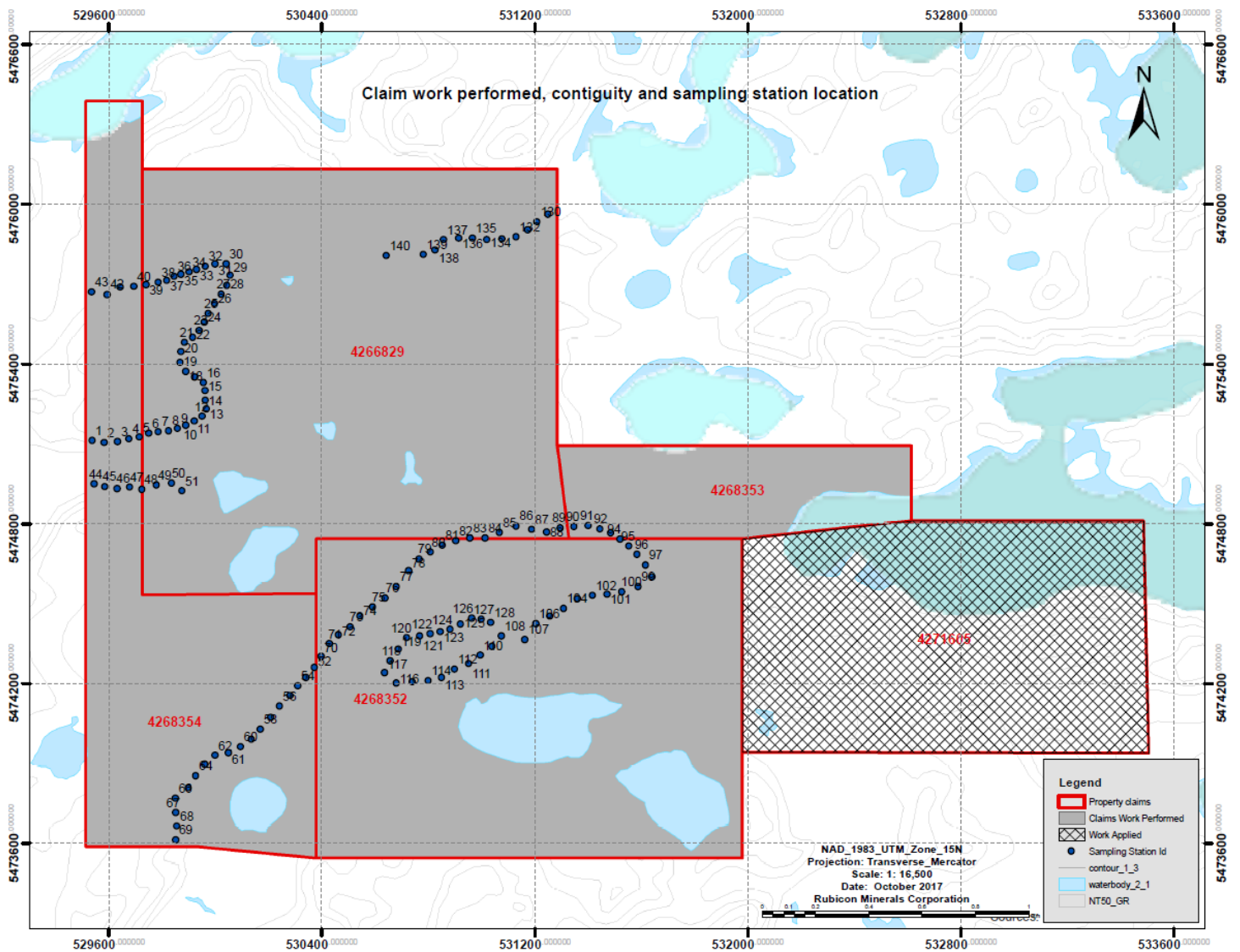
Within unpatented claim 4268354 border, 31 soil samples were collected representing 22.14% from total number of samples collected on the Boyer Lake Property. Samples PED4204, Au (50 ppb) located within north area of claim it was included in the anomalous area “3” as mentioned on the above paragraph. Another sample with an elevated Au results is PED42067, Au (31 ppb) located on the south area of the claim.

The best values of the trace elements Cu (ppm), As (ppm), Hg (ppm) and Sb (ppm) were obtained from samples which defined Au anomalous area “3” and a strong correlation and association has been observed.

5 samples representing (3.57%) from total were collected within 4268353, located on the south eastern corner of the claim. The highest results from this group it was returned by sample PED42092, Au (23 ppb) and included into the Au anomalous area “1”.

Recommendations for follow-up to include a tighter spaced systematic soil sampling program centered on the enriched Au values from our recent soil sampling program. The follow-up sampling plan is to traverse perpendicular to the mapped geology structure. Once assays have been returned from follow-up program, surface overburden and channel sampling as a potential next step in the program.

**Figure 5: Claims work performed, contiguity and sampling stations**

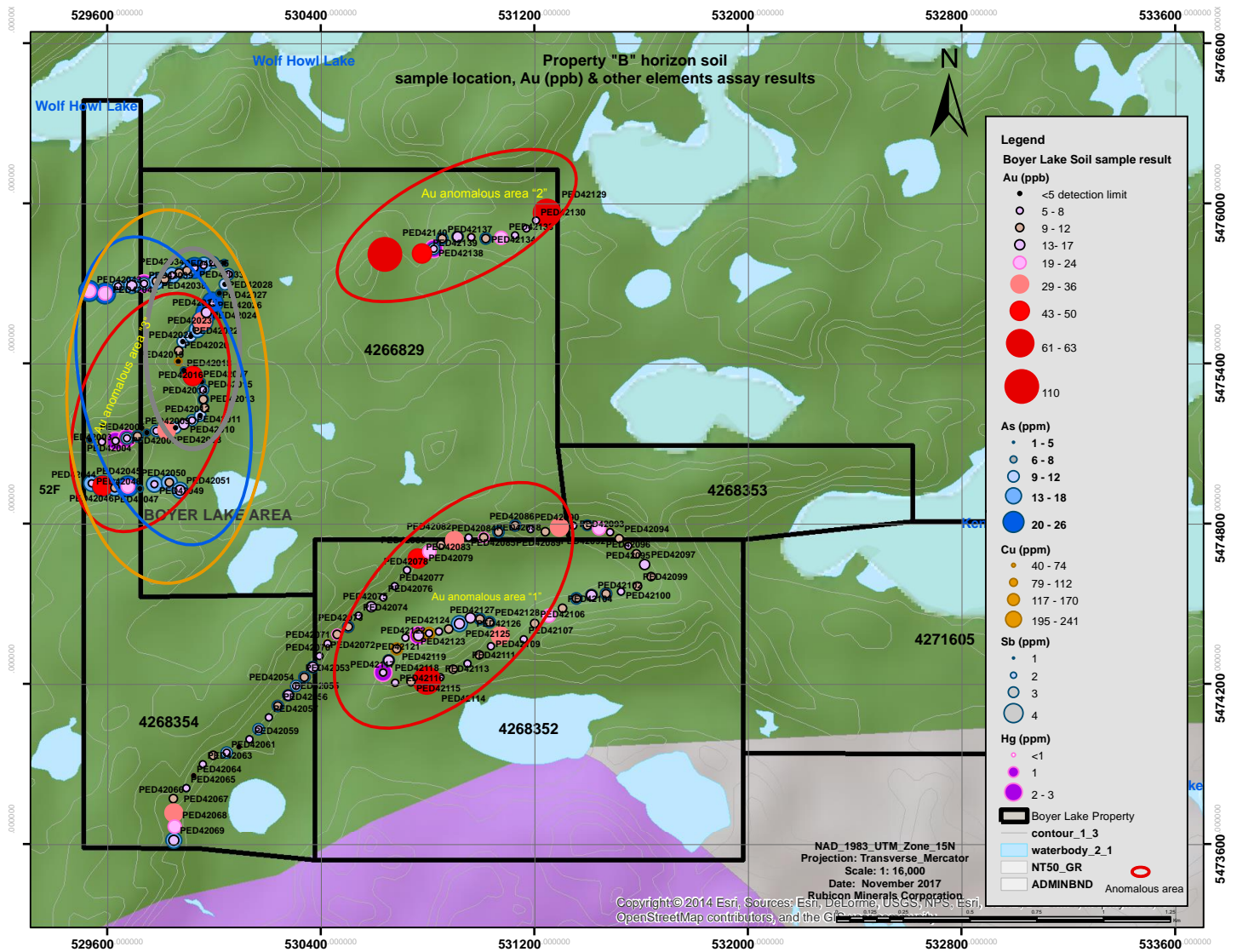


**Table 2: Sample Id, Location, Samples description and assay results**

Claim Id	Sample Station ID	Easting	Northing	Sample Number	Colour	Description	Depth of Sample (m)	Au (ppb)	Cu (ppm)	As (ppm)	Hg (ppm)	Sb (ppm)
4268354	1	529538	5475112	PED42001	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.7	<5	82	8	<1	<2
4268354	2	529583	5475104	PED42002	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	6	92	8	<1	<2
4268354	3	529634	5475108	PED42003	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	7	105	8	2	<2
4268354	4	529677	5475118	PED42004	Mottled red/green; med brown/earthy	Medium-Coarse grained Sand; Fe rich	0.6	6	124	9	2	<2
4268354	5	529716	5475125	PED42005	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.5	10	127	9	<1	<2
4266829	6	529751	5475139	PED42006	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.4	<5	91	7	<1	<2
4266829	7	529787	5475145	PED42007	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.4	5	84	10	<1	2
4266829	8	529826	5475149	PED42008	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.4	33	119	9	<1	<2
4266829	9	529859	5475157	PED42009	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.4	<5	94	9	<1	<2
4266829	10	529890	5475170	PED42010	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.55	17	101	8	<1	<2
4266829	11	529921	5475185	PED42011	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.5	8	108	9	<1	2
4266829	12	529951	5475203	PED42012	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.5	<5	102	9	<1	<2
4266829	13	529968	5475231	PED42013	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.3	10	105	8	<1	<2
4266829	14	529963	5475263	PED42014	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.6	12	95	7	<1	3
4266829	15	529962	5475299	PED42015	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.6	7	96	9	<1	2
4266829	16	529957	5475329	PED42016	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.6	<5	86	6	<1	<2
4266829	17	529923	5475351	PED42017	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.6	44	92	8	<1	4
4266829	18	529890	5475372	PED42018	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.6	<5	111	8	<1	<2
4266829	19	529869	5475405	PED42019	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Fe rich	0.5	<5	99	5	<1	<2
4266829	20	529871	5475445	PED42020	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	9	105	8	<1	<2
4266829	21	529886	5475480	PED42021	Mottled Green/Red; Earthy Brown	Medium grained Sand; Fe rich; minor organics	0.5	<5	107	9	<1	2
4266829	22	529916	5475500	PED42022	Mottled Green/Red; Earthy Brown	Medium grained Sand; Fe rich; minor organics	0.5	<5	125	9	<1	3
4266829	23	529940	5475525	PED42023	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	10	147	15	<1	2
4266829	24	529959	5475556	PED42024	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	29	222	26	<1	3
4266829	25	529974	5475589	PED42025	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	14	241	24	<1	2
4266829	26	529998	5475626	PED42026	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	8	220	25	<1	3
4266829	27	530023	5475661	PED42027	Mottled red/green; med brown/earthy	Fine-Medium grained Sand; Si rich	0.4	<5	55	6	<1	<2
4266829	28	530044	5475694	PED42028	Light-Med Grey; mottled red/green	Fine-Medium grained Sand; Si rich	0.5	<5	60	10	<1	<2
4266829	29	530057	5475732	PED42029	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	6	105	11	<1	<2
4266829	30	530041	5475775	PED42030	Mottled Green/Red; Earthy Brown	Medium-Coarse grained sand; Fe-rich	0.7	<5	65	7	<1	<2
4266829	31	530000	5475776	PED42031	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	6	106	9	<1	3
4266829	32	529964	5475766	PED42032	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	7	119	13	<1	<2
4266829	33	529930	5475755	PED42033	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	6	222	22	<1	3
4266829	34	529902	5475745	PED42034	Mottled Green/Red; Earthy Brown	Coarse grained sand; Fe-rich	0.6	11	155	16	<1	2
4266829	35	529872	5475737	PED42035	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	11	122	11	<1	<2
4266829	36	529846	5475728	PED42036	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	6	132	14	<1	3
4266829	37	529818	5475713	PED42037	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	11	134	12	<1	2
4266829	38	529787	5475705	PED42038	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	12	134	13	<1	2
4266829	39	529741	5475697	PED42039	Mottled Green/Red; Earthy Brown	Coarse grained sand; Fe-rich	0.4	6	128	11	2	<2
4268354	40	529695	5475690	PED42040	Mottled Green/Red; Earthy Brown	Coarse grained sand; Fe-rich	0.4	15	195	18	<1	3
4268354	41	529643	5475687	PED42041	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	8	144	12	<1	<2
4268354	42	529595	5475660	PED42042	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	22	203	20	<1	3
4268354	43	529536	5475669	PED42043	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	22	232	22	2	2
4268354	44	529545	5474949	PED42044	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	7	161	14	<1	2
4268354	45	529586	5474939	PED42045	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	50	236	25	<1	3
4268354	46	529632	5474932	PED42046	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	10	169	13	<1	3
4268354	47	529680	5474937	PED42047	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	19	223	24	<1	3
4268354	48	529725	5474929	PED42048	Mottled Green/Red; Earthy Brown	Medium grained Sand; Fe rich; minor organics	0.6	<5	63	7	<1	<2
4266829	49	529780	5474946	PED42049	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	8	203	18	<1	<2
4266829	50	529836	5474952	PED42050	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	11	152	15	<1	<2
4266829	51	529876	5474923	PED42051	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	13	95	14	<1	<2
4268352	52	530373	5474260	PED42052	Light-Med Grey; mottled red/green	Coarse grained sand grading to Gravel; Fe-rich	0.4	16	96	11	<1	<2
4268354	53	530341	5474223	PED42053	Mottled Green/Red; Earthy Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	10	170	11	<1	3
4268354	54	530310	5474190	PED42054	Mottled Green/Red; Medium Brown	Gravel/Coarse gravel	0.7	8	163	11	<1	<2
4268354	55	530281	5474155	PED42055	Mottled Green/Red; Medium Brown	Gravel/Coarse gravel	0.7	17	139	9	<1	<2
4268354	56	530242	5474115	PED42056	Mottled Green/Red; Medium Brown	Coarse grained sand grading to Gravel; Fe-rich	0.6	9	140	9	<1	<2
4268354	57	530208	5474072	PED42057	Mottled Green/Red; Earthy Brown	Medium grained Sand; Fe rich; minor organics	0.6	5	66	8	<1	2
4268354	58	530170	5474028	PED42058	Mottled Green/Red; Earthy Brown	Medium grained Sand; Fe rich; minor organics	0.5	6	64	9	<1	2
4268354	59	530136	5473990	PED42059	Mottled Green/Red; Earthy Brown	Medium grained Sand; Fe rich; moderate organic	0.5	5	54	6	<1	<2
4268354	60	530096	5473962	PED42060	Light-Med Grey; mottled red/green	Fine-Medium grained Sand; Si rich	0.5	<5	43	<2	<1	<2
4268354	61	530050	5473940	PED42061	Mottled Green/Red; Earthy Brown	Medium-Grained Sand; Moderate organics	0.6	6	80	9	<1	<2
4268354	62	530000	5473930	PED42062	Mottled Green/Red; Earthy Brown	Coarse-grained sand; Fe-rich	0.5	11	94	7	<1	<2
4268354	63	529961	5473897	PED42063	Light-Med Grey; mottled red/green	Fine Grained Sand; Si & Fe rich	0.6	6	48	5	<1	<2
4268354	64	529927	5473854	PED42064	Light-Med Grey; mottled red/green	Fine Grained Sand; Si & Fe rich	0.5	<5	46	3	<1	<2
4268354	65	529899	5473807	PED42065	Light-Med Grey; mottled red/green	Fine Grained Sand; Si & Fe rich	0.6	7	43	6	<1	<2
4268354	66	529851	5473768	PED42066	Mottled Green/Red; Earthy Brown	Medium-Coarse grained Sand; Si & Fe rich moder	0.6	9	66	7	<1	<2
4268354	67	529852	5473715	PED42067	Mottled Green/Red; Earthy Brown	Medium-Coarse grained Sand; Si & Fe rich moder	0.6	31	119	12	<1	<2
4268354	68	529856	5473664	PED42068	Mottled Green/Red; Medium Brown	Medium Grained Sand; Si & Fe rich; moderate or	0.6	21	97	12	<1	<2
4268354	69	529852	5473612	PED42069	Mottled Green/Red; Medium Brown	Medium Grained Sand; Si & Fe rich; moderate or	0.6	14	117	15	<1	3
4268352	70	530398	5474302	PED42070	Mottled Green/Red; Medium Brown	Coarse sand; Fe-Rich; moderate organics	0.4	5	46	5	<1	<2

4268352	71	530428	5474349	PED42071	Mottled Green/Red; Medium Brown	Medium Grained Sand; Si & Fe rich; moderate org	0.4	7	87	5	<1	<2
4268352	72	530464	5474383	PED42072	Mottled Green/Red; Medium Brown	Medium Grained Sand; Si & Fe rich; moderate org	0.4	9	108	8	1	<2
4268352	73	530506	5474412	PED42073	Mottled Green/Red; Earthy Brown	Medium Grained Sand; Si & Fe rich; moderate org	0.4	10	117	10	<1	<2
4268352	74	530544	5474453	PED42074	Earthy Brown; reddish	Medium Grained Sand; Si & Fe rich; moderate org	0.3	7	45	4	<1	<2
4268352	75	530592	5474487	PED42075	Mottled Green/Red; Light-med grey	Medium Grained Sand; Si & Fe rich	0.3	16	72	8	<1	<2
4268352	76	530637	5474521	PED42076	Light-Med Grey; Earthy Brown	Medium Grained Sand; Si & Fe rich; moderate org	0.3	6	60	4	<1	<2
4268352	77	530680	5474564	PED42077	Light-Med Grey; Earthy Brown	Medium Grained Sand; Si & Fe rich	0.3	7	56	7	<1	<2
4268352	78	530726	5474624	PED42078	Mottled Green/Red; Medium Brown	Medium-Coarse sand; Fe-Rich; moderate organics	0.3	7	60	6	<1	<2
4268352	79	530766	5474667	PED42079	Mottled Green/Red; Medium Brown	Coarse sand; Fe-Rich; moderate organics	0.4	45	66	6	<1	<2
4268352	80	530809	5474693	PED42080	Mottled Green/Red; Medium Brown	Fine-Medium sand; Fe-Rich; moderate organics	0.4	19	60	8	<1	<2
4268352	81	530853	5474719	PED42081	Mottled Green/Red; Medium Brown	Medium-Coarse sand; Fe-Rich; moderate organics	0.4	9	60	6	<1	<2
4266829	82	530904	5474735	PED42082	Mottled Green/Red; Medium Brown	Coarse sand; Fe-Rich; moderate organics	0.4	30	90	10	<1	3
4266829	83	530956	5474746	PED42083	Mottled Green/Red; Medium Brown	Coarse sand; Fe-Rich; moderate organics	0.5	8	43	3	<1	<2
4266829	84	531013	5474746	PED42084	Mottled Green/Red; Medium Brown	Coarse sand; Fe-Rich; moderate organics	0.5	9	112	8	1	<2
4266829	85	531068	5474767	PED42085	Mottled Green/Red; Medium Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	9	96	9	<1	<2
4266829	86	531131	5474791	PED42086	Mottled Green/Red; Medium Brown	Coarse grained sand grading to Gravel; Fe-rich	0.5	9	122	12	1	<2
4266829	87	531189	5474778	PED42087	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.5	6	53	6	<1	<2
4266829	88	531244	5474768	PED42088	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.5	10	60	6	<1	<2
4266829	89	531296	5474784	PED42089	Light-Med Grey; Earthy Brown	Fine Grained Sand; Si & Fe rich; moderate organics	0.4	36	53	5	<1	<2
4268353	90	531348	5474790	PED42090	Light-Med Grey; mottled red/green	Medium grained sand; Si & Fe-rich; weak organics	0.4	8	55	6	<1	<2
4268353	91	531401	5474792	PED42091	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.4	9	86	8	<1	3
4268353	92	531445	5474780	PED42092	Light-Med grey; mottled red/green	Medium grained sand; Si & Fe rich	0.4	23	42	3	<1	<2
4268353	93	531486	5474766	PED42093	Mottled Green/Red; Earthy Brown	Coarse-grained sand; Fe-rich	0.6	8	92	8	<1	<2
4268353	94	531520	5474742	PED42094	Mottled Green/Red; Earthy Brown	Medium grained sand; Fe-rich; moderate organics	0.5	10	79	8	<1	<2
4268352	95	531554	5474715	PED42095	Earthy Brown; reddish	Coarse-grained sand; Fe-rich	0.5	8	82	7	<1	<2
4268352	96	531585	5474685	PED42096	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.5	10	57	4	<1	<2
4268352	97	531616	5474645	PED42097	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.5	16	70	7	<1	<2
4268352	98	531640	5474600	PED42098	Light-Med grey; mottled red/green	Medium grained sand; Si & Fe rich	0.3	9	45	4	<1	<2
4268352	99	531589	5474564	PED42099	Earthy Brown; reddish	Fine-medium grained sand; moderate organics	0.3	9	64	7	<1	<2
4268352	100	531527	5474544	PED42100	Earthy Brown; reddish	Fine-medium grained sand; moderate organics	0.3	8	57	6	<1	<2
4268352	101	531471	5474535	PED42101	Mottled Green/Red; Medium Brown	Coarse grained sand grading to Gravel; Fe-rich	0.3	9	119	11	<1	<2
4268352	102	531417	5474530	PED42102	Mottled Green/Red; Medium Brown	Coarse grained sand grading to Gravel; Fe-rich	0.3	14	123	10	<1	<2
4268352	103	531360	5474518	PED42103	Earthy Brown; reddish	Fine-Medium grained sand; Fe-rich; minor organics	0.3	10	69	9	<1	<2
4268352	104	531308	5474481	PED42104	Earthy Brown; reddish	Fine-Medium grained sand; Fe-rich; minor organics	0.3	11	67	7	<1	<2
4268352	105	531257	5474453	PED42105	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.4	23	93	11	<1	<2
4268352	106	531204	5474424	PED42106	Medium Brown; reddish	Fine-Medium grained sand; Fe-rich; minor organics	0.4	12	69	8	<1	<2
4268352	107	531163	5474365	PED42107	Earthy Brown; reddish	Medium grained sand; Fe-rich; moderate organics	0.4	8	46	5	<1	<2
4268352	108	531075	5474378	PED42108	Earthy Brown	Medium grained sand; Fe-rich; moderate organics	0.3	29	72	8	<1	<2
4268352	109	531040	5474339	PED42109	Light Grey-tan; reddish	Fine Grained Sand; Fe-rich	0.3	7	44	5	<1	<2
4268352	110	530996	5474306	PED42110	Mottled Green/Red; Medium Brown	Fine-Medium grained sand; Fe-rich	0.3	9	42	2	<1	<2
4268352	111	530952	5474274	PED42111	Medium Brown; reddish	Fine Grained Sand; Fe-rich	0.3	8	43	6	<1	<2
4268352	112	530899	5474253	PED42112	Light Grey-tan; reddish	Fine Grained Sand; Fe-rich	0.4	10	40	4	<1	<2
4268352	113	530851	5474223	PED42113	Medium Brown; reddish	Medium grained sand; Fe-rich	0.4	8	56	5	<1	<2
4268352	114	530800	5474210	PED42114	Mottled Green/Red; Dark Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	63	100	9	<1	<2
4268352	115	530741	5474206	PED42115	Mottled Green/Red; Dark Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	10	96	7	<1	<2
4268352	116	530681	5474202	PED42116	Mottled Green/Red; Dark Brown	Coarse grained sand grading to Gravel; Fe-rich	0.4	8	108	7	<1	<2
4268352	117	530636	5474240	PED42117	Mottled Green/Red; Dark Brown	Coarse grained sand	0.4	8	106	8	2	2
4268352	118	530657	5474285	PED42118	Mottled Green/Red; Dark Brown	Gravel/Coarse gravel	0.4	16	137	10	<1	<2
4268352	119	530687	5474329	PED42119	Mottled Green/Red; Dark Brown	Coarse grained sand	0.4	9	128	6	<1	3
4268352	120	530720	5474371	PED42120	Medium Brown; reddish	Fine Grained Sand; Fe-rich	0.5	6	47	3	<1	<2
4268352	121	530769	5474379	PED42121	Mottled Green/Red; Dark Brown	Medium-Coarse Grained Sand	0.5	14	121	6	2	<2
4268352	122	530808	5474387	PED42122	Mottled Green/Red; Dark Brown	Medium-Coarse Grained Sand	0.5	8	131	8	<1	3
4268352	123	530845	5474394	PED42123	Mottled Green/Red; Dark Brown	Medium-Coarse Grained Sand	0.5	8	74	6	<1	<2
4268352	124	530882	5474403	PED42124	Mottled Green/Red; Dark Brown	Coarse grained sand	0.5	12	95	8	<1	<2
4268352	125	530922	5474423	PED42125	Mottled Green/Red; Dark Brown	Coarse grained sand	0.5	17	122	15	<1	<2
4268352	126	530963	5474445	PED42126	Medium Brown; reddish	Medium grained sand	0.5	17	100	8	<1	<2
4268352	127	530999	5474441	PED42127	Medium Brown; reddish	Medium grained sand	0.4	11	97	11	<1	2
4268352	128	531035	5474429	PED42128	Mottled Green/Red; Dark Brown	Coarse grained sand	0.3	10	94	10	<1	<2
4266829	129	531250	5475962	PED42129	Light Brown; reddish	Fine-Medium grained sand; Fe-rich	0.3	61	105	9	<1	3
4266829	130	531209	5475933	PED42130	Light Brown; reddish	Fine-Medium grained sand; Fe-rich	0.3	7	64	4	<1	<2
4266829	131	531173	5475903	PED42131	Light Brown; reddish	Medium grained sand; minor organics	0.3	6	54	3	<1	<2
4266829	132	531130	5475877	PED42132	Medium Brown; reddish	Fine Grained Sand; Fe-rich	0.3	8	52	5	<1	<2
4266829	133	531078	5475868	PED42133	Medium Brown; reddish	Fine Grained Sand; Fe-rich	0.3	24	55	7	<1	<2
4266829	134	531021	5475866	PED42134	Mottled Green/Red; Dark Brown	Gravel/Coarse gravel	0.3	9	98	10	<1	<2
4266829	135	530966	5475871	PED42135	Dark Brown; reddish	Medium grained sand; minor organics	0.3	8	107	7	<1	<2
4266829	136	530915	5475872	PED42136	Dark Brown; reddish	Medium grained sand; minor organics	0.3	14	118	10	<1	<2
4266829	137	530858	5475866	PED42137	Mottled Green/Red; Dark Brown	Medium grained sand; Fe-rich	0.3	12	106	11	<1	<2
4266829	138	530826	5475827	PED42138	Mottled Green/Red; Dark Brown	Medium grained sand; Fe-rich	0.3	8	112	10	3	<2
4266829	139	530782	5475810	PED42139	Mottled Green/Red; Dark Brown	Medium grained sand; Fe-rich	0.3	43	89	10	<1	<2
4266829	140	530643	5475806	PED42140	Mottled Green/Red; Dark Brown	Coarse sand; small pebbles	0.3	110	101	11	<1	<2

Figure 6: Property "B" horizon soil samples location, Au (ppb) and other elements assay result



## 9.0 REFERENCES

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- Ryan, T.P. and Ratcliffe, J., 1984: Report – Magnetometer Survey on Claims Held in the Kawashegamuk Lake Area; an Assessment report on ground Magnetometer Survey for Labrador Exploration (Ontario) Limited.



## PROFESSIONAL CERTIFICATION

I, Mark Ross, a geologist with Rubicon Minerals Corporation, residing at 4 Waterfront Road, Red Lake, Ontario, hereby certify that:

1. I am a graduate of Laurentian University, 2002.
2. I have been employed in the geoscience industry since April 1999, and as Chief Geologist with Rubicon Minerals Corporation since 2013.
3. I personally prepared and reviewed sections of this work report.
4. I am a member in good standing of the APGO, member 1877.
5. I am not aware of any material fact or material change with respect to the subject matter of the assessment report which is not reflected in the assessment report, the omission to disclose which makes the assessment report misleading.

Dated this day of 30 November, 2017

Mark Ross, B.Sc. (Hons.)



Signature of Author



**Date Submitted:** 25-Sep-17  
**Invoice No.:** A17-10444  
**Invoice Date:** 19-Oct-17  
**Your Reference:**

**Rubicon Minerals**  
**Box 274**  
**Cochenour ON P0V 1L0**  
**Canada**

**ATTN: Denise Saunders**

## CERTIFICATE OF ANALYSIS

140 Soil samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)

REPORT      **A17-10444**

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

Notes:

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

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
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## Results

## Activation Laboratories Ltd.

## Report: A17-10444

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42001	< 5	< 0.2	< 0.5	82	548	< 1	40	7	68	1.87	8	< 10	42	< 0.5	< 2	0.43	20	31	3.24	< 10	< 1	0.10	14
PED42002	6	< 0.2	< 0.5	92	591	< 1	40	6	73	1.90	8	< 10	47	< 0.5	< 2	0.48	22	33	3.48	< 10	< 1	0.11	18
PED42003	7	< 0.2	< 0.5	105	629	< 1	46	4	80	2.22	8	< 10	51	< 0.5	< 2	0.48	24	35	3.76	< 10	2	0.11	18
PED42004	6	< 0.2	< 0.5	124	812	< 1	48	6	85	1.93	9	< 10	40	< 0.5	< 2	0.69	26	35	4.28	< 10	2	0.12	21
PED42005	10	< 0.2	< 0.5	127	761	< 1	44	6	83	1.90	9	< 10	38	< 0.5	< 2	0.64	26	33	4.15	< 10	< 1	0.13	20
PED42006	< 5	< 0.2	< 0.5	91	594	< 1	41	5	73	2.08	7	< 10	48	< 0.5	< 2	0.45	23	33	3.55	< 10	< 1	0.10	16
PED42007	5	< 0.2	< 0.5	84	551	< 1	47	6	72	2.23	10	< 10	54	< 0.5	< 2	0.43	23	36	3.54	< 10	< 1	0.10	14
PED42008	33	< 0.2	< 0.5	119	790	< 1	44	6	80	1.82	9	< 10	37	< 0.5	< 2	0.63	25	34	4.06	< 10	< 1	0.11	21
PED42009	< 5	< 0.2	< 0.5	94	599	< 1	42	6	72	1.97	9	< 10	45	< 0.5	< 2	0.48	22	34	3.50	< 10	< 1	0.11	16
PED42010	< 5	< 0.2	< 0.5	101	679	< 1	41	8	69	1.73	8	< 10	32	< 0.5	< 2	0.49	22	31	3.78	< 10	< 1	0.10	16
PED42011	8	< 0.2	< 0.5	108	696	< 1	42	4	71	1.67	9	< 10	29	< 0.5	< 2	0.49	23	30	3.86	< 10	< 1	0.10	15
PED42012	< 5	< 0.2	< 0.5	102	768	< 1	39	5	70	1.58	9	< 10	32	< 0.5	< 2	0.72	23	30	3.64	< 10	< 1	0.10	18
PED42013	10	< 0.2	< 0.5	105	730	< 1	41	5	72	1.69	8	< 10	31	< 0.5	< 2	0.52	23	32	3.90	< 10	< 1	0.10	18
PED42014	12	< 0.2	< 0.5	95	699	< 1	40	4	68	1.58	7	< 10	31	< 0.5	< 2	0.49	22	30	3.69	< 10	< 1	0.10	17
PED42015	7	< 0.2	< 0.5	96	765	< 1	40	10	67	1.52	9	< 10	29	< 0.5	< 2	0.52	23	30	3.72	< 10	< 1	0.10	25
PED42016	< 5	< 0.2	< 0.5	86	586	< 1	37	4	62	1.58	6	< 10	30	< 0.5	< 2	0.44	20	30	3.49	< 10	< 1	0.08	15
PED42017	44	< 0.2	< 0.5	92	685	< 1	37	4	72	1.56	8	< 10	29	< 0.5	< 2	0.49	22	30	3.63	< 10	< 1	0.09	17
PED42018	< 5	< 0.2	< 0.5	111	696	< 1	40	4	75	1.74	8	< 10	30	< 0.5	< 2	0.47	23	31	3.85	< 10	< 1	0.11	15
PED42019	< 5	< 0.2	< 0.5	99	654	< 1	39	3	68	1.61	5	< 10	30	< 0.5	< 2	0.47	21	30	3.70	< 10	< 1	0.09	15
PED42020	9	< 0.2	< 0.5	105	766	< 1	41	5	73	1.63	8	< 10	32	< 0.5	< 2	0.64	23	31	3.72	< 10	< 1	0.10	20
PED42021	< 5	< 0.2	< 0.5	107	728	< 1	40	5	73	1.61	9	< 10	31	< 0.5	< 2	0.62	22	31	3.72	< 10	< 1	0.11	20
PED42022	< 5	< 0.2	< 0.5	125	815	< 1	45	5	82	1.84	9	< 10	38	< 0.5	< 2	0.66	26	34	4.19	< 10	< 1	0.12	23
PED42023	10	< 0.2	< 0.5	147	906	< 1	53	7	92	1.81	15	< 10	41	< 0.5	< 2	1.18	33	36	4.73	< 10	< 1	0.16	17
PED42024	29	0.3	< 0.5	222	891	< 1	64	14	103	1.80	26	< 10	59	< 0.5	< 2	2.30	44	41	5.51	< 10	< 1	0.19	16
PED42025	14	0.3	< 0.5	241	801	< 1	75	12	105	1.76	24	< 10	49	< 0.5	< 2	2.15	45	67	5.31	< 10	< 1	0.22	17
PED42026	8	0.2	< 0.5	220	977	< 1	63	10	104	1.81	25	< 10	45	< 0.5	< 2	1.83	43	38	5.48	< 10	< 1	0.16	16
PED42027	< 5	< 0.2	< 0.5	53	578	< 1	26	4	47	1.04	6	< 10	20	< 0.5	< 2	0.95	17	25	2.86	< 10	< 1	0.05	< 10
PED42028	< 5	< 0.2	< 0.5	60	572	< 1	33	4	51	1.12	10	< 10	23	< 0.5	< 2	1.43	19	25	3.02	< 10	< 1	0.05	11
PED42029	6	< 0.2	< 0.5	105	761	< 1	40	5	80	1.65	11	< 10	38	< 0.5	< 2	0.94	26	32	3.87	< 10	< 1	0.11	15
PED42030	< 5	< 0.2	< 0.5	65	653	< 1	32	5	55	1.21	7	< 10	25	< 0.5	< 2	1.04	20	26	3.12	< 10	< 1	0.07	17
PED42031	6	< 0.2	< 0.5	106	807	< 1	44	5	85	1.89	9	< 10	57	< 0.5	< 2	0.80	27	34	4.12	< 10	< 1	0.19	16
PED42032	7	< 0.2	< 0.5	119	800	< 1	47	5	84	1.78	13	< 10	38	< 0.5	< 2	0.85	28	34	4.03	< 10	< 1	0.12	19
PED42033	6	0.3	< 0.5	222	1050	< 1	64	10	114	2.00	22	< 10	47	< 0.5	< 2	1.91	42	41	5.79	< 10	< 1	0.19	20
PED42034	11	< 0.2	< 0.5	155	793	< 1	48	11	86	1.76	16	< 10	40	< 0.5	< 2	1.35	32	34	4.55	< 10	< 1	0.16	17
PED42035	11	< 0.2	< 0.5	122	816	< 1	46	8	89	1.89	11	< 10	43	< 0.5	< 2	0.90	28	35	4.10	< 10	< 1	0.14	19
PED42036	6	< 0.2	< 0.5	132	812	< 1	49	14	85	1.99	14	< 10	45	< 0.5	< 2	0.97	29	35	4.16	< 10	< 1	0.15	16
PED42037	11	< 0.2	< 0.5	134	946	< 1	52	12	94	1.98	12	< 10	46	< 0.5	< 2	1.11	32	38	4.60	< 10	< 1	0.15	19
PED42038	12	< 0.2	< 0.5	134	823	< 1	50	5	89	1.93	13	< 10	44	< 0.5	< 2	1.04	29	38	4.40	< 10	< 1	0.15	18
PED42039	6	< 0.2	< 0.5	128	829	< 1	46	7	85	1.89	11	< 10	42	< 0.5	< 2	0.79	27	35	4.30	< 10	2	0.15	18
PED42040	15	< 0.2	< 0.5	194	946	< 1	59	9	99	1.92	19	< 10	46	< 0.5	< 2	1.54	38	37	5.20	< 10	< 1	0.18	18
PED42041	8	< 0.2	< 0.5	144	895	< 1	54	8	98	2.10	12	< 10	47	< 0.5	< 2	0.87	31	37	4.61	< 10	< 1	0.15	18
PED42042	22	0.3	< 0.5	203	1020	< 1	59	8	102	1.91	20	< 10	41	< 0.5	< 2	1.63	40	37	5.68	< 10	< 1	0.15	17

## Results

## Activation Laboratories Ltd.

## Report: A17-10444

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42043	22	< 0.2	< 0.5	232	1130	< 1	69	10	112	2.02	22	< 10	46	< 0.5	< 2	1.91	44	40	6.10	< 10	2	0.16	19
PED42044	7	< 0.2	< 0.5	161	904	< 1	54	7	101	2.01	14	< 10	43	< 0.5	< 2	0.94	32	36	4.81	< 10	< 1	0.15	19
PED42045	50	< 0.2	< 0.5	236	1020	< 1	68	12	109	1.94	25	< 10	43	< 0.5	< 2	1.89	45	41	5.85	< 10	< 1	0.17	17
PED42046	10	< 0.2	< 0.5	169	899	< 1	55	6	90	1.77	13	< 10	40	< 0.5	< 2	1.29	33	34	4.66	< 10	< 1	0.15	19
PED42047	19	0.3	< 0.5	223	887	< 1	60	8	102	1.80	24	< 10	42	< 0.5	< 2	1.60	42	38	5.26	< 10	< 1	0.17	18
PED42048	< 5	< 0.2	< 0.5	63	640	< 1	31	5	58	1.34	7	< 10	27	< 0.5	< 2	0.87	19	27	3.11	< 10	< 1	0.07	11
PED42049	8	< 0.2	< 0.5	203	1100	< 1	64	7	104	1.93	18	< 10	44	< 0.5	< 2	1.25	40	39	5.27	< 10	< 1	0.18	20
PED42050	11	0.2	< 0.5	152	905	< 1	52	9	90	1.88	15	< 10	44	< 0.5	< 2	0.90	31	36	4.47	< 10	< 1	0.17	19
PED42051	13	3.0	< 0.5	95	826	< 1	40	8	60	1.38	14	< 10	30	< 0.5	< 2	0.72	25	32	4.23	< 10	< 1	0.07	23
PED42052	16	0.2	< 0.5	96	853	< 1	38	7	62	1.40	11	< 10	29	< 0.5	< 2	0.95	23	32	4.02	< 10	< 1	0.09	27
PED42053	10	< 0.2	< 0.5	170	1190	< 1	57	9	118	2.17	11	< 10	52	< 0.5	< 2	0.82	35	41	4.93	< 10	< 1	0.25	58
PED42054	8	< 0.2	< 0.5	163	1220	< 1	55	20	119	2.23	11	< 10	59	< 0.5	< 2	0.74	33	41	4.79	< 10	< 1	0.26	58
PED42055	17	< 0.2	< 0.5	139	1060	< 1	49	16	111	1.98	9	< 10	51	< 0.5	< 2	0.78	29	40	4.27	< 10	< 1	0.24	53
PED42056	9	< 0.2	< 0.5	140	1010	< 1	47	9	110	2.03	9	< 10	50	< 0.5	< 2	0.75	28	38	4.28	< 10	< 1	0.25	57
PED42057	5	< 0.2	< 0.5	66	557	< 1	42	6	58	1.64	8	< 10	30	< 0.5	< 2	0.40	18	38	3.27	< 10	< 1	0.06	14
PED42058	6	< 0.2	< 0.5	64	539	< 1	41	5	57	1.60	9	< 10	29	< 0.5	< 2	0.39	18	37	3.19	< 10	< 1	0.06	17
PED42059	10	< 0.2	< 0.5	54	487	< 1	36	4	50	1.56	6	< 10	27	< 0.5	< 2	0.39	16	35	2.93	< 10	< 1	0.05	14
PED42060	< 5	< 0.2	< 0.5	43	538	< 1	24	2	37	0.97	< 2	< 10	17	< 0.5	< 2	2.58	15	20	2.71	< 10	< 1	0.04	< 10
PED42061	6	< 0.2	< 0.5	80	850	< 1	39	8	64	1.52	9	< 10	31	< 0.5	< 2	0.64	22	32	3.75	< 10	< 1	0.10	21
PED42062	11	< 0.2	< 0.5	94	870	< 1	43	8	71	1.75	7	< 10	37	< 0.5	< 2	0.68	25	36	3.94	< 10	< 1	0.13	20
PED42063	6	< 0.2	< 0.5	48	548	< 1	26	3	39	1.01	5	< 10	20	< 0.5	< 2	2.61	16	23	2.89	< 10	< 1	0.03	< 10
PED42064	< 5	< 0.2	< 0.5	46	531	< 1	24	< 2	37	0.96	3	< 10	17	< 0.5	< 2	3.38	15	20	2.70	< 10	< 1	0.03	< 10
PED42065	7	< 0.2	< 0.5	43	549	< 1	25	< 2	38	0.98	6	< 10	16	< 0.5	< 2	2.35	14	21	2.77	< 10	< 1	0.03	10
PED42066	9	< 0.2	< 0.5	66	560	< 1	44	5	58	1.63	7	< 10	30	< 0.5	< 2	0.41	19	38	3.27	< 10	< 1	0.06	15
PED42067	31	0.3	< 0.5	119	924	< 1	44	8	71	1.62	12	< 10	35	< 0.5	< 2	1.33	26	34	4.51	< 10	< 1	0.13	27
PED42068	21	0.2	< 0.5	97	777	< 1	41	7	69	1.46	12	< 10	28	< 0.5	< 2	0.90	24	36	4.22	< 10	< 1	0.08	23
PED42069	14	0.3	< 0.5	117	972	< 1	47	8	77	1.77	15	< 10	39	< 0.5	< 2	1.06	28	35	4.69	< 10	< 1	0.12	25
PED42070	5	< 0.2	< 0.5	46	425	< 1	34	4	46	1.50	5	< 10	30	< 0.5	< 2	0.38	14	32	2.69	< 10	< 1	0.05	12
PED42071	7	< 0.2	< 0.5	87	1100	< 1	44	4	71	1.83	5	< 10	32	< 0.5	< 2	0.75	27	31	4.96	< 10	< 1	0.10	20
PED42072	9	< 0.2	< 0.5	108	980	< 1	43	6	76	1.64	8	< 10	39	< 0.5	< 2	0.65	25	34	3.97	< 10	1	0.16	34
PED42073	10	< 0.2	< 0.5	117	1050	< 1	44	9	81	1.65	10	< 10	38	< 0.5	< 2	0.64	26	33	4.13	< 10	< 1	0.16	37
PED42074	7	< 0.2	< 0.5	45	463	< 1	30	3	56	1.78	4	< 10	44	< 0.5	< 2	0.70	15	29	2.77	< 10	< 1	0.08	< 10
PED42075	16	< 0.2	< 0.5	72	669	< 1	37	6	66	1.72	8	< 10	40	< 0.5	< 2	1.08	19	32	3.39	< 10	< 1	0.11	16
PED42076	6	< 0.2	< 0.5	60	650	< 1	31	5	57	1.33	4	< 10	28	< 0.5	< 2	0.55	17	28	3.11	< 10	< 1	0.07	13
PED42077	7	< 0.2	< 0.5	56	636	< 1	30	6	51	1.26	6	< 10	24	< 0.5	< 2	0.56	17	27	3.08	< 10	< 1	0.06	15
PED42078	7	< 0.2	< 0.5	60	684	< 1	32	4	50	1.28	6	< 10	25	< 0.5	< 2	0.63	18	29	3.34	< 10	< 1	0.06	15
PED42079	45	< 0.2	< 0.5	66	688	< 1	32	8	53	1.32	6	< 10	26	< 0.5	< 2	0.68	19	28	3.30	< 10	< 1	0.08	19
PED42080	19	< 0.2	< 0.5	60	606	< 1	30	6	51	1.31	8	< 10	27	< 0.5	< 2	0.55	17	28	3.05	< 10	< 1	0.06	12
PED42081	9	< 0.2	< 0.5	60	664	< 1	33	4	54	1.35	6	< 10	28	< 0.5	< 2	0.54	17	28	3.11	< 10	< 1	0.07	12
PED42082	30	0.2	< 0.5	90	771	< 1	34	6	63	1.56	10	< 10	36	< 0.5	< 2	1.03	21	31	3.64	< 10	< 1	0.11	24
PED42083	8	< 0.2	< 0.5	43	447	< 1	32	4	54	1.73	3	< 10	46	< 0.5	< 2	0.35	16	30	2.74	< 10	< 1	0.05	11
PED42084	9	< 0.2	< 0.5	112	1020	< 1	41	9	80	1.62	8	< 10	42	< 0.5	< 2	0.64	25	33	3.83	< 10	1	0.16	36

## Results

## Activation Laboratories Ltd.

## Report: A17-10444

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42085	9	< 0.2	< 0.5	96	740	< 1	38	6	68	1.58	9	< 10	37	< 0.5	< 2	0.57	22	31	3.47	< 10	< 1	0.15	18
PED42086	9	< 0.2	< 0.5	122	862	< 1	43	7	76	1.67	12	< 10	38	< 0.5	< 2	0.64	26	33	3.85	< 10	< 1	0.14	21
PED42087	6	< 0.2	< 0.5	53	587	< 1	28	4	44	1.20	6	< 10	24	< 0.5	< 2	0.58	16	27	2.91	< 10	< 1	0.04	14
PED42088	10	< 0.2	< 0.5	60	642	< 1	29	4	49	1.23	6	< 10	26	< 0.5	< 2	0.60	18	27	3.08	< 10	< 1	0.05	14
PED42089	36	< 0.2	< 0.5	53	588	< 1	26	2	45	1.08	5	< 10	20	< 0.5	< 2	2.15	16	24	2.97	< 10	< 1	0.04	12
PED42090	8	< 0.2	< 0.5	55	568	< 1	27	7	45	1.06	6	< 10	21	< 0.5	< 2	1.93	17	24	2.85	< 10	< 1	0.04	10
PED42091	9	< 0.2	< 0.5	87	626	< 1	33	5	60	1.45	7	< 10	30	< 0.5	< 2	0.51	20	29	3.12	< 10	< 1	0.11	15
PED42092	15	< 0.2	< 0.5	42	524	< 1	25	5	37	0.95	3	< 10	17	< 0.5	< 2	2.69	14	21	2.58	< 10	< 1	0.03	< 10
PED42093	8	< 0.2	< 0.5	92	989	< 1	45	5	74	1.54	8	< 10	32	< 0.5	< 2	0.70	25	37	4.21	< 10	< 1	0.10	17
PED42094	10	< 0.2	< 0.5	79	884	< 1	39	7	66	1.44	8	< 10	31	< 0.5	< 2	0.63	22	31	3.77	< 10	< 1	0.09	15
PED42095	8	< 0.2	< 0.5	82	922	< 1	41	5	67	1.51	7	< 10	31	< 0.5	< 2	0.62	22	34	3.87	< 10	< 1	0.09	16
PED42096	10	< 0.2	< 0.5	57	625	< 1	30	4	50	1.36	4	< 10	50	< 0.5	< 2	0.52	17	30	3.10	< 10	< 1	0.07	15
PED42097	16	< 0.2	< 0.5	70	730	< 1	36	5	59	1.54	7	< 10	31	< 0.5	< 2	0.61	20	33	3.47	< 10	< 1	0.10	17
PED42098	9	< 0.2	< 0.5	45	526	< 1	25	4	39	0.96	4	< 10	17	< 0.5	< 2	2.62	15	21	2.67	< 10	< 1	0.04	10
PED42099	9	< 0.2	< 0.5	64	676	< 1	32	5	53	1.28	7	< 10	25	< 0.5	< 2	0.61	18	28	3.23	< 10	< 1	0.06	15
PED42100	8	< 0.2	< 0.5	57	634	< 1	30	4	48	1.23	6	< 10	26	< 0.5	< 2	0.58	17	28	3.10	< 10	< 1	0.05	15
PED42101	< 5	< 0.2	< 0.5	119	798	< 1	44	9	79	1.67	11	< 10	33	< 0.5	< 2	0.61	26	33	3.98	< 10	< 1	0.15	21
PED42102	14	< 0.2	< 0.5	123	842	< 1	44	8	79	1.70	10	< 10	37	< 0.5	< 2	0.66	26	35	3.87	< 10	< 1	0.14	24
PED42103	10	< 0.2	< 0.5	69	588	< 1	44	14	61	1.56	9	< 10	28	< 0.5	< 2	0.43	19	39	3.35	< 10	< 1	0.07	16
PED42104	11	< 0.2	< 0.5	66	576	< 1	44	11	61	1.59	7	< 10	30	< 0.5	< 2	0.42	19	40	3.31	< 10	< 1	0.07	17
PED42105	23	< 0.2	< 0.5	93	781	< 1	64	6	79	1.92	11	< 10	36	< 0.5	< 2	0.45	26	54	4.33	< 10	< 1	0.10	18
PED42106	12	< 0.2	< 0.5	69	617	< 1	48	5	62	1.60	8	< 10	28	< 0.5	< 2	0.41	20	42	3.34	< 10	< 1	0.07	16
PED42107	8	< 0.2	< 0.5	46	459	< 1	33	5	46	1.46	5	< 10	28	< 0.5	< 2	0.37	15	32	2.66	< 10	< 1	0.05	11
PED42108	29	< 0.2	< 0.5	72	635	< 1	51	5	65	1.64	8	< 10	29	< 0.5	< 2	0.44	21	43	3.56	< 10	< 1	0.08	18
PED42109	7	< 0.2	< 0.5	44	528	< 1	25	5	38	0.97	5	< 10	17	< 0.5	< 2	2.93	14	21	2.71	< 10	< 1	0.03	10
PED42110	9	< 0.2	< 0.5	42	525	< 1	24	3	39	0.95	2	< 10	16	< 0.5	< 2	2.53	14	21	2.70	< 10	< 1	0.03	< 10
PED42111	8	< 0.2	< 0.5	43	545	< 1	23	< 2	41	0.96	6	< 10	17	< 0.5	< 2	2.54	15	22	2.74	< 10	< 1	0.03	13
PED42112	10	< 0.2	< 0.5	40	534	< 1	23	< 2	35	0.97	4	< 10	17	< 0.5	< 2	2.33	13	20	2.59	< 10	< 1	0.03	10
PED42113	8	< 0.2	< 0.5	56	615	< 1	31	5	48	1.25	5	< 10	25	< 0.5	< 2	0.59	17	28	2.96	< 10	< 1	0.05	12
PED42114	63	< 0.2	< 0.5	100	805	< 1	37	7	65	1.52	9	< 10	40	< 0.5	< 2	0.61	23	32	3.59	< 10	< 1	0.11	31
PED42115	9	< 0.2	< 0.5	96	981	< 1	37	7	65	1.41	7	< 10	33	< 0.5	< 2	0.63	24	29	3.68	< 10	< 1	0.13	29
PED42116	8	< 0.2	< 0.5	108	916	< 1	40	7	80	1.65	7	< 10	48	< 0.5	< 2	0.70	26	33	3.79	< 10	< 1	0.16	38
PED42117	8	< 0.2	< 0.5	106	978	< 1	38	7	71	1.52	8	< 10	35	< 0.5	< 2	0.65	23	31	3.90	< 10	2	0.13	36
PED42118	16	< 0.2	< 0.5	144	1130	< 1	47	9	102	1.89	9	< 10	47	< 0.5	< 2	0.78	31	34	4.46	< 10	< 1	0.21	51
PED42119	9	< 0.2	< 0.5	128	1110	< 1	47	8	91	1.76	6	< 10	43	< 0.5	< 2	0.74	27	33	4.32	< 10	< 1	0.18	44
PED42120	6	< 0.2	< 0.5	47	445	< 1	31	4	44	1.47	3	< 10	27	< 0.5	< 2	0.38	15	30	2.61	< 10	< 1	0.04	12
PED42121	14	< 0.2	< 0.5	121	1070	< 1	43	7	78	1.70	6	< 10	37	< 0.5	< 2	0.66	26	34	4.30	< 10	2	0.15	36
PED42122	8	< 0.2	< 0.5	131	1050	< 1	46	7	87	1.78	8	< 10	41	< 0.5	< 2	0.70	27	34	4.45	< 10	< 1	0.17	41
PED42123	8	< 0.2	< 0.5	74	696	< 1	37	5	63	1.70	6	< 10	39	< 0.5	< 2	0.85	20	32	3.48	< 10	< 1	0.10	20
PED42124	12	0.3	< 0.5	95	813	< 1	40	6	69	1.75	8	< 10	38	< 0.5	< 2	0.93	23	33	3.91	< 10	< 1	0.11	24
PED42125	16	0.3	< 0.5	122	965	< 1	44	9	72	1.62	15	< 10	36	< 0.5	< 2	0.99	28	35	4.64	< 10	< 1	0.11	28
PED42126	17	< 0.2	< 0.5	100	733	< 1	37	7	69	1.64	8	< 10	35	< 0.5	< 2	0.56	23	32	3.68	< 10	< 1	0.15	20

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42127	11	< 0.2	< 0.5	97	1080	< 1	46	4	78	1.62	11	< 10	34	< 0.5	< 2	0.68	25	37	4.54	< 10	< 1	0.09	19
PED42128	10	< 0.2	< 0.5	94	1020	< 1	45	5	78	1.61	10	< 10	34	< 0.5	< 2	0.70	25	37	4.28	< 10	< 1	0.11	19
PED42129	61	< 0.2	< 0.5	105	1040	< 1	50	7	80	1.68	9	< 10	35	< 0.5	< 2	0.69	27	37	4.68	< 10	< 1	0.11	17
PED42130	7	< 0.2	< 0.5	64	632	< 1	31	5	50	1.41	4	< 10	27	< 0.5	< 2	0.65	16	30	3.15	< 10	< 1	0.06	14
PED42131	6	< 0.2	< 0.5	54	600	< 1	31	3	44	1.19	3	< 10	23	< 0.5	< 2	0.56	15	27	3.00	< 10	< 1	0.05	13
PED42132	8	< 0.2	< 0.5	52	567	< 1	29	5	43	1.23	5	< 10	24	< 0.5	< 2	0.56	15	27	2.90	< 10	< 1	0.05	13
PED42133	24	< 0.2	< 0.5	55	568	< 1	28	4	45	1.17	7	< 10	23	< 0.5	< 2	0.55	16	26	2.92	< 10	< 1	0.05	15
PED42134	9	< 0.2	< 0.5	98	754	< 1	39	8	68	1.63	10	< 10	37	< 0.5	< 2	0.57	22	33	3.51	< 10	< 1	0.14	18
PED42135	8	< 0.2	< 0.5	107	794	< 1	39	4	72	1.55	7	< 10	34	< 0.5	< 2	0.60	23	31	3.51	< 10	< 1	0.13	20
PED42136	14	< 0.2	< 0.5	118	818	< 1	42	10	74	1.65	10	< 10	36	< 0.5	< 2	0.67	25	32	3.81	< 10	< 1	0.14	21
PED42137	12	0.3	< 0.5	108	907	< 1	43	8	72	1.65	10	< 10	36	< 0.5	< 2	0.92	25	34	4.27	< 10	< 1	0.12	26
PED42138	8	< 0.2	< 0.5	112	1100	< 1	50	5	91	1.73	10	< 10	35	< 0.5	< 2	0.72	29	38	4.70	< 10	3	0.13	18
PED42139	43	< 0.2	< 0.5	89	947	< 1	42	5	69	1.57	10	< 10	31	< 0.5	< 2	0.64	23	34	4.06	< 10	< 1	0.09	17
PED42140	110	< 0.2	< 0.5	101	1050	< 1	49	6	76	1.70	11	< 10	34	< 0.5	< 2	0.64	26	37	4.48	< 10	< 1	0.10	18

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42001	0.70	0.025	0.048	< 0.01	< 2	6	21	0.14	< 20	< 1	< 2	< 10	55	< 10	5	4
PED42002	0.75	0.027	0.050	< 0.01	< 2	6	22	0.15	< 20	2	< 2	< 10	57	< 10	6	5
PED42003	0.76	0.027	0.055	< 0.01	< 2	7	23	0.15	< 20	2	< 2	< 10	62	< 10	6	6
PED42004	0.88	0.026	0.057	0.01	< 2	8	26	0.16	< 20	8	< 2	< 10	63	< 10	8	6
PED42005	0.89	0.027	0.056	< 0.01	< 2	8	25	0.16	< 20	< 1	< 2	< 10	62	< 10	7	6
PED42006	0.73	0.026	0.052	< 0.01	< 2	6	22	0.14	< 20	< 1	< 2	< 10	58	< 10	6	6
PED42007	0.71	0.027	0.051	< 0.01	2	6	22	0.14	< 20	< 1	< 2	< 10	60	< 10	5	6
PED42008	0.86	0.024	0.054	0.01	< 2	8	24	0.15	< 20	2	< 2	< 10	61	< 10	8	6
PED42009	0.74	0.025	0.052	< 0.01	< 2	7	22	0.15	< 20	< 1	< 2	< 10	58	< 10	6	6
PED42010	0.78	0.023	0.051	< 0.01	< 2	7	21	0.15	< 20	1	< 2	< 10	58	< 10	6	5
PED42011	0.82	0.023	0.054	0.01	2	7	21	0.16	< 20	3	< 2	< 10	58	< 10	6	6
PED42012	0.77	0.024	0.051	0.01	< 2	7	23	0.15	< 20	< 1	< 2	< 10	56	< 10	8	6
PED42013	0.80	0.025	0.052	< 0.01	< 2	7	22	0.15	< 20	< 1	< 2	< 10	60	< 10	7	5
PED42014	0.76	0.024	0.047	< 0.01	3	7	21	0.15	< 20	< 1	< 2	< 10	58	< 10	7	5
PED42015	0.78	0.023	0.049	0.01	2	8	22	0.15	< 20	1	< 2	< 10	59	< 10	8	6
PED42016	0.69	0.021	0.047	< 0.01	< 2	6	19	0.13	< 20	2	< 2	< 10	55	< 10	6	5
PED42017	0.74	0.023	0.049	0.01	4	7	21	0.14	< 20	< 1	< 2	< 10	57	< 10	7	5
PED42018	0.84	0.024	0.052	0.01	< 2	6	20	0.15	< 20	< 1	< 2	< 10	59	< 10	6	6
PED42019	0.77	0.023	0.050	< 0.01	< 2	7	20	0.14	< 20	< 1	< 2	< 10	57	< 10	6	5
PED42020	0.80	0.023	0.050	< 0.01	< 2	8	23	0.14	< 20	< 1	< 2	< 10	57	< 10	8	6
PED42021	0.79	0.023	0.049	< 0.01	2	7	23	0.14	< 20	< 1	< 2	< 10	57	< 10	7	6
PED42022	0.89	0.027	0.056	0.01	3	8	25	0.15	< 20	< 1	< 2	< 10	61	< 10	8	6
PED42023	1.06	0.027	0.054	0.04	2	8	30	0.16	< 20	< 1	< 2	< 10	65	< 10	7	7
PED42024	1.24	0.039	0.057	0.09	3	8	39	0.16	< 20	< 1	< 2	< 10	67	< 10	7	12
PED42025	1.32	0.032	0.066	0.10	2	7	38	0.18	< 20	< 1	< 2	< 10	70	< 10	7	12
PED42026	1.17	0.028	0.053	0.06	3	8	35	0.15	< 20	3	< 2	< 10	68	< 10	7	10
PED42027	0.62	0.023	0.040	0.01	< 2	5	20	0.12	< 20	5	< 2	< 10	48	< 10	5	6
PED42028	0.62	0.025	0.040	0.02	< 2	6	24	0.11	< 20	< 1	< 2	< 10	48	< 10	6	7
PED42029	0.80	0.028	0.046	0.02	< 2	7	25	0.15	< 20	< 1	< 2	< 10	58	< 10	6	6
PED42030	0.68	0.026	0.044	0.01	< 2	6	22	0.13	< 20	< 1	< 2	< 10	52	< 10	6	6
PED42031	0.90	0.030	0.047	0.01	3	7	24	0.16	< 20	< 1	< 2	< 10	63	< 10	7	6
PED42032	0.89	0.025	0.052	0.02	< 2	7	25	0.15	< 20	< 1	< 2	< 10	60	< 10	7	6
PED42033	1.25	0.028	0.056	0.06	3	9	37	0.17	< 20	2	< 2	< 10	72	< 10	8	9
PED42034	0.92	0.026	0.048	0.06	2	7	29	0.16	< 20	< 1	< 2	< 10	61	< 10	7	8
PED42035	0.88	0.027	0.050	0.02	< 2	7	26	0.15	< 20	< 1	< 2	< 10	61	< 10	6	5
PED42036	0.90	0.027	0.049	0.02	3	7	27	0.15	< 20	< 1	< 2	< 10	62	< 10	6	6
PED42037	1.00	0.029	0.056	0.02	2	8	29	0.17	< 20	< 1	< 2	< 10	65	< 10	8	7
PED42038	1.01	0.029	0.057	0.02	2	8	31	0.17	< 20	9	< 2	< 10	64	< 10	8	7
PED42039	0.95	0.028	0.056	0.01	< 2	8	28	0.16	< 20	< 1	< 2	< 10	64	< 10	7	6
PED42040	1.12	0.030	0.061	0.06	< 2	8	34	0.16	< 20	< 1	< 2	< 10	66	< 10	7	9
PED42041	1.02	0.027	0.054	0.01	< 2	8	29	0.17	< 20	< 1	< 2	< 10	67	< 10	7	6
PED42042	1.17	0.027	0.059	0.06	3	9	36	0.16	< 20	8	< 2	< 10	70	< 10	7	9

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42043	1.27	0.030	0.059	0.05	2	10	35	0.16	< 20	1	< 2	< 10	73	< 10	8	10
PED42044	1.06	0.027	0.057	0.02	2	8	29	0.17	< 20	2	< 2	< 10	68	< 10	7	7
PED42045	1.25	0.029	0.061	0.06	3	9	36	0.16	< 20	< 1	< 2	< 10	72	< 10	8	10
PED42046	1.00	0.028	0.060	0.03	3	8	34	0.16	< 20	< 1	3	< 10	64	< 10	8	8
PED42047	1.12	0.030	0.053	0.07	3	8	35	0.16	< 20	2	< 2	< 10	67	< 10	7	10
PED42048	0.69	0.025	0.040	0.01	< 2	6	21	0.13	< 20	< 1	< 2	< 10	51	< 10	5	5
PED42049	1.15	0.026	0.065	0.04	< 2	9	31	0.17	< 20	2	< 2	< 10	70	< 10	9	8
PED42050	1.02	0.026	0.061	0.02	< 2	8	27	0.16	< 20	6	< 2	< 10	65	< 10	8	7
PED42051	0.65	0.025	0.065	0.02	< 2	9	26	0.15	< 20	< 1	< 2	< 10	60	< 10	12	8
PED42052	0.68	0.026	0.063	0.02	< 2	8	27	0.16	< 20	2	< 2	< 10	58	< 10	13	8
PED42053	1.26	0.031	0.090	0.02	3	13	34	0.23	< 20	< 1	< 2	< 10	67	< 10	20	10
PED42054	1.20	0.029	0.079	< 0.01	< 2	13	32	0.22	< 20	2	< 2	< 10	68	< 10	19	9
PED42055	1.12	0.029	0.083	0.01	< 2	11	32	0.22	< 20	2	< 2	< 10	64	< 10	18	9
PED42056	1.14	0.030	0.082	0.02	< 2	11	31	0.21	< 20	4	< 2	< 10	63	< 10	18	8
PED42057	0.71	0.023	0.033	< 0.01	2	7	22	0.15	< 20	< 1	< 2	< 10	55	< 10	6	7
PED42058	0.70	0.024	0.031	< 0.01	2	7	22	0.15	< 20	2	< 2	< 10	55	< 10	6	7
PED42059	0.63	0.024	0.028	< 0.01	< 2	7	22	0.14	< 20	4	< 2	< 10	52	< 10	6	6
PED42060	0.58	0.022	0.036	< 0.01	< 2	5	29	0.11	< 20	< 1	< 2	< 10	45	< 10	5	7
PED42061	0.79	0.026	0.057	< 0.01	< 2	9	24	0.14	< 20	< 1	< 2	< 10	58	< 10	10	6
PED42062	0.88	0.028	0.054	0.01	< 2	10	25	0.15	< 20	< 1	3	< 10	60	< 10	10	6
PED42063	0.61	0.024	0.035	0.01	< 2	5	29	0.11	< 20	3	< 2	< 10	47	< 10	5	8
PED42064	0.58	0.024	0.035	0.01	< 2	5	33	0.11	< 20	< 1	< 2	< 10	44	< 10	5	6
PED42065	0.59	0.022	0.036	< 0.01	< 2	5	28	0.11	< 20	3	< 2	< 10	46	< 10	5	8
PED42066	0.70	0.024	0.031	< 0.01	< 2	7	23	0.15	< 20	2	< 2	< 10	55	< 10	6	7
PED42067	0.78	0.028	0.062	0.01	< 2	9	27	0.17	< 20	< 1	< 2	< 10	63	< 10	15	8
PED42068	0.70	0.025	0.060	0.01	< 2	9	27	0.17	< 20	1	< 2	< 10	63	< 10	12	8
PED42069	0.82	0.030	0.061	0.02	3	10	28	0.17	< 20	< 1	< 2	< 10	64	< 10	14	8
PED42070	0.58	0.027	0.024	< 0.01	< 2	6	22	0.14	< 20	< 1	< 2	< 10	49	< 10	5	6
PED42071	1.16	0.050	0.044	< 0.01	< 2	10	27	0.17	< 20	< 1	< 2	< 10	78	< 10	10	12
PED42072	0.90	0.025	0.067	< 0.01	< 2	11	29	0.18	< 20	3	< 2	< 10	61	< 10	15	7
PED42073	0.89	0.024	0.067	< 0.01	< 2	11	27	0.18	< 20	5	< 2	< 10	60	< 10	15	8
PED42074	0.55	0.025	0.032	< 0.01	< 2	5	20	0.15	< 20	< 1	< 2	< 10	51	< 10	4	6
PED42075	0.68	0.025	0.042	< 0.01	< 2	6	22	0.15	< 20	< 1	< 2	< 10	56	< 10	7	6
PED42076	0.65	0.026	0.039	0.01	< 2	6	22	0.13	< 20	< 1	< 2	< 10	52	< 10	6	6
PED42077	0.64	0.026	0.044	< 0.01	< 2	7	21	0.14	< 20	3	< 2	< 10	52	< 10	7	6
PED42078	0.66	0.030	0.047	< 0.01	< 2	7	22	0.14	< 20	1	< 2	< 10	57	< 10	8	6
PED42079	0.67	0.029	0.049	< 0.01	< 2	7	22	0.14	< 20	< 1	< 2	< 10	55	< 10	9	5
PED42080	0.63	0.024	0.039	< 0.01	< 2	6	21	0.13	< 20	4	< 2	< 10	52	< 10	6	6
PED42081	0.67	0.024	0.040	< 0.01	< 2	6	21	0.13	< 20	1	< 2	< 10	52	< 10	6	6
PED42082	0.68	0.025	0.050	< 0.01	3	8	24	0.16	< 20	< 1	< 2	< 10	59	< 10	12	6
PED42083	0.54	0.026	0.032	< 0.01	< 2	5	19	0.13	< 20	< 1	< 2	< 10	52	< 10	4	5
PED42084	0.88	0.040	0.066	0.01	< 2	11	27	0.17	< 20	< 1	< 2	< 10	59	< 10	14	7



Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42085	0.79	0.027	0.047	< 0.01	< 2	7	25	0.16	< 20	< 1	< 2	< 10	57	< 10	8	7
PED42086	0.87	0.029	0.052	0.01	< 2	9	26	0.16	< 20	< 1	< 2	< 10	61	< 10	10	6
PED42087	0.60	0.026	0.038	< 0.01	< 2	6	21	0.12	< 20	2	< 2	< 10	50	< 10	7	6
PED42088	0.63	0.025	0.045	0.01	< 2	7	22	0.13	< 20	3	< 2	< 10	51	< 10	7	6
PED42089	0.61	0.023	0.037	0.01	< 2	5	28	0.11	< 20	< 1	< 2	< 10	47	< 10	6	7
PED42090	0.60	0.024	0.038	0.01	< 2	5	27	0.11	< 20	< 1	< 2	< 10	45	< 10	5	6
PED42091	0.70	0.024	0.041	< 0.01	< 2	7	21	0.14	< 20	< 1	< 2	< 10	53	< 10	7	6
PED42092	0.57	0.024	0.036	< 0.01	< 2	5	32	0.11	< 20	8	< 2	< 10	44	< 10	5	8
PED42093	0.89	0.026	0.064	0.01	< 2	9	24	0.14	< 20	< 1	< 2	< 10	61	< 10	9	6
PED42094	0.77	0.026	0.053	0.02	< 2	8	23	0.13	< 20	< 1	< 2	< 10	57	< 10	8	6
PED42095	0.79	0.025	0.052	0.01	< 2	9	22	0.14	< 20	< 1	< 2	< 10	58	< 10	8	5
PED42096	0.66	0.024	0.041	< 0.01	< 2	7	21	0.13	< 20	< 1	< 2	< 10	52	< 10	8	6
PED42097	0.76	0.027	0.051	< 0.01	< 2	8	24	0.15	< 20	1	< 2	< 10	56	< 10	9	6
PED42098	0.59	0.024	0.035	0.01	< 2	5	31	0.11	< 20	6	< 2	< 10	45	< 10	5	8
PED42099	0.66	0.024	0.041	0.01	< 2	7	22	0.13	< 20	< 1	< 2	< 10	54	< 10	8	6
PED42100	0.63	0.026	0.042	< 0.01	< 2	7	22	0.13	< 20	4	< 2	< 10	52	< 10	7	6
PED42101	0.89	0.027	0.055	< 0.01	< 2	9	26	0.16	< 20	< 1	< 2	< 10	62	< 10	10	6
PED42102	0.88	0.027	0.058	0.01	< 2	9	26	0.16	< 20	< 1	< 2	< 10	61	< 10	11	7
PED42103	0.71	0.025	0.035	< 0.01	< 2	8	24	0.15	< 20	2	< 2	< 10	58	< 10	6	7
PED42104	0.71	0.026	0.033	< 0.01	< 2	8	24	0.15	< 20	< 1	< 2	< 10	57	< 10	6	7
PED42105	0.90	0.026	0.045	0.01	< 2	9	24	0.16	< 20	< 1	< 2	< 10	65	< 10	6	7
PED42106	0.74	0.023	0.034	< 0.01	< 2	8	23	0.15	< 20	< 1	< 2	< 10	56	< 10	6	8
PED42107	0.58	0.024	0.024	< 0.01	< 2	6	21	0.14	< 20	4	< 2	< 10	48	< 10	5	6
PED42108	0.77	0.025	0.036	< 0.01	< 2	9	24	0.16	< 20	< 1	2	< 10	59	< 10	6	8
PED42109	0.59	0.024	0.034	0.01	< 2	5	32	0.11	< 20	1	< 2	< 10	45	< 10	5	7
PED42110	0.56	0.024	0.039	< 0.01	< 2	5	30	0.12	< 20	< 1	< 2	< 10	46	< 10	6	8
PED42111	0.56	0.024	0.036	0.01	< 2	5	30	0.11	< 20	2	< 2	< 10	45	< 10	6	7
PED42112	0.56	0.025	0.037	< 0.01	< 2	5	30	0.11	< 20	5	< 2	< 10	44	< 10	5	7
PED42113	0.65	0.023	0.037	0.01	< 2	6	20	0.13	< 20	4	< 2	< 10	49	< 10	6	6
PED42114	0.78	0.024	0.063	< 0.01	< 2	10	27	0.16	< 20	< 1	< 2	< 10	57	< 10	13	7
PED42115	0.76	0.025	0.063	< 0.01	< 2	10	26	0.17	< 20	5	< 2	< 10	56	< 10	14	7
PED42116	0.90	0.026	0.072	< 0.01	< 2	10	30	0.20	< 20	5	< 2	< 10	59	< 10	15	9
PED42117	0.81	0.026	0.069	< 0.01	2	11	28	0.17	< 20	4	< 2	< 10	62	< 10	15	6
PED42118	1.06	0.028	0.085	0.02	< 2	12	33	0.22	< 20	4	< 2	< 10	62	< 10	20	10
PED42119	1.01	0.031	0.079	0.01	3	11	33	0.20	< 20	< 1	< 2	< 10	61	< 10	18	9
PED42120	0.57	0.025	0.023	< 0.01	< 2	7	22	0.14	< 20	< 1	< 2	< 10	48	< 10	5	6
PED42121	0.92	0.025	0.069	0.01	< 2	11	28	0.19	< 20	3	< 2	< 10	63	< 10	17	8
PED42122	0.97	0.027	0.072	< 0.01	3	12	30	0.20	< 20	2	< 2	< 10	65	< 10	16	8
PED42123	0.69	0.027	0.048	< 0.01	< 2	7	25	0.17	< 20	< 1	< 2	< 10	58	< 10	9	7
PED42124	0.72	0.027	0.048	< 0.01	< 2	9	26	0.16	< 20	< 1	< 2	< 10	61	< 10	12	7
PED42125	0.78	0.028	0.059	0.01	< 2	9	28	0.17	< 20	< 1	< 2	< 10	63	< 10	15	7
PED42126	0.82	0.026	0.049	0.01	< 2	8	24	0.16	< 20	1	< 2	< 10	59	< 10	9	6

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
PED42127	0.88	0.027	0.054	0.01	2	10	24	0.14	< 20	4	< 2	< 10	64	< 10	9	6
PED42128	0.90	0.027	0.058	0.01	< 2	8	25	0.15	< 20	< 1	< 2	< 10	64	< 10	8	6
PED42129	0.93	0.028	0.056	0.01	3	9	26	0.15	< 20	2	< 2	< 10	62	< 10	9	6
PED42130	0.68	0.026	0.037	< 0.01	< 2	7	24	0.14	< 20	5	< 2	< 10	53	< 10	7	6
PED42131	0.60	0.025	0.040	< 0.01	< 2	6	22	0.13	< 20	2	< 2	< 10	51	< 10	7	6
PED42132	0.61	0.024	0.036	< 0.01	< 2	6	21	0.13	< 20	< 1	< 2	< 10	49	< 10	7	6
PED42133	0.60	0.024	0.036	< 0.01	< 2	6	20	0.13	< 20	< 1	< 2	< 10	49	< 10	7	7
PED42134	0.81	0.026	0.044	< 0.01	< 2	7	25	0.16	< 20	< 1	< 2	< 10	58	< 10	8	7
PED42135	0.79	0.025	0.047	0.01	< 2	8	25	0.16	< 20	< 1	< 2	< 10	57	< 10	9	7
PED42136	0.88	0.028	0.054	0.01	< 2	8	26	0.17	< 20	< 1	< 2	< 10	61	< 10	10	7
PED42137	0.79	0.028	0.056	0.01	< 2	9	29	0.18	< 20	< 1	< 2	< 10	63	< 10	13	8
PED42138	0.98	0.028	0.060	0.02	< 2	10	27	0.16	< 20	1	< 2	< 10	66	< 10	9	7
PED42139	0.84	0.027	0.055	0.01	< 2	8	25	0.15	< 20	2	< 2	< 10	59	< 10	8	6
PED42140	0.89	0.025	0.053	0.01	< 2	10	25	0.16	< 20	< 1	< 2	< 10	65	< 10	9	7

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas		30.7	2.5	1180	792	14	39	630	723	0.34	401	< 10	293	0.8	1500	0.82	6	6	22.5	< 10	4	0.03	< 10
GXR-1 Cert		31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90	0.050	7.50
GXR-1 Meas		29.6	2.2	1150	807	14	29	615	702	0.34	386	10	295	0.8	1480	0.80	5	6	22.0	< 10	4	0.03	< 10
GXR-1 Cert		31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90	0.050	7.50
GXR-4 Meas		3.8	< 0.5	6610	140	316	41	43	72	2.83	105	< 10	25	1.5	3	0.98	13	53	3.08	< 10	< 1	1.73	48
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-4 Meas		3.7	< 0.5	6570	139	316	42	41	72	2.80	103	< 10	39	1.4	< 2	0.96	13	54	3.01	< 10	< 1	1.69	48
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	70	1060	2	24	92	125	7.26	246	< 10	778	0.9	< 2	0.15	13	77	5.82	10	1	1.15	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	70	1050	2	22	88	124	7.16	242	< 10	766	0.9	< 2	0.15	12	76	5.70	10	1	1.13	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
OREAS 220 (Fire Assay) Meas	860																						
OREAS 220 (Fire Assay) Cert	828																						
OREAS 220 (Fire Assay) Meas	846																						
OREAS 220 (Fire Assay) Cert	828																						
OREAS 220 (Fire Assay) Meas	868																						
OREAS 220 (Fire Assay) Cert	828																						
OREAS 220 (Fire Assay) Meas	847																						
OREAS 220 (Fire Assay) Cert	828																						
OREAS 220 (Fire Assay) Meas	874																						
OREAS 220 (Fire Assay) Cert	828																						
OREAS 222(FIRE ASSAY) Meas	1260																						
OREAS 222(FIRE ASSAY) Cert	1220																						
OREAS 222(FIRE ASSAY) Meas	1230																						
OREAS 222(FIRE ASSAY) Cert	1220																						
OREAS 222(FIRE ASSAY) Meas	1200																						
OREAS 222(FIRE ASSAY) Cert	1220																						
OREAS 222(FIRE ASSAY) Meas	1250																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 222(FIRE ASSAY) Cert	1220																						
PED42010 Orig	17																						
PED42010 Dup	< 5																						
PED42013 Orig		< 0.2	< 0.5	105	731	< 1	41	4	72	1.69	8	< 10	31	< 0.5	< 2	0.52	23	32	3.86	< 10	< 1	0.10	18
PED42013 Dup		< 0.2	< 0.5	105	729	< 1	41	5	72	1.70	8	< 10	31	< 0.5	< 2	0.51	22	31	3.93	< 10	< 1	0.10	17
PED42027 Orig		< 0.2	< 0.5	55	580	< 1	26	4	47	1.04	6	< 10	21	< 0.5	< 2	0.94	17	25	2.86	< 10	< 1	0.05	< 10
PED42027 Dup		< 0.2	< 0.5	52	576	< 1	26	4	47	1.04	7	< 10	20	< 0.5	< 2	0.95	17	25	2.87	< 10	< 1	0.05	11
PED42030 Orig	< 5																						
PED42030 Dup	6																						
PED42040 Orig		0.2	< 0.5	195	948	< 1	61	10	99	1.95	18	< 10	46	< 0.5	< 2	1.57	38	38	5.28	< 10	< 1	0.19	19
PED42040 Dup		< 0.2	< 0.5	192	944	< 1	57	9	99	1.88	20	< 10	45	< 0.5	< 2	1.51	38	37	5.11	< 10	< 1	0.17	18
PED42048 Orig	< 5																						
PED42048 Dup	8																						
PED42054 Orig		< 0.2	< 0.5	163	1220	< 1	55	20	119	2.24	11	< 10	56	< 0.5	< 2	0.74	33	41	4.83	< 10	< 1	0.26	59
PED42054 Dup		< 0.2	< 0.5	164	1210	< 1	55	21	119	2.22	10	< 10	63	< 0.5	< 2	0.75	33	41	4.76	< 10	< 1	0.26	58
PED42059 Orig	5																						
PED42059 Dup	14																						
PED42069 Orig	14																						
PED42069 Dup	13																						
PED42077 Orig		< 0.2	< 0.5	56	633	< 1	31	6	51	1.24	7	< 10	23	< 0.5	< 2	0.56	17	28	3.04	< 10	< 1	0.06	16
PED42077 Dup		< 0.2	< 0.5	57	640	< 1	30	6	52	1.27	5	< 10	25	< 0.5	< 2	0.56	18	27	3.11	< 10	< 1	0.07	14
PED42083 Orig	8																						
PED42083 Dup	7																						
PED42091 Orig		< 0.2	< 0.5	86	628	< 1	33	4	60	1.44	8	< 10	30	< 0.5	< 2	0.52	20	29	3.10	< 10	< 1	0.11	15
PED42091 Dup		< 0.2	< 0.5	87	625	< 1	33	6	60	1.45	7	< 10	30	< 0.5	< 2	0.50	20	29	3.13	< 10	< 1	0.11	15
PED42092 Orig	23																						
PED42092 Dup	7																						
PED42101 Orig	9																						
PED42101 Dup	< 5																						
PED42104 Orig		< 0.2	< 0.5	67	589	< 1	45	9	61	1.62	7	< 10	30	< 0.5	< 2	0.42	19	41	3.33	< 10	< 1	0.07	16
PED42104 Dup		< 0.2	< 0.5	65	563	< 1	43	13	60	1.56	8	< 10	29	< 0.5	< 2	0.41	19	40	3.28	< 10	< 1	0.07	17
PED42115 Orig	10																						
PED42115 Dup	7																						
PED42118 Orig		< 0.2	< 0.5	137	1070	< 1	44	10	98	1.83	10	< 10	46	< 0.5	< 2	0.77	30	33	4.28	< 10	< 1	0.20	47
PED42118 Dup		< 0.2	< 0.5	152	1190	< 1	50	9	107	1.96	9	< 10	48	< 0.5	< 2	0.79	32	35	4.64	< 10	< 1	0.22	54
PED42125 Orig	17																						
PED42125 Dup	14																						
PED42135 Orig	8																						
PED42135 Dup	8																						
PED42137 Orig		0.3	< 0.5	106	912	< 1	44	8	72	1.64	11	< 10	36	< 0.5	< 2	0.91	26	33	4.26	< 10	< 1	0.12	28
PED42137 Dup		0.3	< 0.5	110	903	< 1	42	7	72	1.65	9	< 10	36	< 0.5	< 2	0.93	25	34	4.29	< 10	< 1	0.12	23
Method Blank	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank	< 5																						

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	0.13	0.053	0.044	0.20	79	1	173	< 0.01	< 20	7	< 2	31	75	154	24	13
GXR-1 Cert	0.217	0.0520	0.0650	0.257	122	1.58	275	0.036	2.44	13.0	0.390	34.9	80.0	164	32.0	38.0
GXR-1 Meas	0.13	0.054	0.042	0.20	78	1	170	< 0.01	< 20	9	< 2	31	72	153	23	12
GXR-1 Cert	0.217	0.0520	0.0650	0.257	122	1.58	275	0.036	2.44	13.0	0.390	34.9	80.0	164	32.0	38.0
GXR-4 Meas	1.65	0.144	0.125	1.86	4	7	73	0.12	< 20	< 1	< 2	< 10	78	13	12	9
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186
GXR-4 Meas	1.62	0.143	0.121	1.79	3	7	72	0.12	< 20	< 1	2	< 10	78	12	12	9
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186
GXR-6 Meas	0.42	0.090	0.033	0.01	3	19	29		< 20	< 1	< 2	< 10	172	< 10	5	11
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
GXR-6 Meas	0.41	0.090	0.033	0.01	4	19	29		< 20	< 1	< 2	< 10	169	< 10	5	11
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
OREAS 220 (Fire Assay) Meas																
OREAS 220 (Fire Assay) Cert																
OREAS 220 (Fire Assay) Meas																
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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 222(FIRE ASSAY) Cert																
PED42010 Orig																
PED42010 Dup																
PED42013 Orig	0.80	0.025	0.052	0.01	< 2	8	22	0.15	< 20	< 1	< 2	< 10	60	< 10	7	5
PED42013 Dup	0.80	0.025	0.051	< 0.01	< 2	7	22	0.15	< 20	< 1	< 2	< 10	59	< 10	7	5
PED42027 Orig	0.62	0.023	0.041	0.01	< 2	5	20	0.12	< 20	6	< 2	< 10	48	< 10	5	6
PED42027 Dup	0.62	0.023	0.039	0.01	< 2	5	21	0.13	< 20	4	< 2	< 10	48	< 10	6	6
PED42030 Orig																
PED42030 Dup																
PED42040 Orig	1.15	0.032	0.063	0.06	3	8	35	0.17	< 20	< 1	< 2	< 10	67	< 10	8	9
PED42040 Dup	1.10	0.028	0.060	0.06	< 2	8	33	0.16	< 20	4	< 2	< 10	66	< 10	7	9
PED42048 Orig																
PED42048 Dup																
PED42054 Orig	1.21	0.027	0.080	< 0.01	< 2	13	31	0.22	< 20	1	< 2	< 10	68	< 10	19	9
PED42054 Dup	1.19	0.030	0.078	< 0.01	< 2	13	32	0.22	< 20	3	< 2	< 10	68	< 10	19	9
PED42059 Orig																
PED42059 Dup																
PED42069 Orig																
PED42069 Dup																
PED42077 Orig	0.63	0.025	0.044	< 0.01	< 2	7	21	0.14	< 20	2	< 2	< 10	53	< 10	7	6
PED42077 Dup	0.66	0.026	0.044	0.01	< 2	7	21	0.14	< 20	4	< 2	< 10	52	< 10	7	6
PED42083 Orig																
PED42083 Dup																
PED42091 Orig	0.70	0.024	0.041	< 0.01	3	7	21	0.14	< 20	1	< 2	< 10	53	< 10	7	6
PED42091 Dup	0.71	0.024	0.041	< 0.01	< 2	7	21	0.14	< 20	< 1	< 2	< 10	53	< 10	7	6
PED42092 Orig																
PED42092 Dup																
PED42101 Orig																
PED42101 Dup																
PED42104 Orig	0.72	0.027	0.032	< 0.01	< 2	8	24	0.16	< 20	1	< 2	< 10	58	< 10	6	7
PED42104 Dup	0.70	0.024	0.034	< 0.01	< 2	7	23	0.15	< 20	< 1	< 2	< 10	56	< 10	6	7
PED42115 Orig																
PED42115 Dup																
PED42118 Orig	1.01	0.029	0.087	0.01	< 2	11	33	0.21	< 20	6	< 2	< 10	60	< 10	19	9
PED42118 Dup	1.10	0.028	0.083	0.02	< 2	12	34	0.22	< 20	3	< 2	< 10	64	< 10	21	10
PED42125 Orig																
PED42125 Dup																
PED42135 Orig																
PED42135 Dup																
PED42137 Orig	0.79	0.028	0.057	0.01	< 2	9	29	0.18	< 20	3	< 2	< 10	64	< 10	13	8
PED42137 Dup	0.79	0.029	0.055	0.01	2	9	29	0.18	< 20	< 1	< 2	< 10	62	< 10	13	8
Method Blank																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
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Method Blank	< 0.01	0.011	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.013	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
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