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**Geochemical Soil Sampling  
Of the Kukkee Option Claim  
Vanguard Properties  
Thunder Bay Mining Division  
For  
White Metal Resources Corp.**

**By  
P.E. Nielsen  
August 16, 2017**

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## **1.0 Introduction**

A soil sampling program was carried out in the western Shebandowan area from June 20-22, 2017 on the Kukkee Option claim (4272698), part of White Metal Resources Corp. Vanguard properties. Samples were submitted to Actlabs in Thunder Bay for analyses using their 1A2 Fire Assay AA package for gold and 1E3 Aqua Regia ICP package for 40 other elements. The soil sample program was carried out to primarily locate gold anomalies associated with a north easterly trend of mineralization extending as far southwest as Moss Lake.

## **2.0 Location and Access**

The Kukkee option claim is located about 105 km west of Thunder Bay, Ontario and is accessible by Highway 802 (Burchell Lake Road) 1 km west of Kashabowie leading south from Highway 11. The Burchell Lake Road transects the North West corner of the claim approximately 200 metres south of Highway 11 (Figure 1 and 2).

## **3.0 Property**

The claim the subject of this report consists of one five unit claim 4272698 located on claim sheet G-2714 (Kashabowie Lake Area) located within the Thunder Bay Mining Division. The claim was staked February 27, 2013 and registered in the name of 1401385 Ontario Inc. and is presently under extension with a due date of September 5, 2017.

## **4.0 Exploration History**

Listed is a summary of exploration work carried out in the area:

1952-1954 -Frank Anderson (stripping, diamond drilling)

1956 Rio Canadian Exploration (geological mapping, electromagnetic surveys)

1957 -New Jack Lake Mines (electromagnetic surveys, diamond drilling)

1966 -Tinex Development and Exploration (geological mapping, electromagnetic surveys, diamond drilling)

1970 Cominco (mapping, diamond drilling)

1987-1991 -Lacanna (VLF, electromagnetic surveys, geological mapping, diamond drilling)

1988-1989 -Newmont (geological mapping, diamond drilling)

1991-1992 -Minova (electromagnetic surveys, geological mapping, diamond drilling)

1994-1995 -Noranda (electromagnetic surveys, diamond drilling)

1997-1998 -Allegeny Mines (electromagnetic surveys, diamond drilling)

2003 – Canadian Golden Dragon (Soil Sampling)

2006 – Canadian Golden Dragon (Induced Polarization Survey)



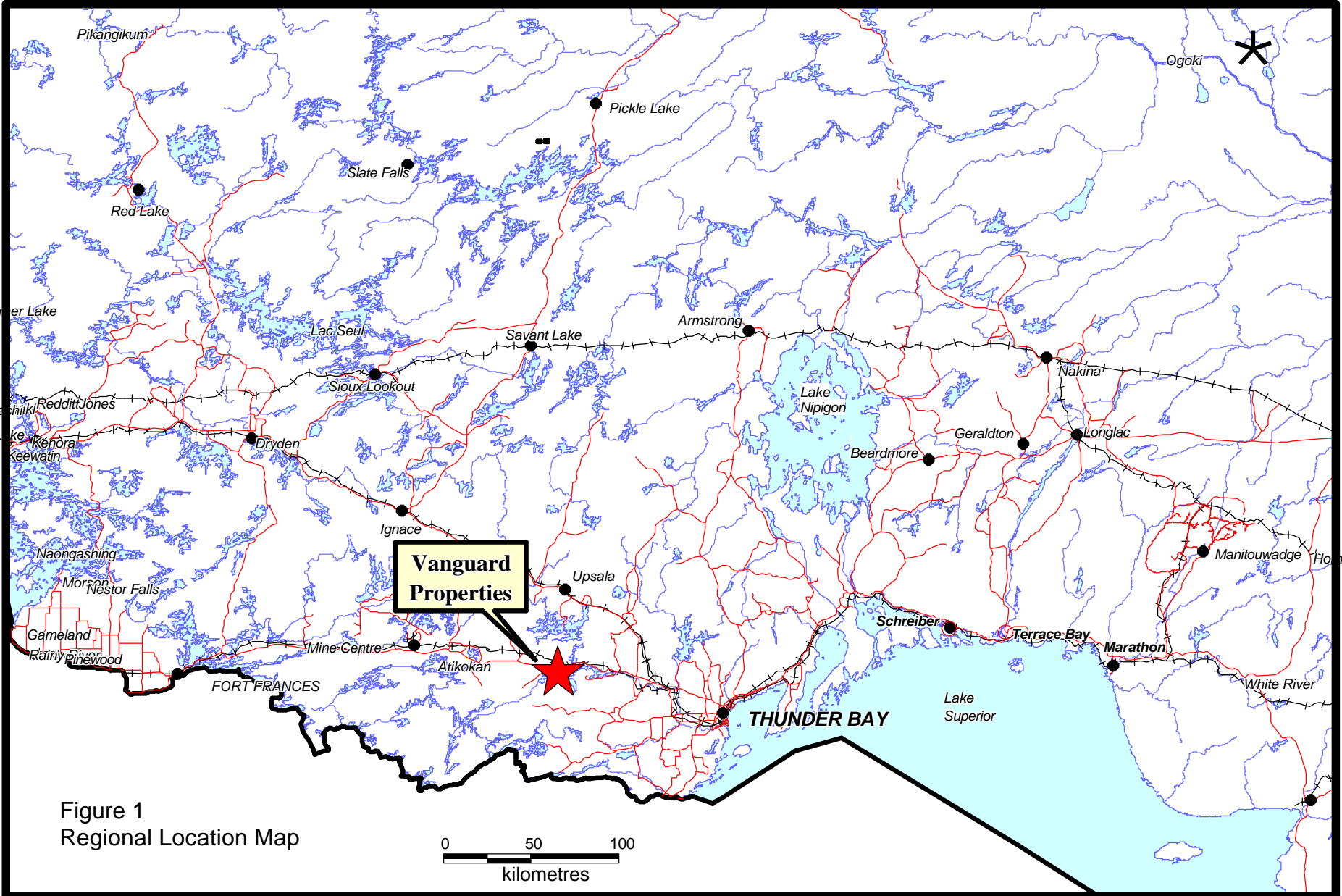
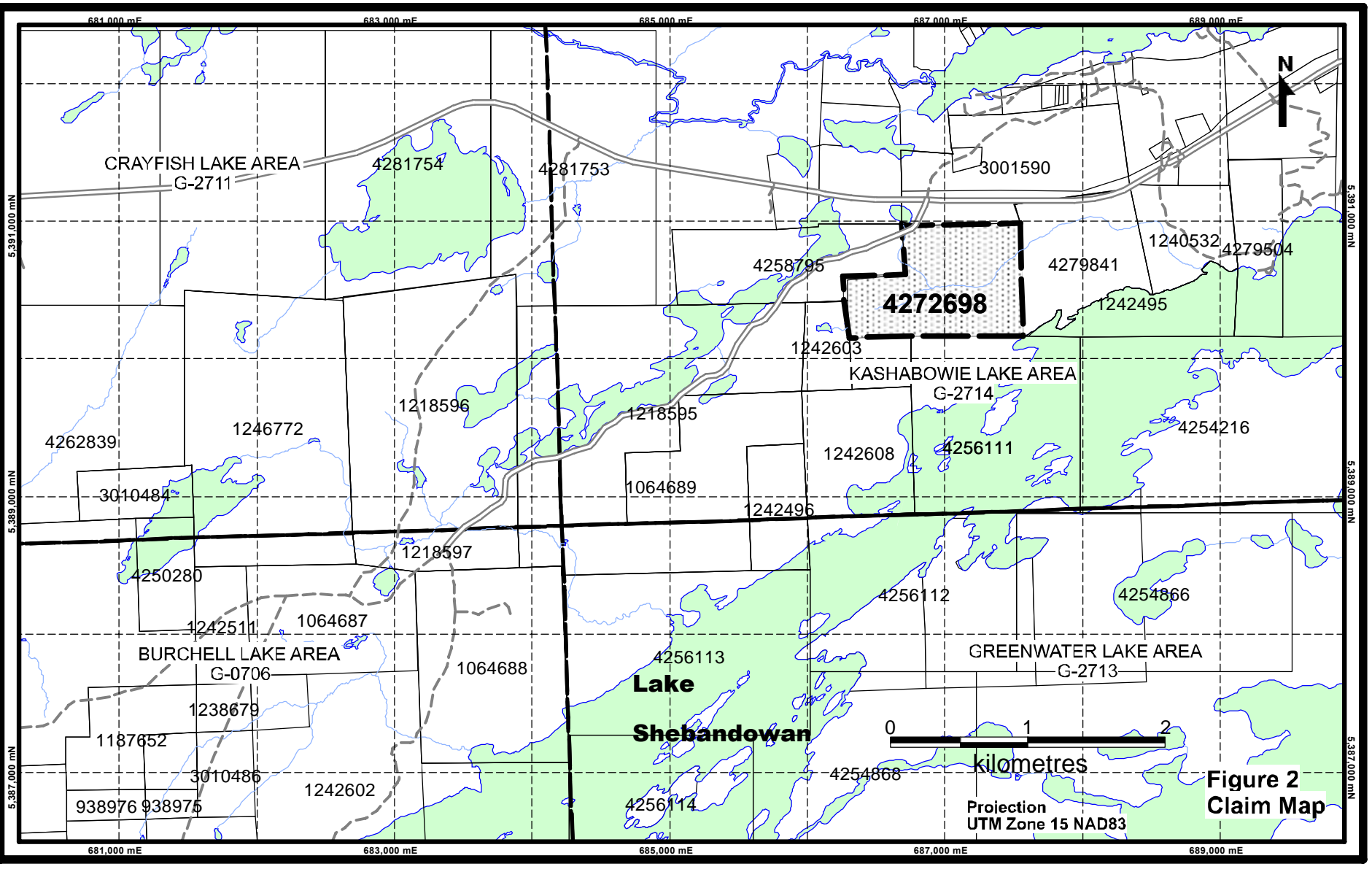


Figure 1  
Regional Location Map

0 50 100  
kilometres



CRAYFISH LAKE AREA  
G-2711

4281754

4281753

3001590

4258795

**4272698**

4279841

1240532

4279504

1242495

1242603

KASHABOWIE LAKE AREA  
G-2714

4262839

1246772

1218596

1218595

3010484

1064689

1242608

4256111

4254216

1242496

4250280

1218597

1242511

1064687

BURCHELL LAKE AREA  
G-0706

1064688

4256113

**Lake  
Shebandowan**

GREENWATER LAKE AREA  
G-2713

4256112

4254866

1238679

1187652

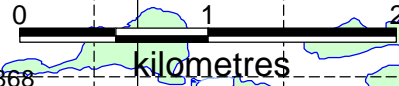
3010486

1242602

938976 938975

4256114

4254868



Projection  
UTM Zone 15 NAD83

**Figure 2  
Claim Map**

## 5.0 Sampling Method

A grid was digitally designed using Mapinfo software and coordinates calculated in Universal Transverse Mercator NAD83 Zone 15 projection. Stations were calculated at 25metre intervals and 200 metre line separation at an azimuth of 320 degrees. In the field position control was attained using Garmin 60CX GPS units. Samples were collected using a soil auger at a depth of 15 to 20 cm of the clastic B horizon avoiding the upper humus layer. Samples were collected in clean brown paper bags specifically designed for this type of material and dried on racks before shipment to the laboratory. A list of sample locations and descriptions is displayed in Appendix I.

## 6.0 Analytical methods

Samples were submitted to Actlabs in Thunder Bay for analyses using their 1A2 Fire Assay AA package for gold and 1E3 Aqua Regia ICP package for 40 other elements.

Analytical methods used in this survey have been described on the Actlab website as follows:

### 6.1 (1A2) FA-AA

#### Fire Assay Fusion

A sample size of 5 to 50 grams can be used but the routine size is 30 g for rock pulps, soils or sediments (exploration samples). The sample is mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with Ag added as a collector and the mixture is placed in a fire clay crucible. The mixture is then preheated at 850°C, intermediate 950°C and finish 1060°C with the entire fusion process lasting 60 minutes. The crucibles are then removed from the assay furnace and the molten slag (lighter material) is carefully poured from the crucible into a mould, leaving a lead button at the base of the mould. The lead button is then placed in a preheated cupel which absorbs the lead when cupelled at 950°C to recover the Ag (doré bead) + Au.

#### AA Finish

The entire Ag dore bead is dissolved in aqua regia and the gold content is determined by AA (Atomic Absorption). AA is an instrumental method of determining element concentration by introducing an element in its atomic form, to a light beam of appropriate wavelength causing the atom to absorb light. The reduction in the intensity of the light beam directly correlates with the concentration of the elemental atomic species. On each tray of 42 samples there is two blanks, three sample duplicates and 2 certified reference materials, one high and one low (QC 7 out of 42 samples).

#### Code 1A2 (Fire Assay-AA) Detection Limits (ppb)

Element	Detection Limit	Upper Limit
Au	5	5,000

## 6.2 (1E3) Aqua Regia - ICP

0.5 g of sample is digested with aqua regia for 2 hours at 95 °C. The sample is cooled and then diluted with deionized water. The samples are then analyzed using an Agilent 700 series ICP for the 38 element suite. QC for the digestion is 15% for each batch, 2 method reagent blanks, 6 in-house controls, 8 sample duplicates and 5 certified reference materials. An additional 20% QC is performed as part of the instrumental analysis to ensure quality in the areas of instrumental drift.

### Code 1E3 Elements and Detection Limits (ppm except where noted)

Element	Detection Limit	Upper Limit	Element	Detection Limit	Upper Limit	Element	Detection Limit	Upper Limit
Ag	0.2	100	Ga	10	10,000	Sc	1	10,000
Al	0.01%	8%	Hg	1	10,000	Sr	1	10,000
As	2	10,000	K	0.01%	10%	Te	1	500
B	10	10,000	La	10	10,000	Th	20	10,000
Ba	10	10,000	Mg	0.01%	25%	Ti	0.01%	10%
Be	0.5	1000	Mn	5	100,000	Tl	2	10,000
Bi	2	10,000	Mo	1	10,000	U	10	10,000
Ca	0.01%	10%	Na	0.001%	10%	V	1	10,000
Cd	0.5	2,000	Ni	1	10,000	W	10	200
Co	1	10,000	P	0.001%	5%	Y	1	1000
Cr	1	10,000	Pb	2	5,000	Zn	2	10,000
Cu	1	10,000	S <sup>+</sup>	0.01%	20%	Zr	1	10,000
Fe	0.01%	30%	Sb	2	10,000			

#### Notes:

Extraction for Aqua Regia is dependent on mineralogy.

+ Sulphide sulphur and soluble sulphates are extracted.

Assays are recommended for values which exceed the upper limits.

Assay certificates showing assay results, detection limits and elements analysed are presented in Appendix II.

## 7.0 Soil Geochemistry Results

A total of 96 samples were collected and submitted to the lab. A statistical analysis of gold assays indicates a mean value of 8.3 ppb and a standard deviation of 15.6 ppb. Using a mean plus one standard deviation to indicate a first order anomaly 4 samples exceeded that amount and are listed as follows:

<u>Sample No.</u>	<u>Location</u>	<u>Au</u>
178109	687,368mE, 5,390,748mN	38 ppb
178121	687,454mE, 5,390,957mN	82 ppb
178128	687,434mE, 5,390,342mN	130 ppb
178178	686,980mE, 5,390,269mN	44 ppb

A map at a scale of 1:2500 showing sample locations, sample number and gold in ppb is attached in Appendix III.

As for base metal elements, copper values were generally not very significant with slightly anomalous values ranging from 39 to 77 ppm in nine samples and Zn ranging from 70 to 114 ppm in 12 samples.

### **8.0 Conclusions and Recommendations**

Although there were few significantly anomalous values in the soil survey it is recommended that tighter spaced sampling be done in the vicinity of the anomalous gold samples to establish if there is a significant extension to the anomalies and possible mineralization. Simultaneously the potential for overburden stripping should be assessed with a view to exposing near surface outcrops.

Respectfully submitted

Paul E Nielsen



August 16, 2017

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Canada, P7C 2E9  
Telephone: 807-627-3889  
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**CERTIFICATE OF AUTHOR**

I, Paul Nielsen, do hereby certify that:

1. I am an independent geologist doing contract work for White Metal Resources Corp., and reside at 170 Inglewood Cr., Thunder Bay, ON.
2. I hold the following academic qualifications:  
B.Sc. (Hons) Geology (1974), Lakehead University, Thunder Bay, Ontario, Canada
3. I am a member of the Association of Professional Geoscientists of Ontario (Member #1130).
4. I have worked in the mineral exploration industry throughout Canada including New Brunswick, Ontario, Manitoba, British Columbia and the Northwest Territories for more than 40 years as an exploration geologist.
5. I am not aware of any material fact or material changes with respect to the subject matter of this report, the omission of which would make this report misleading.

Dated this 12<sup>th</sup> Day of October, 2017.

Respectfully Submitted



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Paul E. Nielsen, P.Geo.

## **9.0 References:**

Hoffman, E.L., Clark, J.R. and Yeager, J.R. 1998. Gold analysis - Fire Assaying and alternative methods. Exploration and Mining Geology, Volume 7, pp. 155- 160.

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Johnson, J.R., Middleton, R. 2003 Geochemical Soil Sampling of the Vanguard Property for Canadian Golden Dragon Ltd.

Simoneau, P. 2006. Induced Polarization Survey on the Vanguard Property Burchell Lake Area for Canadian Golden Dragon Resources Ltd.

## **Appendix I**

Soil Sample Descriptions and Locations  
(UTM NAD 83 Zone 15 Projection)



Soil Sample Locations and  
Descriptions

Sample #	Easting	Northing	Description	Personel
178101	687242	5390907	brown, fine grain, thin bush, above swamp	T Murray
178102	687256	5390884	brown, fine grain, thin bush, O/C	T Murray
178103	687276	5390866	brown, fine grain, thin bush, top of small hill, O/C	T Murray
178104	687285	5390844	brown, fine grain, thin bush	T Murray
178105	687302	5390827	Same as previous	T Murray
178106	687316	5390803	Same as previous	T Murray
178107	687339	5390788	Same, O/C	T Murray
178108	687351	5390772	Sandy brown, fine grain, alders, below large O/C	T Murray
178109	687368	5390748	brown, fine grain, small rocks, alders, above O/C	T Murray
178110	687383	5390725	Brown, rocky, thin bush	T Murray
178111	687394	5390711	Brown, rocky, on hill above creek/swamp	T Murray
178112	687429	5390672	Brown, rocky, edge of swamp	T Murray
178113	687438	5390650	Brown, fine grain, thick bush, flat	T Murray
178114	687459	5390629	brown, fine grain, thick bush, near swamp	T Murray
178115	687546	5390848	brown, fine grain, thin bush, near swamp	T Murray
178116	687532	5390868	brown, fine grain, old trench, O/C	T Murray
178117	687510	5390887	brown, fine grain, thin bush, O/C	T Murray
178118	687499	5390906	brown, fine grain, thin bush, O/C	T Murray
178119	687485	5390918	brown, fine grain, thick alders, small pits	T Murray
178120	687475	5390942	sandy brown, thick alders	T Murray
178121	687454	5390957	brown, fine grain, alders	T Murray
178122	687437	5390982	brown, fine grain, old cut, thin bush	T Murray
178123	687337	5390459	brown, fine grain, thick bush, top hill	T Murray
178124	687374	5390417	brown, fine grain, thin bush	T Murray
178125	687386	5390403	brown, fine grain, thick bush	T Murray
178126	687405	5390379	Same as previous	T Murray
178127	687421	5390360	brown, fine grain, thin bush	T Murray
178128	687434	5390342	Same, O/C	T Murray
178129	687451	5390320	brown, fine grain, thin bush, O/C	T Murray
178130	687465	5390305	brown, fine grain, thin bush, O/C	T Murray
178131	687480	5390287	brown, fine grain, thin bush, O/C	T Murray
178132	687497	5390263	brown, fine grain, thin bush	T Murray
178133	687510	5390244	Same as previous	T Murray
178134	687525	5390223	brown, rocky, top hill, above lake	T Murray
178135	687545	5390207	brown, rocky, on steep slope	T Murray
178136	686265	5390470	brown, fine grain, thin bush above swamp	T Murray
178137	686288	5390455	brown, fine grain, alders, O/C	T Murray
178138	686298	5390436	brown, fine grain, alders	T Murray
178139	686318	5390411	sandy brown, thick alders, near pond	T Murray
178140	686330	5390398	brown, small rocks, edge of pond	T Murray
178141	686426	5390274	brown, near pond, thin pond	T Murray
178142	686438	5390254	brown, thick alders, flat	T Murray
178143	686503	5390176	brown, thick alders, on hill	T Murray
178144	686522	5390155	brown, thin alders, flat	T Murray
178145	686795	5390170	brown, small rocks, thin bush, O/C	T Murray
178146	686779	5390193	brown, swampy, thick bush	T Murray
178147	686769	5390211	brown, fine grain, thin bush, O/C	T Murray
178148	686730	5390249	brown, fine grain, swampy, thick bush	T Murray

Soil Sample Locations and  
Descriptions

Sample #	Easting	Northing	Description	Personel
178149	686680	5390314	grey, swampy, thick bush	T Murray
178150	686669	5390327	grey brown, swampy, thick bush	T Murray
178151	686655	5390343	brown, med grain, thick bush, swamp	T Murray
178152	686638	5390369	brown, small rocks, beside big swamp	T Murray
178153	686607	5390409	grey edge of swamp	T Murray
178154	686457	5390599	grey till, rocky, swampy, alders	T Murray
178155	686470	5390581	grey brown, till, small rocks, swampy, alders	T Murray
178156	686486	5390566	brown, fine grain, old cut, small hill	T Murray
178157	686500	5390544	Same as previous	T Murray
178158	686519	5390527	brown, rocky, swampy area	T Murray
178159	686528	5390506	brown, fine grain, old cut, small hill	T Murray
178160	686546	5390485	brown, old cut, flat	T Murray
178161	686562	5390463	brown, small rocks, alders, near swamp	T Murray
178162	686572	5390450	brown, alders, beside swamp	T Murray
178163	686701	5390619	brown, old cut, O/C	T Murray
178164	686719	5390600	grey brown, rocky, swampy	T Murray
178165	686728	5390585	grey till, in black spruce swamp	T Murray
178166	686750	5390563	brown, O/C above swamp	T Murray
178167	686765	5390546	brown, O/C, thick bush	T Murray
178168	686771	5390525	brown, small rocks, O/C, above swamp	T Murray
178169	686842	5390450	brown, small rocks, large O/C, above swamp	T Murray
178170	686860	5390433	brown, rocky, thin bush	T Murray
178171	686869	5390408	brown, small rocks, O/C, thin bush	T Murray
178172	686890	5390386	brown, small rocks, thin bush	T Murray
178173	686900	5390369	brown, fine grain, thin bush, flat	T Murray
178174	686919	5390349	brown, rocky, thick bush	T Murray
178175	686933	5390327	brown, fine grain, thick bush,	T Murray
178176	686950	5390311	brown, fine grain, O/C	T Murray
178177	686963	5390289	brown, fine grain, O/C, thick bush	T Murray
178178	686980	5390269	brown, small rocks, thick bush	T Murray
178179	686993	5390251	Same as previous	T Murray
352982	687032	5390850	brown, small rocks, edge of swamp	T Murray
352983	687046	5390828	brown, small rocks, old cut, alders	T Murray
352984	687062	5390814	dark brown, small rocks, old cut, O/C	T Murray
352985	687079	5390793	brown, fine grain, old cut, O/C	T Murray
352986	687096	5390771	brown, fine grain, old cut	T Murray
352987	687110	5390756	brown, old cut, swampy	T Murray
352988	687122	5390729	brown, small rocks, old cut	T Murray
352989	687141	5390713	brown, fine grain, old cut, O/C	T Murray
352990	687155	5390692	grey brown, thick alders	T Murray
352991	687172	5390676	brown, old cut, thick alders. O/C	T Murray
352992	687184	5390653	brown, fine grain, old cut, thick bush	T Murray
352993	687204	5390637	brown, small rocks, old cut, O/C	T Murray
352994	687219	5390614	brown, fine grain, O/C	T Murray
352995	687234	5390598	brown, fine grain, O/C, thin bush	T Murray
352996	687247	5390577	brown, fine grain, thick bush, on hill	T Murray
352997	687264	5390560	brown, fine grain, edge of swamp, on hill	T Murray
352998	687322	5390481	brown, fine grain, thick bush, above swamp	T Murray

## Appendix II

Assay Certificate

Actlabs

A17-06864

Only Sample No. 178101-179 (inclusive)

352982-998 (inclusive)



**Date Submitted:** 06-Jul-17  
**Invoice No.:** A17-06864  
**Invoice Date:** 03-Aug-17  
**Your Reference:**

**White Metal Resources**  
**684 Squier Street**  
**Thunder Bay ON P7B 4A8**  
**Canada**

**ATTN: Mick Stares**

## CERTIFICATE OF ANALYSIS

122 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

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

Code 1C-OES-Tbay Fire Assay ICPOES (QOP Fire Assay Tbay)

Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)

REPORT **A17-06864**

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Notes:

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

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

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is stylized and somewhat cursive, written over a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6  
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613

E-MAIL [Tbay@actlabs.com](mailto:Tbay@actlabs.com) ACTLABS GROUP WEBSITE [www.actlabs.com](http://www.actlabs.com)

## Results

## Activation Laboratories Ltd.

## Report: A17-06864

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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
178460	42	36	< 5	< 5	5.9	< 0.5	> 10000	171	23	19	4	16	0.82	3	< 10	38	< 0.5	< 2	0.28	4	43	5.49	< 10
178461	80				9.1	< 0.5	> 10000	111	5	13	9	15	0.39	2	< 10	13	< 0.5	5	0.04	9	39	6.23	< 10
178462	28	60	< 5	< 5	4.9	< 0.5	> 10000	114	7	11	4	9	0.51	< 2	< 10	30	< 0.5	< 2	0.04	4	53	4.08	< 10
178463	36				6.6	< 0.5	> 10000	110	1	21	9	11	0.42	78	< 10	21	< 0.5	< 2	0.04	25	26	6.14	< 10
178464	22				0.8	< 0.5	2420	121	1	28	6	6	1.01	31	< 10	51	0.6	< 2	0.08	59	38	2.91	< 10
178465	13				3.0	< 0.5	> 10000	237	3	10	5	8	0.36	3	< 10	51	< 0.5	< 2	0.60	3	61	3.19	< 10
178466	< 5				< 0.2	< 0.5	292	139	1	12	2	10	0.96	< 2	< 10	69	0.6	< 2	0.09	5	32	1.23	< 10
178467	7				0.2	< 0.5	1270	308	6	12	3	14	0.89	< 2	< 10	20	< 0.5	< 2	1.06	4	56	1.63	< 10
178468	38				0.2	< 0.5	1010	290	3	5	15	7	0.29	< 2	< 10	21	< 0.5	22	1.16	4	34	1.26	< 10
178469	19				1.3	< 0.5	4380	226	7	6	14	22	0.63	3	< 10	16	< 0.5	3	0.59	6	41	1.91	< 10
178470	17				0.9	< 0.5	3420	257	4	11	9	12	1.07	< 2	< 10	19	0.5	3	0.46	10	48	2.66	< 10
178471	8				0.6	< 0.5	2440	419	3	9	9	13	1.13	< 2	< 10	22	< 0.5	6	1.07	7	43	2.51	< 10
013151	7																						
013152	21																						
013153	12																						
013154	5																						
013155	124																						
013156	< 5																						
013161	< 5	5	< 5	< 5	< 0.2	0.6	4	1900	< 1	19	< 2	67	0.41	< 2	< 10	< 10	< 0.5	< 2	> 10.0	10	9	6.10	< 10
013162	4090	3770	12	14	8.3	0.9	> 10000	1050	46	268	3	149	2.67	< 2	< 10	< 10	< 0.5	2	0.88	146	816	13.0	< 10
013163	1110	1180	11	< 5	5.2	0.8	> 10000	1300	72	328	< 2	254	3.00	3	< 10	< 10	< 0.5	8	0.76	135	110	12.5	< 10
013164	< 5	3	< 5	< 5	< 0.2	< 0.5	81	412	1	52	< 2	20	1.76	21	< 10	47	< 0.5	< 2	1.91	20	69	3.37	< 10
178101	5				< 0.2	< 0.5	11	167	1	25	7	33	2.59	< 2	< 10	83	< 0.5	< 2	0.31	11	40	3.52	< 10
178102	10				< 0.2	< 0.5	29	406	< 1	20	6	36	2.20	< 2	< 10	74	< 0.5	< 2	0.47	11	38	2.59	< 10
178103	7				< 0.2	< 0.5	12	144	< 1	15	6	34	1.73	< 2	< 10	54	< 0.5	< 2	0.26	6	35	2.70	< 10
178104	< 5				< 0.2	< 0.5	8	509	< 1	18	10	40	2.39	< 2	< 10	107	< 0.5	< 2	0.36	9	36	3.34	< 10
178105	6				< 0.2	< 0.5	15	260	< 1	25	5	33	2.42	3	< 10	121	< 0.5	< 2	0.37	13	43	3.04	< 10
178106	< 5				< 0.2	< 0.5	19	212	< 1	26	5	36	2.72	< 2	< 10	105	< 0.5	< 2	0.40	11	42	2.88	< 10
178107	< 5				< 0.2	< 0.5	13	298	< 1	20	6	46	2.01	< 2	< 10	85	< 0.5	< 2	0.40	10	37	2.67	< 10
178108	6				< 0.2	< 0.5	26	306	< 1	19	4	27	1.87	< 2	< 10	61	< 0.5	< 2	0.76	7	37	2.38	< 10
178109	38				< 0.2	< 0.5	25	796	1	19	10	82	1.50	< 2	< 10	128	< 0.5	< 2	0.40	14	41	3.07	< 10
178110	< 5				< 0.2	< 0.5	22	340	< 1	27	3	90	2.87	< 2	< 10	72	0.5	< 2	0.41	12	40	3.42	< 10
178111	6				< 0.2	< 0.5	35	2240	< 1	22	6	97	2.27	< 2	< 10	205	< 0.5	< 2	0.39	19	30	5.10	< 10
178112	5				< 0.2	< 0.5	21	241	< 1	21	11	43	1.88	< 2	< 10	60	< 0.5	< 2	0.34	9	38	3.13	< 10
178113	< 5				< 0.2	< 0.5	24	226	< 1	29	8	49	2.70	< 2	< 10	67	< 0.5	< 2	0.32	13	47	3.48	< 10
178114	< 5				< 0.2	< 0.5	13	181	< 1	24	5	40	2.41	< 2	< 10	96	< 0.5	< 2	0.30	12	41	3.31	< 10
178115	< 5				< 0.2	< 0.5	11	308	< 1	27	5	72	2.73	2	< 10	101	< 0.5	< 2	0.35	13	43	3.46	< 10
178116	< 5				< 0.2	< 0.5	15	282	< 1	21	2	45	2.08	< 2	< 10	41	< 0.5	< 2	0.44	11	35	2.96	< 10
178117	13				< 0.2	< 0.5	8	357	< 1	13	7	62	1.85	< 2	< 10	81	< 0.5	< 2	0.26	8	33	3.17	< 10
178118	< 5				< 0.2	< 0.5	13	404	< 1	23	8	53	2.51	3	< 10	91	< 0.5	< 2	0.50	11	38	3.42	< 10
178119	< 5				0.3	< 0.5	16	211	< 1	30	3	48	3.29	< 2	< 10	61	< 0.5	< 2	0.50	13	45	3.28	< 10
178120	< 5				< 0.2	< 0.5	28	212	< 1	17	3	32	1.78	< 2	< 10	68	< 0.5	< 2	0.59	8	33	1.97	< 10

## Results

## Activation Laboratories Ltd.

## Report: A17-06864

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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
178121	82				< 0.2	< 0.5	41	231	< 1	25	5	49	3.15	< 2	< 10	58	< 0.5	< 2	0.44	12	44	3.17	< 10
178122	< 5				< 0.2	< 0.5	25	345	< 1	31	4	43	2.07	4	< 10	73	< 0.5	< 2	0.46	13	53	3.29	< 10
178123	< 5				< 0.2	< 0.5	33	211	< 1	19	6	50	3.18	< 2	< 10	61	< 0.5	< 2	0.30	9	44	3.50	< 10
178124	< 5				< 0.2	< 0.5	63	447	< 1	33	7	46	3.68	< 2	< 10	140	0.5	< 2	0.61	15	46	3.25	< 10
178125	< 5				< 0.2	< 0.5	20	207	< 1	27	6	40	3.10	< 2	< 10	79	0.5	< 2	0.53	12	40	3.81	< 10
178126	< 5				< 0.2	< 0.5	16	189	< 1	12	13	39	1.75	2	< 10	84	< 0.5	< 2	0.19	6	30	2.41	< 10
178127	6				< 0.2	< 0.5	17	919	< 1	22	4	52	2.73	< 2	< 10	130	< 0.5	< 2	0.61	13	44	3.30	< 10
178128	130				< 0.2	< 0.5	29	809	< 1	20	5	54	2.51	< 2	< 10	85	< 0.5	< 2	0.54	11	35	3.05	< 10
178129	< 5				< 0.2	< 0.5	15	261	< 1	11	9	53	2.12	< 2	< 10	75	< 0.5	< 2	0.27	8	32	3.05	10
178130	< 5				< 0.2	< 0.5	51	1030	< 1	30	8	72	3.52	< 2	< 10	187	0.6	< 2	0.60	14	45	2.94	< 10
178131	< 5				< 0.2	< 0.5	23	422	1	17	6	73	2.75	4	< 10	81	< 0.5	< 2	0.33	11	42	5.57	10
178132	< 5				< 0.2	< 0.5	23	431	< 1	29	5	41	3.26	3	< 10	141	0.5	< 2	0.41	13	45	3.29	< 10
178133	< 5				< 0.2	< 0.5	14	258	< 1	17	8	59	2.26	< 2	< 10	94	< 0.5	< 2	0.36	9	39	4.46	10
178134	13				< 0.2	0.8	77	3570	< 1	27	14	114	3.27	3	< 10	143	0.5	< 2	0.65	24	41	5.90	< 10
178135	< 5				< 0.2	< 0.5	47	2250	< 1	22	20	70	2.83	< 2	< 10	195	0.6	< 2	0.75	17	37	4.07	< 10
178136	< 5				< 0.2	< 0.5	16	216	< 1	29	6	41	2.56	< 2	< 10	81	< 0.5	< 2	0.31	12	50	3.85	< 10
178137	< 5				< 0.2	< 0.5	17	224	< 1	22	5	43	2.65	< 2	< 10	63	< 0.5	< 2	0.35	9	47	3.14	< 10
178138	< 5				< 0.2	< 0.5	9	231	< 1	26	7	40	2.73	< 2	< 10	140	< 0.5	< 2	0.33	11	41	3.16	< 10
178139	< 5				< 0.2	< 0.5	8	245	< 1	17	7	38	1.87	< 2	< 10	74	< 0.5	< 2	0.32	9	37	3.04	< 10
178140	< 5				< 0.2	< 0.5	5	109	< 1	15	6	20	1.42	< 2	< 10	58	< 0.5	< 2	0.28	7	26	2.00	< 10
178141	16				< 0.2	< 0.5	16	181	1	9	6	29	1.47	< 2	< 10	41	< 0.5	< 2	0.18	8	20	4.12	< 10
178142	< 5				< 0.2	< 0.5	14	173	< 1	28	3	27	2.58	< 2	< 10	90	< 0.5	< 2	0.43	13	44	2.91	< 10
178143	< 5				< 0.2	< 0.5	25	257	< 1	22	3	25	2.20	< 2	< 10	90	< 0.5	< 2	0.65	12	44	2.84	< 10
178144	< 5				< 0.2	< 0.5	17	321	< 1	26	7	36	2.80	2	< 10	88	< 0.5	< 2	0.48	13	43	3.02	< 10
178145	< 5				< 0.2	< 0.5	22	209	< 1	27	< 2	45	2.92	3	< 10	57	< 0.5	< 2	0.42	14	43	3.25	< 10
178146	< 5				< 0.2	< 0.5	19	91	2	15	3	15	1.80	< 2	< 10	61	< 0.5	< 2	0.64	6	31	2.14	< 10
178147	< 5				< 0.2	< 0.5	25	194	< 1	19	6	52	3.36	< 2	< 10	58	0.6	< 2	0.31	10	40	3.23	< 10
178148	8				< 0.2	< 0.5	28	127	< 1	21	4	23	3.32	< 2	< 10	70	< 0.5	< 2	0.39	10	42	2.94	< 10
178149	< 5				< 0.2	< 0.5	21	816	< 1	15	4	25	1.54	< 2	< 10	79	< 0.5	< 2	0.78	11	30	1.77	< 10
178150	< 5				< 0.2	< 0.5	17	127	< 1	17	6	26	1.64	< 2	< 10	64	< 0.5	< 2	0.54	7	34	1.45	< 10
178151	< 5				< 0.2	< 0.5	23	196	< 1	28	6	42	2.75	< 2	< 10	86	< 0.5	< 2	0.47	13	45	2.93	< 10
178152	< 5				< 0.2	< 0.5	17	178	< 1	28	6	36	2.97	< 2	< 10	84	< 0.5	< 2	0.39	13	45	3.25	< 10
178153	< 5				< 0.2	< 0.5	8	178	< 1	21	7	40	1.88	< 2	< 10	67	< 0.5	< 2	0.53	8	39	1.72	< 10
178154	< 5				0.3	< 0.5	22	283	< 1	34	13	56	2.21	< 2	< 10	108	< 0.5	< 2	0.76	14	75	3.03	< 10
178155	< 5				< 0.2	< 0.5	18	217	< 1	33	12	43	2.27	< 2	< 10	82	< 0.5	< 2	0.57	13	62	2.82	< 10
178156	< 5				< 0.2	< 0.5	10	233	< 1	25	6	40	1.98	< 2	< 10	69	< 0.5	< 2	0.45	11	40	3.06	< 10
178157	< 5				< 0.2	< 0.5	12	593	< 1	32	5	93	2.59	< 2	< 10	147	< 0.5	< 2	0.33	13	51	3.71	< 10
178158	< 5				< 0.2	< 0.5	76	482	< 1	40	6	45	3.33	2	< 10	118	1.0	< 2	0.58	21	86	8.50	< 10
178159	< 5				< 0.2	< 0.5	20	352	< 1	30	6	73	2.49	< 2	< 10	84	< 0.5	< 2	0.44	15	54	3.67	< 10
178160	< 5				< 0.2	< 0.5	16	422	< 1	29	4	54	2.38	< 2	< 10	109	< 0.5	< 2	0.40	13	48	3.43	< 10
178161	< 5				< 0.2	< 0.5	10	638	< 1	19	8	56	1.98	< 2	< 10	153	< 0.5	< 2	0.40	9	36	2.71	< 10
178162	< 5				< 0.2	< 0.5	15	218	< 1	41	5	55	3.01	2	< 10	142	< 0.5	< 2	0.36	17	55	4.09	< 10

## Results

## Activation Laboratories Ltd.

## Report: A17-06864

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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
178163	< 5				< 0.2	< 0.5	33	191	< 1	28	5	37	2.36	3	< 10	51	< 0.5	< 2	0.33	13	49	3.34	< 10
178164	< 5				< 0.2	< 0.5	45	329	< 1	27	5	32	1.76	3	< 10	62	< 0.5	< 2	0.70	15	50	2.98	< 10
178165	< 5				< 0.2	< 0.5	16	154	< 1	14	3	18	1.21	< 2	< 10	83	< 0.5	< 2	0.84	4	27	1.46	< 10
178166	< 5				< 0.2	< 0.5	17	171	< 1	23	8	43	2.35	< 2	< 10	66	< 0.5	< 2	0.33	9	49	2.79	< 10
178167	< 5				< 0.2	< 0.5	12	281	< 1	18	7	62	2.14	< 2	< 10	73	< 0.5	< 2	0.29	9	40	3.07	< 10
178168	< 5				< 0.2	< 0.5	12	141	< 1	16	9	31	1.56	< 2	< 10	43	< 0.5	< 2	0.26	7	37	2.17	< 10
178169	6				< 0.2	< 0.5	26	145	< 1	17	5	33	2.36	< 2	< 10	51	< 0.5	< 2	0.23	8	43	3.41	< 10
178170	< 5				< 0.2	< 0.5	39	1300	< 1	28	7	41	3.18	< 2	< 10	103	0.6	< 2	0.71	18	50	3.98	< 10
178171	< 5				< 0.2	< 0.5	25	212	< 1	23	6	54	2.80	< 2	< 10	75	0.5	< 2	0.49	11	39	3.77	10
178172	< 5				< 0.2	< 0.5	10	134	< 1	17	7	25	1.96	< 2	< 10	62	< 0.5	< 2	0.24	8	33	2.57	< 10
178173	< 5				< 0.2	< 0.5	25	257	< 1	26	6	43	2.37	< 2	< 10	59	< 0.5	< 2	0.35	14	44	3.26	< 10
178174	< 5				< 0.2	< 0.5	21	676	< 1	23	4	59	2.74	< 2	< 10	117	< 0.5	< 2	0.34	13	43	4.84	10
178175	< 5				< 0.2	< 0.5	24	189	< 1	24	7	33	2.64	< 2	< 10	70	< 0.5	< 2	0.36	11	39	3.09	< 10
178176	< 5				< 0.2	< 0.5	13	510	< 1	21	7	46	2.10	< 2	< 10	81	< 0.5	< 2	0.38	12	40	3.55	< 10
178177	< 5				< 0.2	< 0.5	30	244	< 1	25	3	60	3.02	3	< 10	70	0.5	< 2	0.36	12	43	3.32	< 10
178178	44				< 0.2	< 0.5	12	369	< 1	19	5	42	2.01	< 2	< 10	109	< 0.5	< 2	0.37	10	36	2.63	< 10
178179	< 5				< 0.2	< 0.5	33	292	< 1	27	4	34	2.26	< 2	< 10	116	< 0.5	< 2	0.53	12	38	2.80	< 10
352982	< 5				< 0.2	< 0.5	23	199	< 1	27	5	35	1.84	< 2	< 10	65	< 0.5	< 2	0.41	11	43	3.44	< 10
352983	< 5				< 0.2	< 0.5	26	227	< 1	25	5	33	2.45	< 2	< 10	124	< 0.5	< 2	0.50	10	40	2.52	< 10
352984	< 5				< 0.2	< 0.5	55	204	< 1	11	11	55	1.50	< 2	< 10	91	< 0.5	< 2	0.25	5	22	1.94	< 10
352985	< 5				< 0.2	< 0.5	26	256	< 1	24	9	44	2.42	< 2	< 10	94	< 0.5	< 2	0.41	11	40	2.79	< 10
352986	< 5				< 0.2	< 0.5	21	378	< 1	26	6	39	2.10	2	< 10	88	< 0.5	< 2	0.43	13	43	3.30	< 10
352987	< 5				< 0.2	< 0.5	20	285	< 1	22	5	34	2.20	< 2	< 10	78	< 0.5	< 2	0.47	11	38	2.45	< 10
352988	< 5				< 0.2	< 0.5	11	125	< 1	20	6	32	2.45	< 2	< 10	54	< 0.5	< 2	0.28	9	37	2.79	< 10
352989	< 5				< 0.2	< 0.5	20	173	1	18	6	58	2.44	< 2	< 10	45	< 0.5	< 2	0.31	9	46	3.54	< 10
352990	< 5				< 0.2	< 0.5	19	962	< 1	20	5	54	2.61	< 2	< 10	145	< 0.5	< 2	0.74	12	41	2.83	< 10
352991	< 5				< 0.2	< 0.5	16	250	< 1	26	4	61	2.54	< 2	< 10	57	< 0.5	< 2	0.34	12	40	3.61	< 10
352992	< 5				< 0.2	< 0.5	22	411	< 1	25	5	56	2.88	< 2	< 10	70	0.5	< 2	0.35	12	43	3.35	< 10
352993	< 5				< 0.2	< 0.5	25	2150	< 1	22	13	80	2.40	3	< 10	181	< 0.5	< 2	0.44	17	43	3.95	< 10
352994	< 5				< 0.2	< 0.5	15	297	< 1	19	6	40	2.55	3	< 10	65	< 0.5	< 2	0.35	10	38	2.92	< 10
352995	< 5				< 0.2	< 0.5	15	227	< 1	24	6	45	2.74	< 2	< 10	84	< 0.5	< 2	0.33	11	42	3.13	< 10
352996	< 5				< 0.2	< 0.5	16	203	< 1	27	5	41	2.54	< 2	< 10	103	< 0.5	< 2	0.39	12	43	3.16	< 10
352997	< 5				< 0.2	< 0.5	25	1330	< 1	20	8	71	2.45	< 2	< 10	141	< 0.5	< 2	0.58	13	38	3.07	< 10
352998	< 5				< 0.2	< 0.5	23	201	< 1	20	9	32	2.82	3	< 10	71	< 0.5	< 2	0.30	9	40	3.88	10
013157	5				< 0.2	< 0.5	17	340	< 1	27	4	66	3.12	< 2	< 10	85	0.6	< 2	0.44	13	42	3.15	< 10
013158	< 5				< 0.2	< 0.5	33	304	< 1	31	3	34	2.62	< 2	< 10	114	< 0.5	< 2	0.53	12	44	2.81	< 10
013159	< 5				< 0.2	< 0.5	20	413	< 1	43	6	49	3.00	< 2	< 10	129	< 0.5	< 2	0.47	16	56	3.59	< 10
013160	< 5				< 0.2	< 0.5	20	227	< 1	25	7	39	1.83	< 2	< 10	67	< 0.5	< 2	0.38	11	58	3.43	< 10



Analyte Symbol	Hg	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Cu
Unit Symbol	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	1	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES
178460	< 1	0.05	15	0.89	0.051	0.030	3.58	2	2	5	< 0.01	< 20	< 1	< 2	< 10	20	< 10	2	12	3.54
178461	2	0.03	< 10	0.40	0.029	0.025	4.67	2	1	4	< 0.01	< 20	2	< 2	< 10	11	< 10	< 1	8	4.96
178462	< 1	0.05	< 10	0.53	0.051	0.022	2.13	< 2	1	6	< 0.01	< 20	< 1	< 2	< 10	12	< 10	< 1	7	2.11
178463	< 1	0.10	< 10	0.39	0.031	0.015	5.95	2	< 1	3	< 0.01	< 20	< 1	< 2	< 10	8	< 10	3	15	3.15
178464	< 1	0.19	< 10	1.05	0.039	0.010	1.58	< 2	2	5	< 0.01	< 20	2	< 2	< 10	25	< 10	5	21	
178465	< 1	0.10	30	0.25	0.067	0.027	1.36	< 2	1	8	< 0.01	< 20	< 1	< 2	< 10	9	< 10	4	19	1.39
178466	< 1	0.25	19	0.65	0.107	0.027	0.03	< 2	2	10	0.01	< 20	2	< 2	< 10	15	< 10	4	13	
178467	< 1	0.02	11	1.02	0.043	0.018	0.11	< 2	3	9	< 0.01	< 20	< 1	< 2	< 10	23	< 10	3	6	
178468	< 1	0.06	< 10	0.22	0.049	0.011	0.14	< 2	< 1	9	< 0.01	< 20	< 1	< 2	< 10	8	< 10	2	2	
178469	< 1	0.05	15	0.67	0.034	0.032	0.42	< 2	1	7	< 0.01	< 20	< 1	< 2	< 10	9	< 10	7	13	
178470	< 1	0.01	< 10	1.31	0.019	0.014	0.40	2	3	5	< 0.01	< 20	< 1	3	< 10	33	< 10	4	5	
178471	< 1	0.02	< 10	1.40	0.023	0.011	0.26	< 2	2	8	< 0.01	< 20	3	< 2	< 10	23	< 10	5	6	
013151																				
013152																				
013153																				
013154																				
013155																				
013156																				
013161	< 1	0.01	< 10	6.16	0.033	0.022	0.02	< 2	4	17	< 0.01	< 20	< 1	< 2	< 10	22	< 10	6	2	
013162	< 1	< 0.01	< 10	1.68	0.022	0.051	7.07	10	< 1	22	0.13	< 20	15	2	< 10	105	< 10	1	4	8.71
013163	3	< 0.01	< 10	2.10	0.031	0.089	6.70	5	2	16	0.01	< 20	5	< 2	< 10	27	< 10	2	3	5.79
013164	< 1	0.27	< 10	1.41	0.109	0.033	1.18	< 2	6	32	0.16	< 20	4	< 2	< 10	48	< 10	9	17	
178101	< 1	0.05	< 10	0.41	0.047	0.021	0.02	< 2	3	13	0.19	< 20	6	< 2	< 10	132	< 10	3	7	
178102	< 1	0.05	12	0.56	0.066	0.026	0.02	< 2	5	17	0.17	< 20	6	< 2	< 10	108	< 10	6	5	
178103	< 1	0.05	< 10	0.39	0.039	0.022	0.02	< 2	3	13	0.16	< 20	3	< 2	< 10	115	< 10	3	4	
178104	< 1	0.05	< 10	0.40	0.041	0.030	0.02	< 2	3	18	0.15	< 20	5	< 2	< 10	114	< 10	3	3	
178105	< 1	0.05	10	0.51	0.056	0.023	0.02	< 2	4	18	0.18	< 20	5	< 2	< 10	117	< 10	4	5	
178106	< 1	0.05	11	0.58	0.066	0.019	0.02	< 2	4	17	0.19	< 20	4	< 2	< 10	106	< 10	5	6	
178107	< 1	0.05	11	0.47	0.053	0.018	0.02	< 2	3	18	0.19	< 20	1	< 2	< 10	121	< 10	4	4	
178108	< 1	0.05	13	0.58	0.130	0.044	< 0.01	2	5	26	0.18	< 20	4	< 2	< 10	94	< 10	8	5	
178109	< 1	0.06	11	0.30	0.035	0.027	0.02	< 2	3	17	0.12	< 20	2	< 2	< 10	97	< 10	3	2	
178110	< 1	0.07	11	0.57	0.054	0.051	0.02	< 2	4	15	0.15	< 20	< 1	< 2	< 10	98	< 10	4	3	
178111	< 1	0.10	17	0.45	0.039	0.054	0.02	< 2	5	19	0.07	< 20	< 1	< 2	< 10	89	< 10	5	2	
178112	< 1	0.05	< 10	0.49	0.045	0.020	0.02	2	3	15	0.15	< 20	9	< 2	< 10	114	< 10	4	5	
178113	< 1	0.06	< 10	0.60	0.048	0.027	0.02	< 2	4	14	0.16	< 20	3	< 2	< 10	115	< 10	4	4	
178114	< 1	0.05	< 10	0.54	0.044	0.014	0.01	< 2	3	14	0.19	< 20	5	< 2	< 10	118	< 10	3	6	
178115	< 1	0.07	< 10	0.59	0.050	0.034	0.02	< 2	3	15	0.17	< 20	< 1	3	< 10	119	< 10	4	3	
178116	< 1	0.05	13	0.52	0.060	0.060	0.02	< 2	4	14	0.16	< 20	1	< 2	< 10	131	< 10	6	3	
178117	< 1	0.06	11	0.33	0.032	0.047	0.02	< 2	3	13	0.15	< 20	2	< 2	< 10	112	< 10	3	3	
178118	< 1	0.07	< 10	0.62	0.060	0.060	0.03	2	3	18	0.15	< 20	5	< 2	< 10	110	< 10	4	3	
178119	< 1	0.07	< 10	0.76	0.082	0.038	0.02	< 2	4	16	0.17	< 20	< 1	< 2	< 10	107	< 10	5	7	

## Results

## Activation Laboratories Ltd.

Report: A17-06864

Analyte Symbol	Hg	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Cu
Unit Symbol	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	1	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES
178120	< 1	0.04	11	0.51	0.088	0.010	< 0.01	< 2	4	21	0.18	< 20	< 1	< 2	< 10	72	< 10	5	6	
178121	< 1	0.06	12	0.65	0.066	0.047	0.03	2	5	14	0.18	< 20		1	< 2	< 10	117	< 10	8	7
178122	< 1	0.04	< 10	0.55	0.065	0.028	0.01	3	4	17	0.20	< 20		3	3	< 10	150	< 10	5	6
178123	< 1	0.04	11	0.52	0.047	0.034	0.02	< 2	6	12	0.18	< 20	< 1	< 2	< 10	118	< 10	6	6	
178124	< 1	0.06	13	0.64	0.081	0.020	0.02	< 2	6	22	0.16	< 20	< 1	< 2	< 10	92	< 10	7	5	
178125	< 1	0.05	< 10	0.59	0.054	0.032	0.02	< 2	4	18	0.17	< 20		3	< 2	< 10	115	< 10	5	5
178126	< 1	0.05	11	0.32	0.030	0.025	0.03	< 2	4	11	0.11	< 20		2	< 2	< 10	92	< 10	3	3
178127	< 1	0.06	12	0.57	0.063	0.023	0.01	< 2	5	20	0.17	< 20	< 1	< 2	< 10	115	< 10	5	4	
178128	< 1	0.06	< 10	0.58	0.063	0.041	0.02	< 2	4	17	0.13	< 20	< 1	< 2	< 10	95	< 10	5	3	
178129	< 1	0.05	11	0.39	0.033	0.027	0.02	< 2	3	13	0.15	< 20		2	< 2	< 10	112	< 10	4	2
178130	< 1	0.07	12	0.64	0.061	0.023	< 0.01	< 2	5	18	0.15	< 20		1	< 2	< 10	75	< 10	6	5
178131	< 1	0.08	10	0.65	0.031	0.054	0.02	2	5	15	0.21	< 20		3	< 2	< 10	167	< 10	4	4
178132	< 1	0.06	10	0.57	0.057	0.027	0.01	3	4	17	0.18	< 20	< 1	< 2	< 10	107	< 10	4	6	
178133	< 1	0.05	< 10	0.45	0.035	0.053	0.02	< 2	4	13	0.16	< 20		2	< 2	< 10	140	< 10	4	4
178134	2	0.07	12	0.89	0.026	0.076	0.04	4	12	17	0.06	< 20	< 1	< 2	< 10	141	< 10	11	2	
178135	< 1	0.09	12	0.61	0.059	0.048	0.03	< 2	8	22	0.11	< 20	< 1	< 2	< 10	124	< 10	8	3	
178136	< 1	0.06	< 10	0.51	0.047	0.023	0.02	< 2	4	13	0.21	< 20		2	< 2	< 10	142	< 10	4	7
178137	< 1	0.04	< 10	0.47	0.049	0.063	0.02	< 2	4	13	0.15	< 20		6	< 2	< 10	119	< 10	4	3
178138	< 1	0.09	< 10	0.50	0.044	0.028	0.02	< 2	3	16	0.18	< 20		3	< 2	< 10	107	< 10	3	5
178139	< 1	0.08	< 10	0.36	0.044	0.022	0.01	< 2	3	15	0.18	< 20		1	< 2	< 10	121	< 10	3	4
178140	< 1	0.03	< 10	0.24	0.044	0.011	0.01	< 2	2	13	0.16	< 20		5	< 2	< 10	99	< 10	2	4
178141	< 1	0.03	10	0.33	0.025	0.016	0.01	2	5	10	0.10	< 20	< 1	< 2	< 10	150	< 10	2	3	
178142	< 1	0.04	< 10	0.48	0.075	0.017	0.01	< 2	4	19	0.19	< 20		5	< 2	< 10	118	< 10	4	8
178143	< 1	0.04	14	0.55	0.111	0.014	< 0.01	2	6	24	0.22	< 20		3	< 2	< 10	115	< 10	7	8
178144	< 1	0.05	< 10	0.54	0.057	0.030	0.02	< 2	4	19	0.16	< 20		4	< 2	< 10	113	< 10	4	5
178145	< 1	0.04	< 10	0.48	0.062	0.031	0.02	2	4	15	0.17	< 20	< 1	< 2	< 10	125	< 10	5	6	
178146	< 1	0.03	< 10	0.25	0.054	0.037	0.03	< 2	4	16	0.12	< 20		2	< 2	< 10	101	< 10	5	2
178147	< 1	0.04	10	0.51	0.049	0.028	0.03	< 2	4	12	0.15	< 20		2	< 2	< 10	103	< 10	5	4
178148	< 1	0.04	< 10	0.52	0.062	0.029	0.03	< 2	5	14	0.16	< 20	< 1	< 2	< 10	95	< 10	6	8	
178149	< 1	0.05	< 10	0.47	0.084	0.021	0.03	< 2	4	20	0.16	< 20		2	< 2	< 10	74	< 10	5	3
178150	< 1	0.03	< 10	0.41	0.067	0.013	0.02	< 2	4	19	0.19	< 20		4	< 2	< 10	59	< 10	4	6
178151	< 1	0.04	< 10	0.54	0.073	0.029	0.02	< 2	4	19	0.17	< 20	< 1	< 2	< 10	101	< 10	5	8	
178152	< 1	0.05	11	0.57	0.060	0.025	0.02	< 2	4	15	0.16	< 20	< 1	< 2	< 10	108	< 10	4	8	
178153	< 1	0.05	< 10	0.58	0.065	0.009	0.01	< 2	3	18	0.19	< 20		6	< 2	< 10	70	< 10	4	6
178154	< 1	0.11	17	0.99	0.054	0.035	0.04	< 2	6	20	0.20	< 20	< 1	< 2	< 10	87	< 10	6	4	
178155	< 1	0.07	12	0.76	0.058	0.023	0.03	< 2	5	19	0.19	< 20	< 1	< 2	< 10	107	< 10	4	5	
178156	< 1	0.06	< 10	0.46	0.065	0.029	0.01	< 2	3	17	0.18	< 20		6	< 2	< 10	131	< 10	4	5
178157	< 1	0.10	< 10	0.58	0.048	0.029	0.01	< 2	4	16	0.21	< 20		2	< 2	< 10	137	< 10	4	5
178158	< 1	0.11	48	0.81	0.046	0.046	0.03	3	10	17	0.15	< 20		2	< 2	< 10	228	< 10	13	5
178159	< 1	0.08	< 10	0.68	0.065	0.036	0.02	< 2	4	17	0.20	< 20		4	< 2	< 10	129	< 10	4	6
178160	< 1	0.08	< 10	0.57	0.064	0.038	0.02	< 2	4	16	0.18	< 20		2	< 2	< 10	130	< 10	4	5
178161	< 1	0.10	< 10	0.37	0.041	0.032	0.02	< 2	3	20	0.14	< 20	< 1	< 2	< 10	101	< 10	3	2	

## Results

## Activation Laboratories Ltd.

## Report: A17-06864

Analyte Symbol	Hg	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Cu
Unit Symbol	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	1	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES
178162	< 1	0.08	< 10	0.60	0.055	0.022	0.01	< 2	3	21	0.20	< 20	1	< 2	< 10	154	< 10	3	6	
178163	< 1	0.04	< 10	0.62	0.046	0.023	0.02	< 2	4	13	0.16	< 20	2	< 2	< 10	131	< 10	4	5	
178164	< 1	0.04	17	0.66	0.083	0.016	< 0.01	< 2	6	22	0.18	< 20	2	< 2	< 10	99	< 10	9	6	
178165	< 1	0.03	14	0.25	0.056	0.039	0.03	< 2	5	19	0.10	< 20	1	< 2	< 10	35	< 10	8	3	
178166	< 1	0.04	10	0.60	0.058	0.013	0.01	< 2	4	13	0.17	< 20	4	< 2	< 10	92	< 10	4	7	
178167	< 1	0.05	< 10	0.44	0.048	0.018	0.02	< 2	3	13	0.17	< 20	3	< 2	< 10	115	< 10	4	5	
178168	< 1	0.04	< 10	0.50	0.031	0.021	0.03	< 2	3	13	0.12	< 20	4	< 2	< 10	102	< 10	3	2	
178169	< 1	0.04	< 10	0.47	0.036	0.023	0.02	< 2	5	10	0.13	< 20	2	< 2	< 10	119	< 10	3	5	
178170	< 1	0.07	12	0.56	0.057	0.034	0.03	< 2	5	18	0.14	< 20	4	< 2	< 10	120	< 10	6	4	
178171	< 1	0.07	11	0.64	0.055	0.031	0.02	2	5	15	0.17	< 20	2	< 2	< 10	112	< 10	6	6	
178172	< 1	0.03	< 10	0.31	0.036	0.018	0.02	< 2	3	12	0.15	< 20	4	< 2	< 10	106	< 10	3	4	
178173	< 1	0.05	< 10	0.50	0.053	0.030	0.02	< 2	4	14	0.18	< 20	< 1	< 2	< 10	131	< 10	5	6	
178174	< 1	0.07	< 10	0.69	0.035	0.027	0.02	< 2	6	14	0.13	< 20	< 1	< 2	< 10	143	< 10	3	3	
178175	< 1	0.05	10	0.49	0.049	0.021	0.02	< 2	4	15	0.17	< 20	< 1	< 2	< 10	114	< 10	4	5	
178176	< 1	0.05	< 10	0.44	0.047	0.019	0.01	< 2	3	16	0.18	< 20	1	< 2	< 10	140	< 10	3	5	
178177	< 1	0.06	< 10	0.56	0.052	0.041	0.02	< 2	5	14	0.16	< 20	< 1	< 2	< 10	115	< 10	5	6	
178178	< 1	0.04	< 10	0.44	0.060	0.017	< 0.01	< 2	3	16	0.18	< 20	3	< 2	< 10	104	< 10	3	7	
178179	< 1	0.05	< 10	0.44	0.097	0.018	< 0.01	< 2	4	20	0.19	< 20	7	< 2	< 10	117	< 10	5	8	
352982	< 1	0.04	11	0.58	0.058	0.019	0.01	< 2	4	17	0.21	< 20	3	< 2	< 10	169	< 10	5	6	
352983	< 1	0.05	< 10	0.66	0.075	0.017	< 0.01	< 2	4	20	0.19	< 20	< 1	< 2	< 10	92	< 10	4	8	
352984	< 1	0.04	14	0.26	0.025	0.036	0.03	< 2	2	13	0.07	< 20	< 1	< 2	< 10	68	< 10	3	1	
352985	< 1	0.05	11	0.54	0.052	0.037	0.03	< 2	4	18	0.12	< 20	5	< 2	< 10	101	< 10	5	3	
352986	< 1	0.05	< 10	0.46	0.061	0.030	0.02	< 2	3	18	0.17	< 20	2	< 2	< 10	134	< 10	4	4	
352987	< 1	0.05	12	0.50	0.066	0.023	0.02	< 2	4	19	0.16	< 20	1	< 2	< 10	100	< 10	6	5	
352988	< 1	0.04	< 10	0.37	0.042	0.017	0.02	< 2	3	13	0.14	< 20	< 1	< 2	< 10	99	< 10	3	5	
352989	< 1	0.05	11	0.47	0.044	0.028	0.03	< 2	5	13	0.14	< 20	1	< 2	< 10	112	< 10	6	4	
352990	< 1	0.08	12	0.61	0.075	0.043	0.03	< 2	4	24	0.11	< 20	< 1	< 2	< 10	99	< 10	6	2	
352991	< 1	0.05	< 10	0.56	0.049	0.023	0.01	< 2	4	13	0.16	< 20	2	< 2	< 10	112	< 10	4	5	
352992	< 1	0.05	10	0.55	0.052	0.042	0.02	< 2	4	13	0.14	< 20	< 1	< 2	< 10	105	< 10	5	4	
352993	< 1	0.09	11	0.54	0.034	0.041	0.02	2	5	19	0.09	< 20	< 1	< 2	< 10	116	< 10	3	2	
352994	< 1	0.06	< 10	0.46	0.049	0.040	0.03	< 2	4	15	0.14	< 20	< 1	< 2	< 10	107	< 10	4	3	
352995	< 1	0.06	10	0.53	0.052	0.023	0.01	< 2	4	16	0.18	< 20	< 1	< 2	< 10	107	< 10	4	5	
352996	< 1	0.05	< 10	0.49	0.058	0.021	< 0.01	< 2	3	20	0.19	< 20	2	< 2	< 10	125	< 10	4	6	
352997	< 1	0.11	11	0.56	0.044	0.032	0.02	< 2	5	21	0.12	< 20	< 1	< 2	< 10	96	< 10	5	2	
352998	< 1	0.05	10	0.53	0.045	0.020	0.02	< 2	4	13	0.16	< 20	5	3	< 10	121	< 10	4	6	
013157	< 1	0.08	11	0.68	0.063	0.075	0.02	< 2	4	17	0.15	< 20	< 1	2	< 10	91	< 10	5	6	
013158	< 1	0.06	< 10	0.64	0.084	0.025	< 0.01	< 2	4	27	0.19	< 20	8	< 2	< 10	93	< 10	5	8	
013159	< 1	0.09	< 10	0.73	0.059	0.031	0.01	3	4	23	0.18	< 20	2	< 2	< 10	108	< 10	4	6	
013160	< 1	0.05	< 10	0.56	0.036	0.016	0.01	< 2	4	15	0.20	< 20	6	< 2	< 10	117	< 10	4	6	

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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					29.5	2.6	1160	792	13	32	661	698	0.33	400	10	385	0.8	1460	0.76	6	8	21.4	< 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
GXR-1 Meas					29.4	2.3	1120	800	13	34	673	691	0.33	387	12	311	0.8	1420	0.78	6	6	21.4	< 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
GXR-1 Meas					28.7	2.5	1080	777	13	31	647	683	0.32	375	< 10	361	0.8	1400	0.77	6	8	20.8	< 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
GXR-4 Meas					3.7	< 0.5	6660	144	319	35	45	74	2.84	106	< 10	62	1.4	23	0.90	14	59	3.14	< 10
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
GXR-4 Meas					3.6	< 0.5	6330	141	305	35	48	74	2.67	103	< 10	43	1.4	18	0.87	13	57	2.97	< 10
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
GXR-4 Meas					3.4	< 0.5	6160	133	300	34	44	66	2.63	102	< 10	41	1.4	19	0.85	13	55	2.90	< 10
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
CZN-3 Meas																							
CZN-3 Cert																							
CZN-3 Meas																							
CZN-3 Cert																							
GXR-6 Meas					0.3	< 0.5	67	999	1	21	97	121	6.97	234	< 10	897	0.9	< 2	0.14	12	81	5.49	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
GXR-6 Meas					0.2	< 0.5	67	1020	2	20	100	124	6.95	236	< 10	900	0.9	< 2	0.15	13	82	5.51	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
GXR-6 Meas					0.2	< 0.5	67	1000	1	22	98	120	6.89	240	< 10	902	0.9	< 2	0.14	12	81	5.46	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
MP-1b Meas																							
MP-1b Cert																							
MP-1b Meas																							
MP-1b Cert																							
PK2 Meas		5040	6060	4840																			
PK2 Cert		4790	5918.0 00	4749.0 00																			
PK2 Meas		5090	6320	5080																			
PK2 Cert		4790	5918.0 00	4749.0 00																			
PK2 Meas		4990	6100	4910																			
PK2 Cert		4790	5918.0 00	4749.0 00																			
CCU-1d Meas																							
CCU-1d Cert																							
CCU-1d Meas																							
CCU-1d Cert																							
CPB-2 Meas																							
CPB-2 Cert																							
CDN-PGMS-25 Meas		440	1740	373																			

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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
CDN-PGMS-25 Cert		483	1830	400																			
CDN-PGMS-25 Meas		517	1920	413																			
CDN-PGMS-25 Cert		483	1830	400																			
PTC-1b Meas																							
PTC-1b Cert																							
PTC-1b Meas																							
PTC-1b Cert																							
OREAS 254 Meas	2620																						
OREAS 254 Cert	2550																						
OREAS 254 Meas	2530																						
OREAS 254 Cert	2550																						
OREAS 254 Meas	2580																						
OREAS 254 Cert	2550																						
OREAS 254 Meas	2510																						
OREAS 254 Cert	2550																						
OREAS 254 Meas	2490																						
OREAS 254 Cert	2550																						
OREAS 218 Meas	541																						
OREAS 218 Cert	525																						
OREAS 218 Meas	534																						
OREAS 218 Cert	525																						
OREAS 218 Meas	540																						
OREAS 218 Cert	525																						
OREAS 218 Meas	523																						
OREAS 218 Cert	525																						
OREAS 218 Meas	533																						
OREAS 218 Cert	525																						
178469 Orig	19																						
178469 Dup	18																						
013161 Orig					< 0.2	0.6	5	1900	< 1	19	< 2	67	0.41	< 2	< 10	< 10	< 0.5	2	> 10.0	10	10	6.12	< 10
013161 Dup					< 0.2	0.7	4	1900	< 1	18	< 2	67	0.40	2	< 10	< 10	< 0.5	< 2	> 10.0	10	9	6.07	< 10
013162 Orig	4090																						
013163 Orig	1140	1220	12	< 5																			
013163 Dup	1070	1140	11	6																			
178110 Orig	< 5																						
178110 Dup	< 5																						
178111 Orig					< 0.2	< 0.5	34	2240	< 1	23	6	97	2.23	< 2	< 10	203	< 0.5	< 2	0.39	19	30	5.04	< 10
178111 Dup					< 0.2	< 0.5	36	2240	< 1	21	6	98	2.30	3	< 10	206	< 0.5	< 2	0.40	19	31	5.16	< 10
178120 Orig	< 5																						
178120 Dup	< 5																						

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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
178124 Orig					< 0.2	< 0.5	63	451	< 1	33	8	46	3.70	< 2	< 10	141	0.6	< 2	0.63	15	46	3.26	< 10
178124 Dup					< 0.2	< 0.5	62	443	< 1	32	5	46	3.65	< 2	< 10	138	0.5	< 2	0.60	15	45	3.24	< 10
178130 Orig	< 5																						
178130 Dup	< 5																						
178138 Orig					< 0.2	< 0.5	9	232	< 1	26	8	41	2.75	< 2	< 10	141	< 0.5	< 2	0.33	11	41	3.19	< 10
178138 Dup					< 0.2	< 0.5	9	230	< 1	25	5	39	2.72	< 2	< 10	139	< 0.5	< 2	0.33	11	41	3.13	< 10
178145 Orig	< 5																						
178145 Dup	< 5																						
178155 Orig	< 5																						
178155 Dup	< 5																						
178161 Orig					< 0.2	< 0.5	10	645	< 1	18	7	56	1.98	< 2	< 10	153	< 0.5	< 2	0.40	9	37	2.71	< 10
178161 Dup					< 0.2	< 0.5	10	631	< 1	19	9	56	1.99	< 2	< 10	153	< 0.5	< 2	0.40	9	36	2.70	< 10
178165 Orig	< 5																						
178165 Dup	< 5																						
178175 Orig					< 0.2	< 0.5	23	189	< 1	23	7	33	2.62	< 2	< 10	69	< 0.5	< 2	0.36	11	39	3.04	< 10
178175 Dup					< 0.2	< 0.5	24	188	< 1	25	7	33	2.67	< 2	< 10	71	< 0.5	< 2	0.36	11	39	3.14	< 10
352982 Orig	< 5																						
352982 Dup	< 5																						
352990 Orig					< 0.2	< 0.5	19	973	< 1	21	5	54	2.65	< 2	< 10	147	< 0.5	< 2	0.75	12	41	2.88	< 10
352990 Dup					< 0.2	< 0.5	19	951	< 1	20	4	53	2.57	< 2	< 10	143	< 0.5	< 2	0.73	12	41	2.78	< 10
352992 Orig	< 5																						
352992 Dup	< 5																						
013160 Orig	< 5																						
013160 Dup	< 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
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
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
Method Blank					< 0.2	< 0.5	< 1	< 5	< 1	2	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 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
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
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank			< 2	< 5	< 5																		
Method Blank			< 2	< 5	< 5																		

Analyte Symbol	Au	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga
Unit Symbol	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	2	5	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
Method Code	FA-AA	FA-ICP	FA-ICP	FA-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																							
Method Blank																							

Analyte Symbol	Hg	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Cu	
Unit Symbol	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
Lower Limit	1	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.001	
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES	
GXR-1 Meas	3	0.03	< 10	0.13	0.050	0.042	0.20	92	1	167	< 0.01	< 20	17	< 2	29	71	173	23	13		
GXR-1 Cert	3.90	0.050	7.50	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	4	0.03	< 10	0.13	0.049	0.042	0.20	87	1	164	< 0.01	< 20	14	< 2	28	71	175	23	13		
GXR-1 Cert	3.90	0.050	7.50	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	4	0.03	< 10	0.13	0.050	0.042	0.20	89	< 1	163	< 0.01	< 20	16	< 2	29	70	171	22	12		
GXR-1 Cert	3.90	0.050	7.50	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	1.72	44	1.67	0.138	0.127	1.82	4	7	68	0.12	< 20	2	< 2	< 10	78	13	12	9		
GXR-4 Cert	0.110	4.01	64.5	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	1.63	43	1.58	0.129	0.121	1.72	3	7	67	0.12	< 20	2	4	< 10	75	13	11	9		
GXR-4 Cert	0.110	4.01	64.5	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	1.62	44	1.56	0.129	0.119	1.73	3	6	65	0.11	< 20	1	< 2	< 10	73	12	11	9		
GXR-4 Cert	0.110	4.01	64.5	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		
CZN-3 Meas																				0.685	
CZN-3 Cert																					0.685
CZN-3 Meas																					0.709
CZN-3 Cert																					0.685
GXR-6 Meas	< 1	1.09	< 10	0.40	0.082	0.033	0.01	4	19	27		< 20	< 1	< 2	< 10	156	< 10	5	8		
GXR-6 Cert	0.0680	1.87	13.9	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	< 1	1.09	< 10	0.41	0.081	0.033	0.01	5	20	27		< 20	< 1	< 2	< 10	160	< 10	5	8		
GXR-6 Cert	0.0680	1.87	13.9	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	3	1.10	< 10	0.40	0.081	0.032	0.01	3	20	27		< 20	< 1	4	< 10	162	< 10	5	10		
GXR-6 Cert	0.0680	1.87	13.9	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		
MP-1b Meas																					3.01
MP-1b Cert																					3.07
MP-1b Meas																					2.96
MP-1b Cert																					3.07
PK2 Meas																					
PK2 Cert																					
PK2 Meas																					
PK2 Cert																					
PK2 Meas																					
PK2 Cert																					
CCU-1d Meas																					23.9
CCU-1d Cert																					23.93
CCU-1d Meas																					23.9
CCU-1d Cert																					23.93
CPB-2 Meas																					0.123
CPB-2 Cert																					0.1213
CDN-PGMS-25 Meas																					
CDN-PGMS-25 Cert																					





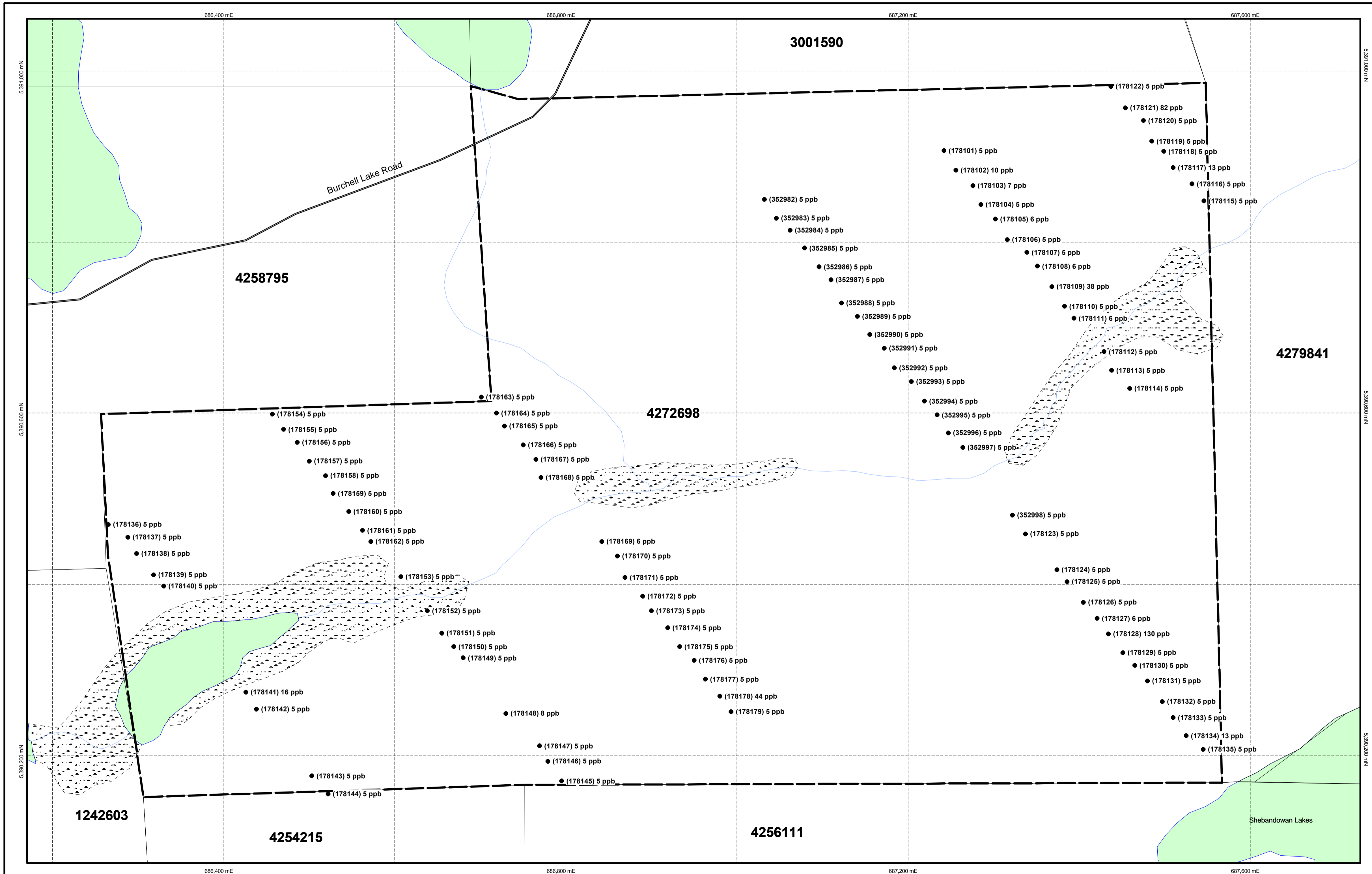
Analyte Symbol	Hg	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Cu
Unit Symbol	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	1	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.001
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES
178124 Dup	< 1	0.06	13	0.64	0.078	0.020	0.02	< 2	6	21	0.16	< 20	2	< 2	< 10	91	< 10	7	5	
178130 Orig																				
178130 Dup																				
178138 Orig	< 1	0.09	< 10	0.51	0.043	0.028	0.02	< 2	3	15	0.18	< 20	5	< 2	< 10	108	< 10	3	5	
178138 Dup	< 1	0.09	< 10	0.50	0.044	0.027	0.02	< 2	3	16	0.18	< 20	2	< 2	< 10	107	< 10	3	5	
178145 Orig																				
178145 Dup																				
178155 Orig																				
178155 Dup																				
178161 Orig	< 1	0.10	< 10	0.37	0.041	0.032	0.02	< 2	3	20	0.15	< 20	2	< 2	< 10	101	< 10	3	2	
178161 Dup	2	0.09	11	0.37	0.041	0.031	0.02	< 2	3	20	0.13	< 20	< 1	< 2	< 10	100	< 10	3	2	
178165 Orig																				
178165 Dup																				
178175 Orig	< 1	0.05	10	0.49	0.048	0.021	0.02	< 2	4	16	0.17	< 20	1	< 2	< 10	114	< 10	4	5	
178175 Dup	< 1	0.05	10	0.50	0.050	0.021	0.02	< 2	4	15	0.17	< 20	< 1	< 2	< 10	114	< 10	4	5	
352982 Orig																				
352982 Dup																				
352990 Orig	< 1	0.08	12	0.62	0.078	0.044	0.03	< 2	4	25	0.11	< 20	2	< 2	< 10	100	< 10	6	2	
352990 Dup	< 1	0.08	12	0.60	0.073	0.042	0.03	< 2	4	24	0.11	< 20	< 1	< 2	< 10	98	< 10	6	2	
352992 Orig																				
352992 Dup																				
013160 Orig																				
013160 Dup																				
Method Blank	< 1	< 0.01	< 10	< 0.01	0.009	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 0.01	< 10	< 0.01	0.010	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 0.01	< 10	< 0.01	0.011	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 0.01	< 10	< 0.01	0.010	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 0.01	< 10	< 0.01	0.011	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 0.01	< 10	< 0.01	0.011	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1	
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				< 0.001

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

### **Appendix III**

Location, Sample Number and Gold (ppb) Map

Scale 1:2,500



&

Sample Location  
 ● (Sample Number) Au (ppb)

<b>White Metal Resources Corp.</b>	
<b>Soil Geochemical Survey Vanguard Properties Claim 4272698 Au (ppb)</b>	
Date: 8/15/2017	
Author: PN	
Office:	
Drawing:	
Scale: 1:2500	Projection: UTM Zone 15 (NAD 83)