

We are committed to providing [accessible customer service](#).
If you need accessible formats or communications supports, please [contact us](#).

Nous tenons à améliorer [l'accessibilité des services à la clientèle](#).
Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez [nous contacter](#).

**Technical Report
for MNDM Assessment Purposes,
2017 Prospecting Report**

Goldcorp - Middle Bay Property

Unpatented Claims 1234097 and 1234099
Ball Township, Red Lake Mining Division, Ontario
NTS 52N/4

Prepared By:
Seija Saarinen

Date:
August 24, 2017

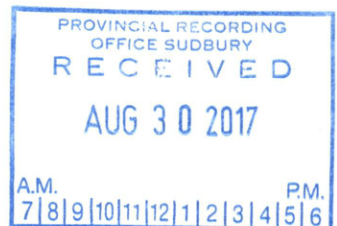


Table of Contents

Table of Figures	2
List of Tables	2
List of Appendices	2
1 Introduction	1
2 Disclaimer.....	1
3 Property Description and Location.....	1
4 Accessibility, Local Resources, and Infrastructure	4
5 Climate and Physiography.....	4
6 Geological Setting	4
7 Mineralization Occurrences	6
8 Previous Work	6
9 Current Program	7
10 Results.....	9
11 Conclusions and Recommendations	10
12 References.....	11
13 Date	11
14 Statement of Qualifications.....	12
Appendix I – Work Associated Dates and Costs	13
Appendix II – Soil Sample Locations and Results	14
Appendix III – Certificate of Analysis.....	15

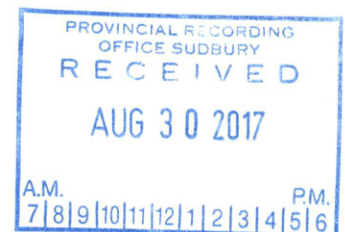


Table of Figures

FIGURE 1: MIDDLE BAY PROPERTY 2017 CLAIMS LOCATION MAP (SUPPLIED BY GOLDCORP RLGM)	2
FIGURE 2: GENERAL LOCATION MAP	3
FIGURE 3: GEOLOGY OF THE RED LAKE GREENSTONE BELT, SHOWING CRITICAL U-PB ZIRCON AGE DETERMINATIONS OF VOLCANIC AND PLUTONIC ROCKS (SANBORN-BARRIE ET AL, 2001*)	5
FIGURE 4: FIELD TRAVERSE PLAN	8
FIGURE 5: SOIL SAMPLING LOCATION MAP	9

List of Tables

TABLE 1: GOLDCORP – MIDDLE BAY PROPERTY CLAIMS, BALL TOWNSHIP, ONTARIO	1
--	---

List of Appendices

Appendix I	Work Associated Dates and Costs.....	13
Appendix II	Middle Bay Claims 1234097 and 1234099: Soil Sample Location and Analysis.....	14
Appendix III	Certificate of Analysis.....	15

1 Introduction

The Middle Bay property is located within the Red Lake greenstone belt approximately 30km to the west of the township of Red Lake. During the months of May and June, a prospecting program was undertaken by Goldcorp Red Lake Gold Mines personnel on unpatented claims 1234097 and 1234099.

Soil samples were collected to test for possible gold mineralization and to add information to the regional geochemical database. From the program, 19 soil samples, taken in the A and B soil horizon, were collected and subsequently submitted for multi-elements assay.

2 Disclaimer

This report is based on assessment reports, private reports and general geological reports and maps listed in section 12 "References" below. Most of these reports were prepared before the implementation of NI 43-101. Although many authors of such reports appear to be qualified and the information was prepared to standards acceptable at the time, the presentation of the data does not meet present requirements and therefore the author is unable to ascertain the full quality of the information. The author does not take responsibility for the information provided from such sources.

3 Property Description and Location

The Middle Bay Property claim units are located at approximately 51° 03' North latitude and 94° 14' west longitude. They are situated in Ball Township, Ontario, located within the Red Lake Mining Division (see Figure 1). For the purposes of this report only two claims within the property were visited. Claim 1234097 covers 32 hectares total, and 1234099 covers a total of 48 hectares.

Table 1: Goldcorp – Middle Bay Property Claims, Ball Township, Ontario

Township/ Area	Claim Number	Recording Date	Claim Due Date	Ownership	Units (16 Ha)	Work Required
Ball	1234097	2015-Sep-04	2017-Sep-04	72% Goldcorp Inc. / 28% Goldcorp Canada Ltd.	2	\$800
Ball	1234099	2015-Sep-04	2017-Sep-04	72% Goldcorp Inc. / 28% Goldcorp Canada Ltd.	3	\$1200

2017 Middle Bay Prospecting Program

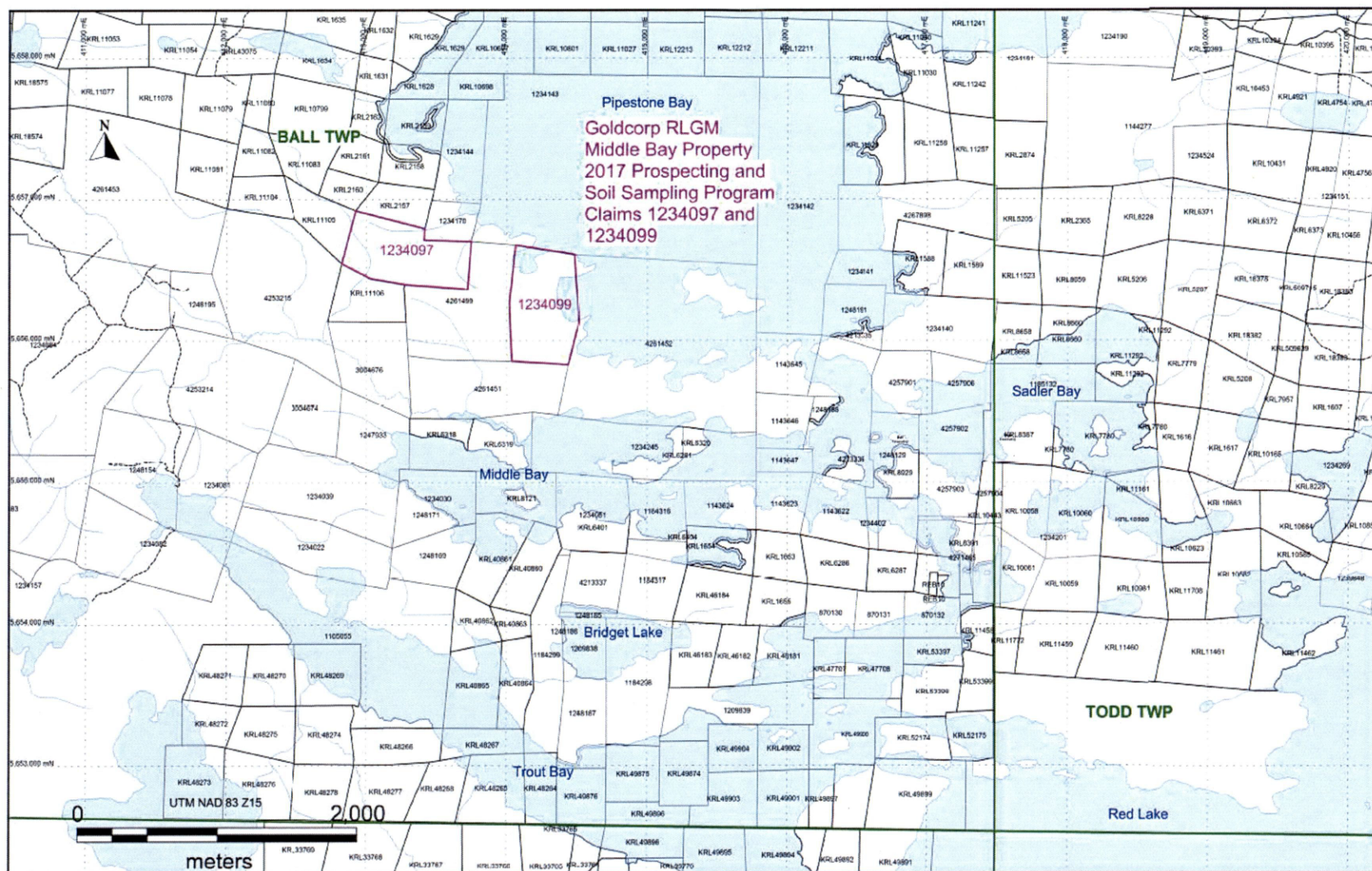


Figure 1: Middle Bay Property 2017 Claims Location Map (supplied by Goldcorp RLGM)

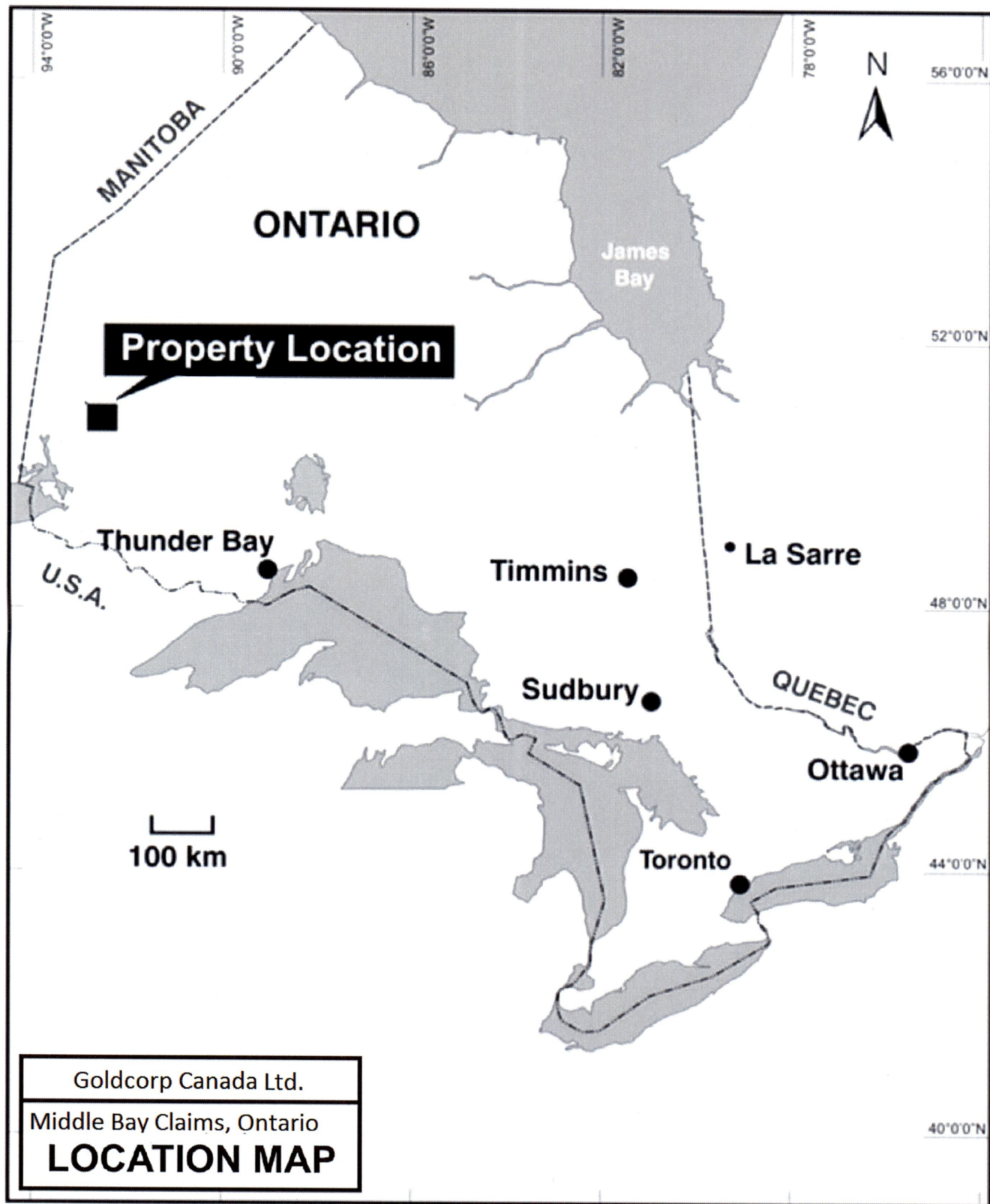


Figure 2: General Location Map

4 Accessibility, Local Resources, and Infrastructure

The property is most readily accessed during the summer via boat from the town of Red Lake, located approximately 30 kilometers to the west. The Mt. Jamie Mine road is located across Pipestone Bay, approximately 5 km north-northeast of the claim location. The road condition is drivable but may vary locally, depending on weather and road upkeep. From the Mt. Jamie Mine Road water access is available from Pipestone Bay, Red Lake.

Red Lake is a municipality with town status located 535 kilometers northwest of Thunder Bay and less than 100 kilometers from the Manitoba border. The municipality consists of six small communities — Balmertown, Cochenour, Madsen, McKenzie Island, Red Lake and Starratt-Olsen — and has an approximate population of 4,670 people. The community is accessed year-round by the all-weather provincial highway 105 and is the northernmost town in Ontario that is located on a primary King's Highway. The town acts as a cargo, passenger and tourism hub for Northwestern Ontario.

5 Climate and Physiography

Climatic conditions are typical of Northwestern Ontario. Mean total precipitation for Red Lake is 665.8mm, including 472.8mm of rainfall and 193mm of snowfall. Higher levels of rainfall occur in June (average 97.7mm) with a mean daily temperature of 15.2°C. Snow usually starts falling around late October or early November, and starts melting around March but is not normally fully melted until late April, whilst late-season snow in May is not rare. The highest levels of snowfall occur in November with an average mean daily temperature of -6.4°C, and a maximum snowfall of 39.3mm.

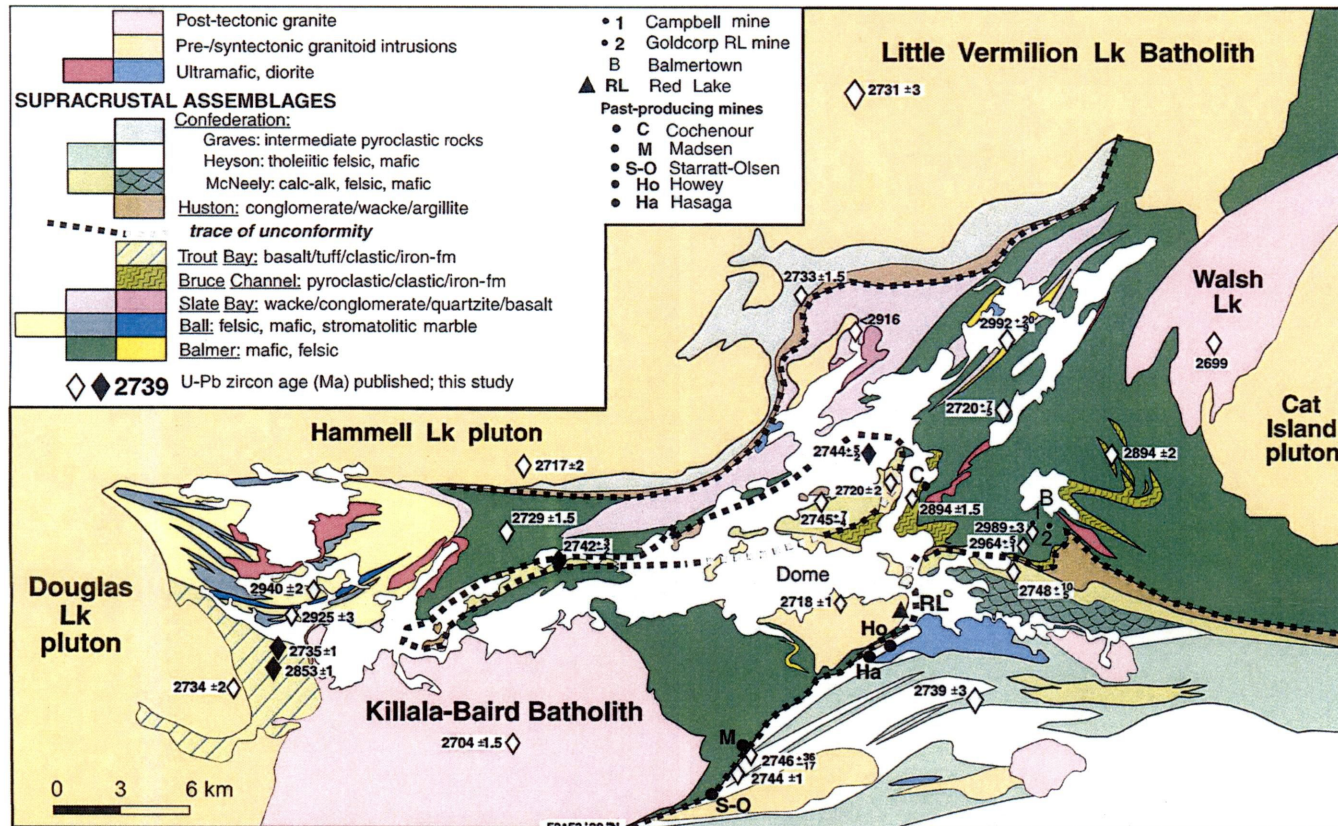
The Middle Bay Property has low to moderate relief and undulating terrain. The main drainage feature in the area is Red Lake. Most of the property is covered by a combination of glacial overburden, wetlands and water, although fairly abundant outcrop is found in scattered places.

The Property is situated in the Northern Coniferous Section of the Boreal Forest Region of northwestern Ontario. Forest stands are typically mixed with a variety of species including poplar, white and yellow birch and balsam trees. Jack pine stands occur in well drained coarse textured soil areas. Shrubs in the area include blueberries, Labrador tea and leather leaf.

Wildlife (mammals) typical of the region include moose, black bear, wolf, coyote, lynx, bobcat, fisher, marten, wolverine, river otter, least weasel, short-tail weasel, mink, snowshoe hare, red squirrel and beaver. Numerous species of wild birds are known to occur in the region.

6 Geological Setting

The West Red Lake property is located in the western part of the Red Lake greenstone belt, which forms part of the Uchi Subprovince. The greenstone belt is comprised of a number of volcanic assemblages representing a time period from 2.99 GA to 2.70 GA.



*Modified from Stott and Corfu, 1991.

under Pipestone Bay, Red Lake. This is based on airborne magnetics and the presence of ultramafic along the southern shore of the bay.

7 Mineralization Occurrences

No specific mineralization/occurrences have been noted through work done on claims 1234097 and 1234099. Pipestone Bay is interpreted to be underlain by a large strongly to intensely serpentinised peridotitic intrusion, based upon shoreline lithologies and very limited lake drilling. The strong magnetic signature outlines the intrusion and a gravity response is also associated with the body. Limited lithogeochemical sampling and drilling has yet to indicate significant alteration, nor apparent chemical differentiation within the body, though lack of outcrop prevents a definitive evaluation of the PGE potential of the ultramafic intrusion. Weak, 'anomalous' (few hundred ppm) Ni values have been obtained from previous shoreline sampling.

8 Previous Work

Following discovery of auriferous quartz veining, the Middle Bay property has seen intermittent and varied work programs throughout the years since gold was discovered along Philip's Channel, Red Lake. A summary of work is listed below and is based on available information:

1929 – 1930 B. Phillips completed trenching and sampling at Pipestone Narrows returned up to 1.88 oz/ton Au over 1.8 meters.

1930 – 1935 West Red Lake Gold Mines Ltd. - Shaft sinking was completed to a depth of 217' (66m), with 627' drifting from the 200' elevation. Development was completed on the mineralized veining (Shaft Vein) with grade estimates calculated on four mineralized shoots. Gold grades up to 9.05 g/t over 20" were reported from underground chip sampling. As the gold mineralization was not of commercial grade operation, it ceased in the latter part of 1935.

1977 – 1980 W. Hermiston - Three holes drilled totaling 1018.3'.

1986 - 1987 Shane Resources Limited - As part of a larger claim package Shane Resources Limited completed a number of exploration programs including reconnaissance geochemical sampling and prospecting in 1986. This was followed up in 1987 by magnetometer and VLF surveys, additional prospecting, sampling and mapping. Drilling of the Shaft Vein is also reported. A structural study based on remote sensing data was also completed.

1989 Placer Dome Inc. completed geological mapping, sampling and diamond drilling (one hole (702') filed for assessment) over the property as part of a larger ground package.

1993 – 1994 Placer Dome Inc. completed airborne magnetics and radiometrics over the Red Lake greenstone belt.

1996 Hemlo Gold Mines Inc. completed 10.7km of line cutting and ground magnetics survey and six kilometers of Induced Polarization survey. Follow-up geological mapping and sampling completed.

2000 Goldcorp Inc flew helicopter EM/VLF/radiometric/magnetic surveys over selected areas of in the western part of the greenstone belt.

2002 Redstar Gold Corp. completed a regional survey which included the property area, with 223 line kilometers of airborne electromagnetic, resistivity and magnetometer surveys flown.

2003 – 2004 Goldcorp Inc. performed core reclamation, re-logging and sampling on four holes drilled previously by Shane Resources.

2008 Halo Resources Ltd. performed geological mapping and sampling on an adjacent claim (previously recorded as 1234502).

2012 Goldcorp Red Lake Gold Mines performed a field geological mapping program over the six claims of its West Red Lake Property (Assessment Report: 2013 Geology Report
West Red Lake Property, Ball Twp, Red Lake Mining Division, Ontario)

2013 Goldcorp RLGM performed geological mapping and sampling on claim 4271465, adjoining to the claims reported in the above West Red Lake Property 2013 Assessment Report.

The summary of work is based on work reports, listed work history in existing reports, assessment files and in-house reports and files. Geological mapping programs of a regional scale have also been completed in the area by various government agencies.

9 Current Program

The 2017 exploration program consisted of prospecting and soil sampling. Dates and costs associated with the above-mentioned work are tabled in Appendix I.

Two days (May 25 and June 12, 2017) were spent prospecting and collecting soil samples. Traverses were completed on both claims, with sample locations determined using handheld GPS units, in UTM NAD 83- Zone 15 coordinates.

Field work performed by Troy Gallik, Goldcorp Geologist, and assisted by Billy McCleary (May 25th) and Seija Saarinen (June 12th). A total of 19 soil samples were collected and submitted for Mobile Metal Ion/ICP analysis to SGS Mineral Services Geochemistry Vancouver.

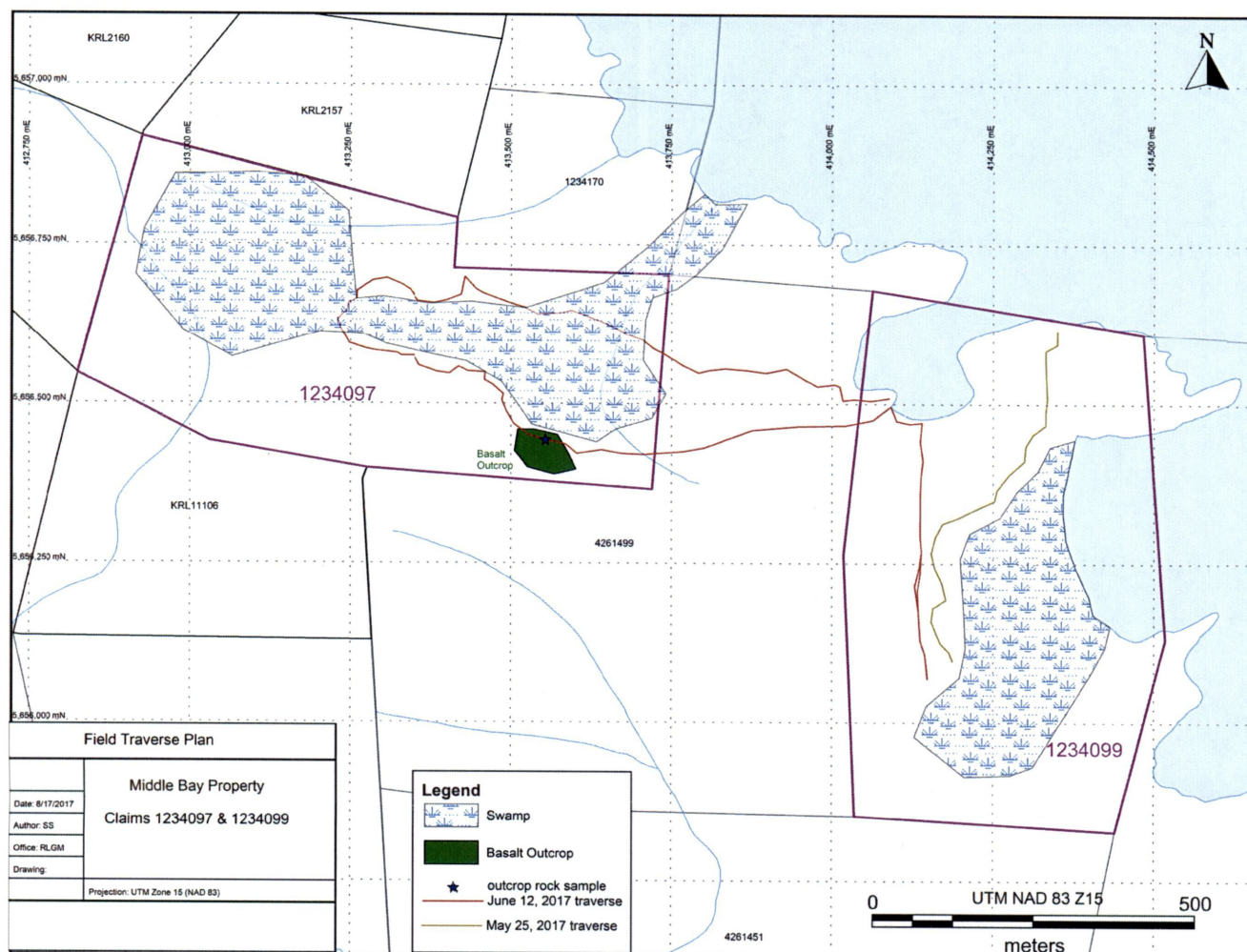


Figure 4: Field Traverse Plan

9.1 Geology

During prospecting of claims 1234097 and 1234099, the only lithology encountered was an aphanitic, dark green, foliated basalt. General fabric of the outcrop was moderate foliation 120° azimuth and vertical dip (90°), a grab sample was taken, but was not submitted for assay. No veining noted in small exposed outcrop.

9.2 Soil Sampling

A total of 19 soil samples were collected and submitted for Mobile Metal Ion/ICP analysis to SGS Mineral Services Geochemistry in Vancouver, British Columbia.

Soils encountered include grey clay, grey sandy clay and brown/grey sandy clay. Significant areas of swamp were encountered on the traverses and some horizon A organics were submitted for multi-element assay.

All soil sampling data taken in the field has been compiled in a detailed spreadsheet found in Appendix II.

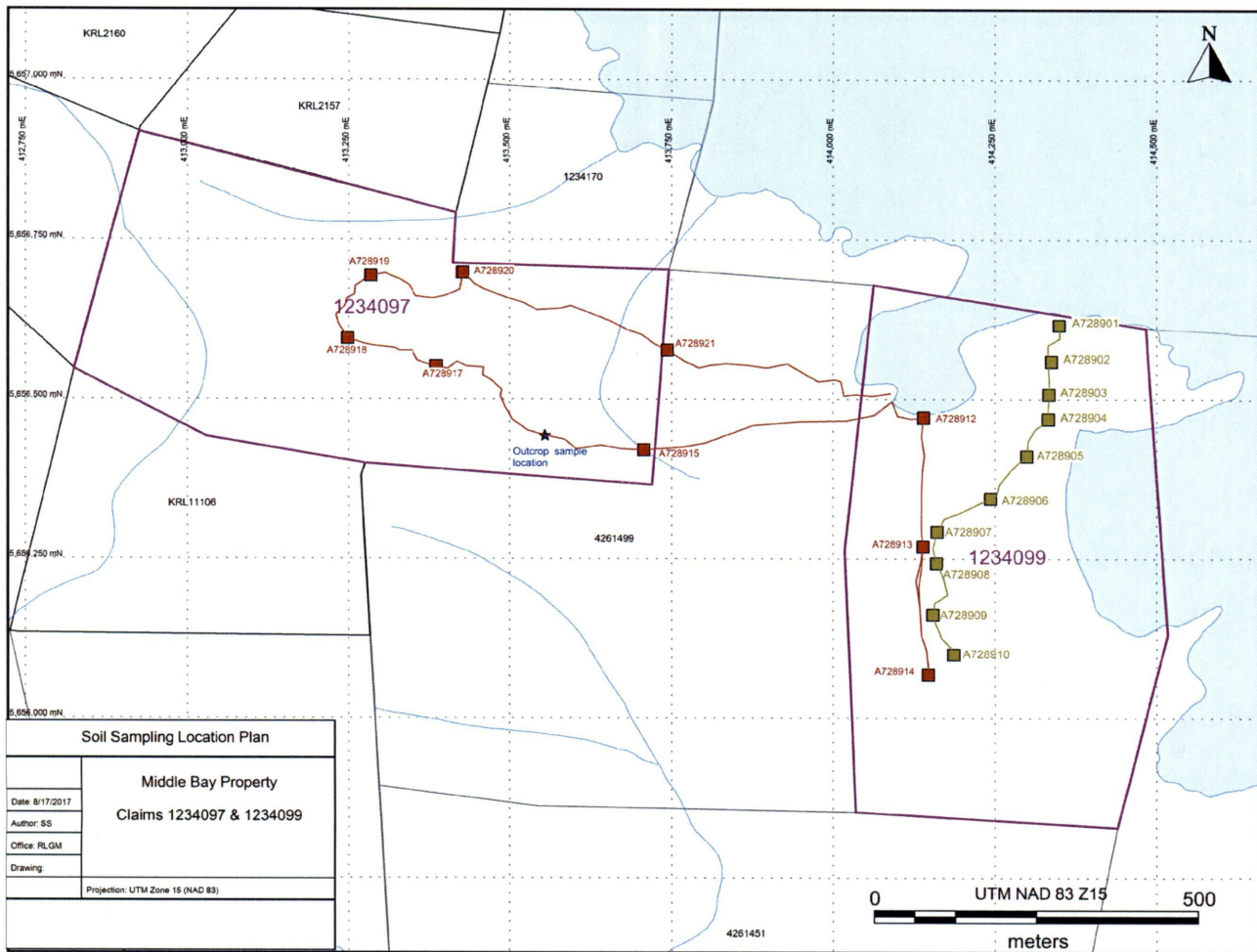


Figure 5: Soil Sampling Location Map

Samples sent to the lab are put through the MMI process which includes taking 200-250 grams of the sample not being prepared or dried, put through a weak extraction using a multi-component solution to release the mobile ions, then through highly sensitive ICP-MS analysis which provides parts per billion (ppb) range results for multiple elements.

10 Results

The results returned from SGS Mineral Services in Vancouver indicated no significant gold assays, and no interesting geochemical signatures were noted. Due to the significant amount of swamp encountered on both claims, and the very limited outcrop encountered on the traverses, the number of samples sent for analysis is insignificant and makes it difficult to draw definitive conclusions.

Appendix III of this report contains the certificate of analysis from SGS Mineral Services Geochemistry.

11 Conclusions and Recommendations

The soil sampling and prospecting program failed to produce any significant gold assay values or interesting geochemical signatures. However, a larger scale mapping and sampling program is warranted to gain a more thorough lithological understanding of Pipestone Bay to tie in with historical geophysical surveys and investigate if PGE deposit potential exists with associated intrusive ultramafic lithologies.

12 References

- Andrews, A.J., Hugon, H., Durocher, M., Corfu, F., and Lavigne, M.
1986: The anatomy of a gold-bearing greenstone belt: Red Lake, northwestern Ontario; '86 Symposium, Toronto, September 1986, p. 3-22.
- Corfu, F., and Stott, G.M.
1993: U-Pb geochronology of the central Uchi Subprovince, Superior Province, Canadian Journal of Earth Sciences, v.30 p. 1179-1196.
- Horwood, H.C.
1940: Forty-Ninth Annual Report of the Ontario Department of Mines being Vol. XLIX, Part II, 1940: Geology and Mineral Deposits of the Red Lake Area.
- Hughes, T.N.J. and Morris, G.
2006: Executive Summary; Middle, Pipestone, Biron Bay Properties, Goldcorp Inc.
- Hurst, M. E.
1935: Forty-Fourth Annual Report of the Ontario Department of Mines being Vol. XLIV, Part VI, 1935: Gold Deposits in the Vicinity of Red Lake, by M.E. Hurst – p.1-52.
- Parker, J.R.
1999: Gold Potential in Ball, Todd and Fairlie townships, Red Lake Greenstone Belt; *in* Summary of Field work and Other Activities, Ontario Geological Survey; Open File Report 6000, p.20-1 to p.20-11
- Sanborn-Barrie, M. Skulski, T., and Parker, J.
2001: Three hundred million years of tectonic history recorded by the Red Lake greenstone belt, Ontario; Geological Survey of Canada, Current research 2001-C19, 19p.
- Stott, G.M. and Corfu, F.
1991: Uchi Subprovince; in Geology of Ontario, Special Volume 4, pt. 1, 145-236.
- Truscott, D. R.
1997: Assessment Report (1995-1996) Pipestone narrows option – Project 461 Eastern Canada, Battle Mountain Canada Ltd
- 2012: Assessment Report: 2012 Geology Report, West Red Lake Property, Ball Twp, Red Lake Mining Division, Ontario, Goldcorp Red Lake Gold Mines.

13 Date

This report was completed on August 24, 2017.

14 Statement of Qualifications

I, Stephanie Vanos, of the MUNICIPALITY of RED LAKE, in the PROVINCE of ONTARIO, hereby certify:

I am a geologist currently employed by Goldcorp Red Lake Gold Mines and reside at 23 Lassie Rd, Balmertown, Ontario, Canada P0V 1C0.

I received my Honours Bachelor of Science Degree in Geology in 2008 from The University of Western Ontario in London, Ontario, Canada.

I have practiced continuously as an exploration geologist since 2006; this has included the design and implementation of a variety of grassroots, brownfields and advanced projects in base and precious metal programs in Canada.

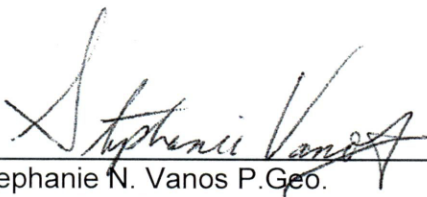
I am currently registered as a practicing professional geologist, #2666, with the Association of Professional Geoscientists of Ontario (APGO).

This report is based on a study of all information made available to me, both published and unpublished and on my personal examination of the work performed on the property during this program.

I have no personal interest in any of the mining claims pertaining to this report.

Permission is granted to Goldcorp Canada Ltd. To use this report in all legality.

Dated in Balmertown, Ontario this 24th day of August, 2017.


Stephanie N. Vanos P. Geo.
Respectfully Submitted,

Appendix I – Work Associated Dates and Costs

Date	Activity	Costs Geologist	Costs Technician	Material
01-May, 08-Jun	Planning + strategy		\$ 600.00	
25-May	Prospecting + soil sampling	\$ 400.00	\$ 250.00	\$ 50.00
12-Jun	Prospecting + soil sampling	\$ 400.00	\$ 300.00	\$ 50.00
3,4 Aug	Report (1.5 days)		\$ 450.00	
12-Aug	receive assay results+invoice			\$ 864.17
17,18,22, 23 Aug	Report		\$ 1,200.00	
	Sub Total	\$ 800.00	\$ 2,800.00	\$ 964.17
Grand Total		\$ 4,564.17		

Total Costs of Soil Sampling Program			\$ 4,564.17
Total Number of Soil Samples taken in the Field			19
Claim ID	Sample Population	Distribution (%)	Value per Claim
1234097	6	32%	\$ 1,441.32
1234099	13	68%	\$ 3,122.85
Total	19	100%	\$ 4,564.17

Appendix II – Soil Sample Locations and Results

ANALYTE						Au
METHOD						GE_MMI_M
LDETECTION						0.1
UDETECTION						0
SAMPLE	EASTING	NORTHING	ELEVATION (m)	Soil Type	Colour	ppb
A728901	414349	5656615	364	clay	grey	0.1
A728902	414337	5656558	356	Organics	black	<0.1
A728903	414333	5656507	362	Organics	black	<0.1
A728904	414332	5656469	348	Organics	black	0.2
A728905	414299	5656411	347	Organics	black	<0.1
A728906	414243	5656344	349	Sandy organics	black	<0.1
A728907	414161	5656292	351	Organics	black	0.2
A728908	414160	5656243	357	Organics	black	<0.1
A728909	414154	5656163	350	Organics	black	<0.1
A728910	414186	5656100	354	Organics	black	<0.1
A728912	414140	5656471	349	clay	grey	0.6
A728913	414139	5656269	349	clay	grey	0.3
A728914	414147	5656068	354	clay	grey	0.1
A728915	413707	5656421	366	clay	grey	<0.1
A728917	413386	5656551	364	Sand/clay	brown/grey	0.2
A728918	413248	5656594	367	Sand/clay	brown/grey	0.1
A728919	413284	5656693	356	Sand/clay	brown/grey	<0.1
A728920	413427	5656698	368	clay	grey	0.2
A728921	413743	5656576	367	sandy clay	grey	<0.1

*coordinates in UTM NAD 83/Z15

Appendix III – Certificate of Analysis



Certificate of Analysis Work Order : VC172057 [Report File No.: 0000023751]

Date: August 01, 2017

To: **Jamie Kristoff**
GOLDCORP INC
3400 - 666 BURNARD ST
VANCOUVER BC V6C 2X8

P.O. No.: DIS80554
Project No.: -
Samples: 19
Received: Jun 30, 2017
Pages: Page 1 to 8
(Inclusive of Cover Sheet)

Methods Summary

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
19	G_LOG02	Pre-preparation processing, sorting, logging, boxing
19	GE_MMI_M	Mobile Metal ION standard package/ICP-MS

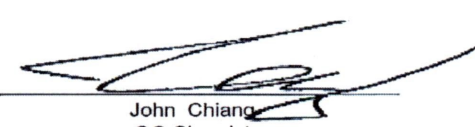
Storage: Pulp & Reject

REJECT STORAGE : DISPOSE AFTER 30 DAYS

Comments:

Insufficient material available for re-analysis.

Certified By :


John Chiang
QC Chemist

SGS Minerals Services Geochemistry Vancouver conforms to the requirements of ISO/IEC 17025 for specific tests as listed on their scope of accreditation which can be found at <http://www.scc.ca/en/search/palcan/sgs>

Report Footer:

L.N.R. = Listed not received
n.a. = Not applicable

I.S. = Insufficient Sample
-- = No result

*INF = Composition of this sample makes detection impossible by this method

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. Minerals Suite E - 3260 Production Way Burnaby BC T6B 1A1 (604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC172057 Order: DIS80554
Report File No : 0000023751

Page 2 of 8

Element Method Det.Lim. Units	Ag GE_MMI_M 0.5 ppb	Al GE_MMI_M 1 ppm	As GE_MMI_M 10 ppb	Au GE_MMI_M 0.1 ppb	Ba GE_MMI_M 10 ppb	Bi GE_MMI_M 0.5 ppb	Ca GE_MMI_M 2 ppm	Cd GE_MMI_M 1 ppb
A728901	4.2	84	10	0.1	1780	<0.5	286	11
A728902	<0.5	86	30	<0.1	840	2.9	138	43
A728903	2.2	66	50	<0.1	1550	1.7	382	55
A728904	2.5	47	<10	0.2	830	<0.5	369	12
A728905	<0.5	21	20	<0.1	420	<0.5	217	6
A728906	1.3	6	10	<0.1	420	<0.5	301	8
A728907	0.8	30	<10	0.2	550	<0.5	379	33
A728908	<0.5	122	10	<0.1	970	5.8	227	50
A728909	0.6	39	10	<0.1	550	<0.5	410	6
A728910	<0.5	19	30	<0.1	1430	<0.5	227	42
A728912	41.6	14	<10	0.6	1800	<0.5	565	15
A728913	27.7	15	<10	0.3	2970	<0.5	595	13
A728914	5.0	309	70	0.1	2000	2.0	57	5
A728915	25.1	63	<10	<0.1	1390	<0.5	352	4
A728917	1.8	67	20	0.2	1480	<0.5	171	6
A728918	9.1	299	40	0.1	2660	0.6	99	6
A728919	2.4	350	90	<0.1	2930	1.9	80	5
A728920	1.6	253	40	0.2	2750	1.0	289	3
A728921	5.9	307	<10	<0.1	3090	<0.5	215	5

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. Minerals Suite E - 3260 Production Way Burnaby BC t(604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC172057 Order: DIS80554
Report File No.: 0000023751

Page 3 of 8

Element	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu
Method	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M
Det.Lim.	2	1	100	0.2	10	0.5	0.2	0.2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
A728901	1060	49	100	1.1	100	34.4	15.5	13.4
A728902	166	182	<100	1.4	50	8.6	5.2	2.7
A728903	117	181	100	1.9	130	10.2	5.1	2.8
A728904	436	173	<100	0.5	80	14.3	8.8	5.0
A728905	58	162	<100	0.3	200	2.0	1.3	0.5
A728906	8	51	<100	0.3	30	1.2	0.5	0.3
A728907	144	113	<100	<0.2	280	10.8	5.8	2.8
A728908	138	431	<100	0.6	90	14.8	12.6	2.7
A728909	87	84	<100	0.2	100	5.3	3.3	1.4
A728910	36	173	<100	0.9	10	3.3	2.0	0.7
A728912	300	368	<100	0.4	540	10.2	5.6	2.4
A728913	494	158	<100	0.2	1890	21.6	12.1	7.1
A728914	437	83	300	4.2	240	15.3	7.2	5.8
A728915	207	27	<100	1.2	150	11.6	4.9	4.0
A728917	1340	179	300	1.8	270	32.5	13.8	14.0
A728918	447	58	200	5.2	140	18.3	8.3	7.5
A728919	616	140	500	9.1	180	16.1	8.0	6.0
A728920	1410	328	200	5.2	160	31.6	15.1	10.4
A728921	321	90	100	2.9	180	19.4	10.3	5.2

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. | Minerals Suite E - 3260 Production Way Burnaby BC t(604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC472057 Order: DIS80554

Page 4 of 8

Report File No.: 0000023751

	Element Method Det.Lim. Units	Fe	Ga	Gd	Hg	In	K	La	Li
		GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M
		1 ppm	0.5 ppb	0.5 ppb	1 ppb	0.1 ppb	0.5 ppm	1 ppb	1 ppb
A728901		51	6.4	53.3	<1	<0.1	35.5	318	7
A728902		100	13.7	10.4	<1	0.2	36.9	57	11
A728903		49	13.0	13.0	<1	0.2	56.7	49	7
A728904		98	2.3	19.8	<1	<0.1	17.4	139	4
A728905		43	2.4	2.4	<1	<0.1	29.8	16	9
A728906		4	0.6	1.5	<1	<0.1	17.5	2	20
A728907		34	1.8	14.3	<1	<0.1	13.9	63	12
A728908		162	14.5	12.7	<1	0.5	37.6	32	8
A728909		52	2.2	6.5	<1	<0.1	14.5	31	20
A728910		7	2.7	3.2	<1	<0.1	48.5	11	2
A728912		18	1.1	11.8	<1	<0.1	19.0	29	109
A728913		48	0.6	32.4	<1	<0.1	27.5	188	100
A728914		354	33.7	20.3	<1	0.2	35.1	156	34
A728915		38	7.0	16.0	<1	<0.1	14.3	79	4
A728917		121	8.2	51.4	<1	<0.1	28.8	494	7
A728918		166	22.2	25.4	<1	0.2	28.1	175	18
A728919		350	58.8	23.5	<1	0.4	36.1	196	66
A728920		150	25.1	43.8	<1	0.3	33.8	491	41
A728921		83	15.4	19.8	<1	0.2	49.2	69	15

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. | Minerals Suite E - 3260 Production Way Burnaby BC t(604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC172057 Order: DIS80554
Report File No : 0000023751

Page 5 of 8

Element	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb
Method	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M
Det.Lim.	0.5	100	2	0.5	1	5	0.1	5
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppm	ppb
A728901	181	7700	2	2.8	334	843	1.1	254
A728902	121	4900	4	3.5	62	888	14.5	860
A728903	102	15800	5	4.6	54	421	10.3	1400
A728904	164	38400	8	1.5	135	1280	0.4	73
A728905	235	25100	27	1.0	14	208	0.7	250
A728906	346	13400	29	<0.5	3	154	0.6	242
A728907	142	8200	4	<0.5	63	1030	0.6	505
A728908	126	24700	7	1.7	45	99	1.2	1610
A728909	134	12700	14	0.9	32	508	0.6	315
A728910	143	33100	3	<0.5	15	28	4.6	1210
A728912	340	39000	13	0.9	46	742	0.2	78
A728913	257	11000	13	1.2	206	860	0.2	135
A728914	51.3	600	9	31.0	138	201	8.1	176
A728915	124	3100	4	2.5	89	180	0.8	73
A728917	171	6700	3	8.7	441	1050	1.5	168
A728918	31.4	400	7	12.4	166	162	4.4	211
A728919	46.0	2400	8	34.4	158	263	5.8	356
A728920	82.7	3600	3	14.4	325	320	3.2	460
A728921	87.0	3800	<2	4.7	81	274	1.9	466

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. | Minerals Suite E - 3260 Production Way Burnaby BC t(604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC172057 Order: DIS80554

Page 6 of 8

Report File No.: 0000023751

Element Method Det.Lim. Units	Pd GE_MMI_M 1 ppb	Pr GE_MMI_M 0.5 ppb	Pt GE_MMI_M 0.1 ppb	Rb GE_MMI_M 1 ppb	Sb GE_MMI_M 0.5 ppb	Sc GE_MMI_M 5 ppb	Sm GE_MMI_M 1 ppb	Sn GE_MMI_M 1 ppb
A728901	<1	88.8	<0.1	271	<0.5	25	62	<1
A728902	<1	16.9	<0.1	142	<0.5	24	12	<1
A728903	<1	13.4	<0.1	165	1.2	26	12	3
A728904	<1	37.1	<0.1	148	0.8	19	23	<1
A728905	<1	3.9	<0.1	35	1.1	8	2	<1
A728906	<1	0.7	<0.1	37	<0.5	<5	1	<1
A728907	<1	17.1	<0.1	33	<0.5	<5	14	<1
A728908	<1	11.3	<0.1	78	<0.5	37	11	<1
A728909	<1	8.4	<0.1	26	0.6	8	6	<1
A728910	<1	4.1	<0.1	146	<0.5	10	4	<1
A728912	<1	11.0	<0.1	125	<0.5	9	11	<1
A728913	<1	54.3	<0.1	100	<0.5	12	37	<1
A728914	<1	37.5	<0.1	174	1.3	73	25	4
A728915	<1	21.7	<0.1	246	<0.5	13	17	<1
A728917	<1	122	<0.1	189	<0.5	29	69	<1
A728918	<1	46.5	<0.1	260	1.1	44	35	1
A728919	<1	43.9	<0.1	531	1.7	118	28	5
A728920	<1	92.8	<0.1	265	0.6	105	50	2
A728921	<1	19.1	<0.1	366	<0.5	84	20	<1

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. | Minerals Suite E - 3260 Production Way Burnaby BC t(604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC172057 Order: DIS80554

Page 7 of 8

Report File No.: 0000023751

Element Method Det.Lim. Units	Sr GE_MMI_M 10 ppb	Ta GE_MMI_M 1 ppb	Tb GE_MMI_M 0.1 ppb	Te GE_MMI_M 10 ppb	Th GE_MMI_M 0.5 ppb	Ti GE_MMI_M 10 ppb	Tl GE_MMI_M 0.1 ppb	U GE_MMI_M 0.5 ppb
A728901	880	<1	7.0	<10	40.8	460	0.3	19.2
A728902	580	<1	1.6	<10	25.6	580	0.2	4.0
A728903	1080	<1	1.8	<10	14.8	830	0.3	5.1
A728904	840	<1	2.7	<10	10.3	100	0.3	84.0
A728905	700	<1	0.3	<10	3.8	90	<0.1	352
A728906	1150	<1	0.2	<10	<0.5	40	<0.1	37.2
A728907	660	<1	1.9	<10	3.6	30	<0.1	95.1
A728908	980	<1	2.2	<10	37.6	270	0.3	61.1
A728909	620	<1	0.8	<10	3.1	80	<0.1	96.9
A728910	670	<1	0.5	<10	3.3	70	0.3	22.5
A728912	1470	<1	1.7	<10	27.7	40	0.2	14.8
A728913	1510	<1	4.0	<10	62.6	50	<0.1	44.0
A728914	320	2	2.6	<10	59.7	5110	0.6	10.5
A728915	550	<1	2.3	<10	22.3	440	0.2	11.2
A728917	620	<1	6.3	<10	55.4	1470	0.2	17.5
A728918	440	<1	3.5	<10	42.7	2330	0.3	8.5
A728919	420	3	3.1	<10	85.6	7230	1.3	14.3
A728920	800	<1	6.0	<10	126	3260	0.9	12.0
A728921	840	<1	3.1	<10	98.7	1210	0.4	12.9

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. | Minerals Suite E - 3260 Production Way Burnaby BC T(604) 638-2349 F(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)



Final : VC172057 Order: DIS80554
Report File No.: 0000023751

Page 8 of 8

Element	W	Y	Yb	Zn	Zr
Method	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M
Det.Lim.	0.5	1	0.2	10	2
Units	ppb	ppb	ppb	ppb	ppb
A728901	<0.5	148	10.3	190	40
A728902	0.9	45	4.7	2230	24
A728903	0.9	49	3.7	860	37
A728904	<0.5	77	6.5	80	14
A728905	<0.5	12	1.1	170	8
A728906	<0.5	6	0.5	110	2
A728907	<0.5	59	5.1	80	8
A728908	0.9	81	12.9	240	29
A728909	<0.5	31	2.5	30	7
A728910	<0.5	16	1.8	2610	7
A728912	<0.5	41	4.2	30	17
A728913	<0.5	104	10.1	30	33
A728914	1.4	65	5.3	140	159
A728915	<0.5	49	3.3	30	29
A728917	0.8	141	10.5	170	47
A728918	1.0	81	6.5	120	103
A728919	2.5	70	5.5	300	232
A728920	1.3	165	11.0	120	215
A728921	<0.5	95	7.9	160	95

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Canada Inc. | Minerals Suite E - 3260 Production Way Burnaby BC t(604) 638-2349 f(604) 444-5486 www.ca.sgs.com

Member of the SGS Group (Société Générale de Surveillance)