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**ASSESSMENT REPORT ON  
2015 & 2016 DRILLING  
BORDEN PROJECT**

**BORDEN & COCHRANE TOWNSHIPS  
PORCUPINE DISTRICT, ONTARIO**

Submitted to:  
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(Goldcorp Borden)

Date: 14 December 2016

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## **INTRODUCTION**

In March 2015, Goldcorp Inc. purchased 100% of Probe Mines Limited. Subsequent to the transaction, drilling continued on the Borden Gold deposit. This report describes the results of twenty-six (26) diamond drill holes that were completed from September 2015 through April, 2016.

A surface gold showing was present on the Borden Gold Project and had been identified over an area 150 metres long by up to 45 metres wide, hosted by a highly altered and metamorphosed suite of rocks within the volcano-sedimentary horizon. Grab samples from selected outcrop returned values of up to 3.4 g/t gold, and the property is considered to have excellent potential to host a low-grade, bulk tonnage-type gold deposit. Limited exploration work investigating the base metal potential of the volcanic horizon was previously undertaken by Noranda. Sulphide mineralized felsic fragmental units were identified which returned anomalous base metal concentrations, suggesting good potential for hosting volcanogenic massive sulphide ("VMS") deposits.

In July 2010, an initial drill program on the Borden Gold Project was completed to test the extent of the surface showing. Results indicated that there was excellent potential to host a low-grade, bulk tonnage gold deposit on the property. Additional drilling on the property continued to illustrate this potential and in late 2012 a High Grade Zone (HGZ) was intersected in the southeastern area of the deposit. In June 2014, Probe released an updated NI 43-101 compliant Resource Estimate on the Borden Gold Deposit which outlined a High-grade Underground Resource as well as an Open pit-constrained Resource. The High-Grade U/G is estimated to contain a constrained Indicated Resource of 1.60 million ounces of gold averaging 5.39 g/t Au and an additional constrained Inferred Resource of 0.43 million ounces of gold averaging 4.37 g/t Au, at a 2.5 g/t Au cut-off grade. In addition, the deposit is estimated to contain an Open pit-constrained Resource of 2.32 million ounces of gold averaging 1.03 g/t Au, at a 0.5 g/t Au cut-off grade.

Previous assessment for the first stage drilling on the Borden Gold project was filed under work report W1060.02610 in November 2010. Additional drilling has been filed since then in a number of assessment reports from 2012 to 2015.

The Borden Gold project is located in Borden and Cochrane Townships, approximately 9 km east-northeast of the town of Chapleau, Ontario. The East Limb property, is located approximately 20 kilometres east of the Borden Gold project. As of 10 December 2014, Probe Mines acquired a large tract of patent claims located in between the Borden and East Limb projects. As such the two projects are now contiguous, extending a distance of 68 km.

All maps coordinates are UTM Nad 83, Zone 17. All costs are in Canadian dollars.

## LOCATION AND ACCESS

The Borden Gold project is located in the Borden Lake area of the 1:50,000 NTS topographic sheet 41O/14, approximately 160 km southwest of the city of Timmins and 9 km east-northeast of the town of Chapleau, Ontario (Figure 1). Access to the property is via Highway 101. The East Limb property, is located approximately 20 kilometres east of the Borden Gold project. As of 10 December 2014, through its acquisition of Boises Landrienne Inc, Probe Mines acquired a large tract of patent claims in between the Borden and East Limb projects. As such the two projects are now contiguous, extending a distance of 68 km (Figure 2).

The current report details work applicable to unpatented mining claim 4242560 and patented mining claims 731020063, 731020065, 731020067, 731040130, 731020055, 731040122 and 731040118. The amount of credits applied from the work completed as detailed in this report is \$2,280,704 and is being used towards keeping the project claims in good standing.

Mineral Claim information is displayed in Table 1 and Patented Claim information is in Table 2.

**Table 1 – Unpatented Claim Information**

Mineral Claim	District	Claim Due Date	Township	G-Plan	NTS	Units
4242560	POR	September 13, 2017	Borden	G-1056	41O14	16

**Table 2 – Patented Claim Information**

PIN	TWP	Lot	Con	Parcel	G number	Description
731020063	COCHRANE	2	2	Parcel 2058, Sudbury West Section	G60100167	S ½ LT 2 CON 2 COCHRANE; DISTRICT OF SUDBURY
731020065	COCHRANE	2	2	Parcel 5148, Sudbury West Section	G60100771	N ½ LT 2 CON 2 COCHRANE; DISTRICT OF SUDBURY
731020067	COCHRANE	1	2	Parcel 5167, Sudbury West Section	G60100812	N ½ LT 1 CON 2 COCHRANE; DISTRICT OF SUDBURY
731040130	BORDEN	12	2	Parcel 6139, Sudbury West Section	G60100834	BROKEN LT 12 CON 2 BORDEN; DISTRICT OF SUDBURY
731020055	COCHRANE	1	1	Parcel 5174, Sudbury West Section	G60100806	PT BROKEN LT 1 CON 1 COCHRANE; PT BROKEN LT 1 CON 2 COCHRANE; DISTRICT OF SUDBURY
731040122	BORDEN	11	1	Parcel 4781, Sudbury West Section	G60100833	PT BROKEN LT 11 CON 1 BORDEN; DISTRICT OF SUDBURY
731040118	BORDEN	10	1	Parcel 4748, Sudbury West Section	G60100832	N PART BORKEN LOT 10 CON 1, DISTRICT OF SUDBURY

## **GEOLOGY**

The Borden Gold Project is located in the Superior Province of Northern Ontario. The Superior Province is divided into numerous Subprovinces, bounded by linear faults and characterized by differing lithologies, structural/tectonic conditions, ages and metamorphic conditions. The Subprovinces are divided into 4 categories: Volcano-plutonic; Metasedimentary; Gneissic/plutonic; and High-grade gneissic (Thurston, 1991). The rocks range in age from 3.5Ga to less than 2.76 Ga and form an east-west trending pattern of alternating terranes.

Regionally (Figure 3), the Kapuskasing Structural Zone (KSZ), an elongate north to northeast trending structure, transects the Wawa Subprovince to the west, and the Abitibi Subprovince to the east. The KSZ is approximately 500km long, extending from James Bay at its northeast end to the east shore of Lake Superior at its southwest end. Typically the KSZ is represented by high metamorphic grade granulite and amphibolite facies paragneiss, tonalitic gneisses and anorthosite-suite gneisses occurring along a moderate northwest dipping crustal scale thrust fault believed to have resulted from an early Proterozoic event (Percival and McGrath 1986).

The Wawa and Abitibi Subprovinces, which abut the KSZ, are volcano-plutonic terranes comprising low metamorphic grade metavolcanic-metasedimentary belts. They contain lithologically diverse metavolcanic rocks with various intrusive suites and to a lesser extent chemical and clastic metasedimentary rocks. The individual greenstone belts within the subprovinces have been intruded, deformed and truncated by felsic batholiths. The east trending Abitibi and Swayze greenstone belts of the Abitibi subprovince have historically been explored and mined for a variety of commodities; while the Wawa subprovince hosts the east-trending Wawa greenstone belt and the Mishibishu greenstone belt where much exploration and mining has occurred.

Several alkali rocks such as carbonatite complexes along with lamprohyric dykes intruded along the KSZ, approximately 1022 to 1141 Ma ago. The carbonatite occurrences appear to display close spatial relationships with major northeast-striking shear zones. Proximal to the project area, on the northern side of the KSZ, three (3) such complexes are known to occur. These include the Borden Township carbonatite complex, the Nemegosenda Lake alkalic complex; and the Lackner Lake alkalic complex.

## **LOCAL GEOLOGY**

The Borden Lake greenstone belt is in Borden and Cochrane Townships. It is a west trending belt of supracrustal rocks, approximately 3 km wide, that includes mafic to ultramafic gneiss, pillow basalt, felsic metavolcanic rocks, felsic porphyries and tonalites which are overlain by a +30 m thick suite of Timiskaming-aged clastic metasediments (Moser 1989, Moser 1994, Moser 2008, Percival 2008). The metasediments comprise greywackes, arkose, arenite, quartz pebble conglomerate and polymictic cobble conglomerate, metamorphosed to upper amphibolites facies. Gneissic fabrics are evident and the rocks appear to have been affected by regional deformation. Several episodes of deformation are reflected in the structural imprint of the rocks, with the last deformation being related to the development of the KSZ.

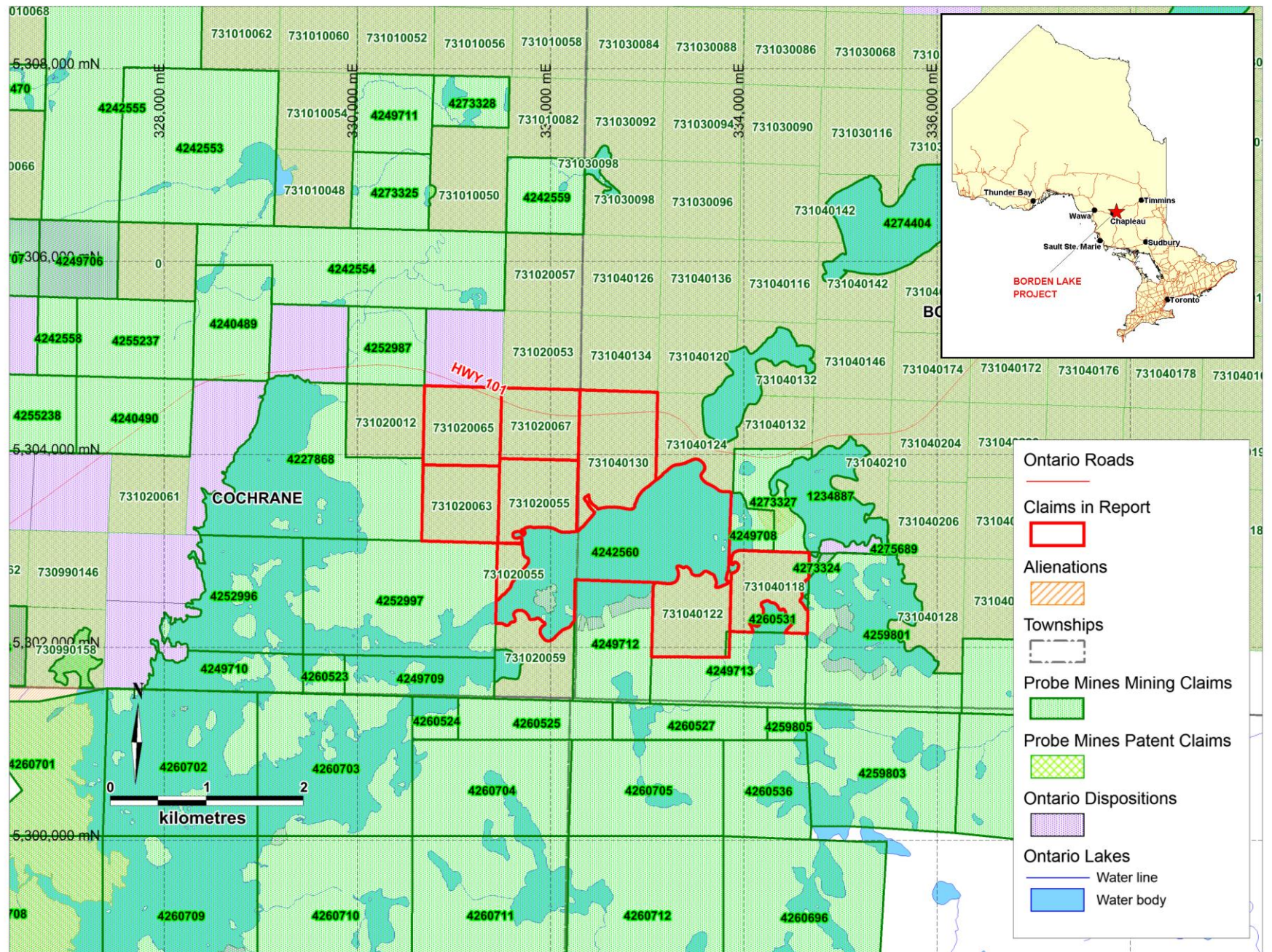


Figure 1- Location of the Borden Gold Project Claims (claims that are the subject of this report are outlined in red)

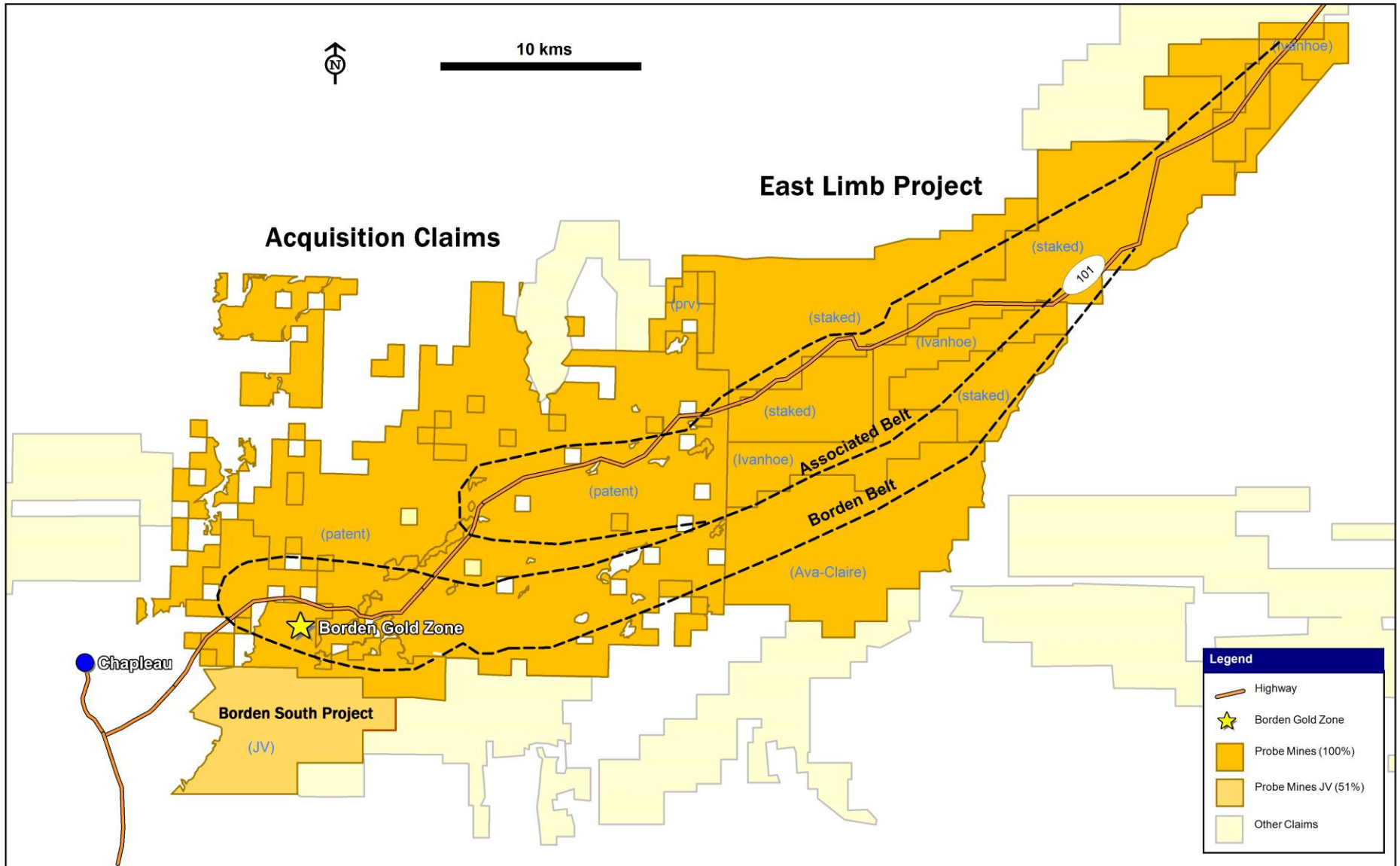


Figure 2- Regional Land Position



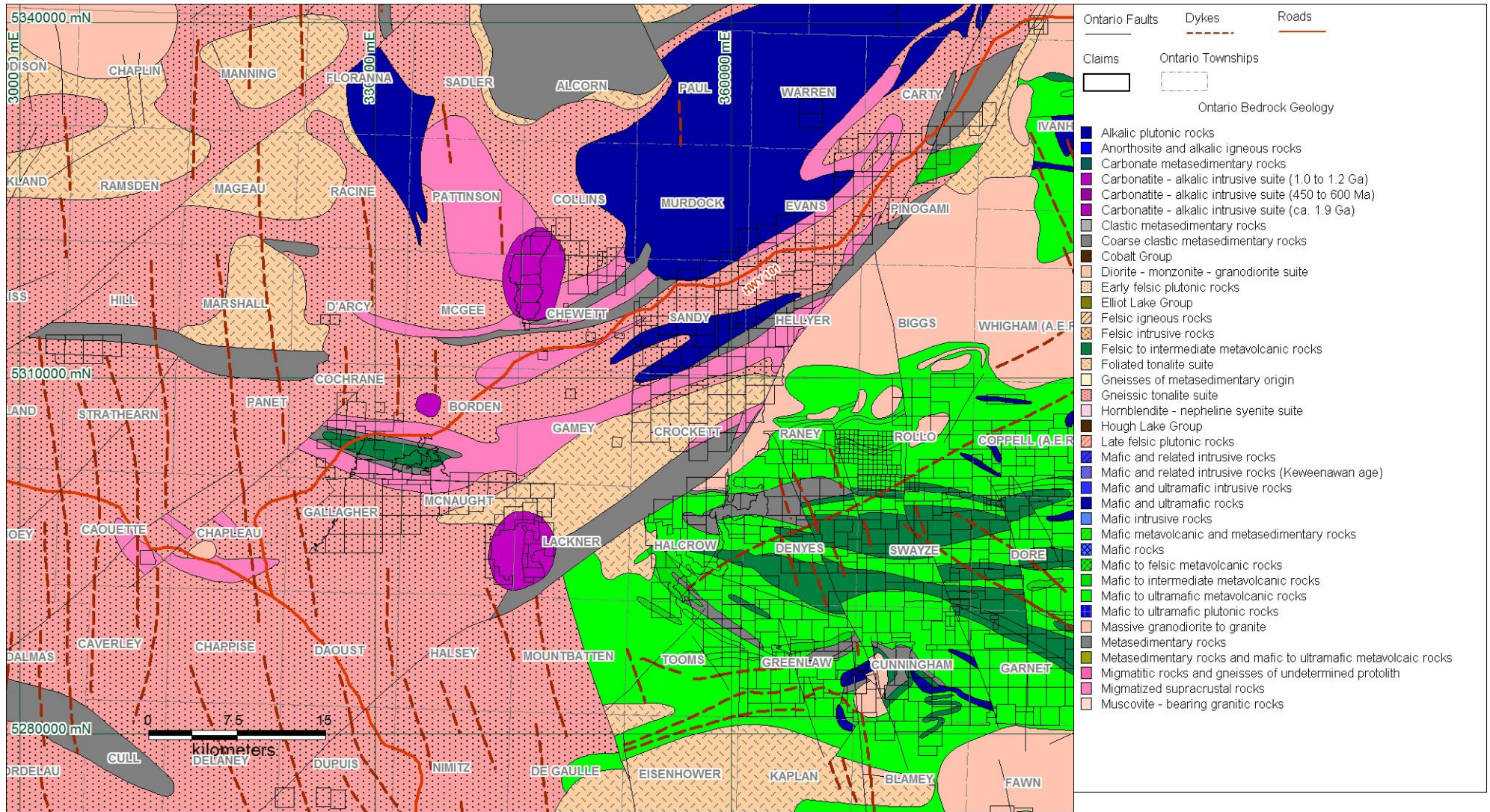


Figure 3 – General Geology of the Borden Gold Project Area

## **PREVIOUS WORK**

Minimal previous work has been completed on the property. In the early to mid 1980s Noranda Exploration Co. Ltd. carried out an exploration program in the west-northwest section of the project area. The program consisted of geological mapping and geophysical surveys including magnetic and Max-min EM. A drill program was also conducted. AFRIs 41O14SW1003, 41O14SW0003 and 41O14SW0004 detail the results of this work.

Various assessment reports were also filed by M. Tremblay in the early 1990s. Work included VLF surveys, soil geochemical sampling and overburden stripping. The AFRIs that detail the work completed include 41O14SW9179, 41O14SW9180, 41O14SW9184, 41O14SW9200, 41O15NE0001 and 41O14SW0001.

In July 2010, Probe Mines completed a diamond drill program comprising eight holes and totaling 790m on claim number 4227868. An assessment report on the drilling was filed in November 2010 under work report W1060.02610. Results indicated that there is excellent potential to host a low-grade, bulk tonnage gold deposit on the property. A Geotech VTEM survey was flown by Probe Mines between January 5 and January 20 2011. Additional drilling has been filed since then in a number of assessment reports from 2012 to 2016.

## **DIAMOND DRILLING**

Subsequent to the acquisition of Probe Mines Limited in March 2015, Goldcorp continued drilling the Borden Gold deposit. This report describes the results of twenty six (26) diamond drill holes with a total meterage of 19595m, completed from September 2015 through April, 2016. Major Drilling was the drilling contractor. The drillholes were monitored and logged by geologists including B. Beh, J. Klarnar, C. Cooke, A. Peterson, A. Nette, G. Arseneau, C. Yuill, N. Lintner, W. Gerber, M. Deller and K. Kenny; who were overseen on site by Senior Project Geologist Jason Rickard. Sharon Allan is the author of this report.

The drill hole data for the twenty-six (26) drill holes is summarized in Table 3. The unpatented mineral claim that each hole is located on is also listed in Table 4. In instances where the drill hole crossed a claim boundary, more than one claim is listed with the relevant meterage pertinent to each claim. Figure 4 illustrates the collar locations and hole traces. A larger scale map of these that show greater clarity is located in Appendix I at a scale of 1:5000.

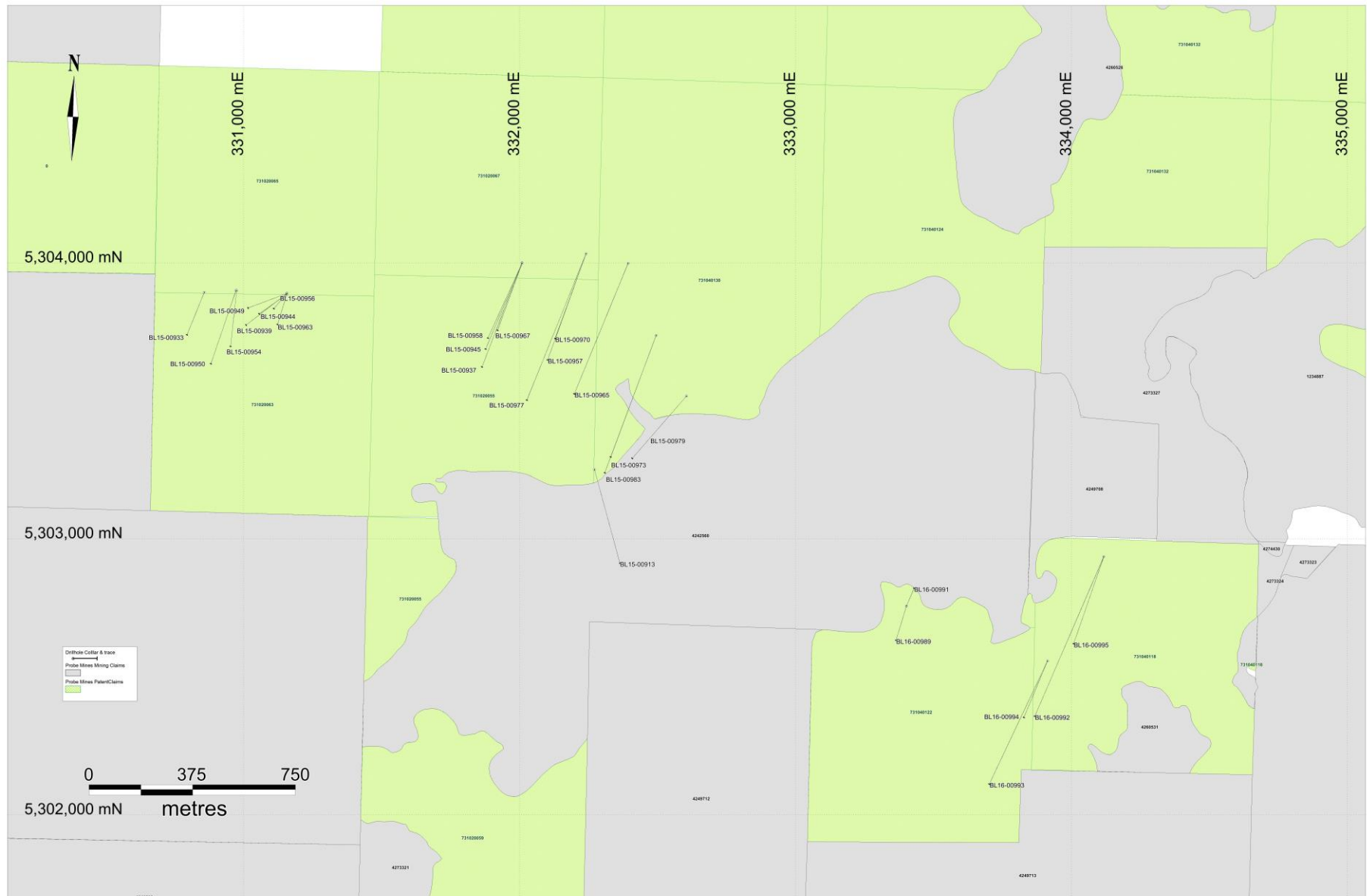


Figure 4 - Diamond Drill Hole Collar Locations and hole traces (see Appendix I for 1:5,000 map)

**Table 3 – Diamond drill hole data (NAD 83, Zone 17)**

Hole	Depth (m)	UTM East	UTM North	Elevation (m)	Azimuth	Dip	Date Started	Date Completed
BL15-00913	618	332273	5303250	434.47	164.8	-55.4	September-16-15	September-24-15
BL15-00933	426	330859	5303893	448.17	202.2	-67	October-11-15	October-16-15
BL15-00937	774	332010	5304000	444.03	201	-58.5	October-14-15	October-25-15
BL15-00939	501	331158	5303888	452.03	232.4	-68.2	October-15-15	October-21-15
BL15-00944	489	331158	5303886	452.23	234.7	-75.4	October-22-15	October-27-15
BL15-00945	786	332010	5303999	443.94	203	-64.5	October-25-15	November-05-15
BL15-00949	465	331158	5303889	452.05	249.5	-71.2	October-27-15	November-02-15
BL15-00950	549	330974	5303900	445.3	198.9	-59.2	October-27-15	November-04-15
BL15-00954	552	330976	5303899	444.95	186.2	-68.4	November-05-15	November-11-15
BL15-00956	474	331158	5303889	451.94	220.97	-81.2	November-01-15	November-09-15
BL15-00957	870	332242	5304033	440.35	199.87	-61.9	November-05-15	November-20-15
BL15-00958	807	332010	5303999	443.88	204.5	-68.3	November-05-15	November-17-15
BL15-00963	483	331159	5303888	451.72	197.07	-76	November-10-15	November-17-15
BL15-00965	990	332394	5303998	441.92	202.4	-58.9	November-16-15	December-03-15
BL15-00967	849	332011	5303999	443.88	200.1	-72.2	November-17-15	November-30-15
BL15-00970	957	332242	5304033	440.35	200	-70	November-20-15	December-03-15
BL15-00973	924	332496	5303737	432.95	200.5	-59.4	November-30-15	December-15-15
BL15-00977	900	332242	5304033	440.35	202	-50.5	December-04-15	December-16-15
BL15-00979	876	332606	5303517	431.55	221.06	-70	December-06-15	December-18-15
BL15-00983	939	332496	5303737	432.95	200.5	-55.5	December-12-15	January-23-16
BL16-00989	573	333403	5302756	433.9	197	-76.9	February-25-16	March-04-16
BL16-00991	852	333403	5302756	433.9	14	-86	March-05-16	March-18-16
BL16-00992	1110	334118	5302935	435	203.4	-55.4	March-20-16	April-06-16
BL16-00993	771	333914	5302557	437.35	205.3	-50.2	March-18-16	March-31-16
BL16-00994	924	333914	5302557	437.35	212	-75	April-01-16	April-13-16
BL16-00995	1136	334118	5302935	435	197	-71.5	April-07-16	April-23-16

**Table 4 – Drill hole with Claim and applicable metres**

Hole	Total depth	Metres - Claim							
		731020063	731020065	731020067	731040130	731020055	4242560	731040122	731040118
BL15-00944	489	477.10	11.90						
BL15-00933	426	415.76	10.24						
BL15-00963	483	466.47	16.53						
BL15-00939	501	484.84	16.16						
BL15-00956	474	434.78	39.22						
BL15-00949	465	427.76	37.24						
BL15-00954	552	519.40	32.60						
BL15-00950	549	521.66	27.34						
BL15-00937	774			114.83		659.17			
BL15-00945	786			139.37		646.63			
BL15-00958	807			162.27		644.73			
BL15-00967	849			196.27		652.73			
BL15-00957	870			212.31		657.69			
BL15-00970	957			292.38		664.62			
BL15-00977	900			157.21		742.79			
BL15-00913	618				79.25		538.75		
BL15-00979	876				292.38		583.62		
BL15-00965	990				580.80	409.20			
BL15-00973	924				825.78		98.22		
BL15-00983	939				850.72		88.28		
BL16-00989	573							573.00	
BL16-00991	852							852.00	
BL16-00992	1110								1110.00
BL16-00993	771							583.53	187.47
BL16-00994	924							507.73	416.27
BL16-00995	1136								1136.00
	19595								

## SAMPLE PREPARATION AND ANALYSES

### Sampling Interval Criteria

Sample intervals were identified based on changes in lithology, structure, alteration and mineralization. Generally, samples of 1 m were taken in longer sections of similarly mineralized rocks. However, sample size was reduced to as low as 0.4 m in areas of particular interest or where lithology and mineralization were distinct.

### Sampling Methodology

The geologist identified and marked the beginning and the end of the sampling intervals. Upon completion of the logging and demarcating the sample intervals, technicians sawed the core in half with a diamond saw. One half of the core was

bagged, tagged with a sample number and then sealed; the other half was put back in the core boxes and kept as a reference and check sample in the event that duplicate assays are required.

All core samples were recorded in drill interval batch sheets and in a sample chain of custody spreadsheet. For quality control (QC) purposes, each series of 40 samples contained a duplicate, blank and two standards (certified reference material). These QC materials were inserted into the sample batches by Goldcorp personnel, prior to shipping to the laboratory.

All samples were organized into batches with the QAQC samples. Of the total 10,813 samples (includes QAQC and core), 4732 were sent to SGS Laboratories ("SGS") and 6081 were shipped to Activation Laboratories ("Actlabs") for processing. All results were reviewed to ensure the batch passed the required QC protocol before compiling and entering the data into the master database.

## **Sample Preparation**

### Actlabs

Samples were prepared by drying, if necessary, then the entire sample was crushed to a nominal minus 10 mesh (1.7 mm), mechanically split (riffle) to obtain a representative sample and then pulverized to at least 95% minus 150 mesh (106 µm).

### SGS

On receipt samples are sorted, logged, boxed and entered into the Laboratory Information system and allotted an internal control number. Samples are weighed and then a <3kg split is dried at 105C. The split is crushed to 90% passing 2mm. A 250g split is pulverized to 95% passing 106µm. A barren wash is completed between each sample in both the crushing and pulverizing stages.

## **Description of Analyses**

### Actlabs

#### Fire Assay Gold (1A2)

In Fire Assay Fusion, 30 g of the pulverized rock sample is mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with Ag added as a collector. After being placed in a fire clay crucible, the mixture is preheated at 850°C, intermediate to 950°C and finished at 1060°C, with the full process lasting approximately 60 minutes. The crucibles are 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 placed in a preheated cupel which absorbs the lead when cupelled at 950°C to recover the Ag (doré bead) + Au. With an AA Finish, the entire Ag doré bead

is dissolved in aqua regia and the gold content is determined by Atomic Absorption (AA). This 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 – atomic absorption. The reduction in the intensity of the light beam directly correlates with the concentration of the elemental atomic species. Detection limits for Fire Assay with AA finish are 5 to 3000ppb Au.

#### Aqua Regia ICP (1E2)

In the 1E2 Aqua Regia Analysis, 0.5 g of sample is digested with aqua regia for 2 hours at 95 ° C. The sample is cooled then diluted with deionized water. The samples are then analyzed using a Varian ICP for the 35 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. A series of USGS-geochemical standards are used as controls. This digestion is near total for base metals however will only be partial for silicates and oxides. Detection Limits for the 1E2 analysis are displayed in Table 5.

#### SGS

##### Fire Assay Gold FAA515

The gold analysis is performed at a 50g charge by fire assay using lead collection with a silver in quart. The beads are then digested and an atomic absorption finish is used. The lower detection limit is 5 ppb and the upper is 10,000 ppb.

##### Aqua Regia ICP14B

The package is based on a two-acid digest (a combination of HNO<sub>3</sub> and HCl). After the digestion, the solution is analyzed by either ICP-AES or ICP-MS or both. The digestions can also be analysed by Hydride AAS to determine the volatile elements (Sb, As, Bi, Se, Te). Two-acid digests are the weakest of the digestions and will not attack silicate minerals. As such, the leach provides partial results for most elements. The method is based on a digest combination of 3:1 HCl:HNO<sub>3</sub>. This digest is an aqua regia digest and is recommended for all samples which contain no organic material and are low in sulphide content. Detection limits are displayed in Table 6.

## **RESULTS**

Drill logs are presented in Appendix II and drillhole cross sections in Appendix III. The sections are illustrated at scale of 1:1,000.

Results tables and certificates are listed in Appendix IV and V respectively. Large sections of the drillhole were typically sampled at 1m intervals, as such given the

number of samples per drill hole and per rock unit logged, results are not included in the drill logs but as separate tables for ease and clarity. For holes BL15-00913, 933, 944, 950, 954, 963, 970, 977 and 983, the Au results are reported, no ICP analysis was completed. For the other holes, ICP results are reported.

**Table 5 – Detection Limits for Aqua Regia 1E2 (Actlabs)**

Element	Detection Limit	Upper Limit	Element	Detection Limit	Upper Limit
Ag	0.2	100	Na*	0.001%	-
Al*	0.01%	-	Ni*	1	10,000
As*	3	10,000	P*	0.001%	-
B*	5	-	Pb	2	5,000
Ba*	1	-	S*	0.001%	20%
Be*	1	-	Sb*	5	-
Bi*	2	-	Sc*	0.1	-
Ca*	0.01%	-	Sn*	5	-
Cd	0.5	2,000	Sr*	1	-
Co*	1	10,000	Te*	1	500
Cr*	2	-	Ti*	0.01%	-
Cu	1	10,000	Tl*	2	-
Fe*	0.01%	-	V*	1	-
K*	0.01%	-	W*	1	-
La*	1	-	Y*	1	-
Mg*	0.01%	-	Zn*	1	10,000
Mn*	1	100,000	Zr*	1	-
Mo*	2	10,000			

\* Element may only be partially extracted

**Table 6 – Detection Limits for Aqua Regia ICP14B (SGS)**

Element	Limit	Element	Limit	Element	Limit
Ag	2ppm-10ppm	Hg	1ppm-0.01	Sb	5ppm-0.01
Al	0.01%-0.15	K	0.01%-0.15	Sc	0.5ppm-0.01
As	3ppm-0.01	La	0.5ppm-0.01	Sn	10ppm-0.01
Ba	5ppm-0.01	Li	1ppm-0.01	Sr	0.5ppm-0.01
Be	0.5ppm-0.0025	Mg	0.01%-0.15	Ti	0.01%-0.15
Bi	5ppm-0.01	Mn	2ppm-0.01	V	1ppm-0.01
Ca	0.01%-0.15	Mo	1ppm-0.01	W	10ppm-0.01
Cd	1ppm-0.01	Na	0.01%-0.15	Y	0.5ppm-0.01
Cr	1ppm-0.01	Ni	1ppm-0.01	Zn	1ppm-0.01
Co	1ppm-0.01	P	0.01%-0.15	Zr	0.5ppm-0.01
Cu	0.5ppm-0.01	Pb	2ppm-0.01		
Fe	0.01%-0.15	S	0.01%-0.05		



## RECOMMENDATIONS

Drilling on the Borden property is being completed as part of ongoing exploration adjacent to the Borden Gold deposit. Costs related to the drilling as detailed in this report are being applied to maintain the claims in good standing.

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