

Diamond Drilling Report
Groves 2011 Drill Program – Groves Property
Liberty Mines Inc.
Groves Township
South Porcupine Mining Division
November 17, 2011
Peter Caldbick, B.Sc., P.Geo

2-49996

Table of Contents

Property Location	Page 3
Access	Page 3
Regional Geology.....	Page 4
Property Geology and Mineralization	Page 4
2011 Drill Program.....	Page 4-5
Summary.....	Page 6
References	Page 7
Appendix A – Liberty Mines Inc. Groves Property Claim Package.....	Page 8-9
Appendix B – Groves 2011 Drill Program - Collars Locations & Expenses.....	Page 10-11
Appendix C – Drill Hole Plans/Sections.....	Page 12-21
Appendix D – Drill Hole Logs.....	Page 22-45
Appendix E – Assays.....	Page 46-85

Property Location

The Groves Property lies 98km southwest of Timmins Ontario, Canada and is 100% held by Liberty Mines Inc. (Figure 1). The Groves Property includes 28 claim blocks totalling 400 claim units located in Groves, Brunswick, and Togo Township. The 2011 Groves Drill Program encompasses exploration drilling completed in Groves Township in the Porcupine Mining Division on mining claims 1228922 and 4217815.

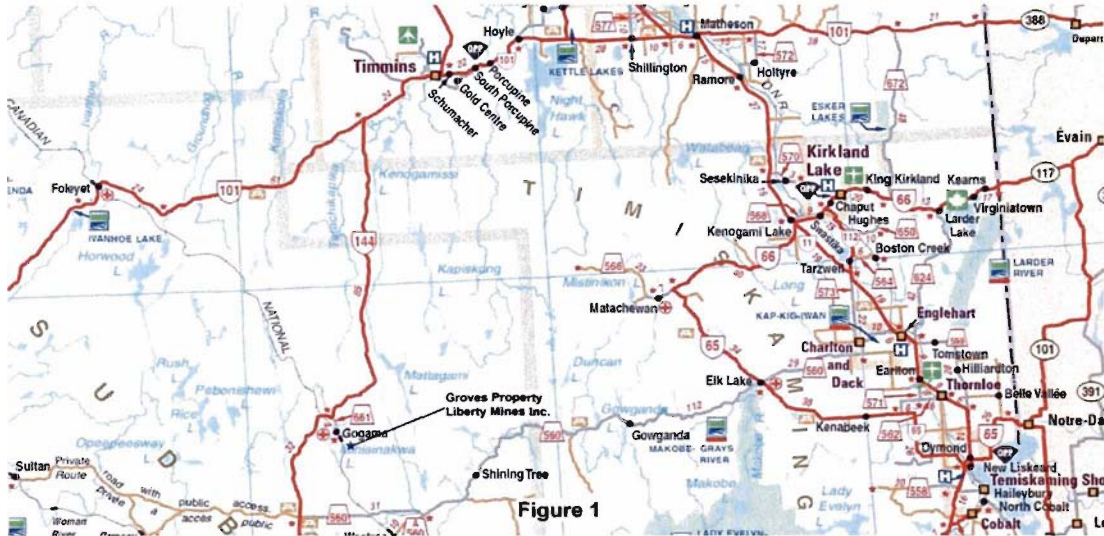


Figure 1: Liberty Mines Inc. - Groves Property Location

Access

Ground access to the Groves Property from Timmins begins by traveling approximately 20km west of Timmins on highway 101. Precede an additional 120km south on highway 144 until reaching highway 560. Precede an additional 24km east on highway 560 until reaching Little Londondary Road. From this point travel 19km north along Little Londondary Road until reaching the newly created Liberty Mines drill trail. At this point an all-terrain vehicle is required to travel the remaining 10km to the location of claim 1228922.

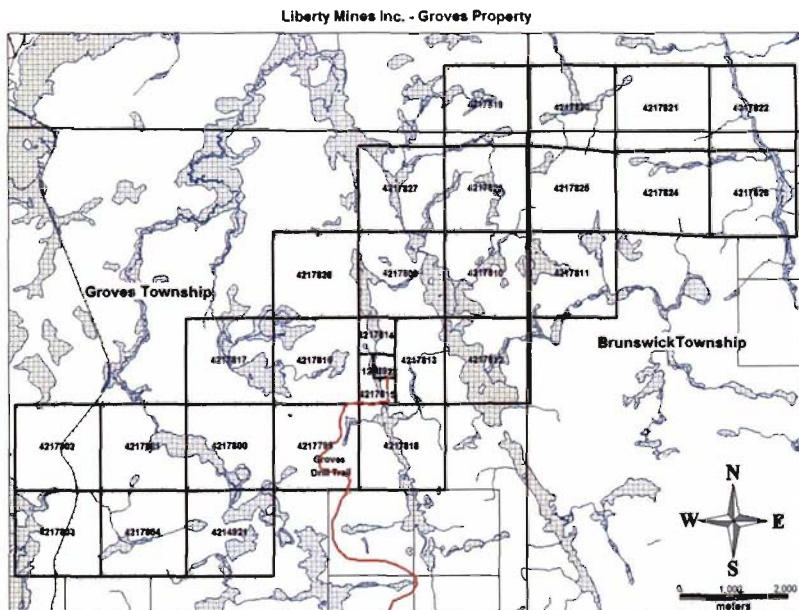


Figure 2: Liberty Mines Inc. – Groves drill trail

Regional Geology

The Groves property consists of metasediments and metavolcanics that have been intruded by a large, south-west to north-east trending 100m – 150m wide Gabbro. An accumulation of Ni-Cu hosting sulphides is known to occur within this intrusive body. The historical deposit seems to be related to a north – south fault structure that has offset the gabbro intrusion approximately 100m to the south. A large north-west to south-east trending fault occurs on the eastern edge of the property marking the eastern extension of the gabbro. According to an earlier report by Baiville Gold Mines Ltd. (Report on Groves Township Property, 1959), the small plug of basic gabbroic intrusive investigated by the recent drill program is related to a large dyke like mass of similar basic intrusives which traverses the property for 6500 feet and which resembles the “offsets” of the Sudbury nickel irruptive. The property holds attractive possibilities for additional pods of Ni-Cu mineralization.

Property Geology and Mineralization

Ore mineralization is restricted to a green-gray, medium to locally fine grained and chloritic gabbro which is non magnetic and variably foliated to homogeneous. This unit is hosted within locally sheared and brecciated mafic to felsic volcanics with locally protomylonitic zones often proximal to the gabbro footwall contact. Alteration is comprised predominantly of chlorite, sericite and locally pink potassic K-feldspathic alteration.

Historic literature (Report on Groves Township, 1959) indicates that there are two occurrences of strong sulphide mineralization known as the Glory Hole and the Cliff showings. The initial six drill holes of the program investigated what is believed to be the historic Glory Hole while drill holes 9 and 10 investigated the Cliff showing believed to occur along the eastern shore of a lobate north south trending unnamed lake. Mineralization is best described as consisting of streaks and disseminations of pyrrhotite and pyrite with chalcopyrite and pentlandite although locally semi-massive to massive sections of mineralization do occur within the heart of the sulphide mineralization.

2011 Drill Program

A drill program conducted by Liberty Mines Inc. consisting of 13 short drill holes for a total of 1,245 meters was drilled during the months of September and October 2011. The program was designed to follow up on historical drill hole intercepts in a program supervised by Hermann Daxl on behalf of Timmins Nickel Inc. in 1990. The program was also planned to follow up on a recent IP, mag and mise-a-la-masse ground geophysics program conducted by R.J. Meikle and Associates during the months of July and August 2011. The drill contract was awarded to Mallette Drilling Inc. and Peter Caldbick, PGeo, supervised the program.

Best results from the drilling came from drill hole GR-11-05, drilled at a low angle subject to the initial interpretation into the heart of the deposit referred to as the Glory Hole which returned 11.70 meters grading 2.10% nickel, 2.03% copper and 0.57 gpt gold from 22.30 meters to 34.0 meters drilled width. This interval occurred within a broader width of 15.50 meters grading 1.69% nickel, 1.66% copper and 0.73 gpt gold from 19.8 to 35.3 meters drilled width.

Drill holes GR-11-01, 02 and 04 also returned respectable economic values although over narrower widths than drill hole GR-11-05. The results from the six boreholes pertaining to this initial phase of diamond drilling are shown in Table 1. The core lengths presented in the table are the intersected lengths, and the composite lengths are core weighted. True widths are unknown.

TABLE 1: Groves Drill Program

Hole Number	From (m)	To (m)	Interval (m)	Ni (%)	Cu (%)	Pt (gpt)	Pd (gpt)	Au (gpt)
GR-11-01	38.2	41.1	2.90	1.09	1.08	0.42	0.15	0.53
GR-11-02	35.8	37.2	1.40	0.51	0.47	0.13	0.10	0.14
GR-11-02	55.4	55.8	0.40	0.42	0.73	0.02	0.01	0.18
GR-11-03	N.S.V.							
GR-11-04	10.4	10.9	0.50	0.39	0.51	0.11	0.07	0.14
GR-11-05	19.8	35.3	15.50	1.69	1.66	0.11	0.08	0.73
Including	22.3	34.0	11.70	2.10	2.03	0.13	0.10	0.57
Including	24.8	27.5	2.70	3.69	3.48	0.27	0.15	0.82
GR-11-06	N.S.V.							

At the time of the writing of this report, assays are still pending for seven additional drill holes which were collared to follow up on the down plunge and strike extents of the Groves Deposit as well as historic mineralization encountered approximately 125 meters west of the initial phase of drilling. Drill holes GR-11-09 and GR-11-10 were drilled to investigate this historic mineralization believed to be the Cliff Showing.

All drill holes planned in the program were targeted on the basis of historic drill hole intercepts in the area as well as a combination of strong IP resistivity and chargeability conductors coinciding with surface grab samples in an earlier exploration program conducted by Liberty Mines in 2008. In addition, historic drill holes in the vicinity of the Glory Hole showing were tested utilizing mise-a-la-masse surveys. Results indicated a substantial conductive response proximal to the historic trenching and drilling at the Glory Hole showing. The 2008 surface sampling and prospecting initiative established the presence of a large iron formation in the eastern portion of the claims which runs sub parallel to the gabbroic intrusion (2008 Exploration Report for the Groves Property, Liberty Mines Inc.). This would indicate potential for additional nickel copper occurrences in the area as the iron formation may represent a source of sulphur for the precipitation of magmatic nickel-copper sulphides hosted within the gabbro.

Drill holes GR-11-07 and 08 were collared west of the Glory Hole showing to follow up on strong IP chargeability responses. Drill holes GR-11-09 and 10, as mentioned earlier, were collared to follow up on the historic Cliff Showing approximately 125 meters west of the Glory Hole showing. Drill holes GR-11-11 and 12 were collared east of the Glory Hole to test for strike continuity and a deeper hole GR-11-13 was drilled at depth under the Glory Hole showing and historic drilling.

Summary

The occurrence of the quality of mineralization within the gabbroic plug, specifically in the area known as the Glory Hole suggests that significant near surface mineralization exists although not in the quantities suggested by earlier historic reports indicating 500,000 tonnes of 1.5% copper plus nickel (Canadian Mines Handbook, 1957). Recent drill results do indicate, however, substantial copper and nickel grades with associated gold and platinum group metals within the heart of the Glory Hole showing. The project area does represent an attractive geologic environment offering encouragement for further exploration initiatives. Deeper drill holes in the area such as GR-11-13 are recommended with further investigations utilizing borehole EM systems in order to investigate the possibility of deeper sulphide concentrations or sources at depth.

Investigation of the gabbroic plug is recommended as well due to the similarity of this dyke and the "offsets" of the Sudbury nickel irruptive. The project area is believed to possess the potential to host additional pods of magmatic nickel-copper mineralization with the presence of an iron formation sub parallel to the gabbroic dyke. In addition, according to MDI 41P12NE00004, Au values as high as 0.5 oz./ton have been reported in multiple mineral occurrences northeast of Pensyl Lake.

A program of winter geophysics on Watershed Lake would also be recommended to blanket the area immediately west of the Cliff showing. In addition a soil survey consisting of MMI and geochemical studies could assist in providing invaluable information in conjunction with VTEM B-field conductors with respect to the targeting of potential additional pods of nickel-copper mineralization.

Peter Caldbick, B.Sc., PGEO
V.P. Exploration, Liberty Mines Inc.



References

Report on Groves Township Property, Baiville Gold Mines, Ltd., Harper and Holbrooke, 1959.

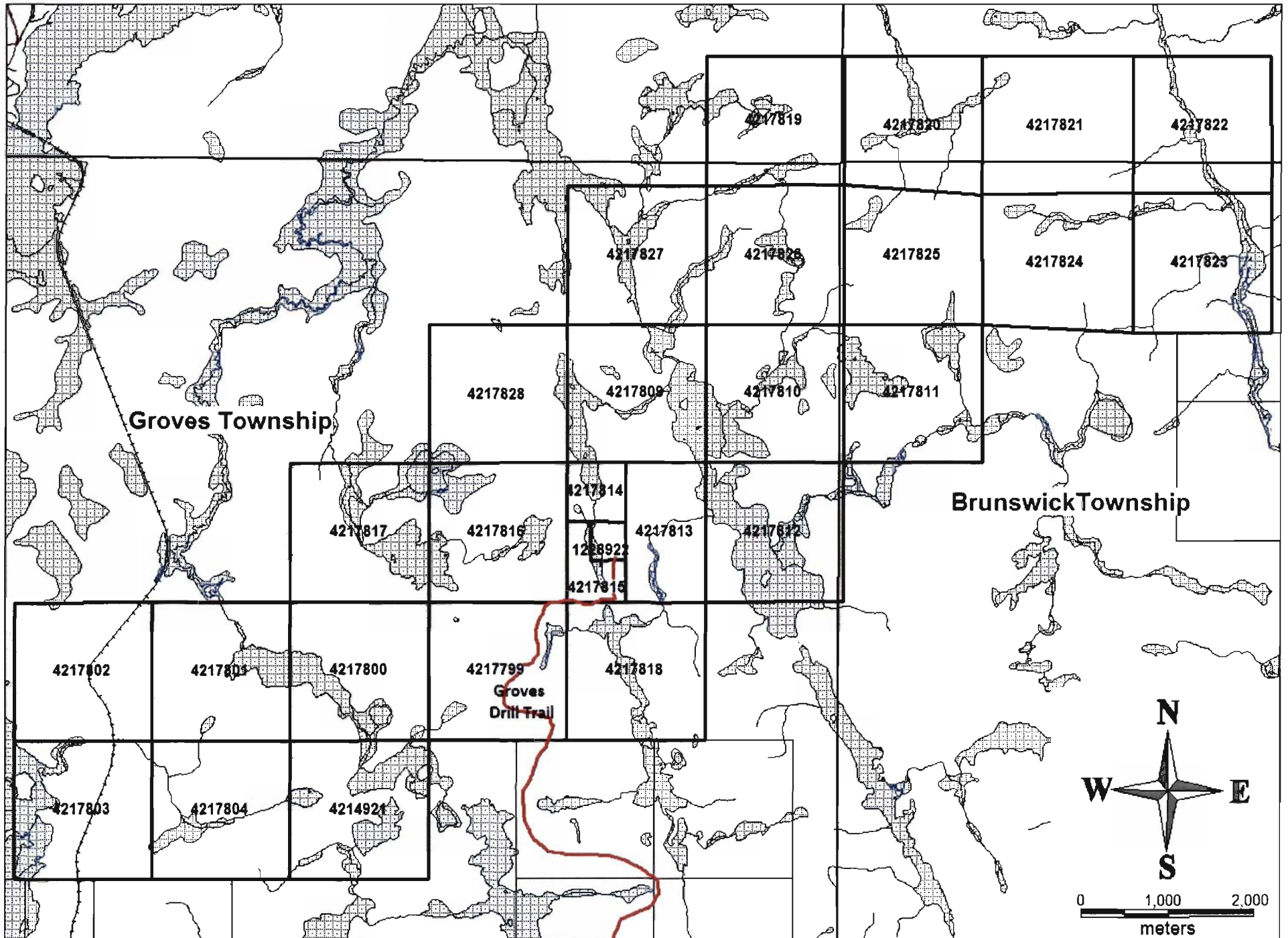
Groves Property Drilling of Jan-Feb 1990, Timmins Nickel Inc., Hermann Daxl, 1990.

2008 Exploration Report for the Groves Property, Liberty Mines Inc., Tim Dunnett, 2008

Appendix A - Liberty Mines Inc. - Groves Property Claim Package

Claim Number	UNITS	\$ req/yr	TWP	Recorded	Due Date
1228922	1	800	GROVES	1997-Sep-18	2011-Nov-18
4214921	16	12800	GROVES	2007-Sep-19	2011-Nov-19
4217799	16	12800	GROVES	2007-Sep-19	2011-Nov-19
4217800	16	12800	GROVES	2007-Sep-19	2011-Nov-19
4217801	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217802	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217803	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217804	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217809	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217810	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217811	16	12800	BRUNSWICK	2007-Sep-19	2011-Nov-19
4217812	16	12800	BRUNSWICK	2007-Sep-19	2011-Nov-19
4217813	10	8000	GROVES	2007-Sep-19	2011-Nov-19
4217814	2	1600	GROVES	2007-Sep-19	2011-Nov-19
4217815	3	2400	GROVES	2007-Sep-19	2011-Nov-19
4217816	16	12800	GROVES	2007-Sep-19	2011-Nov-19
4217817	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217818	16	12800	GROVES	2007-Sep-19	2011-Nov-19
4217819	16	12800	TOGO	2007-Sep-19	2011-Nov-19
4217820	16	12800	TOGO	2007-Sep-19	2011-Nov-19
4217821	16	12800	TOGO	2007-Sep-19	2011-Nov-19
4217822	16	12800	TOGO	2007-Sep-19	2011-Nov-19
4217823	16	12800	BRUNSWICK	2007-Sep-19	2011-Nov-19
4217824	16	12800	BRUNSWICK	2007-Sep-19	2011-Nov-19
4217825	16	12800	BRUNSWICK	2007-Sep-19	2011-Nov-19
4217826	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217827	16	12800	GROVES	2007-Sep-06	2011-Nov-19
4217828	16	12800	GROVES	2007-Sep-06	2011-Nov-19
Claim Blocks	28				
Claim Units	400				

Liberty Mines Inc. - Groves Property



**Appendix B - Groves 2011 Drill Program - Collar Locations
Mallette Drilling - Meters Drilled/Costs per Claim**

DDH No.	NAD83 Easting	Grid Easting	NAD83 Northing	Grid Northing	Dip	Azi	Depth	Elevation	1228922	4217815	Total
									1 unit	3 unit	
									Costs	Costs	
GR-11-01	453225	225	5275033	5033	-54	360	60	2384	\$6,000.00	\$0.00	\$6,000.00
GR-11-02	453225	225	5275033	5033	-78	360	60	2384	\$6,000.00	\$0.00	\$6,000.00
GR-11-03	453225	225	5274991	4991	-67	360	90	2382	\$4,500.00	\$4,500.00	\$9,000.00
GR-11-04	453200	200	5275046.5	5046.5	-50	360	72	2382	\$7,200.00	\$0.00	\$7,200.00
GR-11-05	453200	200	5275046.5	5046.5	-74	360	72	2382	\$7,200.00	\$0.00	\$7,200.00
GR-11-06	453200	200	5274990	4990	-60	360	111	2381	\$5,550.00	\$5,550.00	\$11,100.00
GR-11-07	453175	175	5274980	4980	-70	360	120	2373	\$6,000.00	\$6,000.00	\$12,000.00
GR-11-08	453150	150	5274953	4953	-78	360	120	2373	\$0.00	\$12,000.00	\$12,000.00
GR-11-09	453085	085	5275025	5025	-60	360	90	2374	\$9,000.00	\$0.00	\$9,000.00
GR-11-10	453088	088	5275080	5080	-50	180	80	2382	\$8,000.00	\$0.00	\$8,000.00
GR-11-11	453250	250	5275037	5037	-45	360	80	2384	\$8,000.00	\$0.00	\$8,000.00
GR-11-12	453250	250	5275037	5037	-70	360	80	2384	\$8,000.00	\$0.00	\$8,000.00
GR-11-13	453212.5	212.5	5274950	4950	-65	360	210	2381	\$7,000.00	\$14,000.00	\$21,000.00
									\$82,450.00	\$42,050.00	\$124,500.00

Total Meters Drilled	1245m
Total Costs	\$124,500
Claim 1228922 % of costs	66.22%
Claim 4217815 % of costs	33.78%

Groves 2011 Drill Program Mob/Demob, Accommodation, Food, Drilling Expenses

			1228922	4217815
Groves 2011 Drill Program - Contractor Expenses		Total	1 unit (66.22%)	3 unit (33.78%)
	Camp and drill equipment/supplies mob/demob - Total Exploration Invoice	\$40,129.12	\$26,573.50	\$13,555.62
	Camp rental, camp setup, food, cook wages - Expedition Helicopters Invoice	\$29,388.94	\$19,461.36	\$9,927.58
	Mallette Drilling Inc. 1245m x \$100/per meter	\$124,500.00	\$82,443.90	\$42,056.10
	sub total	\$194,018.06	\$128,478.76	\$65,539.30
	<hr/>			
Liberty Mines Associated Costs	Geotech (spotting holes, transport core to Redstone Minesite, core cutting/sampling) - 11 days	\$3,300.00	\$2,185.26	\$1,114.74
	Travel - 2376km X \$0.50	\$1,188.00	\$786.69	\$401.31
	Geologist (drill hole planning, mapping, logging, section, report) - 14 days	\$6,300.00	\$4,171.86	\$2,128.14
	Sampling/Assaying	\$14,940.10	\$9,893.33	\$5,046.77
	sub total	\$25,728.10	\$17,037.15	\$8,690.95
	<hr/>			
	Final Total	\$219,746.16	\$145,515.91	\$74,230.25
		Rounded Off	\$145,516	\$74,230

Note: mob/demob, accommodations, food, Liberty Mines associated costs divided between claims based on % of costs per hole on each claim. (meters drilled, site prep per hole) Claim 1228922 = 66.78%, Claim 4217815 = 33.22%.

Appendix C – Drill Hole Plans/Sections

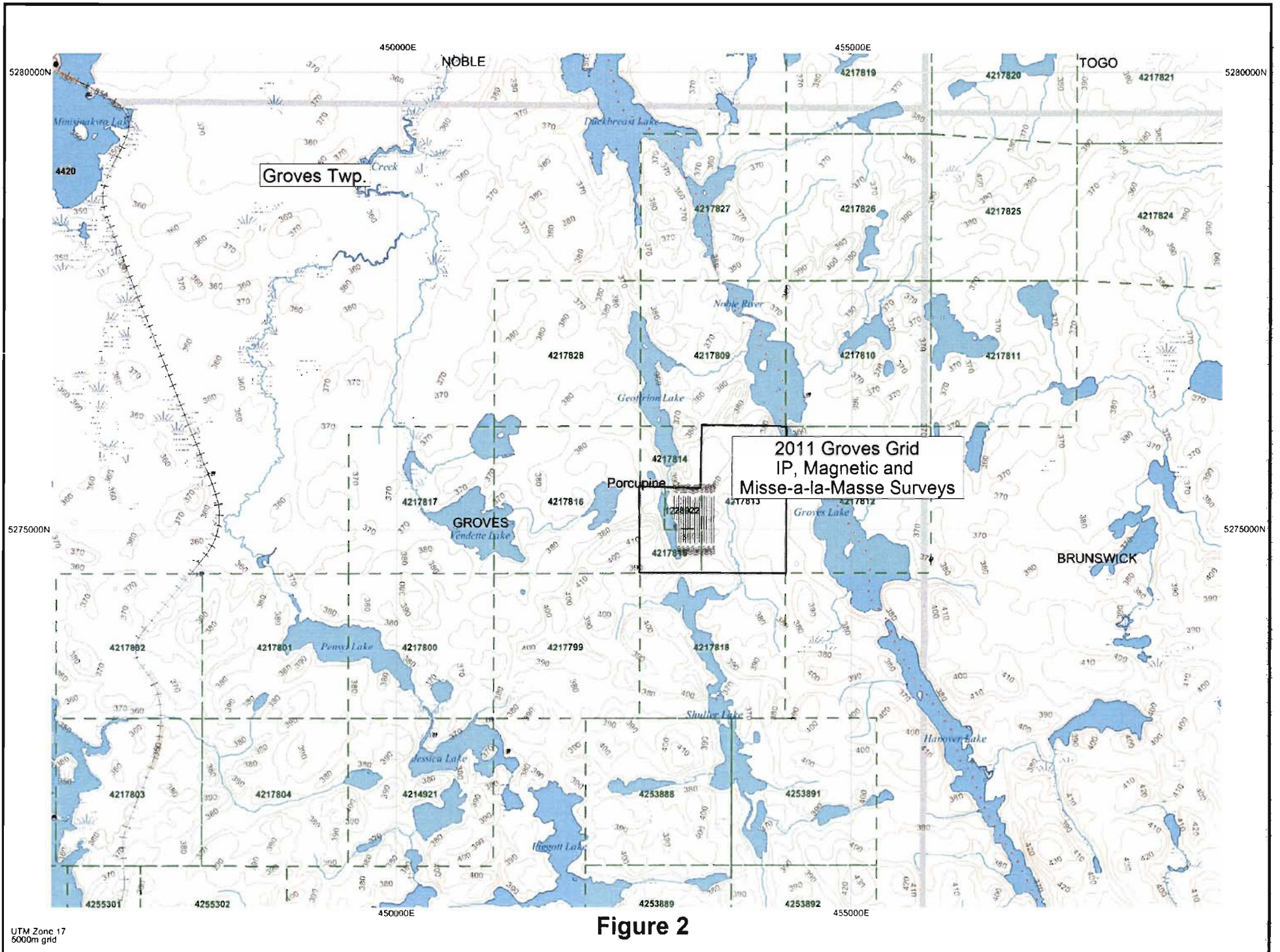
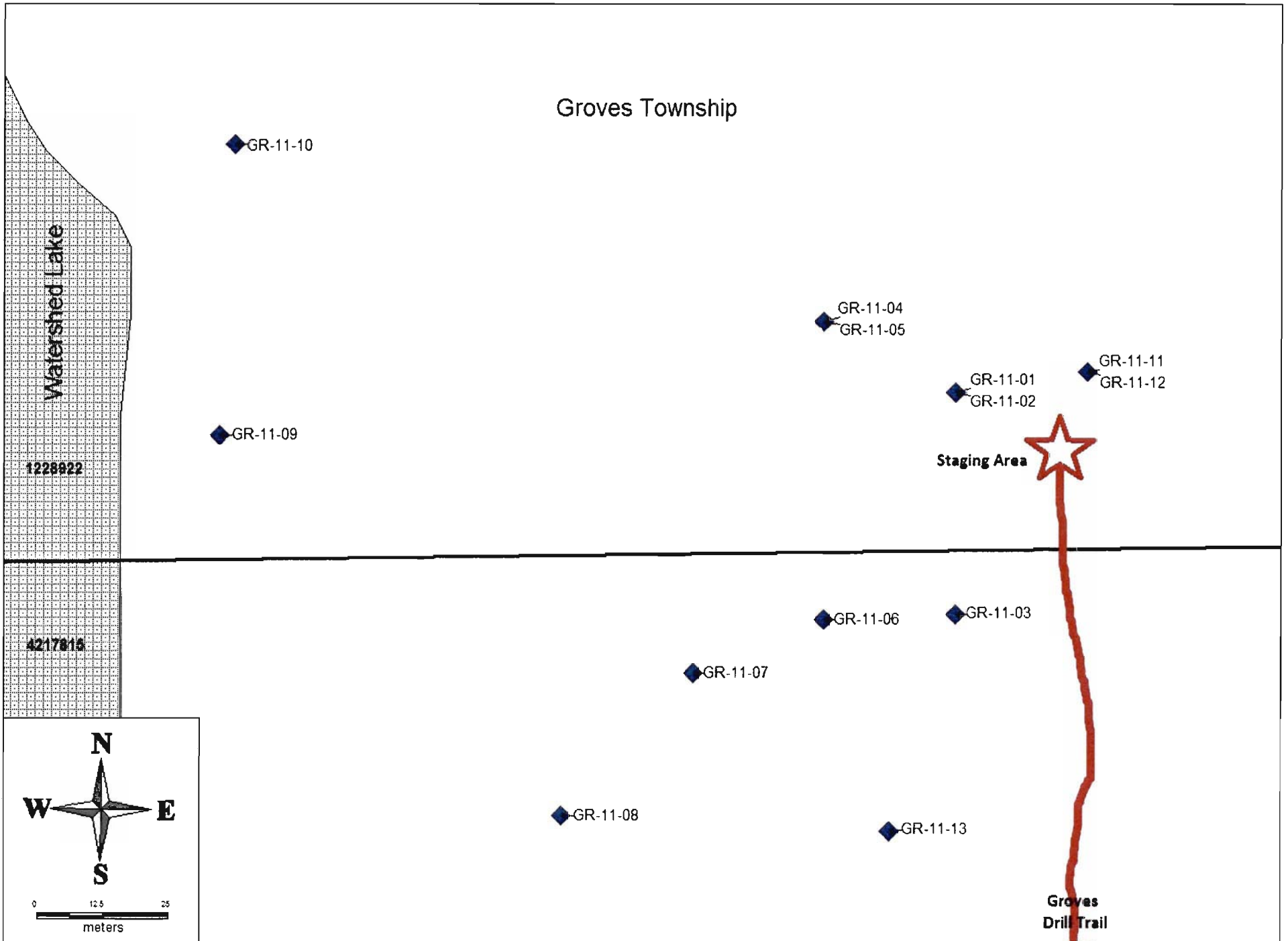


Figure 2

UTM Zone 17
5000m grid

Liberty Mines Inc. - Groves Property - 2011 Drill Program

Groves Township



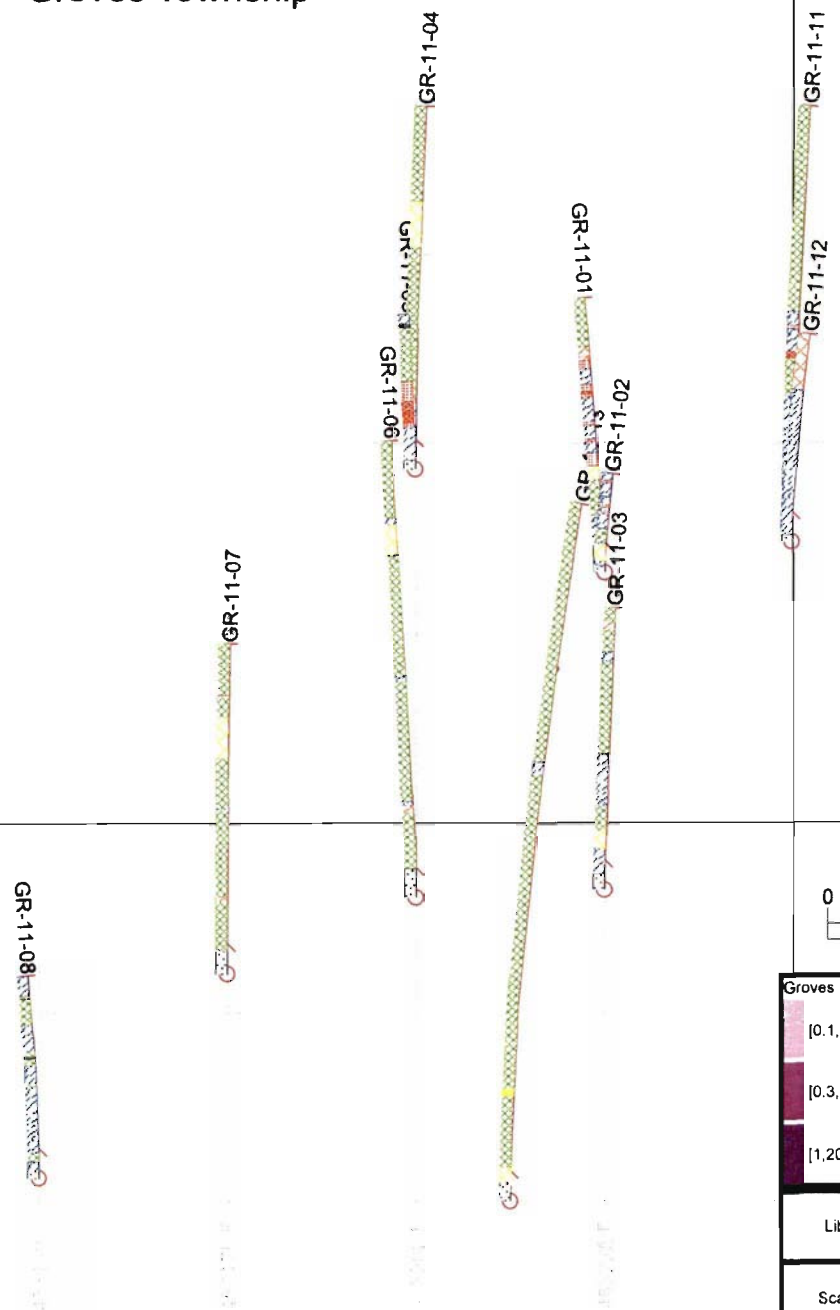
Groves Township

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 5275075 N
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 5275025 N
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Claim Number: 1228922
 Claim Number: 4217815

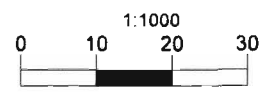


453250 E

GR-11-09
 GR-11-04
 GR-11-06
 GR-11-10
 GR-11-03
 GR-11-02
 GR-11-11
 GR-11-12



Declination
 10° 12' west



Groves Ni Grades	Groves Cu Grades
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[0.3,1]	[0.3,1]
[1,20]	[1,20]

Lithology Legend	
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	Argillite
	Casing
	Diabase
	Diorite
	Felsic Dyke
	Fault
	Foliated Porphyry
	Felsic Volcanics
	Gabbro
	Granite
	Iron Formation
	Intermediate Volcanic
	Komatiite
	Komatiite Spinifex
	Mafic Dyke
	Massive Sulphide
	Mafic Volcanic
	Net Textured Sulphide
	Overburden
	Protomylonite
	Porphyry
	Quartz Vein
	Sediments
	Semi Massive Sulphide
	Stringer Sulphide

Liberty Mines Inc. - Groves Project		2011 Drill Program
Scale 1:1000.0	Date: 10/11/11	Todd Mathieu

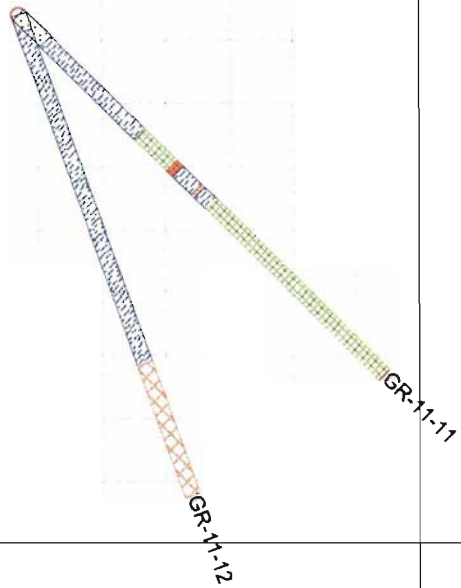
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 Az: 360
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 Dip: -70
 Az: 360
 Elev: 2384

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 5275100 N
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Claim Number: 4217815

Claim Number: 1228922

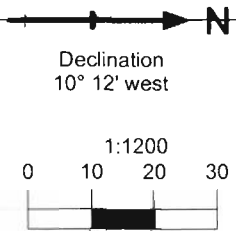


2300 Elev

2300 Elev

2200 Elev

Lithology Legend	
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	Argillite
	Casing
	Diabase
	Diorite
	Felsic Dyke
	Fault
	Foliated Porphyry
	Felsic Volcanics
	Gabbro
	Granite
	Iron Formation
	Intermediate Volcanic
	Komatiite
	Komatiite Spinifex
	Mafic Dyke
	Massive Sulphide
	Mafic Volcanic
	Net Textured Sulphide
	Overburden
	Protomylonite
	Porphyry
	Quartz Vein
	Sediments
	Semi Massive Sulphide
	Stringer Sulphide



Groves Ni Grades	Groves Cu Grades
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[0.3,1]	[0.3,1]
[1,20]	[1,20]

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 Dip: -54
 Az: 360
 Elev: 2384

DH ID: GR-11-02
 Easting: 453225E
 Northing: 5275033N
 Dip: -78
 Az: 360
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 Elev: 2384

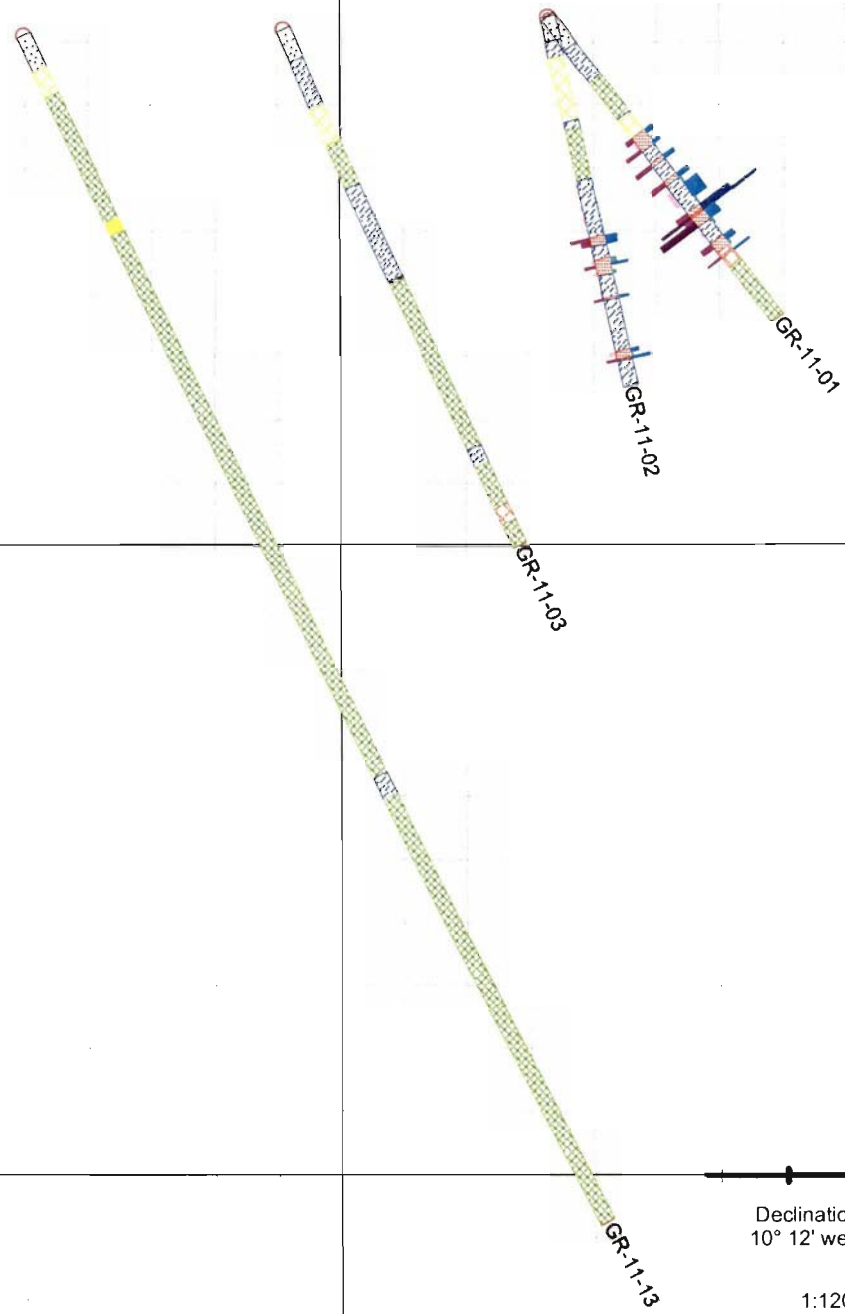
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 Elev: 2381

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 5275120 N
 5275110 N
 5275100 N
 5275090 N
 5275080 N
 5275070 N
 5275060 N
 5275050 N
 5275040 N
 5275030 N
 5275020 N
 5275010 N
 5275000 N
 5274990 N
 5274980 N
 5274970 N
 5274960 N
 5274950 N
 5274940 N

2400 Elev

Claim Number: 4217815

Claim Number: 1228922

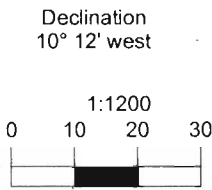


2300 Elev

2300 Elev

2200 Elev

Lithology Legend	
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[Pattern]	Diorite
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[Pattern]	Felsic Volcanics
[Pattern]	Gabbro
[Pattern]	Granite
[Pattern]	Iron Formation
[Pattern]	Intermediate Volcanic
[Pattern]	Komatiite
[Pattern]	Komatiite Spinifex
[Pattern]	Mafic Dyke
[Pattern]	Massive Sulphide
[Pattern]	Mafic Volcanic
[Pattern]	Net Textured Sulphide
[Pattern]	Overburden
[Pattern]	Protomylonite
[Pattern]	Porphyry
[Pattern]	Quartz Vein
[Pattern]	Sediments
[Pattern]	Semi Massive Sulphide
[Pattern]	Stringer Sulphide



Groves Ni Grades	
[Color]	[0.1,0.3]
[Color]	[0.3,1]
[Color]	[1,20]

Groves Cu Grades	
[Color]	[0.1,0.3]
[Color]	[0.3,1]
[Color]	[1,20]

527510 N
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 5275080 N
 5275070 N
 5275060 N
 5275050 N
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 Elev: 2382

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 Dip: -74
 Az: 360
 Elev: 2382

DH ID: GR-11-06
 Easting: 453200E
 Northing: 5274990N
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 Elev: 2381

5275140 N
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 5275120 N
 5275110 N
 5275100 N
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 5275040 N
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 5275010 N
 5275000 N
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2400 Elev

Claim Number: 4217815

Claim Number: 1228922

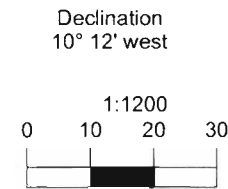
2300 Elev

2300 Elev

2200 Elev

Lithology Legend

- Anorthosite
- Argillite
- Casing
- Diabase
- Diorite
- Felsic Dyke
- Fault
- Foliated Porphyry
- Felsic Volcanics
- Gabbro
- Granite
- Iron Formation
- Intermediate Volcanic
- Komatiite
- Komatiite Spinifex
- Mafic Dyke
- Massive Sulphide
- Mafic Volcanic
- Net Textured Sulphide
- Overburden
- Protomylonite
- Porphyry
- Quartz Vein
- Sediments
- Semi Massive Sulphide
- Stringer Sulphide



GR-11-13

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 5274990 N
 5274980 N
 5274970 N
 5274960 N
 5274950 N
 5274940 N
 5274930 N
 5274920 N
 5274910 N

Liberty Mines Inc. - Groves Project

Section 453200.00 E

Scale 1:1200.0

Date: 10/11/11

Todd Mathieu

DH ID: GR-11-07
 Easting: 453175E
 Northing: 5274980N
 Dip: -70
 Az: 360
 Elev: 2373

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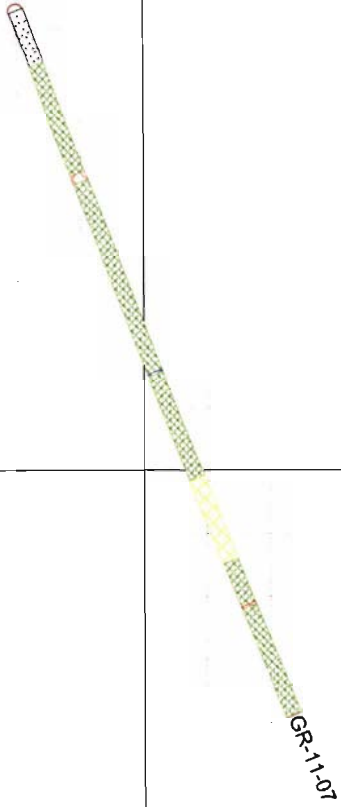
2400 Elev

Claim Number: 4217815

Claim Number: 1228922

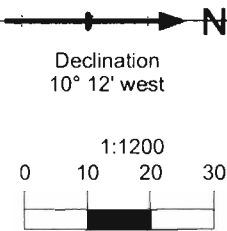
2300 Elev

2200 Elev



Lithology Legend

	Anorthosite
	Argillite
	Casing
	Diabase
	Diorite
	Felsic Dyke
	Fault
	Foliated Porphyry
	Felsic Volcanics
	Gabbro
	Granite
	Iron Formation
	Intermediate Volcanic
	Komatiite
	Komatiite Spinifex
	Mafic Dyke
	Massive Sulphide
	Mafic Volcanic
	Net Textured Sulphide
	Overburden
	Protomylonite
	Porphyry
	Quartz Vein
	Sediments
	Semi Massive Sulphide
	Stringer Sulphide

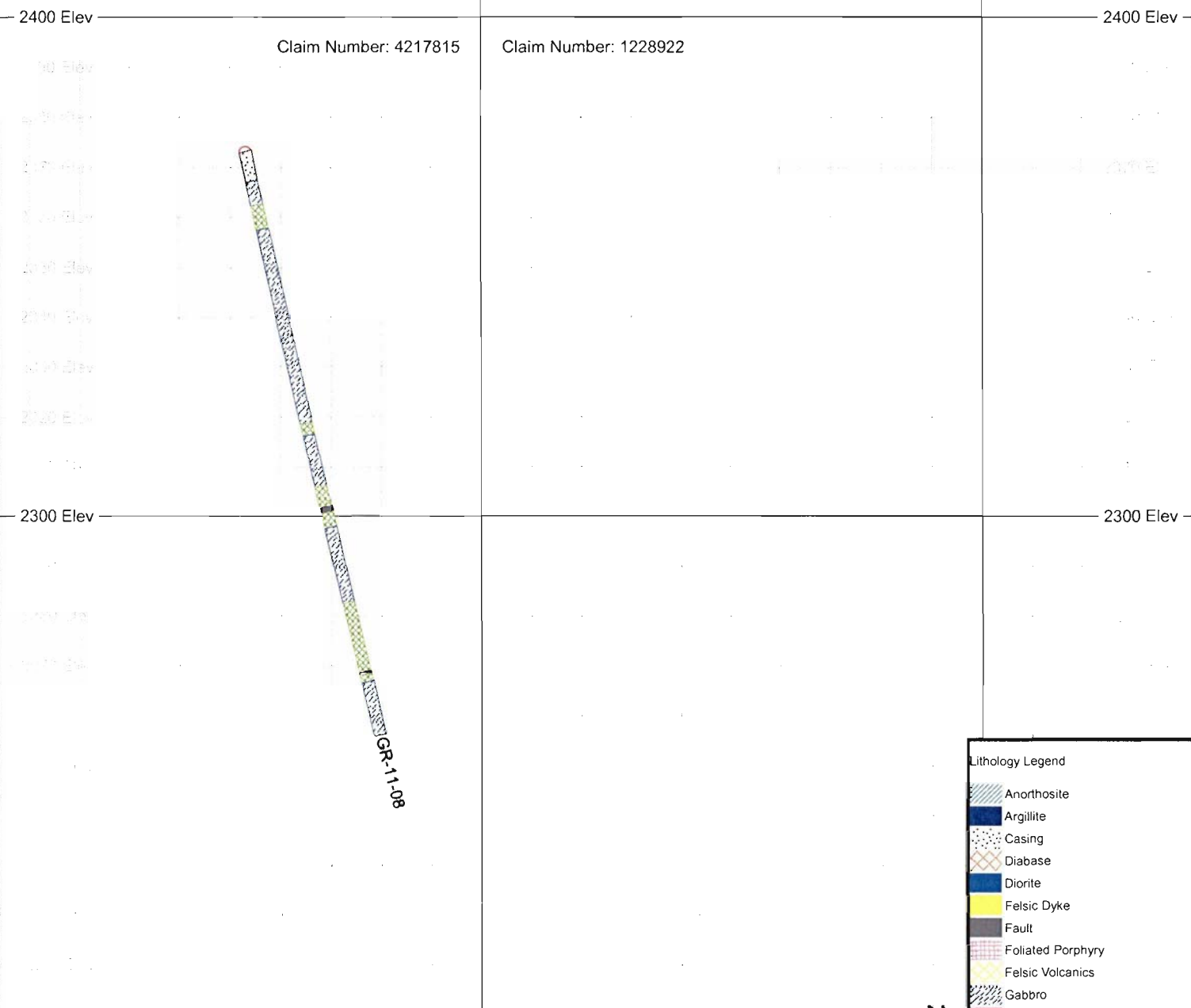


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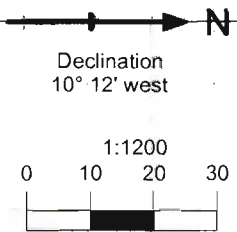
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 Dip: -78
 Az: 360
 Elev: 2373

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Lithology Legend

[Pattern]	Anorthosite
[Pattern]	Argillite
[Pattern]	Casing
[Pattern]	Diabase
[Pattern]	Diorite
[Pattern]	Felsic Dyke
[Pattern]	Fault
[Pattern]	Foliated Porphyry
[Pattern]	Felsic Volcanics
[Pattern]	Gabbro
[Pattern]	Granite
[Pattern]	Iron Formation
[Pattern]	Intermediate Volcanic
[Pattern]	Komatiite
[Pattern]	Komatiite Spinifex
[Pattern]	Mafic Dyke
[Pattern]	Massive Sulphide
[Pattern]	Mafic Volcanic
[Pattern]	Net Textured Sulphide
[Pattern]	Overburden
[Pattern]	Protomylonite
[Pattern]	Porphyry
[Pattern]	Quartz Vein
[Pattern]	Sediments
[Pattern]	Semi Massive Sulphide
[Pattern]	Stringer Sulphide



Groves Ni Grades	Groves Cu Grades
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[Color] [0.3,1]	[Color] [0.3,1]
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 Northing: 5275025N
 Dip: -60
 Az: 360
 Elev: 2374

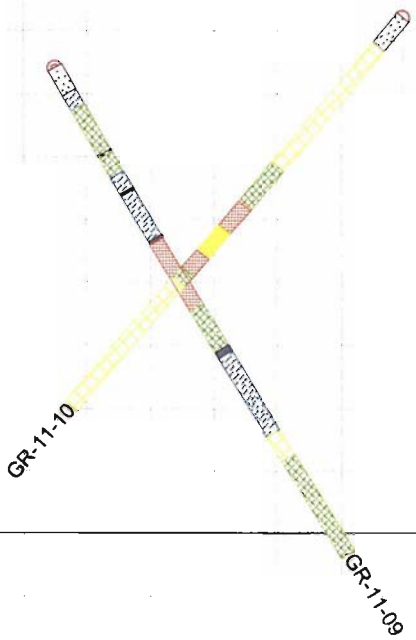
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 Easting: 453088E
 Northing: 5275080N
 Dip: -50
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 Elev: 2382

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Claim Number: 4217815

Claim Number: 1228922

2400 Elev

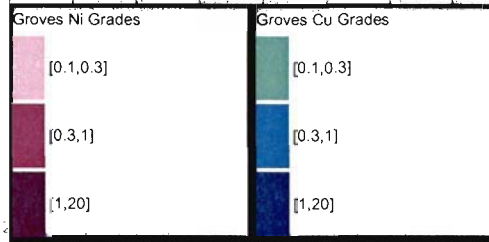
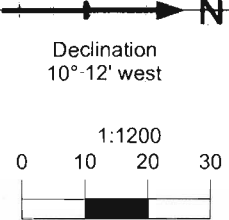


2300 Elev

2300 Elev

2200 Elev

Lithology Legend	
	Anorthosite
	Argillite
	Casing
	Diabase
	Diorite
	Felsic Dyke
	Fault
	Foliated Porphyry
	Felsic Volcanics
	Gabbro
	Granite
	Iron Formation
	Intermediate Volcanic
	Komatiite
	Komatiite Spinifex
	Mafic Dyke
	Massive Sulphide
	Mafic Volcanic
	Net Textured Sulphide
	Overburden
	Protomylonite
	Porphyry
	Quartz Vein
	Sediments
	Semi Massive Sulphide
	Stringer Sulphide



5274910 N
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 5274980 N
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5275000 N
 5275010 N
 5275020 N

Liberty Mines Inc. - Groves Project

Section 453085.00 E

Scale 1:1200.0

Date: 10/11/11

Todd Mathieu

Appendix D – Drill Hole Logs

REDSTONE DETAILED LOG

Hole Number: **GR-11-01**

Units: METRIC

Borehole ID: GR-11-01
 Primary Grid: UTM83-17
 Primary North: 5275033.00
 Primary East: 453225.00
 Primary Elev: 2384.00
 Destination Grid: UTM83-17
 Destination North: 5275033.00
 Destination East: 453225.00
 Destination Elev: 2384.00

Project Number: GROVES
 Claim #: 1228922
 Township: Groves
 Logged By: rallard
 Log Finished: Sep 23, 2011
 Core Storage: Redstone Minesite
 Casing: Capped

Start Date: Sep 23, 2011
 Finish Date:
 Drill Contractor: Mallette Drilling Inc.
 Core Size: BQ
 Hole Length: 60.00
 Azimuth: 360.00
 Dip: -54.00

Comments:

Survey Tests

Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip
0			6.0000	357.30	-53.50	60.0000	351.80	-51.60			

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	6.00	CAS, Casing											
6.00	12.50	GAB, Gabbro Gabbro,gray fine gabbro,minor white/pinkish feldspar phenocrysts,tr sulphides ,minor chloritic alteration within the unit. lc@ 65.											
12.50	19.70	IV, Intermediate Volcanic Intermediate volcanic,dark dacite,non-magnetic,tr-2% sulphides locally (py'tic banding~30,cp,)				E5101660	18.00	19.00					
						E5101661	19.00	19.70					
19.70	20.00	GAB, Gabbro Gabbro,as above, uc@ 80,lc@ 75.				E5101662	19.70	20.00					
20.00	23.40	FV, Felsic Volcanic Felsic volcanic,greenish-gray dacite,lower ctc gradual,fine grained,minor qtz/ca/chlorite str's locally,non-magnetic.				E5101663	20.00	21.00					
						E5101664	21.00	22.00					
						E5101665	22.00	23.00					
						E5101666	23.00	23.40					
23.40	26.20	STR, Stringer Sulphide Stringer sulphide,diss'd zone, up to 7% sulphide patches and stringers,hosted in fine gabbro(py,cp,pn) in irregular patches ,minor chlorite alteration.	CP	STR	5 - 10%	E5101667	23.40	24.20					
						E5101668	24.20	25.00					
						E5101669	25.00	25.70					
						E5101670	25.70	26.20					
26.20	28.50	GAB, Gabbro Gabbro,gray,fn,white/pinkish phenocrysts within the unit,tr-1% sulphides(py,cp) uc@50,lc@65.	CP	STR	< 1%	E5101671	26.20	27.50					
						E5101672	27.50	28.50					
28.50	29.20	STR, Stringer Sulphide Stringer sulphide,3-5% sulphides in patches/strs (py,cp,pn) all in fine gabbro with qtz flooding and blue quartz < 2cm throughout.	PN	STR	1 - 5%	E5101673	28.50	29.20					

Hole Number: **GR-11-01**

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
29.20	32.10	GAB, Gabbro Gabbro, med-grained gray gabbro, weakly foliated @ 50dtca, non-magnetic, uc@50, lc@45.				E5101674	29.20	30.00					
						E5101675	30.00	31.00					
						E5101676	31.00	32.10					
32.10	32.90	STR, Stringer Sulphide Stringer sulphide, hosted in a fault zone @ contact with the gabbro, 7-10% sulphides (py, cp, pn) as irregular patches, core badly broken up. RQD ~ 30%.	PN	STR	5 - 10%	E5101677	32.10	32.90					
32.90	38.20	GAB, Gabbro Gabbro, as above, fn foliation @ 40dtca, uc@80, lc@75.				E5101678	32.90	34.00					
						E5101679	34.00	36.80					
						E5101681	36.80	38.20					
38.20	39.00	STR, Stringer Sulphide Stringer sulphide, as above, 5-8% sulphides (py, cp, pn) in patches.	PN	STR	5 - 10%	E5101682	38.20	39.00					
39.00	39.40	SMS, Semi Massive Sulphide Semi-massive sulphide, 30-40% sulphides in patches/massive veins (py, cp, pn)	PN	SM	10 - 25%	E5101684	39.00	39.40					
39.40	41.10	STR, Stringer Sulphide Stringer sulphide, 10% sulphides in patches (py, cp, pn) / str, in fine gabbro/quartz flooding.	PN	STR	5 - 10%	E5101685	39.40	40.00					
						E5101686	40.00	41.10					
41.10	44.40	GAB, Gabbro Gabbro, med gray gabbro, moderately broken up in minor faulting, tr-2% weak sulphides (py, cp) in blebby style, uc@60, lc@70.				E5101687	41.10	42.10					
						E5101688	42.10	43.10					
						E5101689	43.10	44.40					
44.40	46.20	STR, Stringer Sulphide Stringer sulphide, as above, 5-7% sulphides (py, cp, pn)	PY	STR	5 - 10%	E5101690	44.40	45.40					
						E5101691	45.40	46.20					
46.20	47.00	DIA, Diabase Diabase, locally magnetic, gray diabase, fine grained, moderately broken up.				E5101692	46.20	47.00					
47.00	47.30	STR, Stringer Sulphide Stringer sulphide, hosted in diabase, upto 10% sulphides in minor str (py, cp)	CP	STR	5 - 10%	E5101693	47.00	47.30					
47.30	49.30	DIA, Diabase Diabase, as above.				E5101694	47.30	48.30					
49.30	60.00	IV, Intermediate Volcanic Intermediate volcanic, dark dacite, tr sulphides. E.O.H.				<i>Peter Colledge</i>							

REDSTONE DETAILED LOG

Hole Number: **GR-11-02**

Units: METRIC

Borehole ID: GR-11-02
 Primary Grid: UTM83-17
 Primary North: 5275033.00
 Primary East: 453225.00
 Primary Elev: 2384.00
 Destination Grid: UTM83-17
 Destination North: 5275033.00
 Destination East: 453225.00
 Destination Elev: 2384.00

Project Number: GROVES
 Claim #: 1228922
 Township: Groves
 Logged By: rallard
 Log Finished: Sep 27, 2011
 Core Storage: Redstone Minesite
 Casing: Capped

Start Date: Sep 27, 2011
 Finish Date:
 Drill Contractor: Mallette Drilling Inc.
 Core Size: BQ
 Hole Length: 60.00
 Azimuth: 360.00
 Dip: -78.00

Comments:

Survey Tests

Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip
12.0000	7.60	-77.60	60.0000	9.00	-77.10						

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	4.00	CAS, Casing											
4.00	6.60	GAB, Gabbro Gray fine gabbro, lower ctc gradual, tr sulphides, moderately broken up, lc@60.											
6.60	17.00	FV, Felsic Volcanic Greenish-gray dacite, lower ctc gradual, chloritic strs within the unit, locally broken up and blocky.											
17.00	18.30	GAB, Gabbro Gabbro, as above, tr sulphides, uc@55, lc@65.											
18.30	26.50	IV, Intermediate Volcanic Dark dacite, non-magnetic, 1-2% minor qtz-ca veinlets at all angles, tr sulphides.				E5101695	25.50	26.50					
26.50	35.80	GAB, Gabbro Fine grained gray, minor white-pinkish phenocrysts within the unit, non-magnetic, tr-3% sulphide patches(py, cp), up to 2% qtz-ca veinlets at moderate angles, uc@40, lc@60.				E5101696	26.50	27.50					
						E5101697	27.50	28.50					
						E5101698	28.50	29.50					
						E5101699	29.50	30.50					
						E5101700	30.50	31.50					
						E5101701	31.50	32.50					
						E5101702	32.50	33.50					
						E5101703	33.50	34.50					
						E5101704	34.50	35.80					
35.80	37.20	STR, Stringer Sulphide Up to 6% sulphide patches-strs locally(py, cp, pn), all in fine gabbro, 2% quartz flooding to local blue quartz < 1-2cm within the unit.	CP	STR	5 - 10%	E5101706	35.80	36.30					
						E5101708	36.30	37.20					
37.20	39.40	GAB, Gabbro Fine grained gray gabbro, as above, uc@70, lc@65, tr-1% sulphides(py).				E5101709	37.20	38.20					
						E5101710	38.20	39.40					

REDSTONE DETAILED LOG

Hole Number: GR-11-02

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
39.40	42.00	STR, Stringer Sulphide 3-5% sulphide patches-cubic(py,cp,pn) locally,all in fine gabbro,up tp 5% quartz flooding at all angles.	CP	STR	1 - 5%	E5101711	39.40	40.30					
						E5101712	40.30	40.70					
						E5101713	40.70	41.40					
						E5101714	41.40	42.00					
42.00	45.60	GAB, Gabbro Fine gray gabbro,small white-pinkish phenocrysts within the unit,lower ctc gradual to stringer zone,tr-2% sulphides(py,cp), uc@50,lc@45.				E5101715	42.00	43.30					
						E5101716	43.30	44.30					
						E5101717	44.30	45.60					
45.60	46.00	STR, Stringer Sulphide Hosted in gabbro,10% sulphide str-patches of various sizes(py,cp,pn) locally,up to 5% quartz flooding-breccia with local blue quartz throughout.	CP	STR	5 - 10%	E5101718	45.60	46.00					
46.00	54.20	GAB, Gabbro Fine grained grayish gabbro,as above,tr-1% minor sulphide str(py), uc@60,lc@75.				E5101719	46.00	47.00					
						E5101720	47.00	48.00					
						E5101721	48.00	49.30					
						E5101722	49.30	50.40					
						E5101723	50.40	51.40					
						E5101724	51.40	52.40					
						E5101725	52.40	53.30					
						E5101726	53.30	54.20					
54.20	55.40	STR, Stringer Sulphide Hosted in fine grained gabbro,3-5% sulphides locally(py,cp,pn) all in fine str to local patches, up to 5% quartz-calcite flooding within the unit.	CP	STR	1 - 5%	E5101727	54.20	54.80					
						E5101728	54.80	55.40					
55.40	55.80	SMS, Semi Massive Sulphide Hosted in fine grained gabbro with up to 20% sulphide(py,cp,pn) patches and veinlets at all angles,heavy,3-5% quartz-calcite breccia at moderate angles~30tca.	PN	VN	10 - 25%	E5101730	55.40	55.80					
55.80	60.00	GAB, Gabbro Gray ,fine grained gabbro, uc@55,minor chloritic alteration<6mm long stretched along core axis,minute white-locally pink small phenocrysts throughout,tr-2% finely diss'd sulphides(py) locally, non-magnetic. END OF HOLE. @ 60.0M				E5101731	55.80	57.00					
						E5101733	57.00	58.00					
						E5101734	58.00	59.00					
						E5101735	59.00	60.00					



REDSTONE DETAILED LOG

Hole Number: **GR-11-03**

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
76.00	83.20	IV, Intermediate Volcanic Dark dacite, fine grained, as above.											
83.20	85.90	DIA, Diabase Fine grained diabase, locally magnetic, dike, medium gray, tr sulphides (py).											
85.90	90.00	IV, Intermediate Volcanic Dark dacite, as above, tr sulphides. END OF HOLE @ 90.0M.											

Peter Caldwell

REDSTONE DETAILED LOG

Hole Number: **GR-11-04**

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
53.50	72.00	IV, Intermediate Volcanic Medium-dark dacite, very fine grained, local greenish plagioclase with some diffuse quartz/silification, tr-1% py, uc@70dtca. END OF HOLE @ 72.0M											

Peter Caldwell

REDSTONE DETAILED LOG

Hole Number: **GR-11-05**

Units: METRIC

Borehole ID: GR-11-05	Project Number: GROVES	Start Date: Oct 04, 2011
Primary Grid: UTM83-17	Claim #: 1228922	Finish Date:
Primary North: 5275047.00	Township: Groves	Drill Contractor: Mallette Drilling Inc.
Primary East: 453200.00	Logged By: rallard	Core Size: BQ
Primary Elev: 2382.00	Log Finished: Oct 04, 2011	Hole Length: 72.00
Destination Grid: UTM83-17	Core Storage: Redstone Minesite	Azimuth: 360.00
Destination North: 5275047.00	Casing: Capped	Dip: -74.00
Destination East: 453200.00		
Destination Elev: 2382.00		

Comments:

Survey Tests

Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip
15.0000	357.30	-74.20	30.0000	355.90	-73.80	72.0000	359.10	-72.60			

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	4.50	CAS, Casing											
4.50	19.80	GAB, Gabbro Fine-gray gabbro, lower ctc gradual, minor white feldspar phenocrysts throughout the unit, lc @30dtca, tr-3% sulphide strs locally (py, cp) @ low angles.				E5101750	6.00	7.00					
						E5101751	7.00	8.00					
						E5101752	8.00	9.00					
						E5101754	9.00	10.20					
						E5101755	10.20	11.20					
						E5101757	11.20	12.20					
						E5101758	12.20	13.00					
						E5101759	13.00	14.00					
						E5101760	14.00	15.30					
						E5101761	15.30	16.30					
						E5101762	16.30	17.30					
						E5101763	17.30	18.40					
						E5101764	18.40	19.80					
19.80	22.30	STR, Stringer Sulphide Stringer sulphide, up to 10% sulphide patches/strs @ low angles (py, cp, pn) all in fine-medium grained IV.	CP	STR	5 - 10%	E5101765	19.80	21.00					
						E5101766	21.00	22.30					
22.30	26.30	SMS, Semi Massive Sulphide Hosted in fine grained IV, 20-35% sulphide (py, cp, pn) patches/strs at low-moderate angles, up to 10% quartz flooding within the unit.	PN	SM	10 - 25%	E5101767	22.30	22.90					
						E5101768	22.90	24.00					
						E5101769	24.00	24.80					
						E5101770	24.80	25.50					
						E5101771	25.50	26.30					

REDSTONE DETAILED LOG

Hole Number: GR-11-05

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
26.30	26.70	MS, Massive Sulphide Massive sulphide, 75-80% sulphides (py,cp,po,pn) veins in fine IV, up to 20% quartz flooding and blue quartz.	POPN	Mass	10 - 25%	E5101772	26.30	26.70					
26.70	32.00	SMS, Semi Massive Sulphide As above, up to 15% white quartz flooding locally, 20-35% sulphides (py,cp,pn) .	PN	SM	10 - 25%	E5101773	26.70	27.50					
						E5101774	27.50	28.30					
						E5101775	28.30	29.00					
						E5101776	29.00	30.00					
						E5101778	30.00	31.00					
						E5101779	31.00	32.00					
32.00	41.30	STR, Stringer Sulphide Hosted in fine-gray IV, moderately broken up, up to 10% sulphide patches/strs at low angles(py,cp,pn) throughout the unit, non-magnetic, 5-15% quartz-blue-gray flooding, local minor chlorite strs within unit.	PN	STR	5 - 10%	E5101781	32.00	33.00					
						E5101782	33.00	34.00					
						E5101783	34.00	34.90					
						E5101784	34.90	35.30					
						E5101785	35.30	36.30					
						E5101786	36.30	37.20					
						E5101787	37.20	38.00					
						E5101788	38.00	39.00					
						E5101789	39.00	40.00					
						E5101790	40.00	40.70					
						E5101791	40.70	41.30					
41.30	66.00	IV, Intermediate Volcanic Dark dacite, weakly foliated @ ~ 50dca, minor chloritic alteration within unit, uc @ 50, lc gradual, tr-2% diss'd sulphides (py,cp) near upper ctc.				E5101792	41.30	42.30					
						E5101793	42.30	43.40					
						E5101794	43.40	44.40					
						E5101795	44.40	45.40					
						E5101796	45.40	46.40					
						E5101797	46.40	47.40					
						E5101798	47.40	48.40					
						E5101799	48.40	49.50					
66.00	67.50	FLT, Fault Zone Fault zone, badly broken up, hosted in gabbro, no gouge seams present.											
67.50	72.00	GAB, Gabbro Gray fine gabbro, local white-pink-phenocrysts throughout, hard > generally good ground to end of hole. > 20-40% plagioclase locally. END OF HOLE @ 72.0M.											



Hole Number: **GR-11-06**

Units: METRIC

Borehole ID: GR-11-06	Project Number: GROVES	Start Date: Oct 04, 2011
Primary Grid: UTM83-17	Claim #: 4217815	Finish Date:
Primary North: 5274990.00	Township: Groves	Drill Contractor: Mallette Drilling Inc.
Primary East: 453200.00	Logged By: rallard	Core Size: BQ
Primary Elev: 2381.00	Log Finished: Oct 04, 2011	Hole Length: 111.00
Destination Grid: UTM83-17	Core Storage: Redstone Minesite	Azimuth: 360.00
Destination North: 5274990.00	Casing: Capped	Dip: -60.00
Destination East: 453200.00		
Destination Elev: 2381.00		

Comments:

Survey Tests

Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip
12.0000	355.90	-59.70	60.0000	355.20	-56.50	111.0000	357.30	-54.90			

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	7.50	CAS, Casing											
7.50	22.00	IV, Intermediate Volcanic Med-dark gray, mainly diffuse, 50% fragments in green-gray matrix, foliation banding @ 50dtca, all non-magnetic, tr sulphides, 1-2% quartz-calcite str at moderate angles.											
22.00	23.70	DIA, Diabase Magnetic dark-gray diabase (dike or plug), fine grained, tr sulphides, uc@ 40, lc @ 45.											
23.70	24.80	GAB, Gabbro Med. grained gray gabbro-greenish plagioclase, foliation @ 50dtca, tr sulphides.											
24.80	54.60	IV, Intermediate Volcanic Med-dark gray, lower ctc @ 35, banding subparallel to core axis, non-magnetic, barren except for one 2cm quartz-py vein @ 45, minor quartz-ca vnlts at moderate to high angles.											
54.60	56.00	GAB, Gabbro Fine porphyritic quartz, 30% dark-green mafics, fine grained, tr py, uc@ 35, lc @ 40.											
56.00	84.30	IV, Intermediate Volcanic Light-med gray, dacite, non-magnetic, rare-trace py banding @ 40dtca.				E5101800	66.00	67.00					
						E5101802	67.00	68.00					
						E5101803	68.00	69.00					
						E5101805	69.00	69.70					
						E5101806	69.70	70.60					
						E5101807	70.60	72.00					

REDSTONE DETAILED LOG

Hole Number: GR-11-06

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
84.30	84.70	QTZ, Quartz Vein White-barren QV, tr-1% diss'd py, minor fuchsite/chlorite alteration, uc@ 50, lc @ 45.											
84.70	91.60	FV, Felsic Volcanic Greenish-gray dacite, fine grained, tr-1% sulphides(py, cp) locally, minor quartz flooding.				E5101808	89.00	90.00					
						E5101809	90.00	90.70					
						E5101810	90.70	91.30					
						E5101811	91.30	91.60					
91.60	93.30	GAB, Gabbro Fine porphyritic- quartz-gabbro, 70% darker green mafics within the unit, tr py. > core, moderately broken up @ ctc = RQD~ 30%.				E5101812	91.60	92.40					
						E5101813	92.40	93.30					
93.30	111.00	IV, Intermediate Volcanic Dark dacite, fine grained, foliation & banding @ 45dtca, non-magnetic, tr sulphides. END OF HOLE @ 111.0M				E5101814	93.30	94.30					





REDSTONE DETAILED LOG

Hole Number: **GR-11-07**

Units: METRIC

Borehole ID: GR-11-07
 Primary Grid: UTM83-17
 Primary North: 5274980.00
 Primary East: 453175.00
 Primary Elev: 2373.00
 Destination Grid: UTM83-17
 Destination North: 5274980.00
 Destination East: 453175.00
 Destination Elev: 2373.00

Project Number: GROVES
 Claim #: 4217815
 Township: Groves
 Logged By: rallard
 Log Finished: Oct 07, 2011
 Core Storage: Redstone Minesite
 Casing: Capped

Start Date: Oct 07, 2011
 Finish Date:
 Drill Contractor: Mallette Drilling Inc.
 Core Size: BQ
 Hole Length: 120.00
 Azimuth: 360.00
 Dip: -70.00

Comments:

Survey Tests

Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip	Depth	Az	Dip
20.0000	358.40	-69.30	70.0000	0.10	-68.20	120.0000	2.10	-67.90			

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	9.00	CAS, Casing											
9.00	27.40	IV, Intermediate Volcanic Dark dacite, non-magnetic, banding @ ~ 50 dtca, barren-tr sulphides, 1-3% minor quartz-calcite vnlt within the unit.											
27.40	28.90	DIA, Diabase Locally magnetic, fine grained diabase(dike or plug) , homogeneous features , uc@ 20, lc @ 35.											
28.90	61.20	IV, Intermediate Volcanic Med- dark gray dacite, as above, tr sulphides.											
61.20	61.60	GAB, Gabbro Medium grained gray gabbro, quartz-feldspar, non-magnetic , tr py, uc@ 50, lc @ 55.											
61.60	79.50	IV, Intermediate Volcanic Dark dacite, non-magnetic , rare-trace py banding, 1-3% minor quartz-calcite vnlt at all angles.											
79.50	93.80	FV, Felsic Volcanic Greenish-gray dacite, fine grained, quartz-calcite-chlorite-py str, non-magnetic, tr-1% sulph/py diss'd throughout, 1-2% quartz-calcite vnlt at all angles.				E5101815	92.40	93.40					
						E5101816	93.40	94.40					

REDSTONE DETAILED LOG

Hole Number: GR-11-07

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
93.80	101.10	IV, Intermediate Volcanic Dark grey dacite, non-magnetic, banding/fol'n @ 40 dtca, tr-2% diss'd sulph(py) sparatically distributed, up to 5% quartz-calcite vnlts within unit.				E5101817	94.40	95.40					
						E5101818	95.40	96.40					
						E5101819	96.40	97.40					
						E5101820	97.40	98.20					
						E5101821	98.20	99.00					
						E5101822	99.00	100.00					
						E5101823	100.00	101.10					
101.10	101.60	STR, Stringer Sulphide Stringer sulphide, up to 15% sulphide patches/strs (py,cp,pn) , all in fine IV, minor quartz flooding within the unit.	CP	STR	10 - 25%	E5101824	101.10	101.60					
101.60	120.00	IV, Intermediate Volcanic Gray dacite, non-magnetic , RQD= ~ 80% (minor sections of broken core), tr-1% py locally, foliation @ 50dtca. END OF HOLE = 120.0M				E5101825	101.60	102.40					
						E5101827	102.40	103.30					
						E5101828	103.30	104.30					
						E5101830	104.30	105.00					
						E5101831	105.00	106.00					
						E5101832	106.00	107.00					
						E5101833	107.00	108.00					
						E5101834	108.00	109.00					
						E5101835	109.00	110.00					
						E5101836	110.00	111.00					

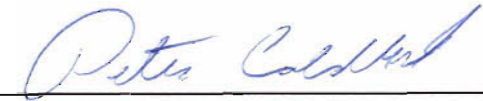


REDSTONE DETAILED LOG

Hole Number: GR-11-08

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
74.00	77.10	IV, Intermediate Volcanic Dacite, non-magne, fn gr, foliation @ 45dtca, tr py.											
77.10	92.50	GAB, Gabbro Fine grained, small white-pinkish feldspar phenocrysts locally, non-magne, minor chlorite alteration/greenish plagioclase, barren, tr sulph., uc@ 80, lc@ 75. 86.4-86.5m: FZ, no gouge seams.				E5101837	90.00	91.00					
						E5101838	91.00	91.60					
						E5101839	91.60	92.50					
92.50	106.90	IV, Intermediate Volcanic Dark dacite, fn gr, non-magnetic, banding subparallel to core axis, chlorite-calcite strcs locally, tr-2% finely diss'd sulphides (py).				E5101840	92.50	93.60					
						E5101841	93.60	94.50					
						E5101842	94.50	95.50					
						E5101843	95.50	96.50					
						E5101844	96.50	97.50					
						E5101845	97.50	98.50					
						E5101846	98.50	99.50					
						E5101847	99.50	100.50					
						E5101848	100.50	101.40					
						E5101849	101.40	102.40					
						E5101850	102.40	103.40					
						E5101852	103.40	104.40					
						E5101853	104.40	105.50					
						E5101855	105.50	106.90					
106.90	107.40	QTZ, Quartz Vein Whitish barren quartz vein, minor fuchsite alteration, 40% qtz-ca flooding, 1-2% fn strcs-py, uc@ 40, lc@ 30.				E5101856	106.90	107.40					
107.40	108.90	IV, Intermediate Volcanic As above, tr-1% py.				E5101857	107.40	108.90					
108.90	120.00	GAB, Gabbro Fine-med grained gabbro, fine porphyritic quartz, small sized white-pink feldspar phenocrysts throughout the unit, tr py, uc@ 80dtca. END OF HOLE= 120.0M				E5101858	108.90	110.40					



REDSTONE DETAILED LOG

Hole Number: GR-11-09

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
23.00	31.40	GAB, Gabbro Gray-brown fine gabbro, moderately broken up, fine porphyritic quartz, minor qtz flooding, tr-1% py, uc@ 60, lc@ 70.				E5101870	23.00	24.50					
						E5101871	24.50	25.50					
						E5101872	25.50	27.00					
						E5101873	27.00	28.50					
						E5101874	28.50	30.00					
						E5101875	30.00	31.00					
						E5101877	31.00	32.00					
31.40	32.00	FLT, Fault Zone Broken up, minor gouge, RQD=10%.											
32.00	44.20	STR, Stringer Sulphide Mod. broken up, 1-4% sulphides in irregular patches/strs throughout (py, cpy, pn), all in fine IV, 10-15% quartz flooding locally.	CP	STR	1 - 5%	E5101878	32.00	33.40					
						E5101880	33.40	34.40					
						E5101881	34.40	35.40					
						E5101882	35.40	36.60					
						E5101883	36.60	37.60					
						E5101884	37.60	39.00					
						E5101885	39.00	39.70					
						E5101886	39.70	42.70					
						E5101887	42.70	43.50					
						E5101888	43.50	44.20					
44.20	51.70	IV, Intermediate Volcanic Dark grey dacite, non-magnetic, foliation @ ~ 50dtca, 1-4% quartz-calcite vnlts at all angles, tr-1% py.				E5101889	44.20	45.30					
						E5101890	45.30	46.40					
						E5101891	46.40	47.50					
						E5101892	47.50	48.70					
						E5101893	48.70	49.70					
						E5101894	49.70	50.70					
						E5101895	50.70	51.70					
51.70	52.80	FLT, Fault Zone Badly broken up in gabbro, minor gouge(1-2"), RQD=20%.				E5101896	51.70	53.00					
52.80	67.50	GAB, Gabbro Fine gray gabbro, fn porphyritic-quartz, minor chloritic alteration, local greenish plagioclase throughout the unit, uc@ 40, lc @ 65. 63.0-63.3m : FZ- local gouge(1")											
67.50	72.00	FV, Felsic Volcanic Greenish-gray dacite, fine grained, non-magnetic, minor quartz-calcite-chlorite strs, tr py.											
72.00	90.00	IV, Intermediate Volcanic Darker dacite, as above, tr py. END OF HOLE= 90.0M											





REDSTONE DETAILED LOG

Hole Number: **GR-11-10**

Units: METRIC

Borehole ID: GR-11-10
 Primary Grid: UTM83-17
 Primary North: 5275080.00
 Primary East: 453088.00
 Primary Elev: 2382.00
 Destination Grid: UTM83-17
 Destination North: 5275080.00
 Destination East: 453088.00
 Destination Elev: 2382.00

Project Number: GROVES
 Claim #: 1228922
 Township: Groves
 Logged By: rallard
 Log Finished: Oct 17, 2011
 Core Storage: Redstone Minesite
 Casing: Capped

Start Date: Oct 17, 2011
 Finish Date:
 Drill Contractor: Mallette Drilling Inc.
 Core Size: BQ
 Hole Length: 81.00
 Azimuth: 180.00
 Dip: -50.00

Comments:

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	6.00	CAS, Casing											
6.00	30.90	FV, Felsic Volcanic Light greenish-gray dacite, lower ctc is gradual, very fine grained, tr-2% py locally, non-magnetic, foliated @ ~ 25dtca (low angle), strongly silicified throughout entire unit, 1-5% quartz/calcite str locally.											
30.90	39.10	IV, Intermediate Volcanic Dark dacite, non-magnetic, (RQD=80%), foliation @ ~ 50dtca, 1-2% finely diss'd sulphides (py, cp) locally, up to 5% qtz-ca vnlt.				E5101897	30.90	31.90					
						E5101898	31.90	33.00					
						E5101899	33.00	34.00					
						E5101901	34.00	35.30					
						E5101902	35.30	36.40					
						E5101903	36.40	37.30					
						E5101905	37.30	38.20					
						E5101906	38.20	39.10					
39.10	44.00	STR, Stringer Sulphide 5-8% sulphides (py, cp, pn) in patches/strs all in fine IV, 5-10% local quartz flooding/ blue qtz, slightly chloritized within the unit.	PN	STR	5 - 10%	E5101907	39.10	40.20					
						E5101908	40.20	41.30					
						E5101909	41.30	42.30					
						E5101910	42.30	43.00					
						E5101911	43.00	44.00					
44.00	49.20	FD, Felsic Dike Porphyry, local small white-pink feldspar phenocrysts, hard, moderately broken up, tr sulphides, uc@ 40, lc @ 55.				E5101912	44.00	45.00					
						E5101913	45.00	46.00					
						E5101914	46.00	47.00					
						E5101915	47.00	48.00					
						E5101916	48.00	49.20					
49.20	52.90	STR, Stringer Sulphide 3-5% sulphides (py, cp, pn) in patches/strs all in fine IV, as above with lower contact being gradual.	PN	STR	1 - 5%	E5101917	49.20	50.10					
						E5101918	50.10	51.10					
						E5101919	51.10	52.10					
						E5101920	52.10	52.90					

REDSTONE DETAILED LOG

Hole Number: **GR-11-10**

Units: METRIC

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
52.90	55.00	IV, Intermediate Volcanic Dark fine grained dacite, non-magnetic, foliated @ 40dtca, tr-2% sulphides (py,cp) , up to 10% minor quartz-calcite vnits with local hematitic alteration. 60.5-61.0m: locally broken up-FZ (no gouge seam present)				E5101921	52.90	54.00					
						E5101922	54.00	55.00					
55.00	81.00	FV, Felsic Volcanic Brownish-gray dacite, strongly silicified, hard and blocky, uc@ 65dtca, very fine grained, tr-3% finely diss'd py locally, 3-5% qtz-ca strs throughout the unit. END OF HOLE= 81.0M				E5101923	55.00	56.00					
						E5101924	56.00	57.00					
						E5101925	57.00	58.00					
						E5101927	58.00	59.00					
						E5101928	59.00	60.00					

Peter Caldwell

REDSTONE DETAILED LOG

Hole Number: **GR-11-11**

Units: METRIC


Borehole ID: GR-11-11
 Primary Grid: UTM83-17
 Primary North: 5275037.00
 Primary East: 453250.00
 Primary Elev: 2384.00
 Destination Grid: UTM83-17
 Destination North: 5275037.00
 Destination East: 453250.00
 Destination Elev: 2384.00

Project Number: GROVES
 Claim #: 1228922
 Township: Groves
 Logged By: rallard
 Log Finished: Oct 17, 2011
 Core Storage: Redstone Minesite
 Casing: Capped

Start Date: Oct 17, 2011
 Finish Date:
 Drill Contractor: Mallette Drilling Inc.
 Core Size: BQ
 Hole Length: 81.00
 Azimuth: 360.00
 Dip: -45.00

Comments:

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	6.00	CAS, Casing											
6.00	26.80	GAB, Gabbro Medium grained quartz gabbro, good ground, locally chloritized, moderately hard, very small whitish feldspar phenocrysts throughout entire unit, tr sulph, lc@ 85.											
26.80	33.90	IV, Intermediate Volcanic Dark dacite, local brown-gray patches, 3-4% finely diss'd py locally, non-magnetic, foliation @ ~ 55dtca, minor qtz str.				E5101930	30.50	32.00					
						E5101931	32.00	33.00					
						E5101932	33.00	33.90					
33.90	35.20	SMS, Semi Massive Sulphide 5-15 % sulphide patches/strs at all angles(py,cp,pn) all in fine IV, very minor qtz flooding (2-5%) throughout.	PN	SM	10 - 25%	E5101933	33.90	34.40					
						E5101934	34.40	35.20					
35.20	39.30	GAB, Gabbro As above, tr-1% sulph(py), uc@ 80, lc@ 65.				E5101935	35.20	36.00					
						E5101936	36.00	37.00					
						E5101937	37.00	38.00					
						E5101938	38.00	39.30					
39.30	40.00	STR, Stringer Sulphide Up to 5% sulph in patches/strs(py,cp,pn) all in fn gabbro, 3-8% qtz flooding/locally blue qtz < 3cm, minor chlorite alteration.	CP	STR	1 - 5%	E5101939	39.30	40.00					
40.00	42.60	GAB, Gabbro Fn-med grained gabbro, minor pink-white feldspar phenocrysts within the unit, 10% plagioclase throughout, tr sulph, uc@ 75, lc@ 55.				E5101940	40.00	41.00					
						E5101941	41.00	42.00					
						E5101942	42.00	42.60					
42.60	81.00	IV, Intermediate Volcanic Darker dacite, non-magnetic, foliation @ ~ 60 dtca, up to 1% fine py locally, some diffuse quartz and silification, local buff fragments within unit. END OF HOLE= 81.0M				E5101943	42.60	43.60					





REDSTONE DETAILED LOG

Hole Number: **GR-11-12**

Units: METRIC

Borehole ID: GR-11-12
 Primary Grid: UTM83-17
 Primary North: 5275037.00
 Primary East: 453250.00
 Primary Elev: 2384.00
 Destination Grid: UTM83-17
 Destination North: 5275037.00
 Destination East: 453250.00
 Destination Elev: 2384.00

Project Number: GROVES
 Claim #: 1228922
 Township: Groves
 Logged By: rallard
 Log Finished: Nov 01, 2011
 Core Storage: Redstone Minesite
 Casing: Capped

Start Date: Nov 01, 2011
 Finish Date:
 Drill Contractor: Mallette Drilling Inc.
 Core Size: BQ
 Hole Length: 81.00
 Azimuth: 360.00
 Dip: -70.00

Comments:

Detailed Lithology		Lithology	Mineralization Data			Assay Data							
From	To		Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	2.70	CAS, Casing											
2.70	58.80	GAB, Gabbro Gray fn gabbro, minute whitish feldspar phenocrysts within entire unit, moderately broken up, gray fine to very fine grained homogeneous, tr py, lc @ 70. 6.5-6.8m: FZ, broken up, local gouge.											
58.80	81.00	DIA, Diabase Locally magnetic dark gray diabase dyke, homogeneous features throughout, tr py. 72.0-81.0m : badly broken up/ minor jointing. END OF HOLE= 81.0M											

Peter Caldwell

REDSTONE DETAILED LOG

Hole Number: **GR-11-13**

Units: METRIC

Borehole ID: GR-11-13	Project Number: GROVES	Start Date: Nov 02, 2011
Primary Grid: UTM83-17	Claim #: 4217815	Finish Date:
Primary North: 5274950.00	Township: Groves	Drill Contractor: Mallette Drilling Inc.
Primary East: 453212.50	Logged By: rallard	Core Size: BQ
Primary Elev: 2381.00	Log Finished: Nov 02, 2011	Hole Length: 210.00
Destination Grid: UTM83-17	Core Storage: Redstone Minesite	Azimuth: 360.00
Destination North: 5274950.00	Casing: Capped	Dip: -65.00
Destination East: 453212.50		
Destination Elev: 2381.00		

Comments: Mallette Drilling

Detailed Lithology		Mineralization Data			Assay Data								
From	To	Lithology	Mineralization Type	Mineralization Style	Min %	Sample Number	From	To	Ni %	Cu %	Au gpt	Pt gpt	Pd gpt
0	6.00	CAS, Casing											
6.00	10.40	FV, Felsic Volcanic FV; felsic volcanic. Greenish-grey in colour, dacite. Lower ctc gradual to IV, trace of Py or none. Badly broken up, minor gouge, minor faulting throughout. RQD=40%											
10.40	32.50	IV, Intermediate Volcanic IV; intermediate volcanic. Dark dacite, non-magnetic, badly broken up. Blocky throughout. Tr. of pyrite. RQD=33%											
32.50	34.70	FD, Felsic Dike FD. felsic dyke. Porphyry. Grey dyke, non-magnetic, homogeneous. Broken up/blocky. RQD=40% UCC=40dtca, LCC=55dtca											
34.70	130.60	IV, Intermediate Volcanic IV; intermediate volcanic. Dark dacite, non-magnetic, badly broken up. Blocky throughout. Tr. of pyrite. Broken up, trace 1% Py, finely diss'd. RQD=~50%. Minor faulting within unit. 5-15% Qtz/Ca veinlets at all angles.											
130.60	134.40	GAB, Gabbro Gabbro; grey fine grained. Homogeneous, minor - small sized white/pinkish feldspar crystals within unit.											
134.40	210.00	IV, Intermediate Volcanic IV, intermediate volcanic. Dacite. Non-magnetic, rare-trace banding Pyrite. Foliated @ ~ 50 dtca, mod broken up. 1-4% minor Qtz/Ca @ low to mod angles. 181.0 - 181.2m: Fault zone, no gouge seem 196.5 - 196.6m: Fault zone, no gouge seem 206.9 - 207.0m: Fault zone, no gouge seem 208.5 - 210.0m: Broken up, RQD = 30% (local gouge = 1-2')											



Appendix E - Assays

HoleID	Tag	From	To	Length	Ni	Cu	Au	Pd	Pt	Al	As	Ca	Co	Cr	Fe	Pb	Mg	Mn	Mo	K	Si	S	Sn	Ti	V	Zn
GR-11-01	E5101660	18	19	1	0.01	0.01	0.00	<0.001	<0.005	7.04	<0.005	4.68	0.00	0.03	5.58	<0.005	1.99	0.08	<0.005	0.49	25.40	0.65	0.02	0.47	0.01	0.01
GR-11-01	E5101661	19	20	0.7	0.01	0.01	0.00	0.00	<0.005	7.09	<0.005	4.54	0.00	0.03	5.90	<0.005	2.10	0.09	<0.005	0.55	23.70	0.46	0.01	0.49	0.01	0.01
GR-11-01	E5101662	19.7	20	0.3	0.01	0.01	0.00	<0.001	<0.005	5.70	<0.005	3.26	0.01	0.03	4.57	<0.005	2.39	0.08	<0.005	0.47	23.10	0.32	0.01	0.35	0.01	0.06
GR-11-01	E5101663	20	21	1	0.02	0.01	0.01	<0.001	<0.005	7.52	<0.005	5.59	0.00	0.02	5.94	<0.005	2.20	0.10	0.01	0.52	26.10	0.31	<0.005	0.42	0.01	0.01
GR-11-01	E5101664	21	22	1	0.01	0.01	0.00	<0.001	<0.005	6.44	<0.005	4.05	0.00	0.02	4.98	<0.005	2.05	0.09	<0.005	0.51	24.30	0.25	0.01	0.39	0.01	0.01
GR-11-01	E5101665	22	23	1	0.01	0.01	0.00	<0.001	<0.005	7.50	<0.005	4.65	0.00	0.03	5.48	<0.005	2.26	0.09	<0.005	0.63	27.60	0.28	0.02	0.44	0.01	0.01
GR-11-01	E5101666	23	23	0.4	0.03	0.02	0.01	<0.001	<0.005	6.96	<0.005	3.40	0.00	0.03	5.22	<0.005	2.91	0.09	<0.005	0.69	27.40	0.26	0.02	0.34	0.01	0.01
GR-11-01	E5101667	23.4	24	0.8	0.35	0.38	0.00	0.00	0.01	4.38	<0.005	3.02	0.01	0.12	8.35	<0.005	6.15	0.12	<0.005	0.30	25.80	1.52	0.01	0.28	0.01	0.02
GR-11-01	E5101668	24.2	25	0.8	0.10	0.06	0.13	0.06	0.06	4.94	<0.005	3.54	0.01	0.19	7.00	<0.005	6.43	0.13	0.01	0.40	26.40	0.40	0.01	0.27	0.01	0.01
GR-11-01	E5101669	25	26	0.7	0.14	0.11	0.02	0.01	0.02	4.63	<0.005	3.45	0.01	0.14	7.66	<0.005	6.36	0.13	<0.005	0.29	24.30	0.57	0.01	0.29	0.01	0.01
GR-11-01	E5101670	25.7	26	0.5	0.73	0.34	0.03	0.02	0.03	4.54	<0.005	3.69	0.02	0.10	9.60	<0.005	6.24	0.13	<0.005	0.30	23.50	2.80	0.01	0.31	0.01	0.01
GR-11-01	E5101671	26.2	28	1.3	0.08	0.03	0.07	0.08	0.15	4.96	<0.005	3.25	0.01	0.10	7.03	<0.005	5.90	0.12	<0.005	0.70	24.90	0.23	0.01	0.35	0.01	0.01
GR-11-01	E5101672	27.5	29	1	0.05	0.02	0.00	0.01	0.02	5.31	<0.005	3.38	0.01	0.10	7.18	<0.005	5.86	0.12	<0.005	0.52	26.40	0.15	0.01	0.35	0.01	0.01
GR-11-01	E5101673	28.5	29	0.7	0.81	0.52	0.00	0.00	0.01	4.31	<0.005	2.85	0.02	0.11	10.80	<0.005	6.36	0.13	<0.005	0.38	23.10	3.37	0.01	0.29	0.01	0.02
GR-11-01	E5101674	29.2	30	0.8	0.11	0.05	0.06	0.04	0.07	5.12	<0.005	3.15	0.01	0.14	7.12	<0.005	5.85	0.12	0.03	0.33	25.10	0.45	0.01	0.39	0.01	0.01
GR-11-01	E5101675	30	31	1	0.07	0.03	0.01	0.00	0.01	5.29	<0.005	3.25	0.01	0.12	7.39	<0.005	6.44	0.14	<0.005	0.29	26.50	0.29	0.02	0.36	0.01	0.01
GR-11-01	E5101676	31	32	1.1	0.05	0.02	0.00	0.00	0.01	5.13	<0.005	3.18	0.00	0.11	6.98	0.01	6.23	0.13	<0.005	0.34	26.30	0.18	0.02	0.33	0.01	0.02
GR-11-01	E5101677	32.1	33	0.8	0.69	0.52	0.00	0.00	0.01	4.60	<0.005	2.42	0.02	0.09	9.09	<0.005	5.60	0.12	<0.005	0.31	23.60	1.72	0.01	0.27	<0.005	0.02
GR-11-01	E5101678	32.9	34	1.1	0.07	0.12	0.04	0.03	0.06	5.69	<0.005	3.12	0.00	0.08	6.71	<0.005	4.90	0.12	<0.005	0.35	26.30	0.41	0.01	0.35	0.01	0.02
GR-11-01	E5101679	34	37	1.3	0.22	0.65	0.21	0.12	0.19	5.18	<0.005	2.82	0.01	0.08	7.14	<0.005	4.43	0.11	<0.005	0.33	24.40	1.47	0.01	0.32	0.01	0.01
GR-11-01	E5101680	BLANK																								
GR-11-01	E5101681	36.8	38	1.4	0.06	0.10	0.02	0.01	0.02	6.53	<0.005	3.87	0.00	0.06	6.53	<0.005	3.95	0.11	<0.005	0.41	24.80	0.81	0.01	0.43	0.01	0.01
GR-11-01	E5101682	38.2	39	0.8	0.59	1.39	0.51	0.46	1.38	5.12	<0.005	2.33	0.02	0.09	10.80	<0.005	4.99	0.12	<0.005	0.33	23.30	3.93	0.01	0.33	0.01	0.02
GR-11-01	E5101683	STD LBE-2																								
GR-11-01	E5101684	39	39	0.4	1.45	2.63	1.15	0.03	0.04	3.59	<0.005	0.44	0.05	0.06	19.50	<0.005	3.29	0.07	<0.005	0.27	16.30	12.90	0.02	0.23	0.01	0.02
GR-11-01	E5101685	39.4	40	0.6	0.41	0.56	0.69	0.01	0.05	6.69	<0.005	1.93	0.04	0.05	12.20	<0.005	3.61	0.10	<0.005	0.42	21.40	4.96	0.01	0.45	0.01	0.01
GR-11-01	E5101686	40	41	1.1	1.71	0.57	0.23	0.04	0.06	4.25	<0.005	2.43	0.05	0.08	12.80	<0.005	4.34	0.12	<0.005	0.28	20.60	6.87	0.01	0.32	0.01	0.02
GR-11-01	E5101687	41.1	42	1	0.09	0.10	0.02	0.01	0.01	5.44	<0.005	3.23	0.01	0.09	7.29	<0.005	4.45	0.12	<0.005	0.49	24.20	0.40	0.01	0.39	0.01	0.01
GR-11-01	E5101688	42.1	43	1	0.14	0.08	0.02	0.01	0.01	5.45	<0.005	3.11	0.01	0.10	6.84	<0.005	4.57	0.12	<0.005	0.33	24.30	0.62	0.01	0.42	0.01	0.01
GR-11-01	E5101689	43.1	44	1.3	0.05	0.04	0.02	0.00	0.01	5.62	<0.005	3.27	0.01	0.10	6.88	<0.005	4.90	0.13	<0.005	0.34	24.80	0.28	0.02	0.44	0.01	0.01
GR-11-01	E5101690	44.4	45	1	0.55	0.47	0.06	0.03	0.05	4.43	<0.005	1.92	0.03	0.13	11.60	<0.005	5.74	0.11	<0.005	0.24	22.30	4.39	0.02	0.35	0.01	0.02
GR-11-01	E5101691	45.4	46	0.8	0.12	0.10	0.01	0.01	0.01	6.28	<0.005	4.22	0.01	0.08	8.41	<0.005	4.48	0.13	<0.005	0.33	24.10	1.51	0.02	0.43	0.01	0.01
GR-11-01	E5101692	46.2	47	0.8	0.14	0.09	0.01	0.02	0.03	6.17	<0.005	5.00	0.01	0.05	9.48	<0.005	4.13	0.14	<0.005	0.43	23.50	1.03	0.01	0.49	0.02	0.01
GR-11-01	E5101693	47	47	0.3	0.67	0.79	0.33	0.10	0.17	4.75	<0.005	2.86	0.03	0.10	13.00	<0.005	4.73	0.11	<0.005	0.23	20.50	5.45	0.02	0.40	0.01	0.02
GR-11-01	E5101694	47.3	48	1	0.02	0.03	0.03	0.02	0.02	6.32	<0.005	6.19	0.01	0.02	8.98	0.01	3.74	0.17	<0.005	0.46	22.30	0.36	0.01	0.51	0.03	0.01
GR-11-02	E5101695	25.5	27	1	0.02	0.03	0.01	0.00	0.01	7.48	<0.005	4.06	0.00	0.03	5.11	<0.005	2.47	0.08	<0.005	0.96	26.60	0.32	0.01	0.34	0.01	0.01
GR-11-02	E5101696	26.5	28	1	0.04	0.03	0.00	0.00	0.01	6.22	<0.005	3.57	0.01	0.04	6.56	<0.005	3.92	0.11	<0.005	0.58	25.60	1.05	<0.005	0.39	0.01	0.01
GR-11-02	E5101697	27.5	29	1	0.09	0.06	0.01	0.01	0.01	4.67	<0.005	3.11	0.01	0.08	6.61	<0.005	5.54	0.12	<0.005	0.25	25.10	0.90	0.01	0.31	0.01	0.01
GR-11-02	E5101698	28.5	30	1	0.06	0.02	0.00	0.00	0.01	4.28	<0.005	3.15	0.01	0.09	6.53	<0.005	6.49	0.13	<0.005	0.24	26.30	0.26	0.01	0.27	<0.005	0.01
GR-11-02	E5101699	29.5	31	1	0.06	0.02	0.00	0.00	0.01	4.26	<0.005	3.14	0.00	0.09	6.31	<0.005	6.23	0.12	<0.005	0.23	27.20	0.26	0.02	0.25	<0.005	0.01
GR-11-02	E5101700	30.5	32	1	0.11	0.07	0.00	0.01	0.01	4.65	<0.005	2.94	0.01	0.09	7.13	<0.005	6.13	0.12	<0.005	0.24	26.20	0.70	0.01	0.29	0.01	0.02
GR-11-02	E5101701	31.5	33	1	0.08	0.04	0.00	0.01	0.01	4.73	<0.005	3.12	0.01	0.09	6.91	<0.005	6.26	0.12	<0.005	0.27	25.00	0.30	0.02	0.29	<0.005	0.02
GR-11-02	E5101702	32.5	34	1	0.10	0.07	0.01	0.01	0.01	4.90	<0.005	3.00	0.01	0.09	6.96	<0.005	6.15	0.13	<0.005	0.25	25.60	0.55	0.02	0.27	<0.005	0.02
GR-11-02	E5101703	33.5	35	1	0.08	0.04	0.01	0.01	0.01	4.43	<0.005	2.76	0.01	0.09	6.53	<0.005	5.86	0.11	<0.005	0.25	23.90	0.27	0.01	0.24	<0.005	0.01
GR-11-02	E5101704	34.5	36	1.3	0.06	0.03	0.00	0.00	0.01	4.84	<0.005	2.85	0.00	0.09	6.68	<0.005	6.06	0.13	<0.005	0.27	25.50	0.20	0.02	0.31	0.01	0.02
GR-11-02	E5101705	BLANK																								
GR-11-02	E5101706	35.8	36	0.5	0.76	0.49	0.12	0.07	0.05	4.02	<0.005	2.68	0.02	0.11	9.29	<0.005	6.25	0.15	<0.005	0.21	22.40	2.51	0.01	0.27	0.01	0.01
GR-11-02	E5101707	STD LBE-3																								
GR-11-02	E5101708	36.3	37	0.9	0.38	0.46	0.16	0.12	0.18	3																

Hotel.D.	Tag	From	To	Length	Ni	Cu	Au	Pd	Pt	Al	As	Ca	Co	Cr	Fe	Pb	Mg	Mn	Mo	K	Si	S	Sn	Ti	V	Zn
GR-11-02	E5101709	37.2	38	1	0.08	0.05	0.02	0.01	0.01	4.69	<0.005	3.50	0.01	0.11	7.06	<0.005	6.64	0.13	<0.005	0.29	26.20	0.20	0.01	0.30	0.01	0.01
GR-11-02	E5101710	38.2	39	1.2	0.05	0.02	0.01	0.00	0.01	5.04	<0.005	3.60	0.00	0.11	7.00	<0.005	6.54	0.13	<0.005	0.31	26.00	0.21	0.02	0.30	0.01	0.01
GR-11-02	E5101711	39.4	40	0.9	0.17	0.29	0.10	0.06	0.07	4.56	<0.005	3.34	0.01	0.09	6.63	<0.005	5.43	0.12	<0.005	0.28	23.60	0.65	0.02	0.26	0.01	0.01
GR-11-02	E5101712	40.3	41	0.4	0.47	0.71	0.30	0.15	0.20	4.99	<0.005	3.30	0.01	0.10	7.97	<0.005	6.08	0.14	<0.005	0.36	23.40	1.69	0.02	0.29	0.01	0.02
GR-11-02	E5101713	40.7	41	0.7	0.07	0.06	0.04	0.01	0.01	4.80	<0.005	3.20	0.01	0.08	6.48	<0.005	5.26	0.12	<0.005	0.32	22.90	0.20	0.01	0.30	0.01	0.02
GR-11-02	E5101714	41.4	42	0.6	0.14	0.17	0.07	0.02	0.03	5.11	<0.005	3.45	0.01	0.13	7.34	<0.005	5.91	0.13	<0.005	0.34	25.20	0.42	0.01	0.32	0.01	0.03
GR-11-02	E5101715	42	43	1.3	0.07	0.04	0.01	0.01	0.01	5.11	<0.005	3.67	0.01	0.09	7.06	<0.005	5.66	0.13	<0.005	0.36	25.30	0.20	0.01	0.34	0.01	0.01
GR-11-02	E5101716	43.3	44	1	0.04	0.02	0.00	0.00	0.01	4.93	<0.005	3.14	0.00	0.08	6.15	<0.005	5.06	0.12	<0.005	0.34	22.60	0.11	0.01	0.36	0.01	0.02
GR-11-02	E5101717	44.3	46	1.3	0.12	0.09	0.01	0.01	0.02	5.53	<0.005	3.68	0.01	0.09	7.13	<0.005	5.53	0.14	<0.005	0.36	24.80	0.47	0.02	0.41	0.01	0.01
GR-11-02	E5101718	45.6	46	0.4	0.38	0.44	0.07	0.04	0.06	5.30	<0.005	3.51	0.01	0.09	8.18	<0.005	5.26	0.13	<0.005	0.33	24.70	1.63	0.02	0.38	0.01	0.02
GR-11-02	E5101719	46	47	1	0.06	0.04	0.01	0.00	0.01	5.73	<0.005	3.78	0.00	0.08	6.80	<0.005	5.28	0.12	<0.005	0.36	25.90	0.20	0.01	0.35	0.01	0.01
GR-11-02	E5101720	47	48	1	0.04	0.02	0.00	0.00	0.01	5.20	<0.005	3.59	0.00	0.08	6.42	<0.005	4.85	0.12	<0.005	0.59	22.40	0.20	0.01	0.35	0.01	0.01
GR-11-02	E5101721	48	49	1.3	0.03	0.02	0.00	<0.001	0.01	6.58	<0.005	4.37	0.00	0.07	6.91	<0.005	4.19	0.14	<0.005	0.53	26.80	0.26	0.02	0.41	0.01	0.01
GR-11-02	E5101722	49.3	50	1.1	0.03	0.02	0.00	0.00	0.01	5.45	<0.005	2.71	0.00	0.07	6.13	<0.005	4.36	0.11	<0.005	0.33	22.40	0.22	0.02	0.36	0.01	0.02
GR-11-02	E5101723	50.4	51	1	0.02	0.02	0.01	0.00	0.01	5.83	<0.005	3.22	0.00	0.04	5.00	<0.005	3.02	0.09	<0.005	0.50	22.80	0.17	0.01	0.37	0.01	0.01
GR-11-02	E5101724	51.4	52	1	0.01	0.01	0.00	<0.001	<0.005	6.84	<0.005	1.99	0.00	0.02	4.36	<0.005	1.66	0.07	<0.005	0.73	28.20	0.19	0.01	0.48	0.01	0.01
GR-11-02	E5101725	52.4	53	0.9	0.00	0.00	0.00	<0.001	<0.005	6.47	<0.005	2.28	0.00	0.02	3.94	<0.005	1.25	0.07	<0.005	0.57	27.30	0.16	0.01	0.45	0.01	0.01
GR-11-02	E5101726	53.3	54	0.9	0.01	0.01	0.00	<0.001	<0.005	6.78	<0.005	2.90	0.00	0.03	4.16	<0.005	1.21	0.08	<0.005	0.66	27.70	0.29	0.02	0.49	0.01	0.02
GR-11-02	E5101727	54.2	55	0.6	0.29	0.35	0.05	0.03	0.04	4.21	<0.005	4.04	0.01	0.08	7.79	<0.005	5.35	0.13	0.03	0.22	21.70	0.97	0.02	0.28	0.01	0.01
GR-11-02	E5101728	54.8	55	0.6	0.12	0.10	0.02	0.01	0.02	5.82	<0.005	4.41	0.01	0.08	7.19	<0.005	5.55	0.13	<0.005	0.35	25.00	0.38	0.01	0.34	0.01	0.02
GR-11-02	E5101729	STD LBE-2																								
GR-11-02	E5101730	55.4	56	0.4	0.42	0.73	0.18	0.05	0.05	6.72	<0.005	4.19	0.01	0.05	9.30	<0.005	3.79	0.12	<0.005	0.35	24.90	2.05	0.03	0.43	0.02	0.02
GR-11-02	E5101731	55.8	57	1.2	0.05	0.05	0.01	0.00	0.01	6.01	<0.005	3.79	0.00	0.07	6.61	<0.005	4.30	0.13	<0.005	0.38	25.00	0.29	0.01	0.49	0.01	0.02
GR-11-02	E5101732	BLANK																								
GR-11-02	E5101733	57	58	1	0.03	0.01	0.01	0.01	0.01	6.23	<0.005	3.31	0.00	0.08	6.14	<0.005	4.02	0.11	<0.005	0.42	26.70	0.15	0.01	0.43	0.01	0.01
GR-11-02	E5101734	58	59	1	0.02	0.02	0.00	0.00	0.01	6.81	<0.005	3.36	0.00	0.05	6.19	<0.005	3.20	0.10	<0.005	0.42	28.20	0.17	0.02	0.50	0.01	0.01
GR-11-02	E5101735	59	60	1	0.02	0.00	0.00	<0.001	0.01	6.66	<0.005	3.79	0.00	0.04	5.99	<0.005	2.92	0.10	<0.005	0.45	26.10	0.18	0.02	0.49	0.01	0.01
GR-11-04	E5101736	7.2	8	0.8	0.04	0.01	0.02	0.00	0.01	5.45	<0.005	3.16	0.00	0.10	7.01	<0.005	5.75	0.12	<0.005	0.49	25.50	0.14	0.01	0.35	0.01	0.01
GR-11-04	E5101737	8	9	1	0.10	0.09	0.02	0.01	0.03	4.99	<0.005	3.13	0.01	0.11	6.80	<0.005	5.58	0.12	<0.005	0.45	23.80	0.49	0.01	0.32	0.01	0.01
GR-11-04	E5101738	9	10	1	0.05	0.03	0.01	0.00	0.01	5.07	<0.005	3.61	0.00	0.09	6.56	<0.005	5.23	0.11	<0.005	0.41	24.20	0.23	0.01	0.31	0.01	0.01
GR-11-04	E5101739	10	10	0.4	0.07	0.04	0.01	0.01	0.01	5.24	<0.005	3.18	0.00	0.11	7.37	<0.005	5.80	0.13	<0.005	0.44	25.50	0.33	0.02	0.34	0.01	0.01
GR-11-04	E5101740	10.4	11	0.5	0.39	0.51	0.14	0.07	0.11	5.93	<0.005	2.61	0.01	0.09	8.52	<0.005	4.88	0.11	<0.005	0.46	24.30	2.25	0.02	0.35	0.01	0.02
GR-11-04	E5101741	10.9	12	1.1	0.05	0.05	0.01	0.00	0.01	5.56	<0.005	3.01	0.00	0.09	6.53	<0.005	4.93	0.12	<0.005	0.35	25.30	0.34	0.02	0.35	0.01	0.03
GR-11-04	E5101742	12	13	1.2	0.03	0.02	0.01	0.00	0.01	5.71	<0.005	4.08	0.00	0.07	6.19	<0.005	4.31	0.11	<0.005	0.35	25.10	0.28	0.02	0.37	0.01	0.01
GR-11-04	E5101743	13.2	14	1	0.26	0.24	0.06	0.02	0.04	6.08	<0.005	3.28	0.01	0.08	7.95	<0.005	4.09	0.11	<0.005	0.39	24.30	2.38	0.02	0.41	0.01	0.01
GR-11-04	E5101744	14.2	15	0.5	0.05	0.03	0.00	0.00	0.01	5.78	<0.005	4.02	0.00	0.10	6.94	<0.005	4.88	0.13	<0.005	0.47	25.50	0.28	0.01	0.45	0.01	0.01
GR-11-04	E5101745	14.7	16	1	0.08	0.07	0.02	0.01	0.02	6.07	<0.005	3.62	0.00	0.09	7.13	<0.005	4.36	0.12	<0.005	0.54	23.40	0.43	0.01	0.46	0.01	0.01
GR-11-04	E5101746	15.7	17	0.8	0.01	0.02	0.01	<0.001	<0.005	6.34	<0.005	3.67	0.00	0.02	4.61	<0.005	1.56	0.08	<0.005	0.86	21.40	0.21	0.01	0.44	0.01	0.01
GR-11-04	E5101747	16.5	18	1	0.01	0.01	0.00	<0.001	<0.005	7.39	<0.005	3.90	0.00	0.03	5.22	<0.005	1.78	0.09	<0.005	0.52	25.90	0.24	0.02	0.42	0.01	0.01
GR-11-04	E5101748	17.5	19	1	0.01	0.00	0.00	<0.001	<0.005	7.79	<0.005	3.37	0.00	0.03	5.03	<0.005	1.76	0.09	<0.005	0.42	28.10	0.20	0.02	0.43	0.01	0.02
GR-11-04	E5101749	18.5	20	1	0.01	0.01	0.00	<0.001	<0.005	7.45	<0.005	3.53	0.00	0.03	5.15	<0.005	2.08	0.09	<0.005	0.36	27.80	0.21	0.02	0.35	0.01	0.01
GR-11-05	E5101750	6	7	1	0.05	0.02	0.01	0.01	0.01	5.34	<0.005	3.70	0.01	0.11	7.71	<0.005	5.43	0.13	<0.005	0.40	27.00	0.25	0.02	0.30	0.01	0.02
GR-11-05	E5101751	7	8	1	0.05	0.02	0.01	0.00	0.01	5.35	<0.005	3.54	0.01	0.10	7.54	<0.005	5.22	0.13	<0.005	0.39	25.90	0.20	0.01	0.32	0.01	0.02
GR-11-05	E5101752	8	9	1	0.04	0.03	0.00	0.00	0.01	5.39	<0.005	3.45	0.01	0.11	7.30	<0.005	5.00	0.14	<0.005	0.40	26.40	0.17	0.01	0.35	0.01	0.02
GR-11-05	E5101753	BLANK																								
GR-11-05	E5101754	9	10	1.2	0.04	0.02	0.00	0.00	<0.005	5.34	<0.005	3.49	0.01	0.10	7.33	<0.005	5.42	0.13	<0.005	0.42	25.90	0.17	0.01	0.37	0.01	0.02
GR-11-05	E5101755	10.2	11	1	0.06	0.04	0.01	0.00	0.01	5.53	<0.005	3.48	0.01	0.10	7.50	<0.005	5.33	0.14	<0.005	0.45	27.00	0.23	0.01	0.36	0.01	0.01
GR-11-05	E5101756	STD LBE-3																								
GR-11-05	E5101757	11.2	12	1	0.11	0.09	0.02	0.01	0.02	5.46	<0.005	3.49	0.01	0.11	7.24	<0.005										

Holel.D.	Tag	From	To	Length	Ni	Cu	Au	Pd	Pt	Al	As	Ca	Co	Cr	Fe	Pb	Mg	Mn	Mo	K	Si	S	Sn	Ti	V	Zn
GR-11-05	E5101760	14	15	1.3	0.06	0.03	0.01	0.00	0.01	5.69	<0.005	3.62	0.01	0.10	7.37	<0.005	5.02	0.13	<0.005	0.37	26.00	0.36	0.01	0.37	0.01	0.01
GR-11-05	E5101761	15.3	16	1	0.06	0.03	0.02	0.00	0.01	5.74	<0.005	3.84	0.01	0.10	7.58	<0.005	5.18	0.13	<0.005	0.42	25.90	0.36	0.01	0.35	0.01	0.01
GR-11-05	E5101762	16.3	17	1	0.04	0.03	0.00	0.00	<0.005	6.34	<0.005	3.86	0.01	0.09	7.76	<0.005	4.76	0.12	<0.005	0.48	24.00	0.48	0.01	0.41	0.01	0.01
GR-11-05	E5101763	17.3	18	1.1	0.26	0.17	0.05	0.01	0.02	5.96	<0.005	3.15	0.01	0.08	9.23	0.01	4.67	0.12	<0.005	0.23	25.20	1.58	0.01	0.38	0.01	0.02
GR-11-05	E5101764	18.4	20	1.4	0.07	0.04	0.01	0.00	0.01	5.61	<0.005	3.38	0.01	0.10	7.58	<0.005	5.05	0.14	<0.005	0.24	26.30	0.23	0.02	0.36	0.01	0.01
GR-11-05	E5101765	19.8	21	1.2	0.44	0.66	0.23	0.08	0.13	4.77	<0.005	2.49	0.02	0.10	11.10	<0.005	5.09	0.12	<0.005	0.22	24.90	3.88	0.01	0.31	0.01	0.02
GR-11-05	E5101766	21	22	1.3	0.41	0.46	0.09	0.04	0.06	4.80	<0.005	2.41	0.03	0.11	11.10	0.01	4.90	0.13	<0.005	0.17	22.80	4.14	0.01	0.31	0.01	0.01
GR-11-05	E5101767	22.3	23	0.6	0.70	1.66	0.28	0.14	0.09	5.63	<0.005	1.66	0.02	0.09	12.30	<0.005	4.60	0.12	<0.005	0.21	23.20	4.45	0.02	0.33	0.01	0.02
GR-11-05	E5101768	22.9	24	1.1	0.77	1.07	0.86	0.09	0.12	5.19	<0.005	1.55	0.03	0.10	15.00	<0.005	4.73	0.12	<0.005	0.21	22.50	6.41	0.01	0.35	0.01	0.01
GR-11-05	E5101769	24	25	0.8	0.58	0.68	0.18	0.08	0.22	5.18	<0.005	2.03	0.01	0.10	12.20	<0.005	4.93	0.13	<0.005	0.21	23.60	3.06	0.01	0.38	0.01	0.02
GR-11-05	E5101770	24.8	26	0.7	1.46	1.66	0.49	0.19	0.42	4.26	<0.005	2.19	0.03	0.11	16.70	<0.005	4.56	0.11	<0.005	0.26	21.50	8.11	0.01	0.31	0.01	0.02
GR-11-05	E5101771	25.5	26	0.8	2.36	5.11	1.81	0.19	0.43	3.69	<0.005	1.24	0.04	0.09	18.90	0.01	3.88	0.08	<0.005	0.38	16.90	14.00	0.02	0.26	0.01	0.04
GR-11-05	E5101772	26.3	27	0.4	8.66	0.85	0.10	0.12	0.05	1.96	<0.005	0.84	0.04	0.06	31.70	<0.005	2.20	0.05	<0.005	0.27	9.47	26.40	0.01	0.12	0.01	0.02
GR-11-05	E5101773	26.7	28	0.8	4.48	4.76	0.47	0.10	0.10	2.77	<0.005	1.02	0.03	0.08	23.30	0.01	3.31	0.07	<0.005	0.31	14.20	18.10	0.02	0.17	<0.005	0.03
GR-11-05	E5101774	27.5	28	0.8	3.82	3.80	0.52	0.09	0.06	3.19	<0.005	1.23	0.04	0.09	22.20	0.01	3.76	0.08	<0.005	0.27	16.10	16.30	0.01	0.20	0.01	0.02
GR-11-05	E5101775	28.3	29	0.7	2.46	4.31	0.52	0.10	0.08	3.15	<0.005	1.49	0.06	0.08	22.00	0.01	3.27	0.08	<0.005	0.25	16.30	16.30	0.01	0.20	<0.005	0.03
GR-11-05	E5101776	29	30	1	2.19	1.85	0.60	0.11	0.12	2.74	<0.005	1.21	0.15	0.07	22.40	0.01	2.91	0.07	<0.005	0.18	12.50	20.30	0.03	0.16	<0.005	0.03
GR-11-05	E5101777	BLANK																								
GR-11-05	E5101778	30	31	1	1.46	1.01	1.20	0.11	0.06	3.69	<0.005	1.73	0.10	0.06	24.50	<0.005	2.66	0.06	<0.005	0.28	18.00	13.90	0.02	0.22	<0.005	0.03
GR-11-05	E5101779	31	32	1	3.01	0.35	0.09	0.06	0.05	3.59	<0.005	1.54	0.03	0.09	15.70	<0.005	4.26	0.10	<0.005	0.17	18.20	10.80	0.02	0.23	<0.005	0.01
GR-11-05	E5101780	STD LBE-2																								
GR-11-05	E5101781	32	33	1	1.03	0.69	0.21	0.03	0.04	6.24	<0.005	4.38	0.02	0.08	14.40	<0.005	4.67	0.14	0.01	0.35	25.50	4.99	0.01	0.40	0.01	0.02
GR-11-05	E5101782	33	34	1	0.43	1.63	0.26	0.02	0.03	3.64	<0.005	4.00	0.03	0.08	11.00	<0.005	3.73	0.14	<0.005	0.17	15.50	6.59	<0.005	0.26	0.01	0.01
GR-11-05	E5101783	34	35	0.9	0.28	0.35	0.09	0.02	0.03	5.35	<0.005	3.56	0.02	0.06	10.40	<0.005	3.45	0.11	<0.005	0.28	21.00	3.84	0.01	0.39	0.01	0.01
GR-11-05	E5101784	34.9	35	0.4	0.74	0.66	0.18	0.07	0.04	4.85	0.07	3.20	0.03	0.05	10.80	0.16	3.47	0.27	<0.005	0.28	18.80	4.53	0.02	0.54	0.18	0.22
GR-11-05	E5101785	35.3	36	1	0.14	0.10	0.04	0.01	0.02	5.42	<0.005	6.08	0.01	0.05	6.54	<0.005	2.64	0.13	<0.005	0.48	22.50	1.07	0.01	0.39	0.01	0.02
GR-11-05	E5101786	36.3	37	0.9	0.12	0.07	0.05	0.01	0.02	5.11	<0.005	3.87	0.01	0.06	5.97	<0.005	2.69	0.11	<0.005	0.49	25.90	0.94	0.01	0.35	0.01	0.01
GR-11-05	E5101787	37.2	38	0.8	0.06	0.03	0.01	0.00	0.01	5.38	<0.005	5.45	0.00	0.05	5.80	<0.005	2.51	0.12	<0.005	0.39	26.60	0.62	0.01	0.37	0.01	0.01
GR-11-05	E5101788	38	39	1	0.11	0.12	0.03	0.01	0.02	6.90	<0.005	5.73	0.01	0.08	8.59	<0.005	3.56	0.14	<0.005	0.44	27.60	1.42	0.01	0.55	0.01	0.02
GR-11-05	E5101789	39	40	1	0.09	0.11	0.02	0.01	0.01	6.69	<0.005	4.95	0.01	0.05	7.72	<0.005	2.92	0.12	<0.005	0.36	25.30	1.88	0.01	0.48	0.01	0.01
GR-11-05	E5101790	40	41	0.7	0.12	0.11	0.01	0.00	0.01	5.86	<0.005	5.31	0.01	0.06	7.58	<0.005	3.44	0.13	<0.005	0.42	23.70	1.39	0.02	0.44	0.01	0.01
GR-11-05	E5101791	40.7	41	0.6	0.26	0.51	0.04	0.02	0.02	6.12	<0.005	3.73	0.01	0.10	9.48	<0.005	4.36	0.13	0.03	0.43	25.50	2.03	0.02	0.49	0.01	0.02
GR-11-05	E5101792	41.3	42	1	0.11	0.09	0.01	0.01	0.01	6.11	<0.005	4.27	0.01	0.11	8.32	<0.005	4.73	0.16	<0.005	0.42	26.00	0.83	0.01	0.50	0.01	0.02
GR-11-05	E5101793	42.3	43	1.1	0.10	0.08	0.00	0.00	0.01	5.25	<0.005	3.83	0.01	0.08	6.82	<0.005	4.91	0.16	<0.005	0.49	19.70	1.02	0.02	0.44	0.02	0.01
GR-11-05	E5101794	43.4	44	1	0.09	0.13	0.02	0.01	0.02	5.11	<0.005	3.58	0.01	0.05	5.96	<0.005	3.26	0.13	<0.005	0.25	18.80	2.50	0.02	0.37	0.01	0.01
GR-11-05	E5101795	44.4	45	1	0.04	0.04	0.00	0.00	0.01	7.91	<0.005	4.73	0.01	0.04	7.47	<0.005	2.98	0.13	<0.005	0.88	24.30	0.47	0.02	0.71	0.01	0.01
GR-11-05	E5101796	45.4	46	1	0.01	0.01	0.00	<0.001	<0.005	7.16	<0.005	3.96	0.00	0.02	5.23	<0.005	1.62	0.08	<0.005	0.46	26.90	0.16	0.03	0.36	<0.005	0.01
GR-11-05	E5101797	46.4	47	1	0.01	0.01	0.00	<0.001	<0.005	6.67	<0.005	4.56	0.00	0.03	4.95	<0.005	2.01	0.11	<0.005	0.54	21.90	0.25	0.02	0.46	0.01	0.01
GR-11-05	E5101798	47.4	48	1	0.01	0.01	0.00	0.00	<0.005	9.38	<0.005	5.59	0.00	0.03	5.97	<0.005	2.01	0.10	0.01	1.05	30.90	0.21	0.01	0.63	0.01	0.01
GR-11-05	E5101799	48.4	50	1.1	0.01	0.01	0.02	<0.001	<0.005	6.69	<0.005	4.61	0.00	0.02	5.08	<0.005	1.90	0.09	0.01	0.65	21.00	0.10	0.02	0.49	0.01	0.01



**CLIENT NAME: LIBERTY MINES INC.
5775 YONGE STREET, SUITE 1210
TORONTO, ON M2M4J1**

ATTENTION TO: Peter Caldbick

PROJECT NO:

AGAT WORK ORDER: 11U536615

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, ICP Supervisor

DATE REPORTED: Oct 17, 2011

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501 9998, or at 1-800-856-6261

*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



Certificate of Analysis

AGAT WORK ORDER: 11U536615

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Sample Description	Analyte:	Sample	Au	Pd	Pt
	Unit:	Login Weight	ppm	ppm	ppm
RDL:	kg	0.01	0.001	0.001	0.005
5101750		1.34	0.009	0.008	0.013
5101751		1.50	0.005	0.003	0.006
5101752		1.44	0.002	0.002	0.005
5101753		1.68	<0.001	<0.001	<0.005
5101754		1.70	0.003	0.001	<0.005
5101755		1.50	0.006	0.004	0.011
5101756		0.08	0.059	0.007	0.010
5101757		1.54	0.017	0.010	0.022
5101758		0.98	0.004	0.004	0.008
5101759		1.44	0.004	<0.001	0.005
5101760		1.56	0.005	0.003	0.009
5101761		1.18	0.023	0.003	0.007
5101762		1.28	0.004	0.002	<0.005
5101763		1.68	0.050	0.010	0.018
5101764		1.90	0.007	0.001	0.007
5101765		1.52	0.229	0.078	0.127
5101766		1.84	0.093	0.040	0.064
5101767		0.96	0.279	0.144	0.089
5101768		1.54	0.864	0.086	0.121
5101769		1.40	0.182	0.080	0.222
5101770		1.14	0.494	0.187	0.424
5101771		1.42	1.81	0.188	0.425
5101772		0.74	0.097	0.122	0.052
5101773		1.24	0.466	0.097	0.102
5101774		1.50	0.521	0.087	0.056
5101775		0.98	0.520	0.095	0.077
5101776		1.86	0.604	0.113	0.124
5101777		1.08	0.032	0.004	0.005
5101778		1.52	1.20	0.107	0.055
5101779		1.56	0.092	0.057	0.052
5101780		0.06	0.230	0.735	0.364
5101781		1.62	0.205	0.029	0.041

Certified By:



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5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
 CANADA L4Z 1N9
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<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Sample Description	Analyte:	Sample	Au	Pd	Pt
	Unit:	Login Weight	ppm	ppm	ppm
RDL:	kg	0.01	0.001	0.001	0.005
5101782		1.52	0.263	0.020	0.025
5101783		1.06	0.085	0.017	0.031
5101784		0.68	0.181	0.072	0.044
5101785		1.80	0.035	0.011	0.021
5101786		1.10	0.046	0.013	0.017
5101787		1.56	0.005	0.003	0.009
5101788		1.30	0.031	0.010	0.019
5101789		1.22	0.017	0.010	0.013
5101790		0.90	0.006	0.004	0.006
5101791		1.12	0.041	0.023	0.016
5101792		1.30	0.005	0.009	0.012
5101793		1.42	0.004	0.004	0.008
5101794		1.26	0.017	0.008	0.019
5101795		1.24	0.003	0.002	0.006
5101796		1.30	0.001	<0.001	<0.005
5101797		1.14	0.003	<0.001	<0.005
5101798		1.28	0.001	0.002	<0.005
5101799		1.52	0.015	<0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 11U536615

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 CANADA L4Z 1N9
 TEL (905)501-9988
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<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Sample Description	RDL:													
5101750	5.34	<0.005	3.70	0.005	0.112	0.021	7.71	<0.005	5.43	0.133	<0.005	0.051	0.40	27.0
5101751	5.35	<0.005	3.54	0.005	0.103	0.023	7.54	<0.005	5.22	0.128	<0.005	0.049	0.39	25.9
5101752	5.39	<0.005	3.45	0.005	0.105	0.027	7.30	<0.005	5.00	0.137	<0.005	0.043	0.40	26.4
5101753	8.14	<0.005	2.69	<0.001	0.023	0.009	2.58	<0.005	1.17	0.043	0.008	0.002	1.14	31.2
5101754	5.34	<0.005	3.49	0.005	0.104	0.015	7.33	<0.005	5.42	0.132	<0.005	0.041	0.42	25.9
5101755	5.53	<0.005	3.48	0.005	0.103	0.035	7.50	<0.005	5.33	0.135	<0.005	0.059	0.45	27.0
5101756	5.21	<0.005	3.74	0.058	0.052	0.722	22.9	<0.005	3.72	0.096	<0.005	1.45	0.59	15.8
5101757	5.46	<0.005	3.49	0.006	0.108	0.088	7.24	<0.005	5.22	0.129	<0.005	0.112	0.56	25.2
5101758	5.01	<0.005	3.25	0.004	0.086	0.030	6.38	<0.005	4.56	0.114	<0.005	0.049	0.68	28.5
5101759	5.97	<0.005	3.53	0.004	0.090	0.020	6.91	<0.005	4.88	0.122	<0.005	0.039	0.43	25.8
5101760	5.69	<0.005	3.62	0.005	0.099	0.030	7.37	<0.005	5.02	0.127	<0.005	0.056	0.37	26.0
5101761	5.74	<0.005	3.84	0.005	0.104	0.032	7.58	<0.005	5.18	0.129	<0.005	0.060	0.42	25.9
5101762	6.34	<0.005	3.86	0.005	0.089	0.025	7.76	<0.005	4.76	0.122	<0.005	0.043	0.48	24.0
5101763	5.96	<0.005	3.15	0.012	0.082	0.169	9.23	0.010	4.67	0.124	<0.005	0.255	0.23	25.2
5101764	5.61	<0.005	3.38	0.005	0.097	0.036	7.58	<0.005	5.05	0.135	<0.005	0.066	0.24	26.3
5101765	4.77	<0.005	2.49	0.023	0.097	0.657	11.1	<0.005	5.09	0.123	<0.005	0.437	0.22	24.9
5101766	4.80	<0.005	2.41	0.025	0.107	0.459	11.1	0.006	4.90	0.133	<0.005	0.413	0.17	22.8
5101767	5.63	<0.005	1.66	0.016	0.089	1.66	12.3	<0.005	4.60	0.124	<0.005	0.697	0.21	23.2
5101768	5.19	<0.005	1.55	0.027	0.100	1.07	15.0	<0.005	4.73	0.121	<0.005	0.772	0.21	22.5
5101769	5.18	<0.005	2.03	0.014	0.097	0.681	12.2	<0.005	4.93	0.126	<0.005	0.575	0.21	23.6
5101770	4.26	<0.005	2.19	0.032	0.111	1.66	16.7	<0.005	4.56	0.113	<0.005	1.46	0.26	21.5
5101771	3.69	<0.005	1.24	0.042	0.088	5.11	18.9	0.011	3.88	0.083	<0.005	2.36	0.38	16.9
5101772	1.96	<0.005	0.84	0.042	0.061	0.846	31.7	<0.005	2.20	0.051	<0.005	8.66	0.27	9.47
5101773	2.77	<0.005	1.02	0.028	0.080	4.76	23.3	0.009	3.31	0.071	<0.005	4.48	0.31	14.2
5101774	3.19	<0.005	1.23	0.040	0.087	3.80	22.2	0.008	3.76	0.079	<0.005	3.82	0.27	16.1
5101775	3.15	<0.005	1.49	0.062	0.084	4.31	22.0	0.011	3.27	0.077	<0.005	2.46	0.25	16.3
5101776	2.74	<0.005	1.21	0.148	0.070	1.85	22.4	0.007	2.91	0.067	<0.005	2.19	0.18	12.5
5101777	8.44	<0.005	2.58	0.005	0.032	0.198	4.28	<0.005	0.891	0.037	<0.005	0.119	1.18	33.4
5101778	3.69	<0.005	1.73	0.101	0.062	1.01	24.5	<0.005	2.66	0.059	<0.005	1.46	0.28	18.0
5101779	3.59	<0.005	1.54	0.033	0.094	0.353	15.7	<0.005	4.26	0.096	<0.005	3.01	0.17	18.2
5101780	4.75	0.008	2.42	0.037	0.058	0.151	8.41	<0.005	4.51	0.114	<0.005	6.06	0.95	17.0
5101781	6.24	<0.005	4.38	0.022	0.083	0.686	14.4	<0.005	4.67	0.140	0.007	1.03	0.35	25.5

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Certificate of Analysis

AGAT WORK ORDER: 11U536615

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.005	0.001	0.05	0.005
5101782	3.64	<0.005	4.00	0.029	0.081	1.63	11.0	<0.005	3.73	0.142	<0.005	0.428	0.17	15.5
5101783	5.35	<0.005	3.56	0.024	0.062	0.347	10.4	<0.005	3.45	0.113	<0.005	0.276	0.28	21.0
5101784	4.85	0.071	3.20	0.028	0.054	0.661	10.8	0.155	3.47	0.271	<0.005	0.741	0.28	18.8
5101785	5.42	<0.005	6.08	0.006	0.047	0.095	6.54	<0.005	2.64	0.133	<0.005	0.137	0.48	22.5
5101786	5.11	<0.005	3.87	0.006	0.060	0.070	5.97	<0.005	2.69	0.109	<0.005	0.118	0.49	25.9
5101787	5.38	<0.005	5.45	0.004	0.048	0.027	5.80	<0.005	2.51	0.121	<0.005	0.057	0.39	26.6
5101788	6.90	<0.005	5.73	0.007	0.080	0.117	8.59	<0.005	3.56	0.140	<0.005	0.111	0.44	27.6
5101789	6.69	<0.005	4.95	0.007	0.045	0.111	7.72	<0.005	2.92	0.116	<0.005	0.086	0.36	25.3
5101790	5.86	<0.005	5.31	0.007	0.055	0.111	7.58	<0.005	3.44	0.127	<0.005	0.122	0.42	23.7
5101791	6.12	<0.005	3.73	0.010	0.096	0.511	9.48	<0.005	4.36	0.127	0.025	0.259	0.43	25.5
5101792	6.11	<0.005	4.27	0.006	0.112	0.087	8.32	<0.005	4.73	0.156	<0.005	0.105	0.42	26.0
5101793	5.25	<0.005	3.83	0.008	0.079	0.075	6.82	<0.005	4.91	0.160	<0.005	0.097	0.49	19.7
5101794	5.11	<0.005	3.58	0.008	0.049	0.132	5.96	<0.005	3.26	0.125	<0.005	0.092	0.25	18.8
5101795	7.91	<0.005	4.73	0.006	0.040	0.043	7.47	<0.005	2.98	0.132	<0.005	0.036	0.88	24.3
5101796	7.16	<0.005	3.96	0.002	0.020	0.008	5.23	<0.005	1.62	0.082	<0.005	0.007	0.46	26.9
5101797	6.67	<0.005	4.56	0.003	0.028	0.008	4.95	<0.005	2.01	0.105	<0.005	0.009	0.54	21.9
5101798	9.38	<0.005	5.59	0.003	0.032	0.012	5.97	<0.005	2.01	0.096	0.005	0.008	1.05	30.9
5101799	6.69	<0.005	4.61	0.003	0.024	0.006	5.08	<0.005	1.90	0.093	0.006	0.009	0.65	21.0

Certified By:

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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.005	0.005	0.005
5101750	0.25	0.019	0.298	0.008	0.019
5101751	0.20	0.010	0.321	0.008	0.015
5101752	0.17	0.011	0.347	0.009	0.015
5101753	0.11	0.007	0.205	<0.005	0.012
5101754	0.17	0.010	0.367	0.009	0.016
5101755	0.23	0.009	0.359	0.009	0.013
5101756	14.9	0.020	0.131	<0.005	0.009
5101757	0.54	0.012	0.362	0.009	0.011
5101758	0.24	0.009	0.307	0.006	0.012
5101759	0.17	0.014	0.364	0.007	0.011
5101760	0.36	0.014	0.370	0.008	0.011
5101761	0.36	0.011	0.346	0.007	0.011
5101762	0.48	0.011	0.406	0.010	0.011
5101763	1.58	0.010	0.382	0.007	0.016
5101764	0.23	0.015	0.364	0.007	0.014
5101765	3.88	0.010	0.309	0.006	0.017
5101766	4.14	0.008	0.312	0.007	0.014
5101767	4.45	0.019	0.328	0.007	0.015
5101768	6.41	0.014	0.349	0.008	0.013
5101769	3.06	0.007	0.378	0.009	0.018
5101770	8.11	0.013	0.307	0.006	0.015
5101771	14.0	0.016	0.256	0.007	0.044
5101772	26.4	0.014	0.122	0.006	0.024
5101773	18.1	0.015	0.172	<0.005	0.031
5101774	16.3	0.011	0.202	0.006	0.019
5101775	16.3	0.013	0.195	<0.005	0.026
5101776	20.3	0.025	0.156	<0.005	0.030
5101777	1.12	0.023	0.208	<0.005	0.011
5101778	13.9	0.023	0.223	<0.005	0.025
5101779	10.8	0.024	0.229	<0.005	0.011
5101780	5.98	0.012	0.169	<0.005	0.012
5101781	4.99	0.008	0.395	0.011	0.016

Certified By:





Certificate of Analysis

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5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
 CANADA L4Z 1N9
 TEL (905)501-9998
 FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description	RDL:				
5101782	6.59	<0.005	0.261	0.010	0.014
5101783	3.84	0.010	0.389	0.010	0.014
5101784	4.53	0.020	0.542	0.177	0.219
5101785	1.07	0.010	0.389	0.010	0.019
5101786	0.94	0.010	0.349	0.008	0.012
5101787	0.62	0.007	0.369	0.008	0.013
5101788	1.42	0.005	0.549	0.012	0.017
5101789	1.88	0.011	0.482	0.010	0.014
5101790	1.39	0.015	0.438	0.009	0.012
5101791	2.03	0.017	0.494	0.008	0.016
5101792	0.83	0.010	0.501	0.013	0.017
5101793	1.02	0.015	0.438	0.019	0.012
5101794	2.50	0.017	0.366	0.012	0.010
5101795	0.47	0.022	0.713	0.012	0.012
5101796	0.16	0.026	0.356	<0.005	0.010
5101797	0.25	0.016	0.456	0.011	0.009
5101798	0.21	0.013	0.625	0.014	0.011
5101799	0.10	0.016	0.490	0.009	0.008

Comments: RDL - Reported Detection Limit

Certified By:



Quality Assurance

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536615

PROJECT NO:

ATTENTION TO: Peter Caldbick

Solid Analysis											
RPT Date: Oct 17, 2011		REPLICATE				Method Blank	REFERENCE MATERIAL				
PARAMETER	Batch	Sample Id	Original	Rep #1	RPD		Result Value	Expect Value	Recovery	Acceptable Limits	
										Lower	Upper
Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)											
Au	1	2778780	0.181	0.265		< 0.001	0.326	0.321	102%	80%	120%
Pd	1	2778780	0.0716	0.0785	9.2%	< 0.001	0.033	0.037	90%	80%	120%
Pt	1	2778780	0.0437	0.0379	14.2%	< 0.005	0.103	0.090	114%	80%	120%
Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)											
Au	1	2778758	0.0035	0.0030	15.4%	< 0.001				80%	120%
Pd	1	2778758	0.002	0.002	0.0%	< 0.001				80%	120%
Pt	1	2778758	0.004	0.005	22.2%	< 0.005				80%	120%
Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)											
Au	1	2778786	0.006	0.004		< 0.001				80%	120%
Pd	1	2778786	0.004	0.004	0.0%	< 0.001				80%	120%
Pt	1	2778786	0.0062	0.0072	14.9%	< 0.005				80%	120%
Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)											
Au	1	2778790	0.017	0.023		< 0.001				80%	120%
Pd	1	2778790	0.008	0.008	0.0%	< 0.001				80%	120%
Pt	1	2778790	0.019	0.015	23.5%	< 0.005				80%	120%
Sodium Peroxide Fusion - ICP-OES finish (201079)											
Al	1	2778746	5.34	5.24	1.9%	0.29	4.29	4.30	100%	80%	120%
As	1	2778746	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778746	3.70	3.54	4.4%	< 0.05	2.08	2.21	94%	80%	120%
Co	1	2778746	0.005	0.005	0.0%	< 0.001	0.0679	0.0672	101%	80%	120%
Cr	1	2778746	0.112	0.110	1.8%	0.015				80%	120%
Cu	1	2778746	0.021	0.021	0.0%	0.004	1.103	1.185	93%	80%	120%
Fe	1	2778746	7.71	7.51	2.6%	0.05	24.82	25.54	97%	80%	120%
Pb	1	2778746	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778746	5.43	5.42	0.2%	0.012	1.808	1.790	101%	80%	120%
Mn	1	2778746	0.133	0.131	1.5%	< 0.005	0.0774	0.0703	110%	80%	120%
Mo	1	2778746	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778746	0.0508	0.0499	1.8%	< 0.001	1.926	1.953	99%	80%	120%
K	1	2778746	0.40	0.40	0.0%	0.19				80%	120%
Si	1	2778746	27.0	26.8	0.7%	0.036	15.64	15.23	103%	80%	120%
S	1	2778746	0.246	0.211	15.3%	0.13	15.49	14.14	110%	80%	120%
Sn	1	2778746	0.019	0.015	23.5%	0.036				80%	120%
Ti	1	2778746	0.298	0.291	2.4%	< 0.005				80%	120%
V	1	2778746	0.0079	0.0073	7.9%	< 0.005	0.00842	0.00825	102%	80%	120%
Zn	1	2778746	0.0187	0.0158	16.8%	< 0.005	0.0276	0.0235	117%	80%	120%
Sodium Peroxide Fusion - ICP-OES finish (201079)											
Al	1	2778771	3.15	3.20	1.6%	< 0.01				80%	120%
As	1	2778771	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778771	1.49	1.55	3.9%	< 0.05				80%	120%
Co	1	2778771	0.062	0.063	1.6%	< 0.001				80%	120%
Cr	1	2778771	0.0838	0.0876	4.4%	< 0.005				80%	120%
Cu	1	2778771	4.31	4.40	2.1%	< 0.001	2.937	3.069	96%	80%	120%



Quality Assurance

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536615

PROJECT NO:

ATTENTION TO: Peter Caldbick

Solid Analysis (Continued)

RPT Date: Oct 17, 2011		REPLICATE				Method Blank	REFERENCE MATERIAL				
PARAMETER	Batch	Sample Id	Original	Rep #1	RPD		Result Value	Expect Value	Recovery	Acceptable Limits	
						Lower				Upper	
Fe	1	2778771	22.0	22.6	2.7%	< 0.01				80%	120%
Pb	1	2778771	0.0110	0.0116	5.3%	< 0.005				80%	120%
Mg	1	2778771	3.27	3.39	3.6%	< 0.005				80%	120%
Mn	1	2778771	0.0773	0.0810	4.7%	< 0.005	0.068	0.0703	96%	80%	120%
Mo	1	2778771	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778771	2.46	2.54	3.2%	< 0.001				80%	120%
K	1	2778771	0.25	0.25	0.0%	< 0.05				80%	120%
Si	1	2778771	16.3	16.6	1.8%	< 0.005	17.16	15.23	113%	80%	120%
S	1	2778771	16.3	16.9	3.6%	< 0.01				80%	120%
Sn	1	2778771	0.013	0.015	14.3%	< 0.005				80%	120%
Ti	1	2778771	0.195	0.199	2.0%	< 0.005	0.08	0.07	108%	80%	120%
V	1	2778771	0.005	0.005	0.0%	< 0.005				80%	120%
Zn	1	2778771	0.0259	0.0277	6.7%	< 0.005				80%	120%

Sodium Peroxide Fusion - ICP-OES finish (201079)

Al	1	2778790	5.11	7.54		< 0.01				80%	120%
As	1	2778790	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778790	3.58	5.48		< 0.05				80%	120%
Co	1	2778790	0.008	0.008	0.0%	< 0.001				80%	120%
Cr	1	2778790	0.0486	0.0475	2.3%	< 0.005				80%	120%
Cu	1	2778790	0.132	0.133	0.8%	< 0.001				80%	120%
Fe	1	2778790	5.96	8.80		< 0.01				80%	120%
Pb	1	2778790	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778790	3.26	3.42	4.8%	< 0.005				80%	120%
Mn	1	2778790	0.125	0.124	0.8%	< 0.005				80%	120%
Mo	1	2778790	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778790	0.0921	0.0939	1.9%	< 0.001				80%	120%
K	1	2778790	0.25	0.40		< 0.05				80%	120%
Si	1	2778790	18.8	27.8		< 0.005				80%	120%
S	1	2778790	2.50	2.25	10.5%	< 0.01				80%	120%
Sn	1	2778790	0.017	0.015	12.5%	< 0.005				80%	120%
Ti	1	2778790	0.366	0.547		< 0.005				80%	120%
V	1	2778790	0.0120	0.0128	6.5%	< 0.005				80%	120%
Zn	1	2778790	0.010	0.025		< 0.005				80%	120%

Certified By:

Method Summary

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536615

PROJECT NO:

ATTENTION TO: Peter Caldbick

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/OES
Ca	MIN-200-12001		ICP/OES
Co	MIN-200-12001		ICP/OES
Cr	MIN-200-12001		ICP/OES
Cu	MIN-200-12001		ICP/OES
Fe	MIN-200-12001		ICP/OES
Pb	MIN-200-12001		ICP/OES
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/OES
Ni	MIN-200-12001		ICP/OES
K	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
S	MIN-200-12001		ICP/OES
Sn	MIN-200-12001		ICP/OES
Ti	MIN-200-12001		ICP/OES
V	MIN-200-12001		ICP/OES
Zn	MIN-200-12001		ICP/OES

CLIENT NAME: LIBERTY MINES INC.
5775 YONGE STREET, SUITE 1210
TORONTO, ON M2M4J1

ATTENTION TO: Peter Caldbick

PROJECT NO:

AGAT WORK ORDER: 11U536597

DATE REPORTED: Oct 17, 2011

PAGES (INCLUDING COVER): 13

Should you require any information regarding this analysis please contact your client services representative at (905) 501 9998, or at 1-800-856-6261

*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
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CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Sample Description	RDL:													
5101660	7.04	<0.005	4.68	0.002	0.027	0.012	5.58	<0.005	1.99	0.082	<0.005	0.006	0.49	25.4
5101661	7.09	<0.005	4.54	0.003	0.027	0.009	5.90	<0.005	2.10	0.085	<0.005	0.007	0.55	23.7
5101662	5.70	<0.005	3.26	0.005	0.029	0.006	4.57	<0.005	2.39	0.081	<0.005	0.014	0.47	23.1
5101663	7.52	<0.005	5.59	0.003	0.021	0.012	5.94	<0.005	2.20	0.102	0.005	0.015	0.52	26.1
5101664	6.44	<0.005	4.05	0.002	0.022	0.008	4.98	<0.005	2.05	0.087	<0.005	0.007	0.51	24.3
5101665	7.50	<0.005	4.65	0.002	0.032	0.010	5.48	<0.005	2.26	0.090	<0.005	0.008	0.63	27.6
5101666	6.96	<0.005	3.40	0.002	0.033	0.018	5.22	<0.005	2.91	0.090	<0.005	0.027	0.69	27.4
5101667	4.38	<0.005	3.02	0.009	0.117	0.376	8.35	<0.005	6.15	0.123	<0.005	0.352	0.30	25.8
5101668	4.94	<0.005	3.54	0.005	0.193	0.064	7.00	<0.005	6.43	0.128	0.010	0.100	0.40	26.4
5101669	4.63	<0.005	3.45	0.006	0.140	0.109	7.66	<0.005	6.36	0.125	<0.005	0.135	0.29	24.3
5101670	4.54	<0.005	3.69	0.016	0.100	0.335	9.60	<0.005	6.24	0.134	<0.005	0.730	0.30	23.5
5101671	4.96	<0.005	3.25	0.005	0.095	0.031	7.03	<0.005	5.90	0.123	<0.005	0.077	0.70	24.9
5101672	5.31	<0.005	3.38	0.005	0.098	0.022	7.18	<0.005	5.86	0.121	<0.005	0.046	0.52	26.4
5101673	4.31	<0.005	2.85	0.022	0.113	0.515	10.8	<0.005	6.36	0.127	<0.005	0.810	0.38	23.1
5101674	5.12	<0.005	3.15	0.006	0.144	0.045	7.12	<0.005	5.85	0.123	0.034	0.110	0.33	25.1
5101675	5.29	<0.005	3.25	0.005	0.118	0.034	7.39	<0.005	6.44	0.135	<0.005	0.067	0.29	26.5
5101676	5.13	<0.005	3.18	0.004	0.105	0.017	6.98	0.008	6.23	0.132	<0.005	0.045	0.34	26.3
5101677	4.60	<0.005	2.42	0.016	0.090	0.524	9.09	<0.005	5.60	0.121	<0.005	0.685	0.31	23.6
5101678	5.69	<0.005	3.12	0.004	0.083	0.117	6.71	<0.005	4.90	0.119	<0.005	0.071	0.35	26.3
5101679	5.18	<0.005	2.82	0.007	0.075	0.654	7.14	<0.005	4.43	0.107	<0.005	0.223	0.33	24.4
5101680	7.81	<0.005	2.32	<0.001	0.024	0.008	2.32	<0.005	0.805	0.039	0.006	0.005	0.98	31.0
5101681	6.53	<0.005	3.87	0.004	0.057	0.103	6.53	<0.005	3.95	0.108	<0.005	0.061	0.41	24.8
5101682	5.12	<0.005	2.33	0.015	0.089	1.39	10.8	<0.005	4.99	0.121	<0.005	0.585	0.33	23.3
5101683	5.29	0.009	2.85	0.037	0.063	0.205	9.05	<0.005	5.25	0.119	<0.005	6.35	1.16	18.9
5101684	3.59	<0.005	0.44	0.053	0.064	2.63	19.5	<0.005	3.29	0.065	<0.005	1.45	0.27	16.3
5101685	6.69	<0.005	1.93	0.039	0.048	0.558	12.2	<0.005	3.61	0.095	<0.005	0.410	0.42	21.4
5101686	4.25	<0.005	2.43	0.045	0.082	0.571	12.8	<0.005	4.34	0.115	<0.005	1.71	0.28	20.6
5101687	5.44	<0.005	3.23	0.005	0.086	0.097	7.29	<0.005	4.45	0.122	<0.005	0.090	0.49	24.2
5101688	5.45	<0.005	3.11	0.006	0.095	0.080	6.84	<0.005	4.57	0.121	<0.005	0.143	0.33	24.3
5101689	5.62	<0.005	3.27	0.005	0.096	0.036	6.88	<0.005	4.90	0.125	<0.005	0.049	0.34	24.8
5101690	4.43	<0.005	1.92	0.026	0.133	0.467	11.6	<0.005	5.74	0.112	<0.005	0.547	0.24	22.3
5101691	6.28	<0.005	4.22	0.008	0.078	0.096	8.41	<0.005	4.48	0.127	<0.005	0.121	0.33	24.1

Certified By: _____

Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

 5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
 CANADA L4Z 1N9
 TEL (905)501-9998
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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.005	0.001	0.05	0.005
5101692	6.17	<0.005	5.00	0.009	0.050	0.091	9.48	<0.005	4.13	0.138	<0.005	0.140	0.43	23.5
5101693	4.75	<0.005	2.86	0.033	0.095	0.787	13.0	<0.005	4.73	0.113	<0.005	0.668	0.23	20.5
5101694	6.32	<0.005	6.19	0.006	0.019	0.030	8.98	0.006	3.74	0.166	<0.005	0.020	0.46	22.3
5101695	7.48	<0.005	4.06	0.002	0.025	0.025	5.11	<0.005	2.47	0.083	<0.005	0.024	0.96	26.6
5101696	6.22	<0.005	3.57	0.005	0.044	0.028	6.56	<0.005	3.92	0.112	<0.005	0.037	0.58	25.6
5101697	4.67	<0.005	3.11	0.006	0.079	0.057	6.61	<0.005	5.54	0.120	<0.005	0.088	0.25	25.1
5101698	4.28	<0.005	3.15	0.005	0.094	0.023	6.53	<0.005	6.49	0.125	<0.005	0.060	0.24	26.3
5101699	4.26	<0.005	3.14	0.004	0.089	0.024	6.31	<0.005	6.23	0.116	<0.005	0.055	0.23	27.2
5101700	4.65	<0.005	2.94	0.008	0.092	0.071	7.13	<0.005	6.13	0.123	<0.005	0.113	0.24	26.2
5101701	4.73	<0.005	3.12	0.005	0.091	0.035	6.91	<0.005	6.26	0.124	<0.005	0.078	0.27	25.0
5101702	4.90	<0.005	3.00	0.007	0.090	0.069	6.96	<0.005	6.15	0.126	<0.005	0.102	0.25	25.6
5101703	4.43	<0.005	2.76	0.005	0.085	0.040	6.53	<0.005	5.86	0.113	<0.005	0.079	0.25	23.9
5101704	4.84	<0.005	2.85	0.004	0.089	0.029	6.68	<0.005	6.06	0.125	<0.005	0.061	0.27	25.5
5101705	7.36	<0.005	1.94	<0.001	0.022	0.005	2.24	<0.005	0.870	0.033	<0.005	0.004	0.69	28.9
5101706	4.02	<0.005	2.68	0.022	0.107	0.490	9.29	<0.005	6.25	0.149	<0.005	0.759	0.21	22.4
5101707	4.61	<0.005	3.44	0.057	0.048	0.778	21.1	<0.005	3.64	0.093	<0.005	1.46	0.50	14.5
5101708	3.55	<0.005	2.65	0.009	0.104	0.461	7.32	<0.005	6.32	0.125	<0.005	0.377	0.17	21.3
5101709	4.69	<0.005	3.50	0.005	0.109	0.047	7.06	<0.005	6.64	0.132	<0.005	0.076	0.29	26.2
5101710	5.04	<0.005	3.60	0.004	0.110	0.022	7.00	<0.005	6.54	0.132	<0.005	0.045	0.31	26.0
5101711	4.56	<0.005	3.34	0.005	0.093	0.293	6.63	<0.005	5.43	0.119	<0.005	0.169	0.28	23.6
5101712	4.99	<0.005	3.30	0.008	0.103	0.706	7.97	<0.005	6.08	0.140	<0.005	0.465	0.36	23.4
5101713	4.80	<0.005	3.20	0.005	0.083	0.055	6.48	<0.005	5.26	0.117	<0.005	0.068	0.32	22.9
5101714	5.11	<0.005	3.45	0.006	0.132	0.165	7.34	<0.005	5.91	0.126	<0.005	0.137	0.34	25.2
5101715	5.11	<0.005	3.67	0.005	0.090	0.041	7.06	<0.005	5.66	0.126	<0.005	0.069	0.36	25.3
5101716	4.93	<0.005	3.14	0.004	0.079	0.021	6.15	<0.005	5.06	0.116	<0.005	0.041	0.34	22.6
5101717	5.53	<0.005	3.68	0.005	0.087	0.092	7.13	<0.005	5.53	0.135	<0.005	0.120	0.36	24.8
5101718	5.30	<0.005	3.51	0.010	0.085	0.438	8.18	<0.005	5.26	0.129	<0.005	0.378	0.33	24.7
5101719	5.73	<0.005	3.78	0.004	0.080	0.035	6.80	<0.005	5.28	0.123	<0.005	0.059	0.36	25.9
5101720	5.20	<0.005	3.59	0.004	0.076	0.024	6.42	<0.005	4.85	0.116	<0.005	0.042	0.59	22.4
5101721	6.58	<0.005	4.37	0.004	0.073	0.017	6.91	<0.005	4.19	0.135	<0.005	0.026	0.53	26.8
5101722	5.45	<0.005	2.71	0.003	0.069	0.016	6.13	<0.005	4.36	0.114	<0.005	0.032	0.33	22.4
5101723	5.83	<0.005	3.22	0.003	0.037	0.016	5.00	<0.005	3.02	0.089	<0.005	0.022	0.50	22.8

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
 CANADA L4Z 1N9
 TEL (905)501-9998
 FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si	
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.001	0.05	0.005	
5101724		6.84	<0.005	1.99	0.002	0.023	0.008	4.36	<0.005	1.66	0.069	<0.005	0.008	0.73	28.2
5101725		6.47	<0.005	2.28	0.001	0.015	0.003	3.94	<0.005	1.25	0.070	<0.005	0.002	0.57	27.3
5101726		6.78	<0.005	2.90	0.001	0.025	0.006	4.16	<0.005	1.21	0.077	<0.005	0.006	0.66	27.7
5101727		4.21	<0.005	4.04	0.008	0.084	0.347	7.79	<0.005	5.35	0.127	0.030	0.287	0.22	21.7
5101728		5.82	<0.005	4.41	0.005	0.081	0.096	7.19	<0.005	5.55	0.133	<0.005	0.121	0.35	25.0
5101729		5.19	0.009	2.70	0.039	0.064	0.209	8.66	<0.005	5.34	0.118	<0.005	6.45	1.17	18.4
5101730		6.72	<0.005	4.19	0.010	0.049	0.730	9.30	<0.005	3.79	0.119	<0.005	0.417	0.35	24.9
5101731		6.01	<0.005	3.79	0.004	0.070	0.054	6.61	<0.005	4.30	0.126	<0.005	0.054	0.38	25.0
5101732		7.76	<0.005	2.06	<0.001	0.021	0.042	2.54	<0.005	0.927	0.040	<0.005	0.020	1.12	30.2
5101733		6.23	<0.005	3.31	0.004	0.082	0.012	6.14	<0.005	4.02	0.113	<0.005	0.034	0.42	26.7
5101734		6.81	<0.005	3.36	0.003	0.048	0.016	6.19	<0.005	3.20	0.104	<0.005	0.023	0.42	28.2
5101735		6.66	<0.005	3.79	0.003	0.044	0.003	5.99	<0.005	2.92	0.104	<0.005	0.018	0.45	26.1
5101736		5.45	<0.005	3.16	0.004	0.103	0.014	7.01	<0.005	5.75	0.124	<0.005	0.038	0.49	25.5
5101737		4.99	<0.005	3.13	0.005	0.105	0.085	6.80	<0.005	5.58	0.120	<0.005	0.100	0.45	23.8
5101738		5.07	<0.005	3.61	0.004	0.093	0.029	6.56	<0.005	5.23	0.112	<0.005	0.047	0.41	24.2
5101739		5.24	<0.005	3.18	0.004	0.105	0.042	7.37	<0.005	5.80	0.127	<0.005	0.070	0.44	25.5
5101740		5.93	<0.005	2.61	0.012	0.085	0.512	8.52	<0.005	4.88	0.111	<0.005	0.393	0.46	24.3
5101741		5.56	<0.005	3.01	0.004	0.094	0.047	6.53	<0.005	4.93	0.118	<0.005	0.045	0.35	25.3
5101742		5.71	<0.005	4.08	0.003	0.072	0.016	6.19	<0.005	4.31	0.112	<0.005	0.029	0.35	25.1
5101743		6.08	<0.005	3.28	0.009	0.079	0.242	7.95	<0.005	4.09	0.107	<0.005	0.256	0.39	24.3
5101744		5.78	<0.005	4.02	0.004	0.102	0.031	6.94	<0.005	4.88	0.126	<0.005	0.047	0.47	25.5
5101745		6.07	<0.005	3.62	0.004	0.093	0.073	7.13	<0.005	4.36	0.115	<0.005	0.082	0.54	23.4
5101746		6.34	<0.005	3.67	0.002	0.023	0.015	4.61	<0.005	1.56	0.084	<0.005	0.007	0.86	21.4
5101747		7.39	<0.005	3.90	0.002	0.029	0.005	5.22	<0.005	1.78	0.094	<0.005	0.008	0.52	25.9
5101748		7.79	<0.005	3.37	0.002	0.030	0.003	5.03	<0.005	1.76	0.087	<0.005	0.007	0.42	28.1
5101749		7.45	<0.005	3.53	0.002	0.026	0.008	5.15	<0.005	2.08	0.088	<0.005	0.007	0.36	27.8
5101800		7.46	<0.005	3.90	0.003	0.040	0.004	6.09	<0.005	3.08	0.112	<0.005	0.016	0.42	26.2
5101801		4.72	<0.005	3.25	0.056	0.049	0.755	21.1	<0.005	3.63	0.093	<0.005	1.43	0.52	14.7
5101802		7.59	<0.005	4.84	0.003	0.046	0.004	6.82	<0.005	3.25	0.129	<0.005	0.012	0.33	24.7
5101803		7.44	<0.005	4.60	0.003	0.035	0.003	6.53	<0.005	3.07	0.120	<0.005	0.011	0.34	24.5
5101804		7.42	<0.005	1.61	<0.001	0.021	0.003	2.21	<0.005	0.727	0.036	0.007	<0.001	0.91	29.2
5101805		7.07	<0.005	3.68	0.003	0.013	0.006	6.26	<0.005	1.73	0.107	<0.005	<0.001	0.37	25.1

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Certificate of Analysis

AGAT WORK ORDER: 11U536597

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5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
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<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si	
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.001	0.05	0.005	
5101806		5.95	<0.005	3.38	0.003	0.022	0.022	5.31	<0.005	1.76	0.094	<0.005	0.004	0.36	21.5
5101807		7.52	<0.005	5.62	0.004	0.036	0.007	6.73	<0.005	2.75	0.136	<0.005	0.013	0.37	24.0
5101808		8.13	<0.005	4.34	0.003	0.021	0.006	5.81	<0.005	1.97	0.091	<0.005	0.005	1.87	24.8
5101809		7.94	<0.005	7.79	0.002	0.015	0.046	5.08	<0.005	1.90	0.107	0.005	0.003	1.40	21.5
5101810		9.21	<0.005	5.22	0.002	0.013	0.046	4.80	<0.005	1.32	0.083	0.005	<0.001	1.64	24.9
5101811		6.49	<0.005	2.98	0.002	0.021	0.013	4.21	<0.005	1.55	0.057	<0.005	0.003	0.88	26.4
5101812		6.70	<0.005	6.02	0.003	0.020	0.008	7.12	<0.005	2.94	0.107	<0.005	0.008	0.98	19.6
5101813		6.92	<0.005	9.80	0.002	0.028	0.008	5.87	<0.005	2.47	0.120	<0.005	0.009	1.56	18.6
5101814		7.99	<0.005	2.80	0.002	0.016	0.009	4.36	<0.005	1.28	0.057	<0.005	<0.001	2.49	27.0

Certified By: _____



Certificate of Analysis

AGAT WORK ORDER: 11U536597
PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description	RDL:				
5101660	0.01	0.005	0.005	0.005	0.005
5101661	0.65	0.016	0.468	0.012	0.008
5101662	0.46	0.008	0.494	0.010	0.009
5101663	0.32	0.012	0.349	0.007	0.061
5101664	0.31	<0.005	0.418	0.009	0.011
5101665	0.25	0.008	0.391	0.007	0.010
5101666	0.28	0.015	0.440	0.010	0.011
5101667	0.26	0.015	0.342	0.007	0.014
5101668	1.52	0.010	0.275	0.005	0.019
5101669	0.40	0.014	0.273	0.005	0.012
5101670	0.57	0.013	0.285	0.010	0.011
5101671	2.80	0.006	0.306	0.011	0.012
5101672	0.23	0.009	0.353	0.009	0.012
5101673	0.15	0.006	0.354	0.007	0.014
5101674	3.37	0.011	0.286	0.006	0.019
5101675	0.45	0.010	0.387	0.008	0.012
5101676	0.29	0.016	0.360	0.007	0.013
5101677	0.18	0.015	0.326	0.007	0.016
5101678	1.72	0.013	0.267	<0.005	0.017
5101679	0.41	0.013	0.346	0.008	0.015
5101680	0.47	0.011	0.319	0.007	0.013
5101681	0.18	0.007	0.196	<0.005	0.011
5101682	0.81	0.014	0.427	0.009	0.010
5101683	3.93	0.012	0.330	0.008	0.017
5101684	5.82	0.017	0.187	<0.005	0.008
5101685	12.9	0.018	0.232	0.006	0.020
5101686	4.96	0.009	0.447	0.010	0.013
5101687	6.87	0.011	0.316	0.009	0.016
5101688	0.40	0.013	0.391	0.009	0.010
5101689	0.62	0.012	0.422	0.008	0.012
5101690	0.28	0.015	0.437	0.008	0.013
5101691	4.39	0.015	0.351	0.009	0.016
5101691	1.51	0.015	0.428	0.010	0.011

Certified By: _____



Certificate of Analysis

AGAT WORK ORDER: 11U536597
PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9988
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.005	0.005	0.005
5101692	1.03	0.012	0.489	0.018	0.013
5101693	5.45	0.018	0.401	0.013	0.015
5101694	0.36	0.012	0.511	0.026	0.014
5101695	0.32	0.008	0.343	0.008	0.012
5101696	1.05	<0.005	0.388	0.012	0.013
5101697	0.90	0.008	0.306	0.006	0.013
5101698	0.26	0.011	0.267	<0.005	0.012
5101699	0.26	0.015	0.253	<0.005	0.013
5101700	0.70	0.009	0.294	0.005	0.015
5101701	0.30	0.015	0.286	<0.005	0.017
5101702	0.55	0.018	0.273	<0.005	0.017
5101703	0.27	0.012	0.243	<0.005	0.011
5101704	0.20	0.021	0.308	0.006	0.015
5101705	0.14	0.013	0.176	<0.005	0.005
5101706	2.51	0.010	0.273	0.006	0.012
5101707	13.5	0.012	0.122	<0.005	0.015
5101708	1.15	0.007	0.237	<0.005	0.023
5101709	0.20	0.014	0.299	0.007	0.011
5101710	0.21	0.020	0.299	0.006	0.013
5101711	0.65	0.018	0.263	0.006	0.014
5101712	1.69	0.020	0.288	0.008	0.021
5101713	0.20	0.007	0.296	0.007	0.017
5101714	0.42	0.011	0.319	0.007	0.025
5101715	0.20	0.011	0.339	0.008	0.011
5101716	0.11	0.010	0.356	0.007	0.022
5101717	0.47	0.021	0.407	0.009	0.013
5101718	1.63	0.015	0.383	0.011	0.021
5101719	0.20	0.014	0.349	0.006	0.014
5101720	0.20	0.012	0.346	0.007	0.013
5101721	0.26	0.016	0.408	0.009	0.011
5101722	0.22	0.016	0.356	0.007	0.021
5101723	0.17	0.006	0.370	0.008	0.009

Certified By: _____



Certificate of Analysis

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PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.005	0.005	0.005
5101724	0.19	0.008	0.480	0.006	0.012
5101725	0.16	0.008	0.448	0.005	0.009
5101726	0.29	0.018	0.487	0.006	0.021
5101727	0.97	0.017	0.279	0.006	0.014
5101728	0.38	0.009	0.344	0.012	0.018
5101729	5.80	0.014	0.184	<0.005	0.008
5101730	2.05	0.027	0.427	0.019	0.015
5101731	0.29	0.011	0.493	0.010	0.019
5101732	0.23	0.014	0.205	<0.005	0.006
5101733	0.15	0.013	0.425	0.007	0.012
5101734	0.17	0.018	0.497	0.009	0.010
5101735	0.18	0.015	0.491	0.008	0.012
5101736	0.14	0.010	0.349	0.008	0.014
5101737	0.49	0.014	0.324	0.006	0.012
5101738	0.23	0.011	0.306	0.006	0.012
5101739	0.33	0.016	0.337	0.006	0.013
5101740	2.25	0.018	0.352	0.008	0.016
5101741	0.34	0.015	0.349	0.008	0.028
5101742	0.28	0.016	0.374	0.007	0.013
5101743	2.38	0.018	0.411	0.009	0.012
5101744	0.28	0.012	0.450	0.010	0.011
5101745	0.43	0.014	0.459	0.014	0.013
5101746	0.21	0.011	0.442	0.011	0.009
5101747	0.24	0.015	0.424	0.010	0.011
5101748	0.20	0.015	0.425	0.008	0.024
5101749	0.21	0.019	0.349	0.007	0.014
5101800	0.21	0.011	0.498	0.013	0.011
5101801	13.3	0.017	0.121	<0.005	0.009
5101802	0.23	0.015	0.515	0.013	0.015
5101803	0.24	0.016	0.523	0.014	0.010
5101804	0.15	0.007	0.189	<0.005	0.007
5101805	0.37	0.009	0.874	0.009	0.008

Certified By: _____



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description	RDL:				
5101806	0.42	0.010	0.584	0.009	0.011
5101807	0.34	0.013	0.522	0.013	0.012
5101808	0.25	0.012	0.597	0.012	0.010
5101809	0.40	0.010	0.574	0.011	0.010
5101810	0.83	0.011	0.675	0.009	0.009
5101811	0.69	0.013	0.471	0.006	0.007
5101812	0.76	0.012	0.327	0.008	0.014
5101813	0.56	0.016	0.436	0.011	0.012
5101814	0.24	0.014	0.512	0.008	0.008

Comments: RDL - Reported Detection Limit

Certified By: _____

Quality Assurance

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536597

PROJECT NO:

ATTENTION TO: Peter Caldbick

Solid Analysis												
RPT Date: Oct 17, 2011		REPLICATE				Method Blank	REFERENCE MATERIAL					
PARAMETER	Batch	Sample Id	Original	Rep #1	RPD		Result Value	Expect Value	Recovery	Acceptable Limits		
									Lower	Upper		

Sodium Peroxide Fusion - ICP-OES finish (201079)

Al	1	2778586	7.04	7.06	0.3%	0.01	4.11	4.30	96%	80%	120%
As	1	2778586	< 0.005	< 0.005	0.0%	0.008				80%	120%
Ca	1	2778586	4.68	4.74	1.3%	< 0.05	2	2.21	90%	80%	120%
Co	1	2778586	0.0024	0.0028	15.4%	< 0.001	0.0663	0.0672	99%	80%	120%
Cr	1	2778586	0.0267	0.0241	10.2%	0.015				80%	120%
Cu	1	2778586	0.012	0.013	8.0%	0.002	1.17	1.185	99%	80%	120%
Fe	1	2778586	5.58	5.61	0.5%	0.05	25	25.54	98%	80%	120%
Pb	1	2778586	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778586	1.99	2.01	1.0%	0.005	1.685	1.790	94%	80%	120%
Mn	1	2778586	0.0819	0.0828	1.1%	< 0.005	0.0759	0.0703	108%	80%	120%
Mo	1	2778586	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778586	0.006	0.006	0.0%	< 0.001	1.923	1.953	98%	80%	120%
K	1	2778586	0.49	0.51	4.0%	0.14	0.7	0.6	124%	80%	120%
Si	1	2778586	25.4	25.6	0.8%	0.270	15.6	15.23	102%	80%	120%
S	1	2778586	0.653	0.533	20.2%	0.12	14.53	14.14	103%	80%	120%
Sn	1	2778586	0.016	0.014	13.3%	0.029				80%	120%
Ti	1	2778586	0.468	0.481	2.7%	< 0.005				80%	120%
V	1	2778586	0.0122	0.0114	6.8%	< 0.005	0.00831	0.00825	101%	80%	120%
Zn	1	2778586	0.0082	0.0106	25.5%	0.010				80%	120%

Sodium Peroxide Fusion - ICP-OES finish (201079)

Al	1	2778611	6.69	6.72	0.4%	< 0.01	3.72	4.30	86%	80%	120%
As	1	2778611	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778611	1.93	1.86	3.7%	< 0.05	1.79	2.21	81%	80%	120%
Co	1	2778611	0.0392	0.0397	1.3%	< 0.001	0.0661	0.0672	98%	80%	120%
Cr	1	2778611	0.048	0.051	6.1%	0.020	0.0346	0.0320	108%	80%	120%
Cu	1	2778611	0.558	0.551	1.3%	0.004	1.1	1.185	93%	80%	120%
Fe	1	2778611	12.2	12.1	0.8%	0.07	22.38	25.54	88%	80%	120%
Pb	1	2778611	< 0.005	< 0.005	0.0%	0.014				80%	120%
Mg	1	2778611	3.61	3.63	0.6%	0.008	1.635	1.790	91%	80%	120%
Mn	1	2778611	0.095	0.097	2.1%	< 0.005	0.0703	0.0703	100%	80%	120%
Mo	1	2778611	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778611	0.410	0.410	0.0%	0.002	1.812	1.953	93%	80%	120%
K	1	2778611	0.417	0.398	4.7%	0.16	0.7	0.6	122%	80%	120%
Si	1	2778611	21.4	21.4	0.0%	0.031	14.04	15.23	92%	80%	120%
S	1	2778611	4.96	5.10	2.8%	0.13	13.74	14.14	97%	80%	120%
Sn	1	2778611	0.009	0.013		0.021				80%	120%
Ti	1	2778611	0.447	0.435	2.7%	< 0.005				80%	120%
V	1	2778611	0.010	0.010	0.0%	< 0.005	0.00831	0.00825	101%	80%	120%
Zn	1	2778611	0.013	0.014	7.4%	0.018				80%	120%

Sodium Peroxide Fusion - ICP-OES finish (201079)

Al	1	2778636	5.04	4.82	4.5%	0.14	4.34	4.30	101%	80%	120%
As	1	2778636	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778636	3.60	3.47	3.7%	< 0.05	2.32	2.21	105%	80%	120%

Quality Assurance

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536597

PROJECT NO:

ATTENTION TO: Peter Caldbick

Solid Analysis (Continued)

RPT Date: Oct 17, 2011		REPLICATE				Method Blank	REFERENCE MATERIAL				
PARAMETER	Batch	Sample Id	Original	Rep #1	RPD		Result Value	Expect Value	Recovery	Acceptable Limits	
										Lower	Upper
Co	1	2778636	0.004	0.004	0.0%	< 0.001	0.0681	0.0672	101%	80%	120%
Cr	1	2778636	0.110	0.105	4.7%	0.016				80%	120%
Cu	1	2778636	0.0217	0.0203	6.7%	0.003	3.175	3.069	103%	80%	120%
Fe	1	2778636	7.00	6.73	3.9%	0.07	24.15	25.54	95%	80%	120%
Pb	1	2778636	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778636	6.54	6.35	2.9%	0.012	1.728	1.790	97%	80%	120%
Mn	1	2778636	0.132	0.128	3.1%	< 0.005	0.0532	0.0703	76%	80%	120%
Mo	1	2778636	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778636	0.0447	0.0438	2.0%	< 0.001	1.939	1.953	99%	80%	120%
K	1	2778636	0.31	0.31	0.0%	0.20				80%	120%
Si	1	2778636	26.0	25.1	3.5%	0.050	16.77	15.23	110%	80%	120%
S	1	2778636	0.21	0.15		0.20	14.61	14.14	103%	80%	120%
Sn	1	2778636	0.020	0.012		0.044				80%	120%
Ti	1	2778636	0.299	0.281	6.2%	< 0.005	0.08	0.07	108%	80%	120%
V	1	2778636	0.0063	0.0071	11.9%	< 0.005	0.00809	0.00825	98%	80%	120%
Zn	1	2778636	0.0127	0.0124	2.4%	< 0.005	0.0272	0.0235	116%	80%	120%
Sodium Peroxide Fusion - ICP-OES finish (201079)											
Al	1	2778654	5.82	5.94	2.0%	< 0.01	4.14	4.30	96%	80%	120%
As	1	2778654	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778654	4.41	4.30	2.5%	< 0.05	1.92	2.21	87%	80%	120%
Co	1	2778654	0.005	0.005	0.0%	< 0.001	0.0681	0.0672	101%	80%	120%
Cr	1	2778654	0.0814	0.0818	0.5%	< 0.005				80%	120%
Cu	1	2778654	0.0963	0.0914	5.2%	< 0.001	1.205	1.185	102%	80%	120%
Fe	1	2778654	7.19	7.04	2.1%	< 0.01	24.15	25.54	95%	80%	120%
Pb	1	2778654	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778654	5.55	5.28	5.0%	< 0.005	1.728	1.790	97%	80%	120%
Mn	1	2778654	0.133	0.127	4.6%	< 0.005	0.077	0.0703	110%	80%	120%
Mo	1	2778654	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778654	0.121	0.114	6.0%	< 0.001	1.939	1.953	99%	80%	120%
K	1	2778654	0.35	0.34	2.9%	< 0.05				80%	120%
Si	1	2778654	25.0	24.6	1.6%	< 0.005	15.15	15.23	99%	80%	120%
S	1	2778654	0.38	0.40	5.1%	< 0.01	14.61	14.14	103%	80%	120%
Sn	1	2778654	0.009	0.013		< 0.005				80%	120%
Ti	1	2778654	0.344	0.333	3.2%	< 0.005				80%	120%
V	1	2778654	0.0118	0.0109	7.9%	< 0.005	0.00809	0.00825	98%	80%	120%
Zn	1	2778654	0.018	0.013		< 0.005	0.0272	0.0235	116%	80%	120%
Sodium Peroxide Fusion - ICP-OES finish (201079)											
Al	1	2778661	6.66	6.38	4.3%	< 0.01	4.12	4.30	96%	80%	120%
As	1	2778661	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778661	3.79	3.34	12.6%	< 0.05	1.87	2.21	85%	80%	120%
Co	1	2778661	0.003	0.003	0.0%	< 0.001	0.068	0.0672	101%	80%	120%
Cr	1	2778661	0.044	0.046	4.4%	< 0.005				80%	120%
Cu	1	2778661	0.003	0.003	0.0%	< 0.001	1.207	1.185	102%	80%	120%
Fe	1	2778661	5.99	5.75	4.1%	< 0.01	24.4	25.54	96%	80%	120%

Quality Assurance

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536597

PROJECT NO:

ATTENTION TO: Peter Caldbick

Solid Analysis (Continued)

RPT Date: Oct 17, 2011		REPLICATE				Method Blank	REFERENCE MATERIAL				
PARAMETER	Batch	Sample Id	Original	Rep #1	RPD		Result Value	Expect Value	Recovery	Acceptable Limits	
						Lower				Upper	
Pb	1	2778661	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778661	2.92	2.85	2.4%	< 0.005	1.706	1.790	95%	80%	120%
Mn	1	2778661	0.104	0.102	1.9%	< 0.005	0.0775	0.0703	110%	80%	120%
Mo	1	2778661	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ni	1	2778661	0.018	0.018	0.0%	< 0.001	1.957	1.953	100%	80%	120%
K	1	2778661	0.45	0.43	4.5%	< 0.05				80%	120%
Si	1	2778661	26.1	25.4	2.7%	< 0.005	15.16	15.23	100%	80%	120%
S	1	2778661	0.18	0.18	0.0%	< 0.01	14.64	14.14	104%	80%	120%
Sn	1	2778661	0.015	0.008		< 0.005				80%	120%
Ti	1	2778661	0.491	0.459	6.7%	< 0.005				80%	120%
V	1	2778661	0.008	0.009	11.8%	< 0.005	0.00755	0.00825	92%	80%	120%
Zn	1	2778661	0.0119	0.0115	3.4%	< 0.005	0.0267	0.0235	114%	80%	120%

Sodium Peroxide Fusion - ICP-OES finish (201079)

Al	1	2778686	9.21	9.08	1.4%	< 0.01				80%	120%
As	1	2778686	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Ca	1	2778686	5.22	5.17	1.0%	< 0.05				80%	120%
Co	1	2778686	0.002	0.002	0.0%	< 0.001				80%	120%
Cr	1	2778686	0.013	0.014	7.4%	< 0.005				80%	120%
Cu	1	2778686	0.046	0.049	6.3%	< 0.001				80%	120%
Fe	1	2778686	4.80	4.68	2.5%	< 0.01				80%	120%
Pb	1	2778686	< 0.005	< 0.005	0.0%	< 0.005				80%	120%
Mg	1	2778686	1.32	1.29	2.3%	< 0.005				80%	120%
Mn	1	2778686	0.083	0.080	3.7%	< 0.005				80%	120%
Mo	1	2778686	0.005	< 0.005		< 0.005				80%	120%
Ni	1	2778686	< 0.001	< 0.001	0.0%	< 0.001				80%	120%
K	1	2778686	1.64	1.61	1.8%	< 0.05				80%	120%
Si	1	2778686	24.9	24.5	1.6%	< 0.005				80%	120%
S	1	2778686	0.835	0.852	2.0%	< 0.01				80%	120%
Sn	1	2778686	0.011	0.019		< 0.005				80%	120%
Ti	1	2778686	0.675	0.660	2.2%	< 0.005				80%	120%
V	1	2778686	0.0091	0.0084	8.0%	< 0.005				80%	120%
Zn	1	2778686	0.0088	0.0116	27.5%	< 0.005				80%	120%

Certified By:



Method Summary

CLIENT NAME: LIBERTY MINES INC.

AGAT WORK ORDER: 11U536597

PROJECT NO:

ATTENTION TO: Peter Caldbick

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Al	MIN-200-12001		ICP/OES
As	MIN-200-12001		ICP/OES
Ca	MIN-200-12001		ICP/OES
Co	MIN-200-12001		ICP/OES
Cr	MIN-200-12001		ICP/OES
Cu	MIN-200-12001		ICP/OES
Fe	MIN-200-12001		ICP/OES
Pb	MIN-200-12001		ICP/OES
Mg	MIN-200-12001		ICP/OES
Mn	MIN-200-12001		ICP/OES
Mo	MIN-200-12001		ICP/OES
Ni	MIN-200-12001		ICP/OES
K	MIN-200-12001		ICP/OES
Si	MIN-200-12001		ICP/OES
S	MIN-200-12001		ICP/OES
Sn	MIN-200-12001		ICP/OES
Ti	MIN-200-12001		ICP/OES
V	MIN-200-12001		ICP/OES
Zn	MIN-200-12001		ICP/OES



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Sample Description	Analyte:	Sample	Au	Pd	Pt
	Unit:	Login Weight	ppm	ppm	ppm
RDL:		0.01	0.001	0.001	0.005
5101660		1.36	0.002	<0.001	<0.005
5101661		1.02	0.001	0.002	<0.005
5101662		0.60	0.001	<0.001	<0.005
5101663		1.22	0.008	<0.001	<0.005
5101664		1.38	0.001	<0.001	<0.005
5101665		1.20	0.003	<0.001	<0.005
5101666		0.48	0.007	<0.001	<0.005
5101667		1.14	0.002	0.001	0.007
5101668		1.16	0.129	0.058	0.064
5101669		0.98	0.015	0.009	0.016
5101670		0.68	0.028	0.018	0.034
5101671		1.56	0.073	0.084	0.154
5101672		1.32	0.004	0.006	0.015
5101673		0.96	0.004	0.003	0.007
5101674		1.12	0.061	0.038	0.067
5101675		1.26	0.006	0.004	0.008
5101676		1.44	0.004	0.003	0.009
5101677		0.88	0.002	0.001	0.006
5101678		1.42	0.038	0.030	0.059
5101679		1.50	0.213	0.115	0.185
5101680		1.44	0.002	<0.001	<0.005
5101681		1.76	0.023	0.007	0.015
5101682		1.26	0.514	0.455	1.38
5101683		0.08	0.176	0.664	0.383
5101684		0.54	1.15	0.026	0.043
5101685		0.80	0.689	0.012	0.047
5101686		0.98	0.225	0.036	0.064
5101687		1.14	0.022	0.006	0.013
5101688		1.38	0.015	0.006	0.013
5101689		1.84	0.016	0.003	0.007
5101690		1.28	0.059	0.029	0.054
5101691		1.12	0.011	0.007	0.013

Certified By:

Ron Cardinali



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Sample Description	Analyte:	Sample	Au	Pd	Pt
	RDL:	Unit: Login Weight	ppm	ppm	ppm
5101692		kg	0.011	0.022	0.026
5101693		kg	0.332	0.103	0.166
5101694		kg	0.025	0.023	0.020
5101695		kg	0.010	0.001	0.007
5101696		kg	0.002	0.002	0.006
5101697		kg	0.005	0.007	0.009
5101698		kg	0.002	0.002	0.010
5101699		kg	0.003	0.003	0.006
5101700		kg	0.004	0.009	0.010
5101701		kg	0.004	0.005	0.008
5101702		kg	0.009	0.007	0.010
5101703		kg	0.005	0.006	0.008
5101704		kg	0.003	0.003	0.008
5101705		kg	0.001	<0.001	0.006
5101706		kg	0.117	0.071	0.053
5101707		kg	0.044	0.007	0.022
5101708		kg	0.156	0.115	0.175
5101709		kg	0.015	0.006	0.009
5101710		kg	0.009	0.003	0.007
5101711		kg	0.098	0.060	0.070
5101712		kg	0.297	0.151	0.195
5101713		kg	0.038	0.014	0.012
5101714		kg	0.069	0.023	0.030
5101715		kg	0.009	0.006	0.012
5101716		kg	0.004	0.003	0.008
5101717		kg	0.012	0.007	0.018
5101718		kg	0.071	0.037	0.063
5101719		kg	0.007	0.002	0.009
5101720		kg	0.004	0.001	0.009
5101721		kg	0.002	<0.001	0.005
5101722		kg	0.003	0.002	0.011
5101723		kg	0.006	0.002	0.005

Certified By:

Ron Cardinali



Certificate of Analysis

AGAT WORK ORDER: 11U536597

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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Sample Description	Analyte:	Sample	Au	Pd	Pt
	Unit:	kg	ppm	ppm	ppm
RDL:	0.01	0.001	0.001	0.001	0.005
5101724		1.44	0.002	<0.001	<0.005
5101725		1.00	0.002	<0.001	<0.005
5101726		1.08	0.004	<0.001	<0.005
5101727		0.78	0.045	0.033	0.038
5101728		0.94	0.018	0.010	0.024
5101729		0.08	0.189	0.700	0.369
5101730		0.56	0.180	0.047	0.049
5101731		1.42	0.009	0.003	0.007
5101732		1.52	0.008	0.003	<0.005
5101733		1.46	0.012	0.007	0.011
5101734		1.56	0.003	0.002	0.007
5101735		1.14	0.002	<0.001	0.008
5101736		1.10	0.021	0.002	0.006
5101737		1.30	0.015	0.009	0.027
5101738		1.30	0.006	0.003	0.009
5101739		0.46	0.008	0.005	0.012
5101740		0.78	0.142	0.072	0.108
5101741		1.62	0.008	0.002	0.007
5101742		1.56	0.010	0.001	0.006
5101743		1.46	0.063	0.019	0.038
5101744		0.86	0.004	0.002	0.007
5101745		1.12	0.015	0.007	0.018
5101746		1.16	0.005	<0.001	<0.005
5101747		1.44	0.002	<0.001	<0.005
5101748		1.30	0.002	<0.001	<0.005
5101749		1.16	0.002	<0.001	<0.005
5101800		1.42	0.001	<0.001	<0.005
5101801		0.06	0.047	0.005	0.018
5101802		1.20	0.002	<0.001	<0.005
5101803		1.72	0.002	<0.001	<0.005
5101804		0.82	0.001	<0.001	<0.005
5101805		1.10	0.001	<0.001	<0.005

Certified By:

Ron Cardinali



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish (202055)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Sample Description	Analyte:	Sample	Au	Pd	Pt
	Unit:	Login Weight	kg	ppm	ppm
	RDL:	0.01	0.001	0.001	0.005
5101806		1.26	0.009	<0.001	<0.005
5101807		1.96	0.002	0.001	<0.005
5101808		1.42	0.002	<0.001	<0.005
5101809		0.98	0.006	<0.001	<0.005
5101810		0.84	0.008	<0.001	<0.005
5101811		1.02	0.003	<0.001	<0.005
5101812		0.90	0.003	<0.001	<0.005
5101813		1.26	0.003	<0.001	<0.005
5101814		1.32	0.006	<0.001	<0.005

Comments: RDL - Reported Detection Limit

Certified By:

Ron Cardinal



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si	
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.005	0.001	0.05	0.005
5101660	7.04	<0.005	4.68	0.002	0.027	0.012	5.58	<0.005	1.99	0.082	<0.005	0.006	0.49	25.4	
5101661	7.09	<0.005	4.54	0.003	0.027	0.009	5.90	<0.005	2.10	0.085	<0.005	0.007	0.55	23.7	
5101662	5.70	<0.005	3.26	0.005	0.029	0.006	4.57	<0.005	2.39	0.081	<0.005	0.014	0.47	23.1	
5101663	7.52	<0.005	5.59	0.003	0.021	0.012	5.94	<0.005	2.20	0.102	0.005	0.015	0.52	26.1	
5101664	6.44	<0.005	4.05	0.002	0.022	0.008	4.98	<0.005	2.05	0.087	<0.005	0.007	0.51	24.3	
5101665	7.50	<0.005	4.65	0.002	0.032	0.010	5.48	<0.005	2.26	0.090	<0.005	0.008	0.63	27.6	
5101666	6.96	<0.005	3.40	0.002	0.033	0.018	5.22	<0.005	2.91	0.090	<0.005	0.027	0.69	27.4	
5101667	4.38	<0.005	3.02	0.009	0.117	0.376	8.35	<0.005	6.15	0.123	<0.005	0.352	0.30	25.8	
5101668	4.94	<0.005	3.54	0.005	0.193	0.064	7.00	<0.005	6.43	0.128	0.010	0.100	0.40	26.4	
5101669	4.63	<0.005	3.45	0.006	0.140	0.109	7.66	<0.005	6.36	0.125	<0.005	0.135	0.29	24.3	
5101670	4.54	<0.005	3.69	0.016	0.100	0.335	9.60	<0.005	6.24	0.134	<0.005	0.730	0.30	23.5	
5101671	4.96	<0.005	3.25	0.005	0.095	0.031	7.03	<0.005	5.90	0.123	<0.005	0.077	0.70	24.9	
5101672	5.31	<0.005	3.38	0.005	0.098	0.022	7.18	<0.005	5.86	0.121	<0.005	0.046	0.52	26.4	
5101673	4.31	<0.005	2.85	0.022	0.113	0.515	10.8	<0.005	6.36	0.127	<0.005	0.810	0.38	23.1	
5101674	5.12	<0.005	3.15	0.006	0.144	0.045	7.12	<0.005	5.85	0.123	0.034	0.110	0.33	25.1	
5101675	5.29	<0.005	3.25	0.005	0.118	0.034	7.39	<0.005	6.44	0.135	<0.005	0.067	0.29	26.5	
5101676	5.13	<0.005	3.18	0.004	0.105	0.017	6.98	0.008	6.23	0.132	<0.005	0.045	0.34	26.3	
5101677	4.60	<0.005	2.42	0.016	0.090	0.524	9.09	<0.005	5.60	0.121	<0.005	0.685	0.31	23.6	
5101678	5.69	<0.005	3.12	0.004	0.083	0.117	6.71	<0.005	4.90	0.119	<0.005	0.071	0.35	26.3	
5101679	5.18	<0.005	2.82	0.007	0.075	0.654	7.14	<0.005	4.43	0.107	<0.005	0.223	0.33	24.4	
5101680	7.81	<0.005	2.32	<0.001	0.024	0.008	2.32	<0.005	0.805	0.039	0.006	0.005	0.98	31.0	
5101681	6.53	<0.005	3.87	0.004	0.057	0.103	6.53	<0.005	3.95	0.108	<0.005	0.061	0.41	24.8	
5101682	5.12	<0.005	2.33	0.015	0.089	1.39	10.8	<0.005	4.99	0.121	<0.005	0.585	0.33	23.3	
5101683	5.29	0.009	2.85	0.037	0.063	0.205	9.05	<0.005	5.25	0.119	<0.005	6.35	1.16	18.9	
5101684	3.59	<0.005	0.44	0.053	0.064	2.63	19.5	<0.005	3.29	0.065	<0.005	1.45	0.27	16.3	
5101685	6.69	<0.005	1.93	0.039	0.048	0.558	12.2	<0.005	3.61	0.095	<0.005	0.410	0.42	21.4	
5101686	4.25	<0.005	2.43	0.045	0.082	0.571	12.8	<0.005	4.34	0.115	<0.005	1.71	0.28	20.6	
5101687	5.44	<0.005	3.23	0.005	0.086	0.097	7.29	<0.005	4.45	0.122	<0.005	0.090	0.49	24.2	
5101688	5.45	<0.005	3.11	0.006	0.095	0.080	6.84	<0.005	4.57	0.121	<0.005	0.143	0.33	24.3	
5101689	5.62	<0.005	3.27	0.005	0.096	0.036	6.88	<0.005	4.90	0.125	<0.005	0.049	0.34	24.8	
5101690	4.43	<0.005	1.92	0.026	0.133	0.467	11.6	<0.005	5.74	0.112	<0.005	0.547	0.24	22.3	
5101691	6.28	<0.005	4.22	0.008	0.078	0.096	8.41	<0.005	4.48	0.127	<0.005	0.121	0.33	24.1	

Certified By:

Ron Cardinal



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si	
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.005	0.001	0.05	0.005
5101692		6.17	<0.005	5.00	0.009	0.050	0.091	9.48	<0.005	4.13	0.138	<0.005	0.140	0.43	23.5
5101693		4.75	<0.005	2.86	0.033	0.095	0.787	13.0	<0.005	4.73	0.113	<0.005	0.668	0.23	20.5
5101694		6.32	<0.005	6.19	0.006	0.019	0.030	8.98	0.006	3.74	0.166	<0.005	0.020	0.46	22.3
5101695		7.48	<0.005	4.06	0.002	0.025	0.025	5.11	<0.005	2.47	0.083	<0.005	0.024	0.96	26.6
5101696		6.22	<0.005	3.57	0.005	0.044	0.028	6.56	<0.005	3.92	0.112	<0.005	0.037	0.58	25.6
5101697		4.67	<0.005	3.11	0.006	0.079	0.057	6.61	<0.005	5.54	0.120	<0.005	0.088	0.25	25.1
5101698		4.28	<0.005	3.15	0.005	0.094	0.023	6.53	<0.005	6.49	0.125	<0.005	0.060	0.24	26.3
5101699		4.26	<0.005	3.14	0.004	0.089	0.024	6.31	<0.005	6.23	0.116	<0.005	0.055	0.23	27.2
5101700		4.65	<0.005	2.94	0.008	0.092	0.071	7.13	<0.005	6.13	0.123	<0.005	0.113	0.24	26.2
5101701		4.73	<0.005	3.12	0.005	0.091	0.035	6.91	<0.005	6.26	0.124	<0.005	0.078	0.27	25.0
5101702		4.90	<0.005	3.00	0.007	0.090	0.069	6.96	<0.005	6.15	0.126	<0.005	0.102	0.25	25.6
5101703		4.43	<0.005	2.76	0.005	0.085	0.040	6.53	<0.005	5.86	0.113	<0.005	0.079	0.25	23.9
5101704		4.84	<0.005	2.85	0.004	0.089	0.029	6.68	<0.005	6.06	0.125	<0.005	0.061	0.27	25.5
5101705		7.36	<0.005	1.94	<0.001	0.022	0.005	2.24	<0.005	0.870	0.033	<0.005	0.004	0.69	28.9
5101706		4.02	<0.005	2.68	0.022	0.107	0.490	9.29	<0.005	6.25	0.149	<0.005	0.759	0.21	22.4
5101707		4.61	<0.005	3.44	0.057	0.048	0.778	21.1	<0.005	3.64	0.093	<0.005	1.46	0.50	14.5
5101708		3.55	<0.005	2.65	0.009	0.104	0.461	7.32	<0.005	6.32	0.125	<0.005	0.377	0.17	21.3
5101709		4.69	<0.005	3.50	0.005	0.109	0.047	7.06	<0.005	6.64	0.132	<0.005	0.076	0.29	26.2
5101710		5.04	<0.005	3.60	0.004	0.110	0.022	7.00	<0.005	6.54	0.132	<0.005	0.045	0.31	26.0
5101711		4.56	<0.005	3.34	0.005	0.093	0.293	6.63	<0.005	5.43	0.119	<0.005	0.169	0.28	23.6
5101712		4.99	<0.005	3.30	0.008	0.103	0.706	7.97	<0.005	6.08	0.140	<0.005	0.465	0.36	23.4
5101713		4.80	<0.005	3.20	0.005	0.083	0.055	6.48	<0.005	5.26	0.117	<0.005	0.068	0.32	22.9
5101714		5.11	<0.005	3.45	0.006	0.132	0.165	7.34	<0.005	5.91	0.126	<0.005	0.137	0.34	25.2
5101715		5.11	<0.005	3.67	0.005	0.090	0.041	7.06	<0.005	5.66	0.126	<0.005	0.069	0.36	25.3
5101716		4.93	<0.005	3.14	0.004	0.079	0.021	6.15	<0.005	5.06	0.116	<0.005	0.041	0.34	22.6
5101717		5.53	<0.005	3.68	0.005	0.087	0.092	7.13	<0.005	5.53	0.135	<0.005	0.120	0.36	24.8
5101718		5.30	<0.005	3.51	0.010	0.085	0.438	8.18	<0.005	5.26	0.129	<0.005	0.378	0.33	24.7
5101719		5.73	<0.005	3.78	0.004	0.080	0.035	6.80	<0.005	5.28	0.123	<0.005	0.059	0.36	25.9
5101720		5.20	<0.005	3.59	0.004	0.076	0.024	6.42	<0.005	4.85	0.116	<0.005	0.042	0.59	22.4
5101721		6.58	<0.005	4.37	0.004	0.073	0.017	6.91	<0.005	4.19	0.135	<0.005	0.026	0.53	26.8
5101722		5.45	<0.005	2.71	0.003	0.069	0.016	6.13	<0.005	4.36	0.114	<0.005	0.032	0.33	22.4
5101723		5.83	<0.005	3.22	0.003	0.037	0.016	5.00	<0.005	3.02	0.089	<0.005	0.022	0.50	22.8

Certified By:

Ron Cardinell



Certificate of Analysis

AGAT WORK ORDER: 11U536597
PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
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TEL (905)501-9998
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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si	
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.001	0.05	0.005	
5101724		6.84	<0.005	1.99	0.002	0.023	0.008	4.36	<0.005	1.66	0.069	<0.005	0.008	0.73	28.2
5101725		6.47	<0.005	2.28	0.001	0.015	0.003	3.94	<0.005	1.25	0.070	<0.005	0.002	0.57	27.3
5101726		6.78	<0.005	2.90	0.001	0.025	0.006	4.16	<0.005	1.21	0.077	<0.005	0.006	0.66	27.7
5101727		4.21	<0.005	4.04	0.008	0.084	0.347	7.79	<0.005	5.35	0.127	0.030	0.287	0.22	21.7
5101728		5.82	<0.005	4.41	0.005	0.081	0.096	7.19	<0.005	5.55	0.133	<0.005	0.121	0.35	25.0
5101729		5.19	0.009	2.70	0.039	0.064	0.209	8.66	<0.005	5.34	0.118	<0.005	6.45	1.17	18.4
5101730		6.72	<0.005	4.19	0.010	0.049	0.730	9.30	<0.005	3.79	0.119	<0.005	0.417	0.35	24.9
5101731		6.01	<0.005	3.79	0.004	0.070	0.054	6.61	<0.005	4.30	0.126	<0.005	0.054	0.38	25.0
5101732		7.76	<0.005	2.06	<0.001	0.021	0.042	2.54	<0.005	0.927	0.040	<0.005	0.020	1.12	30.2
5101733		6.23	<0.005	3.31	0.004	0.082	0.012	6.14	<0.005	4.02	0.113	<0.005	0.034	0.42	26.7
5101734		6.81	<0.005	3.36	0.003	0.048	0.016	6.19	<0.005	3.20	0.104	<0.005	0.023	0.42	28.2
5101735		6.66	<0.005	3.79	0.003	0.044	0.003	5.99	<0.005	2.92	0.104	<0.005	0.018	0.45	26.1
5101736		5.45	<0.005	3.16	0.004	0.103	0.014	7.01	<0.005	5.75	0.124	<0.005	0.038	0.49	25.5
5101737		4.99	<0.005	3.13	0.005	0.105	0.085	6.80	<0.005	5.58	0.120	<0.005	0.100	0.45	23.8
5101738		5.07	<0.005	3.61	0.004	0.093	0.029	6.56	<0.005	5.23	0.112	<0.005	0.047	0.41	24.2
5101739		5.24	<0.005	3.18	0.004	0.105	0.042	7.37	<0.005	5.80	0.127	<0.005	0.070	0.44	25.5
5101740		5.93	<0.005	2.61	0.012	0.085	0.512	8.52	<0.005	4.88	0.111	<0.005	0.393	0.46	24.3
5101741		5.56	<0.005	3.01	0.004	0.094	0.047	6.53	<0.005	4.93	0.118	<0.005	0.045	0.35	25.3
5101742		5.71	<0.005	4.08	0.003	0.072	0.016	6.19	<0.005	4.31	0.112	<0.005	0.029	0.35	25.1
5101743		6.08	<0.005	3.28	0.009	0.079	0.242	7.95	<0.005	4.09	0.107	<0.005	0.256	0.39	24.3
5101744		5.78	<0.005	4.02	0.004	0.102	0.031	6.94	<0.005	4.88	0.126	<0.005	0.047	0.47	25.5
5101745		6.07	<0.005	3.62	0.004	0.093	0.073	7.13	<0.005	4.36	0.115	<0.005	0.082	0.54	23.4
5101746		6.34	<0.005	3.67	0.002	0.023	0.015	4.61	<0.005	1.56	0.084	<0.005	0.007	0.86	21.4
5101747		7.39	<0.005	3.90	0.002	0.029	0.005	5.22	<0.005	1.78	0.094	<0.005	0.008	0.52	25.9
5101748		7.79	<0.005	3.37	0.002	0.030	0.003	5.03	<0.005	1.76	0.087	<0.005	0.007	0.42	28.1
5101749		7.45	<0.005	3.53	0.002	0.026	0.008	5.15	<0.005	2.08	0.088	<0.005	0.007	0.36	27.8
5101800		7.46	<0.005	3.90	0.003	0.040	0.004	6.09	<0.005	3.08	0.112	<0.005	0.016	0.42	26.2
5101801		4.72	<0.005	3.25	0.056	0.049	0.755	21.1	<0.005	3.63	0.093	<0.005	1.43	0.52	14.7
5101802		7.59	<0.005	4.84	0.003	0.046	0.004	6.82	<0.005	3.25	0.129	<0.005	0.012	0.33	24.7
5101803		7.44	<0.005	4.60	0.003	0.035	0.003	6.53	<0.005	3.07	0.120	<0.005	0.011	0.34	24.5
5101804		7.42	<0.005	1.61	<0.001	0.021	0.003	2.21	<0.005	0.727	0.036	0.007	<0.001	0.91	29.2
5101805		7.07	<0.005	3.68	0.003	0.013	0.006	6.26	<0.005	1.73	0.107	<0.005	<0.001	0.37	25.1

Certified By:

Ron Cardinal



Certificate of Analysis

AGAT WORK ORDER: 11U536597
PROJECT NO:

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TEL (905)501-9998
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CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	Al	As	Ca	Co	Cr	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Si	
Unit:	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.05	0.001	0.005	0.001	0.01	0.005	0.005	0.005	0.001	0.05	0.005	
5101806		5.95	<0.005	3.38	0.003	0.022	0.022	5.31	<0.005	1.76	0.094	<0.005	0.004	0.36	21.5
5101807		7.52	<0.005	5.62	0.004	0.036	0.007	6.73	<0.005	2.75	0.136	<0.005	0.013	0.37	24.0
5101808		8.13	<0.005	4.34	0.003	0.021	0.006	5.81	<0.005	1.97	0.091	<0.005	0.005	1.87	24.8
5101809		7.94	<0.005	7.79	0.002	0.015	0.046	5.08	<0.005	1.90	0.107	0.005	0.003	1.40	21.5
5101810		9.21	<0.005	5.22	0.002	0.013	0.046	4.80	<0.005	1.32	0.083	0.005	<0.001	1.64	24.9
5101811		6.49	<0.005	2.98	0.002	0.021	0.013	4.21	<0.005	1.55	0.057	<0.005	0.003	0.88	26.4
5101812		6.70	<0.005	6.02	0.003	0.020	0.008	7.12	<0.005	2.94	0.107	<0.005	0.008	0.98	19.6
5101813		6.92	<0.005	9.80	0.002	0.028	0.008	5.87	<0.005	2.47	0.120	<0.005	0.009	1.56	18.6
5101814		7.99	<0.005	2.80	0.002	0.016	0.009	4.36	<0.005	1.28	0.057	<0.005	<0.001	2.49	27.0

Certified By:

Ron Cardinali



Certificate of Analysis

AGAT WORK ORDER: 11U536597

PROJECT NO:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
<http://www.agatlabs.com>

CLIENT NAME: LIBERTY MINES INC.

ATTENTION TO: Peter Caldbick

Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.005	0.005	0.005
5101660	0.65	0.016	0.468	0.012	0.008
5101661	0.46	0.008	0.494	0.010	0.009
5101662	0.32	0.012	0.349	0.007	0.061
5101663	0.31	<0.005	0.418	0.009	0.011
5101664	0.25	0.008	0.391	0.007	0.010
5101665	0.28	0.015	0.440	0.010	0.011
5101666	0.26	0.015	0.342	0.007	0.014
5101667	1.52	0.010	0.275	0.005	0.019
5101668	0.40	0.014	0.273	0.005	0.012
5101669	0.57	0.013	0.285	0.010	0.011
5101670	2.80	0.006	0.306	0.011	0.012
5101671	0.23	0.009	0.353	0.009	0.012
5101672	0.15	0.006	0.354	0.007	0.014
5101673	3.37	0.011	0.286	0.006	0.019
5101674	0.45	0.010	0.387	0.008	0.012
5101675	0.29	0.016	0.360	0.007	0.013
5101676	0.18	0.015	0.326	0.007	0.016
5101677	1.72	0.013	0.267	<0.005	0.017
5101678	0.41	0.013	0.346	0.008	0.015
5101679	1.47	0.011	0.319	0.007	0.013
5101680	0.18	0.007	0.196	<0.005	0.011
5101681	0.81	0.014	0.427	0.009	0.010
5101682	3.93	0.012	0.330	0.008	0.017
5101683	5.82	0.017	0.187	<0.005	0.008
5101684	12.9	0.018	0.232	0.006	0.020
5101685	4.96	0.009	0.447	0.010	0.013
5101686	6.87	0.011	0.316	0.009	0.016
5101687	0.40	0.013	0.391	0.009	0.010
5101688	0.62	0.012	0.422	0.008	0.012
5101689	0.28	0.015	0.437	0.008	0.013
5101690	4.39	0.015	0.351	0.009	0.016
5101691	1.51	0.015	0.428	0.010	0.011

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Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description	RDL:				
5101692	1.03	0.012	0.489	0.018	0.013
5101693	5.45	0.018	0.401	0.013	0.015
5101694	0.36	0.012	0.511	0.026	0.014
5101695	0.32	0.008	0.343	0.008	0.012
5101696	1.05	<0.005	0.388	0.012	0.013
5101697	0.90	0.008	0.306	0.006	0.013
5101698	0.26	0.011	0.267	<0.005	0.012
5101699	0.26	0.015	0.253	<0.005	0.013
5101700	0.70	0.009	0.294	0.005	0.015
5101701	0.30	0.015	0.286	<0.005	0.017
5101702	0.55	0.018	0.273	<0.005	0.017
5101703	0.27	0.012	0.243	<0.005	0.011
5101704	0.20	0.021	0.308	0.006	0.015
5101705	0.14	0.013	0.176	<0.005	0.005
5101706	2.51	0.010	0.273	0.006	0.012
5101707	13.5	0.012	0.122	<0.005	0.015
5101708	1.15	0.007	0.237	<0.005	0.023
5101709	0.20	0.014	0.299	0.007	0.011
5101710	0.21	0.020	0.299	0.006	0.013
5101711	0.65	0.018	0.263	0.006	0.014
5101712	1.69	0.020	0.288	0.008	0.021
5101713	0.20	0.007	0.296	0.007	0.017
5101714	0.42	0.011	0.319	0.007	0.025
5101715	0.20	0.011	0.339	0.008	0.011
5101716	0.11	0.010	0.356	0.007	0.022
5101717	0.47	0.021	0.407	0.009	0.013
5101718	1.63	0.015	0.383	0.011	0.021
5101719	0.20	0.014	0.349	0.006	0.014
5101720	0.20	0.012	0.346	0.007	0.013
5101721	0.26	0.016	0.408	0.009	0.011
5101722	0.22	0.016	0.356	0.007	0.021
5101723	0.17	0.006	0.370	0.008	0.008

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Sodium Peroxide Fusion - ICP-OES finish (201079)

DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn
Unit:	%	%	%	%	%
Sample Description RDL:	0.01	0.005	0.005	0.005	0.005
5101724	0.19	0.008	0.480	0.006	0.012
5101725	0.16	0.008	0.448	0.005	0.009
5101726	0.29	0.018	0.487	0.006	0.021
5101727	0.97	0.017	0.279	0.006	0.014
5101728	0.38	0.009	0.344	0.012	0.018
5101729	5.80	0.014	0.184	<0.005	0.008
5101730	2.05	0.027	0.427	0.019	0.015
5101731	0.29	0.011	0.493	0.010	0.019
5101732	0.23	0.014	0.205	<0.005	0.006
5101733	0.15	0.013	0.425	0.007	0.012
5101734	0.17	0.018	0.497	0.009	0.010
5101735	0.18	0.015	0.491	0.008	0.012
5101736	0.14	0.010	0.349	0.008	0.014
5101737	0.49	0.014	0.324	0.006	0.012
5101738	0.23	0.011	0.306	0.006	0.012
5101739	0.33	0.016	0.337	0.006	0.013
5101740	2.25	0.018	0.352	0.008	0.016
5101741	0.34	0.015	0.349	0.008	0.028
5101742	0.28	0.016	0.374	0.007	0.013
5101743	2.38	0.018	0.411	0.009	0.012
5101744	0.28	0.012	0.450	0.010	0.011
5101745	0.43	0.014	0.459	0.014	0.013
5101746	0.21	0.011	0.442	0.011	0.009
5101747	0.24	0.015	0.424	0.010	0.011
5101748	0.20	0.015	0.425	0.008	0.024
5101749	0.21	0.019	0.349	0.007	0.014
5101800	0.21	0.011	0.498	0.013	0.011
5101801	13.3	0.017	0.121	<0.005	0.009
5101802	0.23	0.015	0.515	0.013	0.015
5101803	0.24	0.016	0.523	0.014	0.010
5101804	0.15	0.007	0.189	<0.005	0.007
5101805	0.37	0.009	0.874	0.009	0.008

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DATE SAMPLED: Oct 06, 2011

DATE RECEIVED: Oct 07, 2011

DATE REPORTED: Oct 17, 2011

SAMPLE TYPE: Rock

Analyte:	S	Sn	Ti	V	Zn	
Unit:	%	%	%	%	%	
Sample Description	RDL:	0.01	0.005	0.005	0.005	
5101806		0.42	0.010	0.584	0.009	0.011
5101807		0.34	0.013	0.522	0.013	0.012
5101808		0.25	0.012	0.597	0.012	0.010
5101809		0.40	0.010	0.574	0.011	0.010
5101810		0.83	0.011	0.675	0.009	0.009
5101811		0.69	0.013	0.471	0.006	0.007
5101812		0.76	0.012	0.327	0.008	0.014
5101813		0.56	0.016	0.436	0.011	0.012
5101814		0.24	0.014	0.512	0.008	0.008

Comments: RDL - Reported Detection Limit

Certified By:

Ron Cardinali