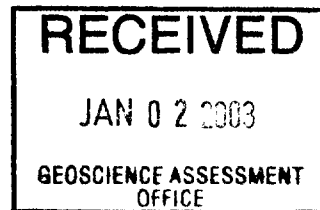


Big Swan Property
Porter, Dunlop & Shakespeare Twps.
Sudbury Mining Division

Diamond Drilling Assessment Report



Compiled by: Mitchell Turcott B.Sc.

Date: December, 2002



41I05NE2004 2.24731 PORTER

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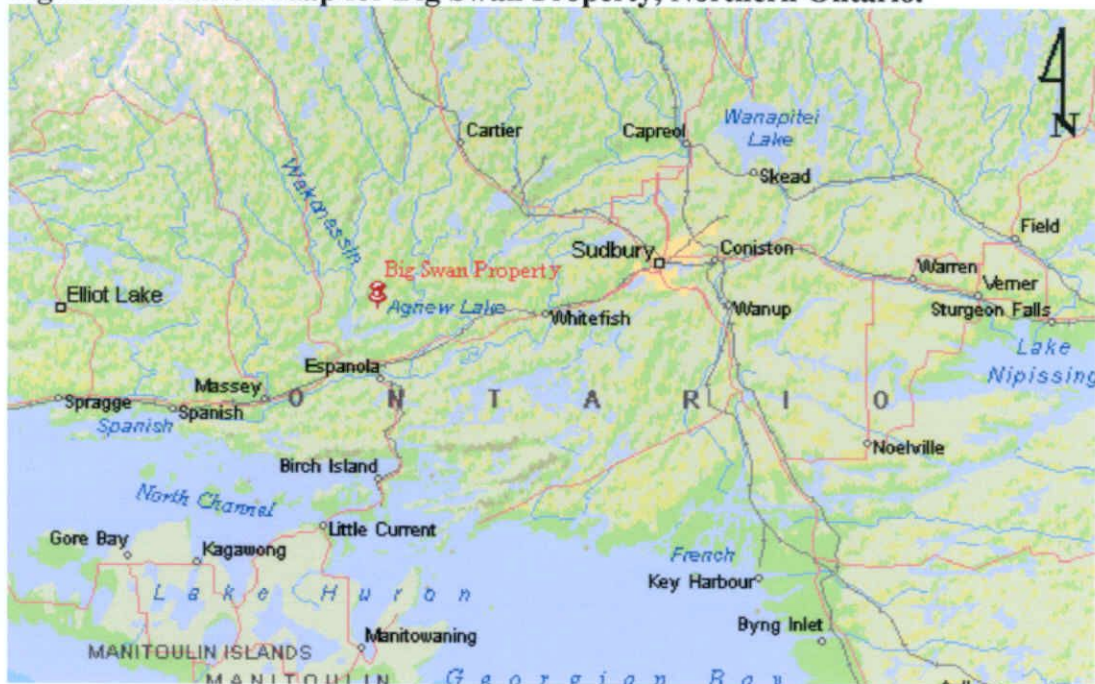
 Map 1: Grid and Diamond Drill Location Map

Location, Access and Power:

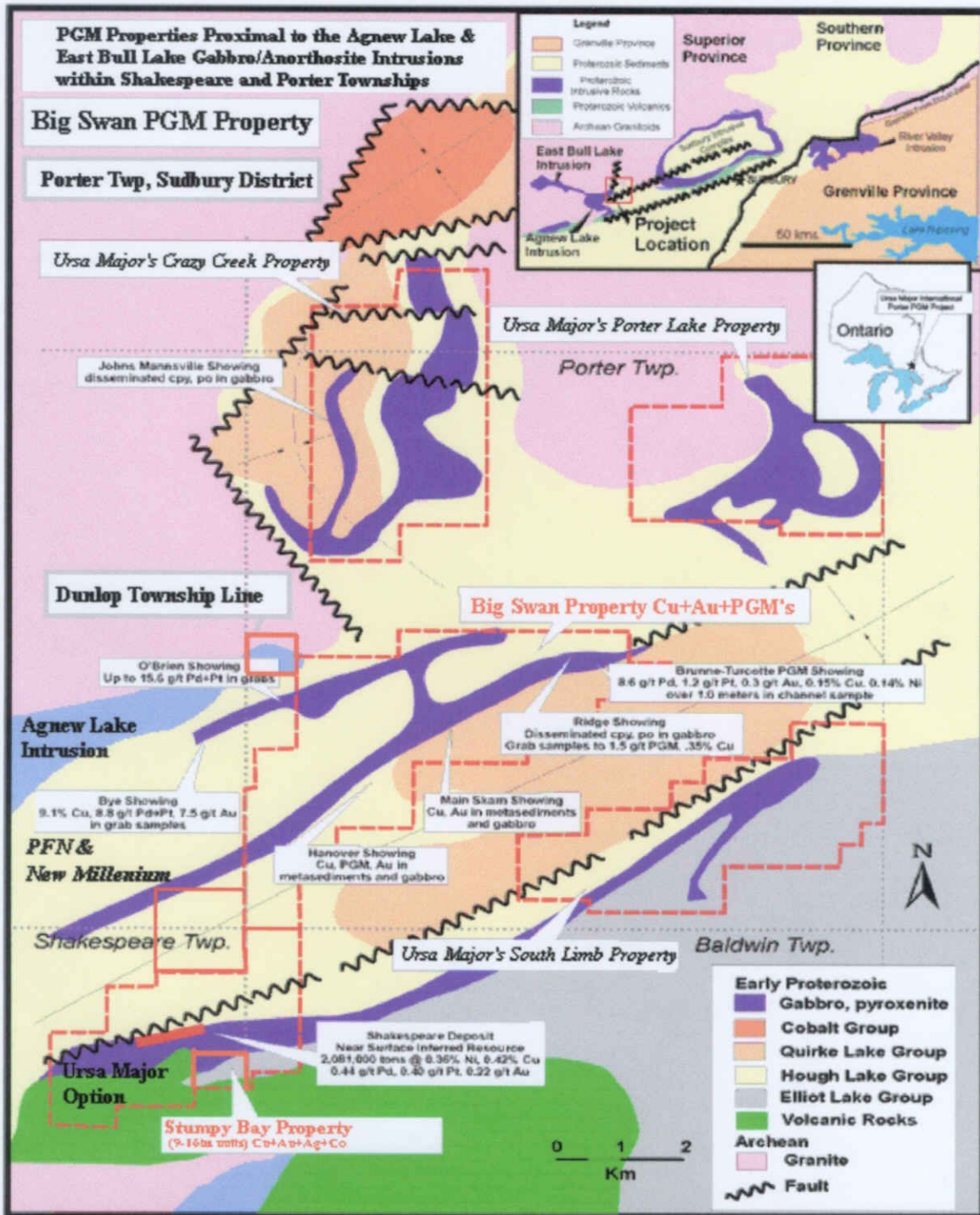
The Big Swan Property is located in Porter Township, Sudbury Mining Division, Espanola map sheet, NTS 42-I/5, approximately 90 km west of the city of Sudbury, Ontario (Figure 1). The approximate UTM coordinates to the center of the property are **441000E, 5138500N (46° 24' North, 81° 46' West)**. The project is located near excellent infrastructure such as roads, power, heavy equipment and a skilled labour force within the communities of Espanola and Sudbury.

The property is accessible by paved road to the past producing Agnew Lake Mine site, followed by gravel logging road for approximately 10 kilometers (the logging road parallels the Ontario Hydro access corridor for approximately 7 kilometers) (Figures 1 & Map 1). Access by water is also available via Agnew Lake Lodge located on the west shore of Agnew Lake, where boat launching facilities and rentals are available. Water access requires traveling across Agnew Lake and along Sutherland Creek which is bisected by the Ontario Hydro high tension power line and access corridor, along which one may walk to the Big Swan trenched areas. Access by float plane is also possible by landing on O'Brien Lake, taxiing along Sutherland Creek and accessing the hydro corridor on foot to the trenched areas located within the Big Swan claim group.

Figure 1: Location Map for Big Swan Property, Northern Ontario.



**Map modified from Encarta, 1998 Edition, Virtual Globe.
Scale is approximately 1cm to 30 km.**



Big Swan Property, Porter Twp, 2001 Work Report

The following report contains technical information for the 2001 work program conducted on the Big Swan Cu + Au + PGM Property located in Porter, Dunlop and Shakespeare Townships, Sudbury Mining District by URSA MAJOR MINERALS.

The 2001 work program consisted of 23.3 km of line cutting to re-establish the 1994 Cameco grid with 200 metre spaced lines and 50 metre stations on which a soil survey and geological mapping was conducted by Claim Lake Resources. The soil survey consisted of 558 B-Horizon soils, of which 194 samples were analyzed for Pt, Pd, Au & 32 element ICP and 364 samples were analyzed for 32 elements by ICP (see geotechnical assessment report for assay certificates). Geological mapping on a scale of 1:2,500 was conducted by Ulrich Kretschmer (see geological assessment report & maps).

Note:

Readers are referred to previous geological & mapping reports by Cameco Gold, 1993/94; Brunne, 1997 & 1999; Ursa Major Minerals, 2000 & Turcott, 1991, 1996, 1997, 1998, 2000, 2001 & unpublished 1998 BSc Thesis, Laurentian University; for detailed geology relating to Au-in-Skarn and PGM mineralization hosted within this layered mafic intrusion located in Shakespeare, Dunlop, Porter and Baldwin Townships.

Report on Diamond Drill Program, Big Swan Property

In late October and November of 2001, Ursa Major Minerals conducted a diamond drill program on the Big Swan Property located in Porter Twp. A total of 171.2 metres of drilling was conducted by Agile Diamond Drilling in two holes numbered URS-01 & URS-02. The drill core was logged and sampled by Harold J. Tracanelli of Sudbury, Ontario and then the drill core was moved to the residence of Mitch Turcott of Webbwood, Ontario for storage. A total of 133 lithological samples were analyzed for Pt + Pd + Au.

Drill hole URS-01 was spotted just south of the stripped trench on line 14 east at approximately 0 + 35 metres north (DDH Location Sketch & Map 1) at an angle of -43° and azimuth of 314°. The hole was 72.5 meters in length and intercepted mineralized gabbro with anomalous Pt + Pd + Au over 2 metres with several other anomalous intersections down hole (DDH X-Section, Assay Certificates and Core Log).

Drill hole URS-02 was spotted just south of the stripped trench (Ridge Showing) on line 11 & 12 east at approximately 3 + 50 metres north (DDH Location Sketch & Map 1) at an angle of -45° and azimuth of 341°. The hole was 96.0 meters in length and intercepted mineralized gabbro with anomalous Pt + Pd + Au over 1.5 metres with several other anomalous intersections down hole (DDH X-Section, Assay Certificates and Core Log).

Note: The drill casings for both drill holes (URS-01 & 02) were capped and left on site.

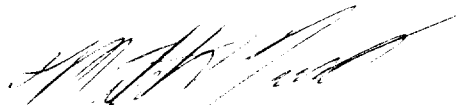
Certification

I, Mitchell B. Turcott do hereby certify the following:

- 1) I am a licensed prospector in the province of Ontario residing at Box 338, Webbwood, Ontario.
- 2) I have worked as a contract geologist since 1979.
- 3) I graduated from Cambrian College in 1981 with a Geological Technician Diploma and from Laurentian University in 1999 with an Hons. B.Sc. Geology Specialization Degree.
- 4) I am a member of the Prospectors and Developers Association and the Geological Association of Canada.
- 5) This report is based on the references cited plus my personal knowledge and experience.

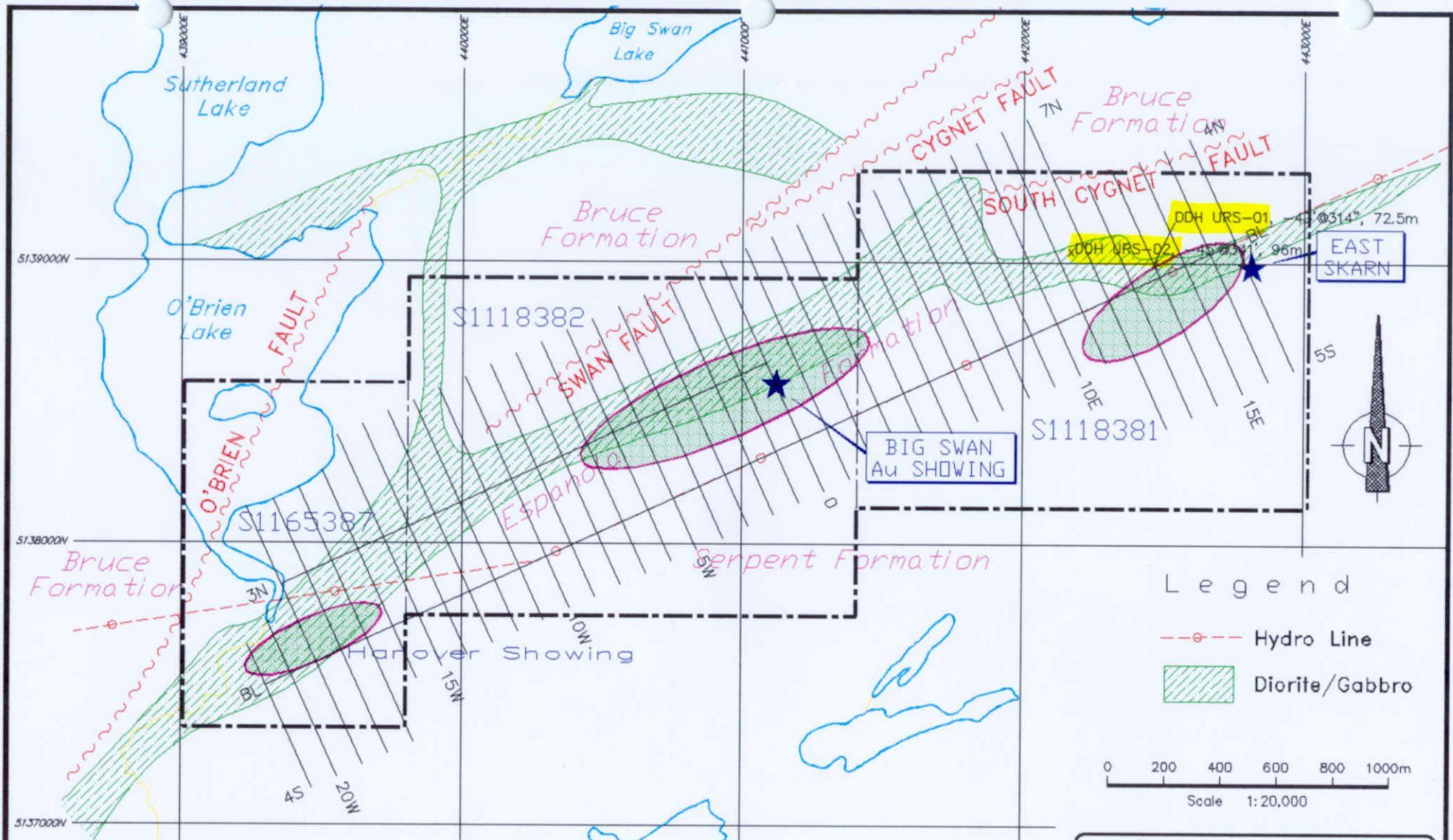
M.B. Turcott

Box 338
Webbwood, Ont.
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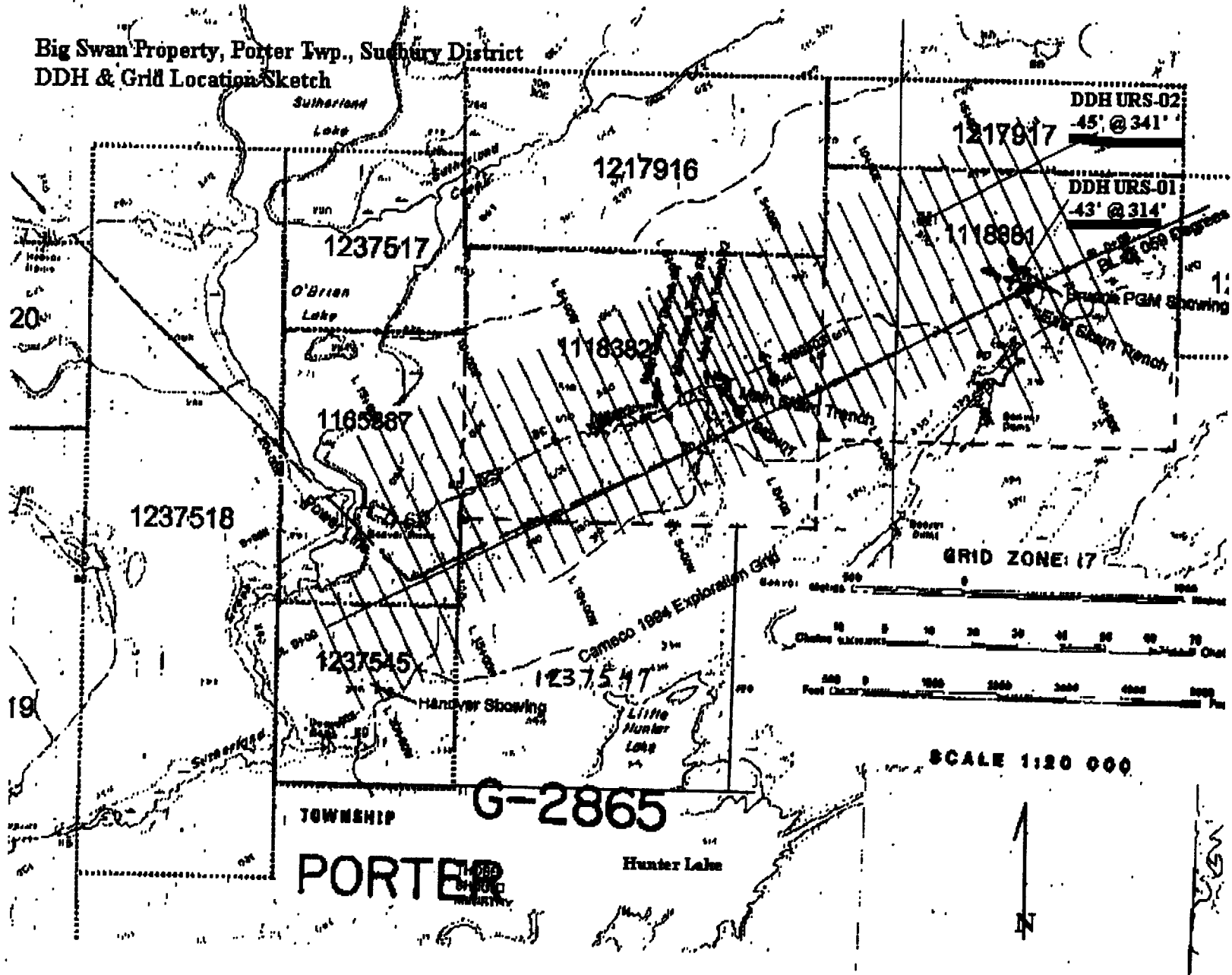


Appendix I

Location Maps
DDH X-Sections
Diamond Drill Core Logs
Assay Certificates



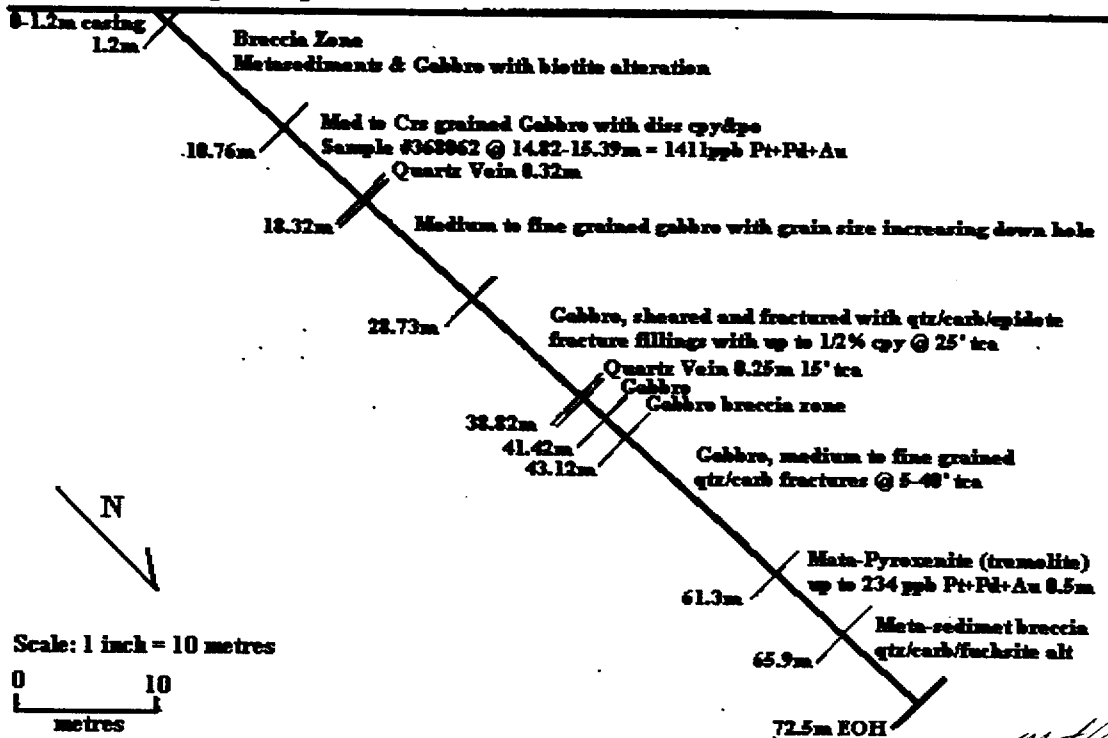
Big Swan Property, Porter Twp., Sutherland District
DDH & Grid Location Sketch



Big Swan Property, Porter Twp. DDH X-Section for URS-01

UTM: basemap 44513, block 29, sub-block 20
DDH URS-01, -43 @ 314 degrees

Big Swan DDH X-Section for URS-01
(Looking West)

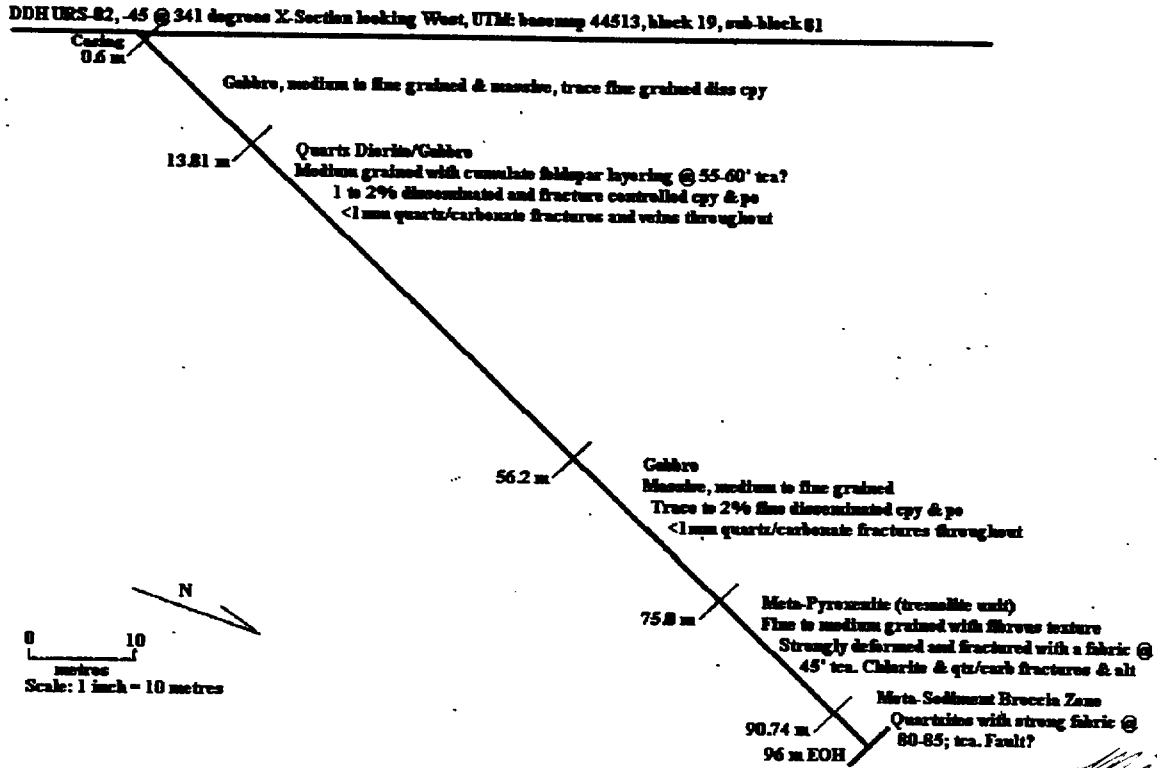


Note: No samples taken in meta-sediment breccia zone at bottom of drill hole. The breccia zone contains considerable quartz/carbonate/fuchsite/chlorite alteration with trace to ½ % fine disseminated pyrite.

Anomalous Pt + Pd + Au sample intervals include:

<u>Sample #</u>	<u>Interval (Frm-To m)</u>	<u>Pt</u>	<u>Pd</u>	<u>Au</u>	<u>Total PGM (ppb)</u>
368060	13.82-14.22 m	15	85	39	139 ppb
368061	14.22-14.82 m	25	152	22	199 ppb
368062	14.82-15.39 m	155	1170	86	1411 ppb
368063	15.39-15.89 m	13	73	32	118 ppb
368074	20.82-21.32 m	12	116	3	131 ppb
368082	43.66-44.16 m	26	159	8	193 ppb
368085	61.3-61.8 m	22	205	7	234 ppb (tremolite)
368087	63.7-64.2 m	30	185	9	224 ppb (tremolite)

Big Swan Property, Porter Twp. DDH X-Section for URS-02



Note: No samples taken from the meta-pyroxenite unit which is approximately 16 metres in thickness in drill core. If fabric in meta-pyroxenite is at 45 degrees to core axis (tca), it would imply that this unit is approximately vertical at this geographic location.

Anomalous Pt + Pd + Au sample intervals include:

Sample #	Interval (Frm-To m)	Pt	Pd	Au	Total PGM (ppb)
368100	8.15-8.65 m	43	235	17	295 ppb
368101	8.65-9.15 m	30	61	11	102 ppb
368102	9.15-9.65 m	18	92	10	120 ppb
368107	11.65-12.15 m	42	106	18	166 ppb
368149	63.48-63.98 m	36	79	12	127 ppb
37054	68.71-69.21 m	35	91	8	134 ppb

URSA MAJOR MINERALS INC.

Brunne - Porter Township Option Diamond Drill Program

Diamond Drill Hole: B-URS-01
 Inclination: - 43 degrees
 Orientation: 314 degrees Azimuth

Drilling By: Agile Diamond Drilling
 Hole Logged By: Harold J. Tracanelli
 Core Logged and Stored at: 192 North Shore Rd
 Onaping Ontario
 P0M 2R0

Big Swan Property S/118381
 Porter Twp., Sudbury Diistrict
 DDH URS-01 - BQ Core
 UTM NAD 83, Zone 17
 E442233, N5139234, -43° at 314°
 Date Started: Nov 11/01
 Date Completed: Nov 13/01

Meters	Lithology	Description	Meters	Mineralization
From:	To:		From:	To:
0.00	1.20 Casing	Flat ledge of rock encountered at 0.60 meters. The subcrop is rough in places with some broken fragments of the subcropping and remnants of some boulders.		
1.20	10.76 Brecciated Mylonitic Zone	Brecciated, mylonitic zone consisting of multiple metasedimentary and gabbroic rock fragments. The interval contains an abundance of variably sized, former fine grained metasedimentary rocks ranging from argillites to quartzites.		
		5.71 to 6.18 Large fragment of a light grey, fine to medium grained, massive quartzite.	5.71	6.18 The interval contains some micro thin pyrite which occurs on some of the open fracture surfaces that have developed within the quartzite rocks. The occurrence of sulphides is very much similar to that which has been described from 4.00 to 5.71.

6.18 to 7.01 The interval contains a number of small remnants of a fine grained, somewhat altered looking gabbro. In places the matrix materials appear to have undergone some biotite alterations.

7.01 to 7.72 The interval contains a large fragment of a fine grained of what appears to be an altered quartz gabbro with some visible biotite alteration which appears to be confined to micro fractures within the gabbro.

11.83 7mm, medium to fine grained quartz, feldspar and epidote bearing fracture fillings aligned at 35 degrees tca. These fracture fillings were found to contain traces of fine grained pyrrhotite.

12.00 5mm to 7mm, medium to fine grained quartz, feldspar and epidote bearing fracture filling, containing traces of very fine grained chalcopryite.

12.56 Abundant, irregularly shaped concentrations of fine grained chalcopryite with pyrrhotite occurring within 5mm quartz, feldspar fracture fillings.

12.79 to 12.83 Very small concentrations of fine grained pyrrhotite with traces of chalcopryite occurring within narrow 2mm to 3mm fracture fillings aligned at 10 degrees tca.

13.13 Narrow, 10mm fine grained, grey to white quartz, carbonate and chlorite bearing vein within thin traces of fine grained pyrite that have been aligned at 45 degrees tca.

14.47 to 14.90 Localized - scattered concentrations of fine grained disseminated, traces to 2% of chalcopyrite and traces of pyrrhotite occurring within some possible magnetite bearing gabbro.

17.19 Local fine grained chalcopyrite associated with narrow <1mm to 1mm quartz, epidote bearing fracture fillings aligned at 10 to 20 degrees tca.

18.00 18.32 Quartz Vein
Light grey to white massive vein like feature with moderately sharp contacts with the adjacent rocks. The vein materials have been tightly fractured, then infilled with irregular shaped concentrations of a light green, fine grained chlorite material. No visible sulphide minerals or rusting were found to occur within the quartz vein.

18.32 28.73 Gabbro
Massive, fine to medium grained, to locally altered and deformed. The gabbro appears to increase in grain size in the down hole direction toward **28.73** meters.

18.32 to 21.62 Weak to moderate pre- or early alteration of the fine to medium grained gabbro with light green, fine grained amphibole minerals. From **20.67 to 20.75** the rocks consist of a light coloured, medium to coarse grained, concentration or injection like feature of leucocratic or dioritic materials that were found to contain an abundance of fine grained interstitial pyrrhotite and lesser chalcopyrite.

20.67 20.91 Narrow zone of sulphide mineralization. From 20.67 to 20.75 The rock was found to contain up to 5% of small irregularly shaped, interstitial and possible replacement type concentrations of fine grained pyrrhotite and lesser amounts of chalcopyrite, occurring within a leucocratic to dioritic rock. From 20.75 to 20.91 These rocks were found to contain locally up to 5% to 7% of pyrrhotite and 1% to 2% of chalcopyrite occurring as fine grained, spider web - net textured like concentrations within a mildly to moderately altered gabbro.

23.42 23.90 Traces to locally 2% to 4% of disseminated to irregularly shaped concentrations of fine grained pyrrhotite and chalcopyrite, occurring within an altered and somewhat deformed gabbro. Minor amounts of sulphide minerals were found to occur within a number of thin quartz and carbonate bearing fracture fillings occurring within the gabbro.

- 28.39 38.82 Gabbro Light grey to light green to locally mottled with light coloured to slight pink colouration of the feldspars within a medium grained, generally massive gabbro. These rocks have been subject to mild alteration and localized deformation characterized as tight, semi brittle fracturing, to local areas of more pronounced shearing. The gabbro is also characterized by a number of narrow 1mm to 10mm fracture fillings aligned at 5 to 20 degrees tca., of grey to white, fine to medium grained quartz, with minor grey white carbonate materials associated with light green, fine grained chlorite and possible epidote. From 28.89 to 30.00 Narrow, most notable interval of fracturing to locally intense shearing. At 29.40 The shearing plains have been aligned at 30 degrees tca.
- 32.85 33.46 Sulphide minerals occurring within various fracture fillings, characterized as traces to a maximum of 1/2% of fine grained chalcopyrite associated with thin 1mm fine grained, quartz, carbonate and epidote bearing fracture fillings that have been aligned at 25 degrees tca. These rocks were also found to contain traces of isolated fine grained chalcopyrite associated with 3mm to 4mm, fine to medium grained, quartz, carbonate and epidote bearing fracture fillings aligned at 5 degrees tca. The fractures aligned at 25 degrees tca., have cross cut the fractures that have been aligned at 5 degrees tca.

38.82 39.07 Quartz
Vein

Zoned vein like feature, characterized by a light grey, subvitreous, medium to coarse grained quartz, bordered by a light pink to cream coloured, coarse grained feldspar materials occurring along the sharp but slightly undulating contact areas of the zoned vein that were found to be aligned at 15 degrees tca. The vein feature has been fractured and microbrecciated , followed by the infilling of a gray coloured, fine grained carbonate and a green coloured, very fine grained chlorite materials.

39.07 41.42 Gabbro

Light grey green to light mottled pink colouration due to to the alteration of the felspar minerals as part of the massive to medium grained to locally fine grained. These rocks have been intruded by a few thin, 1mm to 3mm, blue grey, fine grained, carbonate bearing fracture fillings, developed through out the gabbro.

39.07 41.42 The fine grained carbonate bearing injections were found to carry traces of fine grained disseminated pyrite.

40.56 to 41.82 10mm to 17mm injection like features of fine grained quartz materials associated with light felsh coloured feldspars, with locally light green aquamarine coloured green feldspars and dark beige, fine grained carbonate materials. There is some locallized orange - pink alteration of the felspars where the fracture fillings have been cross cut by younger carbonate bearing fracture fillings.

41.13 to 41.42 Possible narrow interval of a fine grained tremolite altered gabbro.

41.42 43.12 Breccia Zone in the Gabbro Intense fracturing and brecciation, associated with localized shearing of a former fine to medium grained, white to light grey, subvitreous quartz, feldspar bearing vein like feature. The straining, fracturing and the shearing was found to be aligned from 0 degrees to 30 degrees tca. The zone of brecciation was found to have been altered with fine to coarse grained carbonate, associated with a light green, fine grained chlorite and with pink - orange discolouration of the feldspars.

42.25 to 42.54 Most intense, ductile shearing associated with strongly developed chlorite alteration.

42.54 to 43.12 Clearly brecciated, but relatively intact former quartz, feldspar bearing vein, with some locally intense areas of brecciation associated with abundant carbonate and lesser chlorite alteration.

43.12 61.3 Gabbro

Gray to light green to locally a light pink discolouration of the feldspars, within a massive, medium to locally fine grained gabbro. These rocks have been injected with the occasional thin, 1mm to 15mm, massive to crudely zoned, grey to white, quartz, carbonate bearing vein like fracture fillings, associated with fine grained chlorite. These fracture fillings have been aligned at 5 degrees to 40 degrees tca. Some of the prominent, irregularly to sharply contacting carbonate rich fracture fillings have cross cut some of the quartz rich fracture fillings.

43.66

46.9 Narrow zone of weak pyrrhotite and chalcopyrite mineralization, characterized as containing traces of fine grained disseminated chalcopyrite and pyrrhotite, occurring within the gabbro and within the thin 1mm to 2mm grey quartz, carbonate bearing fracture fillings developed within the gabbro. From 44.13 to 44.18, narrow isolated occurrence of sulphide mineralization characterized as several small, 1mm to 4mm of irregularly shaped concentrations of fine grained pyrrhotite with lesser amounts of chalcopyrite. The sulphide mineralization appears to be associated with the fine grained, possibly altered feldspars of the gabbro.

At 51.15 micro thin 1mm to 2mm, fracturing, micro shearing which cross cuts and separates a narrow 5mm to 10mm quartz bearing fracture fillings, suggesting a couple of generations of fracture fillings.

52.33 to 52.86 / 53.91 to 54.03 / 55.25 to 55.75 possible aplite materials. Thin, 2mm to 40mm, sharp to semi sharp, vein like injections into the gabbro, of what appears to be a fine grained, possible aplite material. The various injections have been aligned at 5 degrees to 10 degrees tca. In turn the aplite appears to have been cross cut and separated by narrow, 1mm to 2mm micro fractures - shears that have been aligned at 50 degrees to 55 degrees tca.

61.30 65.90 Tremolite altered Gabbro
Considered to represent the former pyroxene rich cumulate layer of the gabbro sill as per Richard Sutcliffe. These rocks are characterized as medium to light green, medium to fine grained, with weak to moderately developed fabric - foliation that has been aligned at 35 degrees tca. These rocks have been micro fractured and micro brecciated, followed by the injected of local narrow, <1mm to thin 1mm to 3mm irregular injection like features of grey, quartz, carbonate bearing materials. The development of the fabric within the rocks appears to have obscured the exact location marking the contacts of the "gabbro" and the adjacent metasedimentary rocks below.

61.45 61.53 Minor sulphide mineralization, characterized as traces to 1/4% of small, <1mm to 1mm concentrations of chalcopyrite associated with narrow 10mm to 15mm fracture - breccia related quartz, carbonate and lesser chlorite bearing fracture fillings. From 63.74 to 63.95 Fine grained chalcopyrite with lesser amounts of pyrrhotite, associated with a few narrow, 1mm to 5mm sharp to irregularly shaped quartz, feldspar rich injections within the tremolite altered gabbro. These injections appear to have what appear to be a somewhat granophyric texture of visible intergrown laths of feldspars.

64.00 to 65.90 Iron carbonate alteration zone, characterized by the moderate to locally very strong pervasive iron carbonate alteration of the rocks. Such alteration is thought to be associated with possible fault related fracturing and local brecciation of both the tremolite altered gabbros, and the adjacent metasedimentary rocks, followed by the introduction of iron carbonate, some sericite, minor fuchsite and traces of sulphide minerals, possibly pyrite. Some of these deformed and altered rocks should be examined in further detail for potential their potential gold content.

65.90 70.35 Arkose /
Quartzite -
Arkose Light grey to light green, fine grained which was found to contain abundant fine grained grains of white to grey coloured quartz and feldspar materials. A weakly developed fabric has been developed within the rocks, aligned at 45 degrees tca. These rocks have been somewhat carbonate altered and have been intruded by a few narrow <10mm, grey - white coloured, quartz fracture fillings that are sometimes associated with cream to grey coloured carbonate materials.

70.35 72.15 Quartzites Former massive, possibly recrystallized, white to grey clouded quartzites with very strong fracturing and brecciation having been developed. The various breccia fragments have been infilled with medium to coarse grained, grey rhombic carbonate minerals. These rocks have been further altered by fine to medium grained sericite mica, surrounding or developed around the boundaries of the carbonate minerals. The brecciated rocks were also found to coantain up to 5% of a light green fuchsite - sericite mica mineral.

70.35 72.15 These rocks were found to contain traces of fine grained disseminated pyrite.

72.15 72.50 Quartzite / Arkose - Quartzites Particularly the same as from 65.90 to 70.35. This interval has been subject to tight fracturing and brecciation, followed by the infilling of grey carbonate minerals, and in addition was found to coantain some fine grained fuchsite - sericite mica, and some fine grained chlorite.

72.15 72.50 These rocks were found to contain traces to 1/2% of fine grained disseminated pyrite.

65.90 to 72.50 Iron carbonate alteration zone as above, characterized by the moderate to locally very strong prevalisive iron carbonate alteration of the rocks. Such alteration is thought to be associated with possible fault related fracturing and local brecciation of both the tremolite altered gabbros, and the adjacent metasedimentary rocks, followed by the introduction of iron carbonate, some sericite, minor fuchsite and traces of sulphide minerals, possibly pyrite. Some of these deformed and altered rocks should be examined in further detail for potential their potential gold content.

72.50

E.O.H

End of diamond drill hole No. B-URS-01 The diamond drill logging was completed on November 13th., 2001, By Harold J. Tracanelli

URSA MAJOR MINERALS INC.

Brunne - Porter Township Option Diamond Drill Program

Diamond Drill Hole: B-URS-02
Inclination: - 45 degrees
Orientation: 341 degrees Azimuth

Drilling By: Agile Diamond Drilling
Hole Logged By: Harold J. Tracanelli
Core Logged and Stored at: 192 North Shore Rd
Onaping Ontario
P0M 2R0

Big Swan Property S 1118361
Porter Twp., Sudbury District
DDH URS-02 BR core
UTM NAD 83, Zone 17
E441800, N5139100, -45° at 341°
Date Started: Nov. 14/01
Date Completed: Nov. 17/01

Meters		Lithology	Discription	Meters		Mineralization
From:	To:			From:	To:	
0.00	0.60	Casing	Thin layer of unconsolidated boulders of gabbroic type materials within the topsoild, very close to the subcropping			

0.60 9.10 Gabbro to possible quartz gabbro

The rocks a dark green to dark gray in colour, are massive, medium to fine grained, and can be slightly variable in terms of the texture from place to place possibly due to the effects of some alteration. These rocks appear to have been weathered down to a depth of approximately 3 meters+/- . The gabbro interval has been cut by the occasional the 1mm to 2mm felsic - quartz with lesser carbonate bearing fracture fillings aligned at 30 to 60 degrees tca., and in some way may be related to the various structure - deformation events that have occurred within the area.

From 0.60 to 3.76, possibly 100% gabbro, exhibiting visible light green alteration of the various pyroxene minerals occurring within the gabbro. In addition these rocks were found to contain local traces to 1/4% of interstitial chalcopyrite.

1.75

1.87 Traces to 1/4% of very fine grained disseminated chalcopyrite within a slight green altered, fine grained gabbro

2.38

2.38 Traces of very fine grained disseminated chalcopyrite within a fine grained gabbro, with visible light green alteration of the pyroxene minerals within the gabbro

From 3.76 to 9.10, gabbro to possibly quartz gabbro, with wahat appears to be a visible reduction of the alteration of the pyroxene minerals within the gabbros. These rocks appear to conatin increased amounts of quartz, and also appear to contain an increase in the overall content of the sulphide minerals.

At 5.15, Minor isolated shearing of the gabbro. Narrow, 3mm to 10mm, shear feature cross cutting the gabbro at 35 to 37 degrees tca. Fine grained quartz, carbonate, and some very fine grained chorite, and what appears to be stretched out fine grained concentrations of pyrrhotite, pyrite and traces of chalcopyrite are associated with, and occur within the sheared gabbro.

3.70

3.70 Traces of fine grained chalcopyrite within the visibly altered pyroxene minerals within the gabbro

3.92

3.92 Micro thin quartz bearing fracture filling with abundant fine grained chalcopyrite. The fractures have been aligned at 60 degrees tca.

<p>At 7.72, Minor isolated shearing of the gabbro. Narrow 30mm shear feature aligned at 15 degrees tca., containing abundant fine grained chlorite associated with irregularly shaped concentrations of fine grained biotite. The biotite appears to be associated with light brown carbonate minerals developed within the biotite. Traces of fine grained sulphides and some minor gray carbonate and quartz also occur within the shear.</p>	4.14	4.14 Traces of very fine grained disseminated chalcopyrite.
<p>At 2.84, Blue quartz eye, 2mm X 4mm, blue quartz eye occurring within a fine grained, slightly green altered gabbro.</p>	4.59	4.59 Thin, 1mm quartz bearing fracture fillings with some fine grained pyrrhotite and chalcopyrite. The fractures have been aligned at 30 degrees tca.
<p>From 6.95 to 7.76, Possible cumulate layer?, characterized as thin banding of the feldspar minerals within the gabbro</p>	4.75	4.75 Micro thin, <1mm quartz bearing fracture fillings with abundant fine grained chalcopyrite. The fractures have been aligned at 30 degrees tca.
<p>From 7.72 to 9.10, the narrow shear zone indicated may mark the boundary between the gabbro - quartz gabbro and the green altered gabbroic rocks.</p>	4.75	5.09 Traces to 1% of local fine grained chalcopyrite with lesser amounts of chalcopyrite, associated with micro thin to 2mm quartz bearing fracture fillings, and in addition was found to contain traces to 1/2% of fine grained interstitial chalcopyrite with lesser amounts of pyrrhotite. In places it appears as if the sulphide grains are beginning to clump together, possibly forming the beginnings of early sulphide blebs

- 5.15 5.15 Some local pyrrhotite and pyrite associated with traces of chalcopyrite occurring within a narrow shear like feature that has developed within the gabbro
- 5.22 5.22 1mm bleb, or interstitial concentration of fine grained chalcopyrite
- 5.47 5.59 Micro thin, quartz, carbonate bearing fracture fillings associated with fine grained chalcopyrite and lesser amounts of pyrrhotite mineralization
- 5.72 5.95 Traces to 1/2% of very fine grained disseminated, interstitial chalcopyrite occurring within the gabbro. The rocks also contain local micro thin, <1mm fracture fillings with abundant fine grained chalcopyrite and lesser amounts of pyrrhotite mineralization
- 6.12 6.12 Thin, <1mm to 1mm quartz, carbonate bearing fracture fillings associated with micro thin fractures that have been partially infilled with ultra fine grained chalcopyrite and pyrrhotite.
- 6.38 6.47 Traces to 1/4% of very fine grained interstitial pyrrhotite with lesser amounts of chalcopyrite and occurring within micro thin fracture fillings
- 6.73 6.76 An accumulation of small, <1mm to 0.5mm of very fine grains of interstitial pyrrhotite and lesser amounts of chalcopyrite

- 7.40 7.46 1/2% to 1% of <1mm to 2mm, irregularly shaped blebs of very fine grained pyrrhotite and lesser amounts of chalcopyrite, occurring within a slightly coarser grained gabbro to quartz gabbro. The numerous small grains of pyrrhotite and chalcopyrite appear to be accumulating to form small bleb like concentrations. { grains of sulphide minerals attempt to accumulate to form a more concentrated bleb like feature. Crystals of accumulated pyroxene and or feldspar minerals block the path of mobile - migrating grains of sulphide minerals. Blebs of sulphide minerals probably accumulated around a nuclei mineral}
- 7.63 7.63 Micro thin fracture filling with very fine grained pyrrhotite and lesser amounts of chalcopyrite
- 8.30 9.10 Traces to very local 2% maximum of interstitial to small <1mm to 3mm irregularly shaped bleb like concentrations of fine grained pyrrhotite and lesser chalcopyrite

- | | | | | |
|-------|--------------|---|-------|---|
| 9.10 | 10.23 Gabbro | Mottled dark green to gray, massive, medium to coarse grained. These rocks were found to contain abundant light to dark green pyroxenes with lesser amounts of light coloured feldspars, and some brown to black biotite. Some of the pyroxene minerals appear to have undergone some light green alteration. The coarse grained gabbro grades towards a fine grained, light green altered gabbro occurring at 10.23. | 9.10 | 10.23 These rocks were found to contain traces of fine grained interstitial chalcopyrite and pyrrhotite mineralization. |
| 10.23 | 13.83 Gabbro | Green to gray, medium to fine grained, massive gabbro. The gabbro appears to grade towards a medium grained quartz diorite. These rocks appear to have undergone some localized light green alteration of the pyroxene minerals. This particular interval has been cross cut by several micro thin, <1mm to 3mm felsic - quartz, carbonate bearing fracture fillings | 9.30 | 9.30 Local, 3mm X 10mm, bleb like concentrations of fine grained chalcopyrite and lesser amounts of pyrrhotite occurring within the gabbro. |
| | | | 10.43 | 10.43 Traces of very fine grained interstitial pyrrhotite and lesser amounts of chalcopyrite mineralization. |

From 11.75 to 12.19, Possible cumulate layering of the of the light coloured feldspar minerals. Possible granophyric texture.

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|-------|-------|-------|--|
| | 11.72 | 11.89 | 1% to 2% of 1mm to 6mm, <u>irregularly</u> shaped, bleb like concentrations of fine grained pyrrhotite and lesser amounts of chalcopyrite. These rocks were also found to contain micro thin, feldspar, quartz bearing fracture fillings that also contain fine grained pyrrhotite and lesser amounts of chalcopyrite, occurring within the <u>vecinity</u> of the blebby sulphides. |
| | 13.75 | 13.81 | Traces to 1/2% of fine grained, jagged like concentrations of interstitial chalcopyrite and lesser amounts of pyrrhotite mineralization. |
| 13.81 | 25.72 | 13.82 | 1mm X 3mm, irregular, jagged shaped interstitial concentrations of fine grained pyrrhotite and traces of chalcopyrite surrounded by a few small grains of pyrrhotite mineralization. |
| | | 15.60 | 15.60 Micro thin, <1mm quartz, carbonate bearing fracture filling with some very fine grained pyrrhotite and lesser amounts of chalcopyrite mineralization. |
- 13.81 25.72 Quartz diorite to Quartz gabbro Mottled green to gray, massive, medium grained, fresh looking gabbroic rocks with some visible alteration of the surrounding pyroxene minerals. These rocks appear to be locally granophyric. These rock may also contain minor thin intervals, of <100mm of gabbro to quartz gabbro materials. The rocks appear to become finer grained in the down hole direction, towards the gradational like contact with a fine to medium grained gabbro. These rocks were also found to conatin thin 1mm to 2mm felsic - quartz, carbonate bearing fracture fillings.

- 15.71 15.95 Traces to 1/2%, of very fine grained interstitial chalcopyrite occurring within what appears to be a narrow, 15mm to 20mm, isolated like band of a medium grained gabbro within the quartz diorite - quartz gabbro.
- 16.01 16.01 Small 1mm, dismembered, quartz, carbonate bearing fracture filling with abundant chalcopyrite and pyrrhotite mineralization.
- 16.20 16.34 Traces to 1/2% of very fine grained interstitial to very finely developed micro fractures of fine grained chalcopyrite mineralization.
- 16.99 17.15 Micro thin, <0.5mm quartz, carbonate bearing fracture fillings that were found to contain abundant chalcopyrite and lesser pyrrhotite mineralization. The sulphide bearing fracture fillings appear to have been subsequently fractured and then infilled with micro fine grained chalcopyrite and lesser amounts of pyrrhotite mineralization.
- 22.67 22.67 Micro thin, <5mm, quartz rich fracture fillings with chalcopyrite, and possible pyrite and or pyrrhotite mineralization. These fractures have been aligned at 5 degrees tca.
- 23.38 23.38 Sharp, 4mm gray quartz bearing fracture filling, bound - bordered by a thin film of carbonate minerals. These fracture fillings appear to have been micro fractured, followed by the infilling of some very fine grained chalcopyrite and pyrrhotite, and may also contain some pyrite mineralization.

			23.79	23.82	Traces to 1/2% of fine grained interstitial, including micro fracture fillings of fine grained chalcopyrite mineralization.
			25.15	25.21	Traces to 1/4% of very fine grained interstitial chalcopyrite and lesser amounts of pyrrhotite mineralization.
25.72	28.20 Gabbro	Light green to gray, medium to fine grained with some visible slight green alteration of the pyroxene minerals. These rocks have been cut by a few thin, <1mm fine grained quartz, carbonate bearing fracture fillings. The gabbro rocks appear to grade towards a quartz gabbro - quartz diorite.	27.29	27.38	Micro thin quartz, carbonate bearing fracture fillings with some fine grained chalcopyrite and lesser amounts of pyrrhotite mineralization. The gabbro was found to contain traces to 1/2% of fine grained interstitial pyrite and lesser amounts of pyrrhotite mineralization.
28.20	56.20 Gabbro to Quartz Gabbro	Dark gray to green, locally mottled dark to light gray, fine to medium grained, with some visible quartz occurring within the gabbroic rocks. These rocks were also found to contain a few narrow 20mm to 140 mm, medium to locally coarse grained feldspar rich bands, possible cumulate layers of or within the gabbro. The feldspar rich, possible cumulate layers have an alignment of 55 to 60 degrees tca., and were found to contain some pyrrhotite, chalcopyrite and pyrite mineralization. There has been some visible light green alteration of the pyroxene minerals occurring within the gabbro.	28.78	28.87	1% to 2% of irregularly shaped concentrations of fine grained chalcopyrite mineralization occurring in what appears to be felsic like segregations developed within a narrow band (28.20 to 29.90) of quartz gabbro - quartz diorite developed within the gabbro.

At 31.00, possible occurrence of laumontite a zeolite $(Ca)[Al_2Si_4O_{12}] \cdot 4H_2O$, which is sometimes mistaken for potassic alteration.

From 32.28 to 32.52, 20mm to 120mm medium grained feldspar rich band within the gabbro.

From 40.66 to 40.81, Medium grained feldspar rich bands of gabbro.

From 45.46 to 45.58, Medium grained, mottled black to pink, pyroxene - feldspar rich layer.

From 53.55 to 53.86, Somewhat obscure looking, 10mm to 60mm, medium grained possible cumulate layers.

From 55.25 to 55.28, Medium grained, feldspar rich, possible cumulate layer.

- | | | |
|-------|-------|--|
| 29.75 | 29.75 | Micro thin quartz bearing fracture fillings with some very fine grained pyrrhotite, pyrite and traces of chalcopyrite mineralization. |
| 30.26 | 30.35 | Traces of fine grained interstitial chalcopyrite mineralization occurring within the gabbro. The gabbro has been intruded by narrow <1mm quartz, carbonate bearing fracture fillings, that contain fine grained chalcopyrite mineralization. There is some moderate alteration of the pyroxene minerals within this weakly mineralized gabbro. |
| 31.36 | 31.36 | Traces of fine grained interstitial chalcopyrite mineralization occurring within the gabbro. |
| 32.29 | 32.38 | Traces to 1/4% of fine grained interstitial pyrrhotite and traces of chalcopyrite occurring within the gabbro, and in addition the gabbro was found to contain micro thin, <1mm discontinuous stringer like features of fine grained pyrrhotite and pyrite mineralization. |
| 32.93 | 32.93 | Thin, <1mm, quartz bearing micro fracture filling with traces of fine grained chalcopyrite mineralization. Traces of pyrite have been noted within the adjacent gabbro rocks. |

These rocks were also found to contain <1mm to 50mm, fine to medium grained, quartz, carbonate, associated with blade like epidote and or amphibole minerals occurring within the fracture fillings that have developed within the gabbros. These fractures have been aligned at 15 to 17 degrees tca.

- | | |
|-------|---|
| 34.45 | 34.45 Thin <1mm to 1mm quartz bearing fracture filling with traces of fine grained chalcopyrite mineralization. |
| 36.76 | 36.76 Micro thin, <1mm quartz bearing fracture filling with some fine grained pyrite, pyrrhotite and traces of chalcopyrite mineralization. |
| 37.39 | 37.39 Micro thin, <1mm quartz bearing fracture filling with abundant pyrrhotite and lesser amounts of chalcopyrite mineralization. |
| 40.11 | 40.11 Micro thin, <1mm quartz bearing fracture filling with some minor pyrrhotite and traces of chalcopyrite mineralization. |
| 40.75 | 40.90 Traces to some small concentrations of pyrrhotite with traces of chalcopyrite mineralization occurring within the gabbro. In addition the gabbro has been cross cut by thin, <1mm to 1mm quartz, carbonate bearing fracture fillings with some minor chalcopyrite mineralization, developed within the possible cumulate layer. |
| 41.03 | 41.03 Thin, 1mm quartz bearing fracture fillings with some fine grained chalcopyrite and lesser amounts of pyrrhotite mineralization. |
| 42.53 | 42.60 Micro thin, <1mm to 1mm, quartz, carbonate bearing fracture fillings with some fine grained chalcopyrite and lesser amounts of pyrite mineralization. |

- 43.90 44.28 Four closely spaced, micro thin, <1mm of fine grained quartz, carboante and chlorite bearing fracture fillings that contain abundant fine grained chalcopyrite mineralization.
- 44.41 44.54 Traces to 1% of very fine grained, crudely developed net textured pyrrhotite with traces of chalcopyrite mineralization occurring within a medium grained, pyroxene - feldspar rich, possible cummlate layer that appears to have developed within the gabbro.
- 44.95 45.00 Traces to 1/2% of fine grained interstitial chalcopyrite mineralization occurring within the gabbro, and in addition the gabbro has been cross cut by micro thin, <1mm quartz, carboate bearing fracture fillings that were found to contain fine grained chalcopyrite mineralization.
- 45.58 45.58 Samll 1mm X 1.5mm bleb like concentration of fine grained pyrrhotite and chalcopyrite mineralization, and in addition these rocks have been cross cut by micro thin <1mm quartz bearing fracture fillings with fine grained chalcopyrite mineralization.
- 45.82 45.82 Micro thin, <1mm quartz, carboate bearing fracture fillings with abundant spotted appearance of chalcopyrite , with traces of pyrite and pyrrhotite mineralization.
- 45.91 45.91 Micro thin, <1mm quartz, carboate bearing fracture fillings with abundant spotted appearance of chalcopyrite , with traces of pyrite and pyrrhotite mineralization.

- 46.07 46.07 Micro thin, <1mm quartz, carbonate bearing fracture fillings with abundant spotted appearance of chalcopyrite, with traces of pyrite and pyrrhotite mineralization.
- 46.83 46.83 Collection of small, <1mm to 1mm grains of fine grained pyrrhotite and traces of chalcopyrite mineralization occurring within a visibly altered gabbro.
- 47.84 47.84 Micro thin, <1mm quartz, carbonate bearing fracture fillings with some very fine grained chalcopyrite mineralization.
- 48.45 48.45 Micro thin, <1,, to 1mm quartz, carbonate bearing fracture filling with some minor very fine grained chalcopyrite mineralization.
- 49.53 49.53 Micro thin, quartz, carbonate bearing fracture fillings with some small fine grained spots of chalcopyrite mineralization.
- 49.65 49.65 Thin, <1mm quartz, carbonate bearing fracture filling with some minor chalcopyrite mineralization.
- 52.52 52.57 Micro thin, <1mm to 5mm, quartz, carbonate, epidote - possible amphibole bearing fracture fillings with some minor fine grained chalcopyrite and lesser amounts of pyrrhotite mineralization
- 52.73 52.73 Thin, 4mm to 5mm, quartz, carbonate, epidote, pyroxene bearing fracture filling with traces to 1% of fine grained chalcopyrite and traces of pyrrhotite mineralization. These sulphide bearing fracture fillings have been cross cut by some micro thin, <1mm fracture fillings of fine grained pyrrhotite mineralization.

- 53.01 53.01 Micro thin, <0.5mm quartz, carboate bearing fracture fillings that were found to contain micro fine grained chalcopyrite mineralization.
- 53.32 53.32 Thin , <1mm to 1mm quartz, carbonate bearing fracrure fillings with some minor fine grained chalcopyrite mineralization.
- 53.43 53.43 Thin, 1mm quartz, carbonate fracture fillings with minor amounts of fine grained chalcopyrite mineralization.
- 53.54 53.66 Traces to 1/2% of fine grained interstitial chalcopyrite mineralization occurring within a medium to coarse grained feldspar rich, possible cummlate like layer developed within the gabbro.
- 53.86 53.90 Traces to 1/2% of fine grained interstitial chalcopyrite and lesser amounts of pyrrhotite mineralization. In addition these rocks were found to contain 1mm to 5mm fine grained, cherty like, quartz, carbonate fracture fillings with some minor fine grained chalcopyrite mineralization.
- 54.06 54.09 Medium to coarse grained, quartz, carbonate rich fracture fillinings with 1 to 2% of fine grained concentrations of fine grained chalcopyrite mineralization.
- 54.62 54.62 Micro thin, <1mm quartz, carboante bearing fracture fillings, associated with thin smearings of fine grained pyrite and traces of fine grained chalcopyrite mineralization.
- 55.41 55.41 Micro thin, <1mm quartz, carbonate bearing fracture fillings with minor pyrrhotite mineralization.
- 54.69 54.69 Traces of fine grained interstitial chalcopyrite mineralization occurring within a vissibly altered gabbro.

54.69 75.00 Gabbro

Massive, medium to fine grained. The gabbroic rocks appear to grade towards the fine to medium grained tremolite altered gabbroic rocks further down the hole. In places some of these rocks have been locally mineralized with fine grained pyrrhotite and chalcopyrite.

At 64.50, thin occurrence of possible laumontite having developed within tight fractures in the gabbro.

57.75

58.25 Local to prevaisive, fine grained, dark to light green chlorite alteration of the gabbro. At 56.05, micro thin, quartz, carbonate and chlorite bearing fracture fillings with abundant fine grained chalcopyrite mineralization. At 57.90, traces of fine grained interstitial chalcopyrite mineralization, occurring within a medium grained gabbro with some visible structurally related microfracturing.

- 58.25 58.75 At 58.25, these rocks were found to contain 1/2% to 2% of fine grained interstitial chalcopyrite and traces of pyrrhotite mineralization. From 58.35 to 58.30, these rocks were found to contain abundant fine grained pyrrhotite, pyrite, and traces of chalcopyrite mineralization occurring on tight fracture surfaces - slips. From 58.25 to 58.46, the rocks were found to contain traces to 1/4% of fine grained interstitial chalcopyrite mineralization with 1/2% to 1% of fine grained chalcopyrite mineralization associated with several narrow, 1mm to 3mm fine grained felsic - quartz, carbonate bearing fracture fillings. At 58.46, the rocks were found to contain 5mm X 5mm round, bleb like concentrations of fine grained chalcopyrite mineralization associated with what appears to be concentrations of siliceous materials within the gabbro. From 58.65 to 65.65, these rocks were found to contain traces to fine grained interstitial chalcopyrite mineralization. From 58.64 to 58.66, These rocks contain traces to 1/2% of very fine grained chalcopyrite mineralization, t
- 58.75 59.25 From 59.03 to 59.04, these rocks were found to contain 1/2% to 1% of fine grained chalcopyrite mineralization occurring within micro thin quartz, carbonate fracture fillings.

- 60.83 61.45 At 60.84, these rocks were found to contain ultra - local traces of very fine grained interstitial chalcopyrite mineralization. From 61.12 to 61.15, these rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization occurring within micro thin quartz, carbonate fracture fillings. From 61.21 to 61.26, these rocks were found to contain traces to 1% of fine grained interstitial chalcopyrite mineralization occurring within the gabbro. From 61.34 to 61.43, these rocks were found to contain traces to 1/4% of very fine grained interstitial chalcopyrite mineralization.
- 61.45 61.98 At 61.45, the rocks were found to contain traces to 2% of fine grained chalcopyrite mineralization, occurring within quartz, carbonate fracture fillings. From 61.48 to 61.55, these rocks were found to contain traces to 1/2% of fine grained, interstitial chalcopyrite mineralization. At 61.57 the rocks were found to contain micro thin smearings of fine grained pyrite mineralization. At 61.67, same as described fro 61.57. At 61.84, the rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization associated with a thin 1mm quartz, carbonate fracture filling. At 61.97 the rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization associated within a narrow <1mm to 1mm glassy, quartz, carbonate fracture filling.

- 61.98 62.48 At 62.04 The rocks were found to contain traces of fine grained chalcopyrite and lesser quantities of pyrrhotite mineralization associated within a thin <1mm to 1mm, quartz, carbonate fracture filling. From 62.19 to 62.21, these rocks were found to contain traces to 1% of fine grained chalcopyrite, pyrite and possible marcasite mineralization occurring within a micro thin quartz, carbonate fracture fillings. At 62.32 The rocks were found to contain traces of fine grained pyrrhotite with lesser quantities of chalcopyrite mineralization, occurring within a 1mm to 2mm, fine grained, quartz, carbonate fracture filling. At 62.47, the rocks were found to contain thin smearings of fine grained pyrrhotite, pyrite and possible marcasite mineralization with traces of chalcopyrite mineralization occurring within thin <1mm fracture fillings.
- 62.48 62.98 At 62.65 The rocks were found to contain micro thin smearings of fine grained pyrite and possible marcasite mineralization. At 62.68, These rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization occurring within a 1mm fracture filling. At 62.76, the rocks were found to contain traces of fine grained chalcopyrite mineralization within a 1mm fracture filling. At 62.83, the rocks were found to contain traces of fine grained interstitial chalcopyrite mineralization occurring within a medium grained gabbro.

- 62.98 63.48 At 63.09, The rocks were found to contain traces to 2% of fine grained chalcopyrite and lesser quantities of pyrrhotite mineralization occurring within a sub vitreous quartz and lesser carbonate bearing fracture filling that has developed within a medium to fine grained gabbro.
- 63.48 63.98 From 63.51 to 63.81, the rocks were found to contain traces to locally 2% to 3% of interstitial to 1mm and 4mm to 5mm bleb like concentrations of pyrrhotite and chalcopyrite mineralization thought to be fracture controlled. In addition these rocks were found to contain traces to 2% to 3% of fine grained pyrrhotite and lesser quantities of chalcopyrite mineralization occurring within the medium gabbro.
- 63.98 64.36 Cut a sample of gabbro materials up against a narrow sheared gabbroic rock.
- 64.36 64.86 Collected a sample of the gabbroic rock on the opposite side of the sheared gabbro. At 64.50, possible thin laumontite developed on tight fracture surfaces within the gabbro. From 64.62 to 64.68, These rocks were found to contain local 1% to 2% of fine grained interstitial pyrrhotite and pyrite mineralization, and in addition contains traces to 1/2% of fine grained pyrrhotite and traces of chalcopyrite mineralization occurring within micro thin fracture fillings. At 64.72. The rocks were found to contain traces to 1/4% of fine grained chalcopyrite mineralization occurring within a narrow <1mm to 1mm quartz, carbonate fracture fillings that have developed within the gabbro.

- 67.71 68.21 At 67.78, the rocks were found to contain traces to 1/4% of fine grained pyrrhotite and traces of fine grained chalcopyrite mineralization occurring within a structurally dislocated <1mm to 1mm quartz, carbonate bearing fracture filling has developed adjacent to a fault deformed and altered gabbro.
- 68.21 68.71 From 68.29 to 68.32, these rocks were found to contain traces to 1/2% of fine grained interstitial chalcopyrite mineralization occurring within a fine to medium grained, visibly altered gabbro.
- 68.71 69.21 From 68.82 to 68.94, These rocks were found to contain traces to locally 1% to 2% maximum of very fine grained pyrrhotite with traces of chalcopyrite mineralization occurring with several narrow <1mm to 2mm +/- quartz, carbonate bearing fracture fillings occurring within a visibly altered and somewhat deformed gabbro. From 69.05 to 69.11, the rocks were found to contain traces to 1/2% of fine grained interstitial pyrrhotite, and traces of chalcopyrite mineralization. In addition traces with lesser quantities of chalcopyrite mineralization were found to occur within thin <1mm fracture fillings. From 69.13 to 69.20, These rocks were found to contain up to 2% of fine grained pyrrhotite and traces of chalcopyrite mineralization associated with narrow, <1mm, 1mm to 2mm quartz, carbonate fracture fillings.
- 69.21 69.93 No detailed description provided. Please refer to the diamond drill log for further information.

- 69.93 70.44 At 70.07, the rocks were found to contain traces to 1/4% of fine grained interstitial pyrrhotite and traces of chalcopyrite mineralization, occurring within the gabbro, and traces of chalcopyrite mineralization occurring within micro thin fracture fillings developed within the gabbro. At 70.31 the rocks were found to contain traces of interstitial pyrrhotite and chalcopyrite mineralization. From 70.38 to 70.42, the rocks were found to contain traces to 1/2% of interstitial pyrrhotite and chalcopyrite mineralization, and in addition contain traces of chalcopyrite mineralization occurring within micro thin quartz, carbonate fracture fillings.
- 70.44 70.94 No detailed description provided. Please refer to the diamond drill log for further information.
- 70.94 71.37 At 71.13, these rocks were found to contain traces of fine grained chalcopyrite mineralization occurring within narrow 1mm to 2mm quartz carbonate fracture fillings.
- 71.37 71.87 Mineralized gabbro. At 71.68, these rocks were found to contain traces to 1% of fine grained chalcopyrite mineralization occurring within narrow, 1mm quartz, carbonate fracture fillings.
- 71.87 72.27 Generally unmineralized gabbros. At 72.09, these rocks were found to contain local traces of interstitial chalcopyrite mineralization occurring within the gabbro.

75.00 90.74 Tremolite
altered
gabbro

Fine to medium grained, visibly altered somewhat fibrous looking gabbroic rock. These rocks were found to contain very minor local concentrations of fine grained disseminated pyrrhotite and possible traces of chalcopyrite mineralization.

From 80.45 to 86.45, mild to moderately strong fracturing and associated structural deformation of the tremolite altered gabbro. Some of the areas of weakness have been in filled with fine grained quartz, carbonate bearing materials. Some minor pyrite mineralization has been noted to occur within the altered and deformed rocks within the interval.

72.27

72.77 Mineralized gabbro. From 72.30 to 72.43, these rocks were found to contain traces to locally 1% of interstitial fine grained pyrrhotite and lesser quantities of chalcopyrite, occurring within the gabbro, and in addition contain traces to 2% of fine grained chalcopyrite mineralization occurring within thin <1mm to 1mm quartz, carbonate fracture fillings developed within the gabbro.

From 80.45 to 80.80, mylonite - brecciation of the rocks characterized by a narrow zone of intense fracturing of the tremolite altered gabbro. In places it would appear that these rocks may have incorporated possible former xenolithic - remnants of the quartz rich metasedimentary that is adjacent to the gabbro. A fabric aligned at 45 degrees tca has developed within the rocks.

80.45 to 90.74, structurally deformed and altered tremolite gabbro, very similar to that which has been described from 75.00 to 86.45. From 89.80 to 70.74, the rocks have been locally, intensely sheared, developing disc like features of the tremolite altered gabbro. Chlorite minerals have been developed as a result of the deformation and alteration, and may be associated with a possible fault contact feature located in between the tremolite altered gabbro and the adjacent quartz rich metasedimentary rocks.

90.74 96.00 Metasedimen
tary rocks Fine to medium grained,
somewhat dirty looking quartz
rich metasediments to dirty
looking quartzite's. In places
these rocks have been locally
fractured to form narrow zones of
mylonite and breccias. Most of
the metasediments within this
interval are possibly fault bound
remnants of metasedimentary
rocks that may have been caught
up in a zone of faulting that my
have developed at or near the
contact between the gabbro and
the metasediments. From 92.90
to 93.65, most notable, intense
area of fracturing, mylonite and
brecciation of the rocks. The
deformation fabric has been
aligned at 80 to 85 degrees tca.

96.00 96.00 EOH End of diamond drill hole B-URS-
02

Drill core logging carried out by
Harold J. Tracanelli; Exploration
Geologist.

Sample Ident Scheme Code Analysis Unit Detection Limit	Au FA301 ppb 1	Pt FA301 ppb 10	Pd FA301 ppb 10	Total Au., Pt., and Pd. 1	UTM Coordinates		Sample Description
					Easting From	Northing To	
368051	22	<10	<1	22	4.70	5.20	Pyrrhotite and chalcopyrite mineralization occurring within the metasediments
368052	18	<10	<1	18	8.86	9.43	Cherty to very fine grained quartzose metasediments with pyrrhotite and chalcopyrite mineralization. In places these rocks were found to be very rich in pyrrhotite and chalcopyrite mineralization.
368053	10	<10		2	12	9.43	9.92 Sample of the metasediments immediately adjacent to the well mineralized metasediments. These rocks were found to contain little or no sulphide mineralization. These rocks also exhibit some very strong chlorite alteration of some of the breccia fragments occurring within the breccia zone.
368054	8	<10		22	30	10.76	11.26 Very upper rocks of the contact of the gabbro with the mylonitic - brecciated metasediment rocks. These rocks were found to contain traces to 1/4% of fine grained disseminated, interstitial pyrrhotite and lesser amounts of chalcopyrite.
368055	21	<10		21	42	11.26	11.79 Medium grained, unmineralized gabbros near the upper contact area of the sill.
368056	17	<10		18	35	11.79	12.29 Traces to 1/4% of interstitial chalcopyrite +/- pyrrhotite.
368057	8	<10		17	25	12.29	12.81 Quartz, carbonate and chalcopyrite bearing fracture fillings developed within the gabbros
368058	12		11	17	40	12.81	13.32 Coarse grained, white rhombic calcite, within quartz rich fracture fillings.
368059	13		20	47	80	13.32	13.82 At 13.77, 10mm to 12mm sized collection of small grains of chalcopyrite, with visibly lesser quantities of pyrrhotite, occurring within the gabbros.
368060	39		15	85	139	13.82	14.22 Visible alteration of the pyroxene minerals within the gabbroic rock.

368061	22	25	152	199	14.22	14.82	Traces to 1%, with locally up to 2% of fine grained disseminated chalcopyrite occurring within a green altered gabbro.
368062	86	155	1170	1411	14.82	15.39	Abundant chalcopyrite mineralization occurring within the gabbros. These gabbros were also fine to contain abundant net textured pyrrhotite and chalcopyrite throughout the sample interval.
368063	32	13	73	118	15.39	15.89	Traces to 1/2% , to locally 2% of fine grained disseminated chalcopyrite occurring within the gabbro.
368064	6	<10	8	14	15.89	16.38	Green to dirty brown alteration of the gabbroic rocks. In addition these rocks appear to be locally silicified.
368065	8	<10	10	18	16.38	16.89	Within this particular interval the gabbro appears to be silicified, associated with micro thin, <1mm to 1mm quartz, carbonate fracture fillings with some minor rusty patches having been developed.
368066	8	<10	12	20	16.89	17.14	Silicified gabbro
368067	2	<10	27	29	17.14	17.65	Green alteration of the gabbro.
368068	5	22	38	65	17.65	18.05	Gabbro rocks occurring immediately adjacent to a large quartz vein
368069	4	<10	10	14	18.32	18.82	Gabbro rocks occurring immediately adjacent to a large quartz vein
368070	5	16	6	27	18.82	19.32	No detailed description provided. Please refer to the diamond drill log for further information.
368071	3	<10	5	8	19.32	19.82	No detailed description provided. Please refer to the diamond drill log for further information.
368072	6	<10	33	39	19.82	20.32	Silicified gabbro with no visible sulphide minerals within the rocks.
368073	2	<10	4	6	20.32	20.82	No detailed description provided. Please refer to the diamond drill log for further information.

368074	3	12	116	131	20.82	21.32 Silicified gabbro which was found to contain some sulphide mineralization, then followed by reduced silicification of the gabbros.
368075	2	<10	6	8	21.32	21.82 1% to 2% of fine grained pyrrhotite and traces of chalcopyrite occurring within micro fracture fillings developed within the gabbro.
368076	<1	<10	2	2	21.82	22.32 In places the gabbroic rocks have been very strongly deformed and altered.
368077	5	<10	12	17	22.32	22.82 No detailed description provided. Please refer to the diamond drill log for further information.
368078	8	27	63	98	22.82	23.32 No detailed description provided. Please refer to the diamond drill log for further information.
368079	6	<10	16	22	23.32	23.82 Within this particular interval the gabbro has been well mineralized with chalcopyrite and lesser quantities of pyrrhotite.
368080	11	24	63	98	32.82	24.32 No detailed description provided. Please refer to the diamond drill log for further information.
368081	5	12	16	33	43.00	43.66 Silicified gabbro that is in contact with a clearly deformed - brecciated, deformed quartz vein feature. Traces to 1/2% of chalcopyrite occur within various quartz fracture fillings.
368082	8	26	159	193	43.66	44.16 No detailed description provided. Please refer to the diamond drill log for further information.
368083	5	10	16	31	44.16	44.66 No detailed description provided. Please refer to the diamond drill log for further information.
368084	8	13	22	43	60.80	61.30 Very intense micro fracturing and injections into a medium grained gabbro - silicified gabbro. This particular interval occurs at or near the gabbro - tremolite altered gabbro contact area.
368085	7	22	205	234	61.30	61.80 Tremolite altered gabbro, with quartz, carbonate bearing fracture fillings with minor chalcopyrite.

368086	6	14	39	59	61.80	62.30 Tremolite altered gabbro, with very little or no quartz, carbonate bearing fracture fillings.
368087	9	30	185	224	63.70	64.20 Tremolite altered gabbro with some chalcopyrite bearing quartz, carbonate fracture fillings.

DDH B-URS-02

						From	To	
368088	17	15	24	56	1.75	2.35	Local small 1mm, net textured to blebs of fine grained pyrrhotite.	
368089	6	<10	36	42	2.35	2.95	Gray, medium grained, silicified gabbro.	
368090	43	16	22	81	2.95	3.55	Reduced silicification of the gabbro rocks.	
368091	4	<10	10	14	3.55	4.15	Silicified gabbro to quartz diorite with a few narrow <1mm to 1mm quartz fracture fillings with chalcopyrite mineralization.	
368092	5	15	22	42	4.15	4.65	No detailed description provided. Please refer to the diamond drill log for further information.	
368093	10	24	37	71	4.65	5.15	1mm to 2mm fracture fillings that contain abundant chalcopyrite mineralization.	
368094	12	20	13	45	5.15	5.65	No detailed description provided. Please refer to the diamond drill log for further information.	
368095	5	20	16	41	5.65	6.15	Very siliceous gabbro and or quartz diorite. These rocks have been injected by thin fractures fillings that were found to contain abundant fine grained chalcopyrite mineralization.	
368096	7	19	25	51	6.15	6.65	Very siliceous gabbro and or quartz diorite.	
368097	7	31	43	81	6.65	7.15	At 6.88, 10mm to 12mm, irregularly shaped bleb and possible tight, net textured pyrrhotite with lesser quantities of chalcopyrite occurring within the gabbroic rocks.	
368098	5	14	54	73	7.15	7.65	No detailed description provided. Please refer to the diamond drill log for further information.	
368099	5	11	23	39	7.65	8.15	No detailed description provided. Please refer to the diamond drill log for further information.	

368100	17	43	235	295	8.15	8.65 At 8.34, 1mm to 2mm round like bleb of fine grained pyrrhotite and chalcopyrite. At 8.41, 2mm to 3mm, medium to fine grained bleb of pyrrhotite and lesser quantities of chalcopyrite. At 8.60 to 8.56, 1% to 2% of fine grained disseminated chalcopyrite and pyrrhotite with small 1mm fine grained blebs of pyrrhotite and lesser quantities of chalcopyrite.
368101	11	30	61	102	8.65	9.15 No detailed description provided. Please refer to the diamond drill log for further information.
368102	10	18	92	120	9.15	9.65 Coarse grained gabbro with interstitial chalcopyrite and pyrrhotite mineralization.
368103	16	19	6	41	9.65	10.15 Highly silicified, medium to coarse grained gabbro with some sulphides.
368104	6	17	13	36	10.15	10.65 Silicified gabbro.
368105	8	19	35	62	10.65	11.15 Silicified gabbro.
368106	7	19	11	37	11.15	11.65 Silicified gabbro.
368107	18	42	106	166	11.65	12.15 Silicified gabbro with 1mm to 2mm blebs of pyrrhotite and chalcopyrite mineralization.
368108	5	<10	9	14	12.15	12.65 Silicified gabbro.
368109	8	13	14	35	12.65	13.15 Silicified gabbro.
368110	7	19	51	77	13.15	13.65 Silicified gabbro with some visible pink to brown looking discoloration of the rocks.
368111	7	14	16	37	13.65	14.15 Silicified gabbro with some visible pink to brown looking discoloration of the rocks.
368112	7	12	16	35	14.15	14.65 Silicified gabbro.
368113	8	<10	31	39	14.65	15.15 At 15.01, 2mm X 10mm, fine grained bleb of pyrrhotite and lesser quantities of chalcopyrite.
368114	7	18	21	46	15.15	15.65 Gray colored, silicified gabbro.
368115	8	16	16	40	15.65	16.15 At 16.11, 1mm concentration of fine grained chalcopyrite mineralization.
368116	7	14	20	41	16.15	16.65 Siliceous gabbro and or quartz gabbro.

368117	5	11	21	37	16.65	17.15 At 17.15, <1mm, micro thin quartz, carbonate bearing fracture fillings with fine grained chalcopyrite and pyrite. At 17.04, <1mm to 1mm, fine grained stringer like features of chalcopyrite mineralization.
368118	6	<10	20	26	17.15	17.65 The rocks have been injected with local, thin, <1mm, fine grained quartz, carbonate fracture fillings that also contain fine grained chalcopyrite and pyrrhotite mineralization.
368119	7	22	14	43	22.50	23.00 No detailed description provided. Please refer to the diamond drill log for further information.
368120	7	11	17	35	23.00	23.50 Highly silicified gabbro.
368121	6	15	16	37	23.50	24.00 Silicified gabbro
368122	4	19	15	38	24.00	24.50 Silicified gabbro.
368123	25	13	13	51	24.50	25.00 No detailed description provided. Please refer to the diamond drill log for further information.
368124	7	10	14	31	25.00	25.50 From 25.10 to 25.15, Trace to 1/2% of fine grained chalcopyrite mineralization.
368125	11	21	11	43	27.00	27.50 Fine grained interstitial sulphide minerals occurring within the gabbro, and fracture fillings that were found to contain chalcopyrite and lesser quantities of pyrrhotite mineralization.
368126	9	20	14	43	28.50	29.00 From 28.79 to 28.81, these rocks were found to contain traces to up to 5mm blebs of fine grained chalcopyrite mineralization within the gabbro. At 28.82 the rocks were found to contain traces to 2% of fine grained disseminated to fracture fillings of chalcopyrite mineralization. At 29.00, the rocks were found to contain traces of fine grained interstitial pyrrhotite mineralization.
368127	7	21	18	46	29.00	29.50 Silicified gabbro.
368128	6	19	15	40	29.50	30.00 Medium grained silicified gabbro.
368129	7	14	17	38	30.00	30.50 Silicified gabbro with what appears to be the alteration of the pyroxene minerals within the gabbro.
368130	6	13	24	43	30.50	31.00 No detailed description provided. Please refer to the diamond drill log for further information. At 31.00, possible laumontite occurring on a fracture filling within the gabbro.

368131	8	17	15	40	32.00	32.50 Silicified gabbro with quartz, carbonate fracture fillings that were found to contain chalcopyrite and pyrrhotite mineralization.
368132	8	<10	20	28	43.80	44.30 The gabbro was found to contain traces to 1/4% of fine grained, interstitial chalcopyrite mineralization.
368133	5	<10	19	24	44.30	44.80 No detailed description provided. Please refer to the diamond drill log for further information.
368134	6	17	18	41	44.80	45.30 At 44.94, The rocks were found to contain traces to 1/2% of fine grained interstitial chalcopyrite mineralization. At 45.17 the rocks have been intruded by thin <1mm quartz, carbonate bearing fracture fillings, that were found to contain abundant chalcopyrite mineralization.
368135	6	11	20	37	45.30	45.80 Silicified gabbro.
368136	6	10	26	42	45.80	46.50 At 45.84, the rocks have been intruded by micro thin <1mm, quartz, carbonate fracture fillings that were found to contain abundant chalcopyrite mineralization.
368137	7	16	62	85	46.50	47.00 At 46.69, The rocks were found to contain small, 1mm X 2mm, bleb like concentrations of pyrrhotite and chalcopyrite mineralization.
368138	9	16	22	47	52.70	53.20 No detailed description provided. Please refer to the diamond drill log for further information.
368139	7	17	20	44	53.20	53.70 No detailed description provided. Please refer to the diamond drill log for further information.
368140	12	16	19	47	53.70	54.20 No detailed description provided. Please refer to the diamond drill log for further information.
368141	9	13	19	41	57.75	58.25 Local to pervasive, fine grained, dark to light green chlorite alteration of the gabbro. At 56.05, micro thin, quartz, carbonate and chlorite bearing fracture fillings with abundant fine grained chalcopyrite mineralization. At 57.90, traces of fine grained interstitial chalcopyrite mineralization, occurring within a medium grained gabbro with some visible structurally related microfracturing.

368142	14	24	34	72	58.25	58.75	At 58.25, these rocks were found to contain 1/2% to 2% of fine grained interstitial chalcopyrite and traces of pyrrhotite mineralization. From 58.35 to 58.30, these rocks were found to contain abundant fine grained pyrrhotite, pyrite, and traces of chalcopyrite mineralization occurring on tight fracture surfaces - slips. From 58.25 to 58.46, the rocks were found to contain traces to 1/4% of fine grained interstitial chalcopyrite mineralization with 1/2% to 1% of fine grained chalcopyrite mineralization associated with several narrow, 1mm to 3mm fine grained felsic - quartz, carbonate bearing fracture fillings. At 58.46, the rocks were found to contain 5mm X 5mm round, bleb like concentrations of fine grained chalcopyrite mineralization associated within what appears to be concentrations of siliceous materials within the gabbro. From 58.65 to 65.65, these rocks were found to contain traces to fine grained interstitial chalcopyrite mineralization. From 58.64 to 58.66, These rocks contain traces to 1/2% of very fine grained chalcopyrite mineralization, occurring within a
368143	9	<10	9	18	58.75	59.25	From 59.03 to 59.04, these rocks were found to contain 1/2% to 1% of fine grained chalcopyrite mineralization occurring within micro thin quartz, carbonate fracture fillings.
368144	9	21	17	47	60.83	61.45	At 60.84, these rocks were found to contain ultra - local traces of very fine grained interstitial chalcopyrite mineralization. From 61.12 to 61.15, these rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization occurring within micro thin quartz, carbonate fracture fillings. From 61.21 to 61.26, these rocks were found to contain traces to 1% of fine grained interstitial chalcopyrite mineralization occurring within the gabbro. From 61.34 to 61.43, these rocks were found to contain traces to 1/4% of very fine grained interstitial chalcopyrite mineralization.

368145	10	16	25	51	61.45	61.98	At 61.45, the rocks were found to contain traces to 2% of fine grained chalcopyrite mineralization, occurring within quartz, carbonate fracture fillings. From 61.48 to 61.55, these rocks were found to contain traces to 1/2% of fine grained, interstitial chalcopyrite mineralization. At 61.57 the rocks were found to contain micro thin smearings of fine grained pyrite mineralization. At 61.67, same as described fro 61.57. At 61.84, the rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization associated with a thin 1mm quartz, carbonate fracture filling. At 61.97 the rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization associated within a narrow <1mm to 1mm glassy, quartz, carbonate fracture filling.
368146	5	16	12	33	61.98	62.48	At 62.04 The rocks were found to contain traces of fine grained chalcopyrite and lesser quantities of pyrrhotite mineralization associated within a thin <1mm to 1mm, quartz, carbonate fracture filling. From 62.19 to 62.21, these rocks were found to contain traces to 1% of fine grained chalcopyrite, pyrite and possible marcasite mineralization occurring within a micro thin quartz, carbonate fracture fillings. At 62.32 The rocks were found to contain traces of fine grained pyrrhotite with lesser quantities of chalcopyrite mineralization, occurring within a 1mm to 2mm, fine grained, quartz, carbonate fracture filling. At 62.47, the rocks were found to contain thin smearings of fine grained pyrrhotite, pyrite and possible marcasite mineralization with traces of chalcopyrite mineralization occurring within thin <1mm fracture fillings.

368147	8	17	12	37	62.48	62.98 At 62.65 The rocks were found to contain micro thin smearings of fine grained pyrite and possible marcasite mineralization. At 62.68, These rocks were found to contain traces to 1/2% of fine grained chalcopyrite mineralization occurring within a 1mm fracture filling. At 62.76, the rocks were found to contain traces of fine grained chalcopyrite mineralization within a 1mm fracture filling. At 62.83, the rocks were found to contain traces of fine grained interstitial chalcopyrite mineralization occurring within a medium grained gabbro.
368148	7	15	20	42	62.98	63.48 At 63.09, The rocks were found to contain traces to 2% of fine grained chalcopyrite and lesser quantities of pyrrhotite mineralization occurring within a sub vitreous quartz and lesser carbonate bearing fracture filling that has developed within a medium to fine grained gabbro.
368149	12	36	79	127	63.48	63.98 From 63.51 to 63.81, the rocks were found to contain traces to locally 2% to 3% of interstitial to 1mm and 4mm to 5mm bleb like concentrations of pyrrhotite and chalcopyrite mineralization thought to be fracture controlled. In addition these rocks were found to contain traces to 2% to 3% of fine grained pyrrhotite and lesser quantities of chalcopyrite mineralization occurring within the medium gabbro.
368150	9	11	19	39	63.98	64.36 Cut a sample of gabbro materials up against a narrow sheared gabbroic rock.

37051	9	23	27	59	64.36	64.86	Collected a sample of the gabbroic rock on the opposite side of the sheared gabbro. At 64.50, possible thin laumontite developed on on tight fracture surfaces within the gabbro. From 64.62 to 64.68, These rocks were found to contain local 1% to 2% of fine grained interstitial pyrrhotite and pyrite mineralization, and in addition contains traces to 1/2% of fine grained pyrrhotite and traces of chalcopyrite mineralization occurring within micro thin fracture fillings. At 64.72. The rocks were found to contain traces to 1/4% of fine grained chalcopyrite mineralization occurring within a narrow <1mm to 1mm quartz, carbonate fracture fillings that have developed within the gabbro.
37052	31	25	32	88	67.71	68.21	At 67.78, the rocks were found to contain traces to 1/4% of fine grained pyrrhotite and traces of fine grained chalcopyrite mineralization occurring within a structurally dislocated <1mm to 1mm quartz, carbonate bearing fracture filling has developed adjacent to a fault deformed and altered gabbro.
37053	6	12	33	51	68.21	68.71	From 68.29 to 68.32, these rocks were found to contain traces to 1/2% of fine grained interstitial chalcopyrite mineralization occurring within a fine to medium grained, visibly altered gabbro.

37054	8	35	91	134	68.71	69.21 From 68.82 to 68.94, These rocks were found to contain traces to locally 1% to 2% maximum of very fine grained pyrrhotite with traces of chalcopyrite mineralization occurring with several narrow <1mm to 2mm +/- quartz, carbonate bearing fracture fillings occurring within a visibly altered and somewhat deformed gabbro. From 69.05 to 69.11, the rocks were found to contain traces to 1/2% of fine grained interstitial pyrrhotite, and traces of chalcopyrite mineralization. In addition traces with lesser quantities of chalcopyrite mineralization were found to occur within thin <1mm fracture fillings. From 69.13 to 69.20, These rocks were found to contain up to 2% of fine grained pyrrhotite and traces of chalcopyrite mineralization associated with narrow, <1mm, 1mm to 2mm quartz, carbonate fracture fillings.
37055	3	12	23	38	69.21	69.93 No detailed description provided. Please refer to the diamond drill log for further information.
37056	4	13	19	36	69.93	70.44 At 70.07, the rocks were found to contain traces to 1/4% of fine grained interstitial pyrrhotite and traces of chalcopyrite mineralization, occurring within the gabbro, and traces of chalcopyrite mineralization occurring within micro thin fracture fillings developed within the gabbro. At 70.31 the rocks were found to contain traces of interstitial pyrrhotite and chalcopyrite mineralization. From 70.38 to 70.42, the rocks were found to contain traces to 1/2% of interstitial pyrrhotite and chalcopyrite mineralization, and in addition contain traces of chalcopyrite mineralization occurring within micro thin quartz, carbonate fracture fillings.
37057	6	18	5	29	70.44	70.94 No detailed description provided. Please refer to the diamond drill log for further information.
37058	4	14	2	20	70.94	71.37 At 71.13, these rocks were found to contain traces of fine grained chalcopyrite mineralization occurring within narrow 1mm to 2mm quartz carbonate fracture fillings.

37059	32	13	6	51	71.37	71.87	Mineralized gabbro. At 71.68, these rocks were found to contain traces to 1% of fine grained chalcopyrite mineralization occurring within narrow, 1mm quartz, carbonate fracture fillings.
37060	23	12	2	37	71.87	72.27	Generally unmineralized gabbros. At 72.09, these rocks were found to contain local traces of interstitial chalcopyrite mineralization occurring within the gabbro.
37061	5	15	5	25	72.27	72.77	Mineralized gabbro. From 72.30 to 72.43, these rocks were found to contain traces to locally 1% of interstitial fine grained pyrrhotite and lesser quantities of chalcopyrite, occurring within the gabbro, and in addition contain traces to 2% of fine grained chalcopyrite mineralization occurring within thin <1mm to 1mm quartz, carbonate fracture fillings developed within the gabbro.

UTM
**Brunne - Porter
Township Surface
Sampling**

37062	5	<10	<1	5	445170	5140604	Found a fairly large pile of old, partially overgrown AQ and BQ diamond drill core on top of a very large, high outcropping of quartzite's. Some of the old core looked like fine to medium grained gabbroic rocks, and were found to contain disseminated pyrite.
37063	21	31	17	69	442133	5139068	Strong concentrations of chalcopyrite and pyrrhotite mineralization occurring within a fine to medium grained gabbro to the north of the main Brunne PGM trench, and a few meters south of the gabbro / quartzite contact area.
37064	8	29	24	61	442133	5139068	Weak concentrations of fine grained disseminated chalcopyrite and pyrrhotite mineralization occurring within a fine grained gabbro or associated with some very narrow <1mm quartz, carbonate fracture fillings.

37065	7	15	7	29	442123	5139059	This particular sample was made up of a medium to coarse grained, semi massive to weakly foliated to sheared, gray to moevish possibly silicified gabbro and or quartz gabbro. These rocks have been injected with thin, irregular 1mm to 2mm, gray, sub vitreous quartz vein - fracture fillings, associated with fine grained disseminated chalcopyrite, and pyrrhotite mineralization, with some weathering to limonite.
37066	27	54	112	193	442135	5139037	Newly uncovered occurrence of a quite rusty rocks, containing some fine grained, irregular net textured, to finely disseminated concentrations of pyrrhotite and chalcopyrite mineralization occurring within a semi massive, light gray green, visibly altered gabbroic rock. These rocks have also been injected with thin <1mm discontinuous fine grained chalcopyrite stringers. Fine grained chalcopyrite mineralization was also found to be associated with minor quartz, carbonate fracture fillings developed within the rocks.
37067	7	<10	3	10			Sample located at 23.7 meters at 102 degrees Az., from BL 0+00 / 16E, approximately 2.5 meters grid north of the possibly brecciated metasedimentary rocks presumably resting above the gabbro sill. Medium to coarse grained, quartz diorite with the occasional traces of fine grained disseminated chalcopyrite mineralization. These rocks were also found to contain some biotite minerals.
37068	7	23	2	32			Sample located at 22.8 meters at 074 degrees Az., from BL 0+00 / 16E. These rocks were found to consist of a massive, coarse grained quartz diorite to quartz gabbro, with a slight pink discoloration - alteration of the feldspar minerals. These rocks were found to contain traces to 1/4% of finely disseminated - interstitial pyrrhotite and lesser quantities of chalcopyrite mineralization.
37069	4	<10	<1	4			Sample located at 25.4 meters at 038 degrees Az., form BL 0+00 / 16E. These rocks were found to consist of a medium to coarse grained quartz diorite and or a quartz gabbro with the occasional traces of fine grained chalcopyrite mineralization.

37070 13 10 2 25

Sample located at 17.7 meters at 053degrees As., from BL0+00 / L16E. These rocks were found to consist of a coarse grained to pegmatitic quartz gabbro to gabbro, with traces to 1/4% of finely disseminated chalcopyrite mineralization, with localized up to 1% of scattered, round to irregularly shaped concentrations of fine grained chalcopyrite mineralization, some of which has been altered to limonite. These rocks were also found to contain micro thin, <1mm quartz, carbonate fracture fillings that were found to contain fine grained chalcopyrite and pyrrhotite mineralization. Local malachite weathering was also found to be associated with the mild rusty weathering associated with sulphide bearing fracture fillings. The coarse grained "phase" is in contact with the medium to coarse grained quartz diorite, that appears to contain little or no visible sulphide minerals.

37071 7 <10 2 9

Sample located at 16.9 meters at 013 degrees Az., from BL0+00 / L16E. These rocks were found to consist of a medium to fine grained, massive to mildly deformed and stretched out quartz diorite to quartz gabbro, that was found to contain traces to 1/2% to locally 1/2% to 1% of finely disseminated pyrite, pyrrhotite, and traces of chalcopyrite mineralization. These rocks were also found to contain irregularly shaped injection like features of fine grained quartz, carbonate with some scattered, 2mm to 3mm concentrations of fine grained, sub amorphous pyrite with traces of chalcopyrite mineralization. The sulphide minerals have been altered to some limonite.

37072 8 <10 <1 8

Sample located at 16.0 meters at 357 degrees Az., from BL 0+00 / L16E. These rocks were found to consist of a fine to medium grained, slightly deformed quartz diorite, which were found to contain traces to 1/2% of finely disseminated pyrrhotite and traces to 1/4% of fine grained chalcopyrite mineralization. These rocks have also been injected by some very thin <1mm to 1mm of fine grained gray quartz, carbonate fracture fillings that contain abundant thin chalcopyrite and pyrrhotite mineralization, associated with some limonite weathering.

37073 6 22 2 30

Sample located at 18.6 meters at 323 degrees Az., from BL 0+00 / L16E. These rocks were found to consist of a coarse to medium grained, massive, quartz gabbro or quartz diorite with a slight flesh - pink discoloration - alteration of the feldspar minerals. The rocks were found to contain traces to 1/2% of finely disseminated pyrrhotite, with traces to 1/4% of finely disseminated chalcopyrite mineralization. There is some limonite weathering alteration developed on some of the fracture surfaces.

37074 9 13 1 23

Sample is located at 20.3 meters at 239 degrees Az., from station 0+25N on L16E. These rocks were found to consist of a coarse grained to pegmatitic gabbro to quartz gabbro with traces to locally up to 2% of fine grained interstitial to net textured pyrrhotite, chalcopyrite and magnetite mineralization. These rocks were also found to contain abundant biotite.

37075 10 23 7 40

Sample is located at 31.3 meters at 249 degrees Az., from station 0+25N on L16E. These rocks were found to consist of a medium to fine grained, clearly altered and deformed gabbro, with the strong development of fine grained aplite - quartz rich injections that have developed within the altered rocks. These injection features were found to contain local 1% to 2% of fine grained chalcopyrite mineralization.

37076	12	29	8	49			Sample is located at 28.7 meters at 254 degrees Az., from station 0+25N on L16E. These rocks were found to consist of a fine to medium grained to coarse grained - sub pegmatitic gabbro to quartz gabbro, that contains traces to 1/2% of finely disseminated pyrrhotite and traces of chalcopyrite mineralization. These rocks were also found to contain traces of blue quartz eyes, or quartz rich fragments.
37077	33	14	2	49			Sample is located at 22.00 meters at 270 degrees Az., from station 0+25N on L16E. These rocks were found to consist of a medium to fine grained, feldspar, quartz, and biotite rich possible former metasedimentary rock or possibly a very strongly altered and deformed gabbroic rock. This particular rock was found to contain abundant fine grained chalcopyrite and pyrrhotite mineralization. It is possible to speculate that such a rock may be a xenoliths - fragment that may have become incorporated within the mylonitic - zone of brecciation known to be present in the immediate area.
37078	5	22	3	30			Sample is located at 10.1 meters at 007 degrees Az., from station 0+25N on L16E. These rocks were found to consist of a medium grained, somewhat siliceous looking quartz diorite. These rocks were found to contain traces to 1/2% of locally fine grained disseminated to net textured - semi blebby pyrrhotite and chalcopyrite mineralization.
37079	4	13	1	18	442587	5139185	Prospecting east of L16E. The rocks were found to consist of a medium to coarse grained, slightly altered gabbro, located approximately 22.8 meters south of the tremolite altered gabbroic rocks. The sampled rocks were found to contain abundant, 1% to 3% of fine grained disseminated pyrrhotite with possibly equal amounts of chalcopyrite mineralization occurring within the gabbro. These rocks have also been injected with thin 1mm to 2mm quartz fracture fillings with some visible rusting of some sulphide minerals.

37080	13	32	13	58
37081	21	11	16	48
37082	28	<10	1	29
<u>37083</u>	<u>88</u>	<u>208</u>	<u>1550</u>	<u>1846</u>

442587 5139185 Prospecting east of L16E. The rocks were found to consist of a medium to fine grained, slightly altered gabbro with abundant 1% to 4% of fine grained disseminated to local net textured like concentrations of fine grained pyrrhotite and chalcopyrite mineralization.

442581 5139168 Prospecting east of L16E. The rocks were found to consist of a fine to medium grained, visibly altered and deformed gabbro with traces to 2% of fine grained pyrrhotite with possible equal amounts of chalcopyrite mineralization.

Sample collect to the south east of sample 37081 near the upper portions of the gabbro sill, bellow the quartzite's. The rocks were found to consist of a rusty looking, fine to medium grained, slightly altered and deformed quartz gabbro or quartz diorite, that was found to contain traces to 2% of fine grained pyrrhotite and lesser quantities of chalcopyrite mineralization.

Sample located at approximately 30 meters +/- to the west of the DDH B-URS-02 set up. The sample was found to consist of some large bleb like concentrations of fine to medium grained pyrrhotite and chalcopyrite mineralization occurring within a gabbroic rock. These mineralized rocks are typical in appearance to the blebby sulphide occurrences that are found at the "Ridge Showing" located only a short distance towards the north east.

DUP-368051	27	<10	1	28
DUP-368063	35	<10	67	102
DUP-368075	3	<10	5	8
DUP-368087	10	28	171	209
DUP-368099	4	11	26	41
DUP-368111	8	17	18	43
DUP-368123	25	12	17	54
DUP-368135	8	<10	22	30
DUP-368147	8	18	12	38
DUP-37059	31	<10	8	39
DUP-37071	8	<10	6	14
<u>DUP-37083</u>	<u>90</u>	<u>200</u>	<u>1580</u>	<u>1870</u>



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When referring to these samples, please quote:

Work Order No. 066355

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FAX : 416 864-0620

We have received a shipment on 20/11/01

P.O. NO.
PROJECT NO.

WAYBILL NO.: 7320216965/6
FROM

SHIPPED VIA: Ont. Northland

DISTRIBUTION OF UNUSED MATERIAL:

Pulps: Return
Rejects: Return

NUMBER OF SAMPLES: 133 SAMPLE TYPES: Rock

ESTIMATED DATE OF COMPLETION: 27/11/01

ANALYTICAL REQUEST:

Code	Description	Quantity
PC205	Drying, Crushing & milling (hardened steel)	133
FA301	1AT Au Inst. Fire Assay	133
ICP70	ICP Aqua Regia	22
ICAY30	Assay Schedule	111
	Total	

We thank you for your order.

Bonnie White
XRAL Laboratories

DATED: 20/11/01

Subject to SGS General Terms and Conditions

JAN 21 2002



XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 066355

To: **URSA Major International**
Attn: R. Sutcliffe
100 Adelaide Street West
Suite 405
TORONTO
ONTARIO M5H 1S3

Date : 04/12/01

Copy 1 to :

P.O. No. : *Brunne Property* *Core and rock samples*
Project No. :
No. of Samples : 133 Rock
Date Submitted : 20/11/01
Report Comprises : Cover Sheet plus
Pages 1 to 20

Distribution of unused material:

Pulps: Return
Rejects: Return

Certified By :

For: Dr. Hugh de Souza, General Manager
XRAL Laboratories

ISO 9002 REGISTERED

Subject to SGS General Terms and Conditions

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion



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Work Order: 066355 Date: 04/12/01

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Element.	Au	Pt	Pd
Method.	FA301	FA301	FA301
Det.Lim.	1	10	1
Units.	ppb	ppb	ppb
368051	22	<10	<1
368052	18	<10	<1
368053	10	<10	2
368054	8	<10	22
368055	21	<10	21
368056	17	<10	18
368057	8	<10	17
368058	12	11	17
368059	13	20	47
368060	39	15	85
368061	22	25	152
368062	86	155	1170 ✓
368063	32	13	73
368064	6	<10	8
368065	8	<10	10
368066	8	<10	12
368067	2	<10	27
368068	5	22	38
368069	4	<10	10
368070	5	16	6
368071	3	<10	5
368072	6	<10	33
368073	2	<10	4
368074	3	12	116
368075	2	<10	6
368076	<1	<10	2
368077	5	<10	12
368078	8	27	63
368079	6	<10	16
368080	11	24	63
368081	5	12	16
368082	8	26	159
368083	5	10	16
368084	8	13	22
368085	7	22	205
368086	6	14	39
368087	9	30	185
368088	17	15	24
368089	6	<10	36
368090	43	16	22
368091	4	<10	10
368092	5	15	22
368093	10	24	37
368094	12	20	13
368095	5	20	16



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Element.	Au	Pt	Pd
Method.	FA301	FA301	FA301
Det.Lim.	1	10	1
Units.	ppb	ppb	ppb
368096	7	19	25
368097	7	31	43
368098	5	14	54
368099	5	11	23
368100	17	43	235
368101	11	30	61
368102	10	18	92
368103	16	19	6
368104	6	17	13
368105	8	19	35
368106	7	19	11
368107	18	42	106
368108	5	<10	9
368109	8	13	14
368110	7	19	51
368111	7	14	16
368112	7	12	16
368113	8	<10	31
368114	7	18	21
368115	8	16	16
368116	7	14	20
368117	5	11	21
368118	6	<10	20
368119	7	22	14
368120	7	11	17
368121	6	15	16
368122	4	19	15
368123	25	13	13
368124	7	10	14
368125	11	21	11
368126	9	20	14
368127	7	21	18
368128	6	19	15
368129	7	14	17
368130	6	13	24
368131	8	17	15
368132	8	<10	20
368133	5	<10	19
368134	6	17	18
368135	6	11	20
368136	6	10	26
368137	7	16	62
368138	9	16	22
368139	7	17	20
368140	12	16	19



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Work Order: 066355 Date: 04/12/01

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Element. Method. Det.Lim. Units.	Au FA301 1 ppb	Pt FA301 10 ppb	Pd FA301 1 ppb
368141	9	13	19
368142	14	24	34
368143	9	<10	9
368144	9	21	17
368145	10	16	25
368146	5	16	12
368147	8	17	12
368148	7	15	20
368149	12	36	79
368150	9	11	19
37051	9	23	27
37052	31	25	32
37053	6	12	33
37054	8	35	91
37055	3	12	23
37056	4	13	19
37057	6	18	5
37058	4	14	2
37059	32	13	6
37060	23	12	2
37061	5	15	5
37062	5	<10	<1
37063	21	31	17
37064	8	29	24
37065	7	15	7
37066	27	54	112
37067	7	<10	3
37068	7	23	2
37069	4	<10	<1
37070	13	10	2
37071	7	<10	2
37072	8	<10	<1
37073	6	22	2
37074	9	13	1
37075	10	23	7
37076	12	29	8
37077	33	14	2
37078	5	22	3
37079	4	13	1
37080	13	32	13
37081	21	11	16
37082	28	<10	1
37083	88	208	1550 ✓
*Dup 368051	27	<10	1
*Dup 368063	35	<10	67



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Work Order: 066355 Date: 04/12/01

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Element.	Au	Pt	Pd
Method.	FA301	FA301	FA301
Det.Lim.	1	10	1
Units.	ppb	ppb	ppb
*Dup 368075	3	<10	5
*Dup 368087	10	28	171
*Dup 368099	4	11	26
*Dup 368111	8	17	18
*Dup 368123	25	12	17
*Dup 368135	8	<10	22
*Dup 368147	8	18	12
*Dup 37059	31	<10	8
*Dup 37071	8	<10	6
*Dup 37083	90	200	1580



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Element. Method. Det. Lim. Units.	Be ICP70 0.5 ppm	Na ICP70 0.01 %	Mg ICP70 0.01 %	Al ICP70 0.01 %	P ICP70 0.01 %	K ICP70 0.01 %	Ca ICP70 0.01 %	Sc ICP70 0.5 ppm	Ti ICP70 0.01 %	V ICP70 2 ppm	Cr ICP70 1 ppm	Mn ICP70 2 ppm
368051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368052	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368053	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368054	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368056	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368057	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368058	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368060	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368061	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368062	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368063	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368064	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368065	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368066	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368067	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368068	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368069	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368070	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368071	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368072	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368073	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368074	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368076	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368077	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368078	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368079	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368080	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368081	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368082	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368083	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368084	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368085	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368086	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368087	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368088	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368089	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368090	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368091	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368092	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368093	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368094	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368095	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.



XRAL Laboratories
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Work Order: 066355

Date: 04/12/01

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Element. Method. Det.Lim. Units.	Be ICP70 0.5 ppm	Na ICP70 0.01 %	Mg ICP70 0.01 %	Al ICP70 0.01 %	P ICP70 0.01 %	K ICP70 0.01 %	Ca ICP70 0.01 %	Sc ICP70 0.5 ppm	Ti ICP70 0.01 %	V ICP70 2 ppm	Cr ICP70 1 ppm	Mn ICP70 2 ppm
368096	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Bik BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368097	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368098	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368099	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368100	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368101	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368102	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368103	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368104	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368105	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368106	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368107	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368108	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368109	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368110	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368111	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368112	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368113	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368114	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368115	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368116	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368117	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368118	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368119	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368120	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368121	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368122	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368123	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368124	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368125	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368126	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368127	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368128	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368129	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368130	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368131	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368132	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368133	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368134	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368135	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368136	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368137	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368138	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.



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Element. Method. Det.Lim. Units.	Be ICP70 0.5 ppm	Na ICP70 0.01 %	Mg ICP70 0.01 %	Al ICP70 0.01 %	P ICP70 0.01 %	K ICP70 0.01 %	Ca ICP70 0.01 %	Sc ICP70 0.5 ppm	Ti ICP70 0.01 %	V ICP70 2 ppm	Cr ICP70 1 ppm	Mn ICP70 2 ppm
368139	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368140	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368141	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368142	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Bik BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368143	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368144	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368145	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368146	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368148	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368149	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368150	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37052	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37053	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37054	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37056	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37057	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37058	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37060	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37061	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37062	1.6	<0.01	3.35	4.12	0.26	0.08	2.77	13.7	0.24	182	83	764
37063	<0.5	0.08	1.02	1.57	0.02	0.08	0.49	2.0	0.06	37	44	223
37064	<0.5	0.02	1.50	1.89	0.02	0.04	0.20	1.4	0.04	40	65	320
37065	<0.5	0.03	1.29	1.84	0.03	0.44	0.62	1.9	0.13	54	64	278
37066	<0.5	0.07	0.98	1.62	0.02	0.14	0.43	1.2	0.05	34	65	210
37067	<0.5	0.07	1.07	2.11	0.06	1.13	1.13	4.5	0.20	85	34	489
37068	<0.5	0.04	0.87	1.56	0.04	0.61	0.68	3.1	0.13	72	32	322
37069	<0.5	0.06	0.95	2.25	0.06	1.33	0.73	4.7	0.21	92	49	451
37070	<0.5	0.04	0.51	1.09	0.07	0.50	0.95	3.8	0.15	73	51	267
37071	<0.5	0.03	1.22	2.55	0.06	0.83	0.85	4.4	0.17	109	47	553
37072	<0.5	0.03	0.88	1.96	0.06	1.14	0.69	4.0	0.20	82	72	455
37073	<0.5	0.06	1.01	1.94	0.05	0.65	0.97	4.3	0.12	97	41	380
37074	<0.5	0.05	0.77	1.54	0.06	0.67	1.10	4.1	0.15	94	57	331
37075	<0.5	0.03	1.76	2.96	0.05	0.65	2.00	5.3	0.13	162	34	716
37076	<0.5	0.05	0.83	1.45	0.04	0.59	0.73	3.4	0.11	68	41	282
37077	<0.5	0.02	1.62	3.00	0.07	1.68	0.30	3.8	0.19	116	64	490
37078	<0.5	0.03	1.39	2.68	0.06	1.62	0.41	3.2	0.17	94	109	411
37079	<0.5	0.05	1.41	2.78	0.05	1.56	0.51	3.9	0.18	96	94	434
37080	<0.5	0.06	1.15	2.11	0.04	1.01	1.12	2.2	0.12	70	50	382
37081	<0.5	0.06	1.25	2.09	0.04	0.96	0.53	3.7	0.12	78	63	377



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Element.	Be	Na	Mg	Al	P	K	Ca	Sc	Ti	V	Cr	Mn
Method.	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70
Det.Lim.	0.5	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	2	1	2
Units.	ppm	%	%	%	%	%	%	ppm	%	ppm	ppm	ppm
37082	<0.5	0.02	1.54	3.02	0.08	2.04	0.34	1.5	0.20	100	84	460
37083	<0.5	0.09	1.06	1.83	0.03	0.15	0.58	1.8	0.06	44	38	237
*Dup 368051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368063	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368087	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368099	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Blk BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368111	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368123	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368135	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 37059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 37071	<0.5	0.03	1.21	2.51	0.06	0.85	0.82	4.2	0.17	108	45	545
*Dup 37083	<0.5	0.09	1.05	1.81	0.03	0.15	0.56	1.9	0.06	44	38	234
*Blk BLANK	<0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.5	<0.01	<2	<1	<2
*Std XRAL01	<0.5	0.05	0.79	0.80	0.12	0.10	0.93	2.0	0.05	30	285	521



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Element. Method. Det.Lim. Units.	Fe ICP70 0.01 %	Co ICP70 1 ppm	Ni ICP70 1 ppm	Cu ICP70 0.5 ppm	Zn ICP70 0.5 ppm	As ICP70 3 ppm	Sr ICP70 0.5 ppm	Y ICP70 0.5 ppm	Zr ICP70 0.5 ppm	Mo ICP70 1 ppm	Ag ICP70 0.2 ppm	Cd ICP70 1 ppm
368051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368052	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368053	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368054	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368056	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368057	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368058	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368060	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368061	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368062	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368063	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368064	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368065	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368066	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368067	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368068	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368069	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368070	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368071	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368072	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368073	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368074	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368076	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368077	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368078	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368079	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368080	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368081	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368082	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368083	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368084	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368085	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368086	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368087	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368088	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368089	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368090	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368091	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368092	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368093	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368094	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368095	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.



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Element. Method. Det.Lim. Units.	Fe ICP70 0.01 %	Co ICP70 1 ppm	Ni ICP70 1 ppm	Cu ICP70 0.5 ppm	Zn ICP70 0.5 ppm	As ICP70 3 ppm	Sr ICP70 0.5 ppm	Y ICP70 0.5 ppm	Zr ICP70 0.5 ppm	Mo ICP70 1 ppm	Ag ICP70 0.2 ppm	Cd ICP70 1 ppm
368096	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Blk BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368097	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368098	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368099	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368100	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368101	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368102	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368103	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368104	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368105	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368106	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368107	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368108	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368109	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368110	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368111	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368112	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368113	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368114	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368115	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368116	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368117	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368118	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368119	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368120	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368121	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368122	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368123	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368124	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368125	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368126	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368127	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368128	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368129	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368130	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368131	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368132	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368133	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368134	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368135	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368136	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368137	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368138	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.



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Element. Method. Det.Lim. Units.	Fe ICP70 0.01 %	Co ICP70 1 ppm	Ni ICP70 1 ppm	Cu ICP70 0.5 ppm	Zn ICP70 0.5 ppm	As ICP70 3 ppm	Sr ICP70 0.5 ppm	Y ICP70 0.5 ppm	Zr ICP70 0.5 ppm	Mo ICP70 1 ppm	Ag ICP70 0.2 ppm	Cd ICP70 1 ppm
368139	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368140	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368141	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368142	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Bik BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368143	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368144	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368145	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368146	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368148	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368149	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368150	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37052	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37053	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37054	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37056	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37057	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37058	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37060	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37061	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37062	10.3	50 ✓	52 ✓	68.5 ✓	84.8	<3 ✓	56.7	23.8	21.4	<1	0.6	<1
37063	2.53	62	179	830	41.5	62	16.5	1.8	3.3	<1	<0.2	<1
37064	3.15	54	165	212	38.2	36	5.5	1.4	2.7	<1	<0.2	<1
37065	3.04	22	52	49.9	29.5	<3	11.2	3.2	4.3	1	<0.2	<1
37066	3.32	83	522	919	33.3	29	15.0	1.1	1.8	<1	0.9	<1
37067	4.47	33	33	146	56.0	17	10.5	6.9	1.6	2	<0.2	<1
37068	3.26	31	25	143	34.7	5	8.7	5.0	6.1	<1	0.4	<1
37069	4.87	26	17	85.4	57.6	<3	9.4	7.2	5.9	1	0.4	<1
37070	2.38	22	16	310	32.1	<3	13.9	8.1	5.7	<1	<0.2	<1
37071	6.05 ✓	35	19	172	72.9	<3	10.3	6.6	5.3	1	0.7	<1
37072	4.53	32	18	68.9	51.9	8	9.3	6.0	4.7	<1	<0.2	<1
37073	4.18	24	17	83.4	45.8	<3	11.2	6.3	3.2	1	0.5	<1
37074	3.47	33	25	204	39.3	<3	10.9	7.1	4.8	<1	0.3	<1
37075	6.20 ✓	57	50	218	71.6	30	18.2	4.8	4.0	<1	0.3	<1
37076	2.92	32	25	130	38.1	17	9.7	4.6	5.2	<1	0.4	<1
37077	6.09 ✓	41	26	1030	78.2	<3	7.5	6.1	4.5	<1	1.1	<1
37078	5.27	32	29	90.4	63.4	<3	9.3	7.2	4.6	<1	<0.2	<1
37079	5.45	34	28	93.9	65.1	<3	11.1	7.8	5.5	2	0.3	<1
37080	3.88	32	62	227	53.1	10	13.4	3.8	2.0	<1	<0.2	<1
37081	4.14	32	38	149	57.0	<3	8.4	4.0	5.6	<1	0.5	<1



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Element.	Fe	Co	Ni	Cu	Zn	As	Sr	Y	Zr	Mo	Ag	Cd
Method.	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70
Det.Lim.	0.01	1	1	0.5	0.5	3	0.5	0.5	0.5	1	0.2	1
Units.	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
37082	6.32 ✓	35	22	144	115	<3	8.2	6.0	5.1	<1	0.8	<1
37083	3.31 ✓	63 ✓	386 ✓	1410 ✓	46.1	77 ✓	16.9	2.3	2.7	1	0.7	<1
*Dup 368051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368063	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368087	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368099	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Blk BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368111	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368123	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368135	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 37059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 37071	6.00	36	20	175	71.0	<3	9.9	6.5	4.5	2	0.5	<1
*Dup 37083	3.27	66	381	1400	45.4	86	16.7	2.4	3.1	1	1.0	<1
*Blk BLANK	<0.01	<1	<1	<0.5	<0.5	<3	<0.5	<0.5	0.6	<1	<0.2	<1
*Std XRAL01	3.32	492	674	67.3	89.8	533	42.6	8.9	8.3	<1	4.7	<1



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Element. Method. Det.Lim. Units.	Sn ICP70 10 ppm	Sb ICP70 5 ppm	Ba ICP70 1 ppm	La ICP70 0.5 ppm	W ICP70 10 ppm	Pb ICP70 2 ppm	Bi ICP70 5 ppm	Li ICP70 1 ppm
368051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368052	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368053	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368054	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368056	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368057	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368058	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368060	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368061	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368062	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368063	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368064	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368065	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368066	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368067	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368068	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368069	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368070	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368071	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368072	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368073	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368074	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368076	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368077	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368078	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368079	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368080	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368081	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368082	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368083	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368084	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368085	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368086	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368087	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368088	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368089	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368090	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368091	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368092	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368093	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368094	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368095	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.



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Element. Method. Det.Lim. Units.	Sn ICP70 10 ppm	Sb ICP70 5 ppm	Ba ICP70 1 ppm	La ICP70 0.5 ppm	W ICP70 10 ppm	Pb ICP70 2 ppm	Bi ICP70 5 ppm	Li ICP70 1 ppm
368096	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Blk BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368097	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368098	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368099	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368100	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368101	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368102	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368103	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368104	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368105	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368106	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368107	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368108	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368109	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368110	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368111	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368112	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368113	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368114	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368115	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368116	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368117	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368118	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368119	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368120	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368121	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368122	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368123	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368124	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368125	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368126	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368127	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368128	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368129	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368130	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368131	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368132	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368133	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368134	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368135	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368136	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368137	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368138	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.



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Element. Method. Det.Lim. Units.	Sn ICP70 10 ppm	Sb ICP70 5 ppm	Ba ICP70 1 ppm	La ICP70 0.5 ppm	W ICP70 10 ppm	Pb ICP70 2 ppm	Bi ICP70 5 ppm	Li ICP70 1 ppm
368139	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368140	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368141	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368142	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Blk BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368143	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368144	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368145	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368146	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368148	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368149	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
368150	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37052	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37053	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37054	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37056	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37057	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37058	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37060	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37061	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37062	<10	<5	9	19.8	<10	9	<5	37
37063	<10	<5	10	4.3	<10	<2	<5	8
37064	<10	<5	5	3.0	<10	4	<5	10
37065	<10	<5	57	4.4	<10	<2	<5	12
37066	<10	<5	21	1.3	<10	<2	<5	8
37067	<10	<5	197	7.3	<10	<2	<5	12
37068	<10	<5	115	6.9	<10	2	<5	12
37069	<10	<5	253	11.8	<10	2	<5	15
37070	<10	<5	94	21.0	<10	<2	<5	7
37071	<10	<5	152	8.8	<10	5	<5	16
37072	<10	<5	226	9.1	<10	<2	<5	13
37073	<10	<5	116	7.9	<10	5	<5	13
37074	<10	<5	122	11.2	<10	<2	<5	9
37075	<10	<5	95	7.3	<10	4	<5	15
37076	<10	<5	107	9.4	<10	3	<5	10
37077	<10	<5	286	9.9	<10	3	*INF	20
37078	<10	<5	311	15.6	<10	3	<5	18
37079	<10	<5	303	15.8	<10	4	<5	18
37080	<10	<5	270	5.0	<10	2	<5	13
37081	<10	<5	279	8.5	<10	2	<5	13



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Element.	Sn	Sb	Ba	La	W	Pb	Bi	Li
Method.	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70	ICP70
Det. Lim.	10	5	1	0.5	10	2	5	1
Units.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
37082	<10	<5	397	8.9	<10	42	<5	22
37083	<10	<5	26	3.7	<10	2	*INF	10
*Dup 368051	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368063	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368087	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368099	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Blk BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Std XRAL01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368111	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368123	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368135	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 368147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 37059	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup 37071	<10	<5	155	7.8	<10	4	<5	16
*Dup 37083	<10	<5	26	4.3	<10	4	*INF	10
*Blk BLANK	<10	<5	<1	<0.5	<10	<2	<5	<1
*Std XRAL01	<10	<5	122	10.5	<10	24	<5	9



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Element. Method. Det.Lim. Units.	Co ICAY50 0.01 %	Cu ICAY50 0.01 %	Ni ICAY50 0.01 %
368051	<0.01	<0.01	<0.01
368052	<0.01	0.03	<0.01
368053	<0.01	<0.01	<0.01
368054	<0.01	<0.01	0.02
368055	<0.01	<0.01	0.02
368056	<0.01	<0.01	0.02
368057	<0.01	<0.01	0.02
368058	<0.01	<0.01	0.02
368059	<0.01	0.01	0.02
368060	<0.01	0.02	0.02
368061	<0.01	0.03	0.02
368062	0.02	0.15	0.08
368063	<0.01	0.03	0.02
368064	<0.01	0.01	0.02
368065	<0.01	<0.01	0.02
368066	<0.01	<0.01	0.02
368067	<0.01	<0.01	0.02
368068	<0.01	<0.01	0.02
368069	<0.01	<0.01	0.02
368070	<0.01	<0.01	0.02
368071	<0.01	0.01	0.02
368072	<0.01	<0.01	0.02
368073	<0.01	0.01	0.02
368074	<0.01	<0.01	0.03
368075	<0.01	<0.01	0.02
368076	<0.01	<0.01	0.01
368077	<0.01	0.01	0.02
368078	<0.01	<0.01	0.01
368079	<0.01	0.02	0.02
368080	<0.01	0.01	0.02
368081	<0.01	<0.01	0.02
368082	<0.01	0.01	0.03
368083	<0.01	<0.01	0.02
368084	<0.01	<0.01	0.02
368085	0.01	<0.01	0.02
368086	<0.01	<0.01	0.02
368087	<0.01	0.01	0.02
368088	<0.01	0.02	0.01
368089	<0.01	<0.01	0.01
368090	<0.01	<0.01	0.01
368091	<0.01	0.01	0.01
368092	<0.01	0.01	0.01
368093	<0.01	0.04	0.01
368094	<0.01	0.02	0.01
368095	<0.01	0.03	0.01



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Element. Method. Det.Lim. Units.	Co ICAY50 0.01 %	Cu ICAY50 0.01 %	Ni ICAY50 0.01 %
368096	<0.01	0.01	0.01
*Blk BLANK	<0.01	<0.01	<0.01
*Std NIST8604	<0.01	0.72	<0.01
368097	<0.01	0.01	0.01
368098	<0.01	<0.01	0.01
368099	<0.01	<0.01	0.01
368100	<0.01	0.04	0.02
368101	<0.01	0.02	0.01
368102	<0.01	0.04	0.02
368103	<0.01	0.01	0.01
368104	<0.01	0.01	0.01
368105	<0.01	<0.01	0.01
368106	<0.01	0.01	0.01
368107	<0.01	0.02	0.02
368108	<0.01	0.01	0.01
368109	<0.01	0.01	0.01
368110	<0.01	0.01	0.01
368111	<0.01	0.01	0.01
368112	<0.01	0.01	0.01
368113	<0.01	0.01	0.01
368114	<0.01	<0.01	0.01
368115	<0.01	0.02	0.01
368116	<0.01	0.01	0.01
368117	<0.01	<0.01	0.01
368118	<0.01	<0.01	0.01
368119	<0.01	<0.01	0.01
368120	<0.01	0.01	0.01
368121	<0.01	0.01	0.01
368122	<0.01	<0.01	0.01
368123	<0.01	0.01	0.01
368124	<0.01	0.01	0.01
368125	<0.01	0.01	0.02
368126	<0.01	0.01	0.01
368127	<0.01	<0.01	0.01
368128	<0.01	<0.01	0.01
368129	<0.01	<0.01	0.01
368130	<0.01	<0.01	0.01
368131	<0.01	<0.01	0.01
368132	<0.01	0.01	0.02
368133	<0.01	<0.01	0.02
368134	<0.01	<0.01	0.02
368135	<0.01	<0.01	0.02
368136	<0.01	<0.01	0.02
368137	<0.01	0.01	0.02
368138	<0.01	<0.01	0.02



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Element.	Co	Cu	Ni
Method.	ICAY50	ICAY50	ICAY50
Det.Lim.	0.01	0.01	0.01
Units.	%	%	%
368139	<0.01	<0.01	0.02
368140	<0.01	<0.01	0.02
368141	<0.01	<0.01	0.02
368142	<0.01	0.03	0.03
*Blk BLANK	<0.01	<0.01	<0.01
*Std SU_1A	0.04	0.90	1.29
368143	<0.01	<0.01	0.02
368144	<0.01	<0.01	0.02
368145	<0.01	0.01	0.02
368146	<0.01	<0.01	0.02
368147	<0.01	<0.01	0.02
368148	<0.01	0.01	0.02
368149	<0.01	0.02	0.03
368150	<0.01	<0.01	0.02
37051	<0.01	<0.01	0.02
37052	<0.01	<0.01	0.02
37053	<0.01	<0.01	0.02
37054	0.01	<0.01	0.04
37055	<0.01	<0.01	0.02
37056	<0.01	<0.01	0.02
37057	<0.01	<0.01	0.02
37058	<0.01	<0.01	0.02
37059	<0.01	<0.01	0.02
37060	<0.01	<0.01	0.02
37061	<0.01	<0.01	0.02
37062	n.a.	n.a.	n.a.
37063	n.a.	n.a.	n.a.
37064	n.a.	n.a.	n.a.
37065	n.a.	n.a.	n.a.
37066	n.a.	n.a.	n.a.
37067	n.a.	n.a.	n.a.
37068	n.a.	n.a.	n.a.
37069	n.a.	n.a.	n.a.
37070	n.a.	n.a.	n.a.
37071	n.a.	n.a.	n.a.
37072	n.a.	n.a.	n.a.
37073	n.a.	n.a.	n.a.
37074	n.a.	n.a.	n.a.
37075	n.a.	n.a.	n.a.
37076	n.a.	n.a.	n.a.
37077	n.a.	n.a.	n.a.
37078	n.a.	n.a.	n.a.
37079	n.a.	n.a.	n.a.
37080	n.a.	n.a.	n.a.
37081	n.a.	n.a.	n.a.



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Element.	Co	Cu	Ni
Method.	ICAY50	ICAY50	ICAY50
Det.Lim.	0.01	0.01	0.01
Units.	%	%	%
37082	n.a.	n.a.	n.a.
37083	n.a.	n.a.	n.a.
*Dup 368051	<0.01	<0.01	<0.01
*Dup 368063	<0.01	0.03	0.03
*Dup 368075	<0.01	<0.01	0.02
*Dup 368087	<0.01	0.01	0.02
*Dup 368099	<0.01	<0.01	0.01
*Blk BLANK	<0.01	<0.01	<0.01
*Std SU_1A	0.04	0.90	1.27
*Dup 368111	<0.01	0.01	0.01
*Dup 368123	<0.01	<0.01	0.01
*Dup 368135	<0.01	<0.01	0.02
*Dup 368147	<0.01	<0.01	0.02
*Dup 37059	<0.01	<0.01	0.02
*Dup 37071	n.a.	n.a.	n.a.
*Dup 37083	n.a.	n.a.	n.a.
*Blk BLANK	<0.01	<0.01	<0.01
*Std PTC_1	0.30	5.15	10.4

Work Report Summary

Transaction No: W0370.00002 Status: APPROVED
 Recording Date: 2003-JAN-02 Work Done from: 2001-NOV-11
 Approval Date: 2003-JAN-06 to: 2001-NOV-17

Client(s):
 112992 BRUNNE, DAN ALBERT
 203573 TURCOTT, MITCHELL BERNARD

Survey Type(s):
 ASSAY PDRILL

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
S 1118381	\$23,721	\$23,721	\$0	\$0	\$23,721	23,721	\$0	\$0	2004-OCT-17
S 1203115	\$0	\$0	\$1,321	\$1,321	\$0	0	\$0	\$0	2003-SEP-18
S 1217916	\$0	\$0	\$3,200	\$3,200	\$0	0	\$0	\$0	2004-JAN-17
S 1217917	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-JAN-17
S 1217991	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-JAN-17
S 1237517	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-JAN-10
S 1237518	\$0	\$0	\$6,400	\$6,400	\$0	0	\$0	\$0	2004-JAN-10
S 1237519	\$0	\$0	\$4,800	\$4,800	\$0	0	\$0	\$0	2004-JAN-10
S 1237545	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-MAR-30
S 1247351	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-MAY-09
	\$23,721	\$23,721	\$23,721	\$23,721	\$23,721	\$23,721	\$0	\$0	

External Credits: \$0
 Reserve:
 \$0 Reserve of Work Report#: W0370.00002
 \$0 Total Remaining

Status of claim is based on information currently on record.



41I05NE2004 2.24731 PORTER 900

Date: 2003-JAN-07

GEOSCIENCE ASSESSMENT OFFICE
933 RAMSEY LAKE ROAD, 6th FLOOR
SUDBURY, ONTARIO
P3E 6B5

MITCHELL BERNARD TURCOTT
P.O. BOX 338
WEBBWOOD, ONTARIO
P0P 2G0 CANADA

Tel: (888) 415-9845
Fax: (877) 670-1555

Submission Number: 2.24731
Transaction Number(s): W0370.00002

Dear Sir or Madam

Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact STEVEN BENETEAU by email at steve.beneteau@ndm.gov.on.ca or by phone at (705) 670-5855.

Yours Sincerely,



Ron Gashinski
Senior Manager, Mining Lands Section

Cc: Resident Geologist

Dan Albert Brunne
(Claim Holder)

Mitchell Bernard Turcott
(Assessment Office)

Assessment File Library

Mitchell Bernard Turcott
(Claim Holder)



**MINING LAND TENURE
MAP**

Date / Time of Issue Jul 2 2002 12:30h Eastern
TOWNSHIP / AREA PLAN
PORTER G-2865

ADMINISTRATIVE DISTRICTS / DIVISIONS
Mining Division Sudbury
Lend Title/Registry Division SUDBURY
Ministry of Natural Resources District SUDBURY

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession Unit
- Provincial Park
- Forest Reserve
- City/Township
- Control
- Control - Upper Airway/Corridor
- Ship
- Mine Location
- Railway
- Road
- Tax
- Natural Gas Pools
- Water Line
- Communication Line
- Proposed Fee
- Mineral - Coal, Oil, Natural Gas, Copper

LAND TENURE

- Freehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only
- Leasehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only
- Licence of Occupation
- Open Staked
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only
- Leasehold Patent
- Open Staked
- Water Right Lease Agreement
- Mining Claim

LAND TENURE WITHDRAWALS

- Area Withdrawal from Discussion Mining and Withdrawal Type
- WMS Surface and Mining Rights Withdrawal
- WMO Surface Rights Only Withdrawal
- WMO Mining Rights Only Withdrawal
- WMO Order in Council Withdrawal Type
- WMO Surface and Mining Rights Withdrawal
- WMO Surface Rights Only Withdrawal
- WMO Mining Rights Only Withdrawal
- IMPORTANT NOTICES

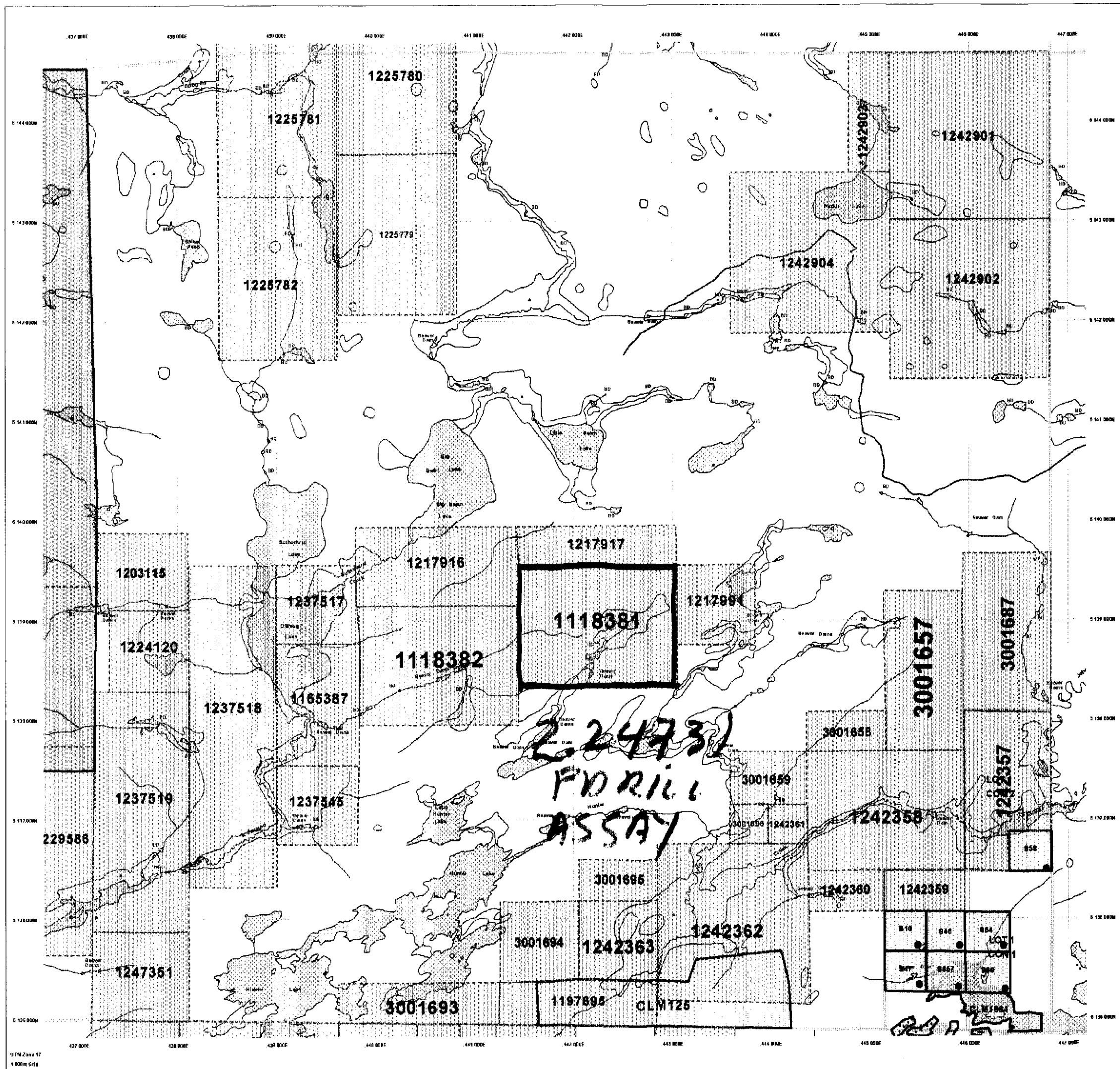


LAND TENURE WITHDRAWAL DESCRIPTIONS

Map File	Type	Date	Description
WLL 14	WMS	Jul 14 1992	SEC 26 WLL 14 02 14 07 2 S.A.O. 107430
WLL 15	WMS	May 17 1993	SEC 35 WLL 15 02 15 07 2 S.A.O. 107430
WLL 16	WMS	Jul 25 2001	SEC 35 WLL 16 02 16 07 2 S.A.O. 107430
Freehold	WMS	Oct 25 2001	Special Order Provincial Park

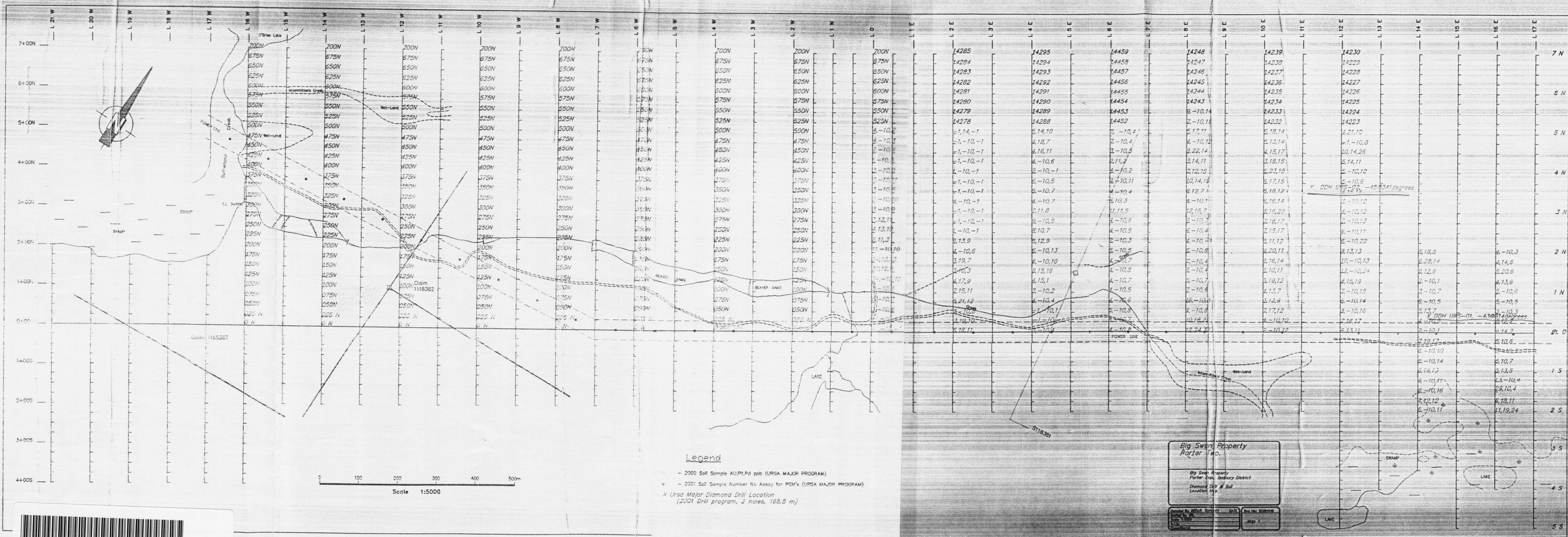
IMPORTANT NOTICES

Areas under such a notice are subject to the effect of current prospecting, mining and mineral development activities.



General Information and Limitations
This map does not show uncoloured land tenure and interests in land including certain patents, leases, agreements, right of way, floating liens, easements, or other forms of non-registered rights and interests in land. Also, certain land tenure and interests that are not registered in the Provincial Mining Records Office may not be shown on this map.

41105N2004 2.24731 PORTER
200



Legend

- ✖ - 2000 Soil Sample AU,Pt,Pd ppb (URSA MAJOR PROGRAM)
- - 2001 Soil Sample Number No Assay for PGM's (URSA MAJOR PROGRAM)
- X Ursa Major Diamond Drill Location (2001 Drill program, 2 holes, 168.5 m)

Big Swan Property Porter Twp.

Big Swan Property Porter Twp. Sudbury District
Diamond Drill & Soil Location Map

Drawing by Jeffery R. Porter DATE: June 11, 2004
Scale: 1:5000 Map 1