



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT:

DIAMOND DRILLING REPORT ON THE WICHEEDA PROPERTY

TOTAL COST: \$175,500

AUTHOR(S): Bob Lane

SIGNATURE(S):

A handwritten signature in blue ink, appearing to read "Bob Lane", written over a circular stamp.

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-13-168 / September 18, 2008
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 4273629

YEAR OF WORK: 2008

PROPERTY NAME: WICHEEDA

CLAIM NAME(S) (on which work was done): 516112, 516121, 516124, 591827-591829

COMMODITIES SOUGHT: RARE EARTH ELEMENTS

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 093J 014

MINING DIVISION: Cariboo
NTS / BCGS: 092J.060

LATITUDE: 54° 31' 48" N
LONGITUDE: 122° 05' 12" W
UTM Zone (NAD 83): 10 **EASTING:** 559105 **NORTHING:** 6042876

OWNER(S): Spectrum Mining Corporation
FMC: 216712

MAILING ADDRESS:
PO Box 20
6242 Cartwright Street
Wardner, BC
V0B 2J0

OPERATOR(S) [who paid for the work]: Same

MAILING ADDRESS: Same

REPORT KEYWORDS: The Wicheeda property is located in the Foreland Belt and is underlain mainly by limestone, marble, siltstone, argillite and calcareous sedimentary rocks that have been assigned to the upper Cambrian to lower Ordovician Kechika Group. Several fine to coarse-grained rare earth element-bearing carbonatite bodies intrude the sediments. Four heli-supported diamond drill holes, with an aggregate length of 866 metres, were drilled in 2008 to evaluate the rare-earth element content of the 'George' carbonatite and to ascertain some information on its geometry and dimensions. Each drill hole collared in the intrusion and returned significant, economically interesting values of cerium, lanthanum, praseodymium and neodymium, as well as anomalous levels of other light and heavy REEs. The highest grade intersections included: 48.64 m averaging 13,570 ppm Ce, 17806 ppm La, 1344 ppm Pr and 2780 ppm Nd in drill hole 08-WI-02.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
15944, 16246

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Seismic			
Other			
Airborne			
GEOCHEMICAL			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core	866m,4 NQ holes Prince George		134,236.87
Non-core			
RELATED TECHNICAL			
Logging / Sampling / Shipping / Assaying	drill core: 286 samples (ICP & XRF) 84 samples (FUS-MS)		41,286.00
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
Total Cost			\$175,522.87

**BC Geological Survey
Assessment Report
30873**

**DIAMOND DRILLING REPORT
ON THE
WICHEEDA PROPERTY
CARIBOO MINING DIVISION
BRITISH COLUMBIA**

BCGS MAP: 093.060

LATITUDE 54° 31' 48" N LONGITUDE 122° 05' 12"W

STATEMENT OF WORK#: 4273629

**PREPARED FOR: SPECTRUM MINING CORPORATION
PO Box 20
6242 CARTWRIGHT STREET
WARDNER, BC CANADA VOB 2J0**

**PREPARED BY: BOB LANE, PGEO
ALLNORTH CONSULTANTS LIMITED
2011 PG PULMILL ROAD
PRINCE GEORGE, BC, CANADA V2L 4V1**

MAY 29, 2009

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1 EXECUTIVE SUMMARY

The Wicheeda property covers several bodies of rare earth element-bearing intrusive carbonatite and related syenitic rocks that were last explored in the late 1980s. The property is located approximately 80 km northeast of Prince George and 50 km east of Bear Lake in central British Columbia. The Wicheeda claim group consists of 6 cell claims that cover approximately 1708 ha in the Cariboo Mining Division. All of the claims are 100% owned by Spectrum Mining Corporation. The property is situated close to major infrastructure including power transmission lines, railway and major highways and is readily accessible by all-weather gravel roads.

The Wicheeda property is located in the Foreland Belt and is underlain mainly by limestone, marble, siltstone, argillite and calcareous sedimentary rocks that have been assigned to the upper Cambrian to lower Ordovician Kechika Group.

The 2008 exploration program consisted of the first drilling to occur on the property. Four heli-supported diamond drill holes, with an aggregate length of 866 metres, were drilled from a single platform to evaluate the rare-earth element content of the 'George' carbonatite and to ascertain some information on its geometry and minimum dimensions. Each drill hole collared in the intrusion and returned significant, economically interesting values of cerium, lanthanum, praseodymium and neodymium, as well as anomalous levels of other light and heavy rare earth elements. The highest grade intersections include: 48.64 m averaging 13,570 ppm Ce, 17806 ppm La, 1344 ppm Pr and 2780 ppm Nd in drill hole 08-WI-02.

It is recommended that Spectrum Mining Corporation continue to explore the Wicheeda property. Additional diamond drilling of the George carbonatite is required to further outline its geometry, ascertain its dimensions and determine its average grade. Bedrock mapping of the property should be undertaken and a multi-element anomaly on the former 'Lake' grid should be trenched and or drilled.

2 INTRODUCTION

The Wicheeda mineral exploration property is comprised of six contiguous MTO cell claims centred approximately 80 km northeast of Prince George, in central British Columbia. The property is accessible by well-maintained forestry roads and arterial gravel roads and is close to a paved provincial highway, rail service and hydroelectric power.

The property is owned by Spectrum Mining Corporation (Spectrum), a private mineral exploration company based in Wardner, BC. Limited surface work in the claim area by Teck Exploration in the mid-1980s outlined several rare earth element enriched intrusive carbonatite bodies hosted by limestones and calcareous sedimentary rocks of the upper Cambrian to lower Ordovician Kechika Group.

Spectrum Mining Corporation (Spectrum) contracted Allnorth Consultants Limited (Allnorth) to manage a four-hole diamond drilling program on the Wicheeda property. The author has no ownership in the claims nor any interest in Spectrum Mining Corporation.

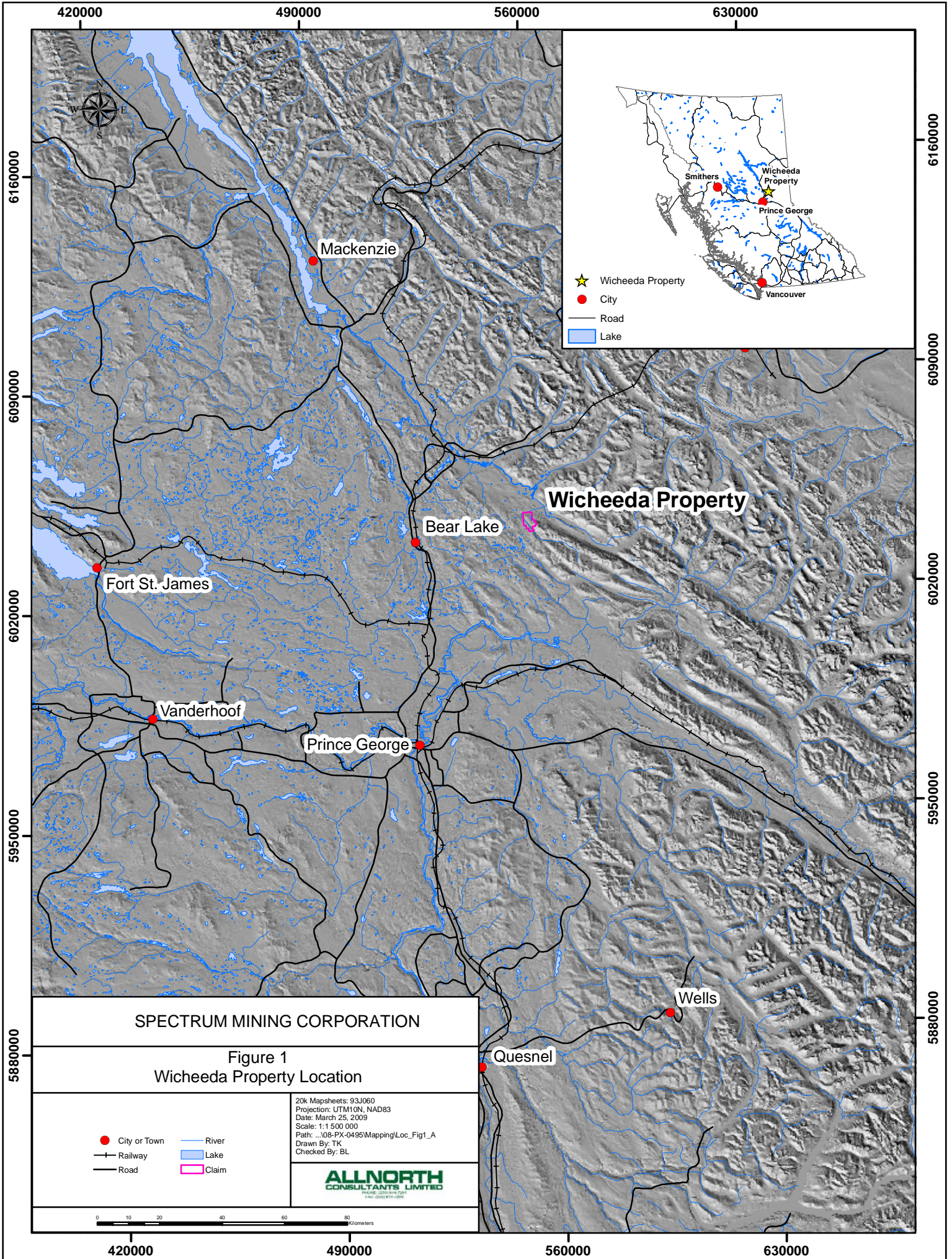
This report summarizes the geology, mineralization and exploration potential of the Wicheeda property and provides results from a 4-hole diamond drilling program completed in October, 2008.

2.1 LOCATION AND ACCESS

The Wicheeda property is located at Wicheeda Lake approximately 80 km northeast of Prince George and 50 km east of Bear Lake (Figure 1). The property is situated on BCGS mapsheet 93J.060 and centred at approximately Latitude 54° 31' 48" N and Longitude 122° 05' 12" W. The claims cover Wicheeda Lake and straddle a segment of Wichcika Creek, but the principal area of interest is centred south of the lake.

Access to the property from Prince George is provided by Highway 97 and two seasonal all weather gravel roads. To access the property from Prince George travel north on Highway 97 for approximately 80 km to the turn-off for the Chuchinka Forest Service Road (FSR) located just south of the community of Bear Lake; then travel east on the Chuchinka FSR for approximately 51 km to the Wichcika FSR; then travel south on the Wichcika FSR for approximately 3.5 km to a borrow pit that was used as a heli-pad and equipment staging area for the project. A cut trail, approximately 1300 metres in length, extends from the borrow pit to the drill site.

The property is located about 50 km east of a major paved provincial highway, the CN rail mainline and a power transmission line. Winton Global owns and operates a modern three-line sawmill immediately east of the Highway 97 near its junction with the Chuchinka FSR.



2.2 PHYSIOGRAPHY AND CLIMATE

The Wicheeda property is located between the 900 m and 1520 m elevations. Slopes are moderately steep and covered with stands of alder and pine with variably thick undergrowth. Buck brush and devil's club occur at lower elevations.

2.3 PROPERTY STATUS & OWNERSHIP

The Wicheeda property is comprised of six contiguous MTO cell claims that cover 1,707.63 hectares in the Cariboo Mining Division (Figure 2). The claims are owned 100% by Spectrum Mining Corporation. The individual claims and their respective anniversary dates are listed in Table 1.

Table 1: List of Mineral Claims

Tenure Number	Claim Name	Owner	Map Number	Good To Date	Area
516112		Spectrum Mining Corporation	93J.060	2019/Sept/30	356.59
516121		Spectrum Mining Corporation	93J.060	2019/Sept/30	18.76
516124	Wicheeda West	Spectrum Mining Corporation	93J.060	2019/Sept/30	75.05
591827	Wicheeda 6	Spectrum Mining Corporation	93J.060	2019/Sept/23	450.20
591828	Wicheeda 7	Spectrum Mining Corporation	93J.060	2019/Sept/23	469.31
591829	Wicheeda 8	Spectrum Mining Corporation	93J.060	2019/Sept/23	337.72
				Total	1707.63

3 EXPLORATION HISTORY

A regional aeromagnetic survey of the area, completed by the Geophysics Division of the Geological Survey of Canada in 1961, identified a magnetic high feature in the area of the Wicheeda property. Prospecting of the area in 1976 and 1977 discovered minor base metal-bearing showings that were also anomalous in niobium. Teck Exploration (Teck) staked claims in 1986 to cover the anomalous areas and completed field work in 1986 and 1987 consisting of geological mapping, soil, stream and rock geochemical sampling, trenching and ground magnetic surveying. The soil geochemical surveys completed by Teck (including from north to south, the 'Lake' grid, the 'George' grid, and the 'Prince' grid) outlined a linear carbonatitic intrusion and a

small syenite body hosted by limestone and calcareous fine-grained sedimentary rocks over a total strike length of 7 km (Betmanis, 1987). Follow-up work on what is now part of the Wicheeda property, outlined a deeply weathered carbonatite of unknown dimension on the 'Lake' grid (Mader and Greenwood, 1988); and a semi-circular body of carbonatite, measuring about 250 m across, the 'George' grid (Lovang and Meyer, 1988). One or more, narrow dyke-like bodies were located further south on the 'Prince' grid (Lovang and Meyer, 1988). These features are included in the Prince Minfile occurrence (093J 014), an area now covered in part by Spectrum claims and in part by third party claims. The carbonatites were generally found to be anomalous in light rare earth elements (REE) and niobium. A limited trenching program on George grid yielded encouraging values of lanthanum, neodymium and cerium, and modest values of niobium and yttrium (Lovang and Meyer, 1988).

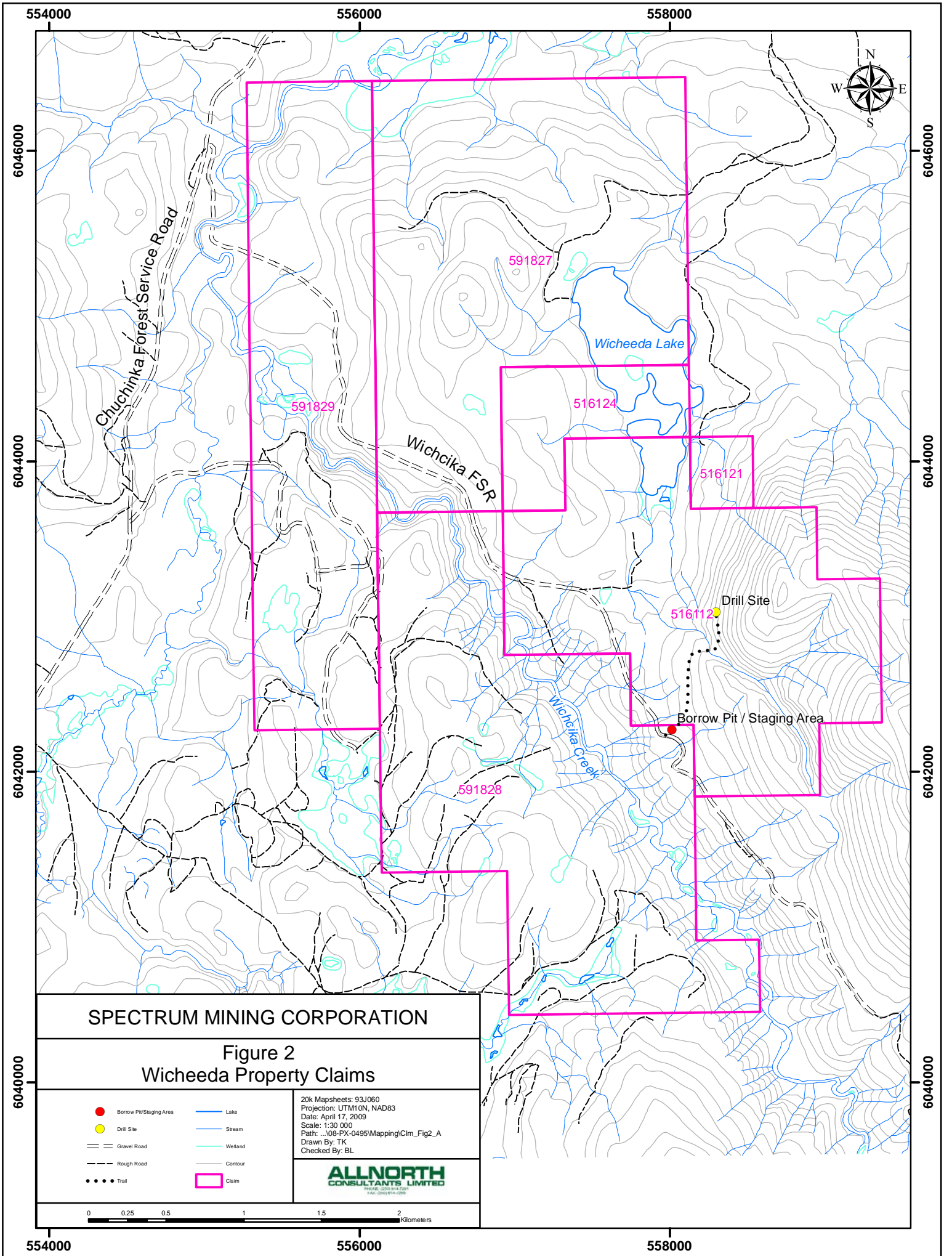
4 REGIONAL GEOLOGY

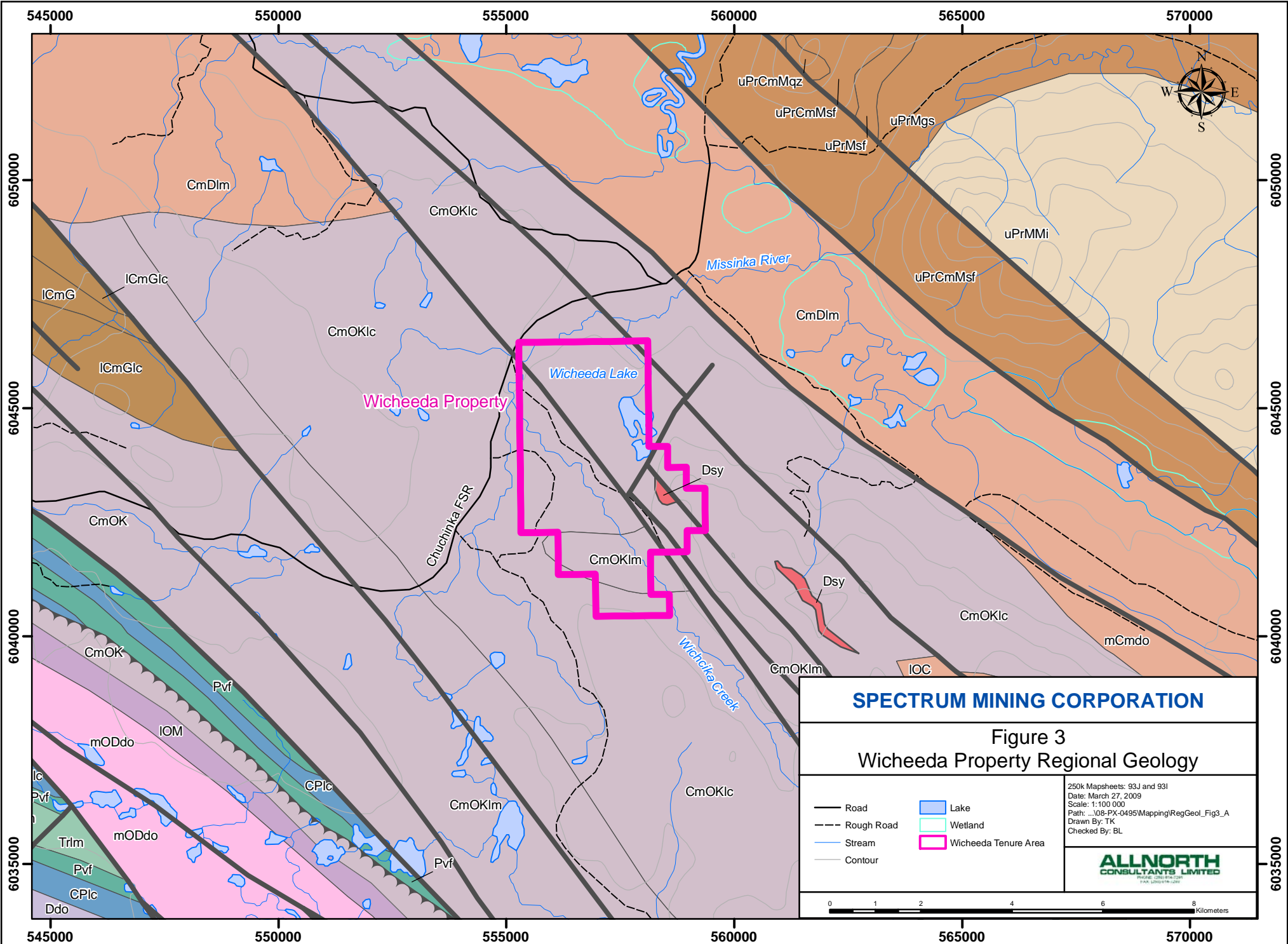
The Wicheeda property is located in the Foreland Belt, a morphogeological belt of imbricated and folded miogeoclinal rocks that forms the eastern mountain ranges and foothills of the Canadian Cordillera (Gabrielse et al., 1991).

The regional geology of the area was mapped by Armstrong et al. (1969, McLeod Lake map sheet) and Taylor and Stott (1979, Monkman Pass map sheet). The regional geology map presented in Figure 3 is from a 1:250,000 scale digital compilation of the area (Digital Geology Map of British Columbia, BCMEMPR, Geofile 2005-2). The bedrock underlying the property and enclosing areas consists mainly of limestone, marble, siltstone, argillite and calcareous sedimentary rocks that have been assigned to the upper Cambrian to lower Ordovician Kechika Group. The strata generally strike from 120 degrees to 140 degrees with steep dips to the northwest or southeast. East of the property, rocks of the Kechika Group are in fault contact with unassigned carbonates, slates and siltstones of Cambrian to Devonian age. West of the property, rocks of the Kechika Group are in fault contact with quartzitic rocks of the Upper Proterozoic to Permian Gog Group and an unassigned felsic volcanic-dominated package of Devonian to Permian age.

The northwest-trending Rocky Mountain Trench, which follows the Parsnip River valley east of the property, is the dominant structural and geographical feature in the area. A number of major northwest trending faults occur in the area. One such structure is shown to transect the property, and intersects a northeast trending fault near the area of interest.

In British Columbia, a small number of carbonatite-related complexes occur that are typically sub-circular to elongate in plan and commonly have well-developed metasomatic alteration haloes. Many of the intrusions that follow the trend of the Rocky Mountain Trench are Devonian-Mississippian in age (Pell, 1987). They were subjected to sub-greenschist facies metamorphism during the Columbian orogeny, but behaved as inflexible and cohesive bodies during orogenesis and were rotated, tilted and/or transported eastwards in thrust panels (Pell, 1987).





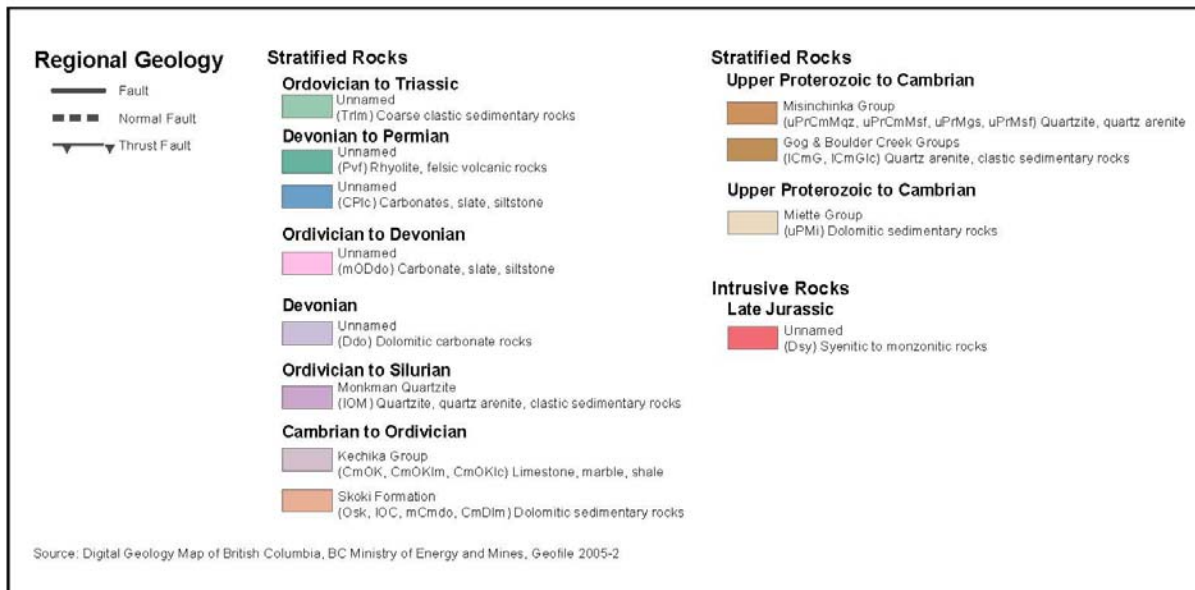
SPECTRUM MINING CORPORATION

Figure 3
Wicheeda Property Regional Geology

<ul style="list-style-type: none"> — Road - - - Rough Road — Stream — Contour 	<ul style="list-style-type: none"> Lake Wetland Wicheeda Tenure Area 	<p>250k Mapsheets: 93J and 93I Date: March 27, 2009 Scale: 1:100 000 Path: ..\08-PX-0495\Mapping\RegGeol_Fig3_A Drawn By: TK Checked By: BL</p>
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ALLNORTH CONSULTANTS LIMITED
PROF. CONSULTANTS
PAK. LONGWATER

0 1 2 4 6 8 Kilometers



5 PROPERTY GEOLOGY

The Wicheeda property is at an early stage of exploration and only limited areas of the claim group have been covered by reconnaissance and/or grid-based bedrock mapping. Outcrop in the area covered by the former 'Lake' grid (Figure 4) is rare, but strongly weathered, medium to coarse-grained calcite carbonatite, a band of fresh, fine-grained calcite carbonatite and related syenite were exposed in trenches (Greenwood and Mader, 1988). A portion of the former 'George' grid, which covers a moderately steep, west-facing slope with intermittent bedrock exposure (and is the location of the 2008 drilling) was mapped by Betmanis (1987). His work identified a sequence of interbedded limestone, calcareous argillite and argillite with consistent northwest-trending attitudes and sub-vertical dips. A small intrusion cuts the sedimentary rocks in the southern part of the grid, just north of 'A' Creek. This feature was mapped as syenite in 1986 by Betmanis (1987), although during a re-evaluation of the area (including trenching) the following year, it was concluded that the intrusion was a carbonatite (Lovang and Meyer, 1988). The following detailed description of the 'George' grid carbonatite is extracted from Mader and Greenwood (1988):

"The intrusion consists of uniform ankerite carbonatite, in parts with 5 cm rhombic ankerite phenocrysts and 2 cm pyrite cubes. Minor constituents include potassium feldspar, ilmenite, and a parasite-like rare earth carbonate (20 to 200 microns). Towards the southwestern margin, a variety of albite-rich rocks are mixed with ilmenite-rich carbonatite. The argillaceous and calcareous sediments close to the intrusion appear somewhat baked, but with no macroscopically visible contact metamorphic mineral assemblages."

Three types of narrow (0.5 m to 1.5 m), northwest-trending dykes were also observed in the gridded area, including: a K-feldspar phyric type with a fine-grained albite matrix and abundant Fe-rich biotite; a blue sodalite-rich (as phenocrysts and matrix) type, and; a feldspar and augite-phyric intermediate type with aphanitic groundmass that appears to be the youngest of the three varieties. (Mader and Greenwood, 1988).

5.1 MINERALIZATION AND GEOLOGICAL MODEL

While outcrop on the property overall is quite scarce, soil geochemical surveys and limited trenching, particularly on the 'George' grid, are believed to have very effectively outlined areas underlain by bodies of REE-enriched carbonatite. Both the former 'Lake' and 'George' grid areas are covered in part by pronounced cerium soil geochemical anomalies that locally are coincident with barium and niobium highs and reflect the underlying intrusive rock. Bedrock exposure on the southwest edge of former 'George' grid is modest, but in many areas depth-to-bedrock is shallow and the soil sampled was likely to have been close to or from the C horizon. The topographically subdued area of the former 'Lake' grid is thought to be more thickly mantled by soil and overburden, resulting in a less cohesive anomaly, but one that should be further evaluated nonetheless. Intensely oxidized, coarse-grained calcite carbonatite and pyrochlore-bearing fine-grained, pink calcite carbonatite was identified in trenches at the 'Lake' grid by Greenwood and Mader (1988).

Ground magnetometer surveys outlined modest magnetic highs on both grids that are thought to be reflective of relatively narrow dykes that may or may not be genetically related to the intrusive carbonatites.

The geometry of the carbonatite body underlying the former 'George' grid, herein referred to as the George carbonatite, is unknown, but is believed to be sub-circular in plan (Lovang and Meyer, 1988; Greenwood and Mader, 1988) and is regarded to be a small intrusive plug. However, a nearby prominent soil anomaly and identification of carbonatite in trenches on the former 'Lake' grid to the northwest suggests that the body may extend to the northwest and be more oblong in shape.

Approximately 3.5 km southeast of the George carbonatite, and off the property, is a carbonatite and syenite sill and/or dyke complex that has been traced for close to three kilometres along its southeast trend (Greenwood and Mader, 1988). This complex, covered by the former 'Prince' grid, was found to locally contain potentially economic grades of niobium, but low grades of REEs (Betmanis, 1988).

The REE-enriched carbonatites located on the Wicheeda property are part of a narrow elongate, southeast-trending intrusive carbonatite-syenite complex that extends southward from the south end of Wicheeda Lake for approximately 7 km.

Economic minerals of interest in the 'Prince' grid area consist of pyrochlore, which occurs in carbonatitic and syenitic phases. No mesoscopic rare-earth minerals have been observed, but in thin section fine-grained monazite (a Ce-La phosphate) and parasite (a Ca-Ce-La-F carbonate) are abundant (Greenwood and Mader, 1988)

6 2008 EXPLORATION PROGRAM

The 2008 heli-supported diamond drill program was conducted by Falcon Drilling Ltd of Prince George, BC, during late September to mid-October and consisted of four BTW (\varnothing 40.7 mm) drill holes totalling 866 m. The holes were drilled from a single site located within the approximate centre of a multi-element soil geochemical anomaly that covers part of the former 'George' grid (Figure 4 – located in pocket). The collar location was positioned about 10 m due west of the north end of Trench GT-2 where rock geochemical sampling in 1987 confirmed the presence of a rare earth element-enriched carbonatite plug (Lovang and Meyer, 1988). The four holes were drilled at different orientations (Table 2) and dip tests were taken as shown in Table 3.

The core was transported to Prince George after all four drill holes were completed and the core was logged and sawn at Allnorth's warehouse. After delivery of the core the driller's run blocks were converted to metric units, and recovery and RQD were measured prior to logging. The core was logged by Jay W. Page (PGeo). using Allnorth's Mineral Exploration Database (MED) core logging system on a laptop computer. All core was photographed, sawn and sampled using a nominal sample interval of 3 metres. Core splitting, using a water-cooled diamond saw, was conducted by Kevin Cotnam and Terry Lefavor. The diamond drill hole geological logs are in Appendix A. The geotechnical logs are in Appendix B. Photographs of the core are in Appendix C.

Quality control consisted of the insertion of a commercially-prepared, certified blank (CDN-BL-3) and a duplicate sample into the sample stream at a rate of approximately 1 per every 20 samples according to a pre-determined insertion plan. A sample number was reserved for insertion of an appropriate rare-earth element standard by the laboratory at the same insertion rate. Duplicates were prepared by sawing a sawn sample a second time to produce a two $\frac{1}{4}$ samples for analysis with the remaining $\frac{1}{2}$ returned to the core box. Duplicates followed the original sample in the sample stream.

The objectives of the program were:

- Confirm the high grade REE grades that were encountered during fieldwork by Teck in the 1980s
- Determine a sense of size and geometry of the George carbonatite body
- Determine that the exploration target is of sufficient dimension and grade to be considered potentially economic

6.1 DRILL HOLE DESCRIPTIONS

Four diamond drill holes were drilled from a single set up and consisted of one vertical hole and three inclined holes each drilled along a different azimuth (Table 2). Each of the holes collared in weathered, coarse-grained dolomitic carbonate rock, or dolomite carbonatite, at shallow depths ranging from 1.42 m to 2.56 m. Core recovery overall was excellent, however significant losses occurred in shattered to intensely fractured and clay-gouge zones that define faults. The faults are believed to be steeply dipping and commonly occur at contacts between different geological units.

Several different phases, or mappable units, of the intrusive complex were intersected and include dolomite carbonatite, calcite carbonatite, carbonatite breccia, syenite breccia and syenite. Footwall rocks consist of little altered calcareous siltstones and limestones as well as calcsilicate and skarn. Intervals of calcsilicate also were observed bracketed by intrusive phases and are interpreted to be lozenges of altered country rock that have become entrained within the confines of the intrusion.

Weathering effects, as evidenced by abundant iron-oxides lining fractures and staining of the rock, are pronounced to down-hole depths of as much as 38 metres. The upper dolomitic sections of each hole gradually become more calcite-rich with depth.

There were no obvious rare earth element-bearing minerals identified during logging of the core. It was suspected that at least some of the fine-grained pale green mineral aggregates and pale red-brown aggregates could contain REE mineral phases. Also it was suspected that there could be REE-bearing carbonate minerals that would be difficult to distinguish from typical carbonate minerals that comprise the core.

Diamond drill core summary descriptions, provided by Jay W. Page (PGeo), are listed below.

DDH 08-WI-01

Drill hole 08-WI-01 (originally described as W1-08 on the core boxes) was drilled at an azimuth of 152° and a dip of -50°. An acid test taken at the bottom of the hole, at 185.62 m, showed 3° of flattening to -47° dip.

DDH 08-WI-01 encountered 2.13 m of overburden. The initial rock encountered was a coarse-grained, crystalline dolomitic carbonate rock. Weathering effects are pronounced near the surface

with thick limonite coating all fracture surfaces above 12.58 m and persisting down to 34 m. Also notable in this unit and possibly also as a result of weathering are numerous patches of siderite which form network-like patterns. These patterns mark carbonate grain boundaries and in some locations identify stylolitic textures which also support a late, diagenetic origin of the siderite.

Porphyroblastic cubic pyrite to 2 cm is common in amounts of 1 – 2% through most of the upper part of the hole and provides a readily available source of iron for the limonite and siderite. Small, irregular spots and patches of amorphous amber and olive-green coloured alteration may be fine-grained aggregates of red-brown biotite and phlogopite mica ± chlorite. Dolomite alteration of the carbonate rocks decreases with depth but appears to dominate down to approximately 62 m.

The dominant texture of the carbonate part of this hole is that of an intrusive breccia with variable amounts of syenitic fragments (xenoliths) in a carbonate matrix. This “intrusive breccia” was intersected between 38.82 m and 66.21 m. It begins weakly with about 10% fragments in the upper 10 m and varies widely but is strongest between 48.28 m and 62.15 m. Several breccia fragments, each composed of several different fragments indicate earlier breccia events. Yellowish patches of ankeritic alteration are noted in the carbonate matrix. Porphyroblastic pyrite cuts matrix – fragment boundaries. A fault zone between 66.21 and 72.12 m separates this unit from a short interval of felsic (syenitic?) intrusive below. This felsic intrusive is different from and not the source of the majority of the breccia fragments above. Another fault/contact zone between 73.15 m and 80.25 m contains a mixture of fragments of the felsic intrusive and the siltstone below.

A sedimentary sequence begins at 80.25 m and extends to the bottom of the hole. The initial sediment encountered is calcareous siltstone, which eventually grades into a limestone with the transition appearing to be most pronounced at a fault gouge at 132.75 m. Thin, sill-like intervals of syenite have intruded the siltstone along bedding above 87.50 m. Weak to moderately well-developed epidote skarn has formed small pods and replaced thin carbonate-rich beds in this same interval and minor amounts of skarn are noted down to 126.70 m. Silty beds in the limestone show a systematic variation in bedding angles which suggests that this unit is folded.

DDH 08-WI-02

Drill hole 08-WI-02 (originally described as W2-08 on the core boxes) was drilled with a dip of -90°. An acid test taken at the bottom of the hole, at 215.80 m showed 2° deflection to -88° dip.

This hole encountered 1.52 m of overburden. As with hole 08-WI-01, the initial rock encountered was a coarse-grained, crystalline dolomitic carbonate which shows the effects of weathering down to 32.16 m. Within this upper weathering zone, limonite coats and fills many fractures and patches of siderite form network-like patterns along grain boundaries. Porphyroblastic cubic pyrite to 2 cm is common in amounts of 1 – 2% to a depth of about 77.27 m, below this there are many large blebs of pyrite and some intervals that include semi-massive pyrite (such as between 92.00 m to

96.92 m and 101.65 m to 102.25 m) but much of it appears to be structurally controlled. Dolomite alteration of the carbonate rocks decreases with depth, but dominates above 116.00 m, below which the carbonate is more calcite rich.

The dominant texture of this hole is that of an intrusive breccia with variable amounts of syenitic clasts (xenoliths) in a coarse-grained carbonate matrix. This "intrusive breccia" was intersected between 32.06 m and 156.58 m, although these are not well defined boundaries. Above 56.28, the carbonate is sparsely populated with syenite fragments, but between 56.28 and 58.16 a crowded breccia is composed of two types of felsic fragments, one of which is rimmed with black biotite. This suggests two different sources for the fragments and possibly separate brecciation events. The quantity of breccia fragments varies widely, both in number and volume with several intervals of > 90% fragments.

Several short intervals, of approximately a couple of metres width of white carbonate (that do not carry fragments) may be late, cross-cutting features; examples are noted between 56.28 m to 58.16 m, 156.58 m to 157.67 m and 164.68 m to 168.60 m. However because they are often bound by structures, the identification is not definitive.

In many places the fragments appear to be partly assimilated/altered by the carbonate host resulting in a calcsilicate rock that is variable in colour, hardness and reactivity to acid. This is especially apparent in the lower part of this hole below 157.67 m where there are several intervals of calcsilicate, some of which appears to have a weak epidote skarn overprint.

DDH 08-WI-03

Drill hole 08-WI-03 (originally described as W3-08 on the core boxes) was drilled at an azimuth of 048° and a dip of -54°. Two acid tests were taken; one at a depth of 154.53 m showed 4° flattening to -50° dip and another at the bottom of the hole, at 305.41 m, showed an additional 1° of flattening to -49° dip.

This hole encountered 2.56 m of overburden. As with holes 08-WI-01 and 08-WI-02, the initial rock encountered was a coarse-grained, crystalline dolomitic carbonate which shows the effects of weathering down to 38.71 m. Within this upper weathering zone, limonite coats and fills many fractures and patches of siderite form network-like patterns along grain boundaries. Porphyroblastic cubic pyrite to 2 cm is common above 193.50 m in amounts of 1 – 2%, although disseminations and large blebs of pyrite are present to the bottom of the hole at 305.41 m. Dolomite alteration of the carbonate rocks decreases with depth but dominates above 238.77 m, below which the carbonate is more calcite-rich.

As with the previous holes, the dominant textural feature of this hole is that of an intrusive breccia with variable amounts of syenitic clasts (xenoliths) in a coarse-grained carbonate matrix. This "intrusive breccia" was intersected between 50.50 m and 280.18 m. Between 261.21 m and 280.18

iron (magnetite-rich) skarn overprints the carbonate-hosted breccia. This interval is cut by a short interval of syenite (a dyke?) from 280.18 m to 285.33 m which appears to have a different composition from the syenite breccia fragments noted above. A mixture of syenite, carbonate and skarn extend through a contact zone below 285.33 m to the bottom of the hole.

Within the main body of breccia, the quantity of breccia fragments varies widely, both in number and volume. Several repeating intervals are noted in which the density of syenitic clasts grades from low (< 10% fragments) to a crowded breccia (> 90% fragments) over about a 10 m to 15 m interval. Mafic dykes (andesite?) cut the intrusive breccia at 91.35 m – 94.52 m, 195.69 m – 197.07 m and 206.88 m – 209.80 m; all show the effects of carbonate ± chlorite alteration and have been mechanically disrupted. Several short intervals of fragment-free, white carbonate are noted at 158.55 m to 164.58 m, 189.77 m to 193.50 m and 250.63 m to 253.75 m. They show some limited dolomitic and ankeritic alteration, and may be late, cross cutting features.

Many syenitic fragments in the interval overprinted by skarn alteration below 261.21 have black reaction rims of magnetite ± biotite ± chlorite and have some similarity to fragments rimmed with biotite ± magnetite which are noted above in hole 08-WI-03 (50.50 m to 55.25 m, 164.55 m to 180.05 m, 193.50 m to 206.88 m) and in hole 08-WI-02 (56.28 m to 58.16 m, 102.67 m to 116.00 m, 126.92 m to 134.93 m).

DDH 08-WI-04

Drill hole 08-WI-04 (originally described as W4-08 on the core boxes) was drilled at an azimuth of 350° and a dip of -55°. No acid tests were carried out in this hole.

This hole encountered 1.57 m of overburden. As with the other holes, the initial rock encountered was a coarse-grained, crystalline dolomitic carbonate which is strongly weathered down to 20 m and shows some limited effects of weathering (limonite fracture fillings and siderite patches) down to 50 m. From 1 – 2% porphyroblastic cubic pyrite to 2 cm is common above 109.42 m and disseminated blebs of pyrite are present to the bottom of the hole at 159.23 m. Dolomite alteration of the carbonate extends to the contact zone with the syenite between 99.73 m and 121.00 m.

In contrast with the other holes, the interval containing breccia fragments is somewhat limited (55.75 m to 61.46 m) and also includes fragments (xenoliths) of chlorite-biotite-phlogopite altered volcanic or sedimentary material.

Syenite was encountered below 121.00 m. The syenite is very broken and shattered, especially between 117.50 m and 142.04 m where a large structural zone was intersected. A high density of tiny hairline, calcite stringers cut the syenite between 121.00 m to 154.23 m.

Table 2: Drill Hole Locations and Orientations

HOLE ID	UTM NORTHING	UTM EASTING	ELEVATION	AZIMUTH	DIP	LENGTH DRILLED (m)
08-WI-	558297	6043022	1047	152	-50	185.62
08-WI-	558297	6043022	1047		-90	215.80
08-WI-	558297	6043022	1047	048	-54	305.41
08-WI-	558297	6043022	1047	350	-55	159.23

Table 3: Drill Hole Dip Tests

HOLE ID	DIP at collar	Dip @ First Measurement (m)	Dip @ Second Measurement (m)
08-WI-01	-50	-47 @ 185.62 m	n/a
08-WI-02	-90	-88 @ 215.80 m	n/a
08-WI-03	-54	-50 @ 154.53 m	-49 @ 305.41
08-WI-04	-55	n/a	n/a

6.2 METHODOLOGY

Drill holes were logged for geological and geotechnical properties. Each section of core to be sampled was clearly identified and then marked with a centre line and halved using a water cooled diamond saw. Two hundred fifty-five (255) core samples were labelled, cut and bagged. Thirty-one (31) quality control samples (blanks and duplicates) were inserted into the sample stream at regular intervals following a prescribed sequence. All of the samples were recorded on shipment forms and the samples were trucked to the Global Discovery Labs (TeckCominco) in Vancouver, BC, for 30 element ICP-AES analysis and for selected light rare-earth element analysis (i.e. lanthanum, cerium and neodymium) and niobium by XRF (pressed pellet) analysis. The lab inserted its own blanks, duplicates and standards into the sample stream and routinely conducted repeat analysis. A description of sample preparation and analytical techniques is provided in Appendix H.

Following receipt of the ICP-AES and XRF analysis, pulps from the upper part of each drill hole, prepared by Global Discovery Labs, were shipped to Activation Laboratories Ltd in Ancaster, Ontario, for lithium metaborate/tetraborate fusion ICP/MS analysis. A total of 73 samples were analyzed for 43 elements including the light and heavy rare earth elements. Nine quality control samples (blanks, standards and duplicates) were inserted into the sample stream at regular intervals. A description of sample preparation and analytical technique also is provided in Appendix H.

Table 4: Core Samples per Interval Sampled and Analytical Method Used

HOLE ID	Analytical Method		
	ICP-AES	XRF	FUS-MS
	Number of samples analyzed / interval (m)		
08-WI-01	30 / 89.25 m	30 / 89.25 m	13 / 38.82 m
08-WI-02	74 / 215.80 m	74 / 215.80 m	16 / 50.06 m
08-WI-03	104 / 305.41 m	104 / 305.41 m	25 / 75.55 m
08-WI-04	47 / 154.23 m	47 / 154.23 m	19 / 58.75 m

7 GEOCHEMICAL RESULTS

Each of the four drill holes encountered significant intervals of light rare-earth element enriched carbonatite from surface to variable depths. ICP-AES and XRF (pressed pellet) analysis was conducted on all of the core that was sampled and provided a 'first pass' data set that was scrutinized prior to selection of pulps to be analyzed for a full suite of light and heavy rare-earth elements by fusion ICP/MS analysis. Laboratory certificates are provided in Appendix A and the data with sample intervals is provided in Appendix B. The range and abundances for the three REE elements and niobium are provided in Table 5. Weighted averages for well-mineralized drill intersections, using the XRF data, are listed in Table 6. Weighted averages for well-mineralized intervals, using the subset of fusion ICP/MS data, are listed in Table 7.

The rare-earth elements most enriched in the carbonatite are the light REEs, cerium (Ce), lanthanum (La), praseodymium (Pr) and neodymium (Nd). Three other light REEs, samarium (Sm), europium (Eu) and gadolinium (Gd), are also present, but to a much lesser degree (see Table 7). Molybdenum (Mo), barium (Ba), strontium (St), Manganese (Mn), arsenic (As) phosphorous (P), Yttrium (Y) and Thorium (Th) are anomalous. Several of the heavy REEs are also elevated, but occur in modest concentrations (Appendices A and B).

Economically interesting values of the light REEs La, Ce and Nd were encountered in each of the four holes drilled in 2008. The three elements increase and decrease in unison suggesting that there is mineralogical control.

The highest REE values occur near the top of each drill hole in association with intervals of typically oxidized dolomite carbonatite. Deeper in each hole, significantly REE-mineralized intervals of dolomite carbonatite, calcite carbonatite and carbonatite and/or syenite breccia also occur.

However, the values for Nb are erratic or have an inverse relationship to the values for the light REEs. Niobium values do increase significantly in association with syenitic breccias and syenite, presumably do to the presence of pyrochlore, which is common for the syenitic rocks in the area.

Table 5: REE and Nb Abundances (XRF Data) - Wicheeda Property

	<i>La (ppm)</i>	<i>Ce (ppm)</i>	<i>Nd (ppm)</i>	<i>Nb (ppm)</i>
Minimum	55	128	73	1.5
Maximum	20595	46605	6001	4273
Mean	3626	7986	1439	524
Median	2787	6113	1298	450

Table 6: Weighted Averages (XRF Data) - Wicheeda Property

Hole	From (m)	To (m)	Width (m)	Ce (ppm)	La (ppm)	Nd (ppm)
08-WI-01	2.13	68.23	66.10	13395	6103	2107
including	2.13	35.50	33.37	20484	9268	3088
08-WI-02	1.42	86.27	84.85	13708	6084	2264
including	1.42	77.27	75.85	14685	6465	2378
including	1.42	32.06	30.64	20722	8856	3092
08-WI-03	2.56	234.00	231.44	8160	3839	1555
including	2.56	164.55	161.99	9632	4531	1746
including	2.56	75.55	72.99	13278	6124	2231
including	2.56	14.56	12.00	19310	8779	2896
08-WI-04	1.57	121.00	119.43	13888	6433	2337
including	1.57	99.73	98.16	15584	7175	2579
including	7.57	49.57	42.00	18561	8508	2985

Table 7: Weighted Averages (Fusion ICP/MS Data) For Light REE – Wicheeda Property

Hole	From (m)	To (m)	Width (m)	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)
08-WI-01	2.13	35.50	33.37	14934	19938	1518	3052	363	79	107
08-WI-02	1.42	50.06	48.64	13570	17806	1344	2780	327	68	107
08-WI-03	2.56	75.55	72.99	10528	13750	1030	2207	262	56	94
08-WI-04	1.57	58.75	57.18	12024	16335	1373	2784	318	68	93

8 PETROGRAPHY

Eight specimens of core were selected for petrographic study based on geological observations and/or to determine unrecognizable mineral species and/or were in proximity to the highest grade intersections. Eight polished thin sections were examined by P.C. Le Couteur (PhD, PEng) whose findings were provided in two short petrographic reports (Le Couteur, 2008; Le Couteur, 2009).

Conclusions from the petrographic study are as follows:

Six of the eight polished thin sections were of dolomite carbonatite comprised of 75% to 97% dolomite; one polished thin section was calcite carbonatite comprised of 85% calcite and one polished thin section was dolomite carbonatite/albitite comprised of 50% dolomite and 40% albite. The dolomite carbonatites commonly contained variable amounts of accessory K-spar and albite and trace amounts of ilmenorutile, phlogopite or biotite, pyrochlore, thorite and several sulphide mineral phases including pyrite, galena and molybdenite. The calcite carbonatite contains accessory biotite (4%), strontianite (3%), pyrite (3%) and magnetite (2%).

The dominant REE phase identified was monazite (Ce). It occurs as cream, pale green, honey-brown and reddish-brown crystals, crystal aggregates and patches of irregular shape 2 to 15 mm long. A Ca-REE-F carbonate (Ce) mineral phase was also recognized and is likely to be one of (or several of): parasite (Ce), rontgenite (Ce) or synchisite (Ce). Allanite (Ce) and Euxenite (Y) were each recognized in one sample.

The dolomite carbonatites commonly contained variable amounts of accessory K-spar and albite and trace amounts of ilmenorutile, phlogopite or biotite, pyrochlore, thorite and several sulphide mineral phases including pyrite, galena and molybdenite. The calcite carbonatite contains accessory biotite (4%), strontianite (3%), pyrite (3%) and magnetite (2%).

Table 8: Summary of Petrographic Samples

Sample	Hole	Depth (m)	Rock Type	REE Phases
1	WI-08-02	35.50	Dolomite Carbonatite	Monazite (Ce)
2	WI-08-03	90.70	Dolomite Carbonatite	Ca-REE-F carbonate (Ce)
3	WI-08-03	217.90	Dolomite Carbonatite / Albitite	Monazite (Ce); Allanite; Ca-
4	WI-08-03	261.50	Calcite Carbonatite	Ba-Ca-Sr-F carbonate
5	WI-08-01	14.87	Dolomite Carbonatite	Monazite (Ce); Ca-REE-F
6	WI-08-01	62.10	Dolomite Carbonatite	Monazite (Ce); Ca-REE-F
7	WI-08-03	159.90	Dolomite Carbonatite	Monazite (Ce)
8	WI-08-03	160.57	Dolomite Carbonatite	Ca-REE-F carbonate (Ce)

9 DISCUSSION

The 2008 exploration drilling program was the first to occur on the property and the only comprehensive work since the 1987 Teck trenching program. Four diamond drill holes with an aggregate length of 866 m were completed during a two-week period from late September to mid-October, 2008. The holes were drilled from a single location, but each hole was drilled on a different azimuth. While the drilling program was limited in scope, each of the four holes successfully intersected the intrusive carbonatite body.

Geological logging of the core and the subsequent interpretation of the results characterizes a steeply inclined dolomite-dominated carbonatite complex cutting or occupying a structural panel within calcareous siltstones and limestones of the Cambrian to Ordovician Kechika Group. The core of the intrusive body is comprised of typically medium to coarse-grained dolomite carbonatite, locally with a relict breccia fabric. The core has a minimum estimated width of approximately 70 metres in an east-northeast direction. The dolomite carbonatite core is flanked by necks and/or panels of interdigitated syenite and/or carbonatite breccia. Locally, syenite is fractured, but not brecciated and forms coherent and/or sill-like bodies. The apparent minimum width of the intrusive body is approximately 110 metres in a northwest direction (Section 1, Appendix E) and approximately 180 metres in a northeast direction (Section 2, Appendix E). The body is open to the northwest, to the southwest, to the southeast and down-dip. Deeper in the system, dolomite gives way to calcite as the dominant carbonate mineral. Late cross-cutting chloritic or andesitic dykes were also noted.

Three analytical techniques (ICP-AES, XRF (pressed pellet) and fusion ICP/MS) were utilized to evaluate the core and returned encouraging values for the light rare earth elements (in order of abundance: Ce, La, Nd, Pr, Sm, Eu and Gd) and elevated levels of Y and several heavy REEs. The best REE grades encountered were consistently in the upper intervals of each hole. The reason for the apparent near surface enrichment is unknown, but may be an artifact of natural mineral zonation within a REE-enriched carbonatite intrusion. However, until the deeper central portion of the complex is drilled the former statements can only be considered conjecture.

10 CONCLUSIONS AND RECOMMENDATIONS

The 2008 four-hole diamond drilling program successfully intersected intrusive carbonatite. The following conclusions are drawn:

- 1) A significant light REE-bearing intrusive carbonatite crops out on the west facing slope south of Wicheeda Lake in central BC
- 2) Well-mineralized intrusive carbonatite was encountered from surface to variable depths in all four drill holes

- 3) The intrusive carbonatite contains impressive concentrations of the light rare earth elements Ce, La, Pr, Nd, Sm, Eu and Gd as well as anomalous concentrations of Mo, Ba, Sr, Mn, As, P and Th, and elevated levels of Y and several of the other heavy rare earth elements
- 4) Weighted averages for broader intervals show remarkable grade consistency. Selected intervals (XRF results) from surface include:
Hole 08-WI-01: 66.10 m averaging 13,395 ppm Ce, 6103 ppm La and 2107 ppm Nd
Hole 08-WI-02: 84.85 m averaging 13,708 ppm Ce, 6084 ppm La and 2264 ppm Nd
Hole 08-WI-03: 72.99 m averaging 13,278 ppm Ce, 6124 ppm La and 2231 ppm Nd within a 231.44 m interval grading 8160 ppm Ce, 3839 ppm La and 15555 ppm Nd
Hole 08-WI-04: 119.43 m averaging 13,888 ppm Ce, 6433 ppm La and 2337 ppm Nd.
- 5) The intrusive carbonatite has a steeply west-dipping geometry and it is open to depth
- 6) The structural footwall to the intrusion was intersected in hole WI-08-01 and establishes the eastern limit to the zone on that drill section; the western, northern and southern margins of the intrusion remain open
- 7) The intrusion has a curious zone of higher REE grades close to surface that remains unexplained
- 8) Petrographic studies indicate that the intrusion is comprised primarily of dolomite carbonatite and that the predominant REE mineral phases are monazite (Ce); a Ca-REE-F carbonate (Ce) mineral (parasite (Ce) and/or rontgenite (Ce) and/or synchisite (Ce); Allanite (Ce) and Euxenite (Y),

The following work is recommended:

- Property-scale bedrock mapping should be undertaken to take advantage of new areas that have been opened up as a result of recent road construction and clear cut logging
- The historic Lake grid area should be revisited and a grid-based soil geochemical sampling and detailed bedrock mapping program should be conducted over the area to confirm and enhance previous work
- Drilling from two or three more locations on the historic George grid should be conducted to provide additional information on the geometry, size and grade of the deposit
- Modelling of the deposit, using all surface and drill data should proceed
- Drilling of the historic Lake grid soil geochemical anomaly should be completed if results from the surface work warrant further exploration
- Metallurgical testing of material collected from the highest grade intervals should be completed to ascertain if metal recoveries are sufficient to warrant further exploration

11 ITEMIZED COST STATEMENT

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	Field Days	Days	Rate	Subtotal*	
Bob Lane	October 1 & 4	1	\$750.00	\$750.00	
Chris Graf	October 1, 4 & 15	3	\$520.00	\$1,560.00	
Jay Page	October 15 - 29	15	\$675.00	\$10,125.00	
				\$12,435.00	\$12,435.00
Office Studies	List Personnel				
Chris Graf	Project Management	1.5	\$520.00	\$772.20	
Bob Lane	Project Preparation	1.2	\$750.00	\$900.00	
Bob Lane	Project Management & Report Writing	4.5	\$750.00	\$3,337.50	
Diana Benz	Data Handling	1.0	\$425.00	\$425.00	
Tracy Savident	Project Administration	0.3	\$360.00	\$123.66	
Rod McDonald	Project Preparation	0.5	\$760.00	\$380.00	
Tina Kwitkoski	Draft Maps, strip logs & cross sections	1.2	\$560.00	\$665.00	
	ArcGIS Target 3D Modeling/Data				
Ben Brown	Processing	1.1	\$488.00	\$533.75	
				\$7,137.11	\$7,137.11
Geochemical Surveying	Number of Samples	No.	Rate	Subtotal	
Global Discovery Labs	286 Samples submitted	286	17.1601	\$4,907.78	
Global Discovery Labs	287 Samples submitted	150	17.3741	\$2,606.10	
Global Discovery Labs	288 Samples submitted	54	17.4619	\$942.90	
Activation Labs	84 Samples submitted	84	\$68.47	\$5,751.52	
				\$14,208.30	\$14,208.30
Other Operations	Clarify	Units	Rate	Subtotal	
Moose Mountain Technical Services	Field support for drilling	1.0	\$1,050.00	\$1,050.00	
Moose Mountain Technical Services	Field support for drilling	2.0	\$482.40	\$964.80	
Falcon Drilling Ltd.	2008 drill program	1.0	\$126,382.07	\$126,382.07	
T. Lafavor	Core sawing and sampling	1.0	\$300.00	\$300.00	
K. Cotnam	Core RQD, geotech, sawing, sampling	16.9	\$300.00	\$5,070.00	
K. Cotnam	Core RQD, geotech, sawing, sampling	1.0	\$350.00	\$350.00	
C. Currie	Core handling assistant	3.0	\$40.00	\$120.00	
				\$134,236.87	\$134,236.87
Transportation		Units	Rate	Subtotal	
Travel to Field (wages - B. Lane)	October 1 & 4	0.4	\$750.00	\$300.00	
Travel to Field (wages - J. Page)	October 15 & 28	0.5	\$675.00	\$337.50	
Travel to Field (wages - C. Graf)	Oct 1, 4 & 15	1.5	\$520.00	\$780.00	
Flight to Field (Kelowna - PG return)	October 14 & 29	1.0	\$615.28	\$615.28	
Rental Vehicle Mileage	Rental Vehicle	252.0	\$0.65	\$163.80	
Fuel for Rental Vehicle	Rental Vehicle	1.0	\$54.82	\$54.82	
Kilometres	Field, airport & equipment pickup	668.00	\$0.65	\$434.20	
				\$2,685.60	\$2,685.60
Accommodation & Food					
Jay Page - Grandmas Inn Oct. 14	October 14	1.00	\$90.29	\$90.29	
Jay Page - ACL Apartment	October 15 - 29 weekly rate	2.00	\$350.00	\$700.00	
Field Crew - Meals & Groceries	Groceries & meals for field stay	1.00	\$657.66	\$657.66	
				\$1,447.95	\$1,447.95
Miscellaneous					
Core Logging Supplies	Rice Bags, Poly Bags, Zip Ties	1.00	\$259.52	\$259.52	
Core Saw Blade	Saw Blade	1.00	\$250.00	\$250.00	
QA/QC Supplies	16 Blanks for QA/QC	1.00	\$105.00	\$105.00	
Bandstra Trucking	Sample Shipping (4shipments)	1.00	\$1,167.18	\$1,167.18	
Courier Shipment	Core Samples to US	1.00	\$45.00	\$45.00	
Micron Geological	Petrographic Report	1.00	\$660.00	\$660.00	
Vancouver Petrographics	Polished Thin Section Preparation	1.00	\$196.90	\$196.90	
				\$2,683.60	\$2,683.60
Equipment Rentals					
PG Rental Centre	Propane Heater	1.00	\$274.63	\$274.63	
PG Rental Centre	Core Saw	1.00	\$413.82	\$413.82	
				\$688.45	\$688.45
TOTAL Expenditures					\$175,522.87

12 REFERENCES

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13 STATEMENT OF QUALIFICATIONS

I, Robert (Bob) A. Lane, of 2606 Carlisle Way, Prince George, B.C., do hereby certify that:

- 1) I visited the Wicheeda property on October 1 and October 4, 2008, while drilling was under way, took receipt of the core from the drilling company and personally stored the core in a gated and locked compound, and maintained regular communication with the individuals logged, sampled and shipped the core.
- 2) I compiled the information that resulted from the 2008 exploration drilling program completed on the Wicheeda property and authored the report entitled "Diamond Drilling Report on the Wicheeda Property, British Columbia, Canada ", dated May, 2009.
- 3) I graduated from the University of British Columbia in 1990 with a M.Sc. in Geology.
- 4) I am a Professional Geoscientist (PGeo) registered with the Association of Professional Engineers and Geoscientists of British Columbia, license #18993, and have been a member in good standing since 1992.
- 5) From 1990 until present I have been continuously employed as a geologist in mining and mineral exploration sector.

Dated at: PRINCE GEORGE the 29 day of May, 2009.



Robert (Bob) A. Lane, P.Geol.

Allnorth Consultants Limited

APPENDIX A

GEOLOGICAL DRILL

HOLE LOGS



DRILL LOG DETAILS

The content of this report was filtered as follows:
Project ref #: 08px0495

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
0	2.13	Overburden						

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
2.13	38.82	Dolomite Carbonatite	Very coarse grained	White	Crystalline	Dolomite	Calcite	Feldspar

contain magnetite. Small spots of pyrolusite are noted on fracture faces.

STRUCTURE									
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes		
2.13	6.07	Fracture	Roughness	- Rough			Broken and limonitic core is due to surface weathering.		
24.23	24.94	Fracture	Roughness	- Rough					
27.53	27.75	Breccia					Cavities filled with quartz		
29.03	30.50	Breccia					Cavities filled with chlorite.		
34.10	34.69	Fracture	Roughness	- Rough					
35.91	36.40	Fracture	Roughness	- Rough					
37.60	37.80	Fracture	Roughness	- Slickensided	0		Slickensides plunge 15d on 20d fracture surfaces		

ALTERATION														Minerals				Notes		
From	To	Assemblages											Bio	Cal	Chl	Epi	Fip		Pyr	Ser
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm							
2.13	62.15													VW	VS			M		Partial dolomitization of calcite is pervasive through the carbonate unit, minor development of ankerite. Porphyroblastic cubic pyrite crystals to 2 mm are randomly distributed to about 1% over interval.

VEINS												Mineral 1	Mineral 2	Notes
From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %						
10.04	10.05	100	1	45	25	74			Siderite 1%				Siderite forms weakly developed vein selvages.	
13.96	13.97	100	1	45	25	74			Siderite 1%				Siderite forms weakly developed vein selvages.	
14.08	14.09	100	1	40	15	84		0	Siderite 1%				Siderite forms weakly developed vein selvages.	
19.53	19.55	90	2	40	90				Siderite 10%				Siderite forms strongly developed vein selvages.	
19.80	19.85	20	2	50	30	69			Siderite 1%				Siderite forms weakly developed vein selvages.	
22.05	22.07	100	2	55	20	79			Siderite 1%				Siderite forms weakly developed vein selvages.	
22.39	22.41	100	1	40		98			Siderite 2%				Siderite forms clots and vein selvages.	
23.06	23.08	100	2	50	5	94		0	Siderite 1%				Siderite forms a weakly developed vein selvage.	

DRILL LOG DETAILS

The content of this report was filtered as follows:
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VEINS											
From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
23.22	23.24	100	2	50	5	92			Siderite 3%		Siderite forms vein selvages.
28.65	28.67	100	2	50	35	60			Siderite 5%		Siderite forms clots and vein selvages, vein contains vughs.
28.78	28.80	100	2	50	35	62			Siderite 3%		Siderite forms clots and a vein selvage.
34.65	34.66	100	1	30	100	0					

MINERALIZATION														
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
2.13	27.25	Disseminated	Coarse grained	Pyrite 1%							Dolomite 90%	Calcite 8%	Siderite 1%	Dolomite is after altered calcite, siderite forms vein selvages and alteration rims on coarse grained dolomite crystals along solution pathways, limonite coats all fracture surfaces.
27.25	30.50	Disseminated	Coarse grained	Pyrite 1%	Hematite 0%						Dolomite 64%	Calcite 9%	Feldspar 25%	Interval has a relatively high percentage of feldspar.
30.50	38.82	Disseminated	Coarse grained	Pyrite 1%							Dolomite 85%	Calcite 8%	Feldspar 6%	A fine grained, resinous, pale brown mineral is believed to be apatite and is found in disseminated specks, irregular stringers and larger clots to 2 cm.

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
38.82	48.28	Dolomite Carbonatite	Very coarse grained	White	Brecciated	Dolomite	Calcite	Biotite

Notes: Carbonate with minor intrusive breccia fragments. This interval contains approximately 10% syenitic and volcanic breccia fragments. The carbonate rock described above forms the matrix of the breccia. This unit does not contain magnetite.

STRUCTURE							
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes	
38.82	39.95	Fault	Roughness - Rough	15			

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tic	Trm	Bio	Cal	Chl	Epi	Fip	Pyr	Ser			
2.13	62.15													VW	VS				M				Partial dolomitization of calcite is pervasive through the carbonate unit, minor development of ankerite. Porphyroblastic cubic pyrite crystals to 2 mm are randomly distributed to about 1% over interval.

VEINS													Notes
From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2			
44.02	44.10	100	1	50	100	0		1					
46.20	46.21	70	1	35	100	0							

MINERALIZATION														Notes
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals					
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
38.82	48.28	Disseminated	Coarse grained	Pyrite 1%					Dolomite 80%	Calcite 9%	Feldspar 10%	Feldspar component is from syenitic breccia fragments		

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
62.15	66.21	Calcite Carbonatite	Medium Grained	White	Brecciated	Calcite	Feldspar	Biotite

Notes: Carbonate with a minor component (approximately 10%) of syenitic breccia fragments. The carbonate rock containing the breccia fragments is largely calcite (not dolomite) with irregular yellowish patches of ankerite alteration. Disseminated fine-grained, red-brown clusters of biotite comprises about 1% of the rock. Porphyroblastic pyrite is present but more weakly developed than above, it comprises not more than 1% of this unit. Minor traces of very fine grained apatite (?). This unit does not contain magnetite.

STRUCTURE							
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
61.75	63.10	Fracture	Roughness -	Rough			
65.24	66.21	Fracture	Roughness -	Rough			

ALTERATION		Assemblages											Minerals					Notes			
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi		Flp	Pyr	Ser
62.15	68.21													VW	VS	VS				M	

MINERALIZATION				Economic Minerals					Gangue Minerals			Notes
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
62.15	68.21	Disseminated	Coarse grained	Pyrite 1%					Calcite 86%	Feldspar 10%	Biotite 3%	Intensity of the breccia has diminished and the host is largely calcite. Biotite is red-brown variety.

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
66.21	72.12	Fault Breccia	Fine grained	Dark Greenish Gray	Brecciated	Feldspar	Chlorite	

Notes: This fault breccia is composed of approximately 80-90% syenite fragments, with a matrix that is largely composed of chlorite. Magnetite is common in the matrix, and minor amounts of hematite and fine-grained pyrite are present. Many of the breccia fragments, which are very angular, contain pink k-feldspar and are shot through with tiny calcite stringers. These breccia fragments appear to be different from the breccia fragments in the units above. A fault gouge consisting of a chlorite-clay paste with some syenite fragments is noted between 66.21 m to 68.23 m.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
66.21	68.23	Fault	Infilling			Chlorite-rich fault gouge.
68.23	69.18	Fracture	Roughness - Rough			

ALTERATION		Assemblages											Minerals							Notes	
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fip	Pyr		Ser
62.15	68.21													VW	VS	VS				M	
68.21	72.12														S	VS				M	Strong magnetite alteration from 63.23 to 72.12, minor hematite and pyrite noted.

MINERALIZATION				Economic Minerals					Gangue Minerals			Notes
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
62.15	68.21	Disseminated	Coarse grained	Pyrite 1%					Calcite 86%	Feldspar 10%	Biotite 3%	Intensity of the breccia has diminished and the host is largely calcite. Biotite is red-brown variety.
68.21	72.12	Disseminated	Fine grained	Pyrite 1%					Feldspar 49%	Calcite 20%	Chlorite 20%	

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
72.12	73.15	Syenite Dyke	Medium Grained	Medium Gray	Cemented	Feldspar	Calcite	Quartz

Notes: Felsic Intrusive (syenite?) is fractured and cemented and spaces filled with carbonate (calcite & ankerite), quartz and pyrite. This unit does not contain magnetite. Fragments of this intrusive are present in the unit below but are not present in the unit above.

STRUCTURE									
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes		
72.12	72.13	Fault	Shape - Planar		30		contact marked by a 1 mm chlorite seam.		

ALTERATION																						
From	To	Assemblages											Minerals					Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser		
72.12	73.15									W					S				S			Fine-grained quartz infills fractures in healed breccia texture.

MINERALIZATION												
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
72.12	73.15	Blocky	Coarse grained	Pyrite 3%					Feldspar 75%	Calcite 22%	Quartz 5%	

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
73.15	80.25	Fault Breccia	Fine grained	Dark Greenish Gray	Cataclastic	Chlorite		

Notes: Intrusive/sediment contact zone displaying late mechanical disruption with many fractures, chlorite seams, short intervals (fragments) of the above felsic intrusive and sedimentary material (partly assimilated?) from the underlying sediments.

ALTERATION																						
From	To	Assemblages											Minerals					Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser		
73.15	80.25															VS			VS			

MINERALIZATION												
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
73.15	80.25	Disseminated	Fine grained	Pyrite 3%					Feldspar 57%	Calcite 20%	Chlorite 20%	

08-WI-01

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
80.25	132.75	Calcareous Siltstone	Fine grained	Dusky Brown	Bedding	Calcite		

Notes: Sediment is calcareous siltstone interbedded with carbonate-rich (limestone) beds. Bedding varies from mm to cm scale bedding although more massive beds to several metres also exist. Mechanical disruption of the bedding is common above 136 m. The bedding angle varies, but is generally of intermediate angles (40 to 60 degrees). Intrusive injection textures are notable in several locations above 87.50. Locally weak to moderately well developed epidote skarn forms patches and replaces limy beds to a few cm thickness in the upper part of this unit, but dies out rapidly and is not observed below 126.70 m. Minor amounts of very fine-grained diopside, tremolite and including a dark amphibole, (hornblende?) and possibly garnet may also accompany skarny interbeds. The transition to a limestone with silty interbeds is gradual and subjective but appears to change most rapidly around 132 m. A convenient fault gouge between 132.35 and 132.75 is chosen to mark the transition. Healed fault breccias were noted at 109.72 m, 110.70 m and 117.90 m.

STRUCTURE							
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
80.63	81.53	Fracture		Roughness - Rough			
81.70	82.87	Fracture		Roughness - Rough			
87.90	88.10	Fault		Infilling			Chlorite-rich fault gouge.

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser			
80.25	106.20										W				S				S				Weakly developed epidote skarn is present in a limited number of calcareous interbeds. Fine cubic pyrite is present in silty interbeds and on some fractures.
106.20	126.70										VW				S				S				A few very weakly developed skarny interbeds are present. Fine cubic pyrite is present in silty interbeds and on some fractures.
126.70	132.75														S				S				Fine cubic pyrite is present in silty interbeds and on some fractures.

DRILL LOG DETAILS

The content of this report was filtered as follows:
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From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
132.75	185.62	Limestone	Fine grained	Medium Gray	Bedding	Calcite		

Notes: Transition to a carbonate rock (limestone) is gradual from the above siltstone-dominated rock. As above, bedding varies from mm to metre scale and shows an even wider variation in the angle to core axis (147.67 m: 40d; 151.74 m: 20d; 157.50 m: 80d; 165.00 m: 40d). This suggests that folding is more pronounced in the limestone unit. Small, partial folds at 167.90 m suggest soft sediment deformation.

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser			
132.75	185.62																						M

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
0	1.52	Overburden						

DRILL LOG DETAILS

The content of this report was filtered as follows:
Project ref #: 08px0495

MINERALIZATION				Economic Minerals					Gangue Minerals			Notes
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
1.52	20.32	Disseminated	Coarse grained	Pyrite 2%					Dolomite 85%	Calcite 10%	Siderite 3%	Cubic pyrite occurs as disseminated porphyroblasts.
20.32	20.43	Massive	Fine grained	Pyrite 90%					Dolomite 10%			
20.43	32.06	Disseminated	Coarse grained	Pyrite 2%					Dolomite 85%	Calcite 10%	Siderite 3%	Cubic pyrite occurs as

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
32.06	51.54	Dolomite Carbonatite	Coarse grained	White	Crystalline	Dolomite	Calcite	Feldspar

Notes: This interval of carbonate differs from the above unit in that it has very little siderite. Also, the upper contact of this unit marks the beginning of the appearance of breccia fragments. These breccia fragments appear to be partly assimilated to the extent that the relic fragments are now grey patches and streaks which are composed of largely dolomite, along with fine grey feldspar grains and very fine grained grey metallic flakes which are believed to be hematite. Many of these grey patches are not identifiable as breccia fragments, but a sufficient number can be identified to support the general assumption that they are all assimilated fragments. A number of other dark grey fragments, including part of a brecciated dyke between 35.74 m and 36.26 m, appear to be altered to fine-grained green phlogopite mica and chlorite (from altered pyroxene and feldspar?), along with very fine grained hematite or possibly manganite. Overall, this interval is largely carbonate which is largely altered to dolomite. Irregular rose-coloured patches between 37 m and 38 m are believed to be potassium feldspar. Small irregular patches and streaks of pale green and brownish coloured minerals are believed to be aggregates of fine-grained phlogopite and biotite micas. Minor amounts of disseminated apatite has appeared. Porphyroblastic pyrite to 1 cm continues to be randomly distributed, but overall appears to be finer grained than in the unit above. This unit is not magnetic.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
32.06	32.07	Fracture	Shape - Planar	50		Limonite coats fractures
32.07	32.78	Fracture	Roughness - Rough			Limonite coats fractures
35.35	35.51	Fracture	Roughness - Rough			Limonite coats fractures
38.70	40.21	Fracture	Roughness - Rough			Limonite coats fractures
49.15	49.77	Fracture	Roughness - Rough	0		
50.14	50.91	Fault	Infilling			Broken rubble and clay gouge

ALTERATION		Assemblages											Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fjp	Pyr		Ser	
32.06	56.28													VW	S	VW		W	W			Partial dolomitization of calcite and alteration of rock fragments.

MINERALIZATION				Economic Minerals					Gangue Minerals			Notes
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
32.06	56.28	Disseminated	Coarse grained	Pyrite 2%					Dolomite 80%	Calcite 15%	Biotite 3%	Cubic pyrite occurs as disseminated porphyroblasts.

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
51.54	51.85	Chloritic Dyke	Fine grained	Dark Greenish Gray	Indistinct	Chlorite		

Notes: A short (31 cm) interval of chlorite-altered mafic rock.

ALTERATION		Assemblages												Minerals						Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser	
32.06	56.28													VW	S	VW		W	W			Partial dolomitization of calcite and alteration of rock fragments.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
32.06	56.28	Disseminated	Coarse grained	Pyrite 2%					Dolomite 80%	Calcite 15%	Biotite 3%	Cubic pyrite occurs as disseminated porphyroblasts.

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
51.85	56.28	Dolomite Carbonatite	Coarse grained	White	Crystalline	Dolomite	Calcite	Feldspar

Notes: An interval of carbonate with a minor component of syenitic breccia fragments, many of which have biotite and chlorite reaction rims around the fragments.

STRUCTURE		Structure	Discontinuity Condition	TCA	Strain	Notes
52.00	52.98	Fracture	Roughness - Rough			
54.80	55.90	Fault	Infilling	5		Fault gouge and breccia. Angle is irregular, but in the range of 5 degrees.

ALTERATION		Assemblages												Minerals						Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser	
32.06	56.28													VW	S	VW		W	W			Partial dolomitization of calcite and alteration of rock fragments.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
32.06	56.28	Disseminated	Coarse grained	Pyrite 2%					Dolomite 80%	Calcite 15%	Biotite 3%	Cubic pyrite occurs as disseminated porphyroblasts.

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
56.28	58.16	Syenite Breccia	Coarse grained	Medium Gray	Brecciated	Dolomite	Feldspar	Biotite

Notes: This short interval of crowded intrusive breccia is heterolithic with 2 varieties of fragments. One type is composed of amber-coloured syenite fragments, the other felsic fragment is grey-coloured, carbonate-altered and rimmed with black biotite and chlorite. Numerous fine fractures cut through the grey fragments and are filled with fine-grained biotite, giving a gneissic appearance to the fragments. Pyrite porphyroblasts up to 1 cm in size are common in the dolomitic matrix, but also cut grey fragment boundaries.

ALTERATION		Assemblages												Minerals							Notes	
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser		
56.28	58.16													S	S	M				M		Biotite and chlorite form reaction rims around grey breccia fragments.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
56.28	58.16	Disseminated	Coarse grained	Pyrite 5%						Dolomite 50%	Feldspar 40%	Biotite 5%	Cubic pyrite occurs as disseminated porphyroblasts.

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
58.16	58.64	Syenite Dyke	Fine grained	Pale Pink	Aplitic	Orthoclase		

Notes: An short interval of syenite (a dyke?). Porphyroblastic pyrite is not present in the dyke. A few minor fractures that carry wisps of biotite/chlorite are noted.

STRUCTURE							
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
58.16	58.17	Contact	Shape - Planar		20		Angle measured from a fragment

ALTERATION		Assemblages												Minerals							Notes	
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser		
58.16	58.64																					Syenite does not appear altered.

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
58.64	77.27	Dolomite Carbonatite	Coarse grained	White	Brecciated	Dolomite	Calcite	Chlorite

Notes: A carbonate interval with many broken and faulted zones and short intervals of weakly developed breccia, along with several large breccia fragments from the syenite dyke above. Essentially a zone of mixed intervals created by faulting but overall dominantly carbonate. This interval is not magnetic. Porphyroblastic cubic pyrite to 2.5 cm are present in small amounts, not more than 1%.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
60.10	60.75	Fracture	Roughness - Rough			
62.60	65.75	Fault	Infilling			Interval of fault breccia and chlorite-rich gouge.
66.44	69.10	Fracture	Roughness - Rough	0		
70.45	70.52	Fault	Infilling	45		Fault gouge
70.77	70.95	Fault	Infilling	15		Strongly chloritic and pyrite-rich gouge
71.03	72.85	Fracture	Roughness - Rough			
73.50	77.11	Fracture	Roughness - Rough			
74.03	75.59	Fracture	Roughness - Rough			
75.68	77.11	Fracture	Roughness - Rough			

ALTERATION

From	To	Assemblages											Minerals						Notes						
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tic	Trm	Bio	Cal	Chl	Epi	Flp		Pyr	Ser				
58.64	92.00															W	S	M		M					Interval of carbonate largely altered to dolomite. A weakly developed and partly assimilated breccia becomes stronger with depth, especially after approximately 77.27 m when it begins to dominate the rock texture. Several structures within this interval include strongly chlorite-altered fault gouge, such as between 62.60 m - 65.75 m and 70.40 m - 71.77 m and 80.75 m - 86.30m. Biotite is weakly developed as a fine, irregular red-brown patches.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
58.64	77.27	Disseminated	Coarse grained	Pyrite 1%							Dolomite 85%	Calcite 9%	Chlorite 5%	Cubic pyrite occurs as disseminated porphyroblasts. Breccia fragments (Feldspar) constitute a minor part of this unit, less than a few percent.

DRILL LOG DETAILS

The content of this report was filtered as follows:
 Project ref #: 08px0495

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
77.27	92.00	Syenite Breccia	Coarse grained	Medium Gray	Brecciated	Dolomite	Calcite	Feldspar

Notes: A syenite breccia with a carbonate matrix, the carbonate is largely dolomite. Composition varies widely between fragment dominated and matrix dominated. The ratio of fragments to matrix is roughly 50% - 50% but is mostly syenite fragments toward the bottom where it grades into syenite (megaclastic breccia?). This has some of the appearance of a contact zone. The core is largely rubble below a fault at 85.75 m. Porphyroblastic pyrite was not observed in this unit, although a few large blebs of pyrite are present in a fault breccia at 86.72 m. There is no magnetite present.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
80.38	80.65	Fracture	Roughness - Rough			
85.75	86.73	Fault	Infilling	30		Filled with chlorite-rich fault gouge
87.17	89.48	Fracture	Roughness - Rough			
90.05	91.62	Fracture	Roughness - Rough			

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fip	Pyr	Ser			
58.64	92.00													W	S	M				M			Interval of carbonate largely altered to dolomite. A weakly developed and partly assimilated breccia becomes stronger with depth, especially after approximately 77.27 m when it begins to dominate the rock texture. Several structures within this interval include strongly chlorite-altered fault gouge, such as between 62.60 m - 65.75 m and 70.40 m - 71.77 m and 80.75 m - 86.30m. Biotite is weakly developed as a fine, irregular red-brown patches.

MINERALIZATION				Economic Minerals					Gangue Minerals			Notes
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
86.70	86.74	Semi massive	Coarse grained	Pyrite 30%					Calcite 70%			

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
92.00	102.67	Syenite	Medium Grained	Medium Gray	Brecciated	Feldspar	Dolomite	Chlorite

Notes: An interval of syenite (breccia?) with calcite/dolomite veining cutting through in many locations. This may be seen as a gradation from the syenite breccia above to either a mega breccia or contact zone with a hosting syenite body, but a broken/fault zone near the lower contact makes that determination difficult. The feldspars show minor alteration (carbonate + clay + sericite?) to a somewhat softer rock with cloudy textures. In addition, much of this interval is shot through with patches and stringers of fine-grained cubic pyrite to about 10 -15% and locally up to 35% of the rock; the pyrite is strongest between 92.00 m and 96.92 m and 101.65 m to 102.25 m. Most of this pyrite appears to be fracture controlled, but it does not form stockworks. The overall composition of this interval is approximately 80% syenite, 10% carbonate and 10% pyrite. This unit is not magnetic.

STRUCTURE							
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
94.12	97.23	Fracture		Roughness - Rough			
100.34	100.50	Fracture		Roughness - Rough			

ALTERATION															Notes							
From	To	Alb	Arg	Int	Lis	Phy	Assemblages					Minerals										
							Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epl	Flp	Pyr	Ser		
92.00	102.67														M	S			VS			Syenite (breccia) with dolomite veining (or syenite mega breccia), feldspars display carbonate - clay - sericite - pyrite alteration, but not phyllic in the porphyry sense.

MINERALIZATION												Notes
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
92.00	96.92	Semi massive	Medium grained	Pyrite 15%					Feldspar 80%	Dolomite 5%		Small cubic pyrite occurs as masses and stringers, some of which appear to be fracture controlled, so it is not clear that they are pyrophyroblasts.
101.65	102.25	Semi massive	Medium grained	Pyrite 15%					Feldspar 80%	Dolomite 5%		Small cubic pyrite occurs as masses and stringers, some of which appear to be fracture controlled.

DRILL LOG DETAILS

 The content of this report was filtered as follows:
 Project ref #: 08px0495

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
102.67	116.00	Dolomite Carbonatite	Coarse grained	White	Brecciated	Dolomite	Calcite	Feldspar

Notes: Carbonate, with a moderate composition of intrusive breccia fragments. Carbonate is partly altered to dolomite but becoming less altered with depth. Syenitic intrusive breccia fragments similar to that seen above. Concentration of fragments varies from none to 85% over 1 m intervals but probably averages about 25% fragments overall. At 2 locations (107.85 m - 108.07 m, 112.93 m - 113.40 m) large grey syenitic fragments may be mechanically disrupted parts of dykes but contacts are irregular and non-parallel. Red-brown fine aggregates of biotite rim many, but not all fragments. Small patches of green plogopite mica are sometimes associated with the biotite. Pyrite is common as irregular blebs, some of which reach several cm in size and are more common in the matrix of the breccia, but syenite fragments are also mineralized with pyrite. Large blebs of pyrite are common between 113.40 m and 116.00 m below a possible syenite dyke at 113.40. Porphyroblastic pyrite, like the large cubic crystals seen above is rare. Small irregular bebs of a grey metallic are believed to be specular hematite.

STRUCTURE

From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
109.12	111.16	Fracture	Roughness	Rough			
115.21	115.70	Fault	Roughness	Rough			
115.85	116.50	Fault	Infilling				This is a fault contact (contact at 116.00) with some clay fault gouge

ALTERATION

From	To	Assemblages											Minerals						Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp		Pyr	Ser		
102.67	116.00															M	M	M		M			Partial dolomitization of calcite. Syenite fragments have biotite reaction rims.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
113.40	116.00	Semi massive	Medium grained	Pyrite 3%						Dolomite 67%	Calcite 20%	Feldspar 10%	Pyrite forms random large blebs to several cm.

DRILL LOG DETAILS

 The content of this report was filtered as follows:
 Project ref #: 08px0495

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
116.00	126.92	Syenite Breccia	Medium Grained	Medium Gray	Brecciated	Feldspar	Calcite	Chlorite

Notes: Similar to the interval of syenite (breccia) above, this syenite (breccia) with calcite/dolomite veining may be either a mega breccia or contact zone with a hosting syenite body, although numerous small fracture offsets make it difficult to be certain. This unit could be considered an carbonate crowded with breccia fragments. The syenite fragments show minor alteration and partial assimilation in spots. Blebs of pyrite are common and can reach 2 cm but do not comprise more than 2 -3 percent of the rock. The overall composition of this interval is approximately 90% syenite, 8% calcite/dolomite and 2% pyrite. The alteration of calcite to dolomite seen above has decreased markedly and the carbonate is dominantly calcite now. This unit is not magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
115.85	116.50	Fault	Infilling			This is a fault contact (contact at 116.00) with some clay fault gouge
123.15	123.40	Fracture	Roughness - Rough			
124.60	125.60	Fracture	Roughness - Rough			

ALTERATION

From	To	Assemblages												Minerals							Notes	
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fip	Pyr	Ser		
116.00	126.92														W	S			S		W	This syenite (Breccia) is similar to that above, but with little dolomitic alteration of calcite. Fragments show carbonate alteration of plagioclase (?).

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
116.00	126.92	Disseminated	Medium grained	Pyrite 2%						Feldspar 83%	Calcite 15%	

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
126.92	134.93	Calcsilicate	Medium Grained	Pale Pink	Crystalline	Calcite	Chlorite	

Notes: Carbonate unit is dominantly calcite which has an unusual pink colouration that looks like it could be weakly developed skarn(?) There are several grey patches that maybe partly assimilated rock fragments (xenoliths, perhaps limestone?). Black outlines, streaks and patches are fine-grained biotite. The outlines appear to be reaction rims on rock fragments. Fine grained chlorite commonly accompanies the black biotite. Pink colouration may be due to fine disseminated red biotite but the extremely fine grain size precludes identification. Pale, olive green coloured patches may be massive, fine-grained, phlogopite mica. Pyrite is weakly disseminated through this interval in minor amounts.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
130.21	130.60	Fracture	Shape - Planar	5		Low angle fracture has a chlorite coating.

ALTERATION

From	To	Assemblages											Minerals							Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser			
126.92	134.93																S		M			W		This interval has a pink colouration that is quite noticeable between 129.60 m - 131.38 m. Wispy black biotite forms reaction rims and replaces fragments(?). Olive green patches are possibly massive, fine-grained phlogopite mica.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
126.92	134.93	Disseminated	Medium grained	Pyrite 1%						Calcite 94%	Biotite 5%		Fine grained disseminated pyrite in minor amounts (less than 1%).

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
134.93	156.58	Syenite Breccia	Medium Grained	Medium Gray	Brecciated	Feldspar	Calcite	Chlorite

Notes: Similar to the syenitic breccia above, but with calcite matrix/veining and noticable carbonate alteration of plagioclase(?) in the syenite giving a mottled appearance and large contrasts in hardness. This interval has a strong intrusive (transported) breccia texture with fragments that do not fit together or appear to be simply rotated. The percent of fragments is high in this interval, up to 90% over several metres in places and perhaps 75% overall. In contrast, there are also several intervals of > 90% calcite up to 1 m i length Fluorite noted at 155.22 m. This unit is not magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
141.21	143.00	Fracture	Shape - Planar	35		2 cm thick is at 142.40 m. There are numerous (~21) parallel chlorite-filled fractures cutting through here, most up to 5 mm thick. The largest one, 1 -2
153.21	154.04	Fracture				Interval is largely missing, just a bit of chlorite rubble remaining.

ALTERATION

From	To	Assemblages											Minerals							Notes		
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fip	Pyr		Ser	
134.93	156.58															S	M				VS	

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
134.93	156.58	Disseminated	Coarse grained	Pyrite 3%						Feldspar 48%	Calcite 45%	Chlorite 4%	Pyrite is very blebby, often over 1 cm in size.

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
156.58	157.67	Calcite Carbonatite	Medium Grained	Pale Pink	Crystalline	Calcite	Biotite	

Notes: A short interval of the pink coloured carbonate, minor wisps of black biotite with associated chlorite noted.

ALTERATION

From	To	Assemblages											Minerals							Notes					
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fip	Pyr		Ser				
156.58	157.67															W			W						

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
168.60	184.75	Carbonatite Breccia	Medium Grained	Olive Gray	Cataclastic	Calcite	Chlorite	Feldspar

Notes: A strongly altered interval of carbonate with feldspar-rich (syenite?) breccia fragments in which about 90% of the interval has been shattered and shot through with fine chlorite stringers. Strong, pervasive disseminated pyrite also characterizes this interval, especially between 175.52 m and 180.05 m. Minor amounts of clay alteration may accompany the strong carbonate - chlorite alteration through parts of this interval, especially in the lower half.

STRUCTURE							
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes	
168.40	184.75	Fracture	Coating			An interval with many broken zones, most of which is shot through with chlorite coatings on fracture faces.	

ALTERATION																						
From	To	Assemblages										Minerals							Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp		Pyr	Ser	
168.60	184.75																	VS	VS		S	This interval has been strongly fractured, shot through with chlorite which coats and fills fractures and is strongly carbonate altered. There may be some minor clay alteration toward the bottom of this unit.

MINERALIZATION													
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
175.52	180.05	Disseminated	Medium grained	Pyrite 5%						Calcite 80%	Chlorite 10%		Large and small blebs of randomly distributed pyrite mineralize this interval.

08-WI-02

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
184.75	206.85	Skarn	Medium Grained	Medium Gray	Convolutd	Calcite	Chlorite	Epidote

Notes: An interval of carbonate rock with short sections of calcsilicate rock. The rock has a finely banded and mottled appearance with many irregular pink, green and grey coloured patches and intervals. A weakly developed skarn alteration seems to have developed in the carbonate unit which carries the breccia fragments, many of which are still recognizable, while others may be partly altered to chlorite, epidote +/- diopside, although the fine grain-size makes this determination difficult. This unit is in fault contact with the units above and below. Through parts of this unit, there are many small, mm to cm sized angular fragments +/- crystals of feldspar(?); their pinkish brown colour suggests they are k-feldspar. They may be relics of incomplete alteration of rock fragments. Fine to medium-grained disseminated pyrite is present in minor amounts.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
184.75	184.76	Contact	Roughness - Rough			
202.90	203.06	Fault	Infilling			Chlorite-rich gouge.

ALTERATION

From	To	Assemblages											Minerals							Notes		
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser	
184.75	206.85												W			M	S	S	W		M	Weakly developed skarn alteration

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
206.85	215.80	Calcsilicate	Medium Grained	White	Mottled	Calcite	Feldspar	Chlorite

Notes: A mixed unit with many elements of the above units with rapid, gradational changes between carbonate rock, weakly developed skarn, strongly carbonate altered syenite breccia, calcsilicate and carbonate-chlorite-clay rock. A number of large blebs of pyrite are noted.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
206.85	206.86	Contact	Roughness - Rough	70		

ALTERATION

From	To	Assemblages											Minerals							Notes	
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser
206.85	215.80												VW			M	S	M		M	A mixed interval of the above units.



DRILL LOG DETAILS

The content of this report was filtered as follows:
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08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
0	2.56	Overburden						

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
2.56	38.71	Dolomite Carbonate	Coarse grained	White	Crystalline	Dolomite	Calcite	Siderite

Notes: Weathered zone of carbonate rock which shows partial alteration to dolomite. Siderite forms vein selvages and maps out grain boundaries forming network-like patterns over areas of several cm. Porphyroblastic pyrite forms randomly distributed cubes to 2 cm. Limonite forms rusty coatings on all fracture surfaces. Small spots of pyrolusite are noted on fracture faces.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
2.56	4.47	Fracture	Roughness - Rough			Strongly weathered
13.87	14.40	Fracture	Infilling	5		Chlorite coats fractures
25.19	26.36	Fault	Infilling	60		Fault gouge of clay and limonite
26.70	26.82	Fracture	Roughness - Rough			
35.37	35.68	Fracture	Infilling			Fractures cemented with chlorite
35.90	38.71	Fault	Infilling			Limonitic rubble and poor recovery

ALTERATION		Assemblages											Minerals						Notes			
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp		Pyr	Ser	
2.56	38.71														S					W		Incomplete dolomitization of carbonate. Porphyroblastic pyrite disseminated throughout interval

VEINS											
From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
6.40	6.41	100	1	65	85	10	0		Siderite 5%		Siderite forms a vein selvage
11.13	11.15	100	1	63	70	26			Siderite 4%		Siderite forms a vein selvage
12.00	12.01	100	1	70	97				Siderite 3%		Siderite forms vein selvage
14.48	14.54	15	2	60	98				Siderite 2%		Siderite forms a vein selvage
17.75	17.80	10	2	70	95				Siderite 5%		Siderite forms vein selvage

MINERALIZATION		Economic Minerals					Gangue Minerals			Notes			
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1		Mineral 2	Mineral 3	
2.56	38.71	Disseminated	Coarse grained	Pyrite 2%						Dolomite 88%	Calcite 5%	Siderite 5%	Porphyroblastic disseminated pyrite

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
55.25	72.55	Dolomite Carbonatite	Coarse grained	White	Crystalline	Dolomite	Calcite	Biotite

Notes: An interval of carbonate with a small number of breccia fragments, most of which are largely assimilated/altered to amber-coloured patches of carbonate, chlorite (+/- sericite?) and relic feldspar. Small patches of red-brown, fine-grained biotite are also noted. Coarse porphyroblastic pyrite is common and comprises about 2 % of the rock.

STRUCTURE							
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
61.00	61.25	Fracture	Infilling				Chlorite coatings on fragments
66.56	67.06	Fracture	Infilling				Chlorite coatings on fractures
67.57	67.92	Fracture	Infilling		30		Chlorite infills fractures.

ALTERATION		Assemblages											Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Fip	Pyr		Ser	
55.25	72.55													W	S	W			W			Dolomitized carbonate with minor biotite - chlorite alteration.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
55.25	72.55	Disseminated	Coarse grained	Pyrite 2%							Dolomite 90%	Calcite 5%	Chlorite 3%	Porphyroblastic disseminated pyrite

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
72.55	91.35	Carbonatite Breccia	Coarse grained	Medium Gray	Brecciated	Dolomite	Feldspar	Chlorite

Notes: An intrusive breccia, but more weakly developed than the breccia above. This interval includes several sections of breccia interspaced with sections of dolomite, all of which are on a scale of several metres. The population of breccia fragments decreases toward the bottom of this unit, with very few fragments in the last few metres. Many small fragments are almost completely assimilated, leaving amber-coloured patches. Most larger fragments show some alteration, leaving a mass of relic grey feldspar, pale green plogopite mica, chlorite and a grey metallic, possible illmanite or hematite. Coarse porphyroblastic pyrite is common in this unit but the porphyroblasts tend to be concentrated in patches.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
77.65	79.16	Fracture	Infilling			Chlorite infills fractures.
86.67	87.17	Fracture	Infilling			Chlorite filled fractures
89.65	90.30	Fracture	Roughness - Rough			

ALTERATION

From	To	Assemblages												Minerals							Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser					
72.55	91.35															M	S	M		W					Intrusive breccia shows carbonate - chlorite- Plogopite (+/-biotite) alteration of fragments. Carbonate matrix is largely altered to dolomite.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
72.55	91.35	Disseminated	Coarse grained	Pyrite 1%						Dolomite 84%	Feldspar 15%		Porphyroblastic pyrite.

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
91.35	94.52	Andesite Dyke	Fine grained	Dark Greenish Gray	Porphyritic	Feldspar	Dolomite	Chlorite

Notes: This appears to be an altered and broken up volcanic dyke, now composed of carbonate altered feldspar, chlorite and biotite. Carbonate altered feldspars create a spotted appearance to this interval which may emphasize an original porphyritic texture. Stibnite is noted on a fracture at 93.85 m. This rock is not magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
92.45	92.81	Fracture	Infilling			Chlorite filled fractures

ALTERATION

From	To	Assemblages												Minerals							Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser				
91.35	94.52															W	S	VS						Carbonate - chlorite altered volcanic dyke.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
125.72	130.42	Syenite Breccia	Coarse grained	Medium Gray	Brecciated	Feldspar	Dolomite	Chlorite

Notes: An interval which is made up of >80% syenite breccia fragments, this may be a megabreccia with numerous short intervals and fracture fillings of dolomite. There is also a block of very siliceous, magnetic meta-sediment (hornfelsed?) between 128.25 m - 128.58 m and a short interval of strongly chlorite altered volcanic between 129.60 m - 130.42 m.

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser			
125.72	130.42													W	M	S							Weak carbonate alteration of felsic (syenite?) breccia fragments, dolomitic alteration of carbonate matrix, strong chlorite alteration of volcanic fragments.

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
130.42	158.55	Carbonatite Breccia	Coarse grained	Medium Gray	Brecciated	Dolomite	Feldspar	Calcite

Notes: Similar to intervals of carbonate hosted intrusive breccia above, this interval shows a wide variation in the percent fragments but on average there appears to be more matrix than fragments. Some feldspars in the (syenitic?) fragments display weak carbonate alteration, along with some development of chlorite and green phlogopite (after mafic minerals?). The carbonate continues to be largely altered to dolomite, but less so than seen in the carbonate rich intervals higher in this hole. Minor amounts of red-brown biotite forms small, randomly distributed spots. A very fine-grained grey (slightly blue-grey coloured in bright light) metallic may be ilmanite or specular hematite, it is finely disseminated in minor amounts.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
133.15	136.25	Fracture	Roughness - Rough			
136.25	136.40	Fault	Infilling	65		Chlorite-rich fault gouge.
136.40	142.40	Fracture	Roughness - Rough			Numerous short intervals of fractured rock within this interval.
136.80	138.77	Fracture	Infilling			Numerous hairline fractures are filled with chlorite
147.04	158.55	Fracture	Roughness - Rough			Many short intervals of fractured rock, many with chlorite coatings.

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser			
130.42	158.55													W	M	W			W				Intrusive breccia with a dolomitic matrix, similar to the intervals above. The alteration of the carbonate to dolomite is less strong than above. Small amber-coloured patches may suggest some potassic alteration.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
158.55	164.58	Dolomite Carbonatite	Coarse grained	White	Crystalline	Dolomite	Calcite	Biotite

Notes: A leucocratic interval of white carbonate, incompletely altered to dolomite. Small disseminated red-brown spots maybe fine-grained brown biotite within amber-coloured patches which may be potassic alteration. Trace amounts of a fine-grained grey metallic may be illmanite or specular hematite. A yellowish colouration to some patches of carbonate may suggest ankerite alteration.

ALTERATION		Assemblages											Minerals							Notes			
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser		
158.55	164.55													VW	S					M			Carbonate is largely altered to dolomite but with residual calcite present. Yellowish colouration suggests that ankeritic alteration may also be present.
164.55	169.15													W	S	S				W			Intrusive breccia with a dolomitic matrix, similar to above. black biotite rims some fragments. Fractures are strongly coated with chlorite.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
158.55	164.58	Disseminated	Coarse grained	Pyrite 3%						Dolomite 80%	Calcite 12%	Biotite 5%	Porphyroblastic pyrite tends to form in randomly distributed large blebs to 2 - 3 cm.

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
164.58	169.15	Syenite Breccia	Coarse grained	Medium Gray	Brecciated	Feldspar	Dolomite	Chlorite

Notes: Breccia fragment rich interval, in which fragments > 65%. Intervals of white carbonate, are similar to the unit above. Many hairline fractures are filled with chlorite. Interval is dark grey coloured. Non-magnetic.

ALTERATION		Assemblages											Minerals							Notes			
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser		
164.55	169.15													W	S	S				W			Intrusive breccia with a dolomitic matrix, similar to above. black biotite rims some fragments. Fractures are strongly coated with chlorite.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
164.58	169.15	Disseminated	Coarse grained	Pyrite 2%						Feldspar 80%	Dolomite 15%	Biotite 3%	

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
169.15	175.40	Carbonatite Breccia	Coarse grained	White	Brecciated	Dolomite	Feldspar	Biotite

Notes: Interval of felsic breccia (syenite?) of moderate intensity, approximately 25% - 30% fragments. The hosting carbonate is largely (but not completely) altered to dolomite, Black biotite rims many fragments (although often not on all sides, suggesting re-brecciation) along with chlorite and green phlogopite mica. Tiny, amber-coloured patches may be red-brown biotite. This interval is gradational between the dark grey (mesocratic) crowded breccia above and a leucocratic carbonate-rich interval below, with relatively fewer breccia fragments. Non magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
170.00	175.28	Fracture	Roughness - Rough	5		Most of this interval is broken with several low angle fractures.

ALTERATION

From	To	Assemblages											Minerals							Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser			
169.15	180.05																M	S	M			W		Moderate black biotite rims some fragments and fills spaces(?) within the carbonate suggesting that it is late. Carbonate is incompletely altered to dolomite. Porphyroblastic pyrite appears randomly distributed.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
169.15	175.40	Disseminated	Coarse grained	Pyrite 1%						Dolomite 65%	Feldspar 30%	Biotite 4%	Porphyroblastic pyrite

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
175.40	180.05	Carbonatite Breccia	Coarse grained	White	Crystalline	Diopside	Calcite	Feldspar

Notes: An interval of weakly developed beccia gradational from above, syenite (?) fragments show some carbonate alteration (+/- assimilation), especially the smaller fragments. Small amber-brown specks may be fine-grained red-brown biotite. Solution cavities (to 1 cm) occasionally have calcite crystals in them. Irregular blebs of pyrite tend to be concentrated and there maybe some structural control. Non-magnetic.

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser			
169.15	180.05													M	S	M			W				Moderate black biotite rims some fragments and fills spaces(?) within the carbonate suggesting that it is late. Carbonate is incompletely altered to dolomite. Porphyroblastic pyrite appears randomly distributed.

VEINS		Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
178.03	178.04	100	1	50	90		10				

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
175.40	180.05	Disseminated	Coarse grained	Pyrite 1%						Dolomite 80%	Feldspar 10%	Calcite 9%	Porphyroblastic pyrite

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
193.50	195.68	Carbonatite Breccia	Coarse grained	Medium Gray	Brecciated	Dolomite	Feldspar	Cassiterite

Notes: An interval of breccia with approximately 35% fragments. Dolomite alteration of carbonate is dominant.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
193.50	193.60	Fault	Infilling	60		Chlorite fills fractures and fault gouge.

ALTERATION

From	To	Assemblages												Minerals							Notes		
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chi	Epi	Flp	Pyr	Ser			
193.50	206.88															M	S	W				M	Dolomitic alteration of carbonate rock has decreased in intensity but remains pervasive. Black biotite is most commonly associated with fragments and appears to be an alteration product.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
193.50	261.21	Disseminated	Coarse grained	Pyrite 1%						Feldspar 49%	Calcite 45%	Chlorite 5%	Disseminated pyrite is found randomly distributed through several carbonate intervals containing various amounts of breccia fragments.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
195.68	197.07	Chloritic Dyke	Medium Grained	Dark Greenish Gray	Brecciated	Feldspar	Chlorite	Dolomite

Notes: A strongly chlorite-altered interval of mafic rock possibly a part of a volcanic dyke or mafic intrusive. This could also be a large mafic fragment in an otherwise large interval of syenitic breccia. This unit is not magnetic.

ALTERATION		Assemblages												Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser			
193.50	206.88													M	S	W			M				Dolomitic alteration of carbonate rock has decreased in intensity but remains pervasive. Black biotite is most commonly associated with fragments and appears to be an alteration product.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
193.50	261.21	Disseminated	Coarse grained	Pyrite 1%						Feldspar 49%	Calcite 45%	Chlorite 5%	Disseminated pyrite is found randomly distributed through several carbonate intervals containing various amounts of breccia fragments.

DRILL LOG DETAILS

The content of this report was filtered as follows:
Project ref #: 08px0495

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
197.07	206.88	Syenite Dyke	Coarse grained	Medium Gray	Brecciated	Feldspar	Dolomite	Chlorite

Notes: An interval with > 50% syenite breccia fragments. Incomplete carbonate alteration of one of the feldspars in the syenitic fragments is noted along with chlorite which infills many low angle fractures.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
198.58	199.45	Fracture	Roughness - Rough			
200.17	200.71	Fracture	Roughness - Rough			
203.75	205.99	Fracture	Infilling			Chlorite infills numerous vertical to low-angle hairline fractures

ALTERATION

From	To	Assemblages												Minerals							Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser					
193.50	206.88																								Dolomitic alteration of carbonate rock has decreased in intensity but remains pervasive. Black biotite is most commonly associated with fragments and appears to be an alteration product.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
193.50	261.21	Disseminated	Coarse grained	Pyrite 1%						Feldspar 49%	Calcite 45%	Chlorite 5%	Disseminated pyrite is found randomly distributed through several carbonate intervals containing various amounts of breccia fragments.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
206.88	209.80	Chloritic Dyke	Medium Grained	Dark Greenish Gray	Brecciated	Feldspar	Chlorite	Dolomite

Notes: A strong chlorite and biotite altered interval with several large mafic rock fragments (possibly a part of a volcanic dyke or mafic intrusive), along with several large syenitic fragments. Composition of interval is > 65% fragments which give this interval a melanocratic character. This unit is not magnetic.

STRUCTURE							
From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
207.26	207.46	Fault	Infilling				Chlorite-rich fault gouge
208.50	208.62	Fault	Infilling				Chlorite-rich rubble

ALTERATION																					
From	To	Assemblages											Minerals					Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi		Flp	Pyr	Ser
206.88	209.80														VS	M	VS				Strong biotite - chlorite alteration of mafic intrusive rock fragments. A minor fine-grained grey metallic may be ilmenite

MINERALIZATION													
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
193.50	261.21	Disseminated	Coarse grained	Pyrite 1%						Feldspar 49%	Calcite 45%	Chlorite 5%	Disseminated pyrite is found randomly distributed through several carbonate intervals containing various amounts of breccia fragments.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
247.43	250.63	Carbonatite Breccia	Coarse grained	Medium Gray	Brecciated	Feldspar	Calcite	Chlorite

Notes: Breccia fragment rich interval, in which fragments > 85%. Intervals of white carbonate are largely composed of calcite. Many hairline fractures are filled with chlorite. Interval is dark grey coloured. Non-magnetic.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
250.00	250.34	Fault	Infilling	50		Chlorite fills fractures and fault gouge.

ALTERATION																					
From	To	Assemblages										Minerals					Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl		Epi	Flp	Pyr	Ser
247.43	261.21														W	M	M			W	A yellowish colouration suggests some degree of ankeritic alteration of the carbonate. Minor development of biotite alteration. Chlorite infills fractures. Pyrite is occasionally found as large blebs.

MINERALIZATION													
From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
193.50	261.21	Disseminated	Coarse grained	Pyrite 1%						Feldspar 49%	Calcite 45%	Chlorite 5%	Disseminated pyrite is found randomly distributed through several carbonate intervals containing various amounts of breccia fragments.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
261.21	269.30	Magnetite Skarn	Coarse grained	Black	Brecciated	Calcite	Biotite	Magnetite

Notes: A magnetite skarn overprinted on carbonate hosting syenite breccia fragments (as is commonly described above). The fragments comprise about 15 - 20% of this interval. Strongly magnetic with associated strong chlorite-phlogopite-biotite alteration. The carbonate is calcite with areas of pale pink and pale yellow (ankerite) colouration. The skarnification has created a very banded/streaky appearance with contrasting colours between white (+/- pink & green) and black magnetite/chlorite/biotite. The banding is at all angles with curves and swirls, but it is most commonly cutting the core at intermediate angles, averaging about 45 degrees. There are many isometric (square and rectangular) crystal shapes to 5 mm pseudomorphed by chlorite/biotite. The skarn has developed mainly in the calcite matrix with minor development of magnetite in some carbonate-altered feldspars of the syenite breccia fragments. Many fragments are strongly rimmed by black magnetite/chlorite/biotite. There is strong development of fine cubic pyrite. Strongly magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
260.95	261.32	Fracture	Roughness - Rough			

ALTERATION

From	To	Assemblages												Minerals					Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp		Pyr	Ser		
261.21	269.30												M		S	S			S				An interval of magnetite skarn

VEINS

From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
253.75	285.33	2	5	45			100				

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
261.21	269.30	Disseminated	Fine grained	Pyrite 4%							Calcite 75%	Feldspar 16%	Magnetite 5%	Iron skarn carries magnetite and pyrite.

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
269.30	275.75	Syenite	Coarse grained	Pale Pink	Crystalline	Feldspar	Calcite	

Notes: An interval of syenite, not syenite breccia as described above, possibly a contact zone of a syenite body. This interval is strongly carbonate altered, one of the feldspars in the syenite shows partial alteration to calcite and there are several patches and irregular calcite stringers. The syenite is pink coloured and is different from most of the breccia fragments seen above. Fine grained cubic pyrite is disseminated through the syenite in this interval.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
269.30	269.75	Fracture	Roughness - Rough			
273.83	274.05	Fracture	Roughness - Rough			

ALTERATION

From	To	Assemblages												Minerals					Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp		Pyr	Ser	
269.30	275.75																	VS	W		S	Carbonate & pyrite altered syenite.

VEINS

From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
253.75	285.33	2	5	45			100				

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
269.30	275.75	Disseminated	Coarse grained	Pyrite 2%						Feldspar 85%	Calcite 13%		Porphyroblastic pyrite

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
275.75	280.18	Magnetite Skarn	Medium Grained	Black	Brecciated	Calcite	Biotite	Magnetite

Notes: An interval of iron skarn similiar to the skarn above (261.21 m - 269.30 m) but more fine grained and with a less directed fabric. A limited number of syenite breccia fragments are recognizable but show strong carbonate alteration. Associated development of chlorite, phlogopite and pyrite are noted. Many small carbonate veinlets cut the ore at about 45 degrees TCA.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
275.75	276.75	Fault	Roughness - Rough			Several short broken zones.

ALTERATION

From	To	Assemblages											Minerals					Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi		Flp	Pyr	Ser
275.75	280.18												M	S	VS	S			M		Iron skarn as above

VEINS

From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
253.75	285.33	2	5	45			100				

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
275.75	280.18	Disseminated	Fine grained	Pyrite 2%							Calcite 85%	Feldspar 8%	Magnetite 5%	Fine grained iron skarn

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
280.18	285.33	Syenite	Coarse grained	Pale Pink	Mottled	Feldspar	Calcite	

Notes: Syenite showing strong carbonate alteration, yellowish colouration suggests ankerite alteration of calcite.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
285.05	288.05	Fracture	Roughness - Rough			

ALTERATION

From	To	Assemblages											Minerals					Notes				
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi		Flp	Pyr	Ser	
280.18	288.33																	VS		S		Strong ankeritic alteration of calcite/feldspar alteration. Porphyroblastic pyrite.

VEINS

From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
253.75	285.33	2	5	45			100				

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
280.18	285.37	Disseminated	Coarse grained	Pyrite 2%						Feldspar 80%	Calcite 18%		Porphyroblastic pyrite

08-WI-03

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
285.33	305.41	Syenite	Coarse grained	Medium Gray	Angular	Feldspar	Calcite	Magnetite

Notes: A mixed interval of syenite cut by many intervals of calcite and skarnified carbonate carrying magnetite and biotite. Scale of changes between syenite intrusive, carbonate, and skarn are frequent on a metre-scale and are too small to break out separately. This appears to be a contact zone. Carbonate alteration is strong and pervasive of all rock types, especially the syenite.

STRUCTURE

From	To	Structure	Discontinuity	Condition	TCA	Strain	Notes
285.05	288.05	Fracture		Roughness - Rough			
289.28	291.42	Fracture		Roughness - Rough			
302.06	302.36	Fracture		Roughness - Rough			
302.92	303.75	Fracture		Roughness - Rough			

ALTERATION

From	To	Assemblages												Minerals						Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser		
280.18	288.33															VS			S				Strong ankeritic alteration of calcite/feldspar alteration. Porphyroblastic pyrite.
288.33	305.41										M				M	S	M		M				Several short intervals of magnetite-rich skarn in this interval f otherwise carbonate-alterad syenite and calcite intervals.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
280.18	285.37	Disseminated	Coarse grained	Pyrite 2%						Feldspar 80%	Calcite 18%		Porphyroblastic pyrite
285.37	305.41	Disseminated	Coarse grained	Pyrite 1%						Feldspar 65%	Calcite 30%	Magnetite 4%	Porphyroblastic pyrite



DRILL LOG DETAILS

The content of this report was filtered as follows:
Project ref #: 08px0495

08-WI-04

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
0	1.57	Overburden						

08-WI-04

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
55.75	61.46	Carbonatite Breccia	Coarse grained	Dusky Brown	Brecciated	Dolomite	Biotite	Calcite

Notes: An interval of carbonate hosted polymitic breccia. Strong dolomitic alteration of both carbonate and fragments. Several short intervals of black fragments appear to be volcanic or sedimentary fragments altered to chlorite-biotite-phlogopite and are often finely spotted with carbonate. many other intervals and fragments are of strongly sideritic carbonate, similiar to the unit above. Short intervals, composed only of carbonate, have a pale pink colouration. Fine-grained amber-coloured spots may be due to a red-brown biotite. Very fine-grained specks of a grey metallic may be illmanite or specular hematite. Possible traces of apatite noted. This interval is not magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
55.75	55.80	Fracture	Roughness - Rough	20		

ALTERATION

From	To	Assemblages											Minerals							Notes					
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser				
55.75	61.46																S	S	S					M	Carbonate is largely altered to dolomite. Pyrite is porphyroblastic.

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes	
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3		
55.75	61.46	Disseminated	Coarse grained	Pyrite 1%						Dolomite 89%	Calcite 5%	Biotite 5%	Porphyroblastic pyrite.

08-WI-04

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
61.46	99.73	Dolomite Carbonatite	Coarse grained	White	Crystalline	Dolomite	Calcite	

Notes: An interval of white dolomite with minor calcite. Includes several short intervals of cross-cutting biotite +/- chlorite stringers and networks which appear to fill tiny fractures. These occur at 66.45 m - 66.70 m, 73.62 m - 73.68 m, 83.52 m - 83.65 m, 86.30 m - 86.50 m, 94.00 m - 94.22m, 96.26 m - 96.46 m. Small amber-coloured patches appear to be fine-grained red-brown biotite where they are particularly intense and locally together with patches of pale green fine-grained phlogopite mica they reach 5% of the core. The end of this interval is (arbitrarily) placed in the middle of a large section of fault gouge which starts at 96.90 m..

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
61.85	65.62	Fracture	Roughness - Rough			
69.08	72.87	Fracture	Roughness - Rough			
74.98	75.10	Fault	Infilling			Rubble is limonitic
77.70	81.08	Fracture	Roughness - Rough			
81.68	83.52	Fault	Infilling			Rubble, with the last 10 cm chlorite coated.
86.05	87.33	Fracture	Roughness - Rough			
87.33	90.22	Fault	Infilling			Rubble, poor recovery, part of this interval is chlorite-rich
90.70	93.27	Fault	Roughness - Rough			Rubble, poor recovery
94.00	96.01	Fracture	Roughness - Rough			
96.10	101.87	Fault	Infilling	30		This interval has several sections of very chlorite and fine-grained pyrite rich fault gouge and broken zones. A variety of fracture angles are present: 30, 45 and 60 degrees (30 derees is most common). Many polished chlorite slip surfaces are noted, although they are irregular (non-planer) and do not offer slickensides.

ALTERATION		Assemblages											Minerals							Notes		
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tic	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser	
61.46	96.90														S							Carbonate is largely altered to dolomite.
96.90	103.02														S	VS			VS			Fault zone has strong infillings of chlorite and fine-grained pyrite.

MINERALIZATION				Economic Minerals					Gangue Minerals			Notes
From	To	Style 1	Style 2	Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3	
61.46	96.90	Disseminated	Coarse grained	Pyrite 1%					Dolomite 94%	Calcite 5%		Porphyroblastic pyrite.
96.90	99.73	Disseminated	Fine grained	Pyrite 5%					Dolomite 80%	Chlorite 15%		Pyrite in fault gouge, locally reaches 40% over short intervals.

08-WI-04

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
99.73	121.00	Syenite Breccia	Coarse grained	Medium Gray	Brecciated	Dolomite	Feldspar	Chlorite

Notes: An interval of carbonate hosted syenite breccia, but also an interval that is extensively disrupted by many intervals of fault gouge (chlorite and pyrite-rich paste gouge). Many of the breccia fragments appear to fit together suggesting that some of this material has not travelled far and perhaps this could be considered a contact zone, although the large amount of mechanical disruption makes this diagnosis tentative. There are a few short intervals (up to a metre) of syenite (a large fragment?) and also intervals of barren dolomite and calcite (with a pinkish colouration). The carbonate intervals carry many small amber and pale green spots which may be fine-grained red-brown biotite, phlogopite mica, and perhaps apatite.

STRUCTURE						
From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
96.10	101.87	Fault	Infilling	30		This interval has several sections of very chlorite and fine-grained pyrite rich fault gouge and broken zones. A variety of fracture angles are present: 30, 45 and 60 degrees (30 degrees is most common). Many polished chlorite slip surfaces are noted, although they are irregular (non-planar) and do not offer slickensides.
101.87	108.56	Fracture	Roughness - Rough			Several short sections of broken rock and chlorite filled fractures in this interval.
111.22	111.44	Fracture	Infilling			Chlorite rich fractured rock
113.00	113.50	Fracture	Roughness - Rough			
115.86	116.20	Fracture	Infilling	5		Chlorite filled fracture
117.50	142.04	Fracture	Roughness - Rough			A massively broken and fractured zone which produced several core boxes of rubble.

ALTERATION		Assemblages											Minerals							Notes			
From	To	Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr		Ser		
96.90	103.02														S	VS			VS				Fault zone has strong infillings of chlorite and fine-grained pyrite.
103.02	121.00														M	M			M				This interval shows some dolomitization but also calcite alteration. some fractures are filled with chlorite and large blebs of pyrite are common.

MINERALIZATION		Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
From	To			Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
99.73	109.42	Disseminated	Coarse grained	Pyrite 2%							Dolomite 78%	Feldspar 20%		Large blebs of randomly distributed porphyroblastic pyrite.

08-WI-04

From	To	Lithology	Grain Size	Color	Texture	Mineral 1	Mineral 2	Mineral 3
121.00	159.23	Syenite	Coarse grained	Medium Gray	Crystalline	Feldspar	Calcite	Biotite

Notes: Syenite, with many fractures filled with calcite and dolomite. The core is extremely broken-up and most of the material recovered is angular rubble. This is essentially a large structural zone. The interval of syenite between 142.04 m to 143.46 m is strongly altered with fine-grained chlorite +/- biotite and mineralized with pyrite. This interval is non-magnetic.

STRUCTURE

From	To	Structure	Discontinuity Condition	TCA	Strain	Notes
117.50	142.04	Fracture	Roughness - Rough			A massively broken and fractured zone which produced several core boxes of rubble.
143.73	154.23	Fracture	Roughness - Rough			As above, intensely fractured rock. A major structural zone and a driller's nightmare.

ALTERATION

From	To	Assemblages												Minerals							Notes			
		Alb	Arg	Int	Lis	Phy	Pot	Pro	Serp	Sil	Skn	Tlc	Trm	Bio	Cal	Chl	Epi	Flp	Pyr	Ser				
142.04	143.46																	M	S	VS		S	Interval of very strong chlorite +/- biotite alteration and strong fine-grained pyrite.	
143.46	154.23																		W					Syenite with some calcite filling fractures.

VEINS

From	To	Vn %	V / M	TCA	Qz %	Feld %	CC %	Py %	Mineral 1	Mineral 2	Notes
121.00	154.23	5	25	15			100		Feldspar 95%		This syenite is shot through with tiny hairline fractures filled with calcite and is cross-cut by steeper calcite veinlets noted below.
136.77	136.79	100	1	80	0		100				
142.04	143.46	5	20	60			100		Feldspar 80%	Chlorite 10%	Thin, 10 - 20 degree calcite stringers are cut by ~60 degree calcite veins to 1 cm thick.
146.80	146.83	100	1	80			100				

MINERALIZATION

From	To	Style 1	Style 2	Economic Minerals					Gangue Minerals			Notes		
				Economic Mineral 1	Economic Mineral 2	Economic Mineral 3	Economic Mineral 4	Economic Mineral 5	Mineral 1	Mineral 2	Mineral 3			
142.04	143.46	Disseminated	Fine grained	Pyrite 3%							Feldspar 82%	Chlorite 10%	Calcite 5%	

APPENDIX B

GEOTECHNICAL DRILL HOLE LOGS

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-01													
1	2.13	5.18	3.05	2.35	77.0	0.67	22.0	OT	32	RO	60	HW	R3
2	5.18	8.22	3.04	2.34	77.0	1.01	33.2	OT	37	RO	50	HW	R3
3	8.22	11.27	3.05	3.00	98.4	2.05	67.2	OJ	26	RO	40	MW	R3
4	11.27	14.32	3.05	2.84	93.1	1.98	64.9	OJ	27	RO	60	MW	R3
5	14.32	17.37	3.05	3.04	99.7	2.31	75.7	OJ	28	RO	60	MW	R3
6	17.37	20.42	3.05	2.90	95.1	1.23	40.3	OJ	37	RO	60	MW	R3
7	20.42	23.46	3.04	2.88	94.7	1.74	57.2	OJ	35	RO	70	MW	R3
8	23.46	26.51	3.05	2.35	77.0	0.86	28.2	OJ	42	RO	60	MW	R3
9	26.51	29.56	3.05	2.92	95.7	1.97	64.6	OJ	31	RO	70	MW	R3
10	29.56	32.61	3.05	2.62	85.9	0.82	26.9	OJ	45	RO	70	MW	R3
11	32.61	35.66	3.05	2.65	86.9	1.36	44.6	OJ	38	RO	60	MW	R3
12	35.66	38.70	3.04	2.28	75.0	0.97	31.9	OJ	38	RO	50	MW	R3
13	38.70	41.75	3.05	2.00	65.6	0.62	20.3	OJ	36	RO	60	MW	R3
14	41.75	44.80	3.05	2.72	89.2	2.27	74.4	OJ	25	RO	60	MW	R3
15	44.80	47.85	3.05	2.62	85.9	1.17	38.4	OJ	35	RO	40	MW	R3
16	47.85	50.90	3.05	2.87	94.1	1.48	48.5	OJ	38	RO	50	MW	R3
17	50.90	52.73	1.83	1.81	98.9	1.12	61.2	OJ	29	RO	30	MW	R3
18	52.73	54.25	1.52	1.17	77.0	0.00	0.0	OT	51	RO	50	MW	R3
19	54.25	55.47	1.22	0.45	36.9	0.13	10.7	OT	19	RO	50	MW	R3
20	55.47	57.60	2.13	1.55	72.8	0.25	11.7	OJ	29	RO	40	MW	R3
21	57.60	59.43	1.83	1.59	86.9	0.24	13.1	OJ	50	RO	50	MW	R3
22	59.43	59.74	0.31	0.26	83.9	0.00	0.0	OJ	26	RO	50	MW	R3
23	59.74	62.00	2.26	2.22	98.2	1.35	59.7	OJ	26	RO	70	MW	R3
24	62.00	63.10	1.10	0.79	71.8	0.00	0.0	OJ	32	RO	70	MW	R3
25	63.10	64.92	1.82	1.31	72.0	0.55	30.2	OJ	22	RO	60	MW	R3

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-01													
26	64.92	66.14	1.22	0.52	42.6	0.14	11.5	OJ	21	RO	45	MW	R3
27	66.14	68.58	2.44	1.24	50.8	0.00	0.0	OJ	44	RO	40	MW	R3
28	68.58	69.18	0.60	0.32	53.3	0.00	0.0	OJ	16	RO	70	MW	R3
29	69.18	70.48	1.30	0.49	37.7	0.00	0.0	OJ	21	RO	70	MW	R3
30	70.48	71.67	1.19	1.04	87.4	0.23	19.3	OJ	43	RO	70	MW	R3
31	71.67	73.76	2.09	1.51	72.2	0.56	26.8	OJ	27	RO	60	MW	R3
32	73.76	74.98	1.22	0.34	27.9	0.00	0.0	OJ	16	RO	50	MW	R3
33	74.98	75.59	0.61	0.48	78.7	0.00	0.0	OJ	18	RO	50	MW	R3
34	75.59	78.33	2.74	2.07	75.5	1.16	42.3	OJ	34	RO	60	MW	R3
35	78.33	81.38	3.05	1.73	56.7	0.45	14.8	OJ	33	RO	45	MW	R3
36	81.38	84.42	3.04	1.98	65.1	0.37	12.2	OJ	41	RO	60	MW	R3
37	84.42	87.47	3.05	2.50	82.0	1.15	37.7	OJ	40	RO	60	MW	R3
38	87.47	90.52	3.05	2.24	73.4	1.18	38.7	OJ	40	RO	45	MW	R3
39	90.52	93.57	3.05	2.51	82.3	0.82	26.9	OJ	37	RO	45	MW	R3
40	93.57	96.62	3.05	2.57	84.3	1.09	35.7	OJ	42	RO	45	MW	R3
41	96.62	99.66	3.04	2.64	86.8	0.64	21.1	OJ	39	RO	45	MW	R3
42	99.66	102.71	3.05	2.82	92.5	1.79	58.7	OJ	34	RO	60	MW	R3
43	102.71	105.76	3.05	2.71	88.9	1.67	54.8	OJ	30	RO	60	MW	R3
44	105.76	108.81	3.05	2.77	90.8	1.64	53.8	OJ	32	RO	60	MW	R3
45	108.81	109.72	0.91	0.65	71.4	0.18	19.8	OJ	12	RO	45	MW	R3
46	109.72	111.25	1.53	1.30	85.0	0.54	35.3	OJ	23	RO	45	MW	R3
47	111.25	114.30	3.05	2.77	90.8	1.38	45.2	OJ	41	RO	50	MW	R3
48	114.30	117.34	3.04	2.69	88.5	0.82	27.0	OJ	57	RO	70	MW	R3
49	117.34	118.56	1.22	1.11	91.0	0.52	42.6	OJ	17	RO	50	MW	R3
50	118.56	121.00	2.44	2.16	88.5	0.19	7.8	OJ	51	RO	45	MW	R3

GEOTECHNICAL DRILL LOG

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Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-01													
51	121.00	123.74	2.74	2.50	91.2	0.54	19.7	OJ	56	RO	50	MW	R3
52	123.74	126.79	3.05	2.80	91.8	0.86	28.2	OJ	49	RO	50	MW	R3
53	126.79	130.75	3.96	2.63	66.4	0.70	17.7	OJ	67	RO	45	MW	R3
54	130.75	133.19	2.44	2.25	92.2	0.28	11.5	OJ	43	RO	45	MW	R3
55	133.19	136.24	3.05	1.95	63.9	0.44	14.4	OJ	50	RO	60	MW	R3
56	136.24	139.29	3.05	2.69	88.2	0.82	26.9	OJ	46	RO	45	MW	R3
57	139.29	142.34	3.05	1.90	62.3	0.34	11.1						
58	142.34	145.38	3.04	2.62	86.2	0.68	22.4						
59	145.38	148.44	3.06	3.04	99.3	2.11	69.0						
60	148.44	150.87	2.43	2.40	98.8	0.57	23.5						
61	150.87	151.48	0.61	0.54	88.5	0.00	0.0						
62	151.48	154.53	3.05	3.00	98.4	1.38	45.2						
63	154.53	157.58	3.05	2.80	91.8	1.48	48.5						
64	157.58	160.62	3.04	2.90	95.4	1.32	43.4						
65	160.62	163.67	3.05	2.92	95.7	1.61	52.8						
66	163.67	166.72	3.05	2.96	97.0	0.92	30.2						
67	166.72	169.77	3.05	2.89	94.8	0.59	19.3						
68	169.77	172.82	3.05	2.23	73.1	0.39	12.8						
69	172.82	175.86	3.04	1.92	63.2	0.22	7.2						
70	175.86	178.91	3.05	1.58	51.8	0.00	0.0						
71	178.91	181.96	3.05	2.03	66.6	0.36	11.8						
72	181.96	185.01	3.05	2.46	80.7	0.36	11.8						
73	185.01	185.62	0.61	0.40	65.6	0.10	16.4						
Total For 08-WI-01			183.49	150.10	81.8	58.74	32.0						
08-WI-02													
1	1.52	2.43	0.91	0.90	98.9	0.46	50.5		17	RO	0	HW	R3

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-02													
2	2.43	4.52	2.09	1.98	94.7	1.21	57.9		22	RO	60	HW	R3
3	4.52	5.48	0.96	0.95	99.0	0.50	52.1		14	RO	45	HW	R3
4	5.48	8.53	3.05	2.05	67.2	1.73	56.7		13	RO	50	HW	R3
5	8.53	11.58	3.05	2.83	92.8	1.54	50.5		28	RO	45	MW	R3
6	11.58	14.63	3.05	3.00	98.4	1.92	63.0		27	RO	45	MW	R3
7	14.63	17.67	3.04	3.03	99.7	1.72	56.6		30	RO	50	MW	R3
8	17.67	20.72	3.05	3.02	99.0	2.45	80.3		24	RO	60	MW	R3
9	20.72	23.77	3.05	2.97	97.4	1.36	44.6		37	RO	50	MW	R3
10	23.77	26.82	3.05	2.82	92.5	1.75	57.4		20	RO	60	MW	R3
11	26.82	29.87	3.05	2.70	88.5	1.26	41.3		43	RO	45	MW	R3
12	29.87	32.91	3.04	2.62	86.2	1.50	49.3		35	RO	45	MW	R3
13	32.91	35.96	3.05	2.75	90.2	0.58	19.0		60	RO	45	MW	R3
14	35.96	39.01	3.05	2.63	86.2	1.34	43.9		41	RO	45	SW	R3
15	39.01	42.06	3.05	3.04	99.7	2.27	74.4		27	RO	45	SW	R3
16	42.06	45.11	3.05	2.68	87.9	1.60	52.5		37	RO	50	SW	R3
17	45.11	48.15	3.04	1.82	59.9	0.38	12.5		38	RO	60	SW	R3
18	48.15	51.20	3.05	2.59	84.9	0.96	31.5		63	RO	45	SW	R3
19	51.20	54.25	3.05	2.50	82.0	0.84	27.5		36	RO	45	SW	R3
20	54.25	57.30	3.05	2.24	73.4	0.56	18.4		56	RO	45	SW	R3
21	57.30	60.35	3.05	2.16	70.8	0.53	17.4		64	RO	60	SW	R3
22	60.35	63.39	3.04	2.14	70.4	0.27	8.9		42	RO	50	SW	R3
23	63.39	66.44	3.05	2.18	71.5	0.24	7.9		39	RO	45	SW	R3
24	66.44	69.49	3.05	0.95	31.1	0.00	0.0		50	RO	60	SW	R3
25	69.49	72.54	3.05	2.23	73.1	0.56	18.4						
26	72.54	75.59	3.05	1.90	62.3	0.36	11.8						

GEOTECHNICAL DRILL LOG

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Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-02													
27	75.59	77.11	1.52	0.22	14.5	0.00	0.0						
28	77.11	78.94	1.83	1.91	104.4	0.76	41.5						
30	78.94	81.68	2.74	2.60	94.9	0.67	24.5						
31	81.68	84.27	2.59	2.12	81.9	0.42	16.2						
32	84.27	85.95	1.68	1.43	85.1	0.66	39.3						
33	85.95	87.17	1.22	0.99	81.1	0.00	0.0						
34	87.17	87.93	0.76	0.60	78.9	0.10	13.2						
35	87.93	89.91	1.98	1.25	63.1	0.25	12.6						
36	89.91	91.13	1.22	0.75	61.5	0.13	10.7						
37	91.13	92.96	1.83	1.62	88.5	0.35	19.1						
38	92.96	94.03	1.07	0.89	83.2	0.23	21.5						
39	94.03	96.92	2.89	2.80	96.9	0.00	0.0						
40	96.92	99.97	3.05	2.93	96.1	1.20	39.3						
41	99.97	103.02	3.05	2.68	87.9	1.47	48.2						
42	103.02	106.07	3.05	2.66	87.2	1.60	52.5						
43	106.07	107.90	1.83	1.82	99.5	0.85	46.4						
44	107.90	109.12	1.22	1.01	82.8	0.78	63.9						
45	109.12	112.16	3.04	1.93	63.5	0.10	3.3						
46	112.16	115.21	3.05	2.34	76.7	1.08	35.4						
47	115.21	118.26	3.05	1.66	54.4	0.27	8.9						
48	118.26	121.31	3.05	2.38	78.0	0.86	28.2						
49	121.31	123.29	1.98	1.66	83.8	0.63	31.8						
50	123.29	125.27	1.98	2.34	118.2	0.24	12.1						
51	125.27	126.49	1.22	0.96	78.7	0.00	0.0						
52	126.49	129.54	3.05	3.07	100.7	1.84	60.3						

Run	From	To	Cut (m)	Core Recovered	(% Core Recovered)	RQD Recovered	(% RQD)	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-02													
53	129.54	132.58	3.04	3.05	100.3	2.49	81.9						
54	132.58	133.50	0.92	0.96	104.3	0.96	104.3						
55	133.50	136.55	3.05	3.05	100.0	2.74	89.8						
56	136.55	139.59	3.04	3.02	99.3	2.95	97.0						
57	139.59	142.64	3.05	2.90	95.1	1.20	39.3						
58	142.64	145.69	3.05	3.03	99.3	2.70	88.5						
59	145.69	148.74	3.05	3.10	101.6	2.77	90.8						
60	148.74	151.79	3.05	3.05	100.0	2.92	95.7						
61	151.79	154.83	3.04	2.71	89.1	2.48	81.6						
62	154.83	157.88	3.05	2.98	97.7	2.29	75.1						
63	157.88	160.93	3.05	3.14	103.0	2.33	76.4						
64	160.93	163.96	3.03	3.06	101.0	2.74	90.4						
65	163.96	167.03	3.07	1.77	57.7	0.75	24.4						
66	167.03	170.07	3.04	2.65	87.2	0.82	27.0						
67	170.07	173.12	3.05	2.35	77.0	0.28	9.2						
68	173.12	176.17	3.05	2.90	95.1	1.75	57.4						
69	176.17	179.22	3.05	2.87	94.1	1.74	57.0						
70	179.22	182.27	3.05	2.89	94.8	1.07	35.1						
71	182.27	185.31	3.04	2.95	97.0	0.52	17.1						
72	185.31	188.36	3.05	3.03	99.3	2.32	76.1						
73	188.36	191.41	3.05	2.74	89.8	1.41	46.2						
74	191.41	194.46	3.05	2.82	92.5	1.77	58.0						
75	194.46	197.51	3.05	2.95	96.7	2.03	66.6						
76	197.51	200.55	3.04	1.97	64.8	0.90	29.6						
77	200.55	203.60	3.05	2.83	92.8	1.67	54.8						

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-02													
78	203.60	206.65	3.05	2.92	95.7	2.32	76.1						
79	206.65	209.70	3.05	2.76	90.5	1.60	52.5						
80	209.70	212.75	3.05	3.00	98.4	1.08	35.4						
81	212.75	215.80	3.05	2.92	95.7	1.10	36.1						
Total For 08-WI-02			214.28	185.67	86.6	94.08	43.9						
08-WI-03													
1	3.05	5.18	2.13	2.60	122.1	1.20	56.3						
2	5.18	8.13	2.95	2.88	97.6	2.12	71.9						
3	8.13	11.28	3.15	2.88	91.4	1.93	61.3						
4	11.28	14.33	3.05	2.82	92.5	2.13	69.8						
5	14.33	17.37	3.04	2.96	97.4	2.27	74.7						
6	17.37	19.51	2.14	0.66	30.8	0.48	22.4						
7	19.51	22.56	3.05	2.85	93.4	1.11	36.4						
8	22.56	23.47	0.91	0.84	92.3	0.84	92.3						
9	23.47	26.52	3.05	2.03	66.6	0.84	27.5						
10	26.52	29.57	3.05	3.08	101.0	1.73	56.7						
11	29.57	32.61	3.04	2.58	84.9	1.52	50.0						
12	32.61	35.66	3.05	2.17	71.1	2.00	65.6						
13	35.66	38.71	3.05	0.76	24.9	0.11	3.6						
14	38.71	41.76	3.05	1.23	40.3	0.13	4.3						
15	41.76	44.81	3.05	1.96	64.3	0.15	4.9						
16	44.81	47.85	3.04	1.46	48.0	0.54	17.8						
17	47.85	50.90	3.05	2.00	65.6	0.23	7.5						
18	50.90	53.95	3.05	1.88	61.6	0.14	4.6						
19	53.95	57.00	3.05	2.00	65.6	0.63	20.7						
20	57.00	60.05	3.05	2.61	85.6	0.53	17.4						

GEOTECHNICAL DRILL LOG

The content of this report was filtered as follows:
project ref #: 08PX0495

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-03													
21	60.05	63.09	3.04	1.38	45.4	0.37	12.2						
22	63.09	66.14	3.05	2.77	90.8	1.46	47.9						
23	66.14	67.06	0.92	0.77	83.7	0.00	0.0						
24	67.06	69.19	2.13	1.40	65.7	0.10	4.7						
25	69.19	72.24	3.05	2.63	86.2	0.60	19.7						
26	72.24	75.29	3.05	2.79	91.5	1.33	43.6						
27	75.29	78.33	3.04	2.51	82.6	0.82	27.0						
28	78.33	80.62	2.29	1.90	83.0	0.42	18.3						
29	80.62	82.60	1.98	1.95	98.5	0.69	34.8						
30	82.60	84.43	1.83	1.55	84.7	0.41	22.4						
31	84.43	87.17	2.74	2.30	83.9	0.83	30.3						
32	87.17	90.22	3.05	2.93	96.1	0.97	31.8						
33	90.22	92.81	2.59	2.23	86.1	0.94	36.3						
34	92.81	93.57	0.76	0.68	89.5	0.11	14.5						
35	93.57	95.70	2.13	1.65	77.5	0.62	29.1						
36	95.70	98.60	2.90	2.69	92.8	0.45	15.5						
37	98.60	101.65	3.05	2.85	93.4	1.61	52.8						
38	101.65	104.24	2.59	2.71	104.6	1.99	76.8						
39	104.24	105.77	1.53	1.48	96.7	0.57	37.3						
40	105.77	108.51	2.74	2.52	92.0	1.46	53.3						
41	108.51	111.56	3.05	3.00	98.4	1.55	50.8						
42	111.56	112.78	1.22	0.60	49.2	0.00	0.0						
43	112.78	114.00	1.22	0.67	54.9	0.00	0.0						
44	114.00	117.96	3.96	1.70	42.9	0.00	0.0						
45	117.96	121.01	3.05	2.56	83.9	0.64	21.0						

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY		Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities		
08-WI-03											
46	121.01	124.05	3.04	2.76	90.8	1.06	34.9				
47	124.05	127.10	3.05	2.65	86.9	2.35	77.0				
48	127.10	130.15	3.05	2.95	96.7	1.97	64.6				
49	130.15	133.20	3.05	1.30	42.6	0.67	22.0				
50	133.20	136.25	3.05	1.90	62.3	0.37	12.1				
51	136.25	139.29	3.04	2.23	73.4	0.65	21.4				
52	139.29	142.34	3.05	1.79	58.7	0.00	0.0				
53	142.34	145.39	3.05	1.66	54.4	0.72	23.6				
54	145.39	148.44	3.05	2.65	86.9	1.18	38.7				
55	148.44	151.49	3.05	1.64	53.8	0.10	3.3				
56	151.49	154.53	3.04	1.85	60.9	0.20	6.6				
57	154.53	157.58	3.05	2.16	70.8	0.37	12.1				
58	157.58	160.63	3.05	2.57	84.3	0.62	20.3				
59	160.63	163.68	3.05	2.55	83.6	0.31	10.2				
60	163.68	166.73	3.05	2.64	86.6	0.56	18.4				
61	166.73	169.77	3.04	2.33	76.6	0.58	19.1				
62	169.77	172.52	2.75	1.73	62.9	0.00	0.0				
63	172.52	172.82	0.30	0.10	33.3	0.00	0.0				
64	172.82	175.87	3.05	2.89	94.8	0.36	11.8				
65	175.87	178.92	3.05	3.02	99.0	1.31	43.0				
66	178.92	181.97	3.05	2.82	92.5	1.31	43.0				
67	181.97	185.01	3.04	2.97	97.7	1.10	36.2				
68	185.01	186.23	1.22	0.92	75.4	0.21	17.2				
69	186.23	188.06	1.83	1.78	97.3	0.63	34.4				
70	188.06	189.59	1.53	1.05	68.6	0.48	31.4				

GEOTECHNICAL DRILL LOG

The content of this report was filtered as follows:
project ref #: 08PX0495

Run	From	To	Cut (m)	Core Recovered	(% Core Recovered)	RQD Recovered	(% RQD)	DOMINANT DISCONTINUITY			Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition		
08-WI-03												
71	189.59	192.48	2.89	2.67	92.4	1.07	37.0					
72	192.48	195.53	3.05	2.92	95.7	1.18	38.7					
73	195.53	195.68	0.15	0.17	113.3	0.00	0.0					
74	195.68	198.73	3.05	2.81	92.1	1.55	50.8					
75	198.73	200.25	1.52	1.35	88.8	0.15	9.9					
76	200.25	200.71	0.46	0.20	43.5	0.00	0.0					
77	200.71	203.30	2.59	2.57	99.2	0.95	36.7					
78	203.30	206.35	3.05	2.81	92.1	0.15	4.9					
79	206.35	207.26	0.91	0.80	87.9	0.00	0.0					
80	207.26	209.85	2.59	2.08	80.3	0.69	26.6					
81	209.85	212.45	2.60	2.39	91.9	1.15	44.2					
82	212.45	215.49	3.04	2.90	95.4	0.88	28.9					
83	215.49	218.54	3.05	2.97	97.4	1.42	46.6					
84	218.54	221.59	3.05	3.10	101.6	1.64	53.8					
85	221.59	224.64	3.05	2.79	91.5	0.92	30.2					
86	224.64	227.69	3.05	2.87	94.1	1.44	47.2					
87	227.69	230.73	3.04	2.90	95.4	1.56	51.3					
88	230.73	233.78	3.05	2.92	95.7	1.74	57.0					
89	233.78	236.83	3.05	2.81	92.1	0.60	19.7					
90	236.83	239.88	3.05	2.77	90.8	0.56	18.4					
91	239.88	242.92	3.04	2.46	80.9	1.09	35.9					
92	242.92	245.97	3.05	3.05	100.0	1.70	55.7					
93	245.97	249.02	3.05	2.91	95.4	1.34	43.9					
94	249.02	252.07	3.05	2.94	96.4	1.58	51.8					
95	252.07	255.12	3.05	2.87	94.1	1.73	56.7					

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY			Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition		
08-WI-03												
96	255.12	258.17	3.05	2.93	96.1	1.12	36.7					
97	258.17	259.08	0.91	0.46	50.5	0.00	0.0					
98	259.08	261.21	2.13	2.51	117.8	1.90	89.2					
99	261.21	264.87	3.66	0.45	12.3	0.35	9.6					
100	264.87	266.40	1.53	0.73	47.7	0.16	10.5					
101	266.40	269.44	3.04	2.93	96.4							
102	269.44	271.42	1.98	1.83	92.4	0.43	21.7					
103	271.42	273.41	1.99	1.57	78.9	0.77	38.7					
104	273.41	276.45	3.04	2.43	79.9	0.52	17.1					
105	276.45	279.50	3.05	2.47	81.0	1.59	52.1					
106	279.50	282.55	3.05	2.91	95.4	1.37	44.9					
107	282.55	285.60	3.05	2.65	86.9	1.09	35.7					
108	285.60	288.65	3.05	1.78	58.4	0.27	8.9					
109	288.65	291.69	3.04	1.72	56.6	0.17	5.6					
110	291.69	294.74	3.05	2.58	84.6	0.70	23.0					
111	294.74	297.79	3.05	2.84	93.1	0.89	29.2					
112	297.79	299.01	1.22	1.08	88.5	0.36	29.5					
113	299.01	302.06	3.05	2.76	90.5	1.24	40.7					
114	302.06	302.36	0.30	0.22	73.3	0.00	0.0					
115	302.36	305.41	3.05	2.88	94.4	0.34	11.1					
Total For 08-WI-03			302.36	246.14	81.4	94.04	31.1					
08-WI-04												
1	1.57	3.05	1.48	1.48	100.0	0.94	63.5					
2	3.05	4.26	1.21	0.98	81.0	0.80	66.1					
3	4.26	7.32	3.06	2.80	91.5	2.36	77.1					
4	7.32	9.14	1.82	0.53	29.1	0.17	9.3					

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY				Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition	Angle To Core Axis		
08-WI-04													
5	9.14	12.19	3.05	2.74	89.8	1.97	64.6						
6	12.19	14.02	1.83	2.68	146.4	0.39	21.3						
7	14.02	17.07	3.05	2.73	89.5	1.22	40.0						
8	17.07	20.12	3.05	2.69	88.2	1.62	53.1						
9	20.12	23.16	3.04	2.96	97.4	2.44	80.3						
10	23.16	26.21	3.05	2.92	95.7	2.33	76.4						
11	26.21	29.26	3.05	2.89	94.8	1.65	54.1						
12	29.26	32.31	3.05	3.00	98.4	1.08	35.4						
13	32.31	35.36	3.05	3.00	98.4	1.76	57.7						
14	35.36	38.40	3.04	1.68	55.3	0.53	17.4						
15	38.40	41.45	3.05	2.72	89.2	2.30	75.4						
16	41.45	44.50	3.05	2.44	80.0	0.84	27.5						
17	44.50	47.55	3.05	2.85	93.4	1.44	47.2						
18	47.55	50.20	2.65	2.84	107.2	1.60	60.4						
19	50.20	53.64	3.44	2.82	82.0	1.78	51.7						
20	53.64	56.69	3.05	3.01	98.7	2.61	85.6						
21	56.69	59.74	3.05	2.74	89.8	1.68	55.1						
22	59.74	62.79	3.05	2.70	88.5	1.24	40.7						
23	62.79	65.84	3.05	1.82	59.7	0.38	12.5						
24	65.84	68.88	3.04	2.70	88.8	1.04	34.2						
25	68.88	71.93	3.05	2.10	68.9	0.17	5.6						
26	71.93	74.98	3.05	2.56	83.9	0.48	15.7						
27	74.98	78.03	3.05	1.92	63.0	0.20	6.6						
28	78.03	81.08	3.05	0.77	25.2	0.10	3.3						
29	81.08	83.52	2.44	1.45	59.4	0.34	13.9						

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY			Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities	Condition		
08-WI-04												
30	83.52	86.11	2.59	2.22	85.7	0.66	25.5					
31	86.11	87.33	1.22	0.33	27.0	0.00	0.0					
32	87.33	90.22	2.89	0.22	7.6	0.00	0.0					
33	90.22	93.27	3.05	0.70	23.0	0.00	0.0					
34	93.27	94.34	1.07	0.98	91.6	0.00	0.0					
35	94.34	96.01	1.67	0.97	58.1	0.00	0.0					
36	96.01	97.99	1.98	1.49	75.3	0.23	11.6					
37	97.99	99.97	1.98	0.63	31.8	0.00	0.0					
38	99.97	101.50	1.53	1.20	78.4	0.34	22.2					
39	101.50	103.02	1.52	0.95	62.5	0.22	14.5					
40	103.02	104.85	1.83	0.77	42.1	0.21	11.5					
41	104.85	107.14	2.29	2.04	89.1	0.66	28.8					
42	107.14	108.20	1.06	0.90	84.9	0.31	29.2					
43	108.20	109.42	1.22	0.90	73.8	0.47	38.5					
44	109.42	111.56	2.14	1.56	72.9	0.82	38.3					
45	111.56	113.39	1.83	1.52	83.1	0.37	20.2					
46	113.39	115.21	1.82	1.30	71.4	0.53	29.1					
47	115.21	115.82	0.61	0.60	98.4	0.14	23.0					
48	115.82	117.65	1.83	0.80	43.7	0.43	23.5					
49	117.65	120.70	3.05	0.20	6.6	0.00	0.0					
50	120.70	123.75	3.05	0.67	22.0	0.00	0.0					
51	123.75	124.36	0.61	0.34	55.7	0.00	0.0					
52	124.36	124.97	0.61	0.28	45.9	0.00	0.0					
53	124.97	125.27	0.30	0.10	33.3	0.00	0.0					
54	125.27	125.88	0.61	0.13	21.3	0.00	0.0					

GEOTECHNICAL DRILL LOG

The content of this report was filtered as follows:
project ref #: 08PX0495

Run	From	To	Cut (m)	Core Recovered	(%) Core Recovered	RQD Recovered	(%) RQD	DOMINANT DISCONTINUITY		Weathering Grade	Rock Strength Grade
								Dominant Discontinuity	# of Discontinuities		
08-WI-04											
55	125.88	126.64	0.76	0.38	50.0	0.00	0.0				
56	126.64	128.02	1.38	0.46	33.3	0.10	7.2				
57	128.02	128.63	0.61	0.20	32.8	0.00	0.0				
58	128.63	129.54	0.91	0.43	47.3	0.00	0.0				
59	129.54	130.15	0.61	0.32	52.5	0.00	0.0				
60	130.15	130.76	0.61	0.10	16.4	0.00	0.0				
61	130.76	132.89	2.13	0.38	17.8	0.00	0.0				
62	132.89	134.26	1.37	0.30	21.9	0.00	0.0				
63	134.26	135.48	1.22	0.34	27.9	0.00	0.0				
64	135.48	136.70	1.22	0.70	57.4	0.11	9.0				
65	136.70	138.38	1.68	0.38	22.6	0.00	0.0				
66	138.38	139.45	1.07	0.26	24.3	0.00	0.0				
67	139.45	141.43	1.98	0.24	12.1	0.00	0.0				
68	141.43	142.04	0.61	0.20	32.8	0.00	0.0				
69	142.04	144.48	2.44	1.66	68.0	0.37	15.2				
70	144.48	145.08	0.60	0.24	40.0	0.00	0.0				
71	145.08	148.13	3.05	1.75	57.4	0.12	3.9				
72	148.13	151.18	3.05	1.22	40.0	0.13	4.3				
73	151.18	154.23	3.05	2.10	68.9	0.00	0.0				
Total For 08-WI-04			152.66	101.98	66.8	41.68	27.3				

APPENDIX C

DRILL CORE

PHOTOGRAPHS



ALLNORTH CONSULTANTS LIMITED

2011 PG Pulp Mill Road, Prince George, BC, V2L 4V1

Phone (250) 614-7291 / Fax (250) 614-7290

PHOTO SHEET

JOB NUMBER: 08PX0495

CLIENT: Spectrum Mining Corporation

PROJECT: Notice of Work Application and Permitting

DESCRIPTION: 2008 Core Photos



Wicheeda DDH 08-WI-01 2.18 to 23.82 m



Wicheeda DDH 08-WI-01 23.82 to 47.75 m



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PROJECT: Notice of Work Application and Permitting

DESCRIPTION: 2008 Core Photos



Wicheeda DDH 08-WI-01 47.75 to 71.00 m



Wicheeda DDH 08-WI-01 71.00 to 89.45 m



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Wicheeda DDH 08-WI-02 1.52 to 24.54 m



Wicheeda DDH 08-WI-02 24.54 to 46.26 m.



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Wicheeda DDH 08-WI-02 46.26 to 73.77 m



Wicheeda DDH 08-WI-02 73.77 to 95.27 m



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Wicheeda DDH 08-WI-02 95.27 to 111.16 m



Wicheeda DDH 08-WI-02 111.16 to 127.60 m



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Wicheeda DDH 08-WI-02 127.60 to 144.58 m



Wicheeda DDH 08-WI-02 144.58 to 161.84 m



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Wicheeda DDH 08-WI-02 161.84 to 179.40 m



Wicheeda DDH 08-WI-02 179.40 to 196.81 m



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Wicheeda DDH 08-WI-02 196.81 to 214.80 m



Wicheeda DDH 08-WI-02 214.80 to 215.80 m EOH



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Wicheeda DDH 08-WI-03 41.16 to 61.53 m



Wicheeda DDH 08-WI-03 61.53 to 78.85 m



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Wicheeda DDH 08-WI-03 78.85 to 95.15 m



Wicheeda DDH 08-WI-03 95.15 to 112.32 m.



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Wicheeda DDH 08-WI-03 112.32 to 130.24 m



Wicheeda DDH 08-WI-03 130.24 to 151.68 m



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Wicheeda DDH 08-WI-03 151.68 to 170.00 m



Wicheeda DDH 08-WI-03 170.00 to 185.41 m



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Wicheeda DDH 08-WI-03 185.41 to 202.12 m



Wicheeda DDH 08-WI-03 202.12 to 218.54 m



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Wicheeda DDH 08-WI-03 218.54 to 235.49 m



Wicheeda DDH 08-WI-03 235.49 to 252.47 m



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Wicheeda DDH 08-WI-03 252.47 to 269.75 m



Wicheeda DDH 08-WI-03 269.75 to 288.47 m



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Wicheeda DDH 08-WI-03 288.47 to 305.41 m EOH



Wicheeda DDH 08-WI-04 1.57 to 19.41 m



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Wicheeda DDH 08-WI-04 19.41 to 36.09 m



Wicheeda DDH 08-WI-04 36.09 to 54.31 m



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Wicheeda DDH 08-WI-04 54.31 to 71.80 m



Wicheeda DDH 08-WI-04 71.80 to 94.22 m



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Wicheeda DDH 08-WI-04 94.22 to 115.21 m



Wicheeda DDH 08-WI-04 115.21 to 143.73 m



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DESCRIPTION: 2008 Core Photos



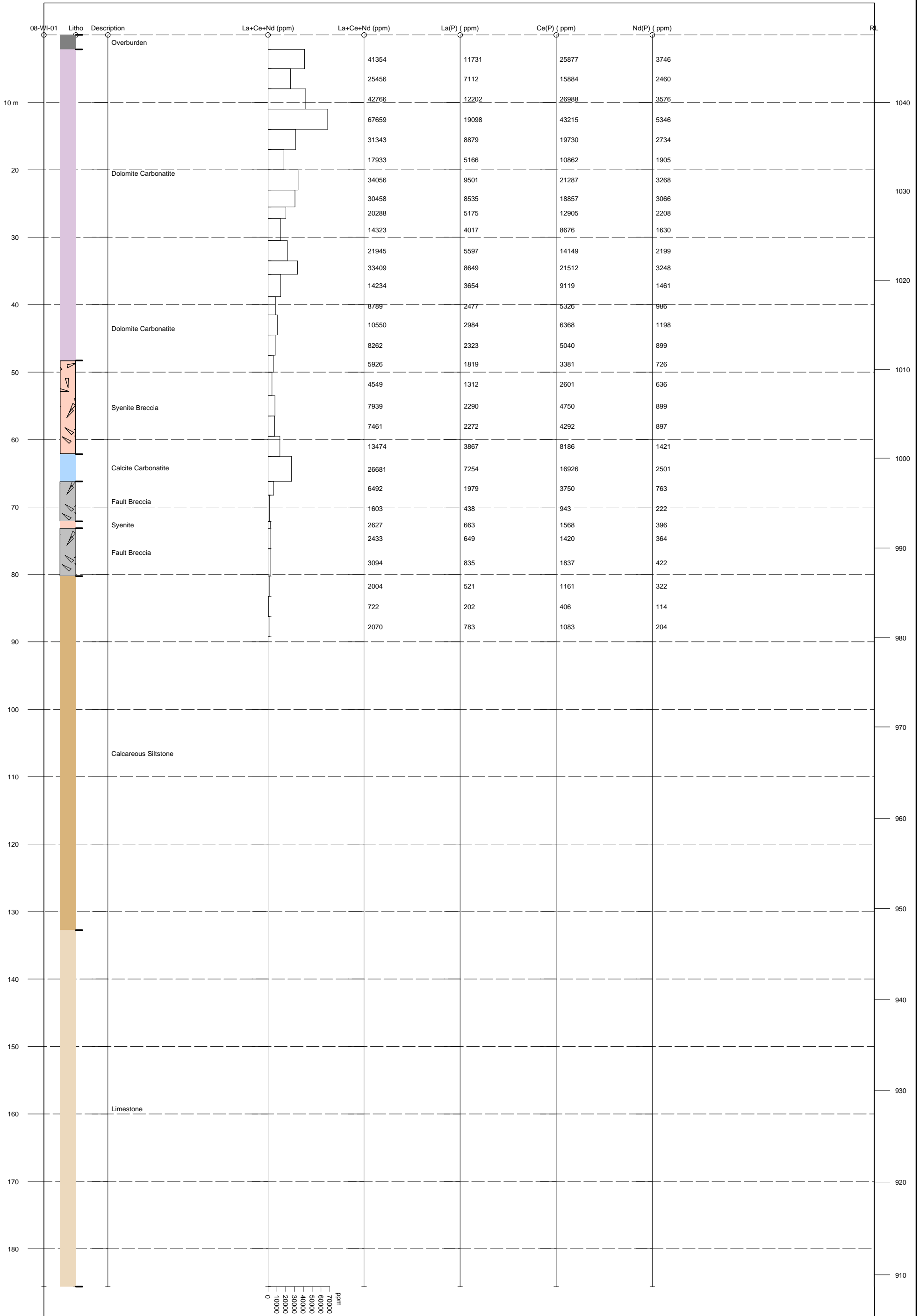
Wicheeda DDH 08-WI-04 143.73 to 154.23 m EOH

APPENDIX D

GEOLOGICAL STRIP LOGS WITH SELECTED REE DATA

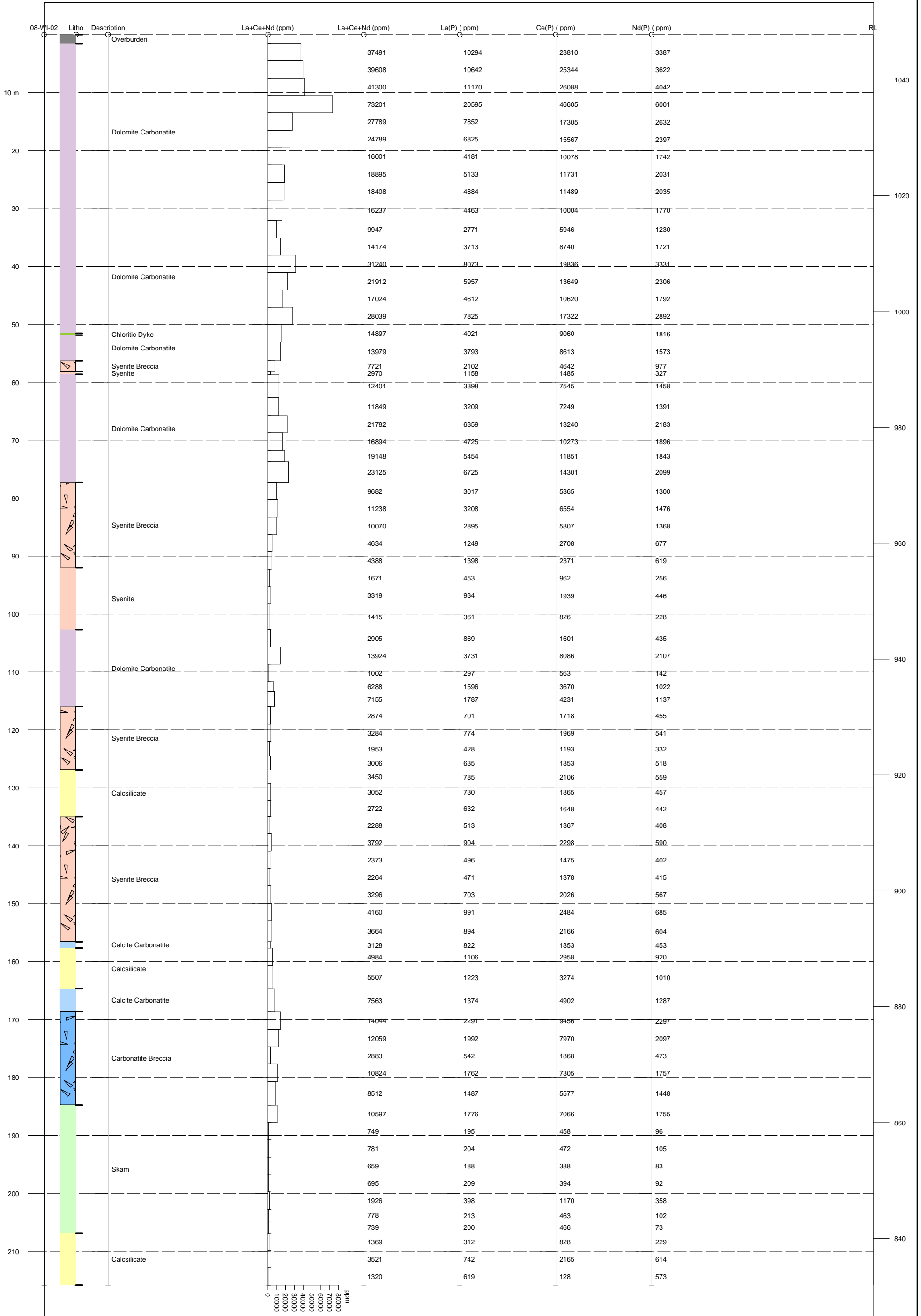
DRILL HOLE 08-WI-01

Azimuth: 152°
Dip: -50



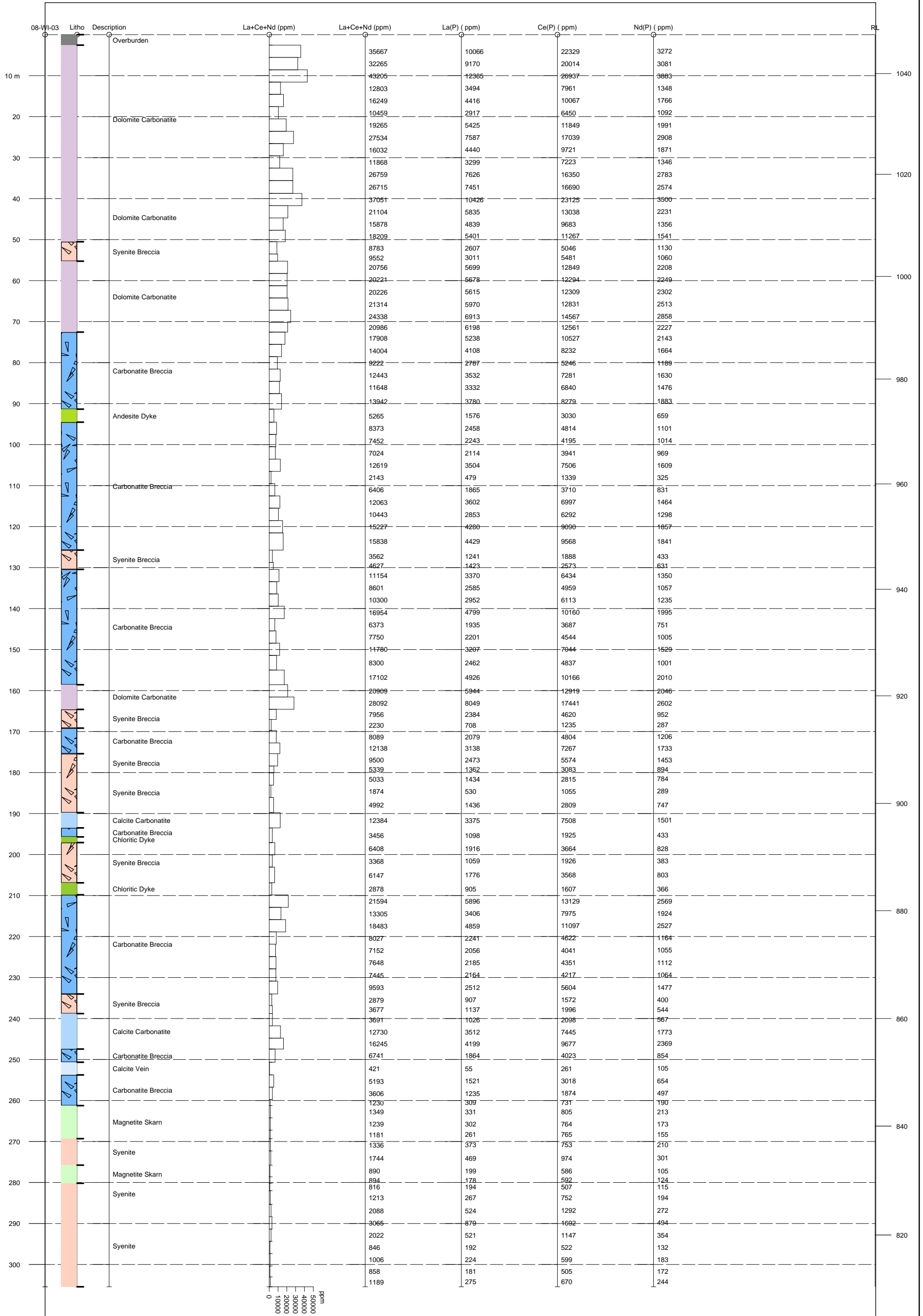
DRILL HOLE 08-WI-02

Azimuth: N/A
Dip: -90



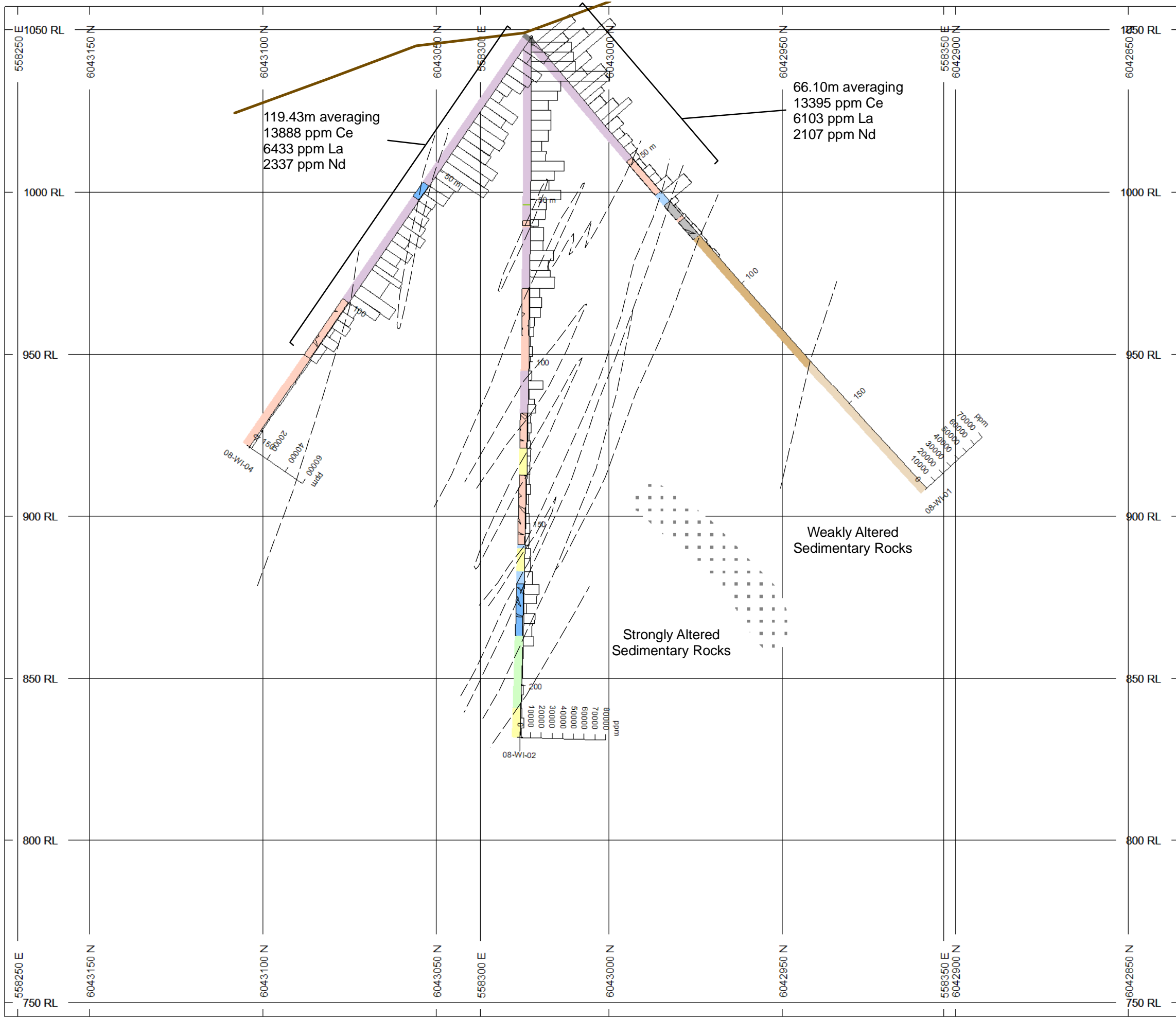
DRILL HOLE 08-WI-03

Azimuth: 048°
Dip: -54



APPENDIX E

**INTERPRETIVE GEOLOGICAL
CROSS-SECTIONS**



CROSS SECTION 1 Holes Plotted

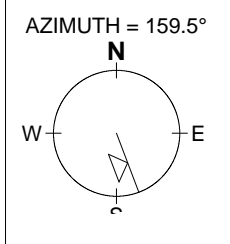
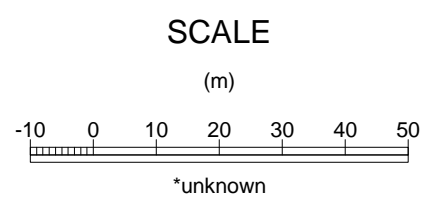
08-WI-01 08-WI-02 08-WI-04

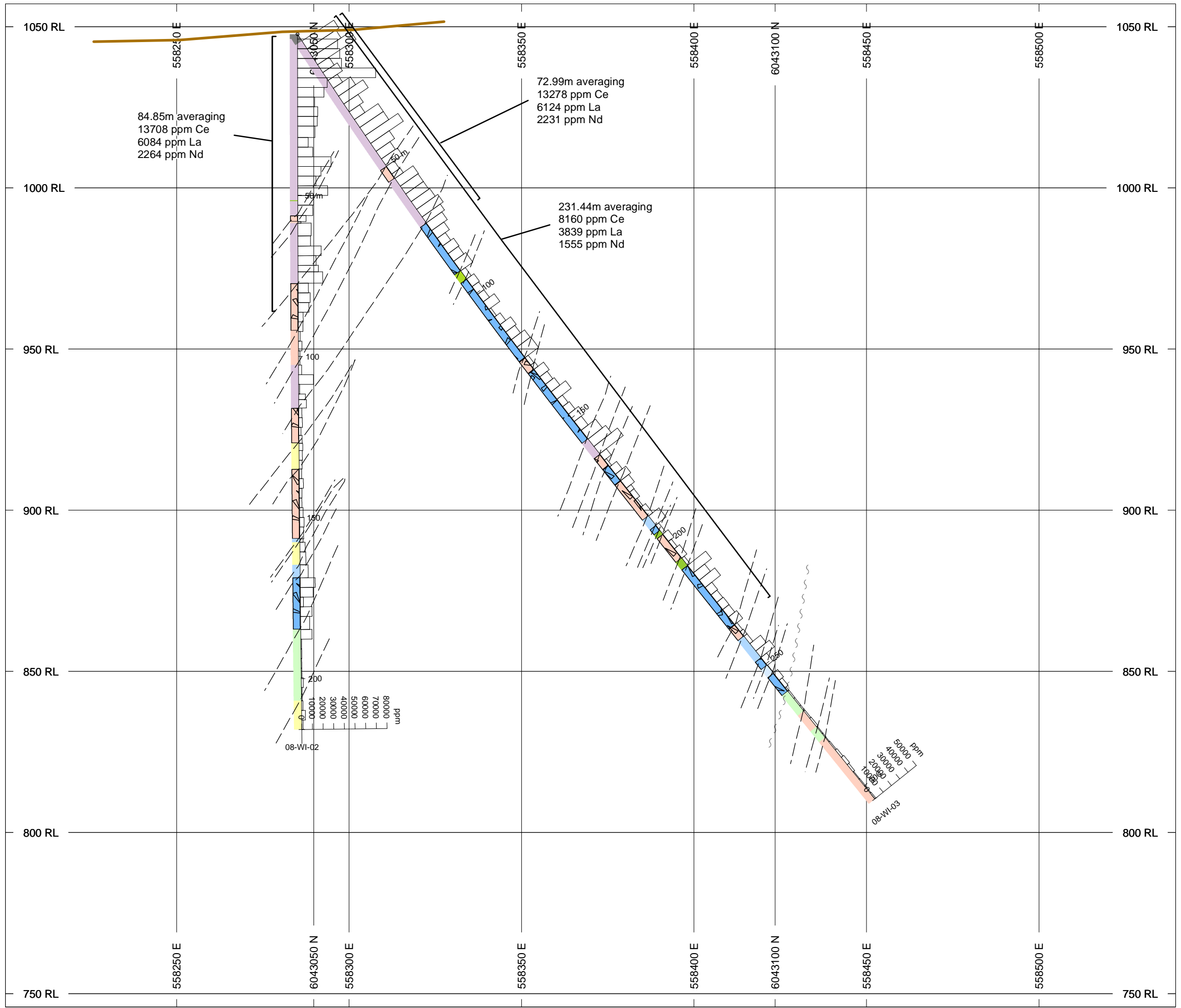
Looking East - Northeast

BAR GRAPHS	L/R	COL
La+Ce+Nd (ppm)	R	

ROCK CODES	PAT	LABEL
Litho		Calcite Carbonatite
		Calcareous Siltstone
		Dolomite Carbonatite
		Fault Breccia
		Limestone
		Overburden
		Syenite Breccia
		Carbonatite Breccia
		Calcsilicate
		Chloritic Dyke
		Skarn
		Syenite

SECTION SPECS:
 REF. PT. E, N 558312 m 6043005 m
 EXTENTS 362.2 m 311.3 m
 SECTION TOP, BOT 1057 m 745.8 m
 TOLERANCE +/- 12.5 m





CROSS SECTION 2 Holes Plotted

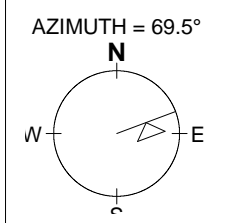
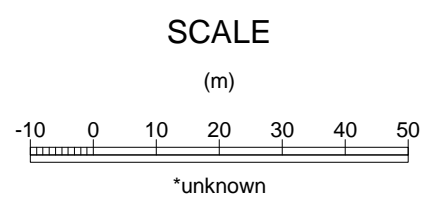
08-WI-02 08-WI-03

Looking North - Northwest

BAR GRAPHS	L/R	COL
La+Ce+Nd (ppm)	R	

ROCK CODES	PAT	LABEL
Litho		Calcite Carbonatite
		Dolomite Carbonatite
		Overburden
		Syenite Breccia
		Carbonatite Breccia
		Calcsilicate
		Chloritic Dyke
		Skarn
		Syenite
		Andesite Dyke
		Magnetite Skarn
		Calcite Vein

SECTION SPECS:
 REF. PT. E, N 558370 m 6043080 m
 EXTENTS 362.2 m 311.3 m
 SECTION TOP, BOT 1057 m 745.8 m
 TOLERANCE +/- 40 m



APPENDIX F

LABORATORY CERTIFICATES

Quality Analysis ...



Innovative Technologies

Date Submitted: 21-Jan-09
Invoice No.: A09-0219 (i)
Invoice Date: 12-Feb-09
Your Reference:

Spectrum Mining Corporation
P.O. Box 20
Wardner BC V0B 2J0
Canada

ATTN: Chris Graf

CERTIFICATE OF ANALYSIS

84 Pulp samples were submitted for analysis.

The following analytical package was requested: Code 4B2-Std (11+) Trace Elements Fusion ICP/MS(WRA4B2)

REPORT A09-0219 (i)

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

We recommend using option 4B1 for accurate levels of the base metals Cu, Pb, Zn, Ni and Ag.
Option 4B-INAA for As, Sb, high W >100ppm, Cr >1000ppm and Sn >50ppm by Code 5D.
Values for these elements provided by Fusion ICP/MS, are order of magnitude only and are provided for general information. Mineralized samples should have the Quant option selected or request assays for values which exceed the range of option 4B1.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Elitsa Hrischeva".

Elitsa Hrischeva, Ph.D.

Quality Control

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or
+1.888.228.5227 FAX +1.905.648.9613
E-MAIL ancaster@actlabsint.com ACTLABS GROUP WEBSITE <http://www.actlabsint.com>

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Analyte Symbol	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	La	Ce	Pr
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	20	1	20	10	30	1	1	5	2	2	1	5	1	2	0.5	0.2	1	0.5	0.5	3	0.1	0.1	0.05
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
R0860725	17	30	6	<20	<10	60	44	5	70	19	459	143	<5	137	82	<0.5	<0.2	2	0.6	<0.5	2020	20000	26900	1970
R0860726	13	<20	4	<20	<10	40	35	4	50	16	376	103	<5	106	158	<0.5	<0.2	<1	<0.5	<0.5	1100	14600	19100	1450
R0860727	7	<20	5	<20	<10	<30	43	5	61	7	564	107	<5	74	78	<0.5	<0.2	<1	<0.5	<0.5	462	18700	24200	1760
R0860728	10	<20	9	<20	<10	70	68	8	101	<2	823	147	12	53	90	<0.5	<0.2	<1	<0.5	<0.5	199	29500	37900	2900
R0860730	10	30	5	<20	<10	40	32	4	51	2	791	103	<5	42	123	<0.5	<0.2	2	<0.5	<0.5	144	14500	18900	1390
R0860731	12	20	5	<20	<10	<30	28	3	45	28	247	119	<5	97	74	<0.5	<0.2	<1	<0.5	<0.5	716	9150	12500	976
R0860732	13	40	12	<20	<10	40	40	5	64	12	434	118	15	47	72	<0.5	<0.2	<1	1.0	<0.5	640	15800	20900	1620
R0860733	17	30	5	<20	<10	<30	34	4	56	8	891	93	<5	14	385	<0.5	<0.2	<1	<0.5	<0.5	1050	13800	18600	1460
R0860734	10	<20	5	30	<10	30	25	3	47	9	921	86	7	51	35	<0.5	<0.2	<1	<0.5	<0.5	287	10200	14000	1100
R0860735	25	40	3	<20	<10	70	22	3	40	72	447	99	<5	578	824	<0.5	<0.2	<1	0.7	0.8	1220	6880	9850	802
R0860736	9	<20	<1	<20	<10	<30	24	3	38	3	1330	68	<5	63	157	<0.5	<0.2	<1	<0.5	<0.5	1000	9760	13800	1070
R0860737	12	<20	3	<20	<10	80	22	3	39	3	1450	68	<5	92	163	<0.5	<0.2	<1	<0.5	<0.5	1100	9340	13100	1020
R0860738	12	<20	2	<20	<10	50	35	5	58	<2	1660	99	<5	15	75	<0.5	<0.2	<1	<0.5	<0.5	1690	15100	21600	1660
R0860739	9	<20	1	<20	<10	<30	15	2	23	<2	1240	35	<5	11	132	<0.5	<0.2	<1	<0.5	<0.5	2340	4940	8310	611
R0863897	11	<20	8	<20	<10	100	40	4	64	2	1090	89	<5	95	74	<0.5	<0.2	<1	<0.5	<0.5	1370	19300	24900	1800
R0863898	12	<20	5	<20	<10	50	45	5	70	2	934	94	<5	73	80	<0.5	<0.2	<1	<0.5	<0.5	1310	22100	28100	2110
R0863899	12	30	2	<20	<10	<30	45	6	71	2	1020	115	8	35	38	<0.5	<0.2	<1	0.5	<0.5	1510	19700	26700	1990
R0863900	20	<20	7	30	10	50	70	9	114	5	518	173	<5	79	60	<0.5	<0.2	7	<0.5	<0.5	296	34400	44300	3440
R0863901	428	<20	2	<20	<10	180	248	57	668	21	7230	2980	446	307	2	<0.5	0.2	16	0.5	<0.5	1000	58700	133000	16700
R0863902	15	<20	4	<20	<10	80	28	3	50	5	1010	76	<5	41	101	<0.5	<0.2	23	1.1	<0.5	2540	15100	19400	1400
R0863903	13	20	<1	<20	<10	<30	25	3	40	4	1340	75	127	18	102	<0.5	<0.2	22	<0.5	<0.5	2400	12900	16300	1180
R0863904	15	30	8	<20	<10	60	16	2	59	3	1300	48	8	15	110	<0.5	<0.2	<1	<0.5	<0.5	2220	6720	8950	679
R0863905	13	20	3	<20	<10	70	19	2	36	2	1240	59	<5	36	220	<0.5	<0.2	<1	<0.5	<0.5	851	9160	12200	910
R0863906	13	20	3	<20	<10	90	21	3	47	<2	1200	63	8	35	129	<0.5	<0.2	<1	<0.5	<0.5	158	10300	13500	1010
R0863907	11	170	1	<20	<10	<30	16	2	28	3	1220	47	10	18	58	<0.5	<0.2	<1	<0.5	<0.5	258	7480	9840	751
R0863908	15	30	17	<20	<10	30	29	4	65	4	753	67	<5	22	209	<0.5	<0.2	3	0.7	<0.5	479	12600	16900	1300
R0863909	18	30	2	<20	<10	30	14	2	22	21	787	37	10	64	113	<0.5	<0.2	6	<0.5	<0.5	619	4630	6400	585
R0863910	30	30	1	<20	<10	50	20	2	29	27	1040	74	<5	133	1560	<0.5	0.3	71	<0.5	0.6	1480	7500	10000	789
R0863911	14	<20	<1	<20	<10	<30	31	4	49	2	1910	96	11	22	303	<0.5	0.3	82	<0.5	<0.5	3300	15300	20300	1540
R0863912	11	<20	<1	<20	<10	<30	18	2	28	2	1260	71	<5	24	351	<0.5	<0.2	23	<0.5	<0.5	1650	7560	10400	791
R0863913	16	<20	3	<20	<10	50	19	2	32	6	1380	69	7	60	317	<0.5	<0.2	<1	<0.5	<0.5	2760	8870	11800	870
R0863914	13	30	2	<20	<10	<30	25	3	40	<2	1250	101	5	47	258	<0.5	<0.2	<1	<0.5	<0.5	1820	11600	15500	1190
R0864198	12	20	5	20	<10	<30	32	4	54	4	1290	105	5	78	89	<0.5	<0.2	<1	<0.5	<0.5	5830	15600	20600	1520
R0864199	15	20	3	<20	<10	70	32	4	49	2	1420	82	<5	61	68	<0.5	<0.2	<1	<0.5	<0.5	3080	15400	20200	1470
R0864200	13	20	1	30	<10	50	41	5	60	4	1770	91	13	27	52	<0.5	<0.2	1	<0.5	<0.5	7520	20700	26800	1940
R0864201	13	30	2	<20	<10	40	13	2	27	4	1450	42	<5	57	137	<0.5	<0.2	3	3.8	<0.5	1980	12200	16300	1200
R0864202	435	<20	2	<20	<10	120	243	57	865	21	7560	3140	476	288	3	1.0	0.2	2	<0.5	<0.5	1070	53800	123000	15600
R0864203	13	20	2	<20	<10	60	15	2	31	2	1540	45	15	8	20	<0.5	<0.2	2	<0.5	<0.5	2510	7700	10200	795
R0864204	21	30	4	<20	<10	50	14	1	24	32	1180	34	<5	189	570	<0.5	<0.2	<1	<0.5	1.7	1570	5690	7460	565
R0864205	18	40	4	<20	<10	<30	18	2	35	8	1050	62	11	97	132	<0.5	<0.2	<1	0.5	<0.5	2480	9060	11600	876
R0864206	14	30	5	<20	<10	260	23	3	49	<2	1170	81	18	27	159	<0.5	<0.2	<1	2.6	<0.5	2460	11500	16000	1210
R0864207	15	30	8	<20	<10	<30	16	2	59	<2	1050	57	7	14	89	<0.5	<0.2	1	1.7	<0.5	1690	7670	10100	800
R0864208	11	20	6	<20	<10	<30	10	1	31	3	1300	37	8	9	93	<0.5	<0.2	<1	<0.5	<0.5	1900	4900	6470	502
R0864209	12	30	7	<20	<10	50	10	1	41	<2	1210	35	15	9	91	<0.5	<0.2	<1	0.8	<0.5	1680	4710	6260	486
R0864210	12	20	1	20	<10	80	21	3	38	<2	1570	60	6	8	46	<0.5	<0.2	<1	0.8	<0.5	4660	10700	14000	1080
R0864211	12	20	2	<20	<10	60	23	3	37	3	1310	71	7	57	119	<0.5	<0.2	<1	<0.5	<0.5	1270	12600	16300	1190
R0864212	14	<20	3	<20	<10	80	33	4	46	<2	1130	87	<5	83	233	<0.5	<0.2	<1	<0.5	<0.5	744	16200	21000	1530
R0864213	13	30	11	<20	<10	80	20	2	50	5	1300	46	<5	74	107	<0.5	<0.2	<1	<0.5	<0.5	245	9410	12200	915
R0864214	11	<20	2	<20	<10	40	36	4	33	23	3070	36	9	122	129	<0.5	<0.2	7	<0.5	<0.5	322	8600	10100	875
R0864215	12	<20	2	<20	<10	<30	40	4	34	<2	2150	40	<5	139	55	<0.5	<0.2	2	<0.5	<0.5	259	10200	12100	813
R0864216	115	80	13	<20	60	170	14	1	24	24	295	21	95	6	6	1.5	0.8	<1	13.0	0.9	513	17.4	30.6	3.33
R0864217	8	30	<1	<20	<10	<30	29	3	18	109	1070	84	<5	1320	225	<0.5	<0.2	7	<0.5	<0.5	2630	3840	5560	449

Activation Laboratories Ltd. Report: A09-0219 (i) rev 1

Analyte Symbol	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	La	Ce	Pr
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	20	1	20	10	30	1	1	5	2	2	1	5	1	2	0.5	0.2	1	0.5	0.5	3	0.1	0.1	0.05
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
R0864218	18	30	< 1	< 20	< 10	< 30	36	3	23	27	1210	45	11	1180	699	< 0.5	< 0.2	5	< 0.5	< 0.5	960	5100	6550	487
R0864219	14	< 20	< 1	< 20	< 10	110	46	6	44	2	1750	49	18	87	31	< 0.5	< 0.2	7	< 0.5	< 0.5	135	9820	12800	975
R0864220	12	20	4	< 20	< 10	< 30	49	7	57	31	1170	56	32	230	350	< 0.5	< 0.2	7	0.8	< 0.5	1700	9760	12700	960
R0864221	10	30	8	< 20	< 10	< 30	50	7	63	4	1030	54	7	59	28	< 0.5	< 0.2	7	< 0.5	< 0.5	888	10800	14000	1070
R0864222	11	< 20	< 1	< 20	< 10	40	58	9	71	12	963	57	< 5	151	198	< 0.5	< 0.2	7	< 0.5	< 0.5	595	11100	14700	1140
R0864223	< 5	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5	< 2	< 2	< 1	< 5	2	< 2	< 0.5	< 0.2	7	< 0.5	< 0.5	< 3	3.4	4.5	0.38
R0864224	11	20	< 1	< 20	< 10	40	61	9	65	20	925	60	< 5	130	68	< 0.5	< 0.2	7	< 0.5	< 0.5	1460	12000	16000	1280
R0864225	12	20	< 1	< 20	< 10	< 30	53	8	52	11	848	59	< 5	85	87	< 0.5	< 0.2	7	< 0.5	< 0.5	1500	11000	14500	1110
R0864226	12	30	6	< 20	< 10	30	54	7	62	45	742	84	9	1740	823	< 0.5	< 0.2	6	0.8	0.7	2200	9250	12300	965
R0864329	17	< 20	< 1	< 20	< 10	100	51	7	53	< 2	1420	72	22	39	98	< 0.5	< 0.2	7	< 0.5	< 0.5	1140	10500	13900	1060
R0864330	9	< 20	< 1	30	< 10	< 30	23	3	18	< 2	1530	36	< 5	9	53	< 0.5	< 0.2	8	< 0.5	< 0.5	537	4380	5970	464
R0864331	13	< 20	< 1	< 20	< 10	50	63	9	62	< 2	1450	69	< 5	13	26	< 0.5	< 0.2	< 1	0.6	< 0.5	1660	12900	17000	1300
R0864332	14	< 20	< 1	< 20	< 10	160	64	8	70	< 2	1300	71	< 5	13	53	< 0.5	< 0.2	7	1.7	< 0.5	1290	13100	17300	1330
R0864334	10	< 20	7	< 20	< 10	70	53	6	67	3	906	67	5	47	153	< 0.5	< 0.2	< 1	< 0.5	< 0.5	1220	9490	13000	1140
R0864335	13	30	4	< 20	< 10	70	41	4	43	26	1090	120	< 5	187	195	< 0.5	< 0.2	< 1	0.9	< 0.5	891	6300	8570	750
R0864336	21	30	8	< 20	< 10	40	30	3	35	48	1380	40	< 5	201	725	< 0.5	< 0.2	< 1	< 0.5	0.9	1040	4650	6410	537
R0864337	8	< 20	< 1	< 20	< 10	< 30	66	8	73	< 2	1690	86	6	25	46	< 0.5	< 0.2	< 1	0.5	< 0.5	1210	13400	18600	1640
R0864338	11	20	< 1	< 20	< 10	< 30	56	7	62	14	1040	103	< 5	82	345	< 0.5	< 0.2	1	0.5	< 0.5	1670	10900	15200	1320
R0864339	11	30	17	< 20	< 10	70	73	9	110	7	1310	103	6	50	253	< 0.5	< 0.2	< 1	2.4	< 0.5	935	13800	19200	1670
R0864340	11	30	17	< 20	< 10	70	64	8	92	7	1340	91	53	40	274	< 0.5	< 0.2	< 1	< 0.5	< 0.5	692	12700	17500	1520
R0864341	13	20	4	< 20	< 10	120	69	8	79	< 2	2390	88	18	31	81	< 0.5	< 0.2	3	< 0.5	< 0.5	5720	14300	19300	1630
R0864342	12	20	11	< 20	< 10	70	60	7	83	< 2	1800	74	< 5	14	129	< 0.5	< 0.2	< 1	< 0.5	< 0.5	2750	12200	16800	1420
R0864343	13	30	10	< 20	< 10	40	63	7	78	< 2	1510	82	< 5	15	114	< 0.5	< 0.2	< 1	< 0.5	< 0.5	2910	13000	17700	1490
R0864344	11	30	5	< 20	< 10	< 30	89	10	111	2	1350	108	< 5	10	53	< 0.5	< 0.2	< 1	0.7	< 0.5	2560	18500	25200	2160
R0864345	10	< 20	< 1	< 20	< 10	< 30	88	11	96	< 2	1480	96	< 5	16	63	< 0.5	< 0.2	< 1	< 0.5	< 0.5	1280	18400	25700	2140
R0864346	12	20	< 1	< 20	< 10	30	103	12	107	< 2	1300	94	< 5	9	43	< 0.5	< 0.2	< 1	< 0.5	< 0.5	727	21400	28300	2350
R0864347	115	80	13	20	70	230	15	1	20	24	284	19	102	4	7	6.2	1.0	53	12.0	0.9	493	18.0	27.2	3.41
R0864348	12	< 20	< 1	< 20	< 10	< 30	54	7	68	< 2	1620	58	37	6	26	0.5	< 0.2	< 1	1.3	< 0.5	1750	10700	14500	1270
R0864349	73	90	3	< 20	< 10	< 30	49	6	84	2	1280	52	14	16	31	< 0.5	< 0.2	< 1	< 0.5	< 0.5	490	9600	13000	1160
R0864350	25	30	< 1	< 20	< 10	30	58	8	55	20	1300	57	17	1030	759	< 0.5	< 0.2	3	< 0.5	0.8	94	11000	14800	1260

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Analyte Symbol	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Bi	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.4	0.1	0.1
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
R0860725	4030	477	114	152	14.6	55.7	6.2	10.3	0.95	3.0	0.16	0.5	0.8	2	0.2	43	4.5	643	3.5
R0860726	2800	338	75.0	97.9	9.1	36.8	4.2	7.2	0.70	2.4	0.13	0.3	0.2	2	< 0.1	22	2.7	617	3.3
R0860727	3270	363	77.6	77.8	9.0	37.6	4.7	7.6	0.74	2.7	0.10	0.3	1.1	< 1	< 0.1	< 5	< 0.4	588	3.1
R0860728	5320	591	118	116	13.3	52.0	5.7	10.2	0.90	2.8	0.11	0.6	0.3	< 1	< 0.1	19	1.0	1220	1.4
R0860730	2690	289	66.2	72.6	8.2	35.9	4.8	8.1	0.77	3.1	0.18	0.3	0.2	< 1	< 0.1	14	1.2	472	1.0
R0860731	2060	252	59.1	84.2	9.6	40.3	5.2	9.3	0.90	3.7	0.27	0.3	0.7	1	< 0.1	8	1.7	323	3.3
R0860732	3410	436	92.8	132	12.4	45.3	4.9	8.0	0.66	2.0	0.09	0.6	< 0.1	< 1	< 0.1	9	3.5	638	1.1
R0860733	3010	390	86.1	143	11.8	38.4	3.9	6.7	0.62	2.1	0.07	0.3	< 0.1	< 1	0.2	32	5.9	567	0.8
R0860734	2450	324	66.3	129	10.8	31.8	3.3	5.8	0.56	1.9	0.10	0.4	0.7	< 1	< 0.1	27	1.4	749	3.9
R0860735	1830	242	55.0	95.3	10.4	38.3	4.5	8.5	0.81	3.2	0.22	0.3	5.2	3	0.2	21	3.0	426	11.2
R0860736	2280	256	52.3	76.6	6.8	25.7	2.8	5.0	0.45	2.0	0.10	0.2	0.5	< 1	< 0.1	< 5	< 0.4	433	2.2
R0860737	2120	248	50.7	79.5	7.1	26.2	3.0	5.4	0.49	2.2	0.11	0.2	0.6	< 1	< 0.1	19	2.2	413	1.8
R0860738	3520	415	88.3	141	11.1	37.0	3.8	6.0	0.51	1.7	0.05	0.3	< 0.1	< 1	< 0.1	19	1.7	563	1.3
R0860739	1240	153	31.0	44.7	3.7	13.0	1.5	2.6	0.26	1.1	0.09	0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	264	1.1
R0863897	3370	353	75.6	78.2	8.1	32.8	3.7	6.1	0.54	1.5	< 0.04	0.3	0.6	1	< 0.1	37	3.0	588	1.6
R0863898	3880	401	81.9	78.1	8.0	33.3	3.6	6.2	0.48	1.2	< 0.04	0.2	0.6	< 1	< 0.1	27	2.0	689	1.4
R0863899	4230	503	94.8	160	12.9	45.1	5.5	9.8	0.90	3.0	0.14	0.5	0.2	< 1	< 0.1	< 5	< 0.4	757	1.1
R0863900	6620	758	146	231	20.2	68.9	8.0	16.3	1.51	5.0	0.17	0.6	0.7	< 1	< 0.1	36	1.6	1410	2.3
R0863901	50900	8970	2310	5250	489	1490	156	255	26.0	101	8.04	13.1	12.8	2	0.1	198	8.1	25200	205
R0863902	2650	301	70.9	96.1	9.1	31.3	3.6	6.0	0.51	1.8	0.07	0.3	0.2	< 1	< 0.1	33	2.2	449	0.9
R0863903	2390	269	60.9	94.2	8.9	29.9	3.3	5.9	0.55	2.1	0.12	2.9	< 0.1	< 1	< 0.1	< 5	< 0.4	398	0.9
R0863904	1490	191	41.5	69.7	6.0	19.2	2.2	3.9	0.36	1.5	0.11	0.3	< 0.1	< 1	< 0.1	48	3.9	296	0.7
R0863905	2000	244	50.9	87.2	7.1	22.6	2.5	4.7	0.44	1.7	0.10	0.2	0.3	1	< 0.1	31	1.6	371	0.9
R0863906	2240	273	57.6	98.3	7.5	23.7	2.7	4.8	0.43	1.5	0.08	0.3	0.3	< 1	< 0.1	40	2.0	467	0.9
R0863907	1610	201	42.2	70.6	5.4	17.4	2.0	3.5	0.34	1.3	0.07	0.3	0.1	< 1	< 0.1	< 5	< 0.4	380	0.8
R0863908	2880	363	69.6	123	8.7	27.6	3.0	5.1	0.45	1.5	0.05	0.3	< 0.1	< 1	< 0.1	11	1.7	632	0.9
R0863909	1200	147	30.5	49.5	4.1	14.2	1.8	3.4	0.33	1.4	0.10	0.3	0.8	< 1	< 0.1	10	1.4	185	1.4
R0863910	1820	238	50.0	85.3	8.7	30.4	3.5	8.7	0.66	2.7	0.18	0.2	0.2	< 1	0.3	35	7.3	341	3.8
R0863911	3400	423	81.7	157	12.9	41.2	4.4	7.7	0.71	2.4	0.11	0.5	0.1	< 1	< 0.1	< 5	< 0.4	688	2.6
R0863912	1720	221	44.6	78.9	7.5	27.4	3.3	7.0	0.65	2.5	0.17	0.2	0.6	< 1	< 0.1	< 5	< 0.4	279	2.3
R0863913	1980	232	51.4	85.8	8.0	27.1	3.1	5.6	0.52	2.0	0.11	0.4	0.7	1	0.1	15	3.3	351	1.9
R0863914	2690	323	75.6	128	11.7	38.7	4.5	7.6	0.67	2.6	0.13	0.4	0.2	< 1	< 0.1	< 5	< 0.4	537	2.9
R0864198	2890	344	75.7	116	11.2	40.7	5.0	9.1	0.83	3.0	0.17	0.4	0.5	< 1	< 0.1	< 5	< 0.4	527	2.5
R0864199	3010	338	70.6	106	9.8	30.9	3.5	6.5	0.53	2.1	0.09	0.2	0.5	< 1	< 0.1	19	1.4	535	1.4
R0864200	3940	426	89.1	128	10.5	35.7	3.9	7.0	0.61	1.6	< 0.04	0.6	0.2	< 1	0.3	30	1.6	686	1.4
R0864201	1720	161	34.6	56.8	4.8	16.6	1.9	3.7	0.36	1.4	0.09	< 0.2	0.6	< 1	< 0.1	< 5	0.7	195	1.4
R0864202	50200	9370	2410	5530	495	1560	170	287	26.3	106	8.39	13.8	11.0	2	< 0.1	121	4.5	26800	220
R0864203	1820	220	43.6	77.0	6.1	17.2	1.9	3.2	0.31	1.4	0.06	0.4	< 0.1	< 1	< 0.1	21	0.5	361	0.6
R0864204	1240	138	29.2	44.3	4.0	13.6	1.5	2.8	0.28	1.1	0.07	< 0.2	0.5	2	0.2	12	3.4	203	4.6
R0864205	2020	226	48.9	74.6	6.8	24.0	2.9	5.2	0.46	1.8	0.09	0.4	0.4	1	< 0.1	5	0.9	308	2.1
R0864206	2700	335	67.7	115	10.4	34.9	3.8	6.8	0.66	2.3	0.15	0.6	< 0.1	< 1	< 0.1	17	2.1	547	1.3
R0864207	1910	235	47.6	85.7	6.8	22.6	2.4	4.0	0.36	1.6	0.08	0.3	< 0.1	< 1	< 0.1	9	1.0	355	0.9
R0864208	1200	147	31.3	51.5	4.4	14.9	1.7	2.9	0.26	1.2	0.09	0.3	< 0.1	< 1	< 0.1	10	1.3	217	0.9
R0864209	1080	133	27.5	45.8	3.9	13.6	1.6	2.9	0.29	1.3	0.09	0.4	< 0.1	1	< 0.1	< 5	0.7	199	0.9
R0864210	2410	298	58.5	96.3	8.0	23.7	2.6	4.6	0.41	1.8	0.07	0.3	< 0.1	< 1	< 0.1	18	0.7	468	2.0
R0864211	2330	254	52.9	69.1	6.5	25.5	3.2	5.7	0.50	1.9	0.09	0.3	0.2	1	< 0.1	14	1.1	370	1.3
R0864212	3160	377	85.0	122	11.3	36.9	4.1	7.3	0.64	2.1	0.10	0.3	0.6	< 1	< 0.1	20	3.4	538	3.5
R0864213	2050	247	50.6	85.6	6.5	19.1	2.0	3.5	0.32	1.3	0.06	0.4	0.5	< 1	< 0.1	< 5	1.5	532	3.1
R0864214	1180	118	26.7	40.5	4.2	15.2	1.8	3.7	0.34	1.2	0.09	0.3	0.1	1	0.1	< 5	1.3	219	4.1
R0864215	1480	144	33.9	50.1	5.2	17.6	2.2	4.2	0.37	1.3	0.10	< 0.2	0.6	< 1	< 0.1	< 5	0.6	317	2.1
R0864216	13.2	3.1	0.93	3.2	0.6	3.6	0.7	2.2	0.34	2.0	0.30	2.5	0.3	< 1	0.5	48	0.5	3.4	1.1
R0864217	1130	166	44.1	84.9	6.9	34.5	4.3	7.2	0.66	2.7	0.23	0.3	16.0	3	0.2	< 5	0.5	330	23.1

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Analyte Symbol	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Bi	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.4	0.1	0.1
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
R0864218	1090	134	36.2	60.5	5.9	20.3	2.4	4.0	0.35	1.4	0.11	0.3	10.4	3	0.2	13	3.4	163	15.0
R0864219	2170	241	52.5	97.1	8.0	23.3	2.7	5.3	0.45	1.8	0.15	0.6	0.8	1	< 0.1	25	0.6	723	2.1
R0864220	2300	297	64.2	124	9.6	30.0	3.3	6.2	0.58	2.1	0.14	0.9	1.4	2	0.1	9	1.4	814	14.2
R0864221	2540	332	63.5	128	9.2	24.0	2.9	5.4	0.48	1.9	0.11	0.3	0.6	< 1	0.3	8	0.9	1070	16.2
R0864222	2690	361	68.2	140	9.7	27.4	3.2	6.3	0.54	2.0	0.12	0.2	0.4	< 1	0.1	45	11.2	1210	14.4
R0864223	0.9	0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.04	< 0.2	< 0.1	< 1	< 0.1	57	< 0.4	1.9	< 0.1
R0864224	3060	353	68.0	137	11.1	30.4	3.5	7.1	0.62	2.2	0.12	0.2	0.9	< 1	0.1	12	< 0.4	1020	4.6
R0864225	2280	286	58.3	110	9.9	26.5	3.4	6.7	0.65	2.2	0.16	0.2	0.7	< 1	< 0.1	< 5	< 0.4	856	4.7
R0864226	2340	320	79.4	148	12.9	36.0	4.1	6.7	0.57	2.1	0.12	0.4	19.8	5	0.3	15	6.9	862	28.7
R0864329	2210	268	63.3	110	10.6	35.3	4.0	7.3	0.67	2.4	0.17	0.7	0.2	< 1	0.2	95	64.3	531	0.8
R0864330	1090	127	29.0	55.1	5.2	16.5	1.8	3.6	0.34	1.4	0.13	0.6	< 0.1	< 1	< 0.1	< 5	< 0.4	228	0.5
R0864331	2660	324	69.8	109	9.1	30.7	3.7	7.0	0.55	1.9	0.12	0.3	< 0.1	< 1	< 0.1	5	1.8	613	1.4
R0864332	2900	353	74.3	121	10.4	32.1	3.7	7.0	0.58	1.9	0.10	0.2	< 0.1	< 1	< 0.1	23	2.9	587	1.1
R0864334	2410	282	54.5	76.0	8.2	30.9	3.8	6.9	0.60	2.2	0.14	0.2	0.3	< 1	< 0.1	23	4.0	460	1.1
R0864335	1520	173	40.8	70.7	10.3	50.3	6.9	13.0	1.19	4.8	0.43	0.3	0.9	2	0.3	26	7.7	200	4.9
R0864336	1070	122	28.1	38.8	4.8	19.7	2.4	3.8	0.31	1.2	0.10	< 0.2	1.2	4	0.2	10	5.8	199	5.8
R0864337	3300	397	79.5	137	13.0	45.8	5.0	7.4	0.67	2.5	0.14	0.4	0.2	< 1	< 0.1	< 5	< 0.4	1010	1.1
R0864338	2720	327	68.9	116	13.4	52.3	6.1	10.5	0.91	3.4	0.23	0.3	0.2	< 1	< 0.1	< 5	1.7	806	1.6
R0864339	3380	389	80.8	117	13.2	52.4	5.8	8.5	0.75	3.1	0.20	0.4	0.3	< 1	< 0.1	32	16.0	940	1.1
R0864340	3070	340	70.3	98.1	11.5	46.0	5.6	9.1	0.77	2.9	0.19	1.4	0.2	< 1	< 0.1	14	6.7	789	1.0
R0864341	3180	340	76.8	84.0	10.7	44.5	5.3	8.5	0.73	2.7	0.17	0.6	< 0.1	< 1	< 0.1	20	0.4	794	1.1
R0864342	2620	296	63.9	71.0	8.8	38.3	4.0	6.7	0.55	2.3	0.16	0.2	< 0.1	< 1	< 0.1	11	0.5	695	0.8
R0864343	2920	315	71.4	78.8	9.5	41.3	4.7	7.3	0.61	2.2	0.14	0.2	< 0.1	< 1	< 0.1	21	1.0	664	1.0
R0864344	4150	484	108	135	14.6	55.2	5.7	7.8	0.63	2.3	0.13	0.4	< 0.1	< 1	< 0.1	13	0.5	1030	1.0
R0864345	4310	488	95.0	117	13.5	50.2	5.0	7.9	0.69	2.7	0.17	0.3	< 0.1	< 1	< 0.1	< 5	< 0.4	1320	2.0
R0864346	4830	536	107	118	13.0	48.3	4.5	7.2	0.62	2.3	0.11	0.3	< 0.1	< 1	< 0.1	13	< 0.4	1170	1.3
R0864347	13.3	3.1	0.90	3.3	0.6	3.6	0.7	2.1	0.31	2.0	0.31	2.8	0.3	1	0.8	70	0.8	3.9	1.2
R0864348	2700	316	62.9	88.3	9.0	29.2	3.3	5.5	0.51	1.9	0.12	1.0	< 0.1	< 1	< 0.1	< 5	< 0.4	745	1.2
R0864349	2430	290	57.7	79.6	7.9	26.0	2.7	5.2	0.49	1.8	0.12	0.5	< 0.1	< 1	< 0.1	< 5	< 0.4	675	0.9
R0864350	2510	268	59.8	56.0	7.1	28.9	3.5	5.8	0.52	1.6	0.09	0.5	2.5	2	0.2	9	5.0	478	8.4

Quality Control																								
Analyte Symbol	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	La	Ce	Pr
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	20	1	20	10	30	1	1	5	2	2	1	5	1	2	0.5	0.2	1	0.5	0.5	3	0.1	0.1	0.05
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
WMG-1 Meas	173	810	201	2530	6100	120	10		22		38	15	67	5	< 2	2.5		2	4.0	< 0.5	113	7.8	16.5	
WMG-1 Cert	149	770	200	2700	5900	110	10.3		7.00		41.0	12.0	43.0	6.00	1.40	2.70		2.20	1.80	0.480	114	8.20	16.0	
DNC-1 Meas	145	280	55	240	90	70	14	1	< 5	4	139	18	57	2	< 2	< 0.5			2.3	< 0.5	102	3.8	8.2	1.12
DNC-1 Cert	148	285	54.7	247	96.0	66.0	15.0	1.30	0.200	4.50	145	18.0	41.0	3.00	0.700	0.0270			0.960	0.340	114	3.80	10.6	1.30
GXR-2 Meas	49	30	7	< 20	60	170	35		67	78	151	19	247	10	< 2	5.0	< 0.2	2	41.7	5.1	2150	25.9	52.7	
GXR-2 Cert	52.0	36.0	8.60	21.0	78.0	530	37.0		25.0	78.0	160	17.0	269	11.0	2.10	17.0	0.252	1.70	49.0	5.20	2240	25.6	51.4	
LKSD-3 Meas	73	70	29	50	30	150			35	75	244	30	174	8	< 2	2.6		2	1.8	2.3	671	47.7	90.4	
LKSD-3 Cert	82.0	87.0	30.0	47.0	35.0	152			27.0	78.0	240	30.0	178	8.00	2.00	2.70		3.00	1.30	2.30	680	52.0	90.0	
MAG-1 (Depleted) Meas	131	90	21	50	20	140	23		9	152	137	28	121	13	< 2	< 0.5	< 0.2	3	1.0	8.7	500	42.0	86.8	10.5
MAG-1 (Depleted) Cert	140	97.0	20.4	53.0	30.0	130	20.4		9.20	149	146	28.0	126	12.0	1.80	0.0800	0.180	3.80	0.960	8.60	479	43.0	88.0	9.30
W-2a Meas	259	90	43	80	100	100	18	2	< 5	20	188	22	91	7	< 2	< 0.5			7.3	0.9	170	10.6	23.4	
W-2a Cert	262	92.0	43.0	70.0	110	80.0	17.0	1.00	1.20	21.0	190	24.0	94.0	7.90	0.600	0.0460			0.790	0.990	182	10.0	23.0	
CTA-AC-1 Meas	107		< 1		60	40															870	2180	3330	
CTA-AC-1 Cert	104		2.72		54.0	38.0															767	2176	3326	
BIR-1a Meas	321	390	52	170	120	90	16	2	< 5	< 2	106	18	27	< 1	< 2	< 0.5		< 1	1.4	< 0.5	6	0.8	2.2	0.42
BIR-1a Cert	313	382	51.4	166	126	71.0	16.0	1.50	0.440	0.250	108	16.0	16.0	0.600	0.500	0.0360		0.650	0.580	0.00500	7.00	0.620	1.95	0.380
R0860739 Orig	8	< 20	1	< 20	< 10	< 30	15	2	21	2	1210	34	5	11	124	< 0.5	< 0.2	< 1	< 0.5	< 0.5	2300	4860	7910	602
R0860739 Dup	9	30	1	30	< 10	< 30	14	2	25	< 2	1260	36	< 5	12	140	< 0.5	< 0.2	1	< 0.5	< 0.5	2390	5020	8710	620
R0863913 Orig	16	30	3	60	< 10	70	19	2	33	6	1380	69	5	62	314	< 0.5	< 0.2	< 1	< 0.5	< 0.5	2740	9090	12000	883
R0863913 Dup	16	< 20	3	< 20	< 10	40	19	2	31	6	1380	69	9	58	319	< 0.5	< 0.2	< 1	< 0.5	< 0.5	2780	8680	11600	857
R0864213 Orig	13	30	11	< 20	< 10	40	20	2	51	4	1330	47	< 5	72	109	< 0.5	< 0.2	< 1	< 0.5	< 0.5	252	9580	12300	931
R0864213 Dup	12	30	11	50	< 10	110	19	2	48	5	1270	46	21	76	104	< 0.5	< 0.2	< 1	0.5	< 0.5	237	9250	12000	898
R0864330 Orig	10	20	< 1	30	< 10	< 30	23	3	18	< 2	1600	36	< 5	12	58	< 0.5	< 0.2	7	< 0.5	< 0.5	555	4540	6140	479
R0864330 Dup	7	< 20	< 1	30	< 10	< 30	22	3	17	< 2	1460	35	40	7	48	< 0.5	< 0.2	8	< 0.5	< 0.5	519	4220	5800	449
R0864347 Orig	114	80	13	20	60	200	15	1	19	24	284	19	106	4	6	4.8	1.0	52	10.1	0.9	490	21.3	27.0	3.71
R0864347 Dup	116	80	13	20	70	270	15	2	20	24	284	19	98	4	7	7.6	1.0	53	13.8	1.0	495	14.7	27.4	3.12
Method Blank Method	< 5	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5	< 2	< 2	< 1	< 5	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	< 3	< 0.1	< 0.1	< 0.05
Blank																								

Quality Control																				
Analyte Symbol	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Ti	Pb	Bi	Th	U	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.4	0.1	0.1	
Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
WMG-1 Meas	8.9	2.3	0.75		0.4	2.5	0.5		0.22	1.4	0.20	1.7	0.3	< 1		19		1.2	0.7	
WMG-1 Cert	9.00	2.30	0.820		0.300	2.80	0.500		0.200	1.30	0.210	1.30	0.500	1.30		15.0		1.10	0.650	
DNC-1 Meas	4.7	1.4	0.59	2.0	0.4	2.8	0.8	2.1	0.33	2.0	0.31	1.5	< 0.1	< 1	< 0.1	< 5	< 0.4	0.2	< 0.1	
DNC-1 Cert	4.90	1.38	0.590	2.00	0.410	2.70	0.620	2.00	0.380	2.01	0.320	1.01	0.0980	0.200	0.0260	6.30	0.0200	0.200	0.100	
GXR-2 Meas	19.4	3.7	0.77	3.1	0.5	3.0			0.29	1.8	0.28	6.6	0.9	< 1	0.8	82	< 0.4	8.3	3.0	
GXR-2 Cert	19.0	3.50	0.810	3.30	0.480	3.30			0.300	2.04	0.270	8.30	0.900	1.90	1.03	690	0.690	8.80	2.90	
LKSD-3 Meas	40.9	7.6	1.45		0.9	5.0				2.8	0.43	4.5	0.6	< 1		24		10.5	4.5	
LKSD-3 Cert	44.0	8.00	1.50		1.00	4.90				2.70	0.400	4.80	0.700	2.00		29.0		11.4	4.60	
MAG-1 (Depleted) Meas	35.4	7.1	1.46	5.9	1.0	5.2	1.0	3.0	0.43	2.6	0.38	3.4	1.2	< 1	0.6	24	< 0.4	11.5	2.9	
MAG-1 (Depleted) Cert	38.0	7.50	1.60	5.80	0.960	5.20	1.02	3.00	0.430	2.60	0.400	3.70	1.10	1.40	0.590	24.0	0.340	11.9	2.70	
W-2a Meas	12.1	3.2	1.10		0.7	3.9	0.8	2.4	0.35	2.1	0.31	2.4	0.5	< 1	0.2	7	< 0.4	2.1	0.5	
W-2a Cert	13.0	3.30	1.00		0.630	3.60	0.760	2.50	0.380	2.10	0.330	2.60	0.500	0.300	0.200	9.30	0.0300	2.40	0.530	
CTA-AC-1 Meas	1090	182	46.7	124	15.2					11.3	1.07	1.7	2.6					23.0	4.0	
CTA-AC-1 Cert	1087	182	46.7	124	13.9					11.4	1.08	1.13	2.65					21.8	4.4	
BIR-1a Meas	2.3	1.1	0.54	1.9	0.4	2.7	0.8	1.9	0.29	1.7	0.28	0.9	< 0.1	< 1	< 0.1	< 5	< 0.4	< 0.1	< 0.1	
BIR-1a Cert	2.50	1.10	0.540	1.85	0.380	2.50	0.570	1.70	0.260	1.85	0.260	0.600	0.0400	0.0700	0.0100	3.00	0.0200	0.0300	0.0100	
R0860739 Orig	1210	151	30.4	43.8	3.8	12.8	1.4	2.4	0.24	1.0	0.09	0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	261	1.0	
R0860739 Dup	1280	155	31.7	45.6	3.8	13.4	1.6	2.7	0.27	1.2	0.09	0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	266	1.1	
R0863913 Orig	2030	238	52.8	87.8	8.1	27.4	3.1	5.7	0.54	2.1	0.12	0.3	0.7	1	0.1	18	4.1	359	1.9	
R0863913 Dup	1920	225	49.9	83.7	7.9	26.8	3.0	5.6	0.51	2.0	0.11	0.4	0.7	2	0.1	12	2.6	343	1.9	
R0864213 Orig	2080	252	51.8	88.3	8.7	19.4	2.0	3.6	0.33	1.4	0.06	0.2	0.6	< 1	1.1	5	2.1	540	3.1	
R0864213 Dup	2040	241	49.5	83.0	6.3	18.7	2.0	3.5	0.32	1.2	0.05	0.6	0.3	< 1	< 0.1	< 5	0.9	523	3.0	
R0864330 Orig	1140	134	30.8	57.9	5.4	16.9	1.9	3.7	0.33	1.4	0.13	0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	253	0.5	
R0864330 Dup	1040	120	27.4	52.2	5.0	16.0	1.8	3.5	0.35	1.4	0.13	0.9	< 0.1	< 1	< 0.1	< 5	< 0.4	202	0.5	
R0864347 Orig	14.3	3.2	0.81	3.3	0.6	3.6	0.8	2.1	0.31	2.0	0.31	2.9	0.3	1	0.7	55	0.7	4.5	1.1	
R0864347 Dup	12.3	3.0	0.90	3.4	0.6	3.6	0.7	2.1	0.32	2.0	0.31	2.6	0.3	1	0.9	84	0.9	3.3	1.3	
Method Blank Method	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.04	< 0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	< 0.1	< 0.1	
Blank																				

SPECTRUM MINING-X08

Ref/I.D.: WICHEEDA: #/828601-828635
 Report date: 04 DEC 2008
 GDL Job No: V08-0939R

teckcominco

Global Discovery Labs

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0860724	GDL PREP BLANK	32	5	14	18
R0860725	828601	25877	11731	231	3746
R0860726	828602	15884	7112	180	2460
R0860727	828603	26988	12202	167	3576
R0860728	828604	43215	19098	55	5346
R0860729	828605 (OKA-1)	1951	N/A	3692	N/A
R0860730	828606	19730	8879	52	2734
R0860731	828607	10862	5166	117	1905
R0860732	828608	21287	9501	45	3268
R0860733	828609	18857	8535	13	3066
R0860734	828610	12905	5175	49	2208
R0860735	828611	8676	4017	817	1630
R0860736	828612	14149	5597	112	2199
R0860737	828613	13185	5253	84	2029
R0860738	828614	21512	8649	17	3248
R0860739	828615	9119	3654	16	1461
R0860739 rpt		9057	3676	21	
R0860740	828616	5326	2477	332	986
R0860741	828617	6368	2984	204	1198
R0860742	828618	5040	2323	188	899
R0860743	828619	32	3	9	12
R0860744	828620	3381	1819	365	726
R0860745	828621	2601	1312	226	636
R0860746	828622	4750	2290	245	899
R0860747	828623	4292	2272	373	897
R0860748	828624	8186	3867	289	1421
R0860749	828625	16926	7254	157	2501
R0860750	828626 (SY-3)	2248	1350	151	N/A
R0860751	828627	3750	1979	611	763
R0860752	828628	943	438	663	222
R0860753	828629	1568	663	636	396
R0860754	828630	1420	649	653	364
R0860755	828631	1837	835	587	422
R0860756	828632	1161	521	376	322
R0860757	828633	461	199	105	113
R0860758	828634	406	202	105	114

GDL Job No: V08-0939R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0860759	828635	1083	783	107	204
STD: OKA-1		1947		3702	
STD: MRG-1		27		21	
STD: SY-2		154		29	74
STD: SY-3		2287	1340	155	681
STD: SY-4		126		14	

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet
La(P) X-Ray fluorescence / pressed pellet
Nb(P) X-Ray fluorescence / pressed pellet
Nd(P) X-Ray fluorescence / pressed pellet



Fred Lo, Chemist-Teck Cominco G.D.L.

SPECTRUM MINING-X08



Ref/I.D.: WICHEEDA: #828601-828635
 Report date: 13 NOV 2008
 GDL Job No: V08-0939R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0860724	GDL PREP BLANK	<1	<4	415	<0.4	<2	261	<1	3	11	2.26	<2	120	<5	<5	48	<2	<2	58	6	10	667	0.60	0.14	1.01	0.69	0.09	0.54	767	<0.05	<5	
R0860725	828601	3	59	59	<0.4	150	103	<1	4	<1	5.76	68	18	<5	<5	16	2	10	338	66	6781	7650	6.14	<.01	0.23	15.47	0.06	0.09	110	0.66	<5	
R0860726	828602	2	49	35	<0.4	126	274	<1	2	<1	5.40	137	12	<5	<5	13	3	7	278	49	5648	6707	6.99	<.01	0.17	15.68	0.03	0.05	673	0.56	<5	
R0860726 rpt		3	37	28	<0.4	104	269	3	3	<1	4.97	142	12	<5	<5	13	<2	8	321	46	5637	5836	7.19	<.01	0.14	14.55	0.03	0.05	665	0.61	<5	
R0860727	828603	4	92	79	<0.4	215	238	<1	6	<1	5.95	107	18	<5	<5	15	3	11	460	62	9629	8050	6.79	<.01	0.23	15.57	0.05	0.08	175	0.81	<5	
R0860728	828604	5	89	98	<0.4	257	171	<1	8	<1	6.27	77	15	<5	<5	17	4	12	577	81	11540	8430	6.32	<.01	0.08	15.72	0.08	<.01	112	1.09	<5	
R0860729	828605 (OKA-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0860730	828606	1	54	75	<0.4	76	86	<1	3	1	6.13	110	21	<5	<5	12	<2	4	609	43	3402	9719	6.83	<.01	0.05	16.38	0.04	0.01	535	0.69	<5	
R0860731	828607	2	22	19	<0.4	45	153	<1	4	6	4.32	69	17	<5	<5	10	2	4	222	53	2323	4127	7.67	<.01	0.36	14.40	0.03	0.16	537	0.65	<5	
R0860732	828608	4	32	16	<0.4	130	244	<1	9	<1	5.08	61	22	<5	<5	13	<2	9	369	44	7059	5300	6.88	<.01	0.20	13.77	0.04	0.07	130	1.37	<5	
R0860733	828609	4	59	38	<0.4	71	291	<1	4	1	5.40	357	19	<5	<5	12	2	6	608	37	3905	7351	6.48	<.01	0.15	13.68	0.07	0.05	130	0.79	<5	
R0860734	828610	2	61	49	<0.4	93	185	<1	2	<1	6.53	31	15	<5	<5	11	2	7	817	48	5385	10280	7.09	<.01	0.10	14.72	0.04	0.05	731	0.55	<5	
R0860735	828611	3	36	137	0.5	71	187	<1	1	<1	4.93	773	25	<5	<5	8	2	6	402	55	3912	6221	5.96	<.01	0.44	12.22	0.03	0.21	263	0.64	<5	
R0860736	828612	4	49	86	<0.4	107	813	<1	<1	<1	6.54	192	11	<5	<5	11	3	7	1124	42	6077	12260	6.72	<.01	0.09	14.30	0.06	0.03	31	0.27	<5	
R0860737	828613	2	40	80	<0.4	105	369	<1	2	<1	7.34	145	18	<5	<5	9	3	9	1173	41	5831	12730	6.82	<.01	0.07	14.23	0.04	0.02	22	0.58	<5	
R0860738	828614	2	38	49	<0.4	139	499	<1	1	<1	6.46	67	16	<5	<5	12	<2	10	1242	46	7588	10220	6.81	<.01	0.07	14.27	0.06	0.01	745	0.38	<5	
R0860739	828615	2	80	61	<0.4	64	126	<1	1	<1	7.48	197	18	<5	<5	10	2	6	1116	23	3552	13560	7.28	<.01	0.05	15.02	0.06	0.01	74	0.57	<5	
R0860740	828616	3	18	28	<0.4	28	66	<1	6	25	6.19	346	33	<5	<5	9	2	4	835	31	1099	7709	6.25	<.01	0.23	13.27	0.05	0.10	981	1.40	<5	
R0860740 rpt		1	19	21	<0.4	30	50	4	6	24	6.12	341	28	<5	<5	11	<2	2	767	32	1060	7912	6.17	<.01	0.22	13.10	0.03	0.11	944	1.34	<5	
R0860741	828617	2	26	30	<0.4	15	259	<1	2	8	5.99	176	32	10	<5	14	<2	2	672	29	456	8839	5.80	<.01	0.24	12.88	0.04	0.15	426	0.77	<5	
R0860742	828618	1	15	32	<0.4	20	952	<1	1	6	6.53	296	25	<5	<5	12	3	2	789	33	1016	9942	6.91	<.01	0.28	15.01	0.03	0.14	97	0.30	<5	
R0860743	828619	78	88	295	7.6	7	91	2	8	38	3.34	7	46	<5	<5	66	30	2	51	7	6	488	0.77	0.14	1.52	1.01	0.15	0.13	581	0.13	<5	
R0860744	828620	1	9	26	<0.4	13	161	<1	<1	6	4.45	85	27	<5	<5	9	<2	2	753	32	642	7319	4.36	<.01	0.39	10.78	0.03	0.19	3344	0.04	<5	
R0860745	828621	1	12	17	<0.4	14	631	<1	<1	6	4.59	65	28	<5	<5	8	2	<2	614	33	698	6948	5.38	<.01	0.27	12.43	0.03	0.13	4769	0.14	<5	
R0860745 rpt		1	14	11	<0.4	15	590	2	<1	3	4.35	58	20	<5	<5	9	2	<2	523	32	659	7283	5.00	<.01	0.24	13.26	0.03	0.11	4419	0.13	<5	
R0860746	828622	3	15	35	<0.4	27	747	<1	<1	3	5.91	163	29	<5	<5	11	2	2	1038	31	1478	8956	5.44	<.01	0.19	13.07	0.04	0.06	1788	0.10	<5	
R0860747	828623	10	72	23	<0.4	14	744	<1	<1	8	3.65	204	22	69	<5	8	<2	<2	784	45	625	4908	3.89	<.01	0.33	9.87	0.04	0.19	5517	0.15	<5	
R0860748	828624	2	17	41	<0.4	32	274	<1	2	7	5.34	175	23	<5	<5	16	<2	3	1111	55	1542	7452	4.98	<.01	0.28	11.56	0.04	0.15	3151	0.41	<5	
R0860749	828625	3	24	39	<0.4	114	102	<1	4	<1	7.55	168	22	<5	<5	14	2	9	1413	58	5663	11470	6.62	<.01	0.15	14.67	0.04	0.07	547	0.90	<5	
R0860750	828626 (SY-3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0860751	828627	4	32	239	<0.4	15	474	<1	1	11	4.03	239	16	<5	<5	21	2	<2	1062	65	549	3681	2.82	0.02	0.95	9.06	0.03	0.36	6861	0.20	<5	
R0860752	828628	8	108	133	<0.4	16	263	<1	5	11	4.71	12	30	<5	<5	56	<2	2	1503	53	152	3990	0.88	0.08	0.85	8.81	0.04	0.46	3328	0.55	<5	
R0860753	828629	2	17	42	<0.4	55	133	<1	7	11	7.05	111	29	<5	<5	15	<2	<2	1255	43	188	6960	1.32	0.02	0.21	10.57	0.05	0.12	716	2.39	<5	
R0860754	828630	2	25	46	<0.4	35	96	<1	10	14	5.77	143	19	6	<5	7	2	2	1027	49	35	4263	1.82	<.01	0.41	7.80	0.04	0.02	332	1.81	<5	
R0860755	828631	3	58	66	<0.4	25	184	<1	8	14	5.55	30	29	<5	<5	16	2	<2	1232	45	71	5046	1.71	0.01	0.34	9.26	0.04	0.14	1252	1.46	<5	
R0860756	828632	7	50	283	<0.4	26	99	<1	5	16	3.87	31	35	<5	<5	14	<2	<2	1915	66	246	5029	1.13	<.01	0.20	15.31	0.05	0.10	2169	0.92	<5	
R0860757	828633	9	36	270	<0.4	18	727	<1	5	23	2.14	15	23	<5	<5	11	<2	<2	3400	34	222	3121	0.87	0.02	0.49	14.80	0.06	0.29	1388	0.34	<5	

Teck Ltd.

Global Discovery Labs 1486 East Pender Street Vancouver, B.C. Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

GDL Job No: V08-0939R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm
R0860758	828634	11	44	280	<0.4	17	568	<1	6	24	2.08	16	25	<5	<5	13	<2	2	4255	34	217	3196	0.88	0.02	0.49	14.64	0.06	0.29	1402	0.38	<5
R0860759	828635	8	40	185	<0.4	25	923	<1	7	33	3.09	28	60	<5	<5	31	<2	3	3185	31	402	2442	1.37	0.11	1.11	13.73	0.07	0.90	1212	0.27	<5
STD: DA		114	239	667	6.3	51	383	5	11	47	3.60	2	42	<5	<5	65	<2	<2	30	8	18	734	0.54	0.08	1.49	0.53	0.08	0.15	927	0.17	<5

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).



Alice Kwan, Chemist-Teck Cominco G.D.L.

Teck Ltd.

Global Discovery Labs 1486 East Pender Street Vancouver, B.C. Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

SPECTRUM MINING CORP-X08

teckcominco

Global Discovery Labs

Ref/I.D.: WICHEEDA#2: #828636-828722
 Report date: 11 DEC 2008
 GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0863895	GDL PREP BLANK	46	29	22	18
R0863896	828636	3	15	9	13
R0863897	828637	23810	10294	93	3387
R0863898	828638	25344	10642	70	3622
R0863899	828639	26088	11170	44	4042
R0863900	828640	46605	20595	81	6001
R0863901	828641 (XRF std)	N/A	N/A	N/A	N/A
R0863902	828642	17305	7852	38	2632
R0863903	828643	15567	6825	24	2397
R0863904	828644	10078	4181	17	1742
R0863905	828645	11731	5133	35	2031
R0863906	828646	11489	4884	34	2035
R0863907	828647	10004	4463	24	1770
R0863908	828648	18177	7893	28	3104
R0863908 rpt		17912	7761	25	3062
R0863909	828649	5946	2771	64	1230
R0863910	828650	8740	3713	228	1721
R0863911	828651	19836	8073	30	3331
R0863912	828652	13649	5957	31	2306
R0863913	828653	10620	4612	63	1792
R0863914	828654	17322	7825	55	2892
R0863915	828655	<3	20	8	31
R0863916	828656	9060	4021	194	1816
R0863917	828657	8613	3793	59	1573
R0863918	828658	4642	2102	502	977
R0863919	828659	1485	1158	142	327
R0863920	828660	7545	3398	144	1458
R0863921	828661	7249	3209	175	1391
R0863922	828662 (XRF std)	N/A	N/A	N/A	N/A
R0863923	828663	13240	6359	220	2183
R0863924	828664	10273	4725	204	1896
R0863925	828665	11851	5454	76	1843
R0863926	828666	14301	6725	346	2099
R0863926 rpt		14331	6755	353	2127
R0863927	828667	5365	3017	794	1300
R0863928	828668	6554	3208	506	1476

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Global Discovery Labs 1486 East Pender Street Vancouver, B.C. Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0863929	828669	4568	2368	901	1107
R0863930	828670	5807	2895	908	1368
R0863931	828671	2708	1249	669	677
R0863932	828672	2371	1398	1164	619
R0863933	828673	962	453	863	256
R0863934	828673 GDL DUP	1070	457	853	262
R0863935	828674	1939	934	669	446
R0863936	828675	826	361	822	228
R0863937	828676	37	5	7	28
R0863938	828677	1601	869	343	435
R0863939	828678	8086	3731	457	2107
R0863940	828679	563	297	450	142
R0863941	828680	3670	1596	361	1022
R0863942	828681 (XRF std)	N/A	N/A	N/A	N/A
R0863943	828682	4231	1787	187	1137
R0863944	828683	1718	701	820	455
R0863944 rpt		1721	710	830	464
R0863945	828684	1969	774	626	541
R0863946	828685	1193	428	610	332
R0863947	828686	1853	635	532	518
R0863948	828687	2106	785	497	559
R0863949	828688	2097	800	440	538
R0863950	828689	1865	730	960	457
R0863951	828690	1648	632	918	442
R0863952	828691	1367	513	874	408
R0863953	828692	2298	904	594	590
R0863954	828693	1475	496	670	402
R0863955	828694	1378	471	871	415
R0863956	828695	18	7	9	7
R0863957	828696	2026	703	818	567
R0863958	828697	2484	991	1515	685
R0863959	828698	2166	894	578	604
R0863960	828699	1853	822	76	453
R0863961	828700	2958	1106	587	920
R0863962	828701	3274	1223	543	1010
R0863963	828702 (XRF std)	N/A	N/A	N/A	N/A
R0863964	828703	4902	1374	21	1287
R0863965	828704	9456	2291	854	2297
R0863966	828705	7970	1992	432	2097
R0863967	828706	1868	542	50	473

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GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0863968	828707	7305	1762	261	1757
R0863969	828708	5577	1487	50	1448
R0863970	828709	7066	1776	65	1755
R0863971	828710	611	264	312	110
R0863971 rpt		592	272	324	113
R0863972	828711	458	195	232	96
R0863973	828712	472	204	156	105
R0863974	GDL PREP BLANK	42	12	23	18
R0863975	828713	388	188	91	83
R0863976	828714	394	209	42	92
R0863977	828715	1170	398	232	358
R0863978	828716	<3	10	9	14
R0863979	828717	463	213	55	102
R0863980	828718	466	200	79	73
R0863981	828719	828	312	451	229
R0863982	828720	2165	742	477	614
R0863983	828721 (XRF std)	N/A	N/A	N/A	N/A
R0863984	828722	128	619	617	573
STD: OKA-1			3581		
STD: MRG-1		27	23		
STD: SY-2		165	30		72
STD: SY-3		2287	152	1340	650
STD: SY-4		126	14		57

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet
La(P) X-Ray fluorescence / pressed pellet
Nb(P) X-Ray fluorescence / pressed pellet
Nd(P) X-Ray fluorescence / pressed pellet



Fred Lo, Chemist-Teck ComInco G.D.L.

Teck Ltd.

SPECTRUM MINING CORP-X08



Ref/I.D.: WICHEEDA#2: #828636-828722
 Report date: 25 NOV 2008
 GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Tl %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0863895	GDL PREP BLANK	2	<4	49	<0.4	<2	250	<1	4	9	1.86	<2	68	<5	<5	37	<2	4	39	2	4	509	0.58	0.10	0.85	0.40	0.06	0.51	763	<0.05	<5	
R0863896	828636	77	81	268	6.5	6	84	2	7	26	2.89	5	40	<5	<5	54	28	3	37	5	2	415	0.69	0.08	1.27	0.67	0.10	0.12	547	0.12	<5	
R0863897	828637	3	73	130	<0.4	146	329	<1	5	<1	6.52	66	7	<5	<5	12	2	13	911	47	8187	9663	6.60	<0.1	0.06	13.75	0.04	<0.1	40	0.76	<5	
R0863898	828638	3	50	53	<0.4	163	239	<1	4	<1	6.60	74	11	<5	<5	15	2	14	824	52	8986	9887	6.83	<0.1	0.07	14.39	0.05	0.01	23	0.84	<5	
R0863898 rpt		3	46	41	<0.4	180	164	<1	4	<1	6.24	72	8	<5	<5	16	2	14	779	50	9751	9599	6.62	<0.1	0.07	14.51	0.05	0.01	23	0.74	<5	
R0863899	828639	3	40	53	<0.4	125	976	<1	1	<1	5.73	39	14	<5	<5	11	2	12	847	62	6939	9317	6.75	<0.1	0.06	14.06	0.05	0.01	74	0.32	<5	
R0863900	828640	5	126	69	<0.4	159	209	<1	4	<1	4.83	57	11	<5	<5	22	<2	13	452	83	8797	6110	6.92	<0.1	0.07	13.10	0.04	0.03	74	0.84	<5	
R0863901	828641 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0863902	828642	3	48	60	<0.4	129	118	<1	3	<1	6.07	86	12	<5	<5	14	2	12	829	38	7029	8386	7.38	<0.1	0.09	15.06	0.06	0.03	49	0.72	<5	
R0863903	828643	2	40	52	<0.4	112	666	<1	1	<1	6.49	127	11	<5	<5	13	<2	9	1176	40	6217	11030	6.97	<0.1	0.04	14.77	0.06	<0.1	26	0.36	<5	
R0863903 rpt		1	40	43	<0.4	110	787	<1	<1	<1	6.44	116	15	<5	<5	12	2	9	1133	39	6015	10840	6.79	<0.1	0.04	14.81	0.06	<0.1	29	0.35	<5	
R0863904	828644	4	121	64	<0.4	79	48	<1	6	3	8.93	99	20	<5	<5	15	<2	6	1008	27	3525	11680	6.45	<0.1	0.05	14.84	0.06	<0.1	29	3.01	<5	
R0863905	828645	3	70	92	<0.4	75	745	<1	1	<1	7.05	187	15	<5	<5	11	3	7	1034	34	4306	11680	6.73	<0.1	0.04	15.11	0.04	0.01	17	0.45	<5	
R0863906	828646	3	69	75	<0.4	106	146	<1	1	<1	7.00	108	13	<5	<5	13	<2	8	968	38	5837	11760	6.80	<0.1	0.05	15.10	0.03	<0.1	<10	0.55	<5	
R0863907	828647	2	56	72	<0.4	89	250	<1	1	<1	7.12	79	18	<5	<5	12	<2	8	1084	31	4900	12060	6.88	<0.1	0.05	15.32	0.04	0.01	<10	0.43	<5	
R0863908	828648	4	70	69	<0.4	137	65	<1	12	<1	6.88	194	17	<5	<5	17	2	11	663	39	7064	8858	6.79	<0.1	0.09	14.42	0.05	0.02	28	1.92	<5	
R0863909	828649	1	24	41	<0.4	54	220	<1	1	<1	5.93	97	15	<5	<5	14	2	7	699	23	2997	9052	6.96	<0.1	0.21	14.97	0.03	0.07	63	0.35	<5	
R0863910	828650	2	49	34	<0.4	68	636	<1	<1	<1	5.89	1408	15	<5	<5	5	2	7	846	41	3836	8927	7.16	<0.1	0.39	14.22	0.03	0.11	96	0.24	<5	
R0863911	828651	3	47	28	<0.4	124	848	<1	<1	<1	6.40	397	8	<5	<5	13	2	10	1413	54	6823	10560	7.32	<0.1	0.07	15.09	0.04	0.01	376	0.25	<5	
R0863912	828652	1	27	45	<0.4	59	1742	<1	<1	<1	7.16	495	11	<5	<5	9	<2	7	1257	36	3270	13330	7.66	<0.1	0.09	16.68	0.04	0.01	190	0.20	<5	
R0863913	828653	2	33	51	<0.4	84	241	<1	2	<1	7.15	282	13	<5	<5	12	<2	7	1125	34	4637	12650	7.14	<0.1	0.19	15.71	0.04	0.04	503	0.47	<5	
R0863914	828654	2	40	34	<0.4	82	487	<1	1	<1	6.28	310	13	<5	<5	13	2	8	1052	40	4662	11430	6.76	<0.1	0.17	14.76	0.04	0.01	239	0.37	<5	
R0863915	828655	77	82	278	5.2	6	90	2	7	28	3.16	7	42	<5	<5	62	27	4	46	6	10	463	0.76	0.12	1.43	0.87	0.15	0.14	556	0.13	<5	
R0863916	828656	2	32	58	<0.4	54	1082	<1	<1	<1	6.37	407	15	<5	<5	12	<2	6	1073	36	3137	10330	6.53	<0.1	0.51	13.97	0.04	0.24	242	0.25	<5	
R0863916 rpt		1	35	53	<0.4	57	1117	<1	<1	<1	6.59	420	17	<5	<5	13	2	6	1087	36	3215	10580	6.67	<0.1	0.51	14.06	0.04	0.25	256	0.25	<5	
R0863917	828657	1	46	51	<0.4	40	250	<1	3	2	7.41	236	20	<5	<5	9	<2	4	1301	32	2203	12900	6.45	<0.1	0.08	14.47	0.04	0.01	32	0.80	<5	
R0863918	828658	1	14	32	<0.4	11	181	<1	2	6	5.57	222	24	<5	<5	9	<2	<2	867	21	478	9535	4.96	<0.1	0.26	12.06	0.03	0.13	432	0.42	<5	
R0863919	828659	1	4	7	<0.4	7	202	<1	<1	2	1.06	49	27	<5	<5	<2	2	<2	227	12	458	1677	1.03	<0.1	0.16	2.78	0.03	0.17	137	0.05	<5	
R0863920	828660	1	21	39	<0.4	55	739	<1	<1	<1	6.62	81	18	<5	<5	13	<2	5	1044	23	3115	10710	6.88	<0.1	0.17	15.56	0.04	0.06	577	0.35	<5	
R0863921	828661	2	21	35	<0.4	58	95	<1	1	<1	6.41	53	11	<5	<5	14	<2	4	909	18	3171	10240	6.83	<0.1	0.31	14.90	0.03	0.03	22	0.55	<5	
R0863922	828662 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0863923	828663	4	30	41	<0.4	137	253	<1	<1	<1	5.58	65	11	<5	<5	10	3	12	907	27	7262	9725	6.08	<0.1	0.29	13.69	0.04	0.17	24	0.33	<5	
R0863924	828664	3	49	66	<0.4	113	309	<1	3	<1	6.56	93	14	<5	<5	15	2	10	893	23	5968	9909	7.18	<0.1	0.21	14.80	0.04	0.06	<10	0.86	<5	
R0863925	828665	3	26	69	<0.4	130	671	<1	<1	<1	6.30	89	6	<5	<5	11	<2	13	1770	30	7206	13710	7.83	<0.1	0.06	15.96	0.05	0.01	<10	0.47	<5	
R0863926	828666	3	23	36	<0.4	128	238	<1	5	<1	6.35	87	10	<5	<5	11	<2	9	1617	32	6834	11830	7.22	<0.1	0.12	15.89	0.04	0.06	20	1.32	<5	
R0863927	828667	1	19	25	<0.4	18	115	<1	<1	2	2.93	67	23	<5	<5	9	<2	2	538	48	1007	4207	3.17	<0.1	0.35	8.12	0.03	0.11	2880	0.07	<5	
R0863928	828668	1	13	19	<0.4	33	87	<1	<1	<1	4.26	45	19	<5	<5	11	<2	3	583	34	1898	6965	4.98	<0.1	0.18	12.09	0.03	0.07	627	0.11	<5	

GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bl ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0863929	828669	3	13	25	<0.4	25	444	<1	3	11	3.96	92	15	<5	<5	12	<2	2	582	34	464	5657	4.28	<.01	0.41	10.94	0.03	0.09	921	0.47	<5	
R0863930	828670	3	15	29	<0.4	24	567	<1	3	10	4.01	117	16	<5	<5	14	<2	3	594	35	562	5125	4.18	<.01	0.61	9.75	0.03	0.10	819	0.48	<5	
R0863931	828671	10	20	23	<0.4	106	117	<1	13	16	4.09	17	14	<5	<5	10	<2	2	696	73	117	2578	4.53	<.01	0.27	9.95	0.04	0.12	4058	1.80	<5	
R0863932	828672	4	9	24	<0.4	13	92	<1	5	9	3.96	4	9	<5	<5	28	2	2	702	60	102	2272	4.60	<.01	0.20	10.82	0.04	0.11	4065	0.73	<5	
R0863932 rpt		4	8	23	<0.4	12	99	<1	6	7	3.95	4	13	<5	<5	28	<2	3	721	63	125	2438	4.61	<.01	0.24	11.05	0.03	0.11	4207	0.76	<5	
R0863933	828673	7	18	48	<0.4	58	103	<1	12	16	7.71	12	17	<5	<5	11	<2	2	1165	55	175	2488	2.79	<.01	0.15	9.75	0.04	0.10	6413	5.95	<5	
R0863934	828673 GDL DUP	6	19	49	<0.4	60	104	<1	13	16	7.96	14	18	<5	<5	11	<2	3	1188	57	179	2555	2.83	<.01	0.16	9.97	0.04	0.11	6866	6.17	<5	
R0863935	828674	4	18	42	<0.4	79	111	<1	6	8	7.94	7	24	<5	<5	14	<2	3	1716	64	321	3116	2.35	<.01	0.10	12.13	0.06	0.05	5049	6.08	<5	
R0863936	828675	3	12	32	<0.4	75	104	<1	4	8	5.09	32	18	<5	<5	18	2	3	1295	68	174	2385	3.29	<.01	0.16	11.96	0.03	0.08	6938	2.70	<5	
R0863937	828676	76	87	283	7.0	8	85	2	8	29	3.06	5	42	<5	<5	61	29	5	43	6	3	459	0.72	0.11	1.41	0.86	0.14	0.12	569	0.13	<5	
R0863938	828677	1	6	15	<0.4	2	47	<1	3	4	3.34	29	10	5	<5	14	<2	<2	583	58	127	2989	6.21	<.01	0.06	13.47	0.04	0.03	2951	0.32	<5	
R0863939	828678	2	15	17	<0.4	32	154	<1	7	3	3.29	9	19	<5	<5	13	<2	2	448	75	1290	2866	4.30	<.01	0.22	9.83	0.04	0.10	952	0.58	<5	
R0863940	828679	1	9	19	<0.4	4	153	<1	3	5	2.79	7	10	<5	<5	15	<2	<2	468	38	69	2345	5.41	<.01	0.23	13.23	0.04	0.11	3020	0.40	<5	
R0863941	828680	2	20	36	<0.4	12	73	<1	7	6	3.82	6	9	<5	<5	10	<2	4	528	56	109	3145	5.76	<.01	0.13	13.64	0.03	0.05	3254	0.73	<5	
R0863942	828681 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0863943	828682	7	38	29	<0.4	92	135	<1	16	9	4.57	4	18	<5	<5	21	<2	3	460	71	355	2801	5.33	<.01	0.26	12.77	0.03	0.10	2723	1.98	<5	
R0863944	828683	7	16	152	<0.4	52	229	<1	12	23	5.82	3	24	<5	<5	16	<2	<2	1669	91	130	6329	1.48	<.01	0.26	11.73	0.05	0.09	4513	1.99	<5	
R0863945	828684	11	26	88	<0.4	96	227	<1	15	25	7.12	2	18	<5	<5	16	<2	2	1859	283	259	6199	0.89	<.01	0.29	14.09	0.07	0.19	21210	3.40	<5	
R0863946	828685	2	11	85	<0.4	9	225	<1	2	7	7.03	4	21	<5	<5	26	<2	2	1324	89	141	7499	1.23	<.01	0.22	9.50	0.04	0.10	5268	0.36	<5	
R0863947	828686	3	14	113	<0.4	22	342	<1	4	8	8.10	9	24	<5	<5	30	<2	3	1636	138	302	9264	1.36	<.01	0.18	11.57	0.06	0.09	7777	0.73	<5	
R0863947 rpt		3	16	120	<0.4	24	333	<1	4	10	8.52	10	29	<5	<5	32	2	2	1629	148	315	10020	1.42	<.01	0.21	12.85	0.05	0.09	8361	0.78	<5	
R0863948	828687	2	41	321	<0.4	15	2787	1	<1	3	4.88	<2	13	<5	<5	16	<2	2	9061	183	776	9705	0.82	<.01	0.14	19.77	0.05	0.06	7532	0.11	<5	
R0863949	828688	1	43	306	<0.4	17	2941	1	1	3	4.81	<2	11	<5	<5	17	<2	3	9316	162	785	9948	0.78	<.01	0.13	19.50	0.05	0.05	6256	0.14	<5	
R0863950	828689	1	33	254	<0.4	14	6279	1	<1	4	3.53	<2	15	<5	<5	14	<2	3	8371	101	736	7730	0.68	0.01	0.67	13.55	0.06	0.13	5208	<.05	<5	
R0863951	828690	2	70	247	<0.4	19	1448	1	2	2	3.23	2	7	<5	<5	10	<2	4	8346	124	688	8681	0.53	<.01	0.15	16.70	0.06	0.03	5768	0.26	<5	
R0863952	828691	4	106	348	<0.4	23	420	1	5	5	5.35	6	20	<5	<5	13	<2	3	1824	71	504	7019	0.79	<.01	0.12	9.96	0.06	0.02	3091	0.59	<5	
R0863953	828692	18	158	748	<0.4	35	222	4	9	4	6.02	3	16	<5	<5	22	<2	4	8346	96	839	7016	0.80	<.01	0.16	10.51	0.06	0.05	4119	1.03	<5	
R0863954	828693	2	88	182	<0.4	45	70	<1	11	5	5.81	3	12	<5	<5	12	2	<2	6294	87	563	8171	0.62	<.01	0.15	13.47	0.05	0.01	2979	1.70	<5	
R0863955	828694	2	261	625	<0.4	19	309	2	5	7	6.46	8	15	<5	<5	18	<2	3	5142	79	468	7532	0.80	<.01	0.15	9.63	0.07	0.01	2865	0.61	<5	
R0863955 rpt		2	249	611	<0.4	23	240	2	4	5	6.52	7	15	<5	<5	18	<2	2	5171	74	461	7278	0.79	<.01	0.14	8.90	0.08	0.02	2679	0.55	<5	
R0863956	828695	72	90	288	6.7	8	90	2	8	30	3.09	5	45	<5	<5	67	28	3	53	7	5	510	0.74	0.14	1.53	1.03	0.11	0.11	558	0.12	<5	
R0863957	828696	9	365	618	<0.4	33	118	2	13	13	6.23	13	16	<5	<5	15	<2	4	6742	100	723	6990	0.67	<.01	0.09	11.97	0.07	0.01	3390	1.56	<5	
R0863958	828697	5	89	446	<0.4	36	130	2	7	7	5.48	9	14	<5	<5	19	2	3	5913	110	934	6965	0.70	<.01	0.13	12.93	0.06	0.04	3775	1.28	<5	
R0863959	828698	3	50	391	<0.4	25	234	2	4	6	5.72	3	17	<5	<5	29	<2	4	7004	143	806	9045	0.80	<.01	0.29	17.00	0.08	0.08	6353	0.69	<5	
R0863960	828699	<1	45	55	<0.4	17	3129	<1	<1	<1	1.25	<2	4	<5	<5	<2	<2	3	16700	102	770	8282	0.19	<.01	0.03	26.70	0.02	<.01	731	0.16	<5	
R0863961	828700	4	62	208	<0.4	33	221	<1	5	4	7.74	5	13	<5	<5	48	<2	3	6358	119	1054	8755	1.06	0.02	0.25	12.80	0.05	0.10	4830	0.92	<5	
R0863962	828701	3	38	654	<0.4	72	73	2	8	7	6.92	4	14	<5	<5	19	2	3	1737	101	782	8281	0.85	<.01	0.11	14.26	0.05	0.02	3329	2.22	<5	
R0863963	828702 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0863964	828703	17	40	1808	<0.4	74	63	8	3	7	16.20	<2	25	<5	<5	52	2	4	1662	31	1302	14590	2.06	<.01	0.05	15.31	0.04	<.01	<10	2.48	<5	
R0863965	828704	21	43	2942	<0.4	58	211	14	3	<1	10.23	2	21	<5	<5	38	3	6	2104	103	2290	12610	1.50	<.01	0.11	18.20	0.06	0.04	2226	1.02	<5	
R0863966	828705	7	68	795	<0.4	63	143	3	3	1	11.19	<2	17	<5	<5	42	3	7	3452	62	2230	14640	1.58	<.01	0.08	21.47	0.06	0.02	27	0.86	<5	

Teck Ltd.

Global Discovery Labs 1486 East Pender Street Vancouver, B.C. Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

GDL Job No: V08-0972R

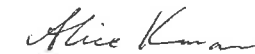
LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm
R0863967	828706	3	81	531	<0.4	16	58	2	7	5	8.47	<2	11	<5	<5	13	<2	3	7269	84	515	14080	0.76	<0.1	0.03	25.21	0.04	<0.1	355	3.27	<5
R0863968	828707	5	318	1721	<0.4	47	52	7	9	2	10.23	<2	14	<5	<5	28	3	5	10580	127	1695	12350	0.88	<0.1	0.14	21.80	0.07	0.03	4673	3.89	<5
R0863969	828708	4	145	658	<0.4	36	332	3	2	3	5.86	<2	14	<5	<5	25	<2	4	18400	129	1322	11160	0.78	<0.1	0.09	20.72	0.05	0.01	2477	0.55	<5
R0863970	828709	5	185	674	<0.4	43	394	3	3	2	6.20	<2	12	<5	<5	25	<2	4	20750	132	1569	10940	0.82	<0.1	0.10	21.35	0.05	0.02	2500	0.51	<5
R0863971	828710	3	55	280	<0.4	12	806	<1	2	3	0.81	157	7	<5	<5	<2	<2	<2	8015	39	297	3447	0.16	<0.1	0.13	17.44	0.06	0.03	2161	0.30	<5
R0863972	828711	5	26	266	<0.4	15	1029	<1	2	6	0.71	88	6	<5	<5	2	<2	<2	7537	37	225	3158	0.23	<0.1	0.15	16.04	0.04	0.04	2365	0.29	<5
R0863973	828712	2	60	288	<0.4	13	979	<1	1	3	0.55	64	6	<5	<5	4	<2	<2	5678	37	217	3165	0.19	<0.1	0.09	18.00	0.04	0.02	1636	0.21	<5
R0863974	GDL PREP BLANK	<1	<4	54	<0.4	<2	255	<1	3	8	1.95	<2	54	<5	<5	40	<2	2	61	3	5	573	0.56	0.11	0.86	0.49	0.06	0.47	784	<0.05	<5
R0863975	828713	1	49	136	<0.4	6	1067	<1	<1	2	0.44	23	<4	<5	<5	<2	<2	3	4038	37	209	2508	0.19	<0.1	0.05	24.17	0.05	0.01	784	0.17	<5
R0863976	828714	2	78	155	<0.4	7	990	<1	2	3	0.24	31	<4	<5	<5	<2	<2	2	3149	35	217	2651	0.07	<0.1	0.03	18.51	0.05	0.01	742	0.13	<5
R0863977	828715	7	148	431	<0.4	22	320	1	2	7	3.05	24	9	<5	<5	16	<2	3	7616	77	418	6528	0.62	<0.1	0.28	17.55	0.07	0.11	3111	0.46	<5
R0863978	828716	70	86	288	6.2	7	84	2	7	28	3.05	5	39	<5	<5	60	27	4	44	5	4	471	0.68	0.10	1.35	0.84	0.14	0.12	534	0.11	<5
R0863979	828717	2	91	235	<0.4	10	2091	<1	1	4	0.54	45	6	<5	<5	4	<2	2	4168	40	238	3171	0.22	<0.1	0.19	19.47	0.07	0.04	1250	0.19	<5
R0863980	828718	3	145	457	<0.4	10	1849	<1	1	3	0.34	81	<4	<5	<5	<2	<2	2	4067	35	238	2748	0.09	<0.1	0.10	20.36	0.06	0.01	877	0.21	<5
R0863981	828719	4	32	485	<0.4	35	126	1	5	11	4.40	34	15	<5	<5	14	<2	3	4425	92	316	5156	0.57	<0.1	0.25	10.60	0.05	0.08	3871	0.98	<5
R0863982	828720	3	85	342	<0.4	27	245	1	3	4	6	3	10	<5	<5	23	<2	2	10150	154	701	9529	0.74	<0.1	0.15	24	0.06	0.07	9739	0.69	<5
R0863983	828721 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0863984	828722	3	99	238	<0.4	33	127	<1	3	4	6.42	28	12	<5	<5	19	<2	3	6976	119	654	8931	0.72	<0.1	0.12	21.78	0.06	0.05	7217	1.21	<5
STD: DA		123	200	608	6.1	42	361	3	10	41	3.29	3	36	<5	<5	55	<2	6	34	8	27	612	0.51	0.06	1.40	0.46	0.08	0.14	911	0.20	<5
STD: DA		117	214	652	5.8	48	449	3	11	46	3.46	3	39	<5	<5	65	2	5	36	8	17	680	0.55	0.09	1.63	0.52	0.08	0.13	940	0.20	<5
STD: DA		118	221	673	6.2	48	461	3	10	46	3.54	3	36	<5	<5	63	2	8	37	8	16	667	0.52	0.07	1.49	0.50	0.09	0.15	910	0.20	<5

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).



Alice Kwan, Chemist-Teck Cominco G.D.L.

Teck Ltd.

Global Discovery Labs 1486 East Pender Street Vancouver, B.C. Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

SPECTRUM MINING CORP-X08

Ref/L.D.: WICHEEDA#3: #828723-828844
 Report date: 05 JAN 2009
 GDL Job No: V08-0977R

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Global Discovery Labs

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0864196	GDL PREP BLANK	25	18	26	9
R0864197	828723	24	11	6	15
R0864198	828724	22329	10066	126	3272
R0864199	828725	20014	9170	55	3081
R0864200	828726	26937	12385	16	3883
R0864201	828727	7961	3494	75	1348
R0864202	828728 (XRF std)				
R0864203	828729	10067	4416	3	1766
R0864204	828730	6450	2917	571	1092
R0864205	828731	11849	5425	161	1991
R0864206	828732	17039	7587	27	2908
R0864206 rpt		17011	7518	24	2933
R0864207	828733	9721	4440	10	1871
R0864208	828734	7223	3299	8	1346
R0864209	828735	6854	3142	11	1272
R0864210	828736	16350	7626	<3	2783
R0864211	828737	16690	7451	59	2574
R0864212	828738	23125	10426	57	3500
R0864213	828739	13038	5835	114	2231
R0864214	828740	9683	4839	327	1356
R0864215	828741	11267	5401	159	1541
R0864216	828742	6	7	6	17
R0864217	828743	5046	2607	1110	1130
R0864218	828744	5481	3011	1043	1060
R0864219	828745	12849	5699	88	2208
R0864220	828746	12294	5678	680	2249
R0864221	828747	12309	5615	54	2302
R0864222	828748	12831	5970	374	2513
R0864223	828749 (XRF std)				
R0864224	828750	14567	6913	162	2858
R0864225	828751	12561	6198	204	2227
R0864225 rpt		12524	6276	203	2249
R0864226	828752	10527	5238	1490	2143
R0864227	828753	8232	4108	1261	1664
R0864228	828754	5246	2787	1210	1189
R0864229	828755	7281	3532	613	1630

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GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0864230	828756	6900	3379	537	1503
R0864231	828757	6840	3332	1006	1476
R0864232	828758	8279	3780	25	1883
R0864233	828759	3030	1576	845	659
R0864234	828760	4814	2458	777	1101
R0864235	828760 GDL DUP	5034	2465	725	1120
R0864236	828761	4195	2243	745	1014
R0864237	828762	3941	2114	428	969
R0864238	828763	19	4	9	14
R0864239	828764	7506	3504	332	1609
R0864240	828765	1339	479	719	325
R0864241	828766	3710	1865	495	831
R0864242	828767	6997	3602	685	1464
R0864243	828768 (XRF std)				
R0864244	828769	6292	2853	593	1298
R0864245	828770	9090	4280	1029	1857
R0864246	828771	9568	4429	645	1841
R0864247	828772	1888	1241	2088	433
R0864248	828773	2573	1423	1885	631
R0864249	828774	6434	3370	821	1350
R0864250	828775	3172	1627	1040	687
R0864251	828776	4959	2585	1014	1057
R0864252	828777	6113	2952	786	1235
R0864253	828778	10160	4799	506	1995
R0864254	828779	3687	1935	1203	751
R0864255	828780	4544	2201	1295	1005
R0864256	828781	7044	3207	938	1529
R0864257	828782	22	12	3	13
R0864258	828783	4837	2462	1107	1001
R0864259	828784	10166	4926	926	2010
R0864259 rpt		9971	4810	923	2006
R0864260	828785	12919	5944	203	2046
R0864261	828786	17441	8049	105	2602
R0864262	828787	4620	2384	743	952
R0864263	828788	1235	708	778	287
R0864264	828789 (XRF std)				
R0864265	828790	4804	2079	625	1206
R0864266	828791	7267	3138	462	1733
R0864267	828792	5574	2473	553	1453
R0864268	828793	3083	1362	1090	894

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GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0864269	828794	2815	1434	781	784
R0864270	828795	1055	530	791	289
R0864271	828796	1033	532	817	273
R0864272	828797	2809	1436	1128	747
R0864273	828798	7508	3375	393	1501
R0864274	828799	1925	1098	1002	433
R0864275	GDL PREP BLANK	44	44	24	9
R0864276	828800	3664	1916	840	828
R0864276 rpt		3633	1939	830	847
R0864277	828801	1926	1059	1379	383
R0864278	828802	3568	1776	786	803
R0864279	828803	8	27	4	7
R0864280	828804	1607	905	1227	366
R0864281	828805	13129	5896	752	2569
R0864282	828806	7975	3406	314	1924
R0864283	828807	11097	4859	497	2527
R0864284	828808 (XRF std)				
R0864285	828809	4622	2241	883	1164
R0864286	828810	4041	2056	927	1055
R0864287	828811	4351	2185	664	1112
R0864288	828812	4217	2164	1303	1064
R0864289	828813	5604	2512	529	1477
R0864290	828814	1572	907	731	400
R0864291	828815	1597	935	812	426
R0864292	828816	1996	1137	1010	544
R0864293	828817	2098	1026	605	567
R0864294	828818	7445	3512	340	1773
R0864295	828819	9677	4199	607	2369
R0864295 rpt		9675	4234	608	2352
R0864296	828820	4023	1864	4273	854
R0864297	828821	261	55	75	105
R0864298	828822	14	19	9	13
R0864299	828823	3018	1521	791	654
R0864300	828824	1874	1235	756	497
R0864301	828825	731	309	753	190
R0864302	828826	805	331	1003	213
R0864303	828827	764	302	952	173
R0864304	828828	765	261	885	155
R0864305	828829 (XRF std)				
R0864306	828830	753	373	992	210

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GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0864307	828831	974	469	930	301
R0864308	828832	586	199	1744	105
R0864309	828833	592	178	2139	124
R0864310	828834	507	194	1043	115
R0864311	828835	752	267	2116	194
R0864312	828836	694	266	1931	200
R0864313	828837	1292	524	1272	272
R0864314	828838	1692	879	1246	494
R0864315	828838 GDL DUP	1648	825	1195	527
R0864316	828839	1147	521	977	354
R0864317	828840	522	192	1245	132
R0864318	828841	599	224	1111	183
R0864319	828842	505	181	1328	172
R0864320	828843	15	25	9	17
R0864321	828844	670	275	790	244
STD: NIM-L				959	
STD: OKA-1				3720	
STD: SY-3		2243	1350		800

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet

La(P) X-Ray fluorescence / pressed pellet

Nb(P) X-Ray fluorescence / pressed pellet

Nd(P) X-Ray fluorescence / pressed pellet



Fred Lo, Chemist-Teck Cominco G.D.L.

Teck Ltd.

SPECTRUM MINING CORP-X08



Ref/I.D.: WICHEEDA#3: #828723-828844
 Report date: 25 NOV 2008
 GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0864196	GDL PREP BLANK	1	<4	53	<0.4	<2	259	<1	3	11	2.17	<2	70	<5	<5	45	<2	3	81	5	11	621	0.57	0.14	1.03	0.68	0.12	0.48	807	<0.05	<5	
R0864197	828723	70	90	295	6.2	6	89	2	8	30	3.21	5	43	<5	7	69	27	5	47	6	4	507	0.72	0.15	1.50	1.06	0.16	0.12	535	0.11	<5	
R0864198	828724	4	59	63	<0.4	142	353	<1	4	<1	6.15	81	13	<5	<5	16	3	11	868	49	7136	9872	6.10	<0.1	0.14	14.47	0.12	<0.1	66	0.38	<5	
R0864199	828725	4	64	110	<0.4	163	426	<1	1	<1	6.23	54	12	<5	<5	17	2	11	990	44	8277	11140	6.39	<0.1	0.09	15.50	0.08	0.02	50	0.32	<5	
R0864200	828726	5	81	53	<0.4	230	3439	<1	<1	<1	5.73	40	11	<5	<5	20	3	16	1159	48	11560	10560	6.36	<0.1	0.08	15.10	0.12	0.02	35	0.09	<5	
R0864201	828727	2	34	82	<0.4	64	580	<1	<1	<1	7.40	125	14	<5	<5	13	<2	6	1417	24	3169	13670	6.37	<0.1	0.09	17.95	0.05	0.02	28	0.33	<5	
R0864202	828728 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864203	828729	2	42	57	0.5	97	585	<1	1	<1	7.19	16	15	<5	<5	16	3	9	1443	26	4973	13570	6.61	<0.1	0.04	16.56	0.08	0.01	<10	0.31	<5	
R0864204	828730	2	30	44	<0.4	69	327	<1	2	<1	7.13	453	12	<5	<5	12	<2	7	825	19	3459	12110	6.21	<0.1	0.40	14.88	0.07	0.19	<10	0.51	<5	
R0864205	828731	3	43	43	<0.4	106	176	<1	2	<1	6.59	122	12	<5	<5	16	2	8	752	35	5116	10700	6.69	<0.1	0.17	16.11	0.05	0.05	25	0.62	<5	
R0864206	828732	2	44	286	<0.4	80	157	<1	4	1	6.59	120	15	<5	<5	15	7	6	787	42	3809	10390	7.12	<0.1	0.06	15.77	0.07	<0.1	50	0.75	<5	
R0864206 rpt		2	37	298	<0.4	83	141	<1	3	1	6.67	129	15	<5	<5	15	2	7	780	42	3857	10530	7.07	<0.1	0.06	16.77	0.05	<0.1	55	0.76	<5	
R0864207	828733	4	47	39	<0.4	86	175	<1	5	<1	6.47	68	13	<5	<5	13	2	10	741	32	4145	10130	6.98	<0.1	0.07	16.02	0.07	0.01	13	0.80	<5	
R0864208	828734	2	31	41	<0.4	56	148	<1	4	2	7.45	74	13	<5	<5	10	<2	8	1200	21	2581	12560	6.74	<0.1	0.07	16.86	0.06	<0.1	10	0.83	<5	
R0864209	828735	3	32	46	<0.4	54	164	<1	5	2	7.49	75	16	<5	<5	13	3	6	1153	21	2407	12430	6.93	<0.1	0.06	16.46	0.07	<0.1	15	0.83	<5	
R0864210	828736	2	54	33	<0.4	146	748	<1	<1	<1	6.77	38	15	<5	<5	17	3	10	1084	37	7184	11710	6.92	<0.1	0.10	16.96	0.06	<0.1	32	0.20	<5	
R0864211	828737	4	52	50	<0.4	156	763	<1	1	<1	6.72	95	10	<5	<5	14	<2	13	959	41	7800	12690	6.68	<0.1	0.16	16.31	0.06	0.03	41	0.32	<5	
R0864212	828738	2	41	61	<0.4	122	611	<1	1	<1	6.13	195	14	<5	<5	15	2	10	814	34	6090	10450	6.39	<0.1	0.31	15.22	0.04	<0.1	207	0.39	<5	
R0864213	828739	2	30	32	<0.4	117	133	<1	7	<1	7.21	88	16	<5	<5	14	<2	9	980	25	5645	11440	6.45	<0.1	0.20	15.02	0.06	0.03	97	1.53	<5	
R0864214	828740	1	17	50	<0.4	92	115	<1	3	<1	6.40	111	12	<5	<5	13	<2	7	2235	18	4374	12760	6.60	<0.1	0.23	17.85	0.04	0.14	116	0.94	<5	
R0864215	828741	1	20	38	<0.4	103	210	<1	2	<1	6.85	44	12	<5	<5	13	<2	8	1132	21	5160	13590	6.60	<0.1	0.09	15.82	0.05	0.01	39	0.57	<5	
R0864216	828742	68	87	295	7.3	7	90	2	7	30	3.21	6	44	<5	8	73	27	3	51	7	13	551	0.73	0.16	1.54	1.20	0.16	0.12	528	0.11	<5	
R0864217	828743	<1	14	21	<0.4	22	148	<1	<1	1	3.13	254	19	<5	<5	5	<2	4	665	43	1078	5424	3.28	<0.1	0.24	9.74	0.04	0.12	4297	0.08	<5	
R0864218	828744	1	29	27	<0.4	46	295	<1	1	<1	3.73	594	16	<5	<5	7	<2	3	678	20	2207	6960	4.11	<0.1	0.16	11.01	0.07	0.06	700	0.31	<5	
R0864218 rpt		1	28	24	<0.4	50	300	<1	1	<1	3.83	614	18	<5	<5	8	<2	4	685	20	2249	7029	4.15	<0.1	0.18	10.63	0.06	0.06	721	0.32	<5	
R0864219	828745	2	84	184	<0.4	122	93	<1	<1	<1	6.81	28	9	<5	<5	17	3	9	1356	31	6000	13970	7.23	<0.1	0.07	17.32	0.06	0.01	32	0.29	<5	
R0864220	828746	4	69	56	<0.4	121	270	<1	4	<1	6.20	336	11	<5	<5	11	2	8	679	32	5613	9525	5.98	<0.1	0.43	15.35	0.04	0.16	176	0.93	<5	
R0864221	828747	2	45	25	<0.4	105	121	<1	10	<1	6.80	26	15	<5	<5	15	2	7	580	27	4742	8070	6.99	<0.1	0.10	16.34	0.04	0.02	32	1.54	<5	
R0864222	828748	5	89	57	<0.4	144	226	<1	<1	<1	5.33	170	13	<5	<5	16	2	10	550	35	6809	7509	6.09	<0.1	0.23	16.73	0.05	0.09	19	0.28	<5	
R0864223	828749 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864224	828750	4	71	73	<0.4	159	635	<1	1	<1	4.92	74	15	<5	<5	19	2	11	557	37	7671	6310	6.32	<0.1	0.36	15.30	0.06	0.15	25	0.29	<5	
R0864225	828751	3	52	70	<0.4	141	1088	<1	<1	<1	4.18	82	13	<5	<5	18	2	10	508	38	6845	6077	6.21	<0.1	0.27	17.64	0.05	0.10	33	0.10	<5	
R0864226	828752	2	29	18	<0.4	92	192	<1	6	<1	4.15	732	18	<5	<5	9	<2	7	412	29	4041	5095	4.41	<0.1	0.44	11.89	0.05	0.18	824	0.86	<5	
R0864227	828753	<1	18	17	0.5	16	807	<1	<1	1	3.04	552	11	<5	<5	4	<2	2	1203	41	739	4062	3.01	<0.1	0.23	11.42	0.05	0.07	1338	0.08	<5	
R0864228	828754	<1	22	29	<0.4	24	275	<1	<1	1	3.00	491	17	<5	<5	5	<2	3	411	29	1173	4326	3.51	<0.1	0.41	12.10	0.04	0.17	1669	0.09	<5	
R0864229	828755	2	25	13	<0.4	72	151	<1	<1	<1	3.83	464	13	<5	<5	9	<2	5	400	23	3574	5966	5.41	<0.1	0.17	15.17	0.07	0.04	116	0.07	<5	
R0864230	828756	1	21	14	<0.4	67	112	<1	<1	<1	3.85	338	16	<5	<5	8	<2	5	415	22	3315	6107	5.38	<0.1	0.12	16.00	0.06	0.02	162	0.06	<5	

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GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0864231	828757	4	39	15	<0.4	97	341	<1	3	<1	3.87	1151	13	<5	<5	4	<2	5	526	30	4223	4871	4.60	<.01	0.24	16.95	0.06	0.07	20	0.75	<5	
R0864232	828758	2	18	15	<0.4	84	54	<1	<1	<1	4.62	14	13	<5	<5	18	<2	6	477	32	4363	5647	6.15	<.01	0.08	18.93	0.04	0.02	38	0.09	<5	
R0864233	828759	1	11	50	<0.4	16	223	<1	<1	4	3.71	306	17	<5	<5	7	<2	4	264	18	775	3595	4.04	<.01	1.03	8.07	0.04	0.67	397	0.08	<5	
R0864234	828760	1	10	20	<0.4	28	477	<1	<1	1	3.95	173	16	<5	<5	9	<2	4	772	32	1455	5831	4.25	<.01	0.12	12.40	0.04	0.05	243	0.09	<5	
R0864235	828760 GDL DUP	2	14	22	<0.4	31	501	<1	<1	1	4.18	193	15	<5	<5	9	<2	4	1048	33	1585	6143	4.40	<.01	0.13	12.59	0.04	0.05	254	0.10	<5	
R0864236	828761	1	12	16	<0.4	28	150	<1	<1	1	3.02	67	18	<5	<5	9	<2	2	399	20	1471	5095	3.21	<.01	0.16	8.48	0.04	0.10	351	0.05	<5	
R0864237	828762	1	12	19	<0.4	29	123	<1	<1	1	2.74	89	16	<5	<5	9	<2	3	483	27	1420	4416	2.93	<.01	0.21	8.42	0.05	0.15	575	<.05	<5	
R0864238	828763	69	85	290	7.7	7	90	2	7	29	3.24	6	44	<5	8	70	27	2	47	7	6	517	0.72	0.15	1.47	1.09	0.14	0.13	520	0.11	<5	
R0864239	828764	2	33	54	<0.4	63	105	<1	<1	<1	5.17	71	15	<5	<5	13	<2	6	628	26	3163	8920	4.99	<.01	0.14	12.77	0.05	0.08	174	0.07	<5	
R0864240	828765	<1	8	13	<0.4	6	86	<1	<1	2	2.60	41	9	<5	<5	6	<2	<2	348	19	397	3924	2.92	<.01	0.15	8.04	0.04	0.09	296	<.05	<5	
R0864241	828766	1	16	22	<0.4	23	110	<1	<1	2	4.32	454	11	<5	<5	8	<2	4	568	20	1131	6379	4.38	<.01	0.13	11.17	0.05	0.05	198	0.13	<5	
R0864241 rpt		1	15	20	<0.4	23	113	<1	<1	2	4.39	468	15	<5	<5	8	<2	3	559	20	1124	6576	4.35	<.01	0.14	11.18	0.05	0.05	198	0.13	<5	
R0864242	828767	2	18	28	<0.4	74	174	<1	3	2	4.61	233	18	<5	<5	10	<2	4	495	23	3370	6306	4.30	<.01	0.53	10.27	0.05	0.27	43	0.66	<5	
R0864243	828768 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864244	828769	1	287	27	0.7	34	120	<1	<1	1	5.10	238	12	<5	<5	11	<2	4	771	20	1672	7288	5.15	<.01	0.08	12.89	0.05	0.02	184	0.11	<5	
R0864245	828770	2	32	44	<0.4	104	305	<1	<1	<1	4.53	759	16	<5	<5	12	<2	9	475	23	5453	5542	5.03	<.01	0.85	10.93	0.04	0.44	58	0.11	<5	
R0864246	828771	2	26	28	<0.4	102	191	<1	1	<1	5.11	330	12	<5	<5	14	<2	8	1113	25	5116	8589	5.82	<.01	0.29	13.81	0.05	0.13	193	0.27	<5	
R0864247	828772	2	16	47	<0.4	27	333	<1	1	3	2.73	321	18	<5	<5	8	<2	3	398	11	1266	3367	1.88	0.01	0.37	5.55	0.06	0.26	138	0.30	<5	
R0864248	828773	1	31	33	<0.4	34	294	<1	3	4	3.54	711	16	<5	<5	8	2	4	435	12	1533	3865	3.10	<.01	0.53	7.84	0.06	0.29	44	0.45	<5	
R0864249	828774	2	16	26	<0.4	81	307	<1	<1	<1	3.45	105	13	<5	<5	12	<2	6	560	16	4006	5607	3.65	<.01	0.31	9.16	0.07	0.16	41	0.11	<5	
R0864250	828775	1	10	27	<0.4	32	196	<1	1	2	3.62	81	12	<5	<5	9	2	3	508	10	1344	5571	3.44	<.01	0.18	8.97	0.04	0.08	47	0.24	<5	
R0864250 rpt		<1	11	20	<0.4	33	193	<1	1	1	3.59	79	12	<5	<5	8	<2	4	492	10	1345	5600	3.43	<.01	0.18	8.93	0.05	0.08	46	0.22	<5	
R0864251	828776	2	54	220	<0.4	65	147	<1	3	<1	3.82	307	12	<5	<5	9	<2	5	450	17	3032	4996	3.69	<.01	0.47	8.88	0.04	0.21	11	0.44	<5	
R0864252	828777	1	22	19	<0.4	81	257	<1	<1	<1	4.24	376	14	<5	<5	12	2	5	484	17	4057	6318	5.10	<.01	0.39	12.31	0.04	0.15	<10	0.07	<5	
R0864253	828778	2	20	19	<0.4	74	130	<1	<1	<1	4.21	153	12	<5	<5	12	<2	6	486	22	3791	5686	5.25	<.01	0.17	13.25	0.04	0.10	99	0.17	<5	
R0864254	828779	1	17	21	<0.4	36	647	<1	<1	1	3.34	286	16	<5	<5	11	<2	3	933	28	1718	4725	4.02	<.01	0.26	11.34	0.04	0.12	80	0.10	<5	
R0864254 rpt		1	16	20	<0.4	36	636	<1	<1	1	3.27	279	15	<5	<5	10	<2	4	716	28	1728	4613	3.98	<.01	0.27	10.46	0.04	0.13	99	0.10	<5	
R0864255	828780	1	32	18	<0.4	38	245	<1	<1	<1	3.48	1122	11	<5	<5	2	<2	4	911	24	1860	5506	3.60	<.01	0.10	10.59	0.04	0.05	79	0.10	<5	
R0864256	828781	3	24	26	<0.4	36	140	<1	<1	<1	4.06	238	11	<5	<5	11	<2	3	595	23	1941	6760	4.51	<.01	0.10	11.50	0.04	0.06	370	<.05	<5	
R0864257	828782	67	89	292	5.2	6	91	2	7	31	3.21	7	45	<5	8	73	27	5	49	7	5	533	0.72	0.17	1.51	1.20	0.17	0.13	506	0.11	<5	
R0864258	828783	1	19	19	<0.4	38	191	<1	<1	<1	3.39	448	8	<5	<5	6	2	3	1148	27	1827	4917	3.38	<.01	0.15	10.94	0.04	0.05	178	0.07	<5	
R0864259	828784	2	26	25	<0.4	86	240	<1	<1	<1	3.78	533	15	<5	<5	15	2	4	588	30	3998	5033	4.21	<.01	0.33	10.81	0.05	0.19	270	0.09	<5	
R0864260	828785	2	18	32	<0.4	104	58	<1	<1	<1	6.14	28	13	<5	<5	16	<2	6	1304	23	5322	11730	6.91	<.01	0.11	16.67	0.06	0.02	126	0.12	<5	
R0864261	828786	3	23	30	<0.4	136	68	<1	4	<1	6.12	17	12	<5	<5	16	2	11	1351	24	6324	10850	6.48	<.01	0.10	16.25	0.05	0.03	35	0.84	<5	
R0864262	828787	3	18	38	<0.4	61	295	<1	1	5	4.18	118	13	<5	<5	18	<2	4	414	21	2681	5157	4.31	<.01	0.52	10.86	0.04	0.31	107	0.28	<5	
R0864263	828788	1	7	41	<0.4	12	319	<1	<1	3	2.34	37	20	<5	<5	11	<2	3	217	12	669	2770	2.52	<.01	0.34	6.53	0.03	0.24	50	<.05	<5	
R0864264	828789 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864265	828790	1	13	19	<0.4	27	79	<1	<1	3	5.43	136	16	<5	<5	16	2	5	302	38	1319	6815	5.80	<.01	0.35	14.18	0.03	0.09	1110	0.15	<5	
R0864266	828791	1	15	22	<0.4	41	77	<1	1	1	4.81	208	13	<5	<5	13	2	2	399	34	1886	6757	5.28	<.01	0.23	12.32	0.03	0.11	320	0.28	<5	
R0864267	828792	1	8	24	<0.4	11	128	<1	<1	4	3.93	23	14	<5	<5	16	<2	2	492	59	545	4388	5.47	<.01	0.16	12.46	0.04	0.09	1264	0.20	<5	
R0864268	828793	3	8	20	<0.4	15	201	<1	3	7	4.46	10	12	<5	<5	13	<2	3	476	50	456	3864	6.10	<.01	0.11	13.59	0.03	0.06	2067	0.61	<5	

Teck Ltd.

Global Discovery Labs 1486 East Pender Street Vancouver, B.C. Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0864269	828794	1	10	17	<0.4	11	606	<1	1	3	3	178	13	<5	<5	7	<2	3	462	38	443	2962	4.10	<.01	0.26	9.70	0.04	0.12	1011	0.21	<5	
R0864270	828795	5	16	33	<0.4	43	92	<1	15	10	5.05	60	24	<5	<5	7	<2	<2	163	19	177	2508	2.81	<.01	0.23	6.95	0.04	0.13	41	3.18	<5	
R0864271	828796	5	13	84	<0.4	32	83	<1	10	8	4.53	54	23	<5	<5	7	<2	3	148	18	149	2685	2.85	<.01	0.23	7.28	0.04	0.13	38	2.46	<5	
R0864272	828797	1	9	13	<0.4	30	97	<1	4	3	3.19	37	23	<5	<5	5	<2	<2	140	38	965	2262	3.20	<.01	0.47	7.60	0.03	0.20	277	0.97	<5	
R0864273	828798	2	18	33	<0.4	69	272	<1	3	<1	5.42	141	14	<5	<5	18	2	5	1327	46	3148	8093	6.47	<.01	0.22	17.27	0.05	0.11	56	0.68	<5	
R0864274	828799	1	13	39	<0.4	28	175	<1	1	4	4.17	282	20	<5	<5	11	2	3	373	14	1212	4164	3.97	<.01	0.76	9.03	0.04	0.39	22	0.27	<5	
R0864275	GDL PREP BLANK	<1	<4	54	<0.4	<2	256	<1	3	12	2.23	2	84	<5	<5	48	<2	<2	64	6	15	661	0.58	0.15	1.07	0.72	0.11	0.48	778	<.05	<5	
R0864276	828800	1	17	21	<0.4	45	147	<1	<1	2	4.06	353	15	<5	<5	10	<2	6	378	18	2078	4934	4.64	<.01	0.43	11.47	0.04	0.18	35	0.21	<5	
R0864277	828801	<1	11	28	<0.4	14	292	<1	<1	4	3.83	286	14	<5	<5	5	<2	3	526	13	432	4196	3.67	<.01	0.45	9.10	0.04	0.21	121	0.17	<5	
R0864277 rpt		<1	13	28	<0.4	13	315	<1	<1	4	4.30	309	12	<5	<5	8	<2	4	735	15	432	4600	4.06	<.01	0.46	9.78	0.04	0.22	110	0.19	<5	
R0864278	828802	1	11	29	<0.4	31	239	<1	<1	1	3.88	127	18	<5	<5	16	<2	3	444	19	1458	4717	5.07	<.01	0.27	12.06	0.03	0.14	93	0.07	<5	
R0864279	828803	70	97	319	6.5	7	94	2	8	33	3.45	6	43	<5	8	75	28	2	49	7	7	564	0.75	0.16	1.54	1.22	0.14	0.12	555	0.12	<5	
R0864280	828804	<1	6	61	<0.4	14	313	<1	<1	3	3.88	34	17	<5	<5	9	<2	3	269	15	648	2910	3.58	<.01	1.21	6.55	0.03	0.73	274	<.05	<5	
R0864281	828805	4	31	27	<0.4	120	192	<1	<1	<1	5.40	696	17	<5	<5	14	3	10	618	41	5454	7803	6.36	<.01	0.21	14.96	0.06	0.10	85	0.23	<5	
R0864282	828806	3	19	29	<0.4	67	230	<1	4	<1	5.15	31	15	<5	<5	17	2	5	439	52	2882	5690	6.21	<.01	0.29	14.22	0.05	0.14	37	0.55	<5	
R0864283	828807	2	22	24	<0.4	97	203	<1	<1	<1	4.63	38	18	<5	<5	22	2	7	424	60	4677	5184	6.18	<.01	0.40	14.23	0.05	0.19	123	0.14	<5	
R0864283 rpt		3	21	20	<0.4	93	193	<1	<1	<1	4.59	38	17	<5	<5	21	2	7	444	59	4594	5077	6.08	<.01	0.35	13.39	0.04	0.16	109	0.14	<5	
R0864284	828808 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864285	828809	2	11	39	<0.4	29	600	<1	<1	4	3.72	65	14	<5	<5	23	<2	4	560	70	1253	3896	3.96	0.01	0.36	10.23	0.05	0.20	1257	0.30	<5	
R0864286	828810	2	7	34	<0.4	28	297	<1	2	4	3.14	17	17	<5	<5	23	<2	2	398	49	863	2431	3.03	0.01	0.43	7.57	0.04	0.32	945	0.53	<5	
R0864287	828811	1	7	21	<0.4	12	824	<1	<1	3	2.96	16	12	<5	<5	14	<2	<2	721	64	543	3183	4.04	<.01	0.27	11.59	0.04	0.14	1919	0.10	<5	
R0864288	828812	1	5	20	<0.4	12	134	<1	1	3	3.21	46	11	<5	<5	13	<2	2	731	59	383	3238	4.20	<.01	0.17	11.89	0.05	0.12	2535	0.21	<5	
R0864289	828813	<1	6	18	<0.4	15	145	<1	<1	3	3.29	25	14	<5	<5	14	<2	2	602	45	696	3040	4.45	<.01	0.11	11.46	0.04	0.07	338	0.12	<5	
R0864290	828814	2	10	19	<0.4	18	203	<1	5	6	3	55	21	<5	<5	11	<2	<2	305	33	200	1908	3.16	<.01	0.18	7.88	0.04	0.13	526	1.00	<5	
R0864291	828815	2	9	16	<0.4	22	232	<1	5	7	3.24	128	23	<5	<5	10	<2	3	322	36	235	2145	3.46	<.01	0.19	8.41	0.04	0.14	500	1.11	<5	
R0864292	828816	3	6	18	<0.4	10	316	<1	3	6	2.47	30	10	<5	<5	10	<2	2	324	40	135	1554	2.86	<.01	0.19	7.05	0.04	0.15	666	0.58	<5	
R0864293	828817	1	10	23	<0.4	6	544	<1	2	4	3.21	49	8	<5	<5	8	<2	2	5025	86	86	3136	3.19	<.01	0.11	18.32	0.04	0.04	62	0.48	<5	
R0864294	828818	1	9	28	<0.4	17	237	<1	<1	2	3.97	21	7	<5	<5	12	<2	5	2496	61	781	4052	3.92	<.01	0.07	14.05	0.07	0.02	1040	0.07	<5	
R0864295	828819	1	12	33	<0.4	14	103	<1	<1	3	4.36	119	12	<5	<5	16	<2	2	1448	60	632	4153	4.35	<.01	0.07	12.93	0.05	0.03	1951	0.14	<5	
R0864295 rpt		1	10	29	<0.4	13	104	<1	1	4	4.53	128	12	<5	<5	18	2	2	1076	62	556	4249	4.61	<.01	0.07	12.68	0.04	0.03	1965	0.15	<5	
R0864296	828820	2	40	40	<0.4	21	164	<1	3	7	5.26	1952	13	<5	<5	<2	<2	3	1149	26	606	5817	3.35	<.01	0.13	11.30	0.04	0.07	324	0.91	<5	
R0864297	828821	<1	38	14	<0.4	2	305	<1	<1	2	1.70	20	<4	<5	<5	2	<2	<2	12910	240	78	4158	0.33	<.01	0.05	32.15	0.04	0.01	14	0.08	<5	
R0864298	828822	65	84	278	5.2	7	86	2	6	28	3.11	6	44	<5	7	70	26	7	56	7	4	511	0.69	0.15	1.45	1.12	0.16	0.12	497	0.11	<5	
R0864299	828823	1	22	36	<0.4	48	190	<1	8	11	5.01	206	12	<5	<5	5	<2	5	2447	62	1474	4888	0.90	<.01	0.17	10.34	0.04	0.11	1008	1.69	<5	
R0864300	828824	1	17	38	<0.4	20	335	<1	2	6	4.59	74	11	<5	<5	5	<2	3	3582	108	660	6367	0.92	<.01	0.16	17.40	0.03	0.08	1939	0.52	<5	
R0864301	828825	<1	11	45	<0.4	7	258	<1	1	3	3.74	3	9	<5	<5	4	<2	3	4074	103	273	3996	0.80	<.01	0.12	14.06	0.04	0.10	3702	0.23	<5	
R0864302	828826	3	32	382	<0.4	5	599	<1	4	9	7.02	<2	11	<5	<5	59	<2	2	9186	41	254	3096	0.75	0.04	0.83	21.80	0.04	0.68	11200	0.30	<5	
R0864303	828827	4	31	292	<0.4	6	504	<1	4	9	6.77	<2	8	<5	<5	48	3	4	8287	34	259	3076	0.70	0.04	0.77	21.87	0.04	0.57	10530	0.38	<5	
R0864304	828828	14	24	334	<0.4	41	426	<1	5	11	8.01	<2	9	<5	<5	56	<2	5	6153	31	214	3188	0.93	0.04	0.79	18.32	0.04	0.54	12710	0.81	<5	
R0864305	828829 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864306	828830	2	12	48	<0.4	23	186	<1	3	9	4.59	2	15	<5	<5	6	<2	<2	2186	53	260	3568	0.80	<.01	0.16	8.91	0.04	0.12	1702	1.06	<5	

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GDL Job No: V08-0977R


LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm
R0864307	828831	1	16	64	<0.4	27	206	<1	4	12	6.53	<2	15	<5	<5	9	<2	2	2220	40	290	5103	1.21	<.01	0.20	10.60	0.03	0.12	1562	1.07	<5
R0864308	828832	12	13	300	<0.4	33	336	<1	4	8	9.73	<2	15	<5	<5	117	2	5	2579	24	92	2869	1.03	0.09	0.87	7.95	0.07	0.62	8840	0.69	<5
R0864309	828833	7	11	415	<0.4	8	465	<1	4	10	11.19	<2	10	<5	<5	177	4	7	2747	20	89	2894	1.13	0.10	1.03	7.91	0.08	0.85	7941	0.08	<5
R0864310	828834	12	21	168	<0.4	62	169	<1	4	8	8	<2	20	<5	<5	50	2	4	2200	38	103	3839	0.92	0.03	0.37	8.93	0.05	0.22	2807	1.12	<5
R0864311	828835	12	16	121	<0.4	31	173	<1	4	7	7.86	<2	11	<5	<5	25	<2	4	2120	77	93	4810	1.05	0.01	0.24	10.02	0.04	0.16	5510	0.92	<5
R0864312	828836	8	15	119	<0.4	24	167	<1	3	8	7.38	<2	12	<5	<5	28	3	<2	2025	71	99	4638	1.01	0.01	0.23	10.03	0.04	0.16	5016	0.71	<5
R0864313	828837	2	17	214	<0.4	32	331	<1	7	13	9.77	<2	9	<5	<5	72	<2	4	2397	38	195	4796	1.24	0.07	0.69	11.57	0.05	0.35	5664	0.88	<5
R0864314	828838	1	19	55	<0.4	29	246	<1	6	12	6.61	<2	8	<5	<5	10	2	4	2925	67	680	7207	1.07	<.01	0.16	18.10	0.03	0.08	603	0.87	<5
R0864315	828838 GDL DUP	1	18	54	<0.4	27	238	<1	5	11	6.37	<2	10	<5	<5	9	<2	3	2927	64	654	6911	1.03	<.01	0.15	19.68	0.03	0.08	575	0.83	<5
R0864316	828839	2	14	165	<0.4	16	275	<1	3	17	7.24	7	29	<5	<5	49	<2	3	1647	45	483	4866	0.90	0.06	0.52	10.40	0.04	0.33	2592	0.32	<5
R0864316 rpt		3	13	134	<0.4	14	277	<1	2	15	6.60	7	30	<5	<5	44	<2	<2	1484	43	469	4236	0.92	0.06	0.50	8.39	0.04	0.36	2540	0.31	<5
R0864317	828840	3	15	227	<0.4	38	261	<1	5	14	8.10	4	14	<5	<5	66	2	3	2836	41	175	3742	0.97	0.09	0.77	10.27	0.05	0.48	3966	1.13	<5
R0864318	828841	1	11	93	<0.4	7	324	<1	<1	6	6.27	<2	11	<5	<5	55	2	2	2948	81	173	4113	0.76	0.03	0.48	12.18	0.04	0.25	7316	0.17	<5
R0864319	828842	2	11	150	<0.4	3	295	<1	1	10	8.20	<2	14	<5	<5	55	<2	4	1839	37	137	4764	0.99	0.04	0.49	10.22	0.05	0.25	3999	0.12	<5
R0864320	828843	69	90	293	5.7	6	90	2	7	31	3.24	5	43	<5	8	73	27	3	51	7	4	527	0.72	0.16	1.53	1.13	0.14	0.13	541	0.11	<5
R0864321	828844	2	9	50	<0.4	9	211	<1	<1	9	6.63	<2	14	<5	<5	12	2	<2	1377	60	134	5365	1.10	<.01	0.25	9.41	0.03	0.10	1967	0.27	<5

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).



Alice Kwan, Chemist-Teck Cominco G.D.L.

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SPECTRUM MINING CORP-X08

teckcominco

Global Discovery Labs

Ref/I.D.: WICHEEDA#4: #828845-828900
 Report date: 07 JAN 2009
 GDL Job No: V08-0980R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0864327	GDL PREP BLANK	50	32	20	11
R0864328	828845	44	22	3	7
R0864329	828846	14238	6951	28	2415
R0864330	828847	6268	2821	5	1160
R0864331	828848	16854	8293	<3	2830
R0864332	828849	14803	6641	<3	2636
R0864333	828850 (XRF std)				
R0864334	828851	13096	5947	35	2315
R0864335	828852	7740	3770	325	1479
R0864336	828853	6178	2961	449	1039
R0864337	828854	19663	8662	<3	3344
R0864338	828855	14916	6830	76	2669
R0864339	828856	21174	8809	31	3353
R0864339 rpt		21279	8632	33	3442
R0864340	828857	18365	7790	22	3036
R0864341	828858	21985	10250	15	3355
R0864342	828859	18943	8294	3	2941
R0864343	828860	19900	9212	4	3042
R0864344	828861	28246	13254	<3	4258
R0864345	828862	26725	12179	<3	4080
R0864346	828863	29627	14012	<3	4448
R0864347	828864	8	21	<3	12
R0864348	828865	15167	6955	<3	2701
R0864349	828866	13611	6040	3	2483
R0864350	828867	13409	6167	1161	2309
R0864351	828868	8975	4086	391	1824
R0864352	828869	8520	3960	80	1589
R0864353	828870	10804	5007	184	1913
R0864354	828871 (XRF std)				
R0864355	828872	12455	5693	6	2136
R0864356	828873	15988	7407	6	2579
R0864357	828874	8947	4165	42	1679
R0864358	828875	14560	7115	127	2346
R0864359	828876	10515	4905	57	1724
R0864360	828877	12585	5848	32	2030
R0864360 rpt		12461	5806	35	2025

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GDL Job No: V08-0980R

LAB NO	FIELD NUMBER	Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
R0864361	828878	12938	5973	28	2075
R0864362	828879	19229	8884	43	2996
R0864363	828880	12942	6008	50	2271
R0864364	828881	24638	11265	176	3891
R0864365	828882	18540	8346	722	2957
R0864366	828882 GDL DUP	18577	8694	693	2896
R0864367	828883	6943	3236	1303	1339
R0864368	828884	7634	3612	1373	1441
R0864369	828885	12	21	4	5
R0864370	828886	8934	4575	975	1641
R0864371	828887	2062	1125	279	459
R0864372	828888	8525	4098	556	1727
R0864373	828889	4100	2189	828	980
R0864374	828890 (XRF std)	I	I	I	I
R0864375	828891	835	490	881	228
R0864376	828892	608	317	890	160
R0864377	828893	936	524	811	260
R0864378	828894	974	621	722	285
R0864379	828895	701	350	841	207
R0864380	828896	613	265	1476	176
R0864381	828897	613	275	1380	178
R0864382	828898	702	437	1245	190
R0864383	828899	1056	750	1050	266
R0864384	828900	1360	785	1063	339
STD: OKA-1				3726	
STD: SY-3		2226	1320		
STD: SY-3					666

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet

La(P) X-Ray fluorescence / pressed pellet

Nb(P) X-Ray fluorescence / pressed pellet

Nd(P) X-Ray fluorescence / pressed pellet


Fred Lo, Chemist-Teck Cominco G.D.L.

Teck Ltd.

SPECTRUM MINING CORP-X08

Ref/I.D.: WICHEEDA#4: #828845-828900
 Report date: 28 NOV 2008
 GDL Job No: V08-0980R



LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Tl %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0864327	GDL PREP BLANK	2	<4	52	<0.4	<2	257	<1	3	17	1.99	<2	82	<5	<5	40	<2	<2	57	4	8	542	0.59	0.12	0.93	0.49	0.08	0.54	773	<0.05	<5	
R0864328	828845	75	82	268	6.6	7	87	2	7	34	3.05	5	44	<5	<5	61	28	<2	45	6	3	449	0.74	0.13	1.37	0.87	0.12	0.13	546	0.12	<5	
R0864329	828846	2	228	166	1.5	35	958	<1	<1	3	6.67	88	16	18	<5	12	<2	3	863	27	1792	11350	6.10	<0.01	0.08	15.55	0.03	<0.01	222	0.14	<5	
R0864329 rpt		2	223	147	1.4	38	884	<1	<1	2	6.47	80	16	15	<5	12	<2	2	766	25	1734	11030	5.60	<0.01	0.07	15.00	0.03	<0.01	236	0.13	<5	
R0864330	828847	1	26	112	<0.4	17	495	<1	<1	3	7.34	76	16	<5	<5	9	<2	2	977	17	858	13600	6.17	<0.01	0.04	16.04	0.03	<0.01	143	0.12	<5	
R0864331	828848	3	28	66	<0.4	169	1330	<1	<1	<1	6.21	20	14	<5	<5	16	2	11	802	41	8242	10910	6.74	<0.01	0.08	15.06	0.05	0.01	41	0.08	<5	
R0864332	828849	4	42	167	<0.4	155	994	<1	<1	<1	6.56	43	15	<5	<5	16	2	10	735	38	7697	11040	6.82	<0.01	0.08	16.12	0.04	<0.01	36	0.22	<5	
R0864333	828850 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
R0864334	828851	4	58	107	<0.4	109	311	<1	6	<1	6.94	135	10	<5	<5	11	<2	7	553	37	4856	9475	6.58	<0.01	0.08	16.27	0.04	0.01	40	0.63	<5	
R0864335	828852	3	50	89	0.8	63	493	<1	2	2	6.12	170	14	<5	<5	11	<2	5	681	81	2882	9158	5.57	<0.01	0.12	14.05	0.04	0.05	40	0.44	<5	
R0864336	828853	3	39	55	<0.4	60	291	<1	3	5	6.71	625	18	<5	<5	8	2	3	803	21	2657	10160	5.19	<0.01	0.22	13.18	0.03	0.13	398	0.96	<5	
R0864337	828854	4	74	92	<0.4	188	985	<1	1	<1	6.92	55	13	<5	<5	12	3	11	1006	58	9143	12030	6.55	<0.01	0.04	15.39	0.05	<0.01	32	0.26	<5	
R0864338	828855	3	41	76	0.6	134	1047	<1	<1	<1	5.59	312	17	<5	<5	11	3	9	618	68	6433	8874	6.67	<0.01	0.20	14.90	0.04	0.10	34	0.19	<5	
R0864339	828856	5	69	76	0.9	157	74	<1	15	<1	7.95	203	22	<5	<5	10	3	10	705	58	7222	10620	5.96	<0.01	0.12	14.43	0.04	0.05	19	1.98	<5	
R0864340	828857	4	45	78	0.8	150	89	<1	13	<1	7.94	221	22	<5	<5	12	2	10	739	51	6772	11010	5.85	<0.01	0.13	13.89	0.04	0.05	14	1.82	<5	
R0864341	828858	4	119	288	0.6	182	107	<1	4	<1	7.23	86	20	<5	<5	17	3	9	1145	56	8679	10730	6.84	<0.01	0.06	15.55	0.07	<0.01	25	0.80	<5	
R0864342	828859	3	80	187	<0.4	132	81	<1	9	1	7.61	106	18	<5	<5	14	2	7	905	43	5969	10670	6.35	<0.01	0.06	14.88	0.05	<0.01	24	1.35	<5	
R0864343	828860	4	88	79	<0.4	147	93	<1	9	<1	7.18	90	21	<5	<5	13	<2	10	737	46	6905	9762	6.03	<0.01	0.07	13.61	0.06	<0.01	21	1.37	<5	
R0864343 rpt		4	104	78	<0.4	166	98	<1	10	<1	8.00	100	19	<5	<5	16	2	10	783	50	7325	10850	6.47	<0.01	0.07	15.94	0.06	<0.01	19	1.51	<5	
R0864344	828861	5	83	76	<0.4	281	118	<1	5	<1	6.78	48	18	<5	<5	17	3	17	783	75	13050	9743	7.04	0.01	0.06	15.68	0.07	0.01	13	0.90	<5	
R0864345	828862	4	83	58	0.7	188	579	<1	1	<1	6.18	68	17	<5	<5	14	3	11	790	56	9022	9735	6.51	<0.01	0.05	15.31	0.05	0.01	52	0.48	<5	
R0864346	828863	5	71	59	0.8	271	598	<1	<1	<1	5.86	48	19	<5	<5	17	3	13	743	55	12750	9479	6.66	0.01	0.06	15.81	0.05	<0.01	<10	0.26	<5	
R0864347	828864	69	84	278	7.5	7	85	2	7	30	3.10	5	42	<5	<5	63	25	<2	40	6	22	482	0.69	0.12	1.31	0.93	0.12	0.13	505	0.10	<5	
R0864348	828865	3	82	52	0.8	177	1234	<1	<1	<1	6.67	25	17	<5	<5	16	2	10	913	38	8519	11300	6.84	<0.01	0.04	15.22	0.05	<0.01	<10	0.26	<5	
R0864349	828866	4	39	47	<0.4	155	302	<1	2	<1	6.87	32	14	<5	<5	15	2	9	734	34	7403	10970	6.45	<0.01	0.05	14.89	0.04	0.01	<10	0.82	<5	
R0864350	828867	3	28	31	<0.4	131	48	<1	<1	<1	5.90	599	16	<5	<5	15	2	7	687	26	6376	9327	6.25	<0.01	0.52	13.39	0.03	0.15	431	0.29	<5	
R0864351	828868	3	32	33	0.5	101	344	<1	<1	<1	6.26	350	14	<5	<5	15	<2	7	582	31	4845	10110	6.55	<0.01	0.35	16.21	0.03	0.06	232	0.19	<5	
R0864352	828869	2	23	28	<0.4	69	375	<1	<1	<1	6.07	188	18	<5	<5	11	<2	5	695	23	3338	10740	6.94	<0.01	0.10	15.31	0.04	0.03	527	0.19	<5	
R0864353	828870	3	42	33	<0.4	131	398	<1	1	<1	6.70	795	13	<5	<5	13	10	<2	7	729	33	5933	11560	6.56	<0.01	0.20	15.02	0.03	0.07	31	0.53	<5
R0864354	828871 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
R0864355	828872	2	37	72	<0.4	115	402	<1	<1	<1	6.58	63	14	<5	<5	13	2	5	832	22	5288	12070	6.36	<0.01	0.05	15.65	0.04	0.01	94	0.31	<5	
R0864356	828873	3	30	36	0.5	172	2138	<1	<1	<1	6.72	92	13	<5	<5	11	3	10	1097	25	8024	12440	6.46	<0.01	0.10	15.43	0.05	0.01	17	<0.05	<5	
R0864357	828874	2	31	41	<0.4	98	2259	<1	<1	<1	6.61	164	14	<5	<5	12	<2	5	1049	17	4375	12750	6.30	<0.01	0.10	15.43	0.05	0.02	<10	0.09	<5	
R0864358	828875	4	50	33	<0.4	170	2215	<1	<1	<1	6.07	1088	13	<5	<5	7	3	9	946	24	7869	10640	6.60	<0.01	0.24	14.19	0.05	0.10	<10	0.14	<5	
R0864359	828876	2	27	34	<0.4	121	1914	<1	<1	<1	6.54	335	12	<5	<5	9	2	6	948	18	5665	12340	6.55	<0.01	0.16	15.14	0.04	0.04	<10	0.07	<5	
R0864360	828877	3	29	31	<0.4	155	1278	<1	<1	<1	6.53	336	11	<5	<5	10	2	7	920	20	7362	11690	6.49	<0.01	0.19	14.59	0.04	0.07	<10	0.12	<5	
R0864361	828878	2	29	32	0.7	158	1475	<1	<1	<1	6.38	243	14	<5	<5	11	2	7	921	21	7440	11920	6.39	<0.01	0.15	15.53	0.05	0.04	<10	0.09	<5	

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GDL Job No: V08-0980R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm	S %	Se ppm	
R0864362	828879	4	41	31	0.6	225	913	<1	<1	<1	6.46	490	11	<5	<5	12	3	13	785	32	10170	11400	6.61	<.01	0.21	15.92	0.05	0.08	<10	0.21	<5	
R0864362 rpt		4	45	27	<0.4	230	937	<1	<1	<1	6.51	477	10	<5	<5	11	4	14	781	32	10320	11500	6.58	<.01	0.22	15.85	0.07	0.09	<10	0.21	<5	
R0864363	828880	3	35	27	<0.4	154	1289	<1	<1	<1	6.46	284	14	<5	<5	11	3	8	632	31	7162	11090	6.71	<.01	0.15	15.68	0.03	0.03	<10	0.14	<5	
R0864364	828881	5	52	33	<0.4	245	146	<1	<1	<1	6.52	525	13	<5	<5	16	2	13	732	34	10950	11780	6.27	<.01	0.21	15.69	0.04	0.05	<10	0.50	<5	
R0864365	828882	5	42	74	<0.4	203	177	<1	3	<1	7.86	746	16	<5	<5	23	3	11	901	30	9266	11130	5.94	<.01	0.74	14.23	0.04	0.21	133	1.32	<5	
R0864366	828882 GDL DUP	5	37	68	<0.4	181	160	<1	3	<1	6.86	650	14	<5	<5	20	3	11	806	26	8232	10110	5.26	<.01	0.69	13.35	0.04	0.20	116	1.10	<5	
R0864367	828883	4	18	43	<0.4	61	132	<1	6	13	6.72	242	20	<5	<5	11	<2	4	894	19	2490	8780	4.20	<.01	0.44	10.86	0.04	0.12	205	1.77	<5	
R0864368	828884	6	24	36	<0.4	100	197	<1	17	33	7.13	195	20	<5	<5	9	<2	4	789	24	3628	7256	3.65	<.01	0.25	10.40	0.05	0.12	35	3.62	<5	
R0864369	828885	68	89	293	6.8	7	87	2	7	33	3.25	6	43	<5	<5	61	26	<2	40	6	10	498	0.70	0.13	1.34	0.97	0.12	0.13	522	0.11	<5	
R0864370	828886	4	28	43	<0.4	126	267	<1	10	1	5.44	257	26	<5	<5	10	<2	8	470	25	4999	5100	3.93	<.01	0.37	10.35	0.04	0.19	37	2.09	<5	
R0864371	828887	1	12	17	<0.4	24	112	<1	4	6	4.44	61	16	<5	<5	10	<2	<2	491	20	792	4921	6.41	<.01	0.12	16.30	0.03	0.04	16	0.72	<5	
R0864372	828888	3	24	22	<0.4	112	257	<1	<1	<1	4.84	202	12	<5	<5	9	<2	6	648	19	5089	7871	5.61	<.01	0.19	13.93	0.03	0.09	10	0.06	<5	
R0864373	828889	2	15	16	<0.4	30	454	<1	<1	3	3.00	90	14	<5	<5	10	3	<2	642	46	1233	3657	3.28	<.01	0.39	10.46	0.04	0.12	2037	0.17	<5	
R0864374	828890 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R0864375	828891	5	<4	9	<0.4	15	117	2	7	2.34	20	16	<5	<5	8	<2	<2	156	35	194	1759	2.05	<.01	0.22	5.81	0.06	0.17	1677	0.55	<5		
R0864376	828892	3	6	12	<0.4	17	86	<1	4	9	2.83	15	18	<5	<5	5	<2	<2	155	31	31	1796	2.32	<.01	0.38	5.75	0.05	0.28	922	1.07	<5	
R0864376 rpt		3	8	10	<0.4	18	95	<1	4	9	2.98	16	19	<5	<5	4	<2	<2	163	33	35	1893	2.43	<.01	0.43	5.99	0.03	0.30	1001	1.12	<5	
R0864377	828893	4	6	6	<0.4	10	96	<1	3	8	2.29	27	20	<5	<5	5	<2	<2	123	22	79	1621	2.02	<.01	0.17	5.23	0.03	0.15	608	0.60	<5	
R0864378	828894	1	81	38	0.5	11	73	<1	4	6	2.33	4	10	<5	<5	5	<2	<2	383	65	85	1942	3.03	<.01	0.13	8.92	0.03	0.10	4178	0.43	<5	
R0864379	828895	3	11	11	<0.4	7	59	<1	2	5	2.60	4	15	<5	<5	5	<2	<2	266	72	46	2684	3.71	<.01	0.15	10.51	0.03	0.08	2994	0.40	<5	
R0864380	828896	8	8	71	<0.4	12	119	<1	14	24	6.82	5	26	<5	<5	90	<2	<2	583	25	36	2341	1.98	0.06	0.69	7.43	0.05	0.49	1951	3.06	<5	
R0864381	828897	8	11	66	<0.4	9	117	<1	12	21	6.08	8	16	<5	<5	76	3	<2	716	29	58	2547	2.05	0.05	0.61	8.67	0.06	0.45	2235	2.31	<5	
R0864382	828898	3	5	9	<0.4	12	254	<1	3	9	2.41	2	13	<5	<5	5	<2	<2	346	43	56	1592	2.05	<.01	0.17	6.27	0.04	0.13	1989	0.59	<5	
R0864383	828899	1	<4	20	0.9	6	214	<1	1	7	2.56	7	14	<5	<5	8	<2	<2	453	43	102	1841	2.89	<.01	0.33	8.02	0.04	0.22	2090	0.30	<5	
R0864384	828900	2	7	21	<0.4	16	130	<1	4	6	4.08	6	13	<5	<5	17	<2	<2	835	93	246	3256	4.71	0.01	0.38	13.35	0.04	0.23	15560	1.11	<5	
STD: DA		120	217	650	6.3	50	530	3	10	46	3.57	3	39	<5	<5	60	2	<2	35	8	16	665	0.54	0.07	1.45	0.50	0.08	0.15	914	0.19	<5	
STD: DA		115	216	655	5.5	49	483	3	10	46	3.52	3	39	<5	<5	59	2	2	30	8	21	661	0.50	0.07	1.38	0.48	0.08	0.14	860	0.18	<5	

I=insufficient sample
If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).



Alice Kwan, Chemist-Teck Cominco G.D.L.

Teck Ltd.

Global Discovery Labs 1486 East Pender Street Vancouver, B.C., Canada V5L 1V8 Phone: (604) 699-4380 Fax: (604) 699-4735

APPENDIX G

GEOCHEMICAL DATA WITH CORE SAMPLE INTERVALS

HOLE

WI-08-01

SPECTRUM MINING-X08

Ref/I.D.: WICHEEDA: #/828601-828635

Report date: 04 DEC 2008

Hole WI-08-01

GDL Job No: V08-0939R

teckcominco

Global Discovery Labs

LAB NO	FIELD NUMBER	Sample Interval			Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
		From (m)	To (m)	Width (m)				
R0860724	GDL PREP BLANK	lab blank			32	5	14	18
R0860725	828601	2.13	5.00	2.87	25877	11731	231	3746
R0860726	828602	5.00	8.00	3.00	15884	7112	180	2460
R0860727	828603	8.00	11.00	3.00	26988	12202	167	3576
R0860728	828604	11.00	14.00	3.00	43215	19098	55	5346
R0860729	828605 (OKA-1)	lab standard			1951	N/A	3692	N/A
R0860730	828606	14.00	17.00	3.00	19730	8879	52	2734
R0860731	828607	17.00	20.00	3.00	10862	5166	117	1905
R0860732	828608	20.00	23.00	3.00	21287	9501	45	3268
R0860733	828609	23.00	25.50	2.50	18857	8535	13	3066
R0860734	828610	25.50	27.25	1.75	12905	5175	49	2208
R0860735	828611	27.25	30.50	3.25	8676	4017	817	1630
R0860736	828612	30.50	33.50	3.00	14149	5597	112	2199
R0860737	828613	duplicate			13185	5253	84	2029
R0860738	828614	33.50	35.50	2.00	21512	8649	17	3248
R0860739	828615	35.50	38.82	3.32	9119	3654	16	1461
R0860739 rpt		lab repeat			9057	3676	21	N/A
R0860740	828616	38.82	41.50	2.68	5326	2477	332	986
R0860741	828617	41.50	44.50	3.00	6368	2984	204	1198
R0860742	828618	44.50	48.28	3.78	5040	2323	188	899
R0860743	828619	blank			32	3	9	12
R0860744	828620	48.28	50.97	2.69	3381	1819	365	726
R0860745	828621	50.97	53.50	2.53	2601	1312	226	636
R0860746	828622	53.50	56.50	3.00	4750	2290	245	899
R0860747	828623	56.50	59.50	3.00	4292	2272	373	897
R0860748	828624	59.50	62.50	3.00	8186	3867	289	1421
R0860749	828625	62.50	66.21	3.71	16926	7254	157	2501
R0860750	828626 (SY-3)	lab standard			2248	1350	151	N/A
R0860751	828627	66.21	68.23	2.02	3750	1979	611	763
R0860752	828628	68.23	72.12	3.89	943	438	663	222
R0860753	828629	72.12	73.15	1.03	1568	663	636	396
R0860754	828630	73.15	76.20	3.05	1420	649	653	364
R0860755	828631	76.20	80.25	4.05	1837	835	587	422
R0860756	828632	80.25	83.25	3.00	1161	521	376	322
R0860757	828633	83.25	86.25	3.00	461	199	105	113
R0860758	828634	duplicate			406	202	105	114
R0860759	828635	86.25	89.25	3.00	1083	783	107	204
STD: OKA-1		lab standard			1947		3702	
STD: MRG-1		lab standard			27		21	
STD: SY-2		lab standard			154		29	74
STD: SY-3		lab standard			2287	1340	155	681
STD: SY-4		lab standard			126		14	

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet

La(P) X-Ray fluorescence / pressed pellet

Nb(P) X-Ray fluorescence / pressed pellet

Nd(P) X-Ray fluorescence / pressed pellet

Teck Ltd.

SPECTRUM MINING-X08

Ref/I.D.: WICHEEDA: #828601-828635
 Report date: 13 NOV 2008
 GDL Job No: V08-0939R



Hole WI-08-01

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval					
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)		
R0860724	GDL PREP BLANK	<1	<4	415	<0.4	<2	261	<1	3	11	2.26	<2	120	<5	<5	48	<2	<2	58	6	10	667	0.60	0.14	1.01	0.69	0.09	0.54	767	<.05	<5	lab blank					
R0860725	828601	3	59	59	<0.4	150	103	<1	4	<1	5.76	68	18	<5	<5	16	2	10	338	66	6781	7650	6.14	<.01	0.23	15.47	0.06	0.09	110	0.66	<5	2.13	5.00	2.87			
R0860726	828602	2	49	35	<0.4	126	274	<1	2	<1	5.40	137	12	<5	<5	13	3	7	278	49	5648	6707	6.99	<.01	0.17	15.68	0.03	0.05	673	0.56	<5	5.00	8.00	3.00			
R0860726 rpt		3	37	28	<0.4	104	269	3	3	<1	4.97	142	12	<5	<5	13	<2	8	321	46	5637	5836	7.19	<.01	0.14	14.65	0.03	0.05	665	0.61	<5	lab repeat					
R0860727	828603	4	92	79	<0.4	215	238	<1	6	<1	5.95	107	18	<5	<5	15	3	11	460	62	9629	8050	6.79	<.01	0.23	15.57	0.05	0.08	175	0.81	<5	8.00	11.00	3.00			
R0860728	828604	5	89	98	<0.4	257	171	<1	8	<1	6.27	77	15	<5	<5	17	4	12	577	81	11540	8430	6.32	<.01	0.08	15.72	0.08	<.01	112	1.09	<5	11.00	14.00	3.00			
R0860729	828605 (OKA-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0860730	828606	1	54	75	<0.4	76	86	<1	3	1	6.13	110	21	<5	<5	12	<2	4	609	43	3402	9719	6.83	<.01	0.05	16.38	0.04	0.01	535	0.69	<5	14.00	17.00	3.00			
R0860731	828607	2	22	19	<0.4	45	153	<1	4	6	4.32	69	17	<5	<5	10	2	4	222	53	2323	4127	7.67	<.01	0.36	14.40	0.03	0.16	537	0.65	<5	17.00	20.00	3.00			
R0860732	828608	4	32	16	<0.4	130	244	<1	9	<1	5.08	61	22	<5	<5	13	<2	9	369	44	7059	5300	6.88	<.01	0.20	13.77	0.04	0.07	130	1.37	<5	20.00	23.00	3.00			
R0860733	828609	4	59	38	<0.4	71	291	<1	4	1	5.40	357	19	<5	<5	12	2	6	608	37	3905	7351	6.48	<.01	0.15	13.68	0.07	0.05	130	0.79	<5	23.00	25.50	2.50			
R0860734	828610	2	61	49	<0.4	93	185	<1	2	<1	6.53	31	15	<5	<5	11	2	7	817	48	5385	10280	7.09	<.01	0.10	14.72	0.04	0.05	731	0.55	<5	25.50	27.25	1.75			
R0860735	828611	3	36	137	0.5	71	187	<1	1	<1	4.93	773	25	<5	<5	8	2	6	402	55	3912	6221	5.96	<.01	0.44	12.22	0.03	0.21	263	0.64	<5	27.25	30.50	3.25			
R0860736	828612	4	49	86	<0.4	107	813	<1	<1	<1	6.54	192	11	<5	<5	11	3	7	1124	42	6077	12260	6.72	<.01	0.09	14.30	0.06	0.03	31	0.27	<5	30.50	33.50	3.00			
R0860737	828613	2	40	80	<0.4	105	369	<1	2	<1	7.34	145	18	<5	<5	9	3	9	1173	41	5831	12730	6.82	<.01	0.07	14.23	0.04	0.02	22	0.58	<5	duplicate					
R0860738	828614	2	38	49	<0.4	139	499	<1	1	<1	6.46	67	16	<5	<5	12	<2	10	1242	46	7588	10220	6.81	<.01	0.07	14.27	0.06	0.01	745	0.38	<5	33.50	35.50	2.00			
R0860739	828615	2	80	61	<0.4	64	126	<1	1	<1	7.48	197	18	<5	<5	10	2	6	1116	23	3552	13560	7.28	<.01	0.05	15.02	0.06	0.01	74	0.57	<5	35.50	38.82	3.32			
R0860740	828616	3	18	28	<0.4	28	66	<1	6	25	6.19	346	33	<5	<5	9	2	4	835	31	1099	7709	6.25	<.01	0.23	13.27	0.05	0.10	981	1.40	<5	38.82	41.50	2.68			
R0860740 rpt		1	19	21	<0.4	30	50	4	6	24	6.12	341	28	<5	<5	11	<2	2	767	32	1060	7912	6.17	<.01	0.22	13.10	0.03	0.11	944	1.34	<5	lab repeat					
R0860741	828617	2	26	30	<0.4	15	259	<1	2	8	5.99	176	32	10	<5	14	<2	2	672	29	456	8839	5.80	<.01	0.24	12.88	0.04	0.15	426	0.77	<5	41.50	44.50	3.00			
R0860742	828618	1	15	32	<0.4	20	952	<1	1	6	6.53	296	25	<5	<5	12	3	2	789	33	1016	9942	6.91	<.01	0.28	15.01	0.03	0.14	97	0.30	<5	44.50	48.28	3.78			
R0860743	828619	78	88	295	7.6	7	91	2	8	38	3.34	7	46	<5	<5	66	30	2	51	7	6	488	0.77	0.14	1.52	1.01	0.15	0.13	581	0.13	<5	blank					
R0860744	828620	1	9	26	<0.4	13	161	<1	<1	6	4.45	85	27	<5	<5	9	<2	2	753	32	642	7319	4.36	<.01	0.39	10.78	0.03	0.19	3344	0.04	<5	48.28	50.97	2.69			
R0860745	828621	1	12	17	<0.4	14	631	<1	<1	6	4.59	65	28	<5	<5	8	2	<2	614	33	698	6948	5.38	<.01	0.27	12.43	0.03	0.13	4769	0.14	<5	50.97	53.50	2.53			
R0860745 rpt		1	14	11	<0.4	15	590	2	<1	3	4.35	58	20	<5	<5	9	2	<2	523	32	659	7283	5.00	<.01	0.24	13.26	0.03	0.11	4419	0.13	<5	lab repeat					
R0860746	828622	3	15	35	<0.4	27	747	<1	<1	3	5.91	163	29	<5	<5	11	2	2	1038	31	1478	8956	5.44	<.01	0.19	13.07	0.04	0.06	1788	0.10	<5	53.50	56.50	3.00			
R0860747	828623	10	72	23	<0.4	14	744	<1	<1	8	3.65	204	22	69	<5	8	<2	<2	784	45	625	4908	3.89	<.01	0.33	9.87	0.04	0.19	5517	0.15	<5	56.50	59.50	3.00			
R0860748	828624	2	17	41	<0.4	32	274	<1	2	7	5.34	175	23	<5	<5	16	<2	3	1111	55	1542	7452	4.98	<.01	0.28	11.56	0.04	0.15	3151	0.41	<5	59.50	62.50	3.00			
R0860749	828625	3	24	39	<0.4	114	102	<1	4	<1	7.55	168	22	<5	<5	14	2	9	1413	58	5663	11470	6.62	<.01	0.15	14.67	0.04	0.07	547	0.90	<5	62.50	66.21	3.71			
R0860750	828626 (SY-3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0860751	828627	4	32	239	<0.4	15	474	<1	1	11	4.03	239	16	<5	<5	21	2	<2	1062	65	549	3681	2.82	0.02	0.95	9.06	0.03	0.36	6861	0.20	<5	66.21	68.23	2.02			
R0860752	828628	8	108	133	<0.4	16	263	<1	5	11	4.71	12	30	<5	<5	56	<2	2	1503	53	152	3990	0.88	0.08	0.85	8.81	0.04	0.46	3328	0.55	<5	68.23	72.12	3.89			
R0860753	828629	2	17	42	<0.4	55	133	<1	7	11	7.05	111	29	<5	<5	15	<2	<2	1255	43	188	6960	1.32	0.02	0.21	10.57	0.05	0.12	716	2.39	<5	72.12	73.15	1.03			
R0860754	828630	2	25	46	<0.4	35	96	<1	10	14	5.77	143	19	6	<5	7	2	2	1027	49	35	4263	1.82	<.01	0.41	7.80	0.04	0.02	332	1.81	<5	73.15	76.20	3.05			
R0860755	828631	3	58	66	<0.4	25	184	<1	8	14	5.55	30	29	<5	<5	16	2	<2	1232	45	71	5046	1.71	0.01	0.34	9.26	0.04	0.14	1252	1.46	<5	76.20	80.25	4.05			
R0860756	828632	7	50	283	<0.4	26	99	<1	5	16	3.87	31	35	<5	<5	14	<2	<2	1915	66	246	5029	1.13	<.01	0.20	15.31	0.05	0.10	2169	0.92	<5	80.25	83.25	3.00			
R0860757	828633	9	36	270	<0.4	18	727	<1	5	23	2.14	15	23	<5	<5	11	<2	<2	3400	34	222	3121	0.87	0.02	0.49	14.80	0.06	0.29	1388	0.34	<5	83.25	86.25	3.00			
R0860758	828634	11	44	280	<0.4	17	568	<1	6	24	2.08	16	25	<5	<5	13	<2	2	4255	34	217	3196	0.88	0.02	0.49	14.64	0.06	0.29	1402	0.38	<5	duplicate					
R0860759	828635	8	40	185	<0.4	25	923	<1	7	33	3.09	28	60	<5	<5	31	<2	3	3185	31	402	2442	1.37	0.11	1.11	13.73	0.07	0.90	1212	0.27	<5	86.25	89.25	3.00			
STD: DA		114	239	667	6.3	51	383	5	11	47	3.60	2	42	<5	<5	65	<2	<2	30	8	18	734	0.54	0.08	1.49	0.53	0.08	0.15	927	0.17	<5	lab standard					

HOLE

WI-08-02

SPECTRUM MINING CORP-X08



Global Discovery Labs

Ref/I.D.: WICHEEDA#2: #828636-828722

Report date: 11 DEC 2008

Hole WI-08-02

GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Sample Interval			Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
		From (m)	To (m)	Width (m)				
R0863895	GDL PREP BLANK	lab blank			46	29	22	18
R0863896	828636	blank			3	15	9	13
R0863897	828637	1.42	4.42	3.00	23810	10294	93	3387
R0863898	828638	4.42	7.52	3.00	25344	10642	70	3622
R0863899	828639	7.52	10.52	3.00	26088	11170	44	4042
R0863900	828640	10.52	13.52	3.00	46605	20595	81	6001
R0863901	828641 (XRF std)	lab standard			N/A	N/A	N/A	N/A
R0863902	828642	13.52	16.52	3.00	17305	7852	38	2632
R0863903	828643	16.52	19.52	3.00	15567	6825	24	2397
R0863904	828644	19.52	22.52	3.00	10078	4181	17	1742
R0863905	828645	22.52	25.52	3.00	11731	5133	35	2031
R0863906	828646	25.52	28.52	3.00	11489	4884	34	2035
R0863907	828647	duplicate			10004	4463	24	1770
R0863908	828648	28.52	32.06	3.54	18177	7893	28	3104
R0863908 rpt		lab repeat			17912	7761	25	3062
R0863909	828649	32.06	35.06	3.00	5946	2771	64	1230
R0863910	828650	35.06	38.06	3.00	8740	3713	228	1721
R0863911	828651	38.06	41.06	3.00	19836	8073	30	3331
R0863912	828652	41.06	44.06	3.00	13649	5957	31	2306
R0863913	828653	44.06	47.06	3.00	10620	4612	63	1792
R0863914	828654	47.06	50.06	3.00	17322	7825	55	2892
R0863915	828655	blank			<3	20	8	31
R0863916	828656	50.06	53.06	3.00	9060	4021	194	1816
R0863917	828657	53.06	56.28	3.22	8613	3793	59	1573
R0863918	828658	56.28	58.16	1.88	4642	2102	502	977
R0863919	828659	58.16	58.64	0.48	1485	1158	142	327
R0863920	828660	58.64	62.60	3.96	7545	3398	144	1458
R0863921	828661	62.60	65.75	3.15	7249	3209	175	1391
R0863922	828662 (XRF std)	lab standard			N/A	N/A	N/A	N/A
R0863923	828663	65.75	68.75	3.00	13240	6359	220	2183
R0863924	828664	68.75	71.75	3.00	10273	4725	204	1896
R0863925	828665	71.75	73.75	2.00	11851	5454	76	1843
R0863926	828666	73.75	77.27	3.52	14301	6725	346	2099
R0863926 rpt		lab repeat			14331	6755	353	2127
R0863927	828667	77.27	80.27	3.00	5365	3017	794	1300
R0863928	828668	80.27	83.27	3.00	6554	3208	506	1476
R0863929	828669	83.27	86.27	3.00	4568	2368	901	1107
R0863930	828670	duplicate			5807	2895	908	1368
R0863931	828671	86.27	89.27	3.00	2708	1249	669	677
R0863932	828672	89.27	92.27	3.00	2371	1398	1164	619
R0863933	828673	92.27	95.27	3.00	962	453	863	256
R0863934	828673 GDL DUP	lab duplicate			1070	457	853	262
R0863935	828674	95.27	98.27	3.00	1939	934	669	446
R0863936	828675	98.27	102.67	3.00	826	361	822	228
R0863937	828676	blank			37	5	7	28
R0863938	828677	102.67	105.67	3.00	1601	869	343	435
R0863939	828678	105.67	108.67	3.00	8086	3731	457	2107
R0863940	828679	108.67	111.67	3.00	563	297	450	142
R0863941	828680	111.67	113.40	1.73	3670	1596	361	1022
R0863942	828681 (XRF std)	lab standard			N/A	N/A	N/A	N/A
R0863943	828682	113.40	116.00	2.60	4231	1787	187	1137
R0863944	828683	116.00	119.00	3.00	1718	701	820	455
R0863944 rpt		lab repeat			1721	710	830	464

Teck Ltd.

GDL Job No: V08-0972R

LAB NO	FIELD NUMBER	Sample Interval			Ce(P) ppm	La(P) ppm	Nb(P) ppm	Nd(P) ppm
		From (m)	To (m)	Width (m)				
R0863945	828684	119.00	122.00	3.00	1969	774	626	541
R0863946	828685	122.00	124.50	2.50	1193	428	610	332
R0863947	828686	124.50	126.92	2.42	1853	635	532	518
R0863948	828687	126.92	129.22	3.00	2106	785	497	559
R0863949	828688	duplicate			2097	800	440	538
R0863950	828689	129.22	132.22	3.00	1865	730	960	457
R0863951	828690	132.22	134.93	2.71	1648	632	918	442
R0863952	828691	134.93	137.93	3.00	1367	513	874	408
R0863953	828692	137.93	140.93	3.00	2298	904	594	590
R0863954	828693	140.93	143.93	3.00	1475	496	670	402
R0863955	828694	143.93	146.93	3.00	1378	471	871	415
R0863956	828695	blank			18	7	9	7
R0863957	828696	146.93	149.93	3.00	2026	703	818	567
R0863958	828697	149.93	152.93	3.00	2484	991	1515	685
R0863959	828698	152.93	156.58	3.00	2166	894	578	604
R0863960	828699	156.58	157.67	1.09	1853	822	76	453
R0863961	828700	157.67	160.67	3.00	2958	1106	587	920
R0863962	828701	160.67	164.68	4.01	3274	1223	543	1010
R0863963	828702 (XRF std)	lab standard			N/A	N/A	N/A	N/A
R0863964	828703	164.68	168.70	4.02	4902	1374	21	1287
R0863965	828704	168.70	171.70	3.00	9456	2291	854	2297
R0863966	828705	171.70	174.70	3.00	7970	1992	432	2097
R0863967	828706	174.70	177.70	3.00	1868	542	50	473
R0863968	828707	177.70	180.70	3.00	7305	1762	261	1757
R0863969	828708	180.70	184.75	4.05	5577	1487	50	1448
R0863970	828709	duplicate			7066	1776	65	1755
R0863971	828710	184.75	187.75	3.00	611	264	312	110
R0863971 rpt		lab repeat			592	272	324	113
R0863972	828711	187.75	190.75	3.00	458	195	232	96
R0863973	828712	190.75	193.75	3.00	472	204	156	105
R0863974	GDL PREP BLANK	lab blank			42	12	23	18
R0863975	828713	193.75	196.75	3.00	388	188	91	83
R0863976	828714	196.75	199.75	3.00	394	209	42	92
R0863977	828715	199.75	202.75	3.00	1170	398	232	358
R0863978	828716	blank			<3	10	9	14
R0863979	828717	202.75	204.80	2.05	463	213	55	102
R0863980	828718	204.80	206.85	2.05	466	200	79	73
R0863981	828719	206.85	209.85	3.00	828	312	451	229
R0863982	828720	209.85	212.85	3.00	2165	742	477	614
R0863983	828721 (XRF std)	lab standard			N/A	N/A	N/A	N/A
R0863984	828722	212.85	215.80	2.95	128	619	617	573
STD: OKA-1						3581		
STD: MRG-1					27	23		
STD: SY-2					165	30		72
STD: SY-3					2287	152	1340	650
STD: SY-4					126	14		57

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

- Ce(P) X-Ray fluorescence / pressed pellet
- La(P) X-Ray fluorescence / pressed pellet
- Nb(P) X-Ray fluorescence / pressed pellet
- Nd(P) X-Ray fluorescence / pressed pellet

SPECTRUM MINING CORP-X08

Ref/I.D.: WICHEEDA#2: #828636-828722
 Report date: 25 NOV 2008
 GDL Job No: V08-0972R



Hole WI-08-02

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval			
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)
R0863895	GDL PREP BLANK	2	<4	49	<0.4	<2	250	<1	4	9	1.86	<2	68	<5	<5	37	<2	4	39	2	4	509	0.58	0.10	0.85	0.40	0.06	0.51	763	<0.05	<5	lab blank			
R0863896	828636	77	81	268	6.5	6	84	2	7	26	2.89	5	40	<5	<5	54	28	3	37	5	2	415	0.69	0.08	1.27	0.67	0.10	0.12	547	0.12	<5	blank			
R0863897	828637	3	73	130	<0.4	146	329	<1	5	<1	6.52	66	7	<5	<5	12	2	13	911	47	8187	9663	6.60	<0.01	0.06	13.75	0.04	<0.01	40	0.76	<5	1.42	4.42	3.00	
R0863898	828638	3	50	53	<0.4	163	239	<1	4	<1	6.60	74	11	<5	<5	15	2	14	824	52	8986	9887	6.83	<0.01	0.07	14.39	0.05	0.01	23	0.84	<5	4.42	7.52	3.00	
R0863898 rpt		3	46	41	<0.4	180	164	<1	4	<1	6.24	72	8	<5	<5	16	2	14	779	50	9751	9599	6.62	<0.01	0.07	14.51	0.05	0.01	23	0.74	<5	lab repeat			
R0863899	828639	3	40	53	<0.4	125	976	<1	1	<1	5.73	39	14	<5	<5	11	2	12	847	62	6939	9317	6.75	<0.01	0.06	14.06	0.05	0.01	74	0.32	<5	7.52	10.52	3.00	
R0863900	828640	5	126	69	<0.4	159	209	<1	4	<1	4.83	57	11	<5	<5	22	<2	13	452	83	8797	6110	6.92	<0.01	0.07	13.10	0.04	0.03	74	0.84	<5	10.52	13.52	3.00	
R0863901	828641 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0863902	828642	3	48	60	<0.4	129	118	<1	3	<1	6.07	86	12	<5	<5	14	2	12	829	38	7029	8386	7.38	<0.01	0.09	15.06	0.06	0.03	49	0.72	<5	13.52	16.52	3.00	
R0863903	828643	2	40	52	<0.4	112	666	<1	1	<1	6.49	127	11	<5	<5	13	<2	9	1178	40	6217	11030	6.97	<0.01	0.04	14.77	0.06	<0.01	26	0.36	<5	16.52	19.52	3.00	
R0863903 rpt		1	40	43	<0.4	110	787	<1	<1	<1	6.44	116	15	<5	<5	12	2	9	1133	39	6015	10840	6.79	<0.01	0.04	14.81	0.06	<0.01	29	0.35	<5	lab repeat			
R0863904	828644	4	121	64	<0.4	79	48	<1	6	3	8.93	99	20	<5	<5	15	<2	6	1008	27	3525	11680	6.45	<0.01	0.05	14.84	0.06	<0.01	29	3.01	<5	19.52	22.52	3.00	
R0863905	828645	3	70	92	<0.4	75	745	<1	1	<1	7.05	187	15	<5	<5	11	3	7	1034	34	4306	11680	6.73	<0.01	0.04	15.11	0.04	0.01	17	0.45	<5	22.52	25.52	3.00	
R0863906	828646	3	69	75	<0.4	106	146	<1	1	<1	7.00	108	13	<5	<5	13	<2	8	968	38	5837	11760	6.80	<0.01	0.05	15.10	0.03	<0.01	<10	0.55	<5	25.52	28.52	3.00	
R0863907	828647	2	56	72	<0.4	89	250	<1	1	<1	7.12	79	18	<5	<5	12	<2	8	1084	31	4900	12060	6.88	<0.01	0.05	15.32	0.04	0.01	<10	0.43	<5	duplicate			
R0863908	828648	4	70	69	<0.4	137	65	<1	12	<1	6.88	194	17	<5	<5	17	2	11	663	39	7064	8858	6.79	<0.01	0.09	14.42	0.05	0.02	28	1.92	<5	28.52	32.06	3.54	
R0863909	828649	1	24	41	<0.4	54	220	<1	1	<1	5.93	97	15	<5	<5	14	2	7	699	23	2997	9052	6.96	<0.01	0.21	14.97	0.03	0.07	63	0.35	<5	32.06	35.06	3.00	
R0863910	828650	2	49	34	<0.4	68	636	<1	<1	<1	5.89	1408	15	<5	<5	5	2	7	846	41	3836	8927	7.16	<0.01	0.39	14.22	0.03	0.11	96	0.24	<5	35.06	38.06	3.00	
R0863911	828651	3	47	28	<0.4	124	848	<1	<1	<1	6.40	397	8	<5	<5	13	2	10	1413	54	6823	10560	7.32	<0.01	0.07	15.09	0.04	0.01	376	0.25	<5	38.06	41.06	3.00	
R0863912	828652	1	27	45	<0.4	59	1742	<1	<1	<1	7.16	495	11	<5	<5	9	<2	7	1257	36	3270	13330	7.66	<0.01	0.09	16.68	0.04	0.01	190	0.20	<5	41.06	44.06	3.00	
R0863913	828653	2	33	51	<0.4	84	241	<1	2	<1	7.15	282	13	<5	<5	12	<2	7	1125	34	4637	12650	7.14	<0.01	0.19	15.71	0.04	0.04	503	0.47	<5	44.06	47.06	3.00	
R0863914	828654	2	40	34	<0.4	82	487	<1	1	<1	6.28	310	13	<5	<5	13	2	8	1052	40	4662	11430	6.76	<0.01	0.17	14.76	0.04	0.01	239	0.37	<5	47.06	50.06	3.00	
R0863915	828655	77	82	278	5.2	6	90	2	7	28	3.16	7	42	<5	<5	62	27	4	46	6	10	463	0.76	0.12	1.43	0.87	0.15	0.14	556	0.13	<5	blank			
R0863916	828656	2	32	58	<0.4	54	1082	<1	<1	<1	6.37	407	15	<5	<5	12	<2	6	1073	36	3137	10330	6.53	<0.01	0.51	13.97	0.04	0.24	242	0.25	<5	50.06	53.06	3.00	
R0863916 rpt		1	35	53	<0.4	57	1117	<1	<1	<1	6.59	420	17	<5	<5	13	2	6	1087	36	3215	10580	6.67	<0.01	0.51	14.06	0.04	0.25	256	0.25	<5	lab repeat			
R0863917	828657	1	46	51	<0.4	40	250	<1	3	2	7.41	236	20	<5	<5	9	<2	4	1301	32	2203	12900	6.45	<0.01	0.08	14.47	0.04	0.01	32	0.80	<5	53.06	56.28	3.22	
R0863918	828658	1	14	32	<0.4	11	181	<1	2	6	5.57	222	24	<5	<5	9	<2	<2	867	21	478	9535	4.96	<0.01	0.26	12.06	0.03	0.13	432	0.42	<5	56.28	58.16	1.88	
R0863919	828659	1	4	7	<0.4	7	202	<1	<1	2	1.06	49	27	<5	<5	<2	2	<2	227	12	458	1677	1.03	<0.01	0.16	2.78	0.03	0.17	137	0.05	<5	58.16	58.64	0.48	
R0863920	828660	1	21	39	<0.4	55	739	<1	<1	<1	6.62	81	18	<5	<5	13	<2	5	1044	23	3115	10710	6.88	<0.01	0.17	15.56	0.04	0.06	577	0.35	<5	58.64	62.60	3.96	
R0863921	828661	2	21	35	<0.4	58	95	<1	1	<1	6.41	53	11	<5	<5	14	<2	4	909	18	3171	10240	6.83	<0.01	0.31	14.90	0.03	0.03	22	0.55	<5	62.60	65.75	3.15	
R0863922	828662 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0863923	828663	4	30	41	<0.4	137	253	<1	<1	<1	5.58	65	11	<5	<5	10	3	12	907	27	7262	9725	6.08	<0.01	0.29	13.69	0.04	0.17	24	0.33	<5	65.75	68.75	3.00	
R0863924	828664	3	49	66	<0.4	113	309	<1	3	<1	6.56	93	14	<5	<5	15	2	10	893	23	5968	9909	7.18	<0.01	0.21	14.80	0.04	0.06	<10	0.96	<5	68.75	71.75	3.00	
R0863925	828665	3	26	69	<0.4	130	671	<1	<1	<1	6.30	89	6	<5	<5	11	<2	13	1770	30	7206	13710	7.83	<0.01	0.06	15.96	0.05	0.01	<10	0.47	<5	71.75	73.75	2.00	
R0863926	828666	3	23	36	<0.4	128	238	<1	5	<1	6.35	87	10	<5	<5	11	<2	9	1617	32	6834	11830	7.22	<0.01	0.12	15.89	0.04	0.06	20	1.32	<5	73.75	77.27	3.52	
R0863927	828667	1	19	25	<0.4	18	115	<1	<1	2	2.93	67	23	<5	<5	9	<2	2	538	48	1007	4207	3.17	<0.01	0.35	8.12	0.03	0.11	2880	0.07	<5	77.27	80.27	3.00	
R0863928	828668	1	13	19	<0.4	33	87	<1	<1	<1	4.26	45	19	<5	<5	11	<2	3	583	34	1898	6965	4.98	<0.01	0.18	12.09	0.03	0.07	627	0.11	<5	80.27	83.27	3.00	
R0863929	828669	3	13	25	<0.4	25	444	<1	3	11	3.96	92	15	<5	<5	12	<2	2	582	34	464	5657	4.28	<0.01	0.41	10.94	0.03	0.09	921	0.47	<5	83.27	86.27	3.00	
R0863930	828670	3	15	29	<0.4	24	567	<1	3	10	4.01	117	16	<5	<5	14	<2	3	594	35	562	5125	4.18	<0.01	0.61	9.75	0.03	0.10	819	0.48	<5	duplicate			
R0863931	828671	10	20	23	<0.4	106	117	<1	13	16	4.09	17	14	<5	<5	10	<2	2	696	73	117	2578	4.53	<0.01	0.27	9.95	0.								

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval			
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)
R0863944	828683	7	16	152	<0.4	52	229	<1	12	23	5.82	3	24	<5	<5	16	<2	<2	1669	91	130	6329	1.48	<.01	0.26	11.73	0.05	0.09	4513	1.99	<5	116.00	119.00	3.00	
R0863945	828684	11	26	88	<0.4	96	227	<1	15	25	7.12	2	18	<5	<5	16	<2	2	1859	283	259	6199	0.89	<.01	0.29	14.09	0.07	0.19	21210	3.40	<5	119.00	122.00	3.00	
R0863946	828685	2	11	85	<0.4	9	225	<1	2	7	7.03	4	21	<5	<5	26	<2	2	1324	89	141	7499	1.23	<.01	0.22	9.50	0.04	0.10	5268	0.36	<5	122.00	124.50	2.50	
R0863947	828686	3	14	113	<0.4	22	342	<1	4	8	8.10	9	24	<5	<5	30	<2	3	1636	138	302	9264	1.36	<.01	0.18	11.57	0.06	0.09	7777	0.73	<5	124.50	126.92	2.42	
R0863947 rpt		3	16	120	<0.4	24	333	<1	4	10	8.52	10	29	<5	<5	32	2	2	1629	148	315	10020	1.42	<.01	0.21	12.85	0.05	0.09	8361	0.78	<5	lab repeat			
R0863948	828687	2	41	321	<0.4	15	2787	1	<1	3	4.88	<2	13	<5	<5	16	<2	2	9061	183	776	9705	0.82	<.01	0.14	19.77	0.05	0.06	7532	0.11	<5	126.92	129.22	3.00	
R0863949	828688	1	43	306	<0.4	17	2941	1	1	3	4.81	<2	11	<5	<5	17	<2	3	9316	162	785	9948	0.78	<.01	0.13	19.50	0.05	0.05	6256	0.14	<5	duplicate			
R0863950	828689	1	33	254	<0.4	14	6279	1	<1	4	3.53	<2	15	<5	<5	14	<2	3	8371	101	736	7730	0.68	0.01	0.67	13.55	0.06	0.13	5208	<.05	<5	129.22	132.22	3.00	
R0863951	828690	2	70	247	<0.4	19	1448	1	2	2	3.23	2	7	<5	<5	10	<2	4	8346	124	688	8681	0.53	<.01	0.15	16.70	0.06	0.03	5768	0.26	<5	132.22	134.93	2.71	
R0863952	828691	4	106	348	<0.4	23	420	1	5	5	5.35	6	20	<5	<5	13	<2	3	1824	71	504	7019	0.79	<.01	0.12	9.96	0.06	0.02	3091	0.59	<5	134.93	137.93	3.00	
R0863953	828692	18	158	748	<0.4	35	222	4	9	4	6.02	3	16	<5	<5	22	<2	4	8346	96	839	7016	0.80	<.01	0.16	10.51	0.06	0.05	4119	1.03	<5	137.93	140.93	3.00	
R0863954	828693	2	88	182	<0.4	45	70	<1	11	5	5.81	3	12	<5	<5	12	2	<2	6294	87	563	8171	0.62	<.01	0.15	13.47	0.05	0.01	2979	1.70	<5	140.93	143.93	3.00	
R0863955	828694	2	261	625	<0.4	19	309	2	5	7	6.46	8	15	<5	<5	18	<2	3	5142	79	468	7532	0.80	<.01	0.15	9.63	0.07	0.01	2865	0.61	<5	143.93	146.93	3.00	
R0863955 rpt		2	249	611	<0.4	23	240	2	4	5	6.52	7	15	<5	<5	18	<2	2	5171	74	461	7278	0.79	<.01	0.14	8.90	0.08	0.02	2679	0.55	<5	lab repeat			
R0863956	828695	72	90	288	6.7	8	90	2	8	30	3.09	5	45	<5	<5	67	28	3	53	7	5	510	0.74	0.14	1.53	1.03	0.11	0.11	558	0.12	<5	blank			
R0863957	828696	9	365	618	<0.4	33	118	2	13	13	6.23	13	16	<5	<5	15	<2	4	6742	100	723	6990	0.67	<.01	0.09	11.97	0.07	0.01	3390	1.56	<5	146.93	149.93	3.00	
R0863958	828697	5	89	446	<0.4	36	130	2	7	7	5.48	9	14	<5	<5	19	2	3	5913	110	934	6965	0.70	<.01	0.13	12.93	0.06	0.04	3775	1.28	<5	149.93	152.93	3.00	
R0863959	828698	3	50	391	<0.4	25	234	2	4	6	5.72	3	17	<5	<5	29	<2	4	7004	143	806	9045	0.80	<.01	0.29	17.00	0.08	0.08	6353	0.69	<5	152.93	156.58	3.00	
R0863960	828699	<1	45	55	<0.4	17	3129	<1	<1	<1	1.25	<2	4	<5	<5	<2	<2	3	16700	102	770	8282	0.19	<.01	0.03	26.70	0.02	<.01	731	0.16	<5	156.58	157.67	1.09	
R0863961	828700	4	62	208	<0.4	33	221	<1	5	4	7.74	5	13	<5	<5	48	<2	3	6358	119	1054	8755	1.06	0.02	0.25	12.80	0.05	0.10	4830	0.92	<5	157.67	160.67	3.00	
R0863962	828701	3	38	654	<0.4	72	73	2	8	7	6.92	4	14	<5	<5	19	2	3	1737	101	782	8281	0.85	<.01	0.11	14.26	0.05	0.02	3329	2.22	<5	160.67	164.68	4.01	
R0863963	828702 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0863964	828703	17	40	1808	<0.4	74	63	8	3	7	16.20	<2	25	<5	<5	52	2	4	1662	31	1302	14590	2.06	<.01	0.05	15.31	0.04	<.01	<10	2.48	<5	164.68	168.70	4.02	
R0863965	828704	21	43	2942	<0.4	58	211	14	3	<1	10.23	2	21	<5	<5	38	3	6	2104	103	2290	12610	1.50	<.01	0.11	18.20	0.06	0.04	2226	1.02	<5	168.70	171.70	3.00	
R0863966	828705	7	68	795	<0.4	63	143	3	3	1	11.19	<2	17	<5	<5	42	3	7	3452	62	2230	14640	1.58	<.01	0.08	21.47	0.06	0.02	27	0.86	<5	171.70	174.70	3.00	
R0863967	828706	3	81	531	<0.4	16	58	2	7	5	8.47	<2	11	<5	<5	13	<2	3	7269	84	515	14080	0.76	<.01	0.03	25.21	0.04	<.01	355	3.27	<5	174.70	177.70	3.00	
R0863968	828707	5	318	1721	<0.4	47	52	7	9	2	10.23	<2	14	<5	<5	28	3	5	10580	127	1695	12350	0.88	<.01	0.14	21.80	0.07	0.03	4673	3.89	<5	177.70	180.70	3.00	
R0863969	828708	4	145	658	<0.4	36	332	3	2	3	5.86	<2	14	<5	<5	25	<2	4	18400	129	1322	11160	0.78	<.01	0.09	20.72	0.05	0.01	2477	0.55	<5	180.70	184.75	4.05	
R0863970	828709	5	185	674	<0.4	43	394	3	3	2	6.20	<2	12	<5	<5	25	<2	4	20750	132	1569	10940	0.82	<.01	0.10	21.35	0.05	0.02	2500	0.51	<5	duplicate			
R0863971	828710	3	55	280	<0.4	12	806	<1	2	3	0.81	157	7	<5	<5	<2	<2	<2	8015	39	297	3447	0.16	<.01	0.13	17.44	0.06	0.03	2161	0.30	<5	184.75	187.75	3.00	
R0863972	828711	5	26	266	<0.4	15	1029	<1	2	6	0.71	88	6	<5	<5	2	<2	<2	7537	37	225	3158	0.23	<.01	0.15	16.04	0.04	0.04	2365	0.29	<5	187.75	190.75	3.00	
R0863973	828712	2	60	288	<0.4	13	979	<1	1	3	0.55	64	6	<5	<5	4	<2	<2	5678	37	217	3165	0.19	<.01	0.09	18.00	0.04	0.02	1636	0.21	<5	190.75	193.75	3.00	
R0863974	GDL PREP BLANK	<1	<4	54	<0.4	<2	255	<1	3	8	1.95	<2	54	<5	<5	40	<2	2	61	3	5	573	0.56	0.11	0.86	0.49	0.06	0.47	784	<.05	<5	lab blank			
R0863975	828713	1	49	136	<0.4	6	1067	<1	<1	2	0.44	23	<4	<5	<5	<2	<2	3	4038	37	209	2508	0.19	<.01	0.05	24.17	0.05	0.01	784	0.17	<5	193.75	196.75	3.00	
R0863976	828714	2	78	155	<0.4	7	990	<1	2	3	0.24	31	<4	<5	<5	<2	<2	2	3149	35	217	2651	0.07	<.01	0.03	18.51	0.05	0.01	742	0.13	<5	196.75	199.75	3.00	
R0863977	828715	7	148	431	<0.4	22	320	1	2	7	3.05	24	9	<5	<5	16	<2	3	7616	77	418	6528	0.62	<.01	0.28	17.55	0.07	0.11	3111	0.46	<5	199.75	202.75	3.00	
R0863978	828716	70	86	288	6.2	7	84	2	7	28	3.05	5	39	<5	<5	60	27	4	44	5	4	471	0.68	0.10	1.35	0.84	0.14	0.12	534	0.11	<5	blank			
R0863979	828717	2	91	235	<0.4	10	2091	<1	1	4	0.54	45	6	<5	<5	4	<2	2	4168	40	239	3171	0.22	<.01	0.19	19.47	0.07	0.04	1250	0.19	<5	202.75	204.80	2.05	
R0863980	828718	3	145	457	<0.4	10	1849	<1	1	3	0.34	81	<4	<5	<5	<2	<2	2	4067	35	238	2748	0.09	<.01	0.10	20.36	0.06	0.01	877	0.21	<5	204.80	206.85	2.05	
R0863981	828719	4	32	485	<0.4	35	126	1	5	11	4.40	34	15	<5	<5	14	<2	3	4425	92	316	5156	0.57	<.01	0.25	10.60	0.05	0.08	3871	0.98	<5	206.85	209.85	3.00	
R0863982	828720	3	85	342	<0.4	27	245	1	3	4	6																								

HOLE

WI-08-03

SPECTRUM MINING CORP-X08

Ref/I.D.: WICHEEDA#3: #828723-828844
 Report date: 05 JAN 2009
 GDL Job No: V08-0977R

Hole WI-08-03



Global Discovery Labs

LAB NO	FIELD NUMBER	Sample Interval		Width (m)	Ce(P) (ppm)	La(P) (ppm)	Nb(P) (ppm)	Nd(P) (ppm)
		From (m)	To (m)					
R0864196	GDL PREP BLANK	lab blank			25	18	26	9
R0864197	828723	blank			24	11	6	15
R0864198	828724	2.56	5.56	3.00	22329	10066	126	3272
R0864199	828725	5.56	8.56	3.00	20014	9170	55	3081
R0864200	828726	8.56	11.56	3.00	26937	12385	16	3883
R0864201	828727	11.56	14.56	3.00	7961	3494	75	1348
R0864202	828728 (XRF std)	lab standard						
R0864203	828729	14.56	17.56	3.00	10067	4416	3	1766
R0864204	828730	17.56	20.56	3.00	6450	2917	571	1092
R0864205	828731	20.56	23.56	3.00	11849	5425	161	1991
R0864206	828732	23.56	26.56	3.00	17039	7587	27	2908
R0864206 rpt		lab repeat			17011	7518	24	2933
R0864207	828733	26.56	29.56	3.00	9721	4440	10	1871
R0864208	828734	29.56	32.56	3.00	7223	3299	8	1346
R0864209	828735	duplicate			6854	3142	11	1272
R0864210	828736	32.56	35.38	2.82	16350	7626	<3	2783
R0864211	828737	35.38	38.71	3.33	16690	7451	59	2574
R0864212	828738	38.71	41.71	3.00	23125	10426	57	3500
R0864213	828739	41.71	44.71	3.00	13038	5835	114	2231
R0864214	828740	44.71	47.71	3.00	9683	4839	327	1356
R0864215	828741	47.71	50.50	2.79	11267	5401	159	1541
R0864216	828742	blank			6	7	6	17
R0864217	828743	50.50	53.50	3.00	5046	2607	1110	1130
R0864218	828744	53.50	55.25	1.75	5481	3011	1043	1060
R0864219	828745	55.25	58.25	3.00	12849	5699	88	2208
R0864220	828746	58.25	61.25	3.00	12294	5678	680	2249
R0864221	828747	61.25	64.23	2.98	12309	5615	54	2302
R0864222	828748	64.23	67.23	3.00	12831	5970	374	2513
R0864223	828749 (XRF std)	lab standard						
R0864224	828750	67.23	70.23	3.00	14567	6913	162	2858
R0864225	828751	70.23	72.55	2.32	12561	6198	204	2227
R0864225 rpt		lab repeat			12524	6276	203	2249
R0864226	828752	72.55	75.55	3.00	10527	5238	1490	2143
R0864227	828753	75.55	78.55	3.00	8232	4108	1261	1664
R0864228	828754	78.55	81.55	3.00	5246	2787	1210	1189
R0864229	828755	81.55	84.55	3.00	7281	3532	613	1630
R0864230	828756	duplicate			6900	3379	537	1503
R0864231	828757	84.55	87.55	3.00	6840	3332	1006	1476
R0864232	828758	87.55	91.35	3.80	8279	3780	25	1883
R0864233	828759	91.35	94.52	3.17	3030	1576	845	659
R0864234	828760	94.52	97.52	3.00	4814	2458	777	1101
R0864235	828760 GDL DUP	lab duplicate			5034	2465	725	1120
R0864236	828761	97.52	100.52	3.00	4195	2243	745	1014
R0864237	828762	100.52	103.52	3.00	3941	2114	428	969
R0864238	828763	blank			19	4	9	14
R0864239	828764	103.52	106.52	3.00	7506	3504	332	1609
R0864240	828765	106.52	109.52	3.00	1339	479	719	325
R0864241	828766	109.52	112.52	3.00	3710	1865	495	831
R0864242	828767	112.52	115.52	3.00	6997	3602	685	1464
R0864243	828768 (XRF std)	lab standard						
R0864244	828769	115.52	118.52	3.00	6292	2853	593	1298
R0864245	828770	118.52	121.52	3.00	9090	4280	1029	1857
R0864246	828771	121.52	125.72	4.20	9568	4429	645	1841

Teck Ltd.

LAB NO	FIELD NUMBER	Sample Interval		Width (m)	Ce(P) (ppm)	La(P) (ppm)	Nb(P) (ppm)	Nd(P) (ppm)
		From (m)	To (m)					
R0864247	828772	125.72	128.72	3.00	1888	1241	2088	433
R0864248	828773	128.72	130.42	1.70	2573	1423	1885	631
R0864249	828774	130.42	133.42	3.00	6434	3370	821	1350
R0864250	828775	duplicate			3172	1627	1040	687
R0864251	828776	133.42	136.42	3.00	4959	2585	1014	1057
R0864252	828777	136.42	139.42	3.00	6113	2952	786	1235
R0864253	828778	139.42	142.42	3.00	10160	4799	506	1995
R0864254	828779	142.42	145.42	3.00	3687	1935	1203	751
R0864255	828780	145.42	148.42	3.00	4544	2201	1295	1005
R0864256	828781	148.42	151.42	3.00	7044	3207	938	1529
R0864257	828782	blank			22	12	3	13
R0864258	828783	151.42	155.00	3.58	4837	2462	1107	1001
R0864259	828784	155.00	158.55	3.55	10166	4926	926	2010
R0864259 rpt		lab repeat			9971	4810	923	2006
R0864260	828785	158.55	161.55	3.00	12919	5944	203	2046
R0864261	828786	161.55	164.55	3.00	17441	8049	105	2602
R0864262	828787	164.55	167.05	2.50	4620	2384	743	952
R0864263	828788	167.05	169.75	2.70	1235	708	778	287
R0864264	828789 (XRF std)	lab standard						
R0864265	828790	169.75	172.75	3.00	4804	2079	625	1206
R0864266	828791	172.75	175.40	2.65	7267	3138	462	1733
R0864267	828792	175.40	178.40	3.00	5574	2473	553	1453
R0864268	828793	178.40	180.05	1.65	3083	1362	1090	894
R0864269	828794	180.05	183.05	3.00	2815	1434	781	784
R0864270	828795	183.05	186.05	3.00	1055	530	791	289
R0864271	828796	duplicate			1033	532	817	273
R0864272	828797	186.05	189.77	3.72	2809	1436	1128	747
R0864273	828798	189.77	193.50	3.73	7508	3375	393	1501
R0864274	828799	193.50	197.07	3.57	1925	1098	1002	433
R0864275	GDL PREP BLANK	lab blank			44	44	24	9
R0864276	828800	197.07	200.07	3.00	3664	1916	840	828
R0864276 rpt		repeat			3633	1939	830	847
R0864277	828801	200.07	203.07	3.00	1926	1059	1379	383
R0864278	828802	203.07	206.88	3.81	3568	1776	786	803
R0864279	828803	blank			8	27	4	7
R0864280	828804	206.88	209.86	2.98	1607	905	1227	366
R0864281	828805	209.86	212.86	3.00	13129	5896	752	2569
R0864282	828806	212.86	215.86	3.00	7975	3406	314	1924
R0864283	828807	215.86	218.86	3.00	11097	4859	497	2527
R0864284	828808 (XRF std)	lab standard						
R0864285	828809	218.86	221.86	3.00	4622	2241	883	1164
R0864286	828810	221.86	224.86	3.00	4041	2056	927	1055
R0864287	828811	224.86	227.86	3.00	4351	2185	664	1112
R0864288	828812	227.86	230.86	3.00	4217	2164	1303	1064
R0864289	828813	230.86	234.00	3.14	5604	2512	529	1477
R0864290	828814	234.00	236.83	2.83	1572	907	731	400
R0864291	828815	duplicate			1597	935	812	426
R0864292	828816	236.83	238.77	1.94	1996	1137	1010	544
R0864293	828817	238.77	241.77	3.00	2098	1026	605	567
R0864294	828818	241.77	244.77	3.00	7445	3512	340	1773
R0864295	828819	244.77	247.43	2.66	9677	4199	607	2369
R0864295 rpt		repeat			9675	4234	608	2352
R0864296	828820	247.43	250.63	3.20	4023	1864	4273	854
R0864297	828821	250.63	253.75	3.12	261	55	75	105
R0864298	828822	blank			14	19	9	13
R0864299	828823	253.75	256.75	3.00	3018	1521	791	654
R0864300	828824	256.75	259.75	3.00	1874	1235	756	497

GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Sample Interval		Width (m)	Ce(P) (ppm)	La(P) (ppm)	Nb(P) (ppm)	Nd(P) (ppm)	
		From (m)	To (m)						
R0864301	828825	259.75	261.21	1.46	731	309	753	190	
R0864302	828826	261.21	264.21	3.00	805	331	1003	213	
R0864303	828827	264.21	267.21	3.00	764	302	952	173	
R0864304	828828	267.21	269.21	2.09	765	261	885	155	
R0864305	828829 (XRF std)	lab standard							
R0864306	828830	269.30	272.30	3.00	753	373	992	210	
R0864307	828831	272.30	275.75	3.45	974	469	930	301	
R0864308	828832	275.75	278.60	2.85	586	199	1744	105	
R0864309	828833	278.60	280.18	1.58	592	178	2139	124	
R0864310	828834	280.18	282.00	1.82	507	194	1043	115	
R0864311	828835	282.00	285.33	3.33	752	267	2116	194	
R0864312	828836	duplicate			694	266	1931	200	
R0864313	828837	285.33	288.33	3.00	1292	524	1272	272	
R0864314	828838	288.33	291.33	3.00	1692	879	1246	494	
R0864315	828838 GDL DUP	lab duplicate			1648	825	1195	527	
R0864316	828839	291.33	294.33	3.00	1147	521	977	354	
R0864317	828840	294.33	297.33	3.00	522	192	1245	132	
R0864318	828841	297.33	300.33	3.00	599	224	1111	183	
R0864319	828842	300.33	303.00	2.67	505	181	1328	172	
R0864320	828843	blank			15	25	9	17	
R0864321	828844	303.00	305.41	2.41	670	275	790	244	
STD: NIM-L							959		
STD: OKA-1							3720		
STD: SY-3					2243	1350		800	

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet

La(P) X-Ray fluorescence / pressed pellet

Nb(P) X-Ray fluorescence / pressed pellet

Nd(P) X-Ray fluorescence / pressed pellet

SPECTRUM MINING CORP-X08

Ref/I.D.: WICHEEDA#3: #828723-828844
 Report date: 25 NOV 2008
 GDL Job No: V08-0977R



Hole WI-08-03

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval			
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)	
R0864196	GDL PREP BLANK	1	<4	53	<0.4	<2	259	<1	3	11	2.17	<2	70	<5	<5	45	<2	3	81	5	11	621	0.57	0.14	1.03	0.68	0.12	0.48	807	<.05	<5	lab blank			
R0864197	828723	70	90	295	6.2	6	89	2	8	30	3.21	5	43	<5	7	69	27	5	47	6	4	507	0.72	0.15	1.50	1.06	0.16	0.12	535	0.11	<5	blank			
R0864198	828724	4	59	63	<0.4	142	353	<1	4	<1	6.15	81	13	<5	<5	16	3	11	868	49	7136	9872	6.10	<.01	0.14	14.47	0.12	<.01	66	0.38	<5	2.56	5.56	3.00	
R0864199	828725	4	64	110	<0.4	163	426	<1	1	<1	6.23	54	12	<5	<5	17	2	11	990	44	8277	11140	6.39	<.01	0.09	15.50	0.08	0.02	50	0.32	<5	5.56	8.56	3.00	
R0864200	828726	5	81	53	<0.4	230	3439	<1	<1	<1	5.73	40	11	<5	<5	20	3	16	1159	48	11560	10560	6.36	<.01	0.08	15.10	0.12	0.02	35	0.09	<5	8.56	11.56	3.00	
R0864201	828727	2	34	82	<0.4	64	580	<1	<1	<1	7.40	125	14	<5	<5	13	<2	6	1417	24	3169	13670	6.37	<.01	0.09	17.95	0.05	0.02	28	0.33	<5	11.56	14.56	3.00	
R0864202	828728 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0864203	828729	2	42	57	0.5	97	585	<1	1	<1	7.19	16	15	<5	<5	16	3	9	1443	26	4973	13570	6.61	<.01	0.04	18.56	0.08	0.01	<10	0.31	<5	14.56	17.56	3.00	
R0864204	828730	2	30	44	<0.4	69	327	<1	2	<1	7.13	453	12	<5	<5	12	<2	7	825	19	3459	12110	6.21	<.01	0.40	14.88	0.07	0.19	<10	0.51	<5	17.56	20.56	3.00	
R0864205	828731	3	43	43	<0.4	106	176	<1	2	<1	6.59	122	12	<5	<5	16	2	8	752	35	5116	10700	6.69	<.01	0.17	16.11	0.05	0.05	25	0.62	<5	20.56	23.56	3.00	
R0864206	828732	2	44	286	<0.4	80	157	<1	4	1	6.59	120	15	<5	<5	15	7	6	787	42	3809	10390	7.12	<.01	0.06	15.77	0.07	<.01	50	0.75	<5	23.56	26.56	3.00	
R0864206 rpt		2	37	298	<0.4	83	141	<1	3	1	6.67	129	15	<5	<5	15	2	7	780	42	3857	10530	7.07	<.01	0.06	16.77	0.05	<.01	55	0.76	<5	lab repeat			
R0864207	828733	4	47	39	<0.4	86	175	<1	5	<1	6.47	68	13	<5	<5	13	2	10	741	32	4145	10130	6.98	<.01	0.07	16.02	0.07	0.01	13	0.80	<5	26.56	29.56	3.00	
R0864208	828734	2	31	41	<0.4	56	148	<1	4	2	7.45	74	13	<5	<5	10	<2	8	1200	21	2581	12560	6.74	<.01	0.07	16.86	0.06	<.01	10	0.83	<5	29.56	32.56	3.00	
R0864209	828735	3	32	46	<0.4	54	164	<1	5	2	7.49	75	16	<5	<5	13	3	6	1153	21	2407	12430	6.93	<.01	0.06	16.46	0.07	<.01	15	0.83	<5	duplicate			
R0864210	828736	2	54	33	<0.4	146	748	<1	<1	<1	6.77	38	15	<5	<5	17	3	10	1084	37	7184	11710	6.92	<.01	0.10	16.96	0.06	<.01	32	0.20	<5	32.56	35.38	2.82	
R0864211	828737	4	52	50	<0.4	156	763	<1	1	<1	6.72	95	10	<5	<5	14	<2	13	959	41	7800	12690	6.68	<.01	0.16	16.31	0.06	0.03	41	0.32	<5	35.38	38.71	3.33	
R0864212	828738	2	41	61	<0.4	122	611	<1	1	<1	6.13	195	14	<5	<5	15	2	10	814	34	6090	10450	6.39	<.01	0.31	15.22	0.04	<.01	207	0.39	<5	38.71	41.71	3.00	
R0864213	828739	2	30	32	<0.4	117	133	<1	7	<1	7.21	88	16	<5	<5	14	<2	9	980	25	5645	11440	6.45	<.01	0.20	15.02	0.06	0.03	97	1.53	<5	41.71	44.71	3.00	
R0864214	828740	1	17	50	<0.4	92	115	<1	3	<1	6.40	111	12	<5	<5	13	<2	7	2235	18	4374	12760	6.60	<.01	0.23	17.85	0.04	0.14	116	0.94	<5	44.71	47.71	3.00	
R0864215	828741	1	20	38	<0.4	103	210	<1	2	<1	6.85	44	12	<5	<5	13	<2	8	1132	21	5160	13590	6.60	<.01	0.09	15.82	0.05	0.01	39	0.57	<5	47.71	50.50	2.79	
R0864216	828742	68	87	295	7.3	7	90	2	7	30	3.21	6	44	<5	8	73	27	3	51	7	13	551	0.73	0.16	1.54	1.20	0.16	0.12	528	0.11	<5	blank			
R0864217	828743	<1	14	21	<0.4	22	148	<1	<1	1	3.13	254	19	<5	<5	5	<2	4	665	43	1078	5424	3.28	<.01	0.24	9.74	0.04	0.12	4297	0.08	<5	50.50	53.50	3.00	
R0864218	828744	1	29	27	<0.4	46	295	<1	1	<1	3.73	594	16	<5	<5	7	<2	3	678	20	2207	6960	4.11	<.01	0.16	11.01	0.07	0.06	700	0.31	<5	53.50	55.25	1.75	
R0864218 rpt		1	28	24	<0.4	50	300	<1	1	<1	3.83	614	18	<5	<5	8	<2	4	685	20	2249	7029	4.15	<.01	0.18	10.63	0.06	0.06	721	0.32	<5	lab repeat			
R0864219	828745	2	84	184	<0.4	122	93	<1	<1	<1	6.81	28	9	<5	<5	17	3	9	1356	31	6000	13970	7.23	<.01	0.07	17.32	0.06	0.01	32	0.29	<5	55.25	58.25	3.00	
R0864220	828746	4	69	56	<0.4	121	270	<1	4	<1	6.20	336	11	<5	<5	11	2	8	679	32	5613	9525	5.98	<.01	0.43	15.35	0.04	0.16	176	0.93	<5	58.25	61.25	3.00	
R0864221	828747	2	45	25	<0.4	105	121	<1	10	<1	6.80	26	15	<5	<5	15	2	7	580	27	4742	8070	6.99	<.01	0.10	16.34	0.04	0.02	32	1.54	<5	61.25	64.23	2.98	
R0864222	828748	5	89	57	<0.4	144	226	<1	<1	<1	5.33	170	13	<5	<5	16	2	10	550	35	6809	7509	6.09	<.01	0.23	16.73	0.05	0.09	19	0.28	<5	64.23	67.23	3.00	
R0864223	828749 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0864224	828750	4	71	73	<0.4	159	635	<1	1	<1	4.92	74	15	<5	<5	19	2	11	557	37	7671	6310	6.32	<.01	0.36	15.30	0.06	0.15	25	0.29	<5	67.23	70.23	3.00	
R0864225	828751	3	52	70	<0.4	141	1088	<1	<1	<1	4.18	82	13	<5	<5	18	2	10	508	38	6845	6077	6.21	<.01	0.27	17.64	0.05	0.10	33	0.10	<5	70.23	72.55	2.32	
R0864226	828752	2	29	18	<0.4	92	192	<1	6	<1	4.15	732	18	<5	<5	9	<2	7	412	29	4041	5095	4.41	<.01	0.44	11.89	0.05	0.18	824	0.86	<5	72.55	75.55	3.00	
R0864227	828753	<1	18	17	0.5	16	807	<1	<1	1	3.04	552	11	<5	<5	4	<2	2	1203	41	739	4062	3.01	<.01	0.23	11.42	0.05	0.07	1338	0.08	<5	75.55	78.55	3.00	
R0864228	828754	<1	22	29	<0.4	24	275	<1	<1	1	3.00	491	17	<5	<5	5	<2	3	411	29	1173	4326	3.51	<.01	0.41	12.10	0.04	0.17	1669	0.09	<5	78.55	81.55	3.00	
R0864229	828755	2	25	13	<0.4	72	151	<1	<1	<1	3.83	464	13	<5	<5	9	<2	5	400	23	3574	5966	5.41	<.01	0.17	15.17	0.07	0.04	116	0.07	<5	81.55	84.55	3.00	
R0864230	828756	1	21	14	<0.4	67	112	<1	<1	<1	3.85	338	16	<5	<5	8	<2	5	415	22	3315	6107	5.38	<.01	0.12	16.00	0.06	0.02	162	0.06	<5	duplicate			
R0864231	828757	4	39	15	<0.4	97	341	<1	3	<1	3.87	1151	13	<5	<5	4	<2	5	526	30	4223	4871	4.60	<.01	0.24	16.95	0.06	0.07	20	0.75	<5	84.55	87.55	3.00	
R0864232	828758	2	18	15	<0.4	84	54	<1	<1	<1	4.62	14	13	<5	<5	18	<2	6	477	32	4363	5647	6.15	<.01	0.08	18.93	0.04	0.02	38	0.09	<5	87.55	91.35	3.80	
R0864233	828759	1	11	50	<0.4	16	223	<1	<1	4	3.71	306	17	<5	<5	7	<2	4	264	18	775	3595	4.04	<.01	1.03	8.07	0.04	0.67	397	0.08	<5	91.35	94.52	3.17	

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval			
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)
R0864247	828772	2	16	47	<0.4	27	333	<1	1	3	2.73	321	18	<5	<5	8	<2	3	398	11	1266	3367	1.88	0.01	0.37	5.55	0.06	0.26	138	0.30	<5	125.72	128.72	3.00	
R0864248	828773	1	31	33	<0.4	34	294	<1	3	4	3.54	711	16	<5	<5	8	2	4	435	12	1533	3865	3.10	<.01	0.53	7.84	0.06	0.29	44	0.45	<5	128.72	130.42	1.70	
R0864249	828774	2	16	26	<0.4	81	307	<1	<1	<1	3.45	105	13	<5	<5	12	<2	6	560	16	4006	5607	3.65	<.01	0.31	9.16	0.07	0.16	41	0.11	<5	130.42	133.42	3.00	
R0864250	828775	1	10	27	<0.4	32	196	<1	1	2	3.62	81	12	<5	<5	9	2	3	508	10	1344	5571	3.44	<.01	0.18	8.97	0.04	0.08	47	0.24	<5	duplicate			
R0864250 rpt		<1	11	20	<0.4	33	193	<1	1	1	3.59	79	12	<5	<5	8	<2	4	492	10	1345	5600	3.43	<.01	0.18	8.93	0.05	0.08	46	0.22	<5	lab repeat			
R0864251	828776	2	54	220	<0.4	65	147	<1	3	<1	3.82	307	12	<5	<5	9	<2	5	450	17	3032	4996	3.69	<.01	0.47	8.88	0.04	0.21	11	0.44	<5	133.42	136.42	3.00	
R0864252	828777	1	22	19	<0.4	81	257	<1	<1	<1	4.24	376	14	<5	<5	12	2	5	484	17	4057	6318	5.10	<.01	0.39	12.31	0.04	0.15	<10	0.07	<5	136.42	139.42	3.00	
R0864253	828778	2	20	19	<0.4	74	130	<1	<1	<1	4.21	153	12	<5	<5	12	<2	6	486	22	3791	5686	5.25	<.01	0.17	13.25	0.04	0.10	99	0.17	<5	139.42	142.42	3.00	
R0864254	828779	1	17	21	<0.4	36	647	<1	<1	1	3.34	286	16	<5	<5	11	<2	3	933	28	1718	4725	4.02	<.01	0.26	11.34	0.04	0.12	80	0.10	<5	142.42	145.42	3.00	
R0864254 rpt		1	16	20	<0.4	36	636	<1	<1	1	3.27	279	15	<5	<5	10	<2	4	716	28	1728	4613	3.98	<.01	0.27	10.46	0.04	0.13	99	0.10	<5	lab repeat			
R0864255	828780	1	32	18	<0.4	38	245	<1	<1	<1	3.48	1122	11	<5	<5	2	<2	4	911	24	1860	5506	3.60	<.01	0.10	10.59	0.04	0.05	79	0.10	<5	145.42	148.42	3.00	
R0864256	828781	3	24	26	<0.4	36	140	<1	<1	<1	4.06	238	11	<5	<5	11	<2	3	595	23	1941	6760	4.51	<.01	0.10	11.50	0.04	0.06	370	<.05	<5	148.42	151.42	3.00	
R0864257	828782	67	89	292	5.2	6	91	2	7	31	3.21	7	45	<5	8	73	27	5	49	7	5	533	0.72	0.17	1.51	1.20	0.17	0.13	506	0.11	<5	blank			
R0864258	828783	1	19	19	<0.4	38	191	<1	<1	<1	3.39	448	8	<5	<5	6	2	3	1148	27	1827	4917	3.38	<.01	0.15	10.94	0.04	0.05	178	0.07	<5	151.42	155.00	3.58	
R0864259	828784	2	26	25	<0.4	86	240	<1	<1	<1	3.78	533	15	<5	<5	15	2	4	588	30	3998	5033	4.21	<.01	0.33	10.81	0.05	0.19	270	0.09	<5	155.00	158.55	3.55	
R0864260	828785	2	18	32	<0.4	104	58	<1	<1	<1	6.14	28	13	<5	<5	16	<2	6	1304	23	5322	11730	6.91	<.01	0.11	16.67	0.06	0.02	126	0.12	<5	158.55	161.55	3.00	
R0864261	828786	3	23	30	<0.4	136	68	<1	4	<1	6.12	17	12	<5	<5	16	2	11	1351	24	6324	10850	6.48	<.01	0.10	16.25	0.05	0.03	35	0.84	<5	161.55	164.55	3.00	
R0864262	828787	3	18	38	<0.4	61	295	<1	1	5	4.18	118	13	<5	<5	18	<2	4	414	21	2681	5157	4.31	<.01	0.52	10.86	0.04	0.31	107	0.28	<5	164.55	167.05	2.50	
R0864263	828788	1	7	41	<0.4	12	319	<1	<1	3	2.34	37	20	<5	<5	11	<2	3	217	12	669	2770	2.52	<.01	0.34	6.53	0.03	0.24	50	<.05	<5	167.05	169.75	2.70	
R0864264	828789 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0864265	828790	1	13	19	<0.4	27	79	<1	<1	3	5.43	136	16	<5	<5	16	2	5	302	38	1319	6815	5.80	<.01	0.35	14.18	0.03	0.09	1110	0.15	<5	169.75	172.75	3.00	
R0864266	828791	1	15	22	<0.4	41	77	<1	1	1	4.81	208	13	<5	<5	13	2	2	399	34	1886	6757	5.28	<.01	0.23	12.32	0.03	0.11	320	0.28	<5	172.75	175.40	2.65	
R0864267	828792	1	8	24	<0.4	11	128	<1	<1	4	3.93	23	14	<5	<5	16	<2	2	492	59	545	4388	5.47	<.01	0.16	12.46	0.04	0.09	1264	0.20	<5	175.40	178.40	3.00	
R0864268	828793	3	8	20	<0.4	15	201	<1	3	7	4.46	10	12	<5	<5	13	<2	3	476	50	456	3864	6.10	<.01	0.11	13.59	0.03	0.06	2067	0.61	<5	178.40	180.05	1.65	
R0864269	828794	1	10	17	<0.4	11	606	<1	1	3	3	178	13	<5	<5	7	<2	3	462	38	443	2962	4.10	<.01	0.26	9.70	0.04	0.12	1011	0.21	<5	180.05	183.05	3.00	
R0864270	828795	5	16	33	<0.4	43	92	<1	15	10	5.05	60	24	<5	<5	7	<2	<2	163	19	177	2508	2.81	<.01	0.23	6.95	0.04	0.13	41	3.18	<5	183.05	186.05	3.00	
R0864271	828796	5	13	84	<0.4	32	83	<1	10	8	4.53	54	23	<5	<5	7	<2	3	148	18	149	2685	2.85	<.01	0.23	7.28	0.04	0.13	38	2.46	<5	duplicate			
R0864272	828797	1	9	13	<0.4	30	97	<1	4	3	3.19	37	23	<5	<5	5	<2	<2	140	38	965	2262	3.20	<.01	0.47	7.60	0.03	0.20	277	0.97	<5	186.05	189.77	3.72	
R0864273	828798	2	18	33	<0.4	69	272	<1	3	<1	5.42	141	14	<5	<5	18	2	5	1327	46	3148	8093	6.47	<.01	0.22	17.27	0.05	0.11	56	0.68	<5	189.77	193.50	3.73	
R0864274	828799	1	13	39	<0.4	28	175	<1	1	4	4.17	282	20	<5	<5	11	2	3	373	14	1212	4164	3.97	<.01	0.76	9.03	0.04	0.39	22	0.27	<5	193.50	197.07	3.57	
R0864275	GDL PREP BLANK	<1	<4	54	<0.4	<2	256	<1	3	12	2.23	2	84	<5	<5	48	<2	<2	64	6	15	661	0.58	0.15	1.07	0.72	0.11	0.48	778	<.05	<5	lab blank			
R0864276	828800	1	17	21	<0.4	45	147	<1	<1	2	4.06	353	15	<5	<5	10	<2	6	378	18	2078	4934	4.64	<.01	0.43	11.47	0.04	0.18	35	0.21	<5	197.07	200.07	3.00	
R0864277	828801	<1	11	28	<0.4	14	292	<1	<1	4	3.83	286	14	<5	<5	5	<2	3	526	13	432	4196	3.67	<.01	0.45	9.10	0.04	0.21	121	0.17	<5	200.07	203.07	3.00	
R0864277 rpt		<1	13	28	<0.4	13	315	<1	<1	4	4.30	309	12	<5	<5	8	<2	4	735	15	432	4600	4.06	<.01	0.46	9.78	0.04	0.22	110	0.19	<5	lab repeat			
R0864278	828802	1	11	29	<0.4	31	239	<1	<1	1	3.88	127	18	<5	<5	16	<2	3	444	19	1458	4717	5.07	<.01	0.27	12.06	0.03	0.14	93	0.07	<5	203.07	206.88	3.81	
R0864279	828803	70	97	319	6.5	7	94	2	8	33	3.45	6	43	<5	8	75	28	2	49	7	7	564	0.75	0.16	1.54	1.22	0.14	0.12	555	0.12	<5	blank			
R0864280	828804	<1	6	61	<0.4	14	313	<1	<1	3	3.88	34	17	<5	<5	9	<2	3	269	15	648	2910	3.58	<.01	1.21	6.55	0.03	0.73	274	<.05	<5	206.88	209.86	2.98	
R0864281	828805	4	31	27	<0.4	120	192	<1	<1	<1	5.40	696	17	<5	<5	14	3	10	618	41	5454	7803	6.36	<.01	0.21	14.96	0.06	0.10	85	0.23	<5	209.86	212.86	3.00	
R0864282	828806	3	19	29	<0.4	67	230	<1	4	<1	5.15	31	15	<5	<5	17	2	5	439	52	2882	5690	6.21	<.01	0.29	14.22	0.05	0.14	37	0.55	<5	212.86	215.86	3.00	
R0864283	828807	2	22	24	<0.4	97	203	<1	<1	<1	4.63	38	18	<5	<5	22	2	7	424	60	4677	5184	6.18	<.01	0.40	14.23	0.05	0.19	123	0.14	<5	215.86	218.86	3.00	
R0864283 rpt		3	21	20	<0.4	93	193	<1	<1	<1	4.59	38	17	<5	<5	21	2	7	444	59	4594	5077													

GDL Job No: V08-0977R

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval				
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)	
R0864300	828824	1	17	38	<0.4	20	335	<1	2	6	4.59	74	11	<5	<5	5	<2	3	3582	108	660	6367	0.92	<.01	0.16	17.40	0.03	0.08	1939	0.52	<5	256.75	259.75	3.00		
R0864301	828825	<1	11	45	<0.4	7	258	<1	1	3	3.74	3	9	<5	<5	4	<2	3	4074	103	273	3996	0.80	<.01	0.12	14.06	0.04	0.10	3702	0.23	<5	259.75	261.21	1.46		
R0864302	828826	3	32	382	<0.4	5	599	<1	4	9	7.02	<2	11	<5	<5	59	<2	2	9186	41	254	3096	0.75	0.04	0.83	21.80	0.04	0.68	11200	0.30	<5	261.21	264.21	3.00		
R0864303	828827	4	31	292	<0.4	6	504	<1	4	9	6.77	<2	8	<5	<5	48	3	4	8287	34	259	3076	0.70	0.04	0.77	21.87	0.04	0.57	10530	0.38	<5	264.21	267.21	3.00		
R0864304	828828	14	24	334	<0.4	41	426	<1	5	11	8.01	<2	9	<5	<5	56	<2	5	6153	31	214	3188	0.93	0.04	0.79	18.32	0.04	0.54	12710	0.81	<5	267.21	269.21	2.09		
R0864305	828829 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0864306	828830	2	12	48	<0.4	23	186	<1	3	9	4.59	2	15	<5	<5	6	<2	<2	2186	53	260	3568	0.80	<.01	0.16	8.91	0.04	0.12	1702	1.06	<5	269.30	272.30	3.00		
R0864307	828831	1	16	64	<0.4	27	206	<1	4	12	6.53	<2	15	<5	<5	9	<2	2	2220	40	290	5103	1.21	<.01	0.20	10.60	0.03	0.12	1562	1.07	<5	272.30	275.75	3.45		
R0864308	828832	12	13	300	<0.4	33	336	<1	4	8	9.73	<2	15	<5	<5	117	2	5	2579	24	92	2869	1.03	0.09	0.87	7.95	0.07	0.62	8840	0.69	<5	275.75	278.60	2.85		
R0864309	828833	7	11	415	<0.4	8	465	<1	4	10	11.19	<2	10	<5	<5	177	4	7	2747	20	89	2894	1.13	0.10	1.03	7.91	0.08	0.85	7941	0.08	<5	278.60	280.18	1.58		
R0864310	828834	12	21	168	<0.4	62	169	<1	4	8	8	<2	20	<5	<5	50	2	4	2200	38	103	3839	0.92	0.03	0.37	8.93	0.05	0.22	2807	1.12	<5	280.18	282.00	1.82		
R0864311	828835	12	16	121	<0.4	31	173	<1	4	7	7.86	<2	11	<5	<5	25	<2	4	2120	77	93	4810	1.05	0.01	0.24	10.02	0.04	0.16	5510	0.92	<5	282.00	285.33	3.33		
R0864312	828836	8	15	119	<0.4	24	167	<1	3	8	7.38	<2	12	<5	<5	28	3	<2	2025	71	99	4638	1.01	0.01	0.23	10.03	0.04	0.16	5016	0.71	<5	duplicate				
R0864313	828837	2	17	214	<0.4	32	331	<1	7	13	9.77	<2	9	<5	<5	72	<2	4	2397	38	195	4796	1.24	0.07	0.69	11.57	0.05	0.35	5664	0.88	<5	285.33	288.33	3.00		
R0864314	828838	1	19	55	<0.4	29	246	<1	6	12	6.61	<2	8	<5	<5	10	2	4	2925	67	680	7207	1.07	<.01	0.16	18.10	0.03	0.08	603	0.87	<5	288.33	291.33	3.00		
R0864315	828838 GDL DUP	1	18	54	<0.4	27	238	<1	5	11	6.37	<2	10	<5	<5	9	<2	3	2927	64	654	6911	1.03	<.01	0.15	19.68	0.03	0.08	575	0.83	<5	lab duplicate				
R0864316	828839	2	14	165	<0.4	16	275	<1	3	17	7.24	7	29	<5	<5	49	<2	3	1647	45	483	4866	0.90	0.06	0.52	10.40	0.04	0.33	2592	0.32	<5	291.33	294.33	3.00		
R0864316 rpt		3	13	134	<0.4	14	277	<1	2	15	6.60	7	30	<5	<5	44	<2	<2	1484	43	469	4236	0.92	0.06	0.50	8.39	0.04	0.36	2540	0.31	<5	lab repeat				
R0864317	828840	3	15	227	<0.4	38	261	<1	5	14	8.10	4	14	<5	<5	66	2	3	2836	41	175	3742	0.97	0.09	0.77	10.27	0.05	0.48	3966	1.13	<5	294.33	297.33	3.00		
R0864318	828841	1	11	93	<0.4	7	324	<1	<1	6	6.27	<2	11	<5	<5	55	2	2	2948	81	173	4113	0.76	0.03	0.48	12.18	0.04	0.25	7316	0.17	<5	297.33	300.33	3.00		
R0864319	828842	2	11	150	<0.4	3	295	<1	1	10	8.20	<2	14	<5	<5	55	<2	4	1839	37	137	4764	0.99	0.04	0.49	10.22	0.05	0.25	3999	0.12	<5	300.33	303.00	2.67		
R0864320	828843	69	90	293	5.7	6	90	2	7	31	3.24	5	43	<5	8	73	27	3	51	7	4	527	0.72	0.16	1.53	1.13	0.14	0.13	541	0.11	<5	blank				
R0864321	828844	2	9	50	<0.4	9	211	<1	<1	9	6.63	<2	14	<5	<5	12	2	<2	1377	60	134	5365	1.10	<.01	0.25	9.41	0.03	0.10	1967	0.27	<5	303.00	305.41	2.41		

=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).

HOLE

WI-08-04

SPECTRUM MINING CORP-X08



Ref/I.D.: WICHEEDA#4: #828845-828900
 Report date: 07 JAN 2009
 GDL Job No: V08-0980R

Hole WI-08-04

Global Discovery Labs

LAB NO	FIELD NUMBER	Sample Interval			Ce(P) (ppm)	La(P) (ppm)	Nb(P) (ppm)	Nd(P) (ppm)
		From (m)	To (m)	Width (m)				
R0864327	GDL PREP BLANK	lab blank			50	32	20	11
R0864328	828845	blank			44	22	3	7
R0864329	828846	1.57	4.57	3.00	14238	6951	28	2415
R0864330	828847	4.57	7.57	3.00	6268	2821	5	1160
R0864331	828848	7.57	10.57	3.00	16854	8293	<3	2830
R0864332	828849	10.57	13.57	3.00	14803	6641	<3	2636
R0864333	828850 (XRF std)	lab standard						
R0864334	828851	13.57	16.57	3.00	13096	5947	35	2315
R0864335	828852	16.57	19.57	3.00	7740	3770	325	1479
R0864336	828853	19.57	22.57	3.00	6178	2961	449	1039
R0864337	828854	22.57	25.57	3.00	19663	8662	<3	3344
R0864338	828855	25.57	28.57	3.00	14916	6830	76	2669
R0864339	828856	28.57	31.57	3.00	21174	8809	31	3353
R0864339 rpt		lab repeat			21279	8632	33	3442
R0864340	828857	duplicate			18365	7790	22	3036
R0864341	828858	31.57	34.57	3.00	21985	10250	15	3355
R0864342	828859	34.57	37.57	3.00	18943	8294	3	2941
R0864343	828860	37.57	40.57	3.00	19900	9212	4	3042
R0864344	828861	40.57	43.57	3.00	28246	13254	<3	4258
R0864345	828862	43.57	46.57	3.00	26725	12179	<3	4080
R0864346	828863	46.57	49.57	3.00	29627	14012	<3	4448
R0864347	828864	blank			8	21	<3	12
R0864348	828865	49.57	52.57	3.00	15167	6955	<3	2701
R0864349	828866	52.57	55.57	3.00	13611	6040	3	2483
R0864350	828867	55.57	58.75	3.18	13409	6167	1161	2309
R0864351	828868	58.75	61.46	2.71	8975	4086	391	1824
R0864352	828869	61.46	64.46	3.00	8520	3960	80	1589
R0864353	828870	64.46	67.46	3.00	10804	5007	184	1913
R0864354	828871 (XRF std)	lab standard						
R0864355	828872	67.46	70.46	3.00	12455	5693	6	2136
R0864356	828873	70.46	73.46	3.00	15988	7407	6	2579
R0864357	828874	73.46	76.46	3.00	8947	4165	42	1679
R0864358	828875	76.46	79.46	3.00	14560	7115	127	2346
R0864359	828876	79.46	82.46	3.00	10515	4905	57	1724
R0864360	828877	82.46	85.46	3.00	12585	5848	32	2030
R0864360 rpt		lab repeat			12461	5806	35	2025
R0864361	828878	duplicate			12938	5973	28	2075
R0864362	828879	85.46	87.33	1.87	19229	8884	43	2996
R0864363	828880	87.33	93.27	5.94	12942	6008	50	2271
R0864364	828881	93.27	96.90	3.53	24638	11265	176	3891
R0864365	828882	96.90	99.73	2.83	18540	8346	722	2957
R0864366	828882 GDL DUP	lab duplicate			18577	8694	693	2896
R0864367	828883	99.73	103.05	3.32	6943	3236	1303	1339
R0864368	828884	103.05	106.05	3.00	7634	3612	1373	1441
R0864369	828885	blank			12	21	4	5
R0864370	828886	106.05	109.05	3.00	8934	4575	975	1641
R0864371	828887	109.05	112.05	3.00	2062	1125	279	459
R0864372	828888	112.05	115.05	3.00	8525	4098	556	1727
R0864373	828889	115.05	121.00	5.95	4100	2189	828	980
R0864374	828890 (XRF std)	lab standard						
R0864375	828891	121.00	125.88	4.88	835	490	881	228
R0864376	828892	125.88	129.54	3.66	608	317	890	160

GDL Job No: V08-0980R

LAB NO	FIELD NUMBER	Sample Interval			Ce(P) (ppm)	La(P) (ppm)	Nb(P) (ppm)	Nd(P) (ppm)
		From (m)	To (m)	Width (m)				
R0864377	828893	129.54	134.26	4.72	936	524	811	260
R0864378	828894	134.26	138.38	4.12	974	621	722	285
R0864379	828895	138.38	142.04	3.66	701	350	841	207
R0864380	828896	142.04	143.73	1.69	613	265	1476	176
R0864381	828897	duplicate			613	275	1380	178
R0864382	828898	143.73	148.13	4.40	702	437	1245	190
R0864383	828899	148.13	151.18	3.05	1056	750	1050	266
R0864384	828900	151.18	154.23	3.05	1360	785	1063	339
STD: OKA-1							3726	
STD: SY-3					2226	1320		
STD: SY-3								666

I=insufficient sample

If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

Ce(P) X-Ray fluorescence / pressed pellet

La(P) X-Ray fluorescence / pressed pellet

Nb(P) X-Ray fluorescence / pressed pellet

Nd(P) X-Ray fluorescence / pressed pellet

SPECTRUM MINING CORP-X08

Ref/I.D.: WICHEEDA#4: #828845-828900
 Report date: 28 NOV 2008
 GDL Job No: V08-0980R



Hole WI-08-04

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval			
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)	
R0864327	GDL PREP BLANK	2	<4	52	<0.4	<2	257	<1	3	17	1.99	<2	82	<5	<5	40	<2	<2	57	4	8	542	0.59	0.12	0.93	0.49	0.08	0.54	773	<0.05	<5	lab blank			
R0864328	828845	75	82	268	6.6	7	87	2	7	34	3.05	5	44	<5	<5	61	28	<2	45	6	3	449	0.74	0.13	1.37	0.87	0.12	0.13	546	0.12	<5	blank			
R0864329	828846	2	228	166	1.5	35	958	<1	<1	3	6.67	88	16	18	<5	12	<2	3	863	27	1792	11350	6.10	<0.01	0.08	15.55	0.03	<0.01	222	0.14	<5	1.57	4.57	3.00	
R0864329 rpt		2	223	147	1.4	38	884	<1	<1	2	6.47	80	16	15	<5	12	<2	2	766	25	1734	11030	5.60	<0.01	0.07	15.00	0.03	<0.01	236	0.13	<5	lab repeat			
R0864330	828847	1	26	112	<0.4	17	495	<1	<1	3	7.34	76	16	<5	<5	9	<2	2	977	17	858	13600	6.17	<0.01	0.04	16.04	0.03	<0.01	143	0.12	<5	4.57	7.57	3.00	
R0864331	828848	3	28	66	<0.4	169	1330	<1	<1	<1	6.21	20	14	<5	<5	16	2	11	802	41	8242	10910	6.74	<0.01	0.08	15.06	0.05	0.01	41	0.08	<5	7.57	10.57	3.00	
R0864332	828849	4	42	167	<0.4	155	994	<1	<1	<1	6.56	43	15	<5	<5	16	2	10	735	38	7697	11040	6.82	<0.01	0.08	16.12	0.04	<0.01	36	0.22	<5	10.57	13.57	3.00	
R0864333	828850 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0864334	828851	4	58	107	<0.4	109	311	<1	6	<1	6.94	135	10	<5	<5	11	<2	7	553	37	4856	9475	6.58	<0.01	0.08	16.27	0.04	0.01	40	0.63	<5	13.57	16.57	3.00	
R0864335	828852	3	50	89	0.8	63	493	<1	2	2	6.12	170	14	<5	<5	11	<2	5	681	81	2882	9158	5.57	<0.01	0.12	14.05	0.04	0.05	40	0.44	<5	16.57	19.57	3.00	
R0864336	828853	3	39	55	<0.4	60	291	<1	3	5	6.71	625	18	<5	<5	8	2	3	803	21	2657	10160	5.19	<0.01	0.22	13.18	0.03	0.13	398	0.96	<5	19.57	22.57	3.00	
R0864337	828854	4	74	92	<0.4	188	985	<1	1	<1	6.92	55	13	<5	<5	12	3	11	1006	58	9143	12030	6.55	<0.01	0.04	15.39	0.05	<0.01	32	0.26	<5	22.57	25.57	3.00	
R0864338	828855	3	41	76	0.6	134	1047	<1	<1	<1	5.59	312	17	<5	<5	11	3	9	618	68	6433	8874	6.67	<0.01	0.20	14.90	0.04	0.10	34	0.19	<5	25.57	28.57	3.00	
R0864339	828856	5	69	76	0.9	157	74	<1	15	<1	7.95	203	22	<5	<5	10	3	10	705	58	7222	10620	5.96	<0.01	0.12	14.43	0.04	0.05	19	1.98	<5	28.57	31.57	3.00	
R0864340	828857	4	45	78	0.8	150	89	<1	13	<1	7.94	221	22	<5	<5	12	2	10	739	51	6772	11010	5.85	<0.01	0.13	13.89	0.04	0.05	14	1.82	<5	duplicate			
R0864341	828858	4	119	288	0.6	182	107	<1	4	<1	7.23	86	20	<5	<5	17	3	9	1145	56	8679	10730	6.84	<0.01	0.06	15.55	0.07	<0.01	25	0.80	<5	31.57	34.57	3.00	
R0864342	828859	3	80	187	<0.4	132	81	<1	9	1	7.61	106	18	<5	<5	14	2	7	905	43	5969	10670	6.35	<0.01	0.06	14.88	0.05	<0.01	24	1.35	<5	34.57	37.57	3.00	
R0864343	828860	4	88	79	<0.4	147	93	<1	9	<1	7.18	90	21	<5	<5	13	<2	10	737	46	6905	9762	6.03	<0.01	0.07	13.61	0.06	<0.01	21	1.37	<5	37.57	40.57	3.00	
R0864343 rpt		4	104	78	<0.4	166	98	<1	10	<1	8.00	100	19	<5	<5	16	2	10	783	50	7325	10850	6.47	<0.01	0.07	15.94	0.06	<0.01	19	1.51	<5	lab repeat			
R0864344	828861	5	83	76	<0.4	281	118	<1	5	<1	6.78	48	18	<5	<5	17	3	17	783	75	13050	9743	7.04	0.01	0.06	15.68	0.07	0.01	13	0.90	<5	40.57	43.57	3.00	
R0864345	828862	4	83	58	0.7	188	579	<1	1	<1	6.18	68	17	<5	<5	14	3	11	790	56	9022	9735	6.51	<0.01	0.05	15.31	0.05	0.01	52	0.48	<5	43.57	46.57	3.00	
R0864346	828863	5	71	59	0.8	271	598	<1	<1	<1	5.86	48	19	<5	<5	17	3	13	743	55	12750	9479	6.66	0.01	0.06	15.81	0.05	<0.01	<10	0.26	<5	46.57	49.57	3.00	
R0864347	828864	69	84	278	7.5	7	85	2	7	30	3.10	5	42	<5	<5	63	25	<2	40	6	22	482	0.69	0.12	1.31	0.93	0.12	0.13	505	0.10	<5	blank			
R0864348	828865	3	82	52	0.8	177	1234	<1	<1	<1	6.67	25	17	<5	<5	16	2	10	913	38	8519	11300	6.84	<0.01	0.04	15.22	0.05	<0.01	<10	0.26	<5	49.57	52.57	3.00	
R0864349	828866	4	39	47	<0.4	155	302	<1	2	<1	6.87	32	14	<5	<5	15	2	9	734	34	7403	10970	6.45	<0.01	0.05	14.89	0.04	0.01	<10	0.82	<5	52.57	55.57	3.00	
R0864350	828867	3	28	31	<0.4	131	48	<1	<1	<1	5.90	599	18	<5	<5	15	2	7	687	26	6376	9327	6.25	<0.01	0.52	13.39	0.03	0.15	431	0.29	<5	55.57	58.75	3.18	
R0864351	828868	3	32	33	0.5	101	344	<1	<1	<1	6.26	350	14	<5	<5	15	<2	7	582	31	4845	10110	6.55	<0.01	0.35	16.21	0.03	0.06	232	0.19	<5	58.75	61.46	2.71	
R0864352	828869	2	23	28	<0.4	69	375	<1	<1	<1	6.07	188	18	<5	<5	11	<2	5	695	23	3338	10740	6.94	<0.01	0.10	15.31	0.04	0.03	527	0.19	<5	61.46	64.46	3.00	
R0864353	828870	3	42	33	<0.4	131	398	<1	1	<1	6.70	795	13	<5	<5	10	<2	7	729	33	5933	11560	6.56	<0.01	0.20	15.02	0.03	0.07	31	0.53	<5	64.46	67.46	3.00	
R0864354	828871 (XRF std)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	lab standard		
R0864355	828872	2	37	72	<0.4	115	402	<1	<1	<1	6.58	63	14	<5	<5	13	2	5	832	22	5288	12070	6.36	<0.01	0.05	15.65	0.04	0.01	94	0.31	<5	67.46	70.46	3.00	
R0864356	828873	3	30	36	0.5	172	2138	<1	<1	<1	6.72	92	13	<5	<5	11	3	10	1097	25	8024	12440	6.46	<0.01	0.10	15.43	0.05	0.01	17	<0.05	<5	70.46	73.46	3.00	
R0864357	828874	2	31	41	<0.4	98	2259	<1	<1	<1	6.61	164	14	<5	<5	12	<2	5	1049	17	4375	12750	6.30	<0.01	0.10	15.43	0.05	0.02	<10	0.09	<5	73.46	76.46	3.00	
R0864358	828875	4	50	33	<0.4	170	2215	<1	<1	<1	6.07	1088	13	<5	<5	7	3	9	946	24	7869	10640	6.60	<0.01	0.24	14.19	0.05	0.10	<10	0.14	<5	76.46	79.46	3.00	
R0864359	828876	2	27	34	<0.4	121	1914	<1	<1	<1	6.54	335	12	<5	<5	9	2	6	948	18	5665	12340	6.55	<0.01	0.16	15.14	0.04	0.04	<10	0.07	<5	79.46	82.46	3.00	
R0864360	828877	3	29	31	<0.4	155	1278	<1	<1	<1	6.53	336	11	<5	<5	10	2	7	920	20	7362	11690	6.49	<0.01	0.19	14.59	0.04	0.07	<10	0.12	<5	82.46	85.46	3.00	
R0864361	828878	2	29	32	0.7	158	1475	<1	<1	<1	6.38	243	14	<5	<5	11	2	7	921	21	7440	11920	6.39	<0.01	0.15	15.53	0.05	0.04	<10	0.09	<5	duplicate			
R0864362	828879	4	41	31	0.6	225	913	<1	<1	<1	6.46	490	11	<5	<5	12	3	13	785	32	10170	11400	6.61	<0.01	0.21	15.92	0.05	0.08	<10	0.21	<5	85.46	87.33	1.87	
R0864362 rpt		4	45	27	<0.4	230	937	<1	<1	<1	6.51	477	10	<5	<5	11	4	14	781	32	10320	11500	6.58	<0.01	0.22	15.85	0.07	0.09	<10	0.21	<5	lab repeat			
R0864363	828880	3	35	27	<0.4	154	1289	<1	<1	<1	6.46	284	14	<5	<5	11	3	8	632	31	7162	11090	6.71</												

GDL Job No: V08-0980R

LAB NO	FIELD NUMBER	Cu	Pb	Zn	Ag	As	Ba	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	P	S	Se	Sample Interval		
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	ppm	%	ppm	From (m)	To (m)	Width (m)
R0864376 rpt		3	8	10	<0.4	18	95	<1	4	9	2.98	16	19	<5	<5	4	<2	<2	163	33	35	1893	2.43	<.01	0.43	5.99	0.03	0.30	1001	1.12	<5	lab repeat		
R0864377	828893	4	6	6	<0.4	10	96	<1	3	8	2.29	27	20	<5	<5	5	<2	<2	123	22	79	1621	2.02	<.01	0.17	5.23	0.03	0.15	608	0.60	<5	129.54	134.26	4.72
R0864378	828894	1	81	38	0.5	11	73	<1	4	6	2.33	4	10	<5	<5	5	<2	<2	383	65	85	1942	3.03	<.01	0.13	8.92	0.03	0.10	4178	0.43	<5	134.26	138.38	4.12
R0864379	828895	3	11	11	<0.4	7	59	<1	2	5	2.60	4	15	<5	<5	5	<2	<2	266	72	46	2684	3.71	<.01	0.15	10.51	0.03	0.08	2994	0.40	<5	138.38	142.04	3.66
R0864380	828896	8	8	71	<0.4	12	119	<1	14	24	6.82	5	26	<5	<5	90	<2	<2	583	25	36	2341	1.98	0.06	0.69	7.43	0.05	0.49	1951	3.06	<5	142.04	143.73	1.69
R0864381	828897	8	11	66	<0.4	9	117	<1	12	21	6.08	8	16	<5	<5	76	3	<2	716	29	58	2547	2.05	0.05	0.61	8.67	0.06	0.45	2235	2.31	<5	duplicate		
R0864382	828898	3	5	9	<0.4	12	254	<1	3	9	2.41	2	13	<5	<5	5	<2	<2	346	43	56	1592	2.05	<.01	0.17	6.27	0.04	0.13	1989	0.59	<5	143.73	148.13	4.40
R0864383	828899	1	<4	20	0.9	6	214	<1	1	7	2.56	7	14	<5	<5	8	<2	<2	453	43	102	1841	2.89	<.01	0.33	8.02	0.04	0.22	2090	0.30	<5	148.13	151.18	3.05
R0864384	828900	2	7	21	<0.4	16	130	<1	4	6	4.08	6	13	<5	<5	17	<2	<2	835	93	246	3256	4.71	0.01	0.38	13.35	0.04	0.23	15560	1.11	<5	151.18	154.23	3.05
STD: DA		120	217	650	6.3	50	530	3	10	46	3.57	3	39	<5	<5	60	2	<2	35	8	16	665	0.54	0.07	1.45	0.50	0.08	0.15	914	0.19	<5			
STD: DA		115	216	655	5.5	49	483	3	10	46	3.52	3	39	<5	<5	59	2	2	30	8	21	661	0.50	0.07	1.38	0.48	0.08	0.14	860	0.18	<5			

I=insufficient sample
 If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

GROUP 1AA ICP-AES: 30 element package digested in hot reverse aqua regia (soil, silt) or hot aqua regia (rocks).

FUS-MS ANALYSIS
WITH SAMPLE INTERVALS
AND WEIGHTED AVERAGES

Final Report
Activation Laboratories

Lab Reference	Sample Number	Drill Hole Number	Sample Interval			weighted La (ppm)	weighted Ce (ppm)	weighted Pr (ppm)	weighted Nd (ppm)	weighted Sm (ppm)	weighted Eu (ppm)	weighted Gd (ppm)	Analyte Symbol Unit Symbol Detection Limit Analysis Method	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
			From (m)	To (m)	Width (m)									ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
R0860725	828601	WI-08-01	2.13	5.00	2.87	0.086005	1720	2314	169	347	41	10	13	20000	26900	1970	4030	477	114	152	14.6	55.7	6.2	10.3
R0860726	828602	WI-08-01	5.00	8.00	3.00	0.089901	1313	1717	130	252	30	7	9	14600	19100	1450	2800	338	75	97.9	9.1	36.8	4.2	7.2
R0860727	828603	WI-08-01	8.00	11.00	3.00	0.089901	1681	2176	158	294	33	7	7	18700	24200	1760	3270	363	77.6	77.8	9	37.6	4.7	7.6
R0860728	828604	WI-08-01	11.00	14.00	3.00	0.089901	2652	3407	261	478	53	11	10	29500	37900	2900	5320	591	118	116	13.3	52	5.7	10.2
R0860730	828606	WI-08-01	14.00	17.00	3.00	0.089901	1304	1699	125	242	26	6	7	14500	18900	1390	2690	289	66.2	72.6	8.2	35.9	4.8	8.1
R0860731	828607	WI-08-01	17.00	20.00	3.00	0.089901	823	1124	88	185	23	5	8	9150	12500	976	2060	252	59.1	84.2	9.6	40.3	5.2	9.3
R0860732	828608	WI-08-01	20.00	23.00	3.00	0.089901	1420	1879	146	307	39	8	12	15800	20900	1620	3410	436	92.8	132	12.4	45.3	4.9	8
R0860733	828609	WI-08-01	23.00	25.50	2.50	0.074918	1034	1393	109	226	29	6	11	13800	18600	1460	3010	390	86.1	143	11.8	38.4	3.9	6.7
R0860734	828610	WI-08-01	25.50	27.25	1.75	0.052442	535	734	58	128	17	3	7	10200	14000	1100	2450	324	66.3	129	10.8	31.8	3.3	5.8
R0860735	828611	WI-08-01	27.25	30.50	3.25	0.097393	670	959	78	178	24	5	9	6880	9850	802	1830	242	55	95.3	10.4	38.3	4.5	8.5
R0860736	828612	WI-08-01	30.50	33.50	3.00	0.089901	877	1241	96	205	23	5	7	9760	13800	1070	2280	256	52.3	76.6	6.8	25.7	2.8	5
R0860737	828613	WI-08-01	duplicate											9340	13100	1020	2120	246	50.7	79.5	7.1	26.2	3	5.4
R0860738	828614	WI-08-01	33.50	35.50	2.00	0.059934	905	1295	99	211	25	5	8	15100	21600	1660	3520	415	88.3	141	11.1	37	3.8	6
R0860739	828615	WI-08-01	35.50	38.82	3.32	SUM/33.37m	14934	19938	1518	3052	363	79	107	4940	8310	611	1240	153	31	44.7	3.7	13	1.5	2.6
R0863897	828637	WI-08-02	1.42	4.42	3.00	0.061678	1190	1536	111	208	22	5	5	19300	24900	1800	3370	353	75.8	76.2	8.1	32.8	3.7	6.1
R0863898	828638	WI-08-02	4.42	7.52	3.00	0.061678	1363	1733	130	239	25	5	5	22100	28100	2110	3880	401	81.9	78.1	8	33.3	3.6	6.2
R0863899	828639	WI-08-02	7.52	10.52	3.00	0.061678	1215	1647	123	261	31	6	10	19700	26700	1990	4230	503	94.8	160	12.9	45.1	5.5	9.8
R0863900	828640	WI-08-02	10.52	13.52	3.00	0.061678	2122	2732	212	408	47	9	14	34400	44300	3440	6620	758	146	231	20.2	68.9	8	16.3
R0863901	828641	WI-08-02	standard											58700	133000	16700	50900	8970	2310	5250	489	1490	156	255
R0863902	828642	WI-08-02	13.52	16.52	3.00	0.061678	931	1197	86	163	19	4	6	15100	19400	1400	2650	301	70.9	96.1	9.1	31.3	3.6	6
R0863903	828643	WI-08-02	16.52	19.52	3.00	0.061678	796	1005	73	147	17	4	6	12900	16300	1180	2390	269	60.9	94.2	8.9	29.9	3.3	5.9
R0863904	828644	WI-08-02	19.52	22.52	3.00	0.061678	414	552	42	92	12	3	4	6720	8950	679	1490	191	41.5	69.7	6	19.2	2.2	3.9
R0863905	828645	WI-08-02	22.52	25.52	3.00	0.061678	565	752	56	123	15	3	5	9160	12200	910	2000	244	50.9	87.2	7.1	22.6	2.5	4.7
R0863906	828646	WI-08-02	25.52	28.52	3.00	0.061678	635	833	62	138	17	4	6	10300	13500	1010	2240	273	57.6	98.3	7.5	23.7	2.7	4.8
R0863907	828647	WI-08-02	duplicate											7480	9840	751	1610	201	42.2	70.6	5.4	17.4	2	3.5
R0863908	828648	WI-08-02	28.52	32.06	3.54	0.072780	917	1230	95	210	26	5	9	12600	16900	1300	2880	363	69.6	123	8.7	27.6	3	5.1
R0863909	828649	WI-08-02	32.06	35.06	3.00	0.061678	286	395	35	74	9	2	3	4630	6400	565	1200	147	30.5	49.5	4.1	14.2	1.8	3.4
R0863910	828650	WI-08-02	35.06	38.06	3.00	0.061678	463	617	49	112	15	3	6	7500	10000	789	1820	238	50	95.3	8.7	30.4	3.5	6.7
R0863911	828651	WI-08-02	38.06	41.06	3.00	0.061678	944	1252	95	210	26	5	10	15300	20300	1540	3400	423	81.7	157	12.9	41.2	4.4	7.7
R0863912	828652	WI-08-02	41.06	44.06	3.00	0.061678	466	641	49	106	14	3	5	7560	10400	791	1720	221	44.6	78.9	7.5	27.4	3.3	7
R0863913	828653	WI-08-02	44.06	47.06	3.00	0.061678	547	728	54	122	14	3	5	8870	11800	870	1980	232	51.4	85.8	8	27.1	3.1	5.6
R0863914	828654	WI-08-02	47.06	50.06	3.00	0.061678	715	956	73	166	20	5	8	11600	15500	1190	2690	323	75.6	128	11.7	38.7	4.5	7.6
						SUM/48.64m	13570	17806	1344	2780	327	68	107											
R0864198	828724	WI-08-03	2.56	5.56	3.00	0.041102	641	847	62	119	14	3	5	15600	20600	1520	2890	344	75.7	116	11.2	40.7	5	9.1
R0864199	828725	WI-08-03	5.56	8.56	3.00	0.041102	633	830	60	124	14	3	4	15400	20200	1470	3010	338	70.6	106	9.6	30.9	3.5	6.5
R0864200	828726	WI-08-03	8.56	11.56	3.00	0.041102	851	1102	80	162	18	4	5	20700	26800	1940	3940	426	89.1	128	10.5	35.7	3.9	7
R0864201	828727	WI-08-03	11.56	14.56	3.00	0.041102	501	670	49	71	7	1	2	12200	16300	1200	1720	161	34.6	56.8	4.8	16.6	1.9	3.7
R0864202	828728	WI-08-03	standard											53600	123000	15600	50200	9370	2410	5530	495	1560	170	267
R0864203	828729	WI-08-03	14.56	17.56	3.00	0.041102	316	419	33	75	9	2	3	7700	10200	795	1820	220	43.6	77	6.1	17.2	1.9	3.2
R0864204	828730	WI-08-03	17.56	20.56	3.00	0.041102	234	307	23	51	6	1	2	5690	7460	565	1240	138	29.2	44.3	4	13.6	1.5	2.8
R0864205	828731	WI-08-03	20.56	23.56	3.00	0.041102	372	477	36	83	9	2	3	9060	11600	876	2020	226	48.9	74.6	6.8	24	2.9	5.2
R0864206	828732	WI-08-03	23.56	26.56	3.00	0.041102	473	658	50	111	14	3	5	11500	16000	1210	2700	335	67.7	115	10.4	34.9	3.8	6.8
R0864207	828733	WI-08-03	26.56	29.56	3.00	0.041102	315	415	33	79	10	2	4	7670	10100	800	1910	235	47.6	85.7	6.8	22.6	2.4	4
R0864208	828734	WI-08-03	29.56	32.56	3.00	0.041102	201	266	21	49	6	1	2	4900	6470	502	1200	147	31.3	51.5	4.4	14.9	1.7	2.9
R0864209	828735	WI-08-03	duplicate											4710	6260	486	1080	133	27.5	45.8	3.9	13.6	1.6	2.9
R0864210	828736	WI-08-03	32.56	35.38	2.82	0.038635	413	541	42	93	11	2	4	10700	14000	1080	2410	296	58.5	96.3	8	23.7	2.6	4.6
R0864211	828737	WI-08-03	35.38	38.71	3.33	0.045623	575	744	54	106	12	2	3	12600	16300	1190	2330	254	52.9	69.1	6.5	25.5	3.2	5.7
R0864212	828738	WI-08-03	38.71	41.71	3.00	0.041102	666	863	63	130	15	3	5	16200	21000	1530	3160	377	85	122	11.3	36.9	4.1	7.3
R0864213	828739	WI-08-03	41.71	44.71	3.00	0.041102	387	501	38	84	10	2	4	9410	12200	915	2050	247	50.6	85.6	6.5	19.1	2	3.5
R0864214	828740	WI-08-03	44.71	47.71	3.00	0.041102	353	415	28	49	5	1	2	8600	10100	675	1190	118	26.7	40.5	4.2	15.2	1.8	3.7
R0864215	828741	WI-08-03	47.71	50.50	2.79	0.038224	390	463	31	57	6	1	2	10200	12100	813	1480	144	33.9	50.1	5.2	17.6	2.2	4.2
R0864216	828742	WI-08-03	blank											17.4	30.6	3.33	13.2	3.1	0.93	3.2	0.6	3.6	0.7	2.2
R0864217	828743	WI-08-03	50.50	53.50	3.00	0.041102	158	229	18	46	7	2	3	3840	5560	449	1130	168	44.1	84.9	8.9	34.5	4.3	7.2

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Lab Reference	Sample Number	Drill Hole Number	Sample Interval			weighted La (ppm)	weighted Ce (ppm)	weighted Pr (ppm)	weighted Nd (ppm)	weighted Sm (ppm)	weighted Eu (ppm)	weighted Gd (ppm)	Analyte Symbol	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	
			From (m)	To (m)	Width (m)									Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
													Detection Limit	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1
													Analysis Method	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
R0864218	828744	WI-08-03	53.50	55.25	1.75	0.023976	122	157	12	26	3	1	1	5100	6550	487	1090	134	36.2	60.5	5.9	20.3	2.4	4	
R0864219	828745	WI-08-03	55.25	58.25	3.00	0.041102	404	526	40	89	10	2	4	9820	12800	975	2170	241	52.5	97.1	8	23.3	2.7	5.3	
R0864220	828746	WI-08-03	58.25	61.25	3.00	0.041102	401	522	39	95	12	3	5	9760	12700	960	2300	297	64.2	124	9.6	30	3.3	6.2	
R0864221	828747	WI-08-03	61.25	64.23	2.98	0.040828	441	572	44	104	14	3	5	10800	14000	1070	2540	332	63.5	126	9.2	24	2.9	5.4	
R0864222	828748	WI-08-03	64.23	67.23	3.00	0.041102	456	604	47	111	15	3	6	11100	14700	1140	2690	361	68.2	140	9.7	27.4	3.2	6.3	
R0864223	828749	WI-08-03	standard											3.4	4.5	0.36	0.9	0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
R0864224	828750	WI-08-03	67.23	70.23	3.00	0.041102	493	658	53	126	15	3	6	12000	16000	1280	3060	353	68	137	11.1	30.4	3.5	7.1	
R0864225	828751	WI-08-03	70.23	72.55	2.32	0.031785	350	461	35	72	9	2	3	11000	14500	1110	2280	286	58.3	110	9.9	28.5	3.4	6.7	
R0864226	828752	WI-08-03	72.55	75.55	3.00	0.041102	380	506	40	96	13	3	6	9250	12300	965	2340	320	79.4	146	12.9	36	4.1	6.7	
						SUM/72.99m	10528	13750	1030	2207	262	56	94												
R0864329	828846	WI-08-04	1.57	4.57	3.00	0.052466	551	729	56	116	14	3	6	10500	13900	1060	2210	268	63.3	110	10.6	35.3	4	7.3	
R0864330	828847	WI-08-04	4.57	7.57	3.00	0.052466	230	313	24	57	7	2	3	4380	5970	464	1090	127	29	55.1	5.2	16.5	1.8	3.6	
R0864331	828848	WI-08-04	7.57	10.57	3.00	0.052466	677	892	68	140	17	4	6	12900	17000	1300	2660	324	69.8	109	9.1	30.7	3.7	7	
R0864332	828849	WI-08-04	10.57	13.57	3.00	0.052466	687	908	70	152	19	4	6	13100	17300	1330	2900	353	74.3	121	10.4	32.1	3.7	7	
R0864334	828851	WI-08-04	13.57	16.57	3.00	0.052466	498	682	60	126	14	3	4	9490	13000	1140	2410	262	54.5	76	8.2	30.9	3.8	6.9	
R0864335	828852	WI-08-04	16.57	19.57	3.00	0.052466	331	450	39	80	9	2	4	6300	8570	750	1520	173	40.8	70.7	10.3	50.3	6.9	13	
R0864336	828853	WI-08-04	19.57	22.57	3.00	0.052466	244	336	28	56	6	1	2	4650	6410	537	1070	122	28.1	38.8	4.8	19.7	2.4	3.8	
R0864337	828854	WI-08-04	22.57	25.57	3.00	0.052466	703	976	86	173	21	4	7	13400	18600	1640	3300	397	79.5	137	13	45.8	5	7.4	
R0864338	828855	WI-08-04	25.57	28.57	3.00	0.052466	572	797	69	143	17	4	6	10900	15200	1320	2720	327	68.9	116	13.4	52.3	6.1	10.5	
R0864339	828856	WI-08-04	28.57	31.57	3.00	0.052466	724	1007	88	177	20	4	6	13800	19200	1670	3380	389	80.6	117	13.2	52.4	5.8	8.5	
R0864340	828857	WI-08-04	duplicate											12700	17500	1520	3070	340	70.3	98.1	11.5	46	5.6	9.1	
R0864341	828858	WI-08-04	31.57	34.57	3.00	0.052466	750	1013	86	167	18	4	4	14300	19300	1630	3180	340	76.6	84	10.7	44.5	5.3	8.5	
R0864342	828859	WI-08-04	34.57	37.57	3.00	0.052466	640	881	75	137	16	3	4	12200	16800	1420	2620	296	63.9	71	8.6	36.3	4	6.7	
R0864343	828860	WI-08-04	37.57	40.57	3.00	0.052466	682	929	78	153	17	4	4	13000	17700	1490	2920	315	71.4	78.8	9.5	41.3	4.7	7.3	
R0864344	828861	WI-08-04	40.57	43.57	3.00	0.052466	971	1322	113	218	25	6	7	18500	25200	2160	4150	484	108	135	14.6	55.2	5.7	7.8	
R0864345	828862	WI-08-04	43.57	46.57	3.00	0.052466	965	1348	112	226	24	5	6	18400	25700	2140	4310	466	95	117	13.5	50.2	5	7.9	
R0864346	828863	WI-08-04	46.57	49.57	3.00	0.052466	1123	1485	123	253	28	6	6	21400	28300	2350	4830	536	107	118	13	48.3	4.5	7.2	
R0864347	828864	WI-08-04	blank											18	27.2	3.41	13.3	3.1	0.9	3.3	0.6	3.6	0.7	2.1	
R0864348	828865	WI-08-04	49.57	52.57	3.00	0.052466	561	761	67	142	17	3	5	10700	14500	1270	2700	316	62.9	88.3	9	29.2	3.3	5.5	
R0864349	828866	WI-08-04	52.57	55.57	3.00	0.052466	504	682	61	127	15	3	4	9600	13000	1160	2430	290	57.7	79.6	7.9	26	2.7	5.2	
R0864350	828867	WI-08-04	55.57	58.75	3.18	0.055614	612	823	70	140	15	3	3	11000	14800	1260	2510	266	59.6	56	7.1	28.9	3.5	5.8	
						SUM/57.18m	12024	16335	1373	2784	318	68	93												

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Lab Reference	Sample Number	Drill Hole Number	Sample Interval			weighted La (ppm)	weighted Ce (ppm)	weighted Pr (ppm)	weighted Nd (ppm)	weighted Sm (ppm)	weighted Eu (ppm)	weighted Gd (ppm)	Analyte Symbol Unit Symbol Detection Limit Analysis Method	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Bi	Th	U
			From (m)	To (m)	Width (m)									ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
R0860725	828601	WI-08-01	2.13	5.00	2.87	0.086005	1720	2314	169	347	41	10	13	0.95	3	0.16	0.5	0.8	2	0.2	43	4.5	643	3.5
R0860726	828602	WI-08-01	5.00	8.00	3.00	0.089901	1313	1717	130	252	30	7	9	0.7	2.4	0.13	0.3	0.2	2	< 0.1	22	2.7	617	3.3
R0860727	828603	WI-08-01	8.00	11.00	3.00	0.089901	1681	2176	158	294	33	7	7	0.74	2.7	0.1	0.3	1.1	< 1	< 0.1	< 5	< 0.4	588	3.1
R0860728	828604	WI-08-01	11.00	14.00	3.00	0.089901	2652	3407	261	478	53	11	10	0.9	2.8	0.11	0.6	0.3	< 1	< 0.1	19	1	1220	1.4
R0860730	828606	WI-08-01	14.00	17.00	3.00	0.089901	1304	1699	125	242	26	6	7	0.77	3.1	0.18	0.3	0.2	< 1	< 0.1	14	1.2	472	1
R0860731	828607	WI-08-01	17.00	20.00	3.00	0.089901	823	1124	88	185	23	5	8	0.9	3.7	0.27	0.3	0.7	1	< 0.1	8	1.7	323	3.3
R0860732	828608	WI-08-01	20.00	23.00	3.00	0.089901	1420	1879	146	307	39	8	12	0.66	2	0.09	0.6	< 0.1	< 1	< 0.1	9	3.5	638	1.1
R0860733	828609	WI-08-01	23.00	25.50	2.50	0.074918	1034	1393	109	226	29	6	11	0.62	2.1	0.07	0.3	< 0.1	< 1	0.2	32	5.9	587	0.8
R0860734	828610	WI-08-01	25.50	27.25	1.75	0.052442	535	734	58	128	17	3	7	0.56	1.9	0.1	0.4	0.7	< 1	< 0.1	27	1.4	749	3.9
R0860735	828611	WI-08-01	27.25	30.50	3.25	0.097393	670	959	78	178	24	5	9	0.81	3.2	0.22	0.3	5.2	3	0.2	21	3	426	11.2
R0860736	828612	WI-08-01	30.50	33.50	3.00	0.089901	877	1241	96	205	23	5	7	0.45	2	0.1	0.2	0.5	< 1	< 0.1	< 5	< 0.4	433	2.2
R0860737	828613	WI-08-01	duplicate											0.49	2.2	0.11	0.2	0.6	< 1	< 0.1	19	2.2	413	1.8
R0860738	828614	WI-08-01	33.50	35.50	2.00	0.059934	905	1295	99	211	25	5	8	0.51	1.7	0.05	0.3	< 0.1	< 1	< 0.1	19	1.7	563	1.3
R0860739	828615	WI-08-01	35.50	38.82	3.32	SUM/33.37m	14934	19938	1518	3052	363	79	107	0.26	1.1	0.09	0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	264	1.1
R0863897	828637	WI-08-02	1.42	4.42	3.00	0.061678	1190	1536	111	208	22	5	5	0.54	1.5	< 0.04	0.3	0.6	1	< 0.1	37	3	588	1.6
R0863898	828638	WI-08-02	4.42	7.52	3.00	0.061678	1363	1733	130	239	25	5	5	0.46	1.2	< 0.04	0.2	0.6	< 1	< 0.1	27	2	689	1.4
R0863899	828639	WI-08-02	7.52	10.52	3.00	0.061678	1215	1647	123	261	31	6	10	0.9	3	0.14	0.5	0.2	< 1	< 0.1	< 5	< 0.4	757	1.1
R0863900	828640	WI-08-02	10.52	13.52	3.00	0.061678	2122	2732	212	408	47	9	14	1.51	5	0.17	0.6	0.7	< 1	< 0.1	36	1.6	1410	2.3
R0863901	828641	WI-08-02	standard											26	101	8.04	13.1	12.8	2	0.1	198	8.1	25200	205
R0863902	828642	WI-08-02	13.52	16.52	3.00	0.061678	931	1197	86	163	19	4	6	0.51	1.8	0.07	0.3	0.2	< 1	< 0.1	33	2.2	449	0.9
R0863903	828643	WI-08-02	16.52	19.52	3.00	0.061678	796	1005	73	147	17	4	6	0.55	2.1	0.12	2.9	< 0.1	< 1	< 0.1	< 5	< 0.4	398	0.9
R0863904	828644	WI-08-02	19.52	22.52	3.00	0.061678	414	552	42	92	12	3	4	0.36	1.5	0.11	0.3	< 0.1	< 1	< 0.1	48	3.9	296	0.7
R0863905	828645	WI-08-02	22.52	25.52	3.00	0.061678	565	752	56	123	15	3	5	0.44	1.7	0.1	0.2	0.3	1	< 0.1	31	1.6	371	0.9
R0863906	828646	WI-08-02	25.52	28.52	3.00	0.061678	635	833	62	138	17	4	6	0.43	1.5	0.08	0.3	0.3	< 1	< 0.1	40	2	467	0.9
R0863907	828647	WI-08-02	duplicate											0.34	1.3	0.07	0.3	0.1	< 1	< 0.1	< 5	< 0.4	380	0.8
R0863908	828648	WI-08-02	28.52	32.06	3.54	0.072780	917	1230	95	210	26	5	9	0.45	1.5	0.05	0.3	< 0.1	< 1	< 0.1	11	1.7	632	0.9
R0863909	828649	WI-08-02	32.06	35.06	3.00	0.061678	286	395	35	74	9	2	3	0.33	1.4	0.1	0.3	0.8	< 1	< 0.1	10	1.4	185	1.4
R0863910	828650	WI-08-02	35.06	38.06	3.00	0.061678	463	617	49	112	15	3	6	0.66	2.7	0.18	0.2	0.2	< 1	0.3	35	7.3	341	3.8
R0863911	828651	WI-08-02	38.06	41.06	3.00	0.061678	944	1252	95	210	26	5	10	0.71	2.4	0.11	0.5	0.1	< 1	< 0.1	< 5	< 0.4	688	2.6
R0863912	828652	WI-08-02	41.06	44.06	3.00	0.061678	466	641	49	106	14	3	5	0.65	2.5	0.17	0.2	0.6	< 1	< 0.1	< 5	< 0.4	279	2.3
R0863913	828653	WI-08-02	44.06	47.06	3.00	0.061678	547	728	54	122	14	3	5	0.52	2	0.11	0.4	0.7	1	0.1	15	3.3	351	1.9
R0863914	828654	WI-08-02	47.06	50.06	3.00	0.061678	715	956	73	166	20	5	8	0.67	2.6	0.13	0.4	0.2	< 1	< 0.1	< 5	< 0.4	537	2.9
						SUM/48.64m	13570	17806	1344	2780	327	68	107											
R0864198	828724	WI-08-03	2.56	5.56	3.00	0.041102	641	847	62	119	14	3	5	0.83	3	0.17	0.4	0.5	< 1	< 0.1	< 5	< 0.4	527	2.5
R0864199	828725	WI-08-03	5.56	8.56	3.00	0.041102	633	830	60	124	14	3	4	0.53	2.1	0.09	0.2	0.5	< 1	< 0.1	19	1.4	535	1.4
R0864200	828726	WI-08-03	8.56	11.56	3.00	0.041102	851	1102	80	162	18	4	5	0.61	1.6	< 0.04	0.6	0.2	< 1	0.3	30	1.6	686	1.4
R0864201	828727	WI-08-03	11.56	14.56	3.00	0.041102	501	670	49	71	7	1	2	0.36	1.4	0.09	< 0.2	0.6	< 1	< 0.1	< 5	0.7	195	1.4
R0864202	828728	WI-08-03	standard											26.3	106	8.39	13.8	11	2	< 0.1	121	4.5	26800	220
R0864203	828729	WI-08-03	14.56	17.56	3.00	0.041102	316	419	33	75	9	2	3	0.31	1.4	0.06	0.4	< 0.1	< 1	< 0.1	21	0.5	361	0.6
R0864204	828730	WI-08-03	17.56	20.56	3.00	0.041102	234	307	23	51	6	1	2	0.28	1.1	0.07	< 0.2	0.5	2	0.2	12	3.4	203	4.6
R0864205	828731	WI-08-03	20.56	23.56	3.00	0.041102	372	477	36	83	9	2	3	0.46	1.8	0.09	0.4	0.4	1	< 0.1	5	0.9	308	2.1
R0864206	828732	WI-08-03	23.56	26.56	3.00	0.041102	473	658	50	111	14	3	5	0.66	2.3	0.15	0.6	< 0.1	< 1	< 0.1	17	2.1	547	1.3
R0864207	828733	WI-08-03	26.56	29.56	3.00	0.041102	315	415	33	79	10	2	4	0.36	1.6	0.08	0.3	< 0.1	< 1	< 0.1	9	1	355	0.9
R0864208	828734	WI-08-03	29.56	32.56	3.00	0.041102	201	266	21	49	6	1	2	0.28	1.2	0.09	0.3	< 0.1	< 1	< 0.1	10	1.3	217	0.9
R0864209	828735	WI-08-03	duplicate											0.29	1.3	0.09	0.4	< 0.1	1	< 0.1	< 5	0.7	199	0.9
R0864210	828736	WI-08-03	32.56	35.38	2.82	0.038635	413	541	42	93	11	2	4	0.41	1.6	0.07	0.3	< 0.1	< 1	< 0.1	18	0.7	468	2
R0864211	828737	WI-08-03	35.38	38.71	3.33	0.045623	575	744	54	106	12	2	3	0.5	1.9	0.09	0.3	0.2	1	< 0.1	14	1.1	370	1.3
R0864212	828738	WI-08-03	38.71	41.71	3.00	0.041102	666	863	63	130	15	3	5	0.64	2.1	0.1	0.3	0.6	< 1	< 0.1	20	3.4	538	3.5
R0864213	828739	WI-08-03	41.71	44.71	3.00	0.041102	387	501	38	84	10	2	4	0.32	1.3	0.06	0.4	0.5	< 1	< 0.1	< 5	1.5	532	3.1
R0864214	828740	WI-08-03	44.71	47.71	3.00	0.041102	353	415	28	49	5	1	2	0.34	1.2	0.09	0.3	0.1	1	0.1	< 5	1.3	219	4.1
R0864215	828741	WI-08-03	47.71	50.50	2.79	0.038224	390	463	31	57	6	1	2	0.37	1.3	0.1	< 0.2	0.6	< 1	< 0.1	< 5	0.6	317	2.1
R0864216	828742	WI-08-03	blank											0.34	2	0.3	2.5	0.3	< 1	0.5	48	0.5	3.4	1.1
R0864217	828743	WI-08-03	50.50	53.50	3.00	0.041102	158	229	18	46	7	2	3	0.66	2.7	0.23	0.3	16	3	0.2	< 5	0.5	330	23.1

Final Report
Activation Laboratories

Lab Reference	Sample Number	Drill Hole Number	Sample Interval			weighted La (ppm)	weighted Ce (ppm)	weighted Pr (ppm)	weighted Nd (ppm)	weighted Sm (ppm)	weighted Eu (ppm)	weighted Gd (ppm)	Analyte Symbol	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Ta ppm	W ppm	Tl ppm	Pb ppm	Bi ppm	Th ppm	U ppm
			From (m)	To (m)	Width (m)																			
R0864218	828744	WI-08-03	53.50	55.25	1.75	0.023976	122	157	12	26	3	1	1	0.35	1.4	0.11	0.3	10.4	3	0.2	13	3.4	193	15
R0864219	828745	WI-08-03	55.25	58.25	3.00	0.041102	404	526	40	89	10	2	4	0.45	1.8	0.15	0.6	0.8	1	< 0.1	25	0.6	723	2.1
R0864220	828746	WI-08-03	58.25	61.25	3.00	0.041102	401	522	39	95	12	3	5	0.58	2.1	0.14	0.9	1.4	2	0.1	9	1.4	914	14.2
R0864221	828747	WI-08-03	61.25	64.23	2.98	0.040828	441	572	44	104	14	3	5	0.48	1.9	0.11	0.3	0.6	< 1	0.3	8	0.9	1070	16.2
R0864222	828748	WI-08-03	64.23	67.23	3.00	0.041102	456	604	47	111	15	3	6	0.54	2	0.12	0.2	0.4	< 1	0.1	45	11.2	1210	14.4
R0864223	828749	WI-08-03	standard											< 0.05	< 0.1	< 0.04	< 0.2	< 0.1	< 1	< 0.1	57	< 0.4	1.9	< 0.1
R0864224	828750	WI-08-03	67.23	70.23	3.00	0.041102	493	658	53	126	15	3	6	0.62	2.2	0.12	0.2	0.9	< 1	0.1	12	< 0.4	1020	4.6
R0864225	828751	WI-08-03	70.23	72.55	2.32	0.031785	350	461	35	72	9	2	3	0.65	2.2	0.16	0.2	0.7	< 1	< 0.1	< 5	< 0.4	856	4.7
R0864226	828752	WI-08-03	72.55	75.55	3.00	0.041102	380	506	40	96	13	3	6	0.57	2.1	0.12	0.4	19.8	5	0.3	15	6.9	862	28.7
SUM/72.99m						10528	13750	1030	2207	262	56	94												
R0864329	828846	WI-08-04	1.57	4.57	3.00	0.052466	551	729	56	116	14	3	6	0.67	2.4	0.17	0.7	0.2	< 1	0.2	95	64.3	531	0.8
R0864330	828847	WI-08-04	4.57	7.57	3.00	0.052466	230	313	24	57	7	2	3	0.34	1.4	0.13	0.6	< 0.1	< 1	< 0.1	< 5	< 0.4	228	0.5
R0864331	828848	WI-08-04	7.57	10.57	3.00	0.052466	677	892	68	140	17	4	6	0.55	1.9	0.12	0.3	< 0.1	< 1	< 0.1	5	1.8	613	1.4
R0864332	828849	WI-08-04	10.57	13.57	3.00	0.052466	687	908	70	152	19	4	6	0.58	1.9	0.1	0.2	< 0.1	< 1	< 0.1	23	2.9	567	1.1
R0864334	828851	WI-08-04	13.57	16.57	3.00	0.052466	498	682	60	126	14	3	4	0.6	2.2	0.14	0.2	0.3	< 1	< 0.1	23	4	460	1.1
R0864335	828852	WI-08-04	16.57	19.57	3.00	0.052466	331	450	39	80	9	2	4	1.19	4.8	0.43	0.3	0.9	2	0.3	26	7.7	200	4.9
R0864336	828853	WI-08-04	19.57	22.57	3.00	0.052466	244	336	28	56	6	1	2	0.31	1.2	0.1	< 0.2	1.2	4	0.2	10	5.8	199	5.8
R0864337	828854	WI-08-04	22.57	25.57	3.00	0.052466	703	976	86	173	21	4	7	0.67	2.5	0.14	0.4	0.2	< 1	< 0.1	< 5	< 0.4	1010	1.1
R0864338	828855	WI-08-04	25.57	28.57	3.00	0.052466	572	797	69	143	17	4	6	0.91	3.4	0.23	0.3	0.2	< 1	< 0.1	< 5	1.7	806	1.6
R0864339	828856	WI-08-04	28.57	31.57	3.00	0.052466	724	1007	88	177	20	4	6	0.75	3.1	0.2	0.4	0.3	< 1	< 0.1	32	16	940	1.1
R0864340	828857	WI-08-04	duplicate											0.77	2.9	0.19	1.4	0.2	< 1	< 0.1	14	6.7	789	1
R0864341	828858	WI-08-04	31.57	34.57	3.00	0.052466	750	1013	86	167	18	4	4	0.73	2.7	0.17	0.6	< 0.1	< 1	< 0.1	20	0.4	794	1.1
R0864342	828859	WI-08-04	34.57	37.57	3.00	0.052466	640	881	75	137	16	3	4	0.55	2.3	0.16	0.2	< 0.1	< 1	< 0.1	11	0.5	695	0.8
R0864343	828860	WI-08-04	37.57	40.57	3.00	0.052466	682	929	78	153	17	4	4	0.61	2.2	0.14	0.2	< 0.1	< 1	< 0.1	21	1	664	1
R0864344	828861	WI-08-04	40.57	43.57	3.00	0.052466	971	1322	113	218	25	6	7	0.63	2.3	0.13	0.4	< 0.1	< 1	< 0.1	13	0.5	1030	1
R0864345	828862	WI-08-04	43.57	46.57	3.00	0.052466	965	1348	112	226	24	5	6	0.69	2.7	0.17	0.3	< 0.1	< 1	< 0.1	< 5	< 0.4	1320	2
R0864346	828863	WI-08-04	46.57	49.57	3.00	0.052466	1123	1485	123	253	28	6	6	0.62	2.3	0.11	0.3	< 0.1	< 1	< 0.1	13	< 0.4	1170	1.3
R0864347	828864	WI-08-04	blank											0.31	2	0.31	2.8	0.3	1	0.8	70	0.8	3.9	1.2
R0864348	828865	WI-08-04	49.57	52.57	3.00	0.052466	561	761	67	142	17	3	5	0.51	1.9	0.12	1	< 0.1	< 1	< 0.1	< 5	< 0.4	745	1.2
R0864349	828866	WI-08-04	52.57	55.57	3.00	0.052466	504	682	61	127	15	3	4	0.49	1.8	0.12	0.5	< 0.1	< 1	< 0.1	< 5	< 0.4	675	0.9
R0864350	828867	WI-08-04	55.57	58.75	3.18	0.055614	612	823	70	140	15	3	3	0.52	1.6	0.09	0.5	2.5	2	0.2	9	5	478	8.4
SUM/57.18m						12024	16335	1373	2784	318	68	93												

APPENDIX H

**DESCRIPTION OF
ANALYTICAL TECHNIQUES**

Code 4B - Whole Rock ICP

Samples are prepared and analyzed in a batch system. Each batch contains a method reagent blank, certified reference material and 17% replicates. Samples are mixed with a flux of lithium metaborate and lithium tetraborate and fused in an induction furnace. The molten melt is immediately poured into a solution of 5% nitric acid containing an internal standard, and mixed continuously until completely dissolved (~30 minutes). The samples are run for major oxides and selected trace elements (Code 4B) on a combination simultaneous/sequential Thermo Jarrell-Ash ENVIRO II ICP or a Spectro Cirros ICP.

Calibration is performed using 7 prepared USGS and CANMET certified reference materials. One of the 7 standards is used during the analysis for every group of ten samples.

Totals should be between 98.5% and 101%. If results come out lower, samples are scanned for base metals. Low reported totals may indicate sulphate being present or other elements like Li which won't normally be scanned for. Samples with low totals however are automatically refused and reanalyzed.

Advantages of using the Spectro Cirros new generation ICP allows for the simultaneous determination of Cl.

For accurate levels of base metals (Cu, Pb, Zn, Ni and Ag), option 4B1 (see below) is recommended. Option 4B-INAA (see below) is recommended for As, Sb, high W >100 ppm and Cr > 1,000 ppm.

Fusion ICP

Oxide	Detection Limit (%)
SiO ₂	0.01
Al ₂ O ₃	0.01
Fe ₂ O ₃	0.01
MgO	0.01
MnO	0.001
CaO	0.01
TiO ₂	0.001
Na ₂ O	0.01
K ₂ O	0.01
P ₂ O ₅	0.01
Loss on Ignition	0.01

Trace Elements

Element	Detection Limit (ppm)
Ba	3
Sr	2
Y	2
Zr	4
Sc	1
Be	1
V	5

Typical ICP Standards Analysis (Oxides - %, Trace - ppm)

	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MnO	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	P ₂ O ₅	Ba	Sr	Y	Sc	Zr	Be	V
SY3	59.51	11.62	6.47	0.32	2.54	8.25	4.17	4.23	0.14	0.52	435	306	718	8	327	22	44
Cert	59.68	11.76	6.49	0.32	2.67	8.25	4.12	4.23	0.15	0.54	450	302	718	6.8	320	20	50
DNC1	46.91	18.46	9.76	0.15	10.05	11.27	1.99	0.24	0.47	0.07	102	141	16	31	32	-1	141
Cert	470.4	18.30	9.93	0.15	10.05	11.27	1.87	0.23	0.48	0.08	114	145	18	31	41	1	148
W2	52.58	15.35	10.72	0.16	6.37	10.98	2.31	0.64	1.05	0.12	170	194	21	35	86	1	262
Cert	52.44	15.35	10.74	0.16	6.37	10.87	2.14	0.63	1.06	0.13	182	194	24	35	94	1.3	262
STM1	59.64	18.07	5.24	0.22	0.07	1.09	8.87	4.24	0.13	0.16	583	700	44	-1	1210	9	-5
Cert	59.64	18.39	5.22	0.22	0.1	1.09	8.94	4.28	0.14	0.16	560	700	46	0.61	1210	9.6	8.7
MRG1	39.43	8.59	17.93	0.17	13.74	14.77	0.73	0.18	3.78	0.07	48	272	13	55	96	1	528
Cert	39.12	8.47	17.94	0.17	13.55	14.7	0.74	0.18	3.77	0.08	61	266	14	55	108	0.62	526
BIR1	47.78	15.43	11.52	0.17	9.7	13.75	1.86	0.02	0.95	0.02	7	107	16	44	15	-1	320
Cert	47.77	15.35	11.26	0.17	9.68	13.24	1.75	0.02	0.96	0.05	7	108	16	44	15.5	0.58	313
G2	68.72	14.95	2.65	0.03	0.71	1.87	4.08	4.48	0.48	0.13	1882	471	9	3	318	2	36
Cert	69.14	15.39	2.66	0.03	0.75	1.96	4.08	4.48	0.48	0.14	1882	478	11	3.5	309	2.5	36

Code 4B - Options

4B1 – Base Metals

A 0.25 g sample is digested with four acids beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise programmer controlled heating in several ramping and holding cycles which takes the samples to dryness. After dryness is attained, samples are brought back into solution using hydrochloric acid. With this digestion certain phases may be only partially solubilized. These phases include zircon, monazite, sphene, gahnite, chromite, cassiterite, rutile and barite. Ag greater than 100 ppm and Pb greater than 5,000 ppm should be assayed as high levels may not be solubilized. Only sulphide sulfur will be solubilized.

An in-lab standard (traceable to certified reference materials) or certified reference materials are used for quality control.

Samples are analyzed using a Perkin Elmer Optima 3000 ICP.

Option 4B1 Elements and Detection Limits (ppm)

Element	Detection Limit	Upper Limit
Ag*	0.3	100
Cd	0.5	2,000
Cu	1	10,000
Ni*	1	10,000
Pb*	5	5,000
Zn*	1	10,000
Bi	10	
S*	0.01%	20%

Notes: * May not be total. Unaltered silicates and resistate minerals may not be dissolved. Assays are recommended for values which exceed the upper limits.

4B-INAA

An approximately 30 gram aliquot if available is encapsulated and weighed in a polyethylene vial and irradiated with flux wires and an internal standard (1 for 11 samples) at a thermal neutron flux of 7×10^{12} n cm⁻² s⁻¹. After a seven day decay to allow Na-24 to decay the samples are counted on a high purity Ge detector with a resolution of better than 1.7 KeV for the 1332 KeV Co-60. Using the flux wires the decay corrected activities are compared to a calibration developed from multiple certified international reference materials. The standard present is only a check on accuracy of the analysis and is not used for calibration purposes. From 10-30% of samples are rechecked by re-measurement. Assays are recommended for values which exceed the upper limits.

Further details are available on isotopes and gamma-ray energies used in Hoffman, E.L., 1992. Instrumental Neutron Activation in Geoanalysis. Journal of Geochemical Exploration, volume 44, pp. 297-319.

Option 4B-INAA Elements and Detection Limits (ppm)

Element	Detection Limit	Upper Limit
As	0.5	
Au	2 ppb	30,000 ppb
Br	0.5	
Co	1	10,000
Cr	5	100,000
Cs	1	
Sb	0.2	10,000
Ir	5 ppb	
Sc	0.1	
Mo	5	
Rb	20	
Hf	1	
Se	3	
Ta	0.5	
W	1	
La	0.5	
Ce	3	
Nd	5	
Sm	0.1	
Eu	0.2	
Tb	0.5	
Yb	0.2	
Lu	0.05	
U	0.5	
Th	0.2	

Code 4B2-Std – Trace Element ICP-MS

The sample solution prepared under Code 4B is spiked with internal standards to cover the entire mass range, and is further diluted to cover the entire mass range, is further diluted and is introduced into a Perkin Elmer SCIEX ELAN 6000 or 6100 ICP-MS using a proprietary sample introduction methodology.

For accurate levels of base metals (Cu, Pb, Zn, Ni and Ag), option 4B1 (see below) is recommended. Option 4B-INAA (see below) is recommended for As, Sb, high W >100 ppm and Cr > 1,000 ppm. Code 5D is recommended for Sn >50 ppm. Mineralized samples should have the "Quant" option (see below) selected or request assays for values which exceed the range of option 4B1.

Code 4B2-Std Elements and Detection Limits (ppm)

Element	Detection Limit	Upper Limit
Ag	0.5	100
As	5	2,000
Ba	3	300,000
Bi	0.4	2,000
Co	1	1,000
Cr	20	10,000
Cs	0.5	1,000
Cu	10	10,000
Ga	1	500
Ge	1	500
Hf	0.2	1,000
In	0.2	200
Mo	2	100
Nb	1	1,000
Ni	20	10,000
Pb	5	10,000
Rb	2	1,000
Sb	0.5	200
Sn	1	1,000
Sr	2	10,000
Ta	0.1	500
Th	0.1	2,000
Tl	0.1	1,000
U	0.1	1,000
V	5	5,000
W	1	5,000
Y	1	1,000
Zn	30	10,000
Zr	5	10,000
La	0.1	2,000
Ce	0.1	3,000
Pr	0.05	1,000
Nd	0.1	2,000
Sm	0.1	1,000
Eu	0.05	1,000
Gd	0.1	1,000
Tb	0.1	1,000
Dy	0.1	1,000
Ho	0.1	1,000
Er	0.1	1,000
Tm	0.05	1,000

Element	Detection Limit	Upper Limit
Yb	0.1	1,000
Lu	0.04	1,000

Typical ICP-MS Standards Analysis (Sept 1996 to April 1997, 119 measurements)

Element	W2	Cert.
V	256	262
Cr	90	93
Co	44	44
Ni	67	70
Cu	105	103
Zn	72	77
Ga	18	20
Ge	2	1
As	<5	1.24
Rb	20	20
Sr	193	194
Y	21	24
Zr	99	94
Nb	7.5	7.9
Mo	0.7	0.6
Ag	<0.5	0.05
In	<0.2	-
Sn	<0.5	-
Sb	0.78	0.79
Cs	0.95	0.99
Ba	164	182
La	11.3	11.4
Ce	24	24
Pr	2.5	5.9?
Nd	14	14
Sm	3.38	3.25
Eu	1.1	1.1
Gd	3.5	3.6
Tb	0.62	0.63
Dy	3.8	3.8
Ho	0.76	0.76
Er	2.3	2.5
Tm	0.32	0.38
Yb	2.06	20.5
Lu	0.33	0.33
Hf	2.64	2.56
Ta	0.5	0.5
W	<0.2	0.3
Tl	0.1	0.2
Pb	8	9.3
Bi	<0.05	0.03
Th	2.3	2.5
U	0.49	0.53

Code 4B2-std Options

Quant

A 1 g sample is digested with aqua regia and diluted to 250 ml volumetrically. Appropriate international reference materials for the metals of interest are digested at the same time. The samples and standards are analyzed on a Thermo Jarrell Ash ENVIRO II simultaneous and sequential ICP or a Perkin Elmer Optima 3000 ICP.

4B1 – Base Metals

A 0.25 g sample is digested with four acids beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise programmer controlled heating in several ramping and holding cycles which takes the samples to dryness. After dryness is attained, samples are brought back into solution using hydrochloric acid. With this digestion certain phases may be only partially solubilized. These phases include zircon, monazite, sphene, gahnite, chromite, cassiterite, rutile and barite. Ag greater than 100 ppm and Pb greater than 5,000 ppm should be assayed as high levels may not be solubilized. Only sulphide sulfur will be solubilized.

An in-lab standard (traceable to certified reference materials) or certified reference materials are used for quality control.

Samples are analyzed using a Perkin Elmer Optima 3000 ICP. *Option 4B1 Elements and Detection Limits (ppm)*

Element	Detection Limit	Upper Limit
S	0.01%	20%
Ni	1	10,000
Zn	1	10,000
Cu	1	10,000
Cd	0.5	2,000
Ag	0.3	100
Pb	5	5,000

4B-INAA

An approximately 30 g aliquot if available is encapsulated and weighed in a polyethylene vial and irradiated with flux wires and an internal standard (1 for 11 samples) at a thermal neutron flux of $7 \times 10^{12} \text{ n cm}^{-2} \text{ s}^{-1}$. After a seven day decay to allow Na-24 to decay the samples are counted on a high purity Ge detector with a resolution of better than 1.7 KeV for the 1332 KeV Co-60. Using the flux wires the decay corrected activities are compared to a calibration developed from multiple certified international reference materials. The standard present is only a check on accuracy of the analysis and is not used for calibration purposes. From 10-30% of samples are rechecked by re-measurement.

Further details are available on isotopes and gamma-ray energies used in Hoffman, E.L., 1992.

Instrumental Neutron Activation in Geoanalysis. Journal of Geochemical Exploration, volume 44, pp. 297-319.

Option 4B-INAA Elements and Detection Limits (ppm)

Element	Detection Limit	Upper Limit
Sc	0.1	
Se	3	
Sb	0.2	10,000
As	0.5	
Au	2 ppb	30,000 ppb
Fe	0.01%	
Na	0.01%	
Cr	5	
Br	0.5	
Ir	5 ppb	
W	1	5000

