Box 7

GEOLOGY AND GEOCHEMISTRY OF THE LONDON GROUP INDIAN RIVER, B.C. N.T.S. 92G/10W

by

T. HEAH

DECEMBER, 1984 Rept. # 144-016-84

FALCONBRIDGE

Memorandum Expl. 515/84

Date: December 28, 1984

To: L.C. Kilburn

Copies to: Files

From: J.B. Gammon

Subject: Report # 144-016-84
London Group

Please find enclosed Tom Heah's report on our assessment of the London Group claims. No encouragement was found for precious metal mineralization. An interesting copper anomaly remains to be followed up when commodity prices warrant.

J.B. Gammon

JBG:ktt

GEOLOGY AND GEOCHEMISTRY OF THE LONDON GROUP, INDIAN RIVER, B.C.

N.T.S. 92G/10W

by
Tom Heah

DECEMBER, 1984

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ABSTRACT

The present program was prompted by the observation that rocks lithologically similar to those found on the London Group host substantial quantities of Au-Cu-Pb-Zn massive sulphide deposits at the Britannia Mines, and epithermal auriferous quartz-sulfide deposits at the nearby Maggie Mines. Numerous other gold-quartz showings are also present along the Indian River, notably the McVicar Manson and Stackpool properties.

A 50 day program of geological mapping and rock, soil and silt sampling was thus carried out on the London Group in July and August, 1984.

The claims are underlain chiefly by metamorphosed calc alkaline volcaniclastic and minor sedimentary rocks belonging to the Indian River pendant, correlated with the upper part of the Lower Cretaceous Gambier Group. These are intruded by rocks ranging in composition from basalt to quartz diorite. An extensive NW-trending fault system following Indian River traverses the property; several ENE trending faults also cut rocks in the area.

Mineralization in the area consists of pervasively silicified rocks containing disseminated pyrite and chalcopyrite and varying, minor amounts of molybdenite, pyrrhotite, sphalerite and galena. Mineralization on the claims is probably related to hydrothermal solutions emanating from intrusive rocks. On the nearby Roy Group, however, mineralization appears to be stratabound and of a volcanogenic, massive sulfide nature.

The area does not appear to contain a gold deposit of sufficient size to warrant further work. The present program does confirm earlier reports of copper and molybdenum mineralization and catalogues their occurrence on the claims.

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I INTRODUCTION

The present study was undertaken to locate gold and base metal mineralization in Gambier Group rocks similar to those found at the very productive Maggie Mines, 8 km to the northwest, and at the past-producing Britannia Mines, 17 km to the west-northwest.

PREVIOUS WORK

A 33 metre long adit (now caved) driven into mineralized granodiorite on London No. 2 claim was the earliest work done on the property. In the tunnel, the ore is reported to be of low grade, consisting of pyrite, chalcopyrite and minor amounts of molybdenite. A grab sample taken by Schofield (1923) gave the following assays: Cu, 0.70%; Au, trace and Ag, 0.13 oz. Other early work included several open cuts along Indian River, and two diamond drill holes on London No. 3 along Indian River. No mineralization was discovered in these open cuts or in the drill core.

In 1964, Anaconda, who owned the adjoining claims, took a 4 month option on the London Group. They mapped the property and drilled two inclined and one vertical hole from one set-up located southeast of the 33m long adit. Of the 2231 feet drilled, 1554 feet were on the London No. 2 claims, the remainder being on Anaconda's Don Fraction. Values ranged up to 0.34% Cu and 0.018% Mo. Gold was not analyzed for at the time.

Work done by Pilcher (1974) put a different interpretation on some of Anaconda's rock types, and located three silt samples with copper values of 72 and 82 ppm (from London Creek) and 195 ppm (from a tributary draining eastward into Indian River).

In 1978, 5 reconnaissance silt samples, collected by B.D. Simmons, gave copper values ranging from 189 to 1900 ppm, the highest being from below the caved adit.

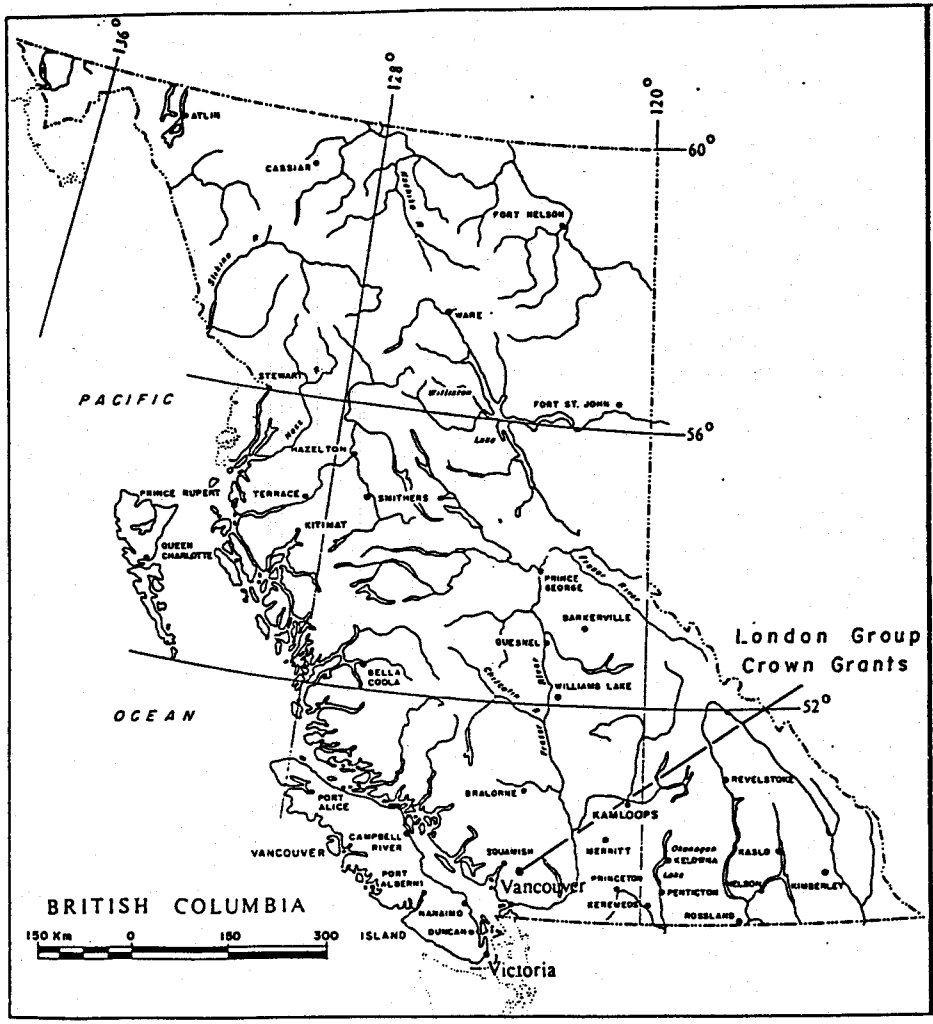
Anaconda returned to the area in 1982 (?) (Mark Rebgliatti, pers comm. 1984) and carried out a regional sampling program on ground including the London Group. No results are available to Falconbridge.

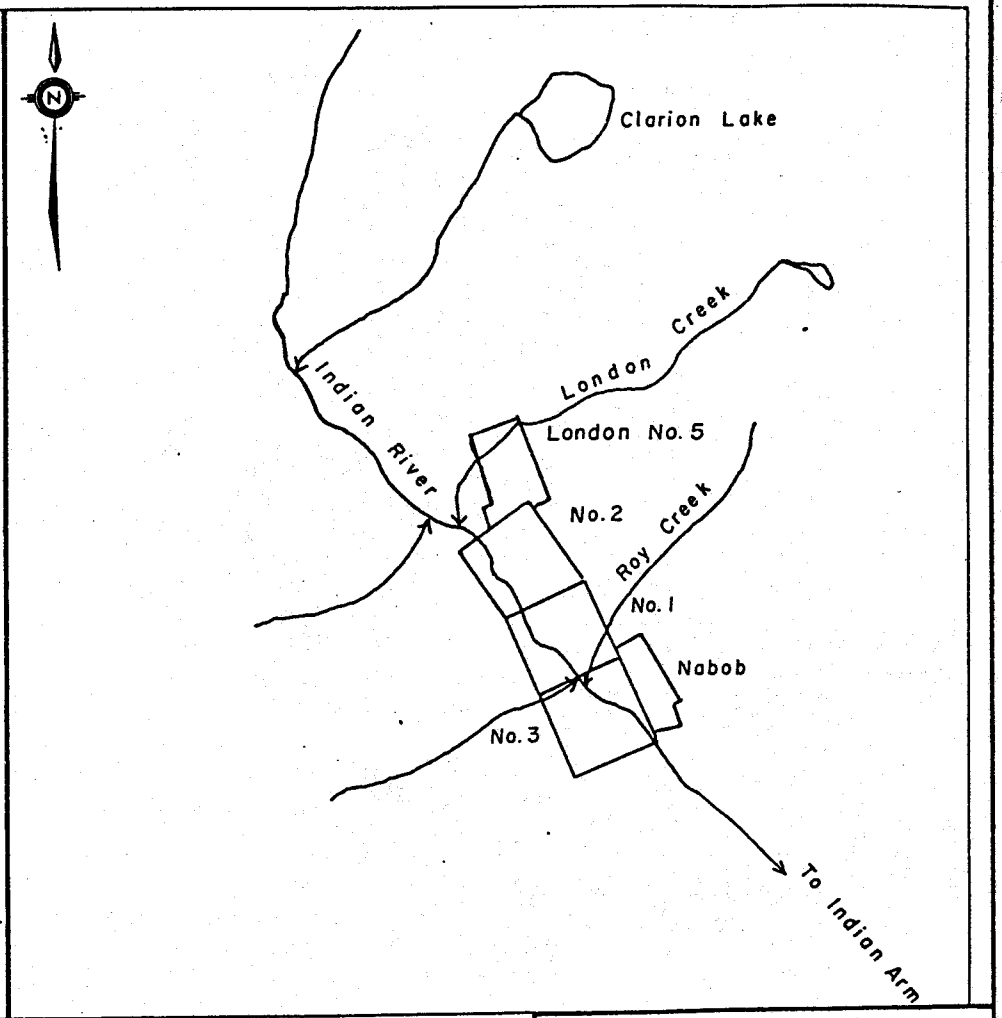
REGIONAL GEOLOGY

The London Group contains metamorphosed volcanic and sedimentary rocks of the NW-trending Indian River pendant. The description that follows is largely taken from Roddick (1965) and James (1929).

The oldest unit occurring as pendants in the Coast Plutonic Complex (CPC) is the Twin Islands Group, comprised of medium to high grade metamorphic rocks with a Pennsylvanian - Permian Age (Roddick et al, 1976).

The Middle Jurassic (or older?) Bowen Island Group consists largely of massive, andesitic greenstone, which may be a less metamorphosed equivalent of the Twin Islands Group.



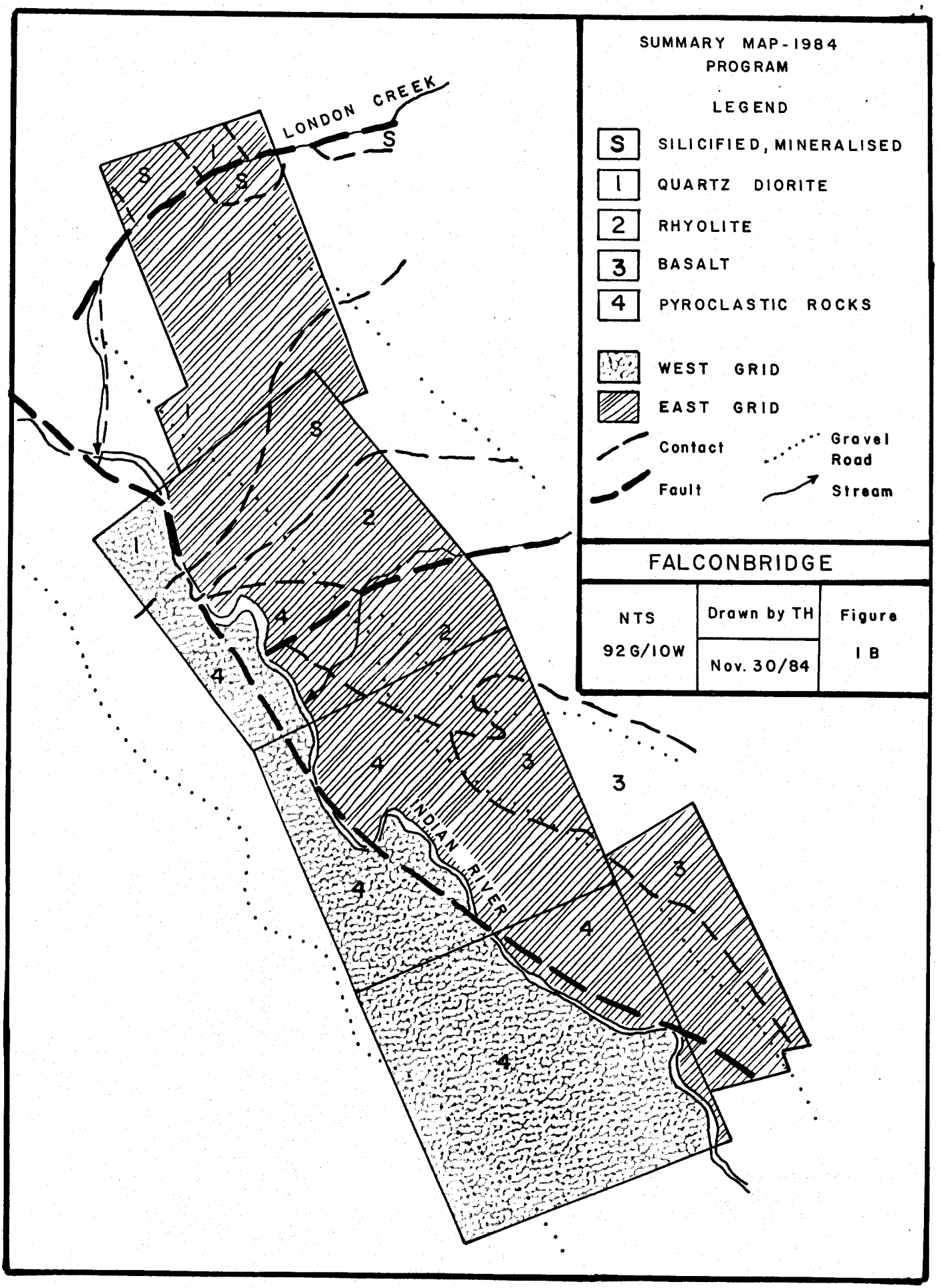


FALCONBRIDGE LTD.

LOCATION MAP

London Nos. 1, 2, 3, 5 & Nabob c.g.s

DRAWN BY:	FIG. NO: 1A
DATE:	
N.T.S.- 92G/10W	


SUMMARY MAP - 1984
PROGRAM
LEGEND
S SILICIFIED, MINERALISED
1 QUARTZ DIORITE
2 RHYOLITE
3 BASALT
4 PYROCLASTIC ROCKS
WEST GRID
EAST GRID
Contact
Fault
Gravel Road
Stream
FALCONBRIDGE
NTS 92G/10W
Drawn by TH
Nov. 30/84
Figure 1B
LONDON CREEK
INDIAN RIVER

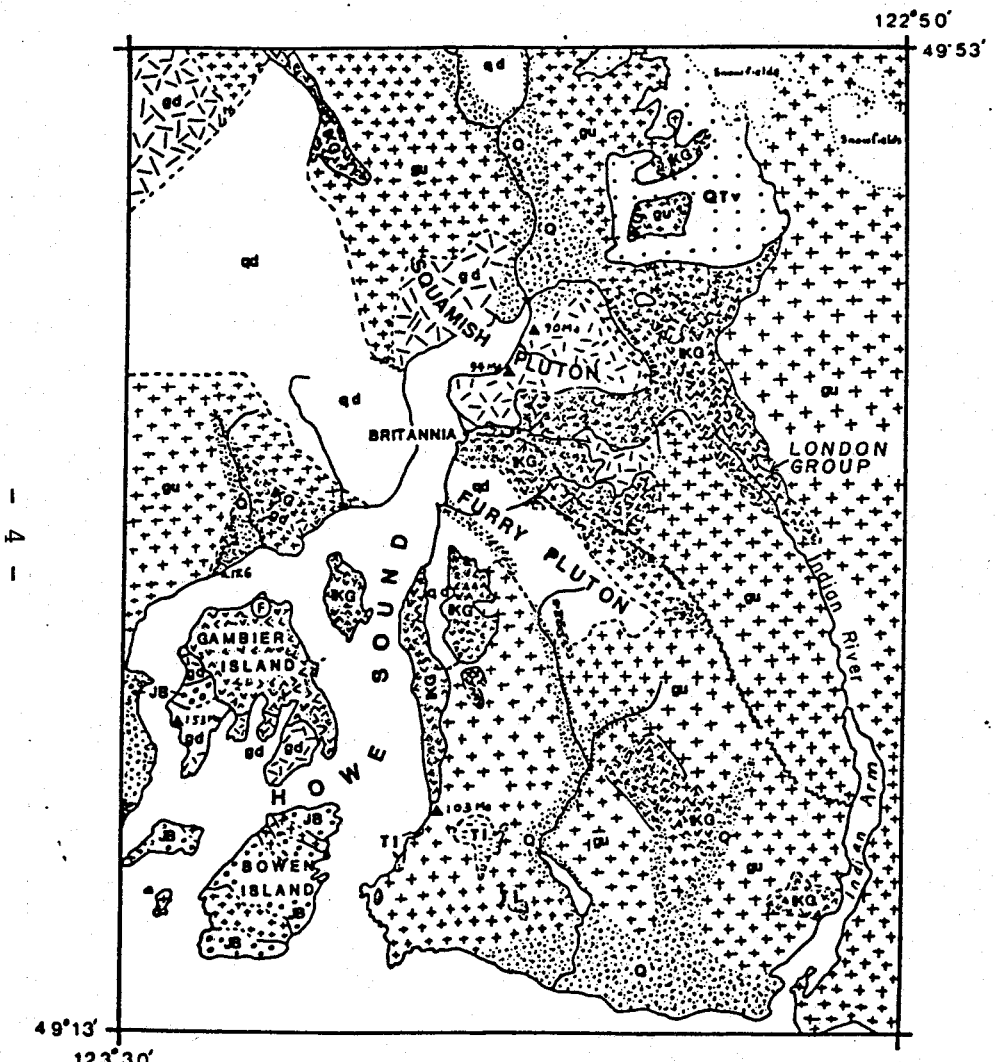


Figure 2. Regional Geology

Scale
0 10 20 30 (kilometres)

LEGEND FOR FIGURE 2 (REGIONAL GEOLOGY)

STRATIFIED ROCKS

QUATERNARY

Q — Aluvial, glacial and marine deposits.

TERTIARY AND QUATERNARY

QTv — GARIBALDI GROUP: basalt, andesite, dacite and rhyodacite flows; minor pyroclastic rocks and sediments.

CRETACEOUS

KG — GAMBIER GROUP: tuff, breccia, agglomerate, andesite, pillow lavas, argillite, greywacke, quartzite and conglomerate, minor schist, limestone, skarn.

JURASSIC OR OLDER

JB — BOWEN ISLAND GROUP: mainly greenstone, minor chert and greywacke.

TI — TWIN ISLANDS GROUP: amphibolite, gneiss, schist, conglomerate, quartzite, meta-arkose, migmatite.

PLUTONIC ROCKS

JURASSIC TO CRETACEOUS

gd — GRANODIORITE: (includes Squamish Pluton); unfoliated, younger plutonic rocks.

qd — QUARTZ DIORITE: (includes Furry Pluton); foliated.

gu — UNDIFFERENTIATED PLUTONIC ROCKS: commonly foliated, diorite to granodiorite.

SYMBOLS USED

Fault, known or inferred.....

Isotopic date locality..... ▲ 90 Ma

Fossil locality..... (F)

Information taken from Roddick(1965) and Roddick and Woodsworth (1980).

The "Gambier Group" has been proposed for the marine andesitic pyroclastic rocks, flows and sediments underlying northern Gambier Island. This name has been used for similar volcanic and sedimentary rocks and their metamorphosed equivalents from near Vancouver to the Whitesail Lake map area, 800 km to the north. The base of the group unconformably overlies the Bowen Island Group and the Thornborough Intrusions on Gambier Island with a coarse basal conglomerate. The lower unit is comprised of granitic and volcanic debris in conglomerate, andesitic flows and pyroclastic rocks. The middle unit consists of slate, argillite, arkose and quartzite. The upper unit consists of andesite and slaty tuffs. The middle unit has been dated as Middle Albian.

James (1929) has mapped the Indian River pendant as belonging to the Lower Goat Mountain Formation, which was in turn correlated with the upper unit of the Gambier Group by Roddick (1965). The present study shows the London group to be lithologically similar to the Lower Goat Mountain Formation.

Granitic rocks of the CPC underlie most of the area surrounding the London claims.

Rocks of the Pleistocene to Recent Garibaldi Group, consisting of basalt, andesite and rhyodacite flows and pyroclastics, occur to the north of the study area. These rocks are part of the Cascade volcanic arc.

PRESENT STUDY

Location, Access & Physiography

The London Group is located on the Indian River, 17 kilometres southeast of Squamish, B.C., at latitude 49 degrees 36' N and longitude 122 degrees 58' W. It is covered by NTS Map Sheet 92G/10W, and is in the Vancouver Mining Division (Figure 1A).

Access to the western part of the property is achieved by a rough transmission line road, the Indian Arm road. A very rough, four-wheel driveable logging road branching off the main road gives access to the claims east of Indian River. Except for a wash-out 3.2 km south of the property, this road traverses the length of the claims.

Steep topography and dense secondary growth make travel within the property difficult and slow. Elevations range from 330m to 640m above sea level.

Claims

The property consists of five crown granted claims, listed as follows:

CLAIM NAME	LOT NUMBER
London No. 1	3398
London No. 2	3399
London No. 3	3392
London No. 5	4880
Nabob	4881

Field Methods

A two month program of geological mapping and soil sampling was carried out by a two-man crew during the months of July and August, 1984. A summary map of the 1984 program is provided (Figure 18).

Two grids were established for sampling and mapping purposes, both having 100m spacings between lines and 25m sample spacings. Both baselines have northwest trends, parallel to the regional and local strike. The west grid baseline follows the transmission line, and was cut using machetes. Cross lines were established perpendicular to the baseline. The east grid consists of two baselines, the lower one following the lower road, and the upper following the upper road (Figure 11). A 50m chain and Silva compass were employed in setting up the grids.

Data was plotted on 1:20000 scale airphotos and a 1:2500 scale topographic map enlarged from a 1:50000 scale government map. All data was later transferred to a 1:2500 scale topographic map, produced by McElhanney and Associates from 1:20000 scale B.C. Government airphotos. All locations and measurements were determined using a Brunton compass, and elevations using a Thommens altimeter.

Outcrops are rare, and travel between them difficult because of dense secondary growth and steep topography.

Plate 1:

View of northern part of property, east of Indian River. Note rusty, silicified zone at right. London Creek on left part of photograph.

Plate 2:

View of London Nos. 1, 2, and 3 and Nabob. Note resistant, grey coloured outcrops of rhyolite. Roy adits indicated on overlay. Lower logging road (solid line) used as east grid baseline. Transmission line (lower left to lower right) used as west grid baseline.

11 GEOLOGY OF THE LONDON GROUP

Metamorphosed volcanic and minor sedimentary rocks underlie most of the area mapped; these rocks are intruded by quartz diorite, basalt and rhyodacite bodies (Figures 1B and 3).

Rocks of the London Group belong to the Indian River Pendant and have been correlated with the Lower Goat Mountain Formation by James (1929). More recent study has correlated the Lower Goat Mountain Formation with the upper part of the Lower Cretaceous Gambier Group (Roddick, 1965).

METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS

Phyllite

Rocks classified as phyllite crop up along the Indian River and are associated with shearing and faulting, and have trends parallel to the Indian River fault zone. These rocks form very rusty weathering, friable outcrops within volcanic rocks of andesitic and dacitic composition. Foliation within the phyllite have northwest strikes and steep (65 to 85 degree) southwest dips, sub-parallel to the regional and local bedding trends. In hand specimen, these rocks vary from light green to green in colour with a phyllitic sheen due to very fine grained sericite. Crenulation of the foliation is observed in several specimens. Stringers and disseminations of cubic pyrite are common, and amounts vary up to 20%. Minor amounts of phyllitic rocks also crop up in several of the northwest trending fault zones.

Andesite Lapilli Tuff

These rocks are grey to beige weathering and well layered, forming resistant outcrops east of London No. 2. Graded bedding is observed in parts, and this feature, together with the lack of welding textures, indicates that this rock is epiclastic in nature. Thin beds of this rock also occur in Unit 8 (rhyolite), indicating short interruptions in volcanic activity. An unconformable contact exists between this unit and unit 8 east of London No. 2 (Figures 3 & 4).

In hand specimen, this rock is siliceous, medium to coarse grained, and composed of angular, lapilli sized fragments of rhyolite, dacite tuff, plagioclase and quartz crystals. The rock displays crude graded bedding, and is conchoidally fracturing. Clasts are generally fragment-supported.

Argillite

Argillite forms grey and rusty, rounded weathering outcrops. It is generally well bedded, black, hard and aphanitic. Minor amounts are present along Indian River on London No. 1 and on the upper road east of London No. 2. Beds within argillite are grey and black, and vary from one to three cm in thickness.

Rhyolite

Rhyolite is composed of flow breccias and flow banded units. It is white to light grey, resistant weathering, forming whitish grey coloured cliffs on London No. 1 and 2 (see Plate 2). Flow banding is commonly observed in this unit, with bands being very continuous and in parts convoluted. This unit is commonly bedded with thin tuffaceous beds frequently containing banded rhyolite clasts. Thin quartz stringers at widely varying orientations in several outcrops indicate autobrecciation of the rock. Jasper clasts were observed in several outcrops east of London No. 1. In hand specimen, the rock is light green, conchoidally fracturing, aphanitic and highly siliceous. Thin, cherty bands up to 3mm thick flow around sub-rounded to rounded siliceous clasts. In thin section, phenocrysts of quartz and plagioclase are observed. A spherulitic texture is also observed, as are perlitic cracks indicating devitrification of glass.

Dacite Tuff-Breccia

This unit is grey-green to rusty weathering and sometimes bedded, forming cliffs and outcrops adjacent to and along the banks of, the Indian River. Angular clasts are composed of andesite and dacite supported by a matrix of ash to lapilli sized rock and crystal fragments. Beds of agglomerate and tuff are often interbedded with this unit.

In hand specimens, dacite tuff-breccia is light green, siliceous and displays conchoidal fracturing. Lithic fragments of andesitic and dacitic composition are silicified. Finely disseminated and stringers of pyrite are common.

The angular nature and size of the clasts indicates a close proximity to the volcanic vent.

Agglomerate

Agglomerate units are common along Indian River, and form rusty rounded weathering outcrops on London No. 1, 2 and 3. These rocks range from chaotic to well sorted, crudely bedded phases. Rock fragments are a mixture of banded and massive rhyolite, dacite porphyries and minor basalt in a matrix of welded, lapilli tuff. Clasts range from lapilli to block size. Stretched volcanic bombs are sometimes observed, especially on the Indian River at the southern part of London No. 2. Intense silicification has affected both the matrix and the fragments of the rocks. Disseminated pyrite and pyrrhotite are present in the matrix.

Andesite Lapilli Tuff

Andesite lapilli tuff is grey-green weathering, forming thin, continuous beds along Indian River; minor amounts outcrop on London No. 1 and Nabob claims.

On fresh surface, this rock is dark green, medium grained and contains andesitic and basaltic volcanic fragments of lapilli size. Several of the clasts are replaced by epidote and most are chloritized. The matrix is fine grained, dark green and chloritized. Vuggy textures are sometimes observed, together with disseminated pyrite in matrix.

Basalt

Basaltic rocks are rusty to green, unfoliated and blocky weathering, forming extensive outcrops on London No. 1 and Nabob crown grants.

In hand specimens, this rock is dark green, fine grained and porphyritic, with plagioclase and hornblende phenocrysts. Thin sections show the rock to be extensively sausurretised, with plagioclase being altered to sericite, epidote and actinolite. Chloritization is common in the groundmass. Several of the rocks display a trachytic texture in thin section, with plagioclase sweeping around phenocrysts of plagioclase.

INTRUSIVE ROCKS

Relations between the various intrusive rocks were difficult to determine in the field. Four intrusive units were observed. The most extensive unit was quartz diorite. Dykes, ranging in composition from basalt to rhyodacite, cut rocks in the area. The most common type of dyke was basalt.

Basalt

Dykes of basaltic composition are the most common on the property. These trend westerly and northwesterly, parallel to and injected along, several fault zones.

In outcrop, the basalt weathers dark green to rusty, and in parts displays spheroidal weathering. It is generally fractured. On fresh surface, the basalt is dark green, very fine to fine grained, and porphyritic. Plagioclase laths up to 1mm constitute 10-20% of the rock. Slight to moderate alteraton to chlorite is present.

Dacite

This unit is blocky, grey-green to brownish weathering, and porphyritic. Quartz and plagioclase phenocrysts constitute approximately 30% of the rock, and are set in an aphanitic green matrix. In thin sections, corroded quartz and plagioclase phenocrysts are set in a very fine grained, saussuretised mixture of acicular actinolite, chlorite and epidote. Plagioclase phenocrysts are sometimes altered to albite and sericite.

Rhyodacite

Rhyodacite dykes and sills commonly form resistant units within the volcanic rocks. They are blocky fracturing and pink to beige weathering. On fresh surface, these rocks are salmon pink, fine to medium grained, hard and porphyritic to non-porphyritic.

Quartz Diorite

This unit is rounded, grey-weathering and unfoliated. On fresh surface, it is grey, hypidiomorphic and fine grained. It is composed of greater amounts of hornblende than biotite as mafic minerals. Quartz content ranges up to 20%. Outcrops of quartz diorite occur only in the northern parts of the property, on London No. 2 and 5.

Contacts of this unit with others were not observed, except at London Creek (on London No. 5).

III STRUCTURE AND METAMORPHISM

Intense shearing along the Indian River, and lower greenschist metamorphism have affected the area.

Along Indian River, the rocks are commonly slickensided and sheared to friable phyllites, suggesting a major NW trending fault along the valley. No absolute or relative movements could otherwise be determined. Silification is present in rocks near the river, masking internal structure. Steep, northeast trending cross faults are present along London and Roy creeks. Along London Creek, a left lateral fault with approximately 100m of movement is present. No movement could be determined along Roy Creek although some clay coated slickensides were observed in rhyolitic flow breccias.

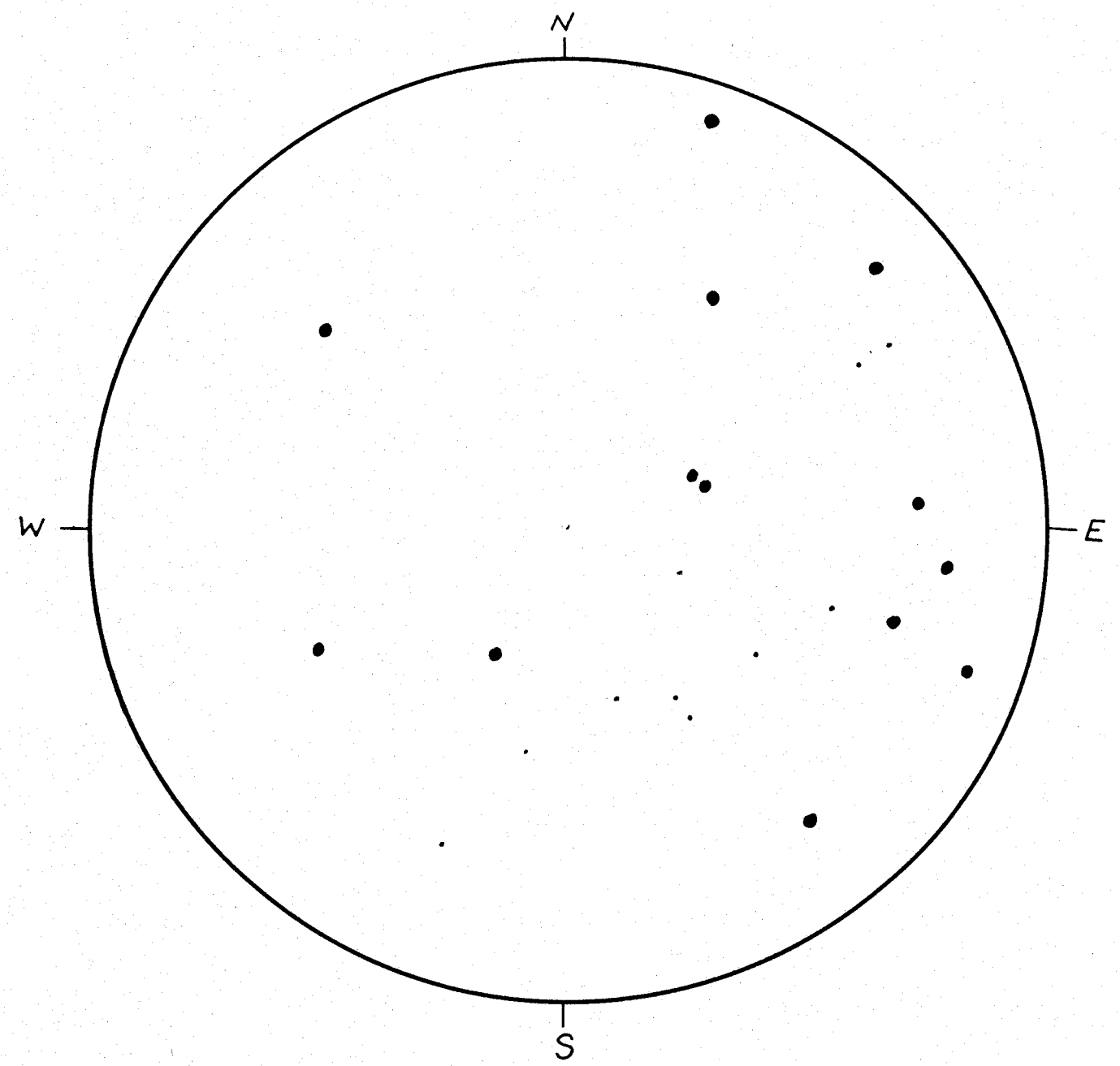
Steeply westward plunging fold axes were measured in schistose volcanic rocks along Indian River. These correspond to partial great circle girdles around poles to foliation, which have NW trends and steep to vertical dips to the NE and SW. The foliation may be the result of shearing along Indian River, as the rocks elsewhere are unfoliated.

A Wulff net plot of poles to bedding (Figure 5) shows a partial girdle, indicating the cylindroidal nature of mild warping in the region, with a moderately NW plunging fold axis. A plot of poles to flow banding in rhyolite indicates a moderately westward plunging flow axis (ie an eastern volcanic centre).

Metamorphism in the region is lower greenschist facies (Roddick, 1965). Within the property, metamorphism reaches this facies, more correctly termed the actinolite horfels facies due to the fine grained nature of the developed metamorphic minerals and the proximity of a quartz diorite intrusive body. Characteristic of this facies is the development of the assemblage: actinolite - chlorite $\pm$ clinozoisite $\pm$ albite (Winkler, 1980).

Evident in the London Group is the albitisation of plagioclase to negative relief secondary albite, and the development of actinolite + chlorite + sericite $\pm$ epidote in the groundmass of rocks of basaltic and andesitic composition. Extensive silicification is also evident in volcanic rocks of all compositions.

Wulff net plot of poles to bedding and flow banding

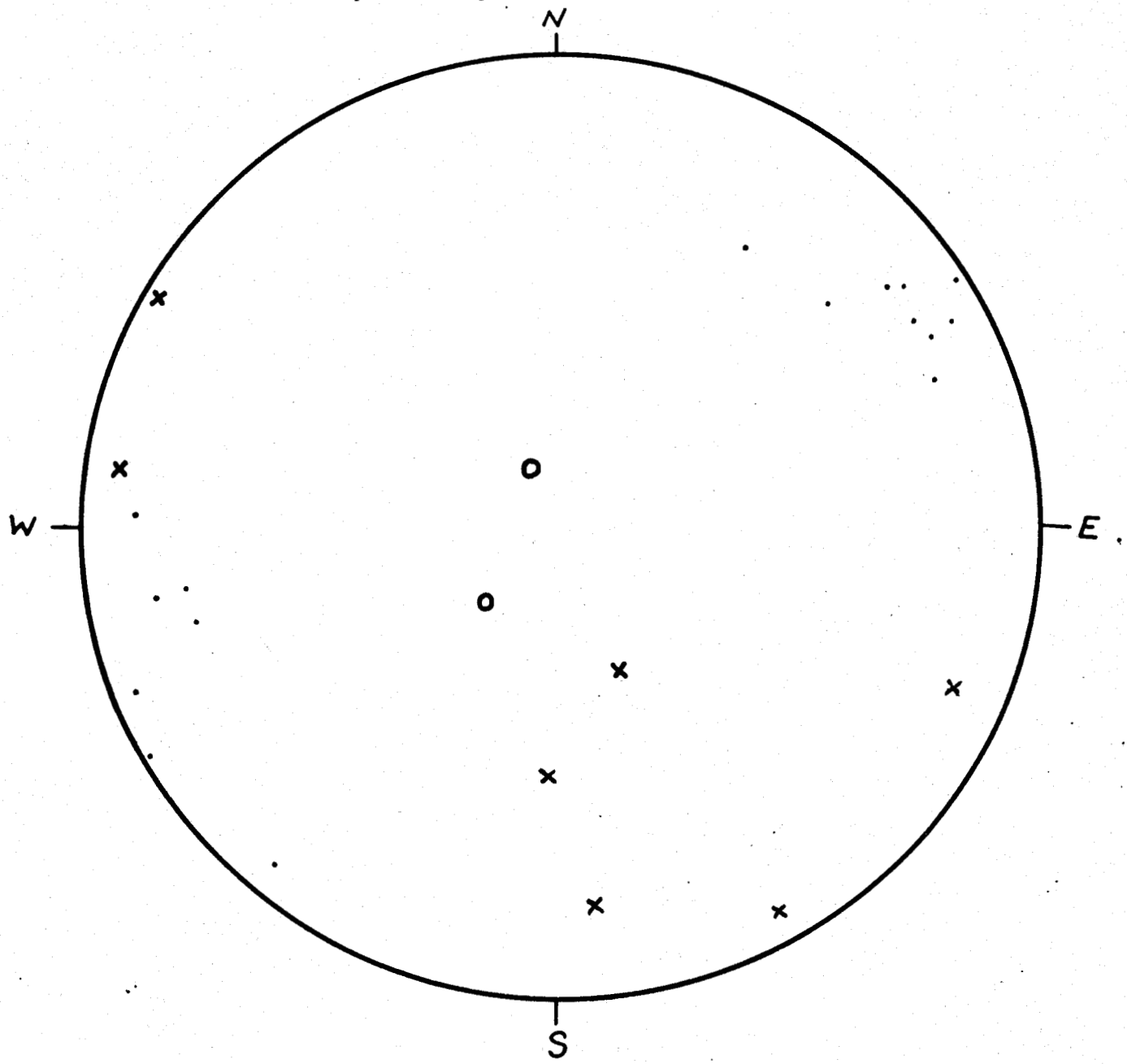


● pole to flow banding

• pole to bedding

Fig. 5

Wulff net plot of poles to foliations and shears



· pole to foliation

× pole to fracture

o fold axis

Figure 6

IV MINERALIZATION

The best surface mineralization on the property is found on the northern corner of London No. 2, above a prominent rock slide (see Plate 1). Here, mineralization consists of disseminations and fracture fillings of pyrite, chalcopyrite, bornite, sphalerite and molybdenite in quartz veins and stringers in an aphanitic, silicified quartz diorite and rhyolite. An adit (now caved) driven into mineralized rocks in this area is reported to average 0.3% Cu over its 33 metre length. Three drill holes put in by Anaconda in 1964 from a set-up 25 metres to the south of the adit averaged from 0.14 to 0.35% Cu, and 0.008 - 0.018% Mo.

Along London Creek, mineralization consists of pervasively disseminated pyrite and minor chalcopyrite in highly silicified quartz diorite and volcanics, and scattered veinlets of sphalerite. Pyrite reaches 25-30% of the rock in parts, chalcopyrite about 10%, and sphalerite 5%.

Rocks along Indian River are often iron-stained, and contain finely disseminated pyrite and minor pyrrhotite, chalcopyrite and sphalerite associated with shearing, silicification, sericitization and chloritization. Three old workings, dug into basalt ash to lapilli tuffs and sericitic phyllites, were located along the banks of the river. Mineralization in these workings consists of heavily disseminated pyrite.

Bedding-parallel massive sulfides consisting of chalcopyrite-pyrite-galena-sphalerite in volcanics upslope of London No. 1 and 2 are not present in the London claim area. These massive sulfides, of probable volcanogenic origin, are associated with rhyolitic-jasperoid flow breccias, in a higher sequence of the volcanic pile. It would seem that rocks in the London Group are in the feeder zone for the massive sulfides found in the Roy Group to the northeast.

V GEOCHEMISTRY

Rock, soil and stream sediment geochemical sampling was carried out over the property to locate base metal and associated gold mineralization. These results are tabulated, together with analytical procedures, in Appendices II, III and IV. Maps showing rock, soil and stream sampling results are listed as Figures 7 and 12 to 16. The grid used for soil sampling is shown as Figure 11.

ROCK GEOCHEMISTRY

Rocks were sampled and analyzed for gold by fire, 26 element ICP and whole rock analysis. Twenty-nine samples with greater than 15% sulfides were sampled and submitted for analysis of gold by fire and for 26 element ICP analysis (Appendix III). Eighteen relatively unaltered looking volcanic rocks from rhyolite to basalt were sampled and submitted for whole rock geochemical analysis (Appendix II).

Rock sample locations are shown in Figure 7, and analytical procedures and results in Appendices II and III.

Gold and 26 Element ICP Geochemistry

Results were generally low for gold analyses, the highest being 135 ppb, obtained from a float sample of jasper-quartz containing chalcopyrite and pyrite veins to the east of London No. 2 (Sample 38). On the claims, the highest value obtained for gold was 115 ppb from phyllitic, sheared volcanic rocks with pyrite stringers on Indian River (Sample 16A).

Elevated copper values were obtained from rocks in four areas. The highest value, 24,300 ppm Cu, was obtained from float sample 38, containing slightly elevated gold of 135 ppb. A broad zone of elevated copper values up to 9,790 ppm was found to correspond to a broad copper soil anomaly on the northeast corner of London No. 2 (Figures 7 & 13). The third area of elevated copper values was on London Creek (Sample 62, Figure 7), upstream of a copper soil anomaly. This sample had a copper value of 4,400 ppm. Finally, along Indian River, on London No. 3, two samples obtained from old workings had copper values of 1,530 and 1,810 ppm which correspond to a slightly anomalous copper-soil zone.

Molybdenite values up to 647 ppm on London No. 2 were obtained in silicified volcanics (?) containing stringers and disseminations of molybdenite, pyrite and chalcopyrite. This broad zone of elevated molybdenite values corresponds to the copper anomalies mentioned earlier, and to a broadly anomalous molybdenite-soil zone (Figure 14).

Low abundances of other elements were also recorded, though base metal abundances do generally correlate with gold.

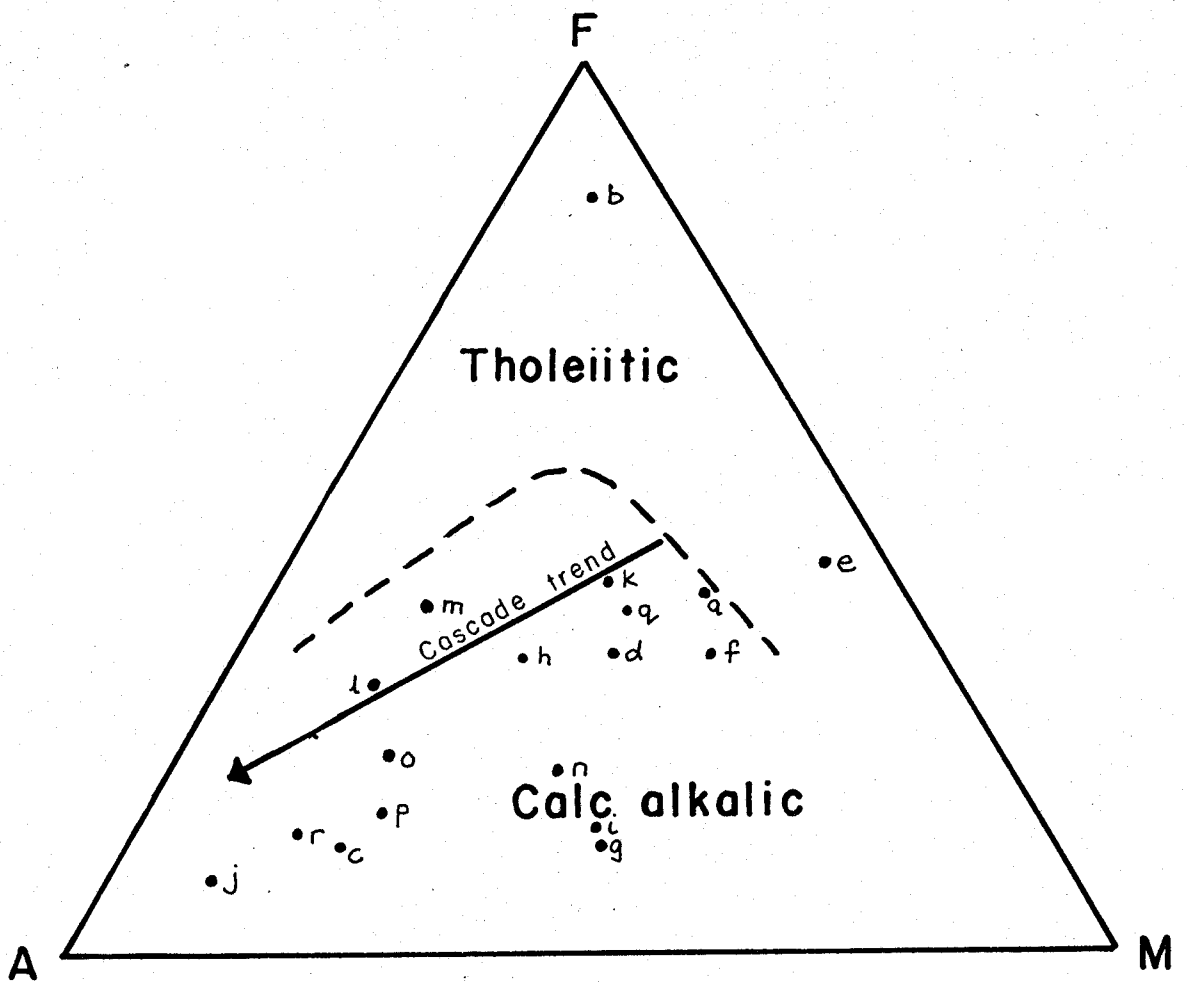


Figure 8. AFM Diagram showing the Cascades calc-alkaline trend of the London Group volcanics.

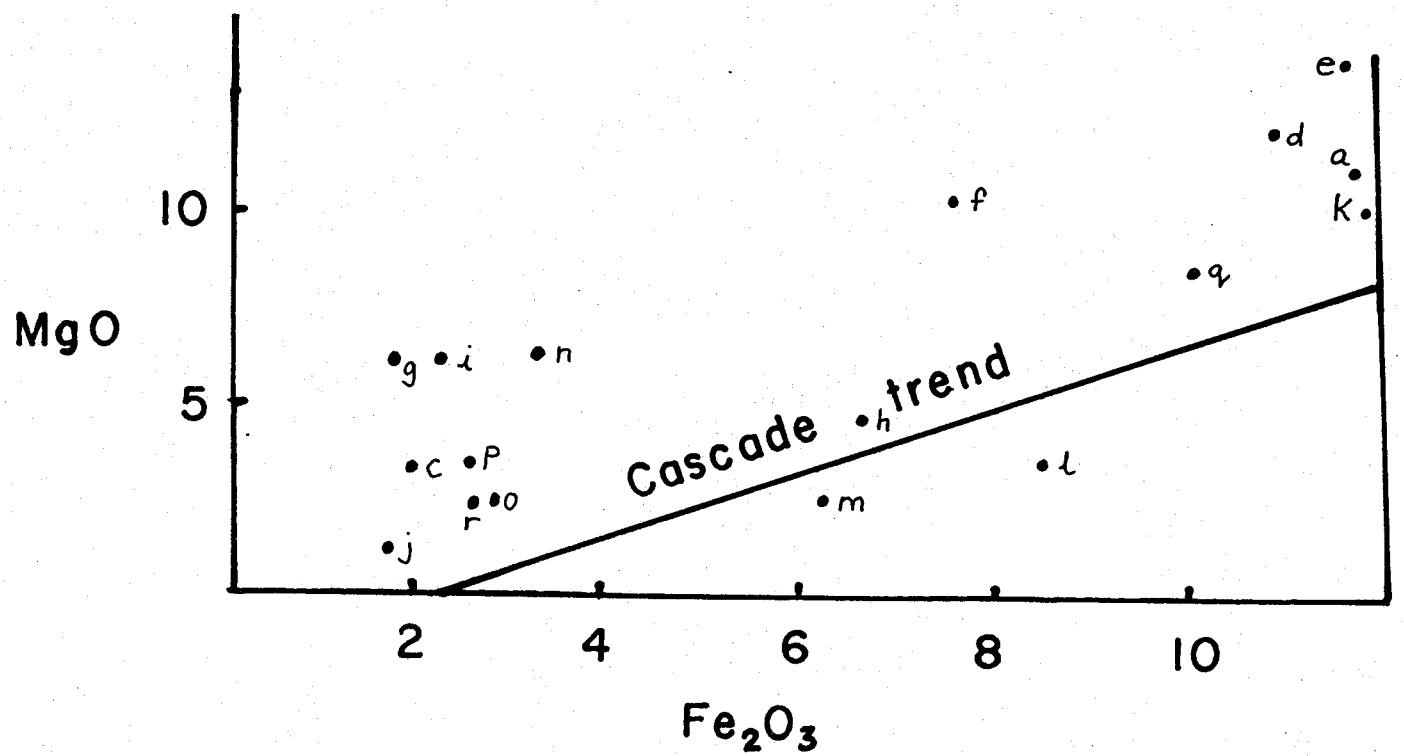


Figure 9. MgO vs Fe203 Diagram showing the Cascades trend of London Group volcanics.

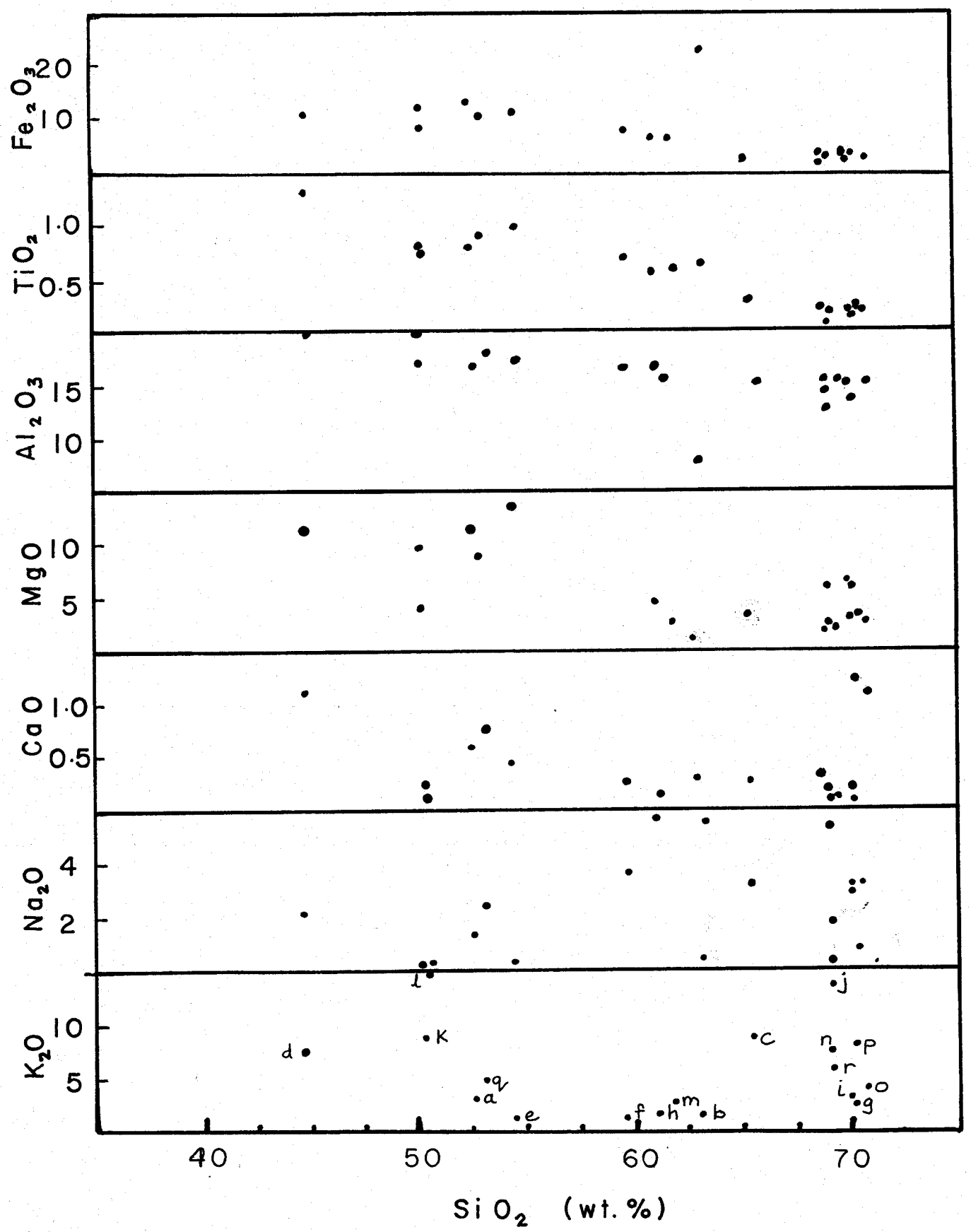


Figure 10. Harker variation diagram.

Whole Rock Geochemistry

Relatively unaltered looking rocks spanning the rhyolite to basalt compositional range were selected for whole rock geochemical analysis.

Figures 8 and 9 show that the London Group volcanic rocks display a trend parallel to a typical Cascade volcanic suite. In addition, figure 8 shows the calc-alkalic nature of these rocks. These chemical properties indicate the orogenic nature of the rocks.

The Harker variation diagrams (Figure 10) show a corresponding increase in Na_2O with increasing silica, and depletion of Fe_2O_3, TiO_2, Al_2O_3, MgO and CaO. An increase in silica between 45% and 55% SiO_2 is accompanied by a depletion of K_2O; with increasing silica greater than 59% goes K_2O.

SOIL AND STREAM SEDIMENT GEOCHEMISTRY

Three hundred and twenty-eight soil samples from the "B" Horizon and thirty-one silt samples were collected in Kraft envelopes and submitted for gold by fire and 26 element ICP analysis. Soil samples were collected at 25m spacings on lines 100m apart (Figure 11). Results are tabulated in Appendix IV and shown on Figures 12 to 16.

Spotty, erratic highs for gold up to 1080 ppb were obtained in soil. These anomalies were obtained in broadly anomalous copper zones.

Several copper-anomalous zones were obtained in the course of sampling (Figure 13). The broadest of these, on London No. 2, is centred on a caved adit and covers a silicified zone of rocks. Here, soil values reach 7,210 ppm Cu. On London No. 1, three spot copper soil anomalies reach 1010 and 2020 ppm, respectively. A copper anomaly of 1540 ppm is located below the Roy adits, which in turn are below the Roy massive sulphide showing. On the Nabob crown grant, copper-soil values up to 2,320 ppm were found below a known area of chalcopyrite and pyrite mineralization (Schmitt, 1978). The fifth area of anomalous copper soil values is along the northern banks of London Creek, on London No. 5. Here, soil values reach 623 ppm.

Molybdenite mineralization on London No. 2 is reflected in elevated molybdenite-soil analyses (Figure 14) reaching 1200 ppm MoS_2. Values for silver and zinc in soils reach 2.2 and 637 ppm, respectively.

Thirty-one stream sediments were collected along Indian River, London Creek and several other small tributaries of the Indian River. Values in gold and copper were generally very low, reaching 40 ppb and 171 ppm, respectively.

VI CONCLUSIONS

The London Group is underlain chiefly by calcalkaline volcaniclastic rocks and minor flows and sediments belonging to the Lower Cretaceous Gambier Group. These are intruded by Tertiary to Cretaceous subvolcanic dykes and Cretaceous quartz diorite. The presence of several agglomerate units, some containing large, angular blocks and bombs, and intercalations of argillite, indicate several volcanic eruptions and hiatuses from a nearby volcanic source. Flow banding orientations indicate an eastern provenance for the volcanic rocks.

Structurally, the area is relatively simple, the units having northwest trending beds with moderate to steep southwest dips. A fault along the Indian River has resulted in phyllitic rocks having northwest trends and steep southwest dips.

The volcanic rocks are calc-alkaline in nature and show chemical affinities with Cascades volcanic rocks.

Base metal mineralization is related to silicification resulting from hydrothermal solutions emanating from intrusive rocks, rather than from volcanic activity, as is probably the case in the nearby Roy Group. It would seem that the London Group rocks are stratigraphically too low in the volcanic pile to contain significant volcanogenic mineralization. These are postulated to be "feeder zone" rocks to stratabound mineralization in the Roy Group.

Soil and rock sampling serve to confirm earlier reports of copper and molybdenum mineralization. Only spotty, erratic gold values were found.

There seems to be little potential for any significant gold deposit in the London Group. The copper and molybdenum potential of the area is a little more promising, though the present work served only to define known areas of mineralization with no known record of production. In light of this, no further work is recommended for the property unless copper and molybdenum prices improve.

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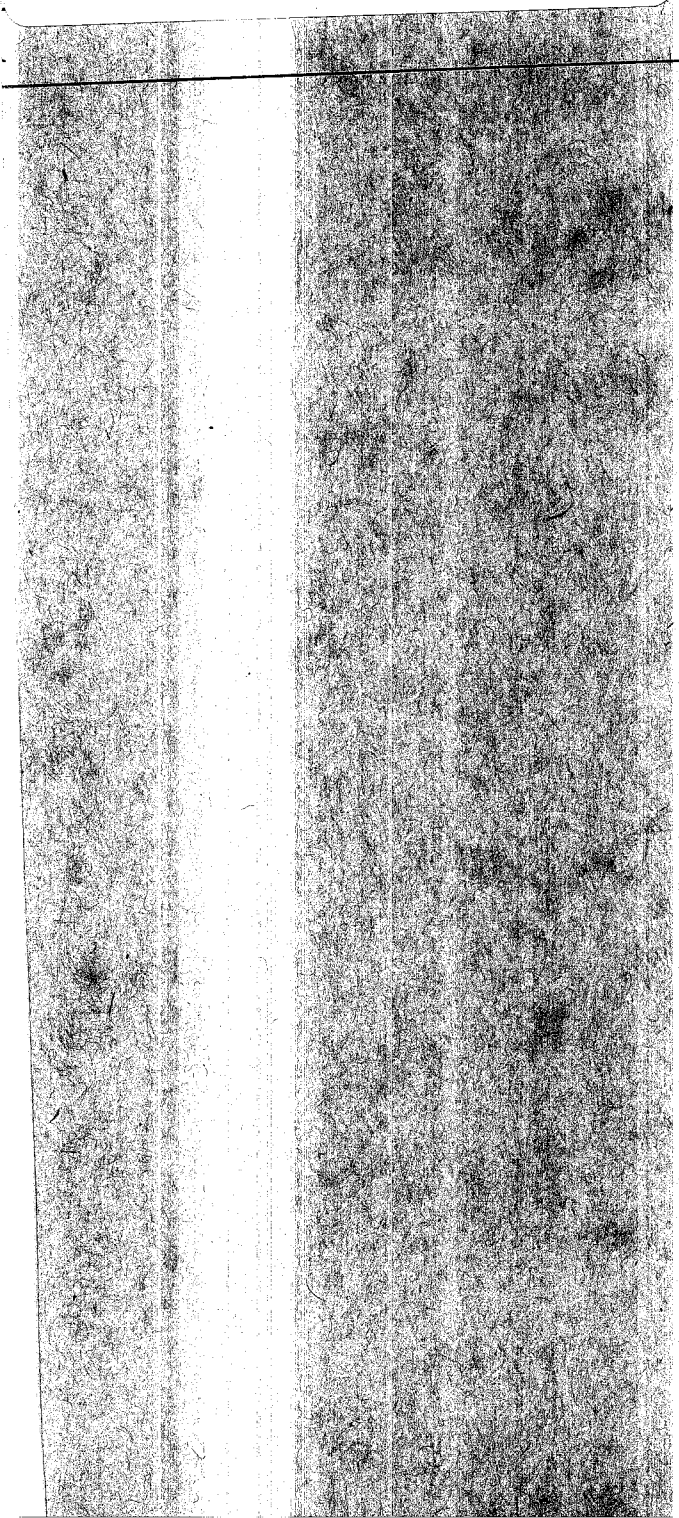
APPENDIX 1-4



APPENDIX I

Thin Section Descriptions

SAMPLE 16B

Hand Specimen

Rock is grey-green weathering, layered, hard. On fresh surface it is light blue-green, aphanitic and siliceous. Thin bands of siliceous material up to 4mm are separated by brownish clay-altered phyllosilicates (probably sericite).

Thin Section

Mode:		
	Plagioclase (An56)	35%
	Quartz	30%
	Sericite	20%
	Chlorite	10%
	Calcite	4%
	Opaques	1%

Rock is very fine grained, crudely layered, and heavily altered to sericite and chlorite. Quartz-calcite veins cut the rock. Fragments of rounded quartz crystals (up to 10% of rock) are set in very fine grained mixture of quartz, plagioclase and sericite.

Rock Name: Rhyolite Tuff

SAMPLE 17C

Hand Specimen

Greenish weath; on fresh surface, rock is medium green, fine to medium grained, indurated flow with hornblende crystals; calcite veins present.

Thin Section

Mode:		
	Plagioclase	70%
	Quartz	10%
	Sericite	4%
	Chlorite	15%
	Pyrite	1%

Pilotaxitic to trachytic texture and porphyritic. Feldspars flow around phenocrysts of quartz and other feldspars. Groundmass is composed of very fine grained plagioclase, quartz and chlorite. Plagioclase is slightly altered to sericite and albite at edges.

Rock Name: Basalt Flow.

SAMPLE 25C

Hand Specimen

Rusty weathering; plagioclase alters to clay on weathered surface. On fresh surface rock is porphyritic, medium grained. Crudely formed plagioclase crystals up to 3mm long set in fine grained, dark green chloritized matrix. 5% disseminated pyrite. Altered quartz diorite.

Thin Section

Mode:		
	Plagioclase	60%
	Quartz	15%
	Chlorite	10%
	Sericite	10%
	Calcite	5%
	Opagues	Trace

Equigranular, granitic texture. Heavily sausseritized to fine grained sericite and chlorite clots. Veins of quartz and calcite cut rock. Fine grained quartz in matrix indicates silicification.

Rock Name: Altered Quartz Diorite

SAMPLE 26

Hand Specimen

Rusty weathering, hard, siliceous. On fresh surface, rock is fine to medium grained, mottled. Chalcopyrite as stringers and fine disseminations to 10%; 5% pyrite.

Thin Section

Mode:		
	Plagioclase	40%
	Quartz	15%
	Sericite	30%
	Chlorite	10%
	Opaques	5%

Mottled, heavily altered with original textures entirely obliterated by alteration to fine grained sericite and chlorite. Plagioclase crystals are almost entirely sericitised. Quartz veins are abundant. Opaques, mostly pyrite, enclose quartz and plagioclase. Remnant granitic textures indicate that the original rock was intrusive in nature.

Rock Name: Altered Quartz Diorite.

SAMPLE 32

Hand Specimen

Light grey weathering, blocky, flow banded. Sub-angular to sub-rounded, aphanitic, siliceous fragments up to 1cm, with bands of siliceous material flowing around them. Rock on fresh surface is light green and aphanitic. Darker bands alternate with lighter coloured ones.

Thin Section

Mode:		
	Quartz	50%
	Feldspar	20%
	Biotite	20%
	Epidote	5%
	Muscovite	5%
	Opaques	Trace

Layered, clastic, with rounded cherty clasts surrounded by fine grained quartz-feldspar mixture. Perlitic cracks filled in by biotite; in parts spherulitic.

Rock Name: Rhyolite Flow Breccia

SAMPLE 43

Hand Specimen

Greenish weathering, slightly foliated, rusty fractures. Medium grained, greenish on fresh surface. Granitic texture on cut surface.

Thin Section

Mode:		
	Quartz	25%
	Plagioclase	45%
	Biotite	5%
	Chlorite	5%
	Epidote	3%
	Sericite	15%
	Pyrite	2%

Foliated; foliation defined by stretched quartz and feldspar grains, and sericite flakes. Crystals are highly fractured, and quartz displays undulatory extinction.

Rock Name: Foliated Quartz Diorite

SAMPLE 44A

Hand Specimen

Blocky, rusty weathering. On fresh surface, rock is medium green, fine grained, porphyritic. Phenocrysts of hornblende in very fine grained matrix. Chloritized.

Thin Section

Mode:		
	Plagioclase	60%
	Quartz	10%
	Epidote	15%
	Chlorite	5%
	Opaques	5%
	Sericite	5%

Porphyritic texture, with plagioclase phenocrysts surrounded by fine grained plagioclase that flows around phenocrysts. Plagioclase altered to epidote chlorite and sericite. Opaques, mostly pyrite, envelope plagioclase and epidote.

Rock Name: Porphyritic Basalt

SAMPLE 46

Hand Specimen

Rusty weathering, blocky, massive. On fresh surface, rock is dark green, aphanitic to fine grained, vaguely porphyritic. Fine stringers of pyrite cut rock.

Thin Section

Mode:		
	Plagioclase	75%
	Quartz	10%
	Sericite	5%
	Opaques	5%
	Epidote	5%

Porphyritic, trachytic texture. Finer grained albite sweeps around plagioclase phenocrysts. Rock is relatively fresh only slightly sausurretised. Groundmass is silicified.

Rock Name: Porphyritic Basalt

SAMPLE 47

Hand Specimen

Greenish weathering, hard, banded. On fresh surface, rock is light green, aphanitic to fine grained, siliceous. Finely disseminated pyrite up to 2%.

Thin Section

Mode:		
	Quartz	50%
	Plagioclase	28%
	Epidote	10%
	Calcite	5%
	Opaques (mostly pyrite)	5%
	Sericite	2%

Layered, granular texture. Grains are predominantly composed of round quartz. Finer grained quartz-feldspar wraps around coarser grains. Several grains display spherulitic texture, indicating devitrification. Finer stringers of calcite in tension gashes cut rock. Calcite is surrounded by feathered quartz at vein walls. Grain size is graded into layers.

Rock Name: Rhyolite Flow Breccia

SAMPLE 48b

Hand Specimen

Rusty weathering, vuggy, slightly foliated. On fresh surface, rock is white to grey, medium grained, with crystal and rock fragments. In parts, rock is porphyritic, with plagioclase phenocrysts.

Thin Section

Mode:		
	Quartz	25%
	Plagioclase	50%
	Epidote	10%
	Sericite	10%
	Pyrite	5%

Rock is porphyritic and contains fragments of rhyolite flows. Corroded quartz and plagioclase form phenocrysts in a fine grained groundmass of quartz - albite - sericite - epidote. Finely disseminated cubes of pyrite. Plagioclase phenocrysts are albitized and sericitized.

Rock Name: Rhyolite Flow Breccia

SAMPLE 52b

Hand Specimen

Brownish, weathering, massive, hard. On fresh surface, rock is medium grained, porphyritic. Moderately well formed plagioclase phenocrysts set in aphanitic, siliceous matrix. Disseminated pyrite.

Thin Section

Mode:		
	Plagioclase	40%
	Quartz	30%
	Epidote	5%
	Chlorite	10%
	Actinolite	10%
	Sericite	5%

Porphyritic texture, with corroded quartz and plagioclase forming phenocrysts. Groundmass is very fine grained, saussuretised mixture of acicular actinolite, chlorite and epidote. Plagioclase altered to albite and sericite.

Rock Name: Porphyritic Dacite

SAMPLE 56

Hand Specimen

Rusty and grey, blocky weathering. On fresh surface, rock is dark green, medium grained, chloritized, sub-angular, andesitic fragments are set in dark green, chloritized matrix, and imparts a "wormy" texture to the rock.

Thin Section

Mode:		
	Plagioclase	35%
	Quartz	30%
	Chlorite	20%
	Sericite	15%
	Opaques	Trace

Welded grain boundaries. Heavily silicified and chloritized, chlorite in anastomosing veins. Quartz also present in veins. Plagioclase is altered to albite and sericite. Most quartz is secondary in nature. Original crystal fragments completely saussuritized.

Rock Name: Silicified Andesite Crystal Tuff

SAMPLE 58A

Hand Specimen

Rusty weathering, medium grained, dark grey-hornblende phenocrysts up to 30%; disseminated pyrite to 5%; porphyritic. Hornblende - plagioclase basalt.

Thin Section

Mode:		
	Plagioclase	30%
	Quartz	10%
	Sericite	50%
	Chlorite	8%
	Opaques	2%

Rock is heavily altered to mass of sericite and chlorite. Original rock is probably pyroclastic; several rounded andesitic fragments present, as well as clasts of quartz and plagioclase.

Rock Name: Basalt Tuff

SAMPLE 60A

Hand Specimen

Rusty weathering, limonite in parts. Pyrite boxwork. On fresh surface, rock is light grey, aphanitic and siliceous. Cut by pyrite stringers and pods with bleached envelopes. Original textures obliterated.

Thin Section

Mode:		
	Quartz	35%
	Plagioclase	20%
	Sericite	30%
	Epidote	5%
	Chlorite	2%
	Opaques	8%

Heavily altered to sericite and quartz. Original textures obliterated. Quartz stringers cut rock. Opaques (mostly pyrite) are disseminated in the section. Original rock may be a rhyolite. Plagioclase is almost completely albitised.

Rock Name: Silicified Rhyolite (?)

SAMPLE 63

Hand Specimen

Orange to rusty weathering, blocky. On fresh surface, rock is light grey, porphyritic and siliceous. Thin stringers of quartz cut rock. Plagioclase phenocrysts up to 2mm long are set in an aphanitic, siliceous matrix. Disseminated cubes of pyrite in matrix.

Thin Section

Mode:		
	Quartz	35%
	Plagioclase	50%
	Sericite	10%
	Opaques	5%

Porphyritic, with quartz and plagioclase forming phenocrysts, in fine grained quartz-feldspar matrix. Some alteration to sericite in plagioclase.

APPENDIX II

Whole Rock Analytical
Procedures and Results

ROCK SAMPLE CODES

Assay Tag	Field Sample	Letter Code
13821	15	a
13822	16A	b
13823	17A	c
13824	17B	d
13825	18C	e
13826	20A	f
13827	20B	g
13828	18	h
13829	21	i
13830	27	j
13831	40	k
13832	42A	l
13833	52A	m
13835	57	n
13836	58B	o
13837	65A	p
13838	68	q
13839	30	r

ROCK SAMPLE DESCRIPTIONS

13821	Fine grained green basalt from old workings.
13822	Phyllitic andesite; finely disseminated pyrite up to 8%.
13823	Slightly schistose, green tuff with 10% pyrite.
13824	Basaltic flow; chloritized, unfoliated, dense.
13825	Andesite lapilli tuff.
13826	Basalt lapilli tuff-breccia; chloritized clasts, 5% disseminated pyrite.
13827	As in 13826.
13828	Andesite lapilli tuff with finely disseminated pyrite in matrix.
13829	Dacite tuff-breccia; rusty, grey green, siliceous.
13830	Flow banded rhyolite.
13831	Andesite lapilli tuff; pyrite boxwork, chloritized; 10% pyrite.
13832	Andesite lapilli tuff-breccia; rusty, slightly schistose, chloritized and rhyolitic clasts.
13833	Rhyolite dyke; medium to fine grained.
13834	Basalt flow; phyllitic, 10% disseminated pyrite, calcite veined.
13835	Rhyolite flow breccia; flow banded.
13836	Rhyolite dyke.
13837	Chloritized tuff-breccia.
13838	Dacite tuff breccia, rusty, siliceous; chloritized clasts.
13839	Porphyritic dacite; phenocrysts of quartz and plagioclase in aphanitic, siliceous matrix.

ANALYTICAL PROCEDURES FOR WHOLE ROCK ANALYSIS

Samples are processed by Min-En Laboratories Ltd, at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95 degrees Celsius soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HN03 and NC104 HF mixture.

For those elements which do not yield complete dissolution, a Lithium tetraborate dissolution or potassium hydroxide dissolution is applied.

After cooling samples are diluted to standard volume. The solutions are analysed by computer operated Jarrell Ash 9000 ICP. Inductively coupled Plasma Analyser. Reports are formated by routing computer dotline print out.

TH

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: FALCONBRIDGE LTD.
PROJECT: 016
ATTENTION: T.HEAH

FILE: 4-1373
DATE: NOV.12/84
TYPE: WHOLE ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	SIO2 %	TIO2 %	AL2O3 %	MGO %	CAO %	FE2O3 %
13821	50.40	.79	16.10	11.00	.62	11.20
13822	58.60	.58	7.52	1.48	.28	21.10
13823	64.60	.28	15.10	3.57	.26	2.05
13824	41.50	1.25	18.90	11.20	1.05	10.50
13825	51.70	.93	16.60	13.10	.41	11.20
13826	57.30	.68	16.40	10.10	.26	7.44
13827	68.80	.18	15.00	6.18	.11	1.81
13828	60.80	.52	16.60	4.63	1.66	6.31
13829	68.70	.18	14.80	6.30	.22	2.09
13830	68.00	.06	12.50	1.82	.04	1.69
13831	48.40	.75	16.40	9.46	.22	11.80
13832	49.00	.71	19.90	3.56	.15	8.06
13833	60.10	.60	14.50	2.56	3.41	5.84
13835	66.20	.18	13.80	6.15	.09	3.38
13836	70.10	.19	15.10	2.69	1.10	2.77
13837	69.50	.15	13.50	3.23	1.23	2.31
13838	51.80	.90	17.30	8.65	.75	9.78
13839	67.70	.20	15.20	2.34	.13	2.29

Certified by _____

MIN-EN LABORATORIES LTD.

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: FALCONBRIDGE LTD.
PROJECT: 016
ATTENTION: T.HEAH

FILE: 4-1373
DATE: NOV.12/84
TYPE: WHOLE ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	NA2O %	K2O %
13821	1.36	3.53
13822	.36	1.33
13823	3.15	8.58
13824	2.04	7.15
13825	.13	1.25
13826	3.66	1.18
13827	3.19	2.78
13828	5.73	1.47
13829	2.98	2.83
13830	1.89	13.50
13831	.11	8.11
13832	.21	14.40
13833	5.17	2.38
13835	.15	7.17
13836	3.17	4.06
13837	.85	8.08
13838	2.32	4.79
13839	5.32	5.58

Certified by

MIN-EN LABORATORIES LTD.

WHOLE ROCK ANALYSES RECALCULATED TO 100%

Sample No.	SiO2	TiO2	Al2O3	MgO	CaO	Fe2O3	Na2O	K2O
13821 (a)	53.05	0.8	16.95	11.58	0.6	11.79	1.43	3.73
13822 (b)	64.22	0.64	8.24	1.62	0.31	23.12	0.39	1.46
13823 (c)	66.20	0.29	15.47	3.66	0.26	2.10	3.23	8.79
13824 (d)	44.34	1.34	20.19	11.97	1.12	11.22	2.18	7.64
13825 (e)	54.24	0.98	17.42	13.74	0.43	11.75	0.14	1.31
13826 (f)	59.06	0.70	16.90	10.41	0.27	7.67	3.77	1.22
13827 (g)	70.17	0.18	15.30	6.30	0.11	1.85	3.25	2.84
13828 (h)	62.22	0.53	16.99	4.74	0.17	6.46	5.86	1.50
13829 (i)	70.03	0.18	15.09	6.42	0.22	2.13	3.04	2.88
13830 (j)	68.34	0.06	12.56	1.84	0.04	1.71	1.92	13.57
13831 (k)	50.81	0.79	17.22	9.93	0.24	12.39	0.12	8.51
13832 (l)	51.05	0.74	20.73	3.71	0.16	8.40	0.22	15.00
13833 (m)	63.56	0.63	15.33	2.71	3.61	6.18	5.47	2.52
13835 (n)	68.18	0.20	14.21	6.33	0.10	3.48	0.17	7.38
13836 (o)	70.80	0.20	15.25	2.72	1.11	2.80	3.20	4.09
13837 (p)	70.31	0.15	13.65	3.27	1.24	2.34	0.86	8.17
13838 (q)	53.80	0.93	17.97	8.98	0.77	10.16	2.41	4.97
13839 (r)	68.52	0.20	15.38	2.37	0.15	2.32	5.38	5.65

APPENDIX III

26 Element ICP
and Fire Gold Analytical
Procedures and Results

ANALYTICAL PROCEDURES FOR 26 ELEMENT ICP ANALYSIS

Samples are processed by Min-En Laboratories Ltd., 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95 degrees Celsius, soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HN03 and HC104 mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by Computer operated Jarrell Ash 9000 ICP. Inductively coupled by Plasma Analyser. Reports are formated by routing computer dotline print out.

ANALYTICAL PROCEDURES FOR FIRE GOLD GEOCHEMICAL ANALYSIS

Geochemical samples for fire gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95 degrees Celsius, soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 15.00 or 30.00 grams are fire assay preconcentrated.

After pretreatments the samples are digested with Aqua regia solution, and after digestion the samples are taken up with 25% HC1 to suitable volume.

Further oxidation and treatment of at least 75% of the original sample solution are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limite is 1ppb.

ROCK SAMPLE CODES

Assay Tag	Field Sample
13801	15
13802	16A
13803	20A
13804	17A
13805	18
13806	25A
13807	25B
13808	25D
13809	26A
13810	26B
13811	28A
13812	28B
13813	29A
13814	29B
13815	29C
13816	29E
13817	Roy Showing
13818	33A
13819	34
13820	38
13834	49
13840	42B
13841	54
13842	59
13843	60
13844	61
13845	61A
13846	62
13847	59

ROCK SAMPLE DESCRIPTIONS

Assay Tag No.	Rock Sample Descriptions	Sample Type
13801	Fine grained green basalt tuff from old workings.	Chip across 1m
13802	Phyllitic volcanic with pyrite stringers and disseminations to 8%. Rusty weathering.	Grab
13803	Basalt lapilli tuff-breccia; slightly foliated; 5% finely disseminated pyrite; chloritized.	Grab
13804	Tuff with 10% pyrite; slightly schistose	Grab
13805	Andesite lapilli lithic tuff with epidotized clasts; finely disseminated to 5%.	Grab
13806	Siliceous volcanic with pyrite veins and stringers.	Grab
13807	Siliceous, rusty volcanic with pyrite and quartz veins.	Grab
13808	Siliceous rhyolite tuff with 25% pyrite as stringers and disseminations.	
13809	Siliceous, rusty volcanic with pyrite veins; malachite stains.	Chip across 1m
13810	Dacite tuff breccia; rusty, vuggy, light grey; 15% pyrite as veins and disseminations.	
13811	Rusty, vuggy, light grey and siliceous. 15-20% finely disseminated pyrite, up to 5% bornite, 2% chalcopyrite, trace covellite.	Grab
13812	Siliceous, light grey volcanic 20% disseminated and stringers of pyrite.	Grab
13813	Siliceous dacite with py-mo-cp in fracture fillings.	Grab
13814	Siliceous dacite with 20% stringer pyrite and quartz veins.	Grab

ROCK SAMPLE DESCRIPTIONS
(continued)

Assay Tag No.	Descriptions	Sample Type
13815	Siliceous dacite with pyrite, molybdenite.	Chip across 1m
13816	Siliceous dactie with pyrite-quartz vein with pyrite boxwork.	Grab
13817	Massive chalcopyrite-pyrite from Roy showing, containing quartz-chlorite alteration.	Grab
13818	Phyllitic dacite tuff; siliceous with 10% disseminated pyrite and chalcopyrite from old workings.	Grab
13819	Andesite lapilli tuff; rusty, vuggy textured, pyrite boxwork, 10% pyrite; from old workings.	Grab
13820	Float of jasper-quartz vein with pyrite and chalcopyrite (30% total)	Grab
13840	Andesite lapilli tuff-breccia; rusty, slightly schistose, chloritized and rhyolite angular clasts; vuggy, limonite stained, disseminated pyrite.	Grab
13841	Andesite tuff; vuggy, sphalerite vein with quartz stringers.	Grab
13842	Siliceous, aphanitic; 10-15% disseminated pyrite; minor chalcopyrite and bornite; vuggy texture, pyrite boxwork.	Continuous chip across 8m
13843	Rusty, siliceous rhyolite with disseminated pyrite and chalcopyrite to 15%; Minor bornite.	Grab
13844	Altered quartz diorite; 20% pyrite, minor chalcopyrite.	Grab

SAMPLE DESCRIPTIONS
(continued)

Assay Tag No.	Descriptions	Sample Type
13845	Limonitic, vuggy, 10-15% pyrite, siliceous.	Chip across 2m
13846	Altered quartz diorite with 15% pyrite, 10% chalcopyrite, 5% sphalerite.	Grab
13847	Siliceous, 15-20% finely disseminated pyrite, minor chalcopyrite, vuggy, pyrite boxwork.	Grab

COMPANY: FALCONBRIDGE LTD
PROJECT No: 016
ATTENTION: TOM HEAH

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:GE03B) PAGE 1 OF 3
FILE No: 4-477RG
DATE: JULY 5, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
13801	2.0	11100	10	48	1	10400	2.5	48	108	83900	4440	44900
13802	1.4	4800	0	15	0	1050	1.8	61	41	103000	1310	1080
13803	.9	50100	19	38	0	979	1.1	23	44	60300	1680	45800
13804	.9	25800	36	22	0	2080	1.9	14	28	54800	2700	18500
13805	.9	29100	17	23	0	3770	1.2	22	37	50500	3630	19800

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
13801	1830	12	249	89	498	101	0	122	0	0	137.5	332
13802	12	6	183	58	326	0	0	46	0	0	17.3	97
13803	903	10	538	26	170	144	0	94	0	0	66.9	233
13804	888	6	222	19	469	19	0	59	0	0	40.8	220
13805	1360	7	769	17	811	17	0	72	0	0	71.0	175

(REPORT VALUES IN PPM)	BA	SE	AU-PPB
13801	141	25	6
13802	46	0	115
13803	72	26	17
13804	182	13	57
13805	164	10	3

COMPANY: FALCONBRIDGE LTD.
PROJECT No: 303-608-016
ATTENTION: TOM HEAH

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7N 1T2
(604)980-5814 OR (604)988-4524
TYPE ROCK GEOCHEM

(ACT:GE03B) PAGE 1 OF 3
FILE No: 4-588R
DATE: JULY 19, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
13817	89.5	15200	55	39	50	416	2.4	43	155000	303000	34	13000
13818	1.3	15000	26	19	34	1050	.5	28	1810	61100	1890	9600
13819	.5	19200	30	22	25	1780	.4	17	1530	41200	1820	14000
13820	13.7	7250	64	23	38	165	2.3	55	24300	169000	924	5550

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
13817	635	14	9	28	6330	148	253	8	12	0	31.8	253
13818	426	51	67	18	240	21	13	14	16	0	30.6	34
13819	983	7	301	18	965	25	14	18	16	0	50.6	148
13820	191	96	12	23	655	80	47	10	27	0	19.4	106

(REPORT VALUES IN PPM)	BA	SE	HG-PPB	AU-PPB
13817	46	3	90	173
13818	67	2	20	26
13819	94	2	50	7
13820	48	9	5	135

COMPANY: FALCONBRIDGE LTD.
PROJECT No: 303-608-016
ATTENTION: TOM HEATH

MIN-EN LABS ICP REPORT
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(604)980-5814 OR (604)988-4524

(ACT:6E03B) PAGE 1 OF 3
FILE No: 4-554R
DATE: JULY 16, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
13806	13.3	26900	188	30	161	3400	.7	28	9790	60700	4210	16000
13807	5.9	22000	63	40	51	4170	.0	23	2950	69700	4030	13700
13808	.5	6640	45	14	5	292	.0	24	170	91000	3330	1020
13809	1.0	8510	52	14	9	294	.0	16	352	62400	2850	2220
13810	1.0	6580	22	14	8	131	.2	26	467	82300	2900	1100
13811	5.0	13000	27	30	20	1820	.5	18	1060	25900	3390	6270
13812	2.7	23100	28	25	44	2030	.0	19	2820	54300	4030	11500
13813	3.1	8610	22	17	29	635	.3	16	1710	35600	2400	4420
13814	4.7	14100	42	135	48	1200	.5	17	2800	36200	3300	7190
13815	3.3	8080	24	27	31	659	.0	21	1770	43000	2270	3700
13816	1.9	7120	29	14	23	710	.2	14	1330	26400	2490	2560

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
13806	822	106	339	10	1010	16	22	25	0	6	50.6	238
13807	600	647	174	12	1580	14	11	19	1	0	43.3	161
13808	0	25	94	14	0	0	6	7	6	0	14.2	13
13809	54	17	101	10	33	3	8	11	6	12	13.4	39
13810	26	43	84	14	0	0	8	8	7	0	15.1	18
13811	197	661	169	10	1200	8	9	12	3	10	14.2	34
13812	510	35	156	14	1520	6	14	18	4	3	45.5	105
13813	90	193	139	8	352	6	8	10	4	5	11.3	19
13814	177	392	206	8	756	10	12	14	4	16	12.9	33
13815	94	279	119	10	596	1	8	8	4	14	11.0	16
13816	56	142	133	8	492	4	7	8	3	15	6.3	10

(REPORT VALUES IN PPM)	BA	SE	AU-PPB
13806	93	3	24
13807	92	0	17
13808	80	0	8
13809	114	0	1
13810	81	0	10
13811	94	10	12
13812	86	1	4
13813	61	0	4
13814	81	5	3
13815	62	0	3
13816	74	0	2

COMPANY: FALCONBRIDGE LTD.
PROJECT No: 016
ATTENTION: T. HEAH

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524 *TYPE ROCK GEOCHEM*

(ACT:GEO3B) PAGE 1 OF 3
FILE No: 4-1373
DATE: NOVEMBER 1, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
13834	1.2	35400	0	26	13	1060	2.7	24	171	53400	2390	19500
13840	.9	28400	0	21	11	471	2.8	22	38	55600	2220	18200
13841	1.8	18900	0	14	10	1430	690.4	17	103	28400	1270	12200
13842	.8	12000	0	11	11	433	3.8	18	126	51000	4180	5070
13843	.7	12800	20	19	9	1330	1.8	12	92	26800	4040	7140
13844	2.3	30300	11	23	21	7520	2.4	30	245	51400	5270	13400
13845	.7	9470	19	8	8	1390	.8	11	40	21600	3130	4910
13846	8.8	27100	0	23	77	1910	17.1	19	4400	82100	7130	16000
13847	.9	5130	33	6	9	501	.3	20	140	42700	1960	1390

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
13834	615	4	49	27	397	22	3	64	4	1	49.7	107
13840	855	4	125	21	300	26	2	33	4	1	41.0	78
13841	897	3	260	12	554	1450	4	24	2	1	30.0	8020
13842	237	14	142	35	135	22	2	19	5	1	39.3	88
13843	202	3	535	28	518	23	5	20	3	1	23.8	48
13844	1020	5	1480	52	444	30	0	53	5	2	138.0	297
13845	173	5	524	30	461	22	1	19	3	1	23.5	43
13846	805	10	351	17	575	120	8	38	3	1	51.2	2450
13847	93	16	75	46	239	15	4	12	7	1	25.9	34

(REPORT VALUES IN PPM)	BA	SE	AU-PPB
13834	764	0	2
13840	67	0	7
13841	35	0	22
13842	78	0	4
13843	99	0	2
13844	102	0	13
13845	63	0	4
13846	131	0	21
13847	58	0	2

APPENDIX IV

Soil and Silt Geochemistry
Analytical Procedures and Results

ANALYTICAL PROCEDURES FOR SOIL AND SILT GEOCHEMISTRY

Samples are processed by Min-En Laboratories Ltd. at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95 degrees Celsius, soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HN03 and HC104 mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by Atomic Absorption Spectrophotometers.

Copper, lead, zinc, silver, cadium, cobalt, nickel and manganese are analysed using the CH2H2 -Air flame combination but the molybdenum determination is carried out by C2H2-N20) gas mixture directly or in-directly (depending on the sensitivity and detection limit (required) on these sample solutions.

Background corrections for Pb, Ag, Cd upon request are completed.

COMPANY: FALCONBRIDGE LTD
PROJECT No: 016
ATTENTION: TOM HEAH

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:GE03B) PAGE 1 OF 3
FILE No: 4-47756
DATE: JULY 5, 1984

(REPORT VALUES IN PPM)

	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
81702	2.6	34700	11	31	10	8720	2.1	32	118	66500	2330	15100
81703	2.0	26100	0	24	11	7520	1.1	31	182	76500	1940	11900
81704	1.7	41600	0	34	9	1350	1.7	21	82	60900	1820	11300
81705 40MESH	1.0	11200	12	11	4	2250	1.3	7	41	19800	817	3950
81706	1.5	44200	10	35	6	1550	.8	16	48	53700	1310	8160
81707	2.1	56000	16	44	9	2830	1.8	19	39	69100	385	8090
81708	2.5	37300	4	32	10	7740	1.3	29	100	66100	1820	12900
81709	1.5	15900	0	18	7	3590	1.0	13	23	50100	802	4530
81710	1.1	18700	11	17	5	4010	1.7	14	54	34500	1530	11300
81711	1.4	27700	3	24	7	2520	.8	15	71	42000	1400	9220
81712	2.0	30600	0	27	10	7650	1.2	28	78	69800	1860	13800
81713	1.9	23600	0	21	7	6170	1.1	22	58	53600	1550	11300
81714	2.0	25500	0	24	9	7090	.7	28	68	81600	1760	11700
81715	1.3	21900	14	19	4	1060	1.2	11	28	38100	1100	8970
81716	1.1	32400	20	27	6	1830	1.3	22	76	45500	1980	14800
81717 40MESH	1.1	23800	8	21	6	3100	1.1	17	68	42200	1680	12400
81718 N/S												
81719	1.0	16100	0	38	2	507	.2	8	11	34800	420	1250
81720	1.8	30100	0	27	8	1620	.8	18	146	70300	1080	11500
81721 40MESH	1.8	23900	0	22	8	4570	1.3	21	99	59200	1950	13900
81722 40MESH	.7	6060	9	6	2	1640	.6	2	12	6480	409	709
81502	2.1	30100	0	29	10	4380	1.8	27	125	66900	1720	12700
81503	.7	2720	14	8	2	1990	.6	2	9	4720	270	1230
81504 40MESH	.8	2200	12	4	1	2270	.3	1	5	3780	242	462
81507	2.1	29900	7	28	10	5700	1.1	25	115	68200	2330	16200
81508	2.6	35000	18	33	18	5590	1.5	26	793	65200	1020	10300
81511	1.9	25300	0	27	.4	5620	1.7	29	103	96500	1460	12600
81513 40MESH	1.7	25900	12	24	7	4660	2.1	22	95	55500	2140	14700

(REPORT VALUES IN PPM)

	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81702	812	4	1640	30	773	50	0	97	0	1	168.3	239
81703	618	4	1380	26	695	9	0	78	0	0	210.1	126
81704	1050	5	134	16	602	21	0	51	0	0	113.1	141
81705 40MESH	712	7	121	9	1040	44	0	22	0	0	38.9	105
81706	420	6	154	12	469	7	0	51	0	0	99.2	104
81707	318	8	299	17	596	4	0	72	0	0	179.8	80
81708	616	4	1580	28	782	12	0	92	0	3	160.3	139
81709	199	3	589	11	627	0	0	37	0	0	130.5	47
81710	956	3	366	11	718	27	0	63	0	5	47.9	177
81711	550	4	172	11	542	24	0	46	0	2	70.6	133
81712	780	6	1490	32	664	3	0	95	0	1	173.2	97
81713	677	5	923	20	657	11	0	67	0	3	174.6	109
81714	656	4	1260	29	602	0	0	77	0	0	278.5	90
81715	557	4	95	9	401	25	0	33	0	1	66.8	110
81716	1570	5	173	12	475	44	0	48	0	5	66.1	235
81717 40MESH	777	4	306	15	394	21	0	46	0	0	73.4	157
81718 N/S												
81719	120	4	98	3	74	0	0	22	0	0	116.2	23
81720	407	6	314	14	156	0	0	51	0	0	149.6	85
81721 40MESH	731	5	433	18	481	15	0	56	0	5	113.7	141
81722 40MESH	48	2	110	3	787	35	0	21	0	6	10.0	21
81502	802	10	632	19	820	4	0	59	0	4	155.7	107
81503	34	1	98	4	622	24	1	25	0	10	10.7	45
81504 40MESH	16	1	74	2	465	13	1	13	0	9	5.9	20
81507	709	6	536	19	495	18	0	75	0	11	139.4	220
81508	701	61	189	20	927	12	0	71	0	16	91.1	158
81511	1250	33	474	18	525	18	0	74	0	7	136.7	143
81513 40MESH	927	6	456	20	434	19	0	65	0	9	101.9	133

COMPANY: FALCONBRIDGE LTD
PROJECT No: 914
ATTENTION: TOM HEAH

MIN-EN LABS ICP REPORT
'05 WEST 15th ST., NORTH VANCOUVER, B.C. V7M
(604)980-5814 OR (604)988-4524

(ACT:SE035) PAGE 3 OF 3
FILE No: A-47756
DATE: JULY 5, 1984

(REPORT VALUES IN PPM)		BA	BE	AU-PPB
B1702		179	0	3
B1703		103	0	36
B1704		92	1	1
B1705	4OMESH	82	7	3
B1706		87	4	2
B1707		64	6	1
B1708		120	0	13
B1709		39	0	4
B1710		82	2	22
B1711		78	9	1
B1712		179	0	2
B1713		104	0	5
B1714		124	0	2
B1715		60	7	1
B1716		97	10	2
B1717	4OMESH	94	4	1
B1718	H/D			
B1719		37	0	1
B1720		64	9	2
B1721	4OMESH	103	2	1
B1722	4OMESH	32	11	1
B1502		111	0	5
B1503		37	12	6
B1504	4OMESH	12	3	3
B1507		147	0	7
B1508		142	7	5
B.511		123	0	57
B1512	4OMESH	117	0	12

COMPANY: FALCONBRIDGE LTD.
PROJECT No: 303-608-016
ATTENTION: TOM HEAH

MIN-EN LABS ICP REPORT
WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

TYPE SOIL GEOCHEM DATE: JULY 19, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
81514	1.5	43900	27	45	23	1310	.9	37	932	78400	872	8050
81515	1.4	53800	0	48	10	1020	.2	18	50	63400	572	8250
81516	.9	26700	13	26	5	993	.3	8	42	34400	754	4480
81517	1.4	30700	10	32	10	2430	.0	23	151	70000	2270	11500
81518 40M	1.1	21300	12	23	10	4550	.4	23	153	49500	1880	11800
81520	.9	30500	10	31	8	5290	.3	24	119	50900	2500	14800
81521	1.0	47000	20	44	11	1870	.9	26	136	55900	2530	14800
81522 40M	.4	4430	0	5	0	1060	.7	2	10	5470	211	492
81523	.8	41100	21	40	13	2510	.1	30	313	58100	2600	15600
81524 40M	1.1	7640	3	8	0	3620	.7	2	18	7970	228	731
81525	.5	56200	13	49	6	642	.5	15	193	42500	1660	11100
81527 40M	.7	18900	17	22	8	3980	1.0	24	142	61700	1260	10200
81528	.7	38200	11	36	6	2290	1.1	24	97	44800	1540	12200
81529 40M	.9	17700	35	23	9	4180	.1	29	121	74800	1240	10500
81530	.7	30300	12	29	7	4340	.9	22	85	41900	1920	10400
81531	1.2	33400	19	33	8	2710	.7	20	100	38100	1880	11100
81532	1.0	36900	23	35	7	1120	.6	16	87	36200	1150	8750
81533	.9	33000	14	31	6	2510	.1	14	48	31700	1600	12700
81534	.9	22200	13	23	7	5510	.7	17	77	34800	1990	12900
81535	.4	27100	15	27	6	3280	.4	15	67	33700	1930	13100
81536	.8	21900	9	22	7	3760	.9	21	61	42000	1560	9140
81537	.6	16100	1	16	1	2100	1.1	6	32	12500	594	5270
81538	.9	37700	7	37	10	4820	.5	24	98	49200	2270	10500
81539	1.1	42800	33	43	26	1950	.9	30	1250	57500	1420	10600
81540	2.3	40100	52	44	38	1700	.4	26	1930	82200	1020	10700
81541	2.1	38900	60	42	38	2140	.9	31	1840	75500	1730	16300
81542	1.1	24900	30	27	22	2260	.8	23	1020	47000	1460	10500
81543	1.3	43100	83	45	17	810	.2	30	430	70300	1490	12600
81544	3.0	44700	81	50	39	1750	.0	33	1860	102000	1660	18500
81545	2.6	41600	94	49	47	2150	.6	30	2110	103000	2000	18100
81546	1.7	31400	74	38	34	939	1.3	37	1710	102000	707	10000
81547	.4	36200	50	35	7	1060	2.1	34	158	38400	1220	8420
81548	.6	35200	63	36	8	1650	3.4	40	133	38700	1420	8800
81549	1.3	32200	99	47	34	528	1.3	50	1510	155000	776	13600
81550	.6	42300	48	48	7	1790	2.0	33	97	40500	1490	11600
81551	1.4	27500	147	42	28	200	.0	48	903	186000	509	5260

7C.

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81514	893	70	164	32	980	23	21	43	8	0	117.5	106
81515	317	8	126	17	335	7	14	43	4	0	131.9	27
81516	266	4	74	9	540	32	10	26	3	0	74.0	55
81517	460	5	489	16	683	16	5	29	5	0	233.8	82
81518 40M	684	5	341	18	509	17	7	40	6	0	113.1	133
81520	911	6	525	22	563	22	7	51	9	0	115.3	224
81521	1100	8	246	27	548	88	16	43	6	0	128.3	265
81522 40M	45	1	55	3	277	3	0	17	0	0	14.5	12
81523	1230	13	207	22	1030	59	14	40	8	0	114.3	200
81524 40M	326	1	48	4	876	13	0	32	1	0	19.7	92
81525	594	9	87	18	520	26	18	48	6	0	76.2	127
81527 40M	650	6	367	23	501	47	8	32	7	0	244.5	168
81528	1390	7	295	24	546	57	12	39	5	0	102.4	223
81529 40M	594	7	350	28	666	25	11	31	8	0	320.7	105
81530	1340	6	275	20	591	40	10	42	5	0	92.3	171
81531	921	6	279	19	653	43	12	37	6	0	81.8	161
81532	589	7	120	19	545	34	14	35	5	0	78.4	102
81533	804	4	157	15	448	38	10	39	5	0	65.0	145
81534	1140	3	364	17	781	33	9	43	5	0	59.4	197
81535	941	4	208	17	725	39	10	36	6	0	70.1	177
81536	1280	6	219	17	487	32	9	34	5	0	101.1	145
81537	347	2	109	7	513	30	4	21	2	0	35.0	67
81538	1470	6	313	22	657	36	11	51	4	0	106.8	165
81539	1090	54	185	26	1050	40	21	40	8	0	76.4	127
81540	557	91	140	41	1600	45	25	36	10	0	98.6	144
81541	1060	74	236	39	1180	58	25	39	11	0	98.2	264
81542	869	32	202	25	1030	37	15	26	7	0	75.4	95
81543	1020	49	122	27	797	90	27	39	10	0	100.5	413
81544	856	105	246	42	1270	57	31	43	14	0	114.8	244
81545	816	118	194	37	1510	67	36	43	16	0	109.5	271
81546	645	121	78	37	1410	53	26	30	14	0	63.4	191
81547	2560	16	77	22	640	174	15	31	6	0	61.5	534
81548	2880	16	69	22	695	227	17	32	7	0	60.3	591
81549	945	167	73	42	2250	70	36	26	20	0	85.3	243
81550	2490	21	192	26	788	82	17	39	7	0	76.5	366
81551	387	117	14	35	763	43	39	26	21	0	106.0	228

COMPANY: FALCONBRIDGE LTD.
PROJECT No: 307-608-016
LOCATION: TOR MEAH

WIN-EN LABS ICP REPORT
WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE No: 4-5543/P1+2
TYPE SOIL GEOCHEM DATE: JULY 19, 1984

(REPORT VALUES IN PPM)		PM	SE	AG-PPB
	81514	67	2	10
	81515	46	9	5
	81516	52	2	22
	81517	110	6	5
	81518 40M	87	9	7
	81520	142	6	12
	81521	151	6	10
	81522 40M	77	9	15
	81523	145	1	15
	81524 40M	48	1	5
	81525	109	4	7
	81527 40M	79	1	8
	81528	121	1	10
	81529 40M	77	9	6
	81530	153	1	4
	81531	106	2	5
	81532	88	3	5
	81533	100	2	25
	81534	126	1	5
	81535	102	2	3
	81536	120	1	3
	81537	75	1	5
	81538	173	1	2
	81539	83	4	18
	81540	76	4	10
	81541	76	5	18
	81542	54	5	20
	81543	79	5	22
	81544	78	5	30
	81545	84	2	68
	81546	54	4	25
	81547	142	2	40
	81548	135	3	50
	81549	73	4	35
	81550	104	3	15
	81551	74	3	20

COMPANY: FALCONBRIDGE LTD. | MIN-EN LABS ICP REPORT | (ACT:GE03B) PAGE 1 OF 3
PROJECT No: 303-608-016 | WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE No: 4=588S/P3+4
ATTENTION: T. HEAH | (604)980-5814 OR (604)988-4524 | *TYPE SOIL GEOCHEM* | DATE: JULY 25, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
81617	.5	12300	0	12	0	1460	.0	6	14	28500	407	1020
81618	.7	32800	0	28	1	1600	.5	13	158	48300	390	1960
81619	1.6	66200	0	57	6	519	.7	12	545	90400	463	2930
81620	.8	31300	0	29	2	444	.0	13	54	78600	310	2000
81621	1.2	56800	0	48	9	889	.2	15	423	68900	430	4250
81622	.5	54800	0	48	7	535	.5	17	440	66800	666	3760
81623	.3	15600	0	17	0	565	.0	6	18	29800	453	1130
81624	.7	41200	7	35	1	343	.6	9	27	48700	397	2270
81626	.5	68000	2	57	0	3330	.9	10	22	51100	457	2990
81627	.7	38600	12	34	3	1330	.9	20	84	47900	1510	10500
81628	.6	32000	0	31	1	1110	.0	13	33	60300	848	4770
81629	.7	33100	11	31	0	2640	.4	15	32	70200	758	5180
81630	.5	39100	11	34	0	1130	.6	17	67	47100	1250	8860
81631	.2	45500	0	40	0	157	.2	13	26	93200	219	2750
81632	.4	45700	0	38	0	217	.3	12	28	57800	355	3630
81633	.1	32400	0	28	0	625	.6	8	16	41600	225	2010
81634	.7	37000	2	32	0	586	.1	10	16	55900	344	2160
81635	.4	67000	0	54	2	365	.8	11	21	44900	269	1600
81636	.6	46300	3	39	0	395	.5	11	26	53400	348	2260
81637	.7	34800	9	30	0	661	.0	10	19	51300	405	1910
81638	.8	49500	9	41	1	581	.7	12	41	44900	718	5700
81639	.6	54600	4	46	2	569	.6	12	27	52100	432	2840
81640	.0	27400	0	27	12	2390	4.4	18	63	45800	775	3230
81641	.5	19100	0	18	2	1090	.0	9	15	46000	507	1790
81642	.6	52500	20	44	2	1480	.5	16	50	38000	960	7550
81643	.4	29500	11	26	0	2090	.4	16	59	42800	1910	13400
81644	.9	28200	0	26	1	759	.0	14	20	66800	561	2900
81646	.5	30900	0	27	4	1050	.0	16	253	48100	423	3290
81647	.5	38400	0	34	12	1110	.5	23	634	49600	471	3850
81648	.5	40100	0	34	0	278	.5	10	42	55100	342	3060
81649	.6	40000	5	34	2	924	.5	9	22	36100	381	4330
81650	.4	15400	8	16	0	409	.1	7	11	36900	278	1540
81651	.0	21200	0	20	1	271	.1	8	8	44300	175	1120
81652	.0	14300	0	13	0	324	.1	5	10	31700	224	702
81653	.3	42800	5	35	1	407	.5	8	16	43500	211	2010
81654	.1	12400	0	12	1	313	.0	5	7	28300	202	787
81655	.2	53200	3	43	1	225	.4	10	40	44500	335	3590
81656	.4	16000	0	14	1	176	.0	6	8	35500	198	980
81657	.0	5770	0	6	0	102	.0	3	3	14200	151	389
81658	.7	17100	0	17	2	318	.0	10	13	61200	169	1520
81659	.3	10000	0	9	0	329	.0	5	5	26600	149	1110
81660	.3	11000	2	8	2	400	.1	7	8	25500	150	1000
81661	.0	13900	0	13	2	334	.0	6	7	38400	143	802
81662	.6	35600	0	30	2	324	.0	11	28	60500	247	2990
81664	1.4	43900	0	37	5	740	.0	20	286	65400	526	5200
81666	.4	21200	4	20	1	3600	.1	19	84	50400	1370	12400
81667	.6	26100	1	24	4	4260	1.0	22	160	59100	1940	13900
81668	1.2	38600	28	38	22	1290	.5	38	1580	102000	890	11800
81669	1.1	28300	17	29	28	2650	.3	24	1760	75900	1410	13400
81670	2.3	31900	36	35	27	1640	1.3	52	1770	117000	775	15000
81671	.9	46700	14	39	21	1410	.4	30	1310	45200	918	8410
81672	1.1	60200	18	50	6	311	.5	13	346	62200	355	4070
81673	.5	18400	0	17	7	380	.0	8	439	45600	243	1270
81674 40MESH	.4	2800	2	4	4	4400	.8	1	446	3050	217	699
81675 40MESH	.9	23300	0	20	65	10300	.5	108	4870	8320	116	492
81676	.7	10800	0	11	2	4650	1.3	6	170	24300	348	1480
81677	.1	6840	0	7	0	2250	.6	3	63	12100	369	1170
81678	.0	28100	0	62	3	1900	.4	24	324	55500	627	8830
81679	.2	24800	0	25	2	3940	.0	22	114	59500	1830	13500

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81617	79	4	81	3	204	0	0	13	0	0	88.1	21
81618	612	7	67	5	431	0	0	32	0	0	95.7	67
81619	245	34	44	10	1790	0	4	53	1	0	43.2	15
81620	272	16	95	6	320	0	0	27	0	0	169.0	30
81621	479	31	117	9	708	0	0	49	0	0	108.2	29
81622	266	20	82	9	504	2	4	50	0	0	89.3	85
81623	87	3	97	2	163	0	0	16	0	0	118.9	23
81624	155	6	72	7	432	11	3	37	0	0	94.2	45
81626	256	6	96	8	782	0	4	64	0	0	73.9	68
81627	863	5	252	16	852	30	3	39	0	0	76.7	148
81628	348	5	90	12	582	13	0	31	0	0	83.6	167
81629	303	7	80	9	555	10	2	36	0	0	100.9	114
81630	946	5	190	15	917	20	3	37	0	0	75.8	116
81631	139	6	50	7	536	0	0	39	0	0	145.5	15
81632	655	6	76	8	580	1	2	41	0	0	90.7	38
81633	736	4	59	6	574	0	0	29	0	0	88.3	29
81634	1020	4	76	9	621	0	0	32	0	0	108.5	35
81635	1670	7	74	7	1440	0	5	55	0	0	60.0	46
81636	488	5	70	8	842	1	2	40	0	0	86.3	58
81637	537	5	76	8	726	5	3	34	0	0	92.0	52
81638	592	6	108	11	898	8	4	44	0	0	63.8	83
81639	1770	7	69	8	1200	4	4	46	0	0	68.9	51
81640	17600	25	141	23	1450	7	3	33	0	38	67.3	118
81641	319	6	115	6	331	0	0	19	0	0	94.7	25
81642	712	8	148	13	1280	18	5	48	0	1	57.9	81
81643	1060	5	154	14	539	42	0	37	0	0	62.9	185
81644	358	10	82	7	565	1	0	27	0	0	86.3	79
81646	817	8	134	9	542	0	0	30	0	0	106.8	72
81647	2080	7	159	13	735	0	0	38	0	0	107.7	79
81648	155	5	69	8	354	0	1	36	0	0	107.2	27
81649	363	5	61	7	705	8	3	36	0	0	50.4	59
81650	120	3	55	7	501	10	2	15	0	0	94.3	22
81651	150	3	54	5	360	0	0	19	0	0	98.3	21
81652	50	2	59	5	471	0	0	13	0	0	79.5	15
81653	112	5	54	6	450	0	2	37	0	0	83.4	35
81654	53	2	63	3	158	0	0	15	0	0	125.7	12
81655	155	6	59	10	410	10	4	46	0	0	75.2	43
81656	46	1	56	2	147	0	0	15	0	0	84.1	7
81657	48	1	53	3	48	0	0	8	0	0	53.7	9
81658	53	2	54	4	128	0	0	18	0	0	154.5	8
81659	62	1	65	3	59	0	0	10	0	0	82.2	8
81660	55	2	70	5	72	2	2	12	1	0	95.0	15
81661	57	2	43	4	164	0	0	12	0	0	113.6	15
81662	172	4	47	6	337	0	0	30	0	0	98.3	30
81664	327	14	60	9	355	4	0	38	0	0	87.6	76
81666	637	4	355	16	514	9	0	37	0	0	93.1	160
81667	728	7	386	16	536	13	0	42	0	0	111.2	225
81668	927	79	111	30	1210	17	4	39	0	0	83.1	161
81669	650	55	185	25	1050	17	4	30	0	0	83.3	152
81670	1600	108	98	35	1330	21	11	33	0	0	76.1	200
81671	656	17	108	15	824	26	4	43	0	0	52.8	127
81672	208	19	60	12	708	13	4	52	0	0	69.2	51
81673	78	18	61	5	288	6	0	17	0	0	109.5	42
81674 40MESH	28	7	88	5	531	24	1	64	0	0	7.0	68
81675 40MESH	929	9	145	7	1160	34	4	65	0	0	4.0	33
81676	184	12	69	4	697	30	0	22	0	0	48.8	49
81677	66	3	127	6	821	28	0	18	0	0	13.6	38
81678	672	16	143	13	645	37	0	31	0	0	75.9	144
81679	695	4	390	17	508	14	0	38	0	0	119.0	186

MIN-EN LABS ICP REPORT
WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524 *TYPE SOIL GEOCHEM*

(REPORT VALUES IN PPM)	BA	SE	HG-PPB	AU-PPB
81617	28	0	100	7
81618	75	0	165	10
81619	45	0	385	20
81620	33	0	155	10
81621	38	0	195	4
81622	57	0	140	10
81623	25	0	60	20
81624	42	0	215	10
81626	71	4	125	5
81627	94	0	75	20
81628	64	0	105	10
81629	93	0	70	5
81630	68	0	100	12
81631	46	0	230	2
81632	44	0	260	10
81633	29	0	140	5
81634	32	0	210	2
81635	35	4	355	1
81636	35	0	210	1
81637	43	0	185	2
81638	50	0	245	3
81639	37	0	660	9
81640	184	0	235	3
81641	32	0	105	10
81642	45	2	110	27
81643	104	0	15	5
81644	53	0	160	2
81646	43	0	115	9
81647	60	0	95	10
81648	34	0	160	24
81649	29	0	245	14
81650	18	0	160	5
81651	23	0	170	6
81652	24	0	180	3
81653	30	0	135	8
81654	15	0	10	5
81655	34	0	215	9
81656	18	0	65	7
81657	13	0	30	5
81658	24	0	140	3
81659	10	0	50	5
81660	20	0	180	40
81661	23	0	45	1
81662	24	0	230	20
81664	49	0	280	2
81666	88	0	20	1
81667	110	0	15	1
81668	67	0	100	25
81669	61	0	35	8
81670	60	0	40	13
81671	55	0	145	15
81672	38	0	370	10
81673	25	0	80	1
81674 40MESH	87	12	190	1
81675 40MESH	85	27	35	1
81676	75	0	150	1
81677	42	2	200	9
81678	61	0	165	10
81679	106	0	15	14

COMPANY: FALCONBRIDGE LTD. | MIN-EN LABS ICP REPORT | (ACT:GEO3B) PAGE 1 OF 3

PROJECT No: 303-608-016 | WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE No: 4-5885/P1+2

ATTENTION: T. HEAH | (604)980-5814 OR (604)988-4524 | *TYPE SOIL GEOCHEM* | DATE: JULY 25, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
81553	.4	61300	9	52	22	582	.2	19	1400	72100	547	6610
81554 40MESH	.0	7500	12	9	1	2820	.2	4	104	23000	340	774
81555	.7	20600	0	19	6	409	.0	12	180	59500	289	2740
81556 40MESH	1.4	22900	4	21	98	12200	1.9	184	7210	32100	341	4900
81557	.7	38400	0	33	46	4530	.2	14	3270	54500	290	2580
81558	.0	52300	4	44	22	655	.7	16	1650	49800	506	3370
81559	.5	88600	0	72	3	263	.2	10	145	46500	418	3460
81560	.1	44900	0	37	6	433	.0	12	168	54200	389	3250
81561	1.9	54100	5	49	19	289	.3	21	1380	67400	380	3360
81562	.5	12800	21	21	14	221	.1	12	978	78100	530	1200
81563	.1	15200	12	16	3	642	.2	9	181	50900	451	1190
81564	.1	66700	0	53	6	433	.1	11	327	46500	423	4070
81566 40MESH	.0	24700	7	23	4	3850	.4	18	108	48500	1990	13100
81567	.0	3430	0	4	0	119	.0	4	8	24600	165	315
81569	.0	30100	10	27	4	1380	.4	12	151	52000	784	9980
81570 40MESH	.0	19	11	0	0	5	.1	0	1	0	0	0
81571 40MESH	.0	17700	0	16	2	4140	3.7	2	352	4880	192	834
81572	.0	1140	11	4	0	13800	.7	0	17	472	157	847
81573	.0	22300	5	18	1	2500	.0	6	31	16400	1200	4320
81574	.5	39600	0	34	3	2090	.0	11	49	60600	438	3200
81575	.4	45100	8	39	6	4150	1.0	15	222	72100	698	6250
81576 40MESH	.0	13100	8	13	2	7440	.6	8	137	24900	757	2260
81577	.0	34700	12	31	6	1880	.1	22	262	45200	998	5680
81596	.0	25800	7	23	1	503	.0	7	131	43000	393	2760
81597	.0	15500	7	14	0	255	.1	6	56	25800	398	1150
81598	.4	30500	11	27	2	655	.3	10	85	56400	548	2710
81599	.0	26400	11	23	0	1050	.1	7	45	38400	490	1860
81600	.0	25600	7	23	0	1030	.0	6	114	34000	355	2670
81601	.2	48200	0	39	4	315	.6	9	131	43900	244	2780
81602	.0	11200	15	13	2	666	.0	6	103	29600	411	893
81603	.4	40500	1	37	3	1160	1.5	23	245	91300	640	4010
81605	.3	17300	10	20	6	528	.9	13	275	47900	1080	1320
81606	.8	15700	7	15	4	800	.9	12	120	47000	600	700
81608	.9	14900	0	17	19	346	.5	10	1540	29200	546	557
81609	.1	34700	0	29	0	357	.6	8	134	51100	288	2890
81610	1.1	16300	0	16	0	1680	.4	7	66	32900	1100	1090
81611 N/S												
81612	.0	53400	0	43	5	614	.5	11	445	46600	1450	9060
81578	.2	59300	4	48	2	203	1.0	13	225	57800	474	7870
81579	.2	56200	0	47	6	566	.5	12	330	60500	381	2970
81580	.2	62600	1	51	4	367	1.2	13	282	54600	271	3410
81581	.2	24200	0	22	4	1850	1.0	14	289	52700	665	6000
81582	.8	54900	1	45	14	411	1.3	26	986	44300	711	4450
81583	1.4	42100	0	36	2	158	1.0	19	203	57400	556	3570
81584	.2	27200	0	24	0	3680	.7	21	56	58600	1580	9880
81585	.2	27000	0	24	2	8400	.3	29	99	60300	1910	12600
81586	.6	26400	0	24	2	8720	.0	28	99	68700	1980	12500
81587	.3	14900	0	14	0	2620	.2	13	34	48500	677	4920
81588	.2	26700	0	25	1	5970	.3	26	56	60100	1670	10400
81589	.3	39600	0	33	3	3280	.0	22	95	58000	2110	10600
81590	.7	29400	0	27	0	3560	.0	15	37	71100	465	6630
81591 40MESH	.4	28500	0	23	0	6570	1.1	7	32	17400	266	2240
81592	.4	33800	0	29	1	5140	.4	25	73	60100	2360	11300
81593	.5	23900	0	23	2	3120	.2	22	87	65600	1680	11900
81594	.5	59000	0	48	3	3100	.3	16	209	56900	1490	8880
81595	.4	43900	0	35	2	652	.7	11	174	38600	628	7160
81613	.3	46400	1	38	0	591	.7	12	42	39700	785	7580
81614	.6	39300	0	33	0	266	.2	9	21	54200	368	1780
81615	.6	32300	0	28	0	200	.1	9	28	54000	261	1660
81616	.5	62600	0	51	0	416	1.0	9	49	46600	431	4160

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81553	426	37	70	17	1160	19	9	49	4	0	65.8	119
81554 40MESH	87	16	91	4	470	8	0	14	0	0	77.5	43
81555	197	16	114	8	246	0	0	17	0	0	207.9	36
81556 40MESH	3000	23	141	21	1070	11	8	57	0	0	53.6	147
81557	199	12	90	12	440	0	3	42	0	0	113.7	129
81558	348	17	83	10	540	6	6	41	2	0	90.6	68
81559	194	11	63	9	490	0	6	67	3	0	57.5	2
81560	432	10	108	9	609	1	0	33	0	0	110.3	22
81561	1170	123	66	13	1000	5	6	42	4	0	76.0	14
81562	86	200	46	9	938	1	7	10	6	0	174.8	18
81563	115	21	107	10	490	0	0	17	1	0	86.1	46
81564	230	12	82	8	333	25	1	51	0	0	109.5	19
81566 40MESH	682	5	439	17	432	10	0	37	0	0	92.3	178
81567	71	1	79	3	4	0	0	2	0	0	81.9	6
81569	296	12	80	12	186	24	0	32	0	0	93.7	629
81570 40MESH	1	0	6	0	0	0	0	0	0	0	.0	0
81571 40MESH	317	9	102	3	1950	26	0	29	0	0	26.8	20
81572	56	2	60	2	403	5	0	55	0	0	2.5	24
81573	232	7	117	12	87	12	0	30	0	0	71.5	58
81574	117	6	97	7	302	0	0	35	0	0	104.8	15
81575	278	26	91	11	729	15	4	47	3	0	121.2	134
81576 40MESH	253	15	113	6	338	13	0	33	1	0	71.7	95
81577	351	42	101	12	520	10	2	34	0	0	83.7	302
81596	107	8	85	7	356	6	0	23	1	0	75.8	22
81597	83	6	95	6	323	9	0	12	0	0	83.4	22
81598	203	9	88	9	602	9	2	25	2	0	117.3	31
81599	344	8	96	7	491	5	2	24	3	0	91.0	72
81600	106	9	83	6	612	15	1	23	2	0	64.2	22
81601	285	10	80	7	477	21	4	37	2	0	89.6	42
81602	53	12	71	4	441	2	0	15	2	0	113.9	55
81603	2350	18	47	14	1280	16	3	37	0	0	101.0	224
81605	357	58	26	11	660	41	3	17	0	0	91.1	331
81606	520	18	25	12	300	45	3	20	0	0	45.2	45
81608	935	11	78	4	1360	113	1	10	0	0	33.9	67
81609	426	9	45	5	752	1	0	28	0	0	60.3	18
81610	287	6	143	7	1200	59	0	20	0	0	84.8	55
81611 N/S												
81612	316	15	93	8	1050	7	0	44	0	0	59.7	40
81578	368	14	40	12	832	10	2	49	0	0	54.5	79
81579	371	15	58	9	469	0	0	49	0	0	77.6	73
81580	807	16	50	12	997	9	2	52	0	0	53.0	79
81581	1810	11	95	11	690	19	0	27	0	0	85.0	119
81582	1240	16	44	12	989	18	3	47	0	0	84.0	119
81583	1530	15	45	14	899	2	4	37	1	0	124.4	39
81584	786	2	661	16	1020	2	0	36	0	0	124.6	73
81585	629	2	1490	29	811	14	0	72	0	0	157.9	91
81586	452	2	1480	29	755	0	0	69	0	0	217.1	76
81587	294	2	627	10	271	0	0	30	0	0	129.7	41
81588	1320	2	1410	21	1140	1	0	63	0	0	150.6	71
81589	937	4	452	17	614	6	0	48	0	0	95.1	97
81590	260	4	290	12	427	0	0	38	0	0	120.4	51
81591 40MESH	351	4	121	6	1050	20	0	48	0	0	34.7	20
81592	607	3	1080	21	666	1	0	58	0	0	153.0	67
81593	654	4	728	20	458	4	0	52	0	0	150.3	123
81594	528	9	148	10	1160	14	0	59	0	0	79.5	83
81595	361	7	76	8	393	42	0	40	0	0	54.7	84
81613	440	5	112	10	908	11	0	41	0	0	60.6	102
81614	168	6	52	6	459	0	0	32	0	0	105.0	28
81615	135	6	63	5	414	0	0	27	0	0	104.2	28
81616	173	8	80	7	501	6	3	53	0	0	67.3	35

(REPORT VALUES IN PPM)		BA	SE	HG-PPB	AU-PPB
81553		59	3	225	11
81554	40MESH	29	0	155	1
81555		25	0	75	1
81556	40MESH	131	4	100	1
81557		78	0	75	2
81558		48	4	125	1
81559		30	11	195	1
81560		29	0	175	4
81561		41	1	245	1
81562		31	0	75	2
81563		37	0	105	1
81564		38	2	70	1
81566	40MESH	94	0	20	1
81567		10	0	35	280
81569		58	0	35	1
81570	40MESH	0	0	190	1
81571	40MESH	62	9	80	2
81572		71	4	25	1
81573		136	1	195	1
81574		32	0	75	1
81575		78	0	120	18
81576	40MESH	99	2	40	5
81577		79	0	80	2
81596		29	0	165	2
81597		24	0	60	3
81598		51	0	125	1
81599		71	0	105	1
81600		39	2	115	2
81601		24	1	260	6
81602		26	0	90	4
81603		84	0	290	5
81605		70	0	90	5
81606		65	0	250	50
81608		51	0	485	25
81609		26	0	335	4
81610		58	0	60	7
81611	N/S				
81612		42	0	205	15
81578		40	2	280	2
81579		40	0	220	3
81580		38	0	330	10
81581		49	0	125	8
81582		58	6	240	7
81583		50	0	260	20
81584		77	0	130	10
81585		113	0	30	25
81586		107	0	15	35
81587		44	0	40	14
81588		72	0	60	5
81589		118	0	105	5
81590		57	0	160	15
81591	40MESH	62	10	200	7
81592		103	0	70	6
81593		100	0	15	40
81594		81	0	240	10
81595		40	0	125	8
81613		37	0	150	25
81614		30	0	255	9
81615		34	0	160	7
81616		29	0	285	8

COMPANY: FALCONBRIDGE LTD. | MIN-EN LABS ICP REPORT | (ACT:GED3B) PAGE 1 OF 3

PROJECT No: 303-60B-016 | 705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE No: 4-9165/P1+2

ATTENTION: TOM HEAH | (604)980-5814 OR (604)988-4524 *TYPE SOIL GEOCHEM* | DATE: SEPTEMBER 7, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
81684	.8	39100	0	32	12	3490	1.4	16	40	51200	1090	10600
81685	.4	23500	0	22	11	3400	1.5	18	63	40400	2250	10200
81686 40M	.6	24800	0	21	10	1820	.6	15	23	43700	1060	9590
81687	.9	11000	0	10	11	2010	.0	9	0	41600	434	1340
81689	.5	3220	11	3	4	575	.0	5	0	18000	191	478
81690	.4	5270	9	4	7	320	.0	6	0	23500	176	525
81691 40M	.2	1710	29	0	2	433	.1	2	7	887	154	2090
81692	.3	17300	3	14	7	706	.5	9	61	25500	699	5900
81694 40M	.6	13300	6	12	8	2980	.9	14	76	35400	1030	8650
81695	.6	28500	0	23	8	685	1.0	13	41	34900	924	7750
81696	.8	19800	0	17	10	1550	.1	13	22	41100	834	6070
81697	.6	60900	0	51	16	1340	1.3	27	92	65200	2340	15300
81698	.6	38800	0	32	12	2070	1.1	16	160	46000	1110	10300
81699	.6	2460	25	1	0	6090	.5	1	15	1770	267	513
81700	1.3	51900	0	42	12	1580	.8	12	23	57300	541	3010
81750	1.0	37200	0	35	15	4900	4.0	31	200	58300	2100	15200
81751	.6	27600	0	27	21	8470	2.1	26	77	53000	1310	14100
81752	1.0	32700	0	31	14	4090	2.2	29	146	59300	2090	15100
81753	.2	25700	0	25	6	6010	1.4	17	37	38900	2550	13600
81754	.6	39500	0	35	12	2420	2.0	22	109	47000	1660	16800
81755	.3	29100	6	27	10	8470	2.7	24	69	48700	1500	13900
81756	.5	39700	0	35	13	2940	1.6	27	142	50000	1960	16100
81757 40M	.7	26800	1	26	10	6670	1.5	21	69	44300	1530	13700
81758	.7	26100	2	25	11	1030	.6	13	159	43200	1740	8640
81759	.9	26900	5	26	12	7920	1.7	23	60	49100	1410	13700
81760 40M	.7	27200	0	27	11	6840	1.7	23	52	49100	1890	14200
81761	1.7	25000	0	31	29	2610	.0	31	247	160000	2770	15900
81762	.8	27200	0	25	15	1770	1.3	22	203	49600	1500	9970
81763	.7	31300	0	31	11	8990	2.7	27	72	56100	1710	14700
81764	4.6	31900	4	36	22	655	1.2	19	452	119000	5550	15300
81765	.3	25900	5	24	8	8220	1.7	21	49	42200	1200	12400
81766	1.4	31000	0	31	20	1330	1.3	24	362	79800	2270	13200
81767 40M	.6	25900	6	25	9	6760	2.3	20	65	44600	1660	12800
81768	.9	35500	0	34	19	2220	1.7	33	268	61600	3200	15700
81769 40M	.7	29400	9	29	11	7990	1.8	23	58	45700	2090	13600
81770	1.4	38500	0	39	24	2550	3.1	40	628	82500	2470	10300
81771	.7	28100	10	28	11	7400	2.0	24	81	48100	1570	13400
81772 40M	.5	24000	15	27	9	6620	1.5	21	56	42300	1260	12000
81773	.9	31900	0	28	18	8020	1.6	34	111	59400	2310	20500
81774	1.2	34900	0	33	18	5700	4.5	37	236	63900	2650	17200
81775	.7	27700	13	27	11	7810	3.1	23	56	45100	1380	13100
81776	2.2	29300	0	26	12	2020	1.2	17	59	49000	1690	10200
81777	.6	32100	0	28	13	2910	1.3	24	96	50600	2540	12800
81778	1.3	78700	0	64	17	1480	2.6	23	81	57500	1790	11200
81779	.9	34700	0	32	15	3710	2.5	30	120	57500	2940	14600
81780	.8	28700	0	26	12	3020	2.1	23	114	44200	2430	12500
81784	.7	30900	0	29	11	3640	1.7	29	102	58000	3200	13300
81785	.4	24300	0	22	9	5370	1.1	13	71	29500	1070	16900
81786	.8	34300	0	30	14	2920	2.0	26	123	49700	2500	14500
81787	1.2	35800	0	32	14	2680	2.4	27	147	50600	1880	13400
81788	.7	8200	11	6	4	7710	.3	5	12	16200	394	1110
81789	.4	1960	32	1	1	8340	.5	1	6	2000	202	493
81790	.8	40300	0	35	13	2380	2.7	21	296	37900	1140	9450
81792	.5	31100	0	27	11	2540	1.7	19	166	41900	992	9990
81797	.5	30900	2	28	12	6010	3.0	21	242	41100	1180	9500
81794	.6	21400	2	19	8	4970	1.3	15	124	36000	775	8440
81795	.8	51500	0	43	13	2060	1.5	16	108	47400	753	5550
81796	.7	46800	0	40	11	2920	2.2	17	122	50100	716	5520
81798	.8	26000	0	24	11	2080	.9	14	24	63000	362	2180
81725	1.8	17600	0	15	9	579	.5	8	7	37700	323	1280

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81684	629	1	100	0	519	30	10	40	2	0	95.4	94
81685	946	2	167	6	700	55	8	31	2	0	85.1	165
81686 40M	480	2	120	3	309	40	7	28	2	2	98.9	88
81687	117	0	83	0	244	0	0	15	0	0	131.3	14
81689	78	0	42	0	87	0	0	6	0	1	58.8	15
81690	87	0	44	0	72	0	0	9	0	1	83.1	7
81691 40M	8	1	52	3	324	7	1	76	0	0	1.9	29
81692	274	3	96	5	349	50	6	18	2	0	45.2	82
81694 40M	423	1	293	3	420	15	5	26	2	1	86.1	132
81695	594	0	78	1	487	27	10	25	1	1	71.6	90
81696	613	0	111	1	554	13	5	20	1	2	98.3	49
81697	1390	2	141	2	1080	31	18	53	0	1	124.0	144
81698	568	7	96	1	936	40	15	40	4	1	73.0	100
81699	23	1	68	3	658	42	1	12	1	0	5.9	73
81700	157	3	76	0	353	20	12	48	3	0	125.2	14
81750	1910	4	610	15	888	147	14	62	5	2	100.6	724
81751	1130	1	1070	10	656	60	9	81	11	2	106.6	226
81752	1600	3	546	10	699	74	11	59	4	1	110.2	367
81753	856	2	1110	10	583	40	8	57	5	0	80.2	140
81754	1190	4	282	4	708	47	13	46	3	0	79.0	251
81755	1190	2	1170	12	683	58	9	87	4	0	97.0	266
81756	1350	17	455	15	888	116	16	75	3	2	100.6	348
81757 40M	1070	2	876	14	653	56	12	72	3	2	83.2	267
81758	447	7	133	1	699	39	12	30	5	2	73.7	89
81759	1040	1	1010	10	639	47	13	81	4	6	94.0	194
81760 40M	978	1	952	11	602	41	11	73	3	2	95.1	212
81761	774	17	464	0	1340	11	3	211	19	5	302.4	49
81762	1040	6	223	2	777	48	12	31	3	3	87.8	144
81763	1230	2	1250	14	725	56	12	96	4	4	109.5	253
81764	548	6	272	0	1310	586	18	37	13	3	186.9	81
81765	1030	2	1040	10	592	44	9	76	5	0	86.3	151
81766	962	8	223	0	826	72	11	34	6	0	131.4	251
81767 40M	972	2	900	9	610	42	10	74	5	2	81.9	185
81768	2110	6	452	3	813	47	13	39	2	3	116.0	404
81769 40M	1220	2	1040	13	660	56	14	88	4	5	90.5	238
81770	3340	15	233	0	2030	206	23	49	10	7	81.1	254
81771	1220	2	1030	11	699	63	12	79	5	4	94.4	195
81772 40M	1020	2	833	9	597	55	11	70	7	3	80.2	153
81773	1110	1	1240	43	713	27	7	111	1	2	138.6	244
81774	1970	3	880	20	830	147	12	78	3	3	124.3	637
81775	1200	2	1060	13	658	54	13	87	10	4	86.7	234
81776	774	3	156	5	757	71	12	33	3	2	113.3	148
81777	1110	3	239	7	661	62	13	40	3	3	111.1	204
81778	1330	5	124	2	1840	36	31	66	3	5	107.3	81
81779	1300	6	227	5	720	90	15	44	4	4	128.8	286
81780	1210	3	193	8	692	104	14	35	3	5	91.3	254
81784	1150	4	244	7	581	86	11	39	5	2	131.8	237
81785	1150	2	843	17	489	103	10	74	3	2	42.9	87
81786	1730	5	300	8	1040	123	14	39	3	4	106.2	330
81787	1150	5	217	7	598	121	17	41	5	4	112.8	340
81788	162	4	81	0	182	12	2	41	0	4	40.1	33
81789	35	1	38	1	384	13	2	19	1	2	3.4	18
81790	804	9	104	11	890	66	19	46	6	3	75.0	239
81792	1170	6	107	8	587	44	15	40	5	3	79.0	211
81793	1700	8	128	12	654	52	15	54	6	5	72.2	239
81794	745	5	120	2	524	22	10	39	4	4	65.2	100
81795	314	8	79	1	490	29	20	51	6	3	80.0	64
81796	340	8	84	0	371	29	21	52	5	4	81.3	78
81798	281	10	66	0	646	27	10	30	6	3	129.1	50
81725	80	6	73	0	258	10	5	19	1	1	95.6	13

COMPANY: FALCONBRIDGE LTD.
PROJECT No: 303-608-016
ATTENTION: TOM HEAH

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524 *TYPE SOIL GEOCHEM*

(REPORT VALUES IN PPM)	BA	SE	AU-PPB
B1684	89	0	2
B1685	109	1	4
B1686 40M	64	0	7
B1687	32	0	2
B1689	11	0	1
B1690	14	0	3
B1691 40M	346	1	1
B1692	39	1	8
B1694 40M	64	0	4
B1695	57	0	1
B1696	48	0	1
B1697	138	0	3
B1698	66	1	4
B1699	18	1	1
B1700	47	0	20
B1750	134	1	1
B1751	154	1	16
B1752	137	1	6
B1753	136	1	3
B1754	90	1	4
B1755	143	1	5
B1756	173	1	3
B1757 40M	110	1	1
B1758	59	1	6
B1759	164	1	13
B1760 40M	130	1	7
B1761	124	0	5
B1762	86	0	2
B1763	164	1	12
B1764	167	1	115
B1765	130	1	3
B1766	114	0	24
B1767 40M	142	1	8
B1768	126	0	11
B1769 40M	170	1	1
B1770	104	2	23
B1771	154	1	2
B1772 40M	137	2	1
B1773	119	0	3
B1774	141	0	54
B1775	156	1	1
B1776	91	1	2
B1777	140	1	1
B1778	106	1	1
B1779	194	1	1
B1780	146	1	3
B1784	169	1	2
B1785	127	1	2
B1786	174	1	3
B1787	141	1	1
B1788	88	0	12
B1789	19	1	1
B1790	122	2	2
B1792	93	1	1
B1793	153	2	3
B1794	96	1	1
B1795	74	1	3
B1796	98	1	1
B1798	83	0	2
B1725	24	0	2

COMPANY: FALCONBRIDGE LTD. | MIN-EN LABS ICP REPORT | (ACT:GEO3B) PAGE 1 OF 3

PROJECT No: 303-608-016 | 705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE No: 4-9168/P3+4

ATTENTION: TOM HEAH | (604)980-5814 OR (604)988-4524 | *TYPE SOIL GEOCHEM* | DATE: SEPTEMBER 7, 1984

(REPORT VALUES IN PPM)

	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
B1726 40M	.5	9960	16	9	4	1570	.3	5	6	16100	555	1080
B1727 40M	.3	8240	19	5	3	782	.7	3	15	7980	280	669
B1728	.7	34300	0	29	11	2160	1.2	16	121	35500	845	9090
B1729	.0	29700	2	28	17	4910	6.5	25	185	33600	793	3830
B1730	.6	34400	0	29	12	1330	1.5	15	181	43700	1030	4980
B1731	.8	31900	0	28	15	1730	1.5	15	398	37000	886	6240
B1732	1.1	45000	0	38	16	931	1.3	23	413	46500	652	6360
B1734	1.1	28800	0	26	12	434	1.2	12	136	62500	358	1930
B1735	1.1	32200	0	27	21	985	1.8	25	789	28800	346	2220
B1819	.4	14500	14	13	6	823	.6	9	54	21300	353	1130
B1820	.6	27400	0	25	9	892	1.5	12	66	64600	360	1710
B1821	.4	2980	24	3	4	531	.0	6	14	13700	262	463
B1822	.8	43800	0	37	17	4100	1.7	14	484	34600	1180	10200
B1823 40M	1.3	1000	19	13	16	21800	4.6	5	953	14900	362	2690
B1824	2.0	17800	18	18	42	17200	5.9	18	2320	27800	816	6510
B1826	.7	29300	0	27	11	2270	1.0	14	40	62500	500	3550
B1827	1.4	21400	14	20	16	4530	2.8	11	652	31800	796	1880
B1829	1.0	2000	29	2	2	12700	1.2	1	36	2660	235	365
B1838	1.0	43000	0	36	17	4780	1.4	23	109	49700	1970	12000
B1840	.2	1980	18	2	2	247	.0	7	2	23100	190	370
B1841 40M	.3	8740	21	12	3	32400	1.1	5	50	11000	338	2640
B1842 20M	.6	15300	2	13	8	3980	1.4	13	52	29500	963	9610
B1844	.7	15900	11	14	8	1710	.3	11	26	30200	977	5410
B1845	.9	13200	1	12	10	1260	.2	12	18	39400	829	4130
B1846	1.0	49200	0	42	17	2460	2.1	27	130	55400	2350	15300
B1847 40M	.6	8350	21	7	5	4840	.3	5	19	11300	622	2720
B1848	1.3	12900	0	13	14	576	.0	14	0	56300	361	1700
B1849	1.0	34700	0	29	14	866	.8	12	10	45500	482	3420
B1850	1.0	35400	0	30	12	3430	1.1	16	39	38700	1340	9230
B1851	.8	27300	0	23	11	2800	1.3	14	30	38600	1330	8460
B1852	.7	31100	0	25	9	3450	1.1	12	34	28400	1230	7860
B1853	.9	35800	0	30	11	2600	.6	14	29	36600	1470	8880
B1854	1.3	59900	0	49	14	2560	1.7	18	87	47400	1560	9360
B1855	.9	42000	0	36	13	2900	1.3	21	60	52800	2030	10300
B1857	.8	38800	0	34	12	4060	1.3	17	31	45500	879	8250
B1858	.6	27600	0	24	8	2680	1.4	12	28	34100	463	5090
B1800 40M	.0	1810	34	2	1	6970	2.7	1	17	1770	333	977
B1801	.4	46900	0	40	14	873	1.8	19	167	51200	688	6770
B1802	1.0	32400	0	32	27	2660	1.8	41	1010	68500	968	9630
B1803	.5	23000	0	23	14	4120	1.1	24	122	60100	1800	11700
B1804	1.3	25300	0	24	18	677	.0	16	27	77200	463	3370
B1805	.6	17090	4	15	11	9290	1.1	28	321	23500	636	2520
B1806	.0	56300	0	46	43	2010	4.5	43	2020	21300	346	2140
B1807	.6	36800	0	33	22	3570	2.8	28	800	39800	863	7110
B1808	.7	41400	0	34	12	663	1.8	12	166	47900	342	3670
B1809	.2	28000	0	26	13	2260	1.5	18	388	37000	802	8980
B1810	.6	25900	7	24	8	3410	2.4	16	146	35500	1100	7240
B1811	.5	11700	21	11	4	2370	1.0	5	34	13600	460	2010
B1812	.8	27000	0	25	13	4610	2.4	20	268	44200	1100	8370
B1813	.2	2430	36	1	2	2140	.5	1	13	2110	259	620
B1814	.4	17900	8	49	6	716	.4	6	17	23300	670	2490
B1815	.4	18400	16	19	8	9390	2.4	13	171	28700	650	6330
B1816	.6	24000	0	22	12	5130	2.1	20	147	47400	1380	10900
B1818	.9	36000	0	30	8	475	1.1	10	74	45800	311	2530
B1828	.9	31900	0	29	17	5690	1.6	17	194	54100	1150	7570
B1830	.9	53500	0	47	12	853	2.0	13	112	54300	731	6730
B1831	1.1	51800	0	45	17	8570	1.7	26	125	72900	1940	13600
B1832	.6	20600	11	18	10	3720	.7	14	192	31400	912	8440
B1833 40M	.7	10100	20	11	4	22100	1.8	7	43	14400	406	2420
B1834	.9	57600	0	47	11	888	1.7	11	72	37700	477	4100

REPORT VALUES IN PPM	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81726 40M	91	2	55	1	179	7	3	13	1	1	57.5	28
81727 40M	32	2	61	1	391	12	2	17	1	0	25.2	28
81728	528	5	103	7	668	23	15	35	4	3	59.0	124
81729	10800	38	80	14	1520	134	16	38	1	10	62.0	150
81730	1660	7	81	1	877	83	15	35	4	3	84.0	72
81731	1250	8	76	3	931	64	15	34	4	3	64.6	105
81732	1650	10	58	0	1350	40	21	38	6	3	64.3	43
81734	443	4	42	0	657	23	15	25	8	1	146.0	15
81735	2590	8	50	3	1180	72	15	27	2	3	58.6	23
81819	101	5	51	1	528	15	6	19	3	0	124.8	26
81820	187	6	44	0	844	23	14	27	8	1	126.3	21
81821	53	1	73	1	314	6	0	12	1	0	38.5	19
81822	433	8	118	13	851	33	19	53	4	4	67.5	239
81823 40M	768	10	62	6	644	30	6	74	1	7	32.4	254
81824	2060	17	84	10	1090	83	13	70	2	11	54.0	257
81826	786	2	55	0	903	23	12	35	7	0	149.3	31
81827	743	15	69	1	1190	67	10	32	3	5	78.7	356
81829	146	3	45	2	624	11	1	15	0	4	4.8	54
81838	833	10	204	5	756	47	16	49	4	3	94.4	157
81840	121	1	24	0	45	0	0	3	1	0	63.1	12
81841 40M	309	3	45	3	502	23	4	99	1	3	20.8	60
81842 20M	484	1	278	7	463	16	7	29	3	2	61.6	90
81844	467	1	94	2	870	47	7	20	2	2	69.2	70
81845	329	3	68	0	294	29	3	15	1	2	111.7	43
81846	1070	2	320	8	787	66	18	49	3	2	123.2	266
81847 40M	188	1	118	2	534	27	5	22	1	3	23.8	39
81848	182	0	59	0	145	1	1	12	1	4	195.1	18
81849	202	1	80	0	441	15	12	31	2	3	116.9	28
81850	497	3	393	7	731	29	14	46	2	3	83.1	87
81851	592	3	180	5	710	45	12	37	3	2	88.2	87
81852	531	3	193	6	786	38	10	38	2	2	56.7	82
81853	465	3	214	4	682	25	783	38	2	1	80.8	77
81854	459	5	381	3	776	26	30	58	3	4	98.7	57
81855	623	2	303	9	731	20	19	46	3	2	123.1	99
81857	377	2	722	6	582	12	12	50	2	2	113.9	56
81858	499	2	346	5	887	36	10	34	2	0	89.8	57
81900 40M	71	1	80	5	574	41	2	24	1	0	6.1	70
81801	852	13	64	0	441	43	18	42	6	1	96.0	97
81802	1050	48	172	11	902	33	18	39	10	2	102.7	137
81803	679	2	385	3	592	25	8	39	7	0	174.8	178
81804	142	11	53	0	223	0	1	24	1	0	240.5	16
81805	771	9	89	1	516	33	7	47	2	4	60.3	61
81806	10900	30	64	6	1540	70	30	49	0	14	41.6	51
81807	2070	11	110	3	924	60	18	43	5	3	69.1	132
81808	269	6	49	0	559	26	17	35	6	0	77.7	48
81809	908	9	109	5	580	38	12	31	6	0	64.5	121
81810	1130	6	134	7	753	51	13	38	6	3	70.0	226
81811	127	2	90	2	583	23	6	23	2	0	38.7	72
81812	800	6	192	6	550	34	14	45	6	4	78.6	271
81813	22	1	85	3	713	28	2	18	0	0	5.5	45
81814	146	2	104	3	402	22	6	19	1	0	71.9	25
81815	684	7	97	5	639	43	10	53	5	3	47.2	251
81816	736	3	367	6	605	29	10	45	6	2	111.1	222
81818	154	4	40	0	656	27	16	31	8	0	98.2	41
81828	459	23	145	0	426	22	9	50	3	3	120.0	304
81830	311	17	61	2	323	27	24	48	9	2	86.1	69
81831	613	23	170	0	732	38	19	69	7	5	119.7	151
81832	488	8	132	6	415	26	10	33	4	3	57.7	103
81833 40M	551	13	97	4	615	30	7	77	1	6	29.0	60
81834	281	6	58	2	683	31	23	49	5	2	61.8	47

(REPORT VALUES IN PPM)

	BA	SE	AU-PPB
81726 40M	23	0	2
81727 40M	51	0	4
81728	49	1	2
81729	219	2	3
81730	76	1	1
81731	85	1	1
81732	38	2	3
81734	32	1	6
81735	34	1	1
81819	16	0	1
81820	42	1	2
81821	18	0	6
81822	118	2	3
81823 40M	169	1	2
81824	207	2	1
81826	45	1	2
81827	144	1	3
81829	47	1	1
81838	112	0	7
81840	23	0	5
81841 40M	138	1	5
81842 20M	52	1	18
81844	52	0	3
81845	27	0	7
81846	133	1	3
81847 40M	42	1	3
81848	25	0	1
81849	33	0	4
81850	80	0	5
81851	86	1	2
81852	81	1	4
81853	91	0	3
81854	83	1	6
81855	100	0	5
81857	57	0	2
81858	43	0	4
81800 40M	74	1	2
81801	83	1	3
81802	109	2	1080
81803	104	1	5
81804	40	0	2
81805	264	1	56
81806	119	3	1
81807	111	2	4
81808	34	1	7
81809	68	1	4
81810	104	2	2
81811	56	1	1
81812	131	2	1
81813	33	1	2
81814	36	0	9
81815	103	2	6
81816	117	1	16
81818	36	1	3
81828	142	0	4
81830	67	2	3
81831	118	1	2
81832	83	1	4
81833 40M	153	1	1
81834	44	2	2

COMPANY: FALCONBRIDGE LTD. MIN-EN LABS ICP REPORT (ACT:GE03B) PAGE 1 OF 3

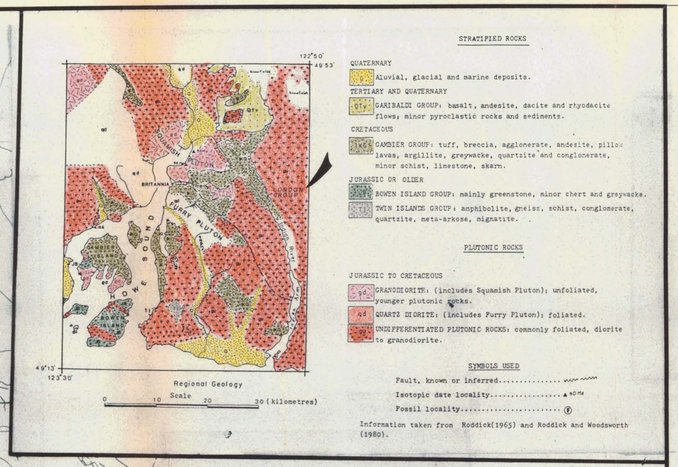
PROJECT No: 303-608-016 705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2 FILE No: 4-916S/P5+6

ATTENTION: TOM HEAH (604)980-5814 OR (604)988-4524 *TYPE SOIL GEOCHEM* DATE: SEPTEMBER 7, 1984

(REPORT VALUES IN PPM)	AG	AL	AS	B	BI	CA	CD	CO	CU	FE	K	MG
81835	.6	16100	0	14	6	1030	.3	11	17	45100	248	1450
81836	.0	22900	0	21	9	4770	1.1	16	39	45900	765	3460
81837	.0	26700	11	26	16	2120	2.2	32	28	48800	884	3500
81839	.7	39800	0	32	13	2750	1.6	16	86	36700	912	7120
81892	.4	24000	4	21	11	4570	1.2	19	52	37700	1910	11600
81893	.8	21900	0	19	12	5940	1.1	20	47	43500	1620	10700
81894	.8	26100	0	23	13	7920	.5	25	50	53100	1940	11700
81895	.6	18900	2	16	11	4570	1.1	18	41	38400	1330	9420
81896	1.0	26300	0	24	12	6260	.8	26	67	55400	2090	12400
81897	.7	19000	5	18	15	5950	.6	25	40	63400	1380	10100
81898	.8	26700	0	23	14	6980	.6	26	75	50100	1910	11900
81899	.7	20500	5	18	13	5620	1.1	21	44	48600	1470	10100
81900	.6	24300	0	21	13	7180	.6	23	51	46300	1750	11000
81901	.8	32300	0	26	8	1190	1.1	11	25	35100	787	5360
81902	.6	8160	12	7	8	576	.0	8	2	28800	264	908
81903	.6	39600	0	33	10	1460	1.4	12	46	38400	763	7540
81904	.6	52500	0	44	9	1050	1.7	14	60	35000	1310	10900
81905	.8	26400	10	23	10	1390	.7	17	79	37100	1150	8440
81906	.9	62900	0	50	13	908	1.4	11	16	39900	467	4600
81907	1.1	22900	0	19	14	1500	.1	13	3	38600	1170	9170
81908 40M	.7	9880	29	7	3	4060	.4	2	10	4550	262	578
81909	.9	26800	0	22	11	933	.5	12	8	40700	529	4310
81910	1.1	62300	0	50	14	1470	1.5	19	38	50100	1300	10700
81817	1.3	70600	0	60	15	774	2.5	18	177	57900	825	6660
81856	1.0	45500	0	39	13	2630	.6	21	66	51900	2720	10600
81859	.6	32900	2	30	16	2200	1.2	20	387	39100	1400	9300
81860	.9	78600	0	64	14	699	2.9	13	106	40800	586	5550
81861	.6	39600	0	35	18	1730	1.6	16	413	56500	703	4490
81862	.7	22300	0	20	14	1330	1.1	15	283	43800	816	2970
81863	.6	26900	8	24	13	4450	1.9	18	296	37700	920	5470
81864	.5	22700	15	21	10	1390	.0	32	321	36200	455	4280
81865	1.3	39800	44	36	8	5580	1.1	17	306	37500	1270	13200
81866	.5	33200	47	30	6	4090	.6	11	124	40800	499	3940
81867	.4	21500	12	20	3	5170	1.1	10	69	24100	592	3370
81868	.5	39200	37	36	6	8760	1.9	11	115	32200	530	4910
81869	.4	21500	13	20	6	4470	.6	14	151	30800	700	7820
81870	.6	14000	0	15	4	14400	2.1	6	170	22200	376	2050
81871	.5	25800	36	25	7	7550	.7	9	115	42300	432	3170
81872	.8	16200	1	15	7	14800	3.5	9	243	21800	339	3340
81873 40M	1.1	15000	0	15	4	18400	2.7	7	198	17200	294	2210
81874	.5	4950	0	5	1	6470	1.0	3	25	10300	263	1420
81875	.8	31900	46	29	10	6420	2.1	18	206	34100	319	5410
81876	.5	39300	52	36	8	1670	.1	22	98	41000	548	7330
81877 20M	.3	5210	0	8	0	29300	1.7	2	55	4410	136	1010
81878	.3	21400	6	22	6	6680	.2	25	44	36800	427	6390
81879	.7	33600	33	32	5	1260	.0	14	92	49400	460	5390
81880	1.3	35200	55	35	9	1030	.0	16	34	72400	417	3360
81881	.8	59800	90	55	11	640	.0	20	50	86000	335	4320
81882	1.1	67700	78	62	10	961	.0	18	60	61700	537	4730
81889	.8	25900	8	24	9	7130	.0	24	68	60000	1630	11300
81890	.9	27700	12	25	11	6610	.0	26	60	58800	1300	13400
81891	1.0	24700	8	24	12	7790	.0	24	65	60900	1600	11100

(REPORT VALUES IN PPM)	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN
81835	109	4	41	0	303	5	3	16	3	0	181.7	25
81836	2320	3	48	0	1740	34	8	31	5	0	89.0	98
81837	14100	4	60	0	1840	53	16	32	3	13	99.7	101
81839	520	14	105	3	504	33	13	42	3	1	85.2	104
81892	988	2	390	9	766	58	10	45	5	1	72.5	143
81893	692	1	720	9	659	29	8	52	3	2	125.7	93
81894	689	1	1250	16	706	19	9	74	4	4	166.6	66
81895	589	1	481	9	585	22	7	39	4	1	117.6	87
81896	725	1	837	15	847	25	9	60	6	3	184.4	93
81897	603	0	678	9	791	22	7	46	7	2	322.0	90
81898	582	1	1150	19	836	15	7	66	4	4	187.1	64
81899	621	1	643	12	757	29	7	47	6	1	201.4	89
81900	534	1	1230	21	703	14	6	69	4	1	147.3	52
81901	250	3	113	2	490	18	12	30	3	0	88.6	48
81902	104	1	57	0	130	3	2	12	1	4	109.5	10
81903	419	2	76	3	426	34	17	38	6	2	86.6	80
81904	628	4	79	8	309	42	25	48	7	2	60.4	124
81905	704	3	140	3	643	64	14	29	5	4	64.2	122
81906	188	5	106	0	380	22	24	53	4	3	80.0	7
81907	407	3	118	2	215	17	4	24	0	4	76.2	74
81908 40M	30	1	51	5	946	34	5	24	1	2	8.3	42
81909	244	1	83	0	484	25	9	24	3	1	104.3	36
81910	448	2	232	10	893	21	22	55	4	0	123.6	90
81817	547	11	45	1	1670	45	34	58	11	4	95.1	92
81856	595	2	337	9	878	15	15	46	4	2	120.3	88
81859	995	9	141	5	636	35	18	39	6	5	74.4	142
81860	309	8	64	5	1030	33	35	65	8	3	58.4	31
81861	437	14	62	0	622	28	14	38	7	0	92.8	86
81862	946	18	57	0	522	15	11	25	5	3	98.0	64
81863	1330	10	137	4	693	67	14	41	5	6	68.9	162
81864	1120	22	48	10	484	18	13	24	3	0	62.0	54
81865	608	6	92	17	631	30	21	57	3	0	62.9	281
81866	336	12	43	12	356	22	17	48	6	0	90.6	181
81867	190	10	67	8	257	21	11	45	4	0	72.8	286
81868	515	7	59	12	596	25	19	67	5	0	54.4	219
81869	764	7	110	11	514	24	13	36	4	0	55.1	104
81870	348	6	58	7	353	10	9	54	3	0	52.3	212
81871	179	10	62	8	185	8	17	49	6	0	83.9	149
81872	1210	6	71	8	596	9	9	58	3	5	35.5	208
81873 40M	661	5	81	6	643	4	7	67	2	3	26.9	175
81874	98	3	50	6	336	9	3	24	1	2	23.2	73
81875	1110	8	81	12	696	29	21	50	5	4	59.8	161
81876	1040	10	53	19	570	40	26	42	6	0	80.4	129
81877 20M	995	10	66	5	568	6	3	85	2	0	8.6	38
81878	620	13	47	14	289	7	11	40	3	0	90.3	151
81879	584	7	57	11	601	25	17	33	4	0	74.1	72
81880	332	7	40	12	547	10	25	37	8	0	183.9	63
81881	470	8	47	16	680	22	33	52	10	0	155.5	97
81882	396	8	62	16	785	14	34	60	6	0	109.9	169
81889	523	3	1000	27	611	0	9	61	1	0	201.2	56
81890	801	3	1220	31	577	0	9	82	0	0	124.2	66
81891	537	3	1130	28	742	0	10	63	0	0	214.6	56

(REPORT VALUES IN PPM)	BA	SE	AU-PPB
81835	25	0	7
81836	83	1	3
81837	156	3	4
81839	95	0	2
81892	90	1	6
81893	93	1	1
81894	122	1	2
81895	78	0	8
81896	139	1	5
81897	84	0	1
81898	130	0	2
81899	92	1	2
81900	112	0	3
81901	39	1	1
81902	22	0	3
81903	52	1	1
81904	82	2	2
81905	66	1	12
81906	32	1	2
81907	66	0	1
81908 40M	68	1	3
81909	39	0	1
81910	81	1	2
81817	57	3	4
81856	115	0	2
81859	85	2	6
81860	36	3	1
81861	59	1	3
81862	80	0	1
81863	106	1	4
81864	51	0	3
81865	104	2	100
81866	113	2	4
81867	124	1	18
81868	110	2	2
81869	96	1	16
81870	178	2	5
81871	181	1	4
81872	151	2	33
81873 40M	143	2	12
81874	49	1	5
81875	121	2	8
81876	87	2	6
81877 20M	143	3	2
81878	121	1	1
81879	53	0	5
81880	52	0	3
81881	48	0	2
81882	63	1	1
81889	107	0	3
81890	114	0	6
81891	108	0	4



LEGEND

INTRUSIVE ROCKS

CRETACEOUS-TERTIARY

1 Basalt: Grey-green to rusty weathering, fine to medium grained, dark green, porphyritic. Sometimes with finely diss. py; present as dykes.

2 Dacite: Grey weathering, massive, porphyritic with plagioclase and quartz phenocrysts set in aphanitic, siliceous matrix. Contains finely diss. py.

3 Rhyodacite: Pinkish weathering, blocky, fine to medium grained, wormy texture.

LOWER CRETACEOUS

4 Quartz Diorite: Grey weathering, unfoliated, fine to medium grained, hypidiomorphic. Hornblende exceeds biotite.

METAMORPHOSED LAYERED ROCKS OF THE GAMBIER GROUP

LOWER CRETACEOUS

5 Phyllite: Rusty weathering, foliated, phyllitic sheen. Py stringers abundant.

6 Andesite Lapilli Tuff: Grey to beige weathering, layered. Graded bedding in parts. Probably epiclastic; Angular rock and crystal fragments.

7 Argillite: Rusty weathering, hard, black, aphanitic, well bedded.

8 Rhyolite: Consists of flow breccia and flow banded rhyolite. Light grey-green weathering, layered with rounded siliceous clasts. Minor tuffaceous beds.

9 Dacite Tuff-Breccia: Grey-green and rusty weathering, light green, siliceous. Rock fragments are angular, cherty in ash to lapilli sized matrix.

10 Agglomerate: Rusty and grey, rounded weathering. Fragments chaotic; beds of dacite crystal-lithic tuff present.

11 Andesite Lapilli Tuff: Grey-green weathering, dark green, med. grained, with volcanic fragments.

12 Basalt: Green, blocky weathering, med. grained, porphyritic.

SYMBOLS USED

- Limit of outcrop
- Geological contact: Defined, assumed
- Fault: Defined, assumed
- Fracture
- Bedding
- Flow banding
- Schistosity
- Adit
- Old workings

MINERALISATION

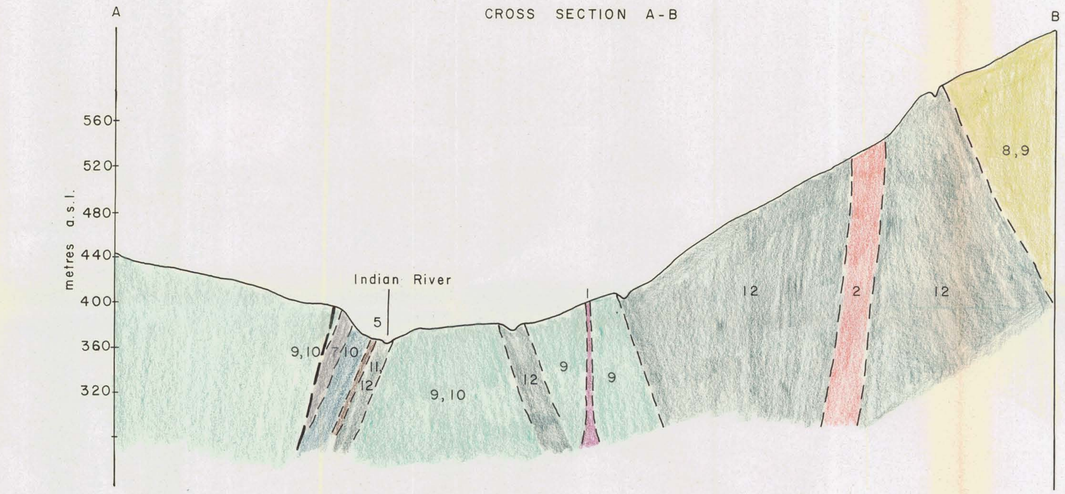
S Silicified Zone

bn=bornite; cp=chalcopyrite
mo=molbdenite; po=pyrrhotite
py=pyrite; sp=sphalerite

0 50 100 150 200 m

SCALE: 1:2500

FALCONBRIDGE LIMITED	
PROPERTY: London Group	PROJECT NO.: 016
LOCATION: Indian River, B.C.	
TYPE OF MAP: Geology	
WORKING PLACE:	
BASED ON: Fieldwork by T. Heah & B. Evans	
DATE OF WORK: July, Aug./84	MAP REF. NO.: 84-016
DRAWN BY: TH	FIG. NO.: 3
DATE: October 1984	N.T.S. NO.: 92 G/10 W



MAP REF. NO.:
N.T.S.:

LEGEND

INTRUSIVE ROCKS

CRETACEOUS-TERTIARY

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METAMORPHOSED LAYERED ROCKS OF THE GAMBIER GROUP

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11 Andesite Lapilli Tuff: Grey-green weathering, dark green, med. grained, with volcanic fragments.

12 Basalt: Green, blocky weathering, med. grained, porphyritic.

S Silicified Zone

Note: No vertical exaggeration

0 50 100 150 200 m

SCALE: 1:2500

FALCONBRIDGE LIMITED

PROPERTY: London Group

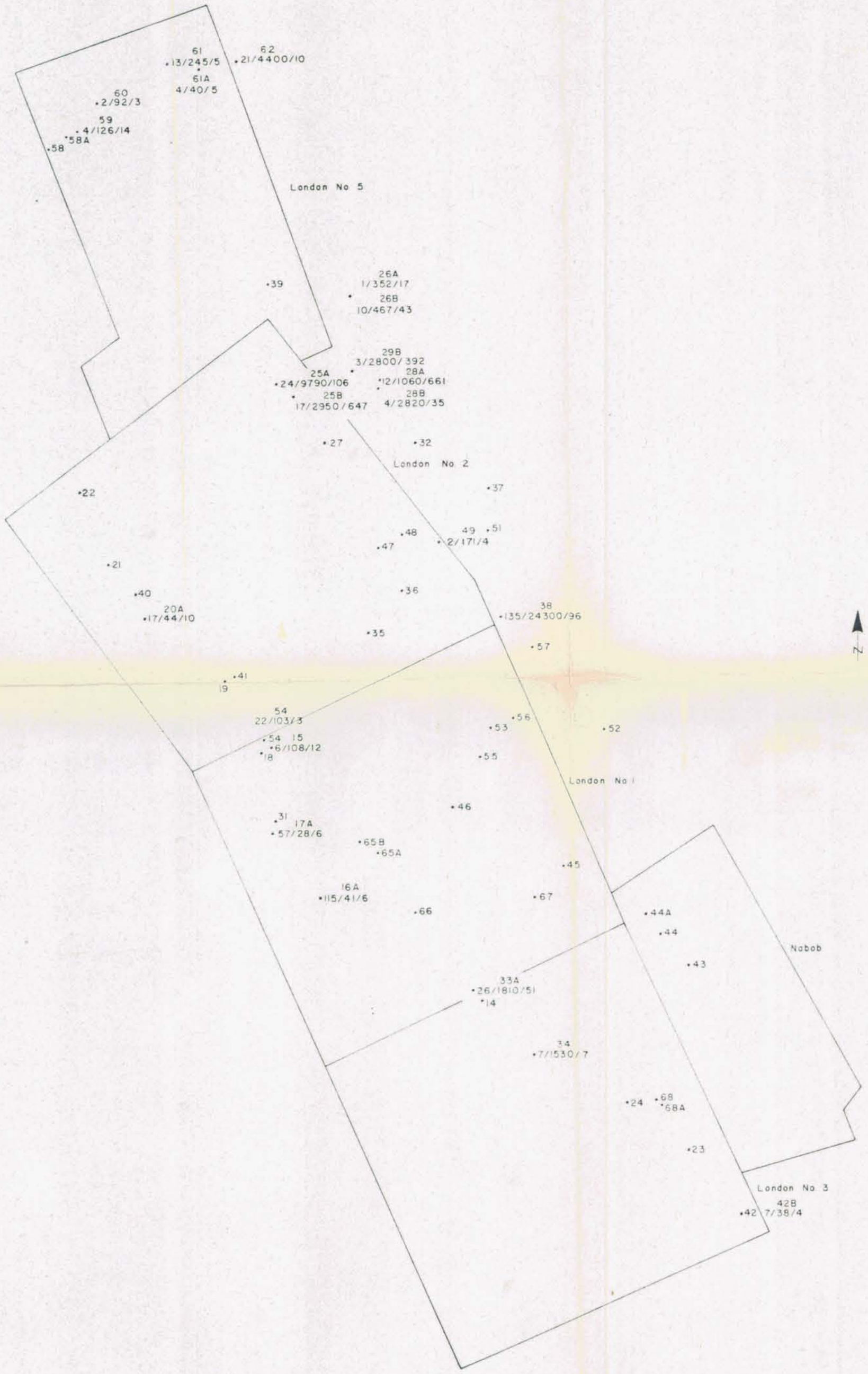
LOCATION: Indian River

TYPE OF MAP: Cross Sections A-B, C-D

WORKING PLACE:

BASED ON:

DATE OF WORK:	MAP REF. NO.: 84-016	FIG. NO.: 4
DRAWN BY:		
DATE:	N.T.S. NO.:	



LEGEND

Sample No.
•Au ppb / Cu ppm / Mo ppm

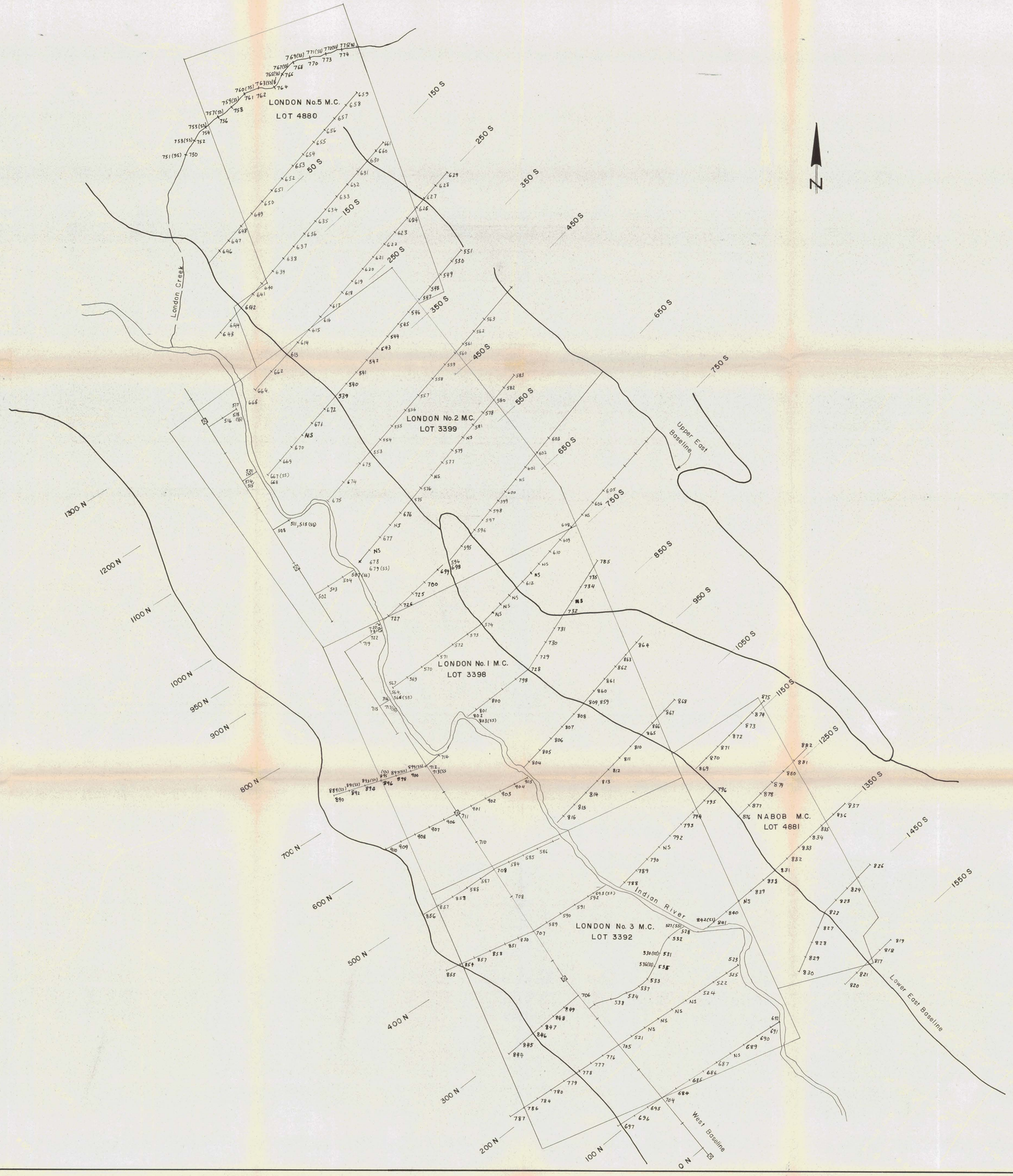
•Sample No.

0 50 100 150 200 M

SCALE

FALCONBRIDGE LIMITED

PROPERTY: London Group	PROJECT NO.: 016
LOCATION: Indian River, B.C.	
TYPE OF MAP: Rock Sample Location Map and Rock Chip Sampling Results Au, Cu, Mo	
WORKING PLACE:	
BASED ON: Sampling by T.H. and B.E.	
DATE OF WORK:	MAP REF. NO.: 88-016
DRAWN BY: T.H.	FIG. NO.: 7
DATE:	N.T.S. NO.: 92 G/10



LEGEND

- X234 Soil Sample No. 81234
- X345(SS) Silt Sample No. 81345
- Gravel Road
- ⊠ Transmission Pylon
- NS No Sample

50 0 50 100 150 m
SCALE:

FALCONBRIDGE LIMITED

PROPERTY: London Group		
LOCATION: Indian River, B.C.		
TYPE OF MAP: East & West Grids and Soil & Silt Sample Location Map		
WORKING PLACE:		
BASED ON:		
DATE OF WORK:	MAP REF. NO.: 84-016	FIG. NO.: 11
DRAWN BY: TH		
DATE:	N.T.S. NO.:	

6 495 500 N

6 495 000 N

6494500 N

501 000E

501 500E

502 000E

LONDON NO. 5
L4880

LONDON NO. 2
L3399

LONDON NO. 1
L3398

LONDON NO.3
L3392

NABOB
L4881

× Approx. location of Roy Showing massive sulfides → cp, bo, py, SP

→ Roy Adits

Legend:

- <60 ppb Au Contour
- 60-100 ppb Au Contour
- > 100 ppb Au Contour

0 50 100 150 200 m

SCALE: 1:2 500

FALCONBRIDGE LIMITED

PROPERTY: London Group	PROJECT NO.: 016
LOCATION: Indian River	
TYPE OF MAP: Contoured Gold Soil Geochemistry ("B" Horizon)	
WORKING PLACE:	
BASED ON: Sampling by T. Heah and B. Evans	
DATE OF WORK: 1984	MAP REF. NO.: 84-016
DRAWN BY:	FIG. NO.: 12
DATE:	N.T.S. NO.: 92G/10

6 495 500 N

6 495 000 N

6 494 500 N

501 000 E

501 500 E

502 000 E

LONDON NO. 5
L4880

LONDON NO. 2
L3399

LONDON NO. 1
L3398

LONDON NO. 3
L3392

NABOB
L4881

To Squamish

LOGGED AREA

LOGGED AREA

LOGGED AREA

LOGGED AREA

LOGGED AREA

LOGGED AREA

LONDON CREEK

INDIAN RIVER

Legend:

100-250 ppm Cu Contour

250-500 ppm Cu Contour

> 500 ppm Cu Contour

0 50 100 150 200 m

SCALE: 1:2 500

FALCONBRIDGE LIMITED

PROPERTY: London Group	PROJECT NO.: 016
LOCATION: Indian River	
TYPE OF MAP: Contoured Copper Soil Geochemistry ("B" Horizon)	
WORKING PLACE:	
BASED ON: Sampling by T. Heah and B. Evans	
DATE OF WORK: 1984	MAP REF. NO.: 84-016
DRAWN BY: T.H.	FIG. NO.: 13
DATE:	N.T.S. NO.: 92G/10

6 495 750N

6 496 500N

6 495 250N

6 495 000N

6 494 750N

6 494 500N

6 494 250N

LOGGED AREA

TO SQUAMISH

LONDON CREEK

INDIAN RIVER

LONDON NO 5
L4880

LONDON NO 2
L3399

LONDON NO 1
L3398

LONDON NO 4
L4881

LONDON NO 3
L3392

ROCK OUTCROP

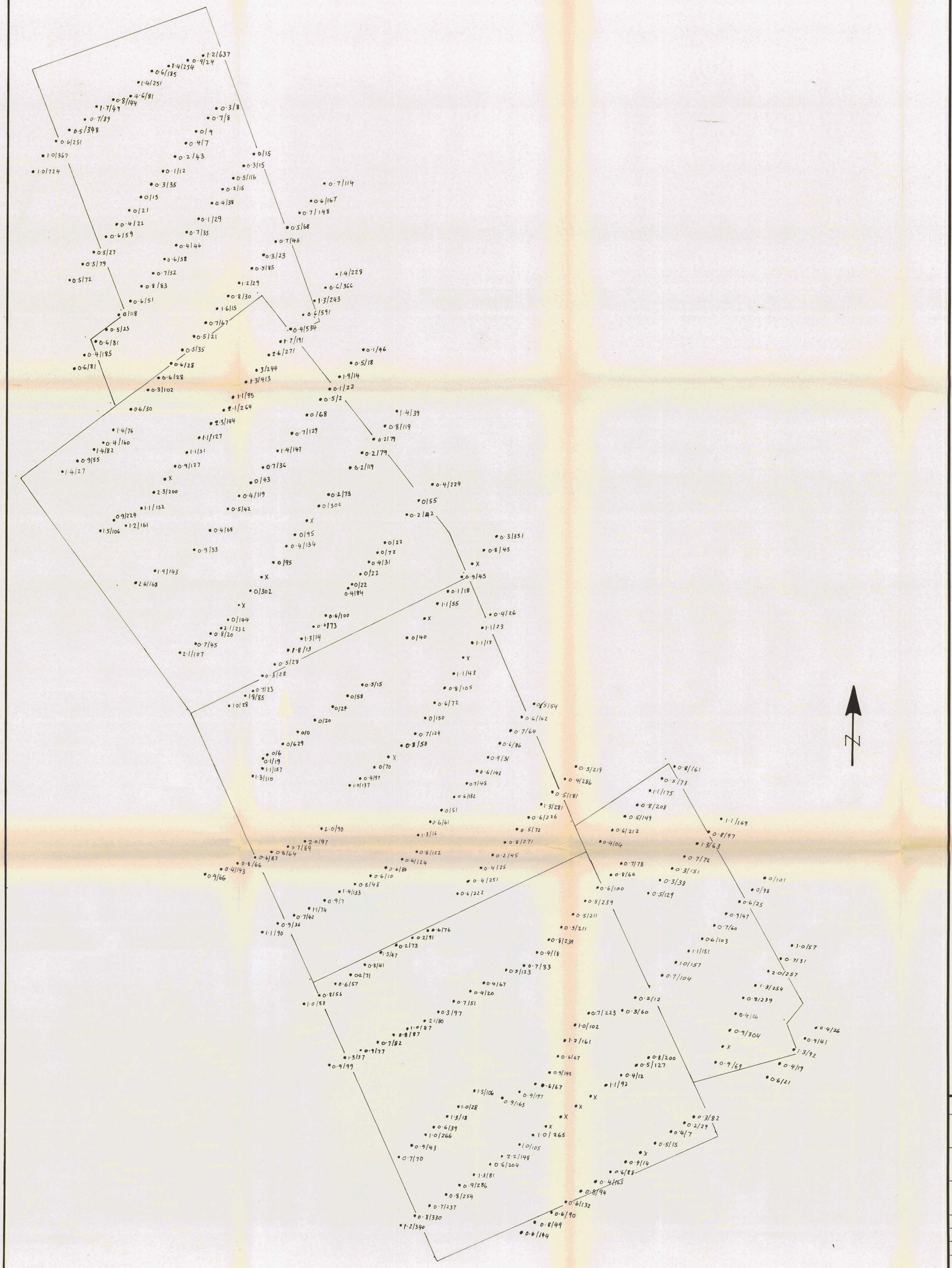
LEGEND

Mo (ppm) • 4

50 0 50 100 150m

SCALE: 1:2500

FALCONBRIDGE LIMITED		
PROPERTY: London Group		PROJECT NO. 016
LOCATION: Indian River, B.C.		
TYPE OF MAP: Molybdenum Soil Geochemistry "B" Horizon		
WORKING PLACE:		
BASED ON: Sampling by T.H. & B.K.E.		
DATE OF WORK:	MAP REF. NO.: 84-016	FIG. NO.: 14
DRAWN BY: TH		
DATE:	N.T.S. NO.: 92G/10W	



FALCONBRIDGE LIMITED

PROPERTY: London Group	PROJECT NO.: 016
LOCATION: Indian River, B.C.	
TYPE OF MAP: Silver & Zinc Soil Geochem. ('B' Horizon)	
WORKING PLACE:	
BASED ON:	
DATE OF WORK:	MAP REF. NO.: 84-016
DRAWN BY: TH	FIG. NO.: 15
DATE:	N.T.S. NO.: 92G/10W

FALCONBRIDGE LIMITED

PROPERTY: LONDON GROUP		PROJECT No.
LOCATION: INDIAN RIVER, B.C.		
TYPE OF MAP: SILT SAMPLING RESULTS Au, Cu		
WORKING PLACE:		
BASED ON: SAMPLING BY T.H. & B.K.E.		
DATE OF WORK:	MAP REF. NO.: 84 016	FIG. NO. 16
DRAWN BY: T.H.		
DATE:	N.T.S. NO.: 92G/10W	