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1987 DRILLING ASSESSMENT REPORT ON THE CHEMAINUS JOINT VENTURE

(Chip 1, Chip 12 Fr.)

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M.R. # \$ VANCOUVER, B.C.	-

Situated 14 km west of Chemainus, B.C. in the Victoria Mining Division

45°53'N, 123°50'W NTS 92B/13W

Kidd Creek Mines Ltd. 701 - 1281 West Georgia Street Vancouver, B.C.

FILMED

November 1987

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- S. Enns
- J. Pattison

ASSESSMENT REPORT

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#### SUMMARY

This report presents results of a portion of the 1987 Chemainus Joint Venture drilling program. The target is а volcanic-hosted, polymetallic, massive sulphide deposit in the Sicker Group on Vancouver Island. Examples of such deposits in the Sicker rocks include Westmin's Buttle Lake deposits with more than 21 million tons (production plus reserves) averaging 2% Cu, 6% Zn, 1.7 oz/T Ag and 0.07 oz/T Au) and the Twin J deposits at Mount Sicker which produced over 300,000 tons of ore grading 3% Cu, 7% Zn, 2.75 oz/T Au. Abermin Corporation has announced a significant discovery on claims adjacent to the Joint Venture project. Their Coronation Zone has an average grade of 1.5% Cu, 14.9% Zn, 3.1% Pb, 6.7 oz/T Ag and 0.24 oz/T Au. over 11 feet.

The project area consists of 15 claims (139 units) in two separate claim blocks. Drilling was conducted on the Chip 1 claim of the Chip-86 Group. The drilling was part of an equally funded joint venture program between Kidd Creek Mines Ltd. (wholly owned subsidiary of Falconbridge Limited) and Esso Minerals Canada; Kidd Creek Mines Ltd. was the operator for the Joint Venture.

Positive results of the 1986 drilling program led to drilling in 1987 to follow-up on mineralization discovered on the Chip l claim. A total of 3366m in 9 inclined NQ drill holes forms the basis of results presented in this report. This work was conducted over the time period May 24 to July 15, 1987.

The volcanic stratigraphy of the Chip 1 claim is comprised of a steep north-dipping, felsic mafic volcaniclastic succession, the south portion of which contains mineralization and which appears to be an overturned sequence. Drilling on the east part of the claim has traced weakly mineralized felsic tuffs for 400 m along strike. The felsic host to mineralization, known as "Active Tuff" is characterized by high the sericite content, variable 2 to 30% pyrite, elevated Ba and base metals content, and depleted Na<sub>2</sub>O.

Bore-hole geophysics using the Crone pulse-EM system was conducted on most holes. This survey succeeded in detecting pyrrhotite mineralization but gave no appreciable response to pyritic base metal mineralization which typically is a poor conductor.

### LOCATION, ACCESS, TERRAIN

The Chemainus project area is located 12 to 16 km west of Chemainus on southeast Vancouver Island, in southwestern British Columbia (Figure 1). Chemainus lies just off the Trans-Canada Highway about 60 km northwest of Victoria. Established port facilities and related infrastructure in Chemainus and vicinity would enhance the economics of an orebody.

Access to the two claim blocks is by MacMillan Bloedel's main haul road known as the Copper Canyon Mainline which follows the Chemainus River. From this road, three 4-wheel drive roads provide access to various parts of the claims (Figure 2). The powerline road at mile 12 was used as the main access to drilling on the Chip 1 claim. Property access within the claim area is good due to numerous logging roads and old railway grades.

Surface and timber rights on much of the Chip claims are owned by MacMillan Bloedel. Access permits are required and damage to timber is subject to compensation charges.

is characterized by rolling The terrain All of the property has topography and incised canyons. been logged and is in various stages of regrowth with cedar, fir and hemlock. The bush varies from dense second growth to clear cut areas. Undergrowth of salal is widespread and in places can be very thick. Elevations on the property vary between 500 and 1,100 m. Large, old stumps are a common inconvenience to the construction of access routes and drill set-ups.

A mild climate prevails with warm, dry summers and autumns, and short winters. Spring is usually wet. The higher elevations (above 1000 m) tend to have more severe winter temperatures and heavy snowfall but are usually clear of snow by the end of May. Elevations below 500 m may be snow-free throughout the entire year making extended fieldwork possible. Dry forest conditions usually occur from mid-July to mid-September, and forest closures due to high fire hazard must be taken into account when planning field work.



# PROPERTY DEFINITION AND CLAIMS STATUS

The Chemainus property consists of 15 claims (139 units) in two separate blocks within the Victoria Mining Division. Table 1 and Figure 2 summarize relevant details on claim data. The claims are jointly owned by Esso Minerals Canada and Kidd Creek Mines Ltd. (wholly owned subsidiary of Falconbridge Limited).

The Chip claims have all been grouped as the **Chip 86** group. At present, the Brent 1 and Holyoak 1 to 3 claims are ungrouped.

### TABLE 1: STATUS OF CLAIMS

CLAIM	RECORD	NO. UN	ITS STA	KING	DATE	EXPI	[RY	DATE
Brent 1	163	1	0 May	5,	1978	May	11,	1996
Holyoak	1 1598		8 Oct	22,	1985	Oct	31,	1996
Holyoak	2 1599	1	6 Oct	23,	1985	Oct	31,	1996
Holyoak	3 1560	1	2 Oct	24,	1985	Oct	31,	1996
Chip l	720	2	0 Nov	11,	1982	Dec	7,	1997
Chip 2	721	2	0 Nov	13,	1982	Dec	7,	1997.
Chip 3	722	1	6 Nov	13,	1982	Dec	7,	1997
Chip 4	723	1	6 Nov	15,	1982	Dec	7,	1997
Chip 5	920		4 May	16,	1983	May	24,	1997
Chip 6	921		4 May	17,	1983	May	24,	1997
Chip 7	922		6 May	18,	1983	May	24,	1997
Chip 8	1424		4 Feb	22,	1985	Feb	27,	1997
Chip 11	1526		1 May	31,	1985	Jun	17,	1997
Chip 12	Fr 1608		1 Dec	11,	1985	Dec	12,	1997
Chip 13	Fr 1609	<del></del>	<u>l</u> Dec	11,	1985	Dec	12,	1997

Total 15 claims 139 units

# Notes:

The area comprised by the claims covers about 3,425 hectares (8,424 acres).

The claims are covered by NTS sheets 92 B/13W and 92C/16E.

Expiry dates are pending Gold Commisioner's approval of 1987 assessment work.



# PROPERTY HISTORY OF THE CHIP CLAIMS

The early property history on the Chip claims has been described by Everett and Cooper (1984):

"The Chip claims have seen sporadic periods exploration acitivity since the of early The oldest recorded work was in 1900's. 1915 with the sinking of a 50 foot shaft on a weak chalcopyrite-bearing pyrrhotite vein (part of Anita showing). the Interest in the Sicker schists intensified 1944 Group in with the development of the Twin-J massive sulphideprecious metal deposit, 15 km to the southeast. The volcanic belt has since undergone several periods of staking and prospecting.

In recent years, development of Westmin's in the Buttle Lake Uplift has renewed deposit exploration interest in the Chemainus area. An polarization survey was induced completed by Cominco in the vicinity of the Chip 4 claim in 1966 and a soil survey was completed by UMEX in the vicinity of the Chip 1 claim in 1978."

In 1983, Esso conducted a field program on the Chip claim group. Their work included 2500 scale geologic mapping, soil and stream sampling, line cutting, HLEM and magnetometer surveys of Chip 1, 2 and part of the Chip 3 claims. Part of the favourable felsic volcanic lithology was defined by mapping and several weak, copper-zinc soil anomalies and two weak conductors were identified on the Chip 1 claim. Several whole rock analyses suggested the presence of Na<sub>2</sub>O depletion on the Chip 1 claim.

Kidd Creek Mines Ltd. entered into an option agreement for a joint venture with Esso Minerals in August 1984. The entire Chemainus property (Brent-Holyoak and Chip claims) was flown with Questor's Mark VI helicopter INPUT system in September 1984. The following year, ground follow-up of the selected airborne anomalies was started using time domain IP (Schlumberger array), VLF magnetometer surveys, and in conjunction with soil sampling and mapping of the grid lines. Most of the work focused on the Brent 1 and Holyoak 1, 2 and 3 claims and resulted in drilling 1534 m in 6 holes. Two of the holes intersected significant sulphides. The geophysical selected parts surveys also covered of the Chip claims.

In 1986, exploration focused on the Chip Work included 5,000 scale mapping of most of the claims. claims and expansion of the grid to cover the entire Chip claim block on a 200 m line spacing with IP, VLF and magnetometer surveys. Selected areas were covered with a deep penetrating IP survey using the Gradient Array, results of which guided the late fall drilling program. A total of 1854 m was drilled in six widely spaced holes, four of which intersected significant sulphides (three on the Chip 1 claim). The Anita shaft area was trenched with an excavator, mapped in detail and the exposed pyrrhotite lens was chip-sampled along its entire exposure.

Positive results of this work led to an aggressive drill program for 1987.

## GENERAL PROPERTY GEOLOGY

claim blocks lie The two within the Cowichan-Horne Lake Uplift, in which lower Paleozoic Sicker Group rocks are exposed. The property is underlain by felsic and mafic volcanic rocks (of Myra Formation equivalent) which trend northwest anđ dip steeply The surface geology of the Chip claims has northeast. been described in greater detail by Mallalieu, et al (1986), Enns (1985), and Everett and Cooper (1984). The volcanics are flanked on both sides by dark coloured pelitic and cherty sediments mapped by Muller (1980) as the "Sediment Sill Unit". These two formations are thought to be separated by a major fault at the north The felsic volcanics host polymetallic volcanic contact. sulphide mineralization.

Surface mapping on the Chip and Holyoak claims has shown that the volcanic succession is comprised of a complex, interbedded mixture of felsic tuffs and flows, mafic tuffs and flows with thin, green and black cherty intermediate tuffs. beds, and minor The volcanic stratigraphy which encloses Abermin's Coronation Zone, 2 km southeast, extends along strike onto the Chip 1 claim. Hanging wall stratigraphy in the Coronation Extension Zone underlies the southwest corner of the Holyoak claim.

Small, localized quartz porphyry bodies (thick rhyolite flows) were identified at five localities and may be sites of felsic domes which could represent important, small, volcanic centres. The "footwall rhyolite" which lies beneath and east of Abermin's Coronation Zone is interpreted to be a local felsic dome.

The volcanics are intruded by late gabbroic sill-like bodies of Jurassic age. These gabbro intrusions have separated or dilated the volcanic stratigraphy, often in mineralized zones.

Cretaceous, Nanaimo sediments comprised of basal cobble conglomerate, sandstone and black shale unconformably overlie both volcanic and gabbro lithology. The Nanaimo sediments have been truncated by compressional (reverse) faulting which is bedding plane parallel. These faults have been oversteepened by a yet later structural event.

#### THE 1987 DRILLING PROGRAM

The drilling was conducted over a period extending from May 14 to July 15, 1987. Although a total of 6753.7 m of NQ core was drilled in 18 inclined holes, for this report, the drilling results for 9 holes drilled on section 34+00E to section 47+00E on the Chip 1 grid are given. Table 2 summarizes the drilling data including results. The all-inclusive drilling costs for the program were \$580,000.

The contractor for the job was Burwash Enterprises Ltd. of Cobble Hill, B.C., who used two Longyear Super 38 drills equipped with air-cooled diesel engines. A D-6H Caterpillar tractor was used to move drills and to prepare the drill pads.

All the drill sites were accessible by four-wheel drive vehicles. Site locations were chosen to avoid large timber and steep slopes as much as possible and to take maximum advantage of abandoned logging roads.

This year, timber was cut and bucked to 8-foot lengths ahead of construction of access routes. This method significantly reduced timber damage and lowered clean-up costs.

The drill hole locations are plotted on Figure 3 at a scale of 1:10,000 and on Figure 4 at a scale of 1:2,000. Drill sections are plotted on a scale of 1:1,000 (Figures 5 to 10).

Each core run was converted to metric depth, and marked on special pre-cut wooden blocks. The drill core was then systematically photographed and logged. RQD (rock quality designation) data was also recorded for future use. Dip tests were taken by single-shot Sperry



Sun instrument with an attempt to test every 50 to 75 m. Selected mineralized intervals were split, and sawn in half for analysis. Lithogeochemical samples were taken about every 10 metres (on average). A skeletal core record was routinely selected during logging with samples about every 10 or so metres. The skeletal core and major oxide data are valuable in making lithological correlations between drill holes. The logging was conducted using Derry, Michener, Booth and Wahl's LOG II system. Data was entered on Radioshack TRS 80 computers at the core box, then uploaded into a Toshiba T-3100 computer at the end of each day for editing and print-out. Later, the analytical data were merged with the drill logs' 'files' and final logs were printed out. The drill logs are listed in Appendix A.

Most of the drill holes were surveyed with the Crone Pulse-EM bore-hole system. Surveys were conducted by Dennis Woods of White Geophysical Ltd. Prior to the survey, holes were lined with threaded, white plastic piping which was recovered on survey completion. The results from this survey are covered in separate reports.

Bondar-Clegg of North Vancouver analysed the split core by geochemical methods for Cu, Pb, Zn, Mo, Aq, Cđ, Co, Ni, As and Fe, Mn, Ba. An HNO3-HC1 hot extraction and analysis by DC Plasma were used for analysis of all elements except Au and Ba. A fire assay preparation with AA finish was used for Au and X-Ray Fluorescence was used to give a total analysis for Ba. An assay preparation method was applied to all samples. Base metal levels exceeding 3000 ppm were re-analysed using standard assay techniques, as were Ag and Au levels respectively, exceeding 30 ppm and 1,000 ppb.

X-Ray assay Labs of Don Mills, Ontario analysed the lithogeochemistry samples. The analysis included a standard major oxide package which includes Cu, Zn and Ba.

Results for base metal analysis are listed by hole in Appendix B and in the drill logs. Major oxide analytical results are listed by hole in Appendix C with sample plots shown on appropriate drill sections keyed to lithology. The Cu, Zn and Ba results of major oxide samples are listed in the drill logs. Major oxides were used to calculate an alkali alteration index which is shown on drill sections for those samples where the index exceeds 60. Calculation of the Ishikawa Index (Ishikawa, et al, 1976) is given by the equation:

 $I = \frac{MgO+K_2O}{MgO+K_2O+Na_2O+CaO}$ 

All the drill core (including previous years' drilling) is stored on racks at a farm just outside Chemainus, at 3037 River Road.

# TABLE 2: SUMMARY OF DRILLING DATA AND RESULTS

HOLE	LOCATION	DIRECTION	DEPTH	DURATION	TARGET	RESULTS
CHEN87-22 Section 34+00E	CHIP 1 Claim (Centre Grid: 34+20E; 0+20N Elev: 555m UTM: N 5,416,700 E 430.666	) -50/210 Az	474.6m	May 24/87 am May 31/87 am	Determine geology north of "Active Tuff". Test broad, deep resistivity low between 1+00 and 2+005. Test VLF at 1+405 and 2+205.	Felsic tuffs intruded by gabbro at top of hole. Fulford Fault at 195 m has thrust in Nanaimo Group sediments which unconformably overlie gabbro. Graphitic Nanaimo sediments explain resistivity low. Mafic volcanics at bottom of hole.
CHEM87-29 Section 38+00E	CHIP 1 Claim (Centre Grid: 38+00E; 0+88S Elev: 557m UTM: N 5,416,425 E 430,962	) -50/210 Az	296.3m	June 16/87 pm June 20/87 am	Test VLF anomalies at 1+60S and 2+15S and deep chargeability anomaly between 2+20S and 2+80S with a flanking weak resistivity low between 1+85S and 2+00S.	Mafic volcanics at top of hole overlie 58.8 m of felsics in fault contact with Nanaimo sediments. Nanaimo rocks unconformably overlie mafic volcanics. Fault positions explain VLF anomalies. Deep chargeability not explained by drill core.
CHEM87-30 Section 38+00E	CHIP 1 Claim (Centre Grid: 38+05E; 1+22N Elev: 585m UTM: N 5,416,605 E 431,100	) -50/210 Az	340.2m	June 17/87 am June 21/87 am	Test VLF anomalies at 0+60N and 1+60S at deoth.	VLF explained by faults. Mainly felsic tuffs with short mafic and intermediate sections.
CHEM87-31 Section 40+0DE	CHIP 1 Claim (Centre Grid: 40+00E; 0+60S Elev: 570m UTM: N 5,416,350 E 431,138	) -50/210 Az	340.5m	June 21/87 am June 26/87 am	Test VLF anomaly at 2+00S. Test shallow IP anomalies centred at 0+80S and 2+60S and weak, deep IP anomalies centred at 1+40S, 2+20S and 3+00S.	Mixed mafic and felsic volcanics in upper half of hole. VLF anomaly explained by strong fault at 170 m. Fulford Fault truncated too of "Active Tuff" at 221.6 m. Chargeability explained by pyritic "Active Tuff" at 221.6 to 239.7 m above mafic volcanics contact. Mineralized intersection includes 0.4 m @249.6 m of 0.50% Cu, 1.36% Pb, 134g/t Ag and 4.76g/t Au.
CHEM87-32 Section 36+00E	CHIP 1 Claim (Centre Grid: 36+00E; 0+80N Elev: 585m UTM: N 5,416,675 E 430,910	) -50/210 Az	465.1m	June 21/87 pm June 28/87 am	Test VLF conductors at 0+60N and 1+80S. Test deep chargeability centred at 1+60S and 2+40S and a broad re- sistivity low centred at 1+80S.	Upper 290 m is mainly felsic with minor mafic volcanic interbeds. Nanaimo shales are faulted in unconformably overlie pyritic felsic tuffs ("Active Tuff"). VLF anomaly explained by fault and resistivity low by the black graphitic Nanaimo shales. 123.5 m of "Active Tuff" with low core angles contain: elevated Ba and Au, (2000 to 4000 ppm Ba and up to 200 ppb Au), including 4.0 m of 3700 ppm Ba @ 410.0 m, and 0.5 m of 2731 ppm Cu @ 416.4 m.

HOLE	LOCATION	DIRECTION	DEPTH	DURATION	TARGET	RESULTS
CHEM87-33 Section 43+00E	CHIP 1 Claim (East) Grid: 43+00E; 0+40S Elev: 595m UTM: N 5,416,675 E 431,407	-50/210 Az	441.3m	June 26/87 pm June 29/87 pm July 9/87 am July 13/87 pm	Test weak deep IP chargeability anomaly between 1+80S and 3+00S. Test strong VLF conductor at 2+20S. Test for strike extention of weakly mineralized zone in hole CHEM86-16, 200 m east.	85.5 m of felsic tuffs at top of hole, followed by 117.6 m of mafic tuffs and minor flows, followed by 64.4 m of faulted-in felsic tuffs and last third is gabbro. VLF anomaly expained by Fulford Fault at 226 m. "Active Tuff" absent on this section.
CHEM87-34 Section 47+00E	CHIP 1 Claim (East) Grid: 47+00E; 0+40S Elev: 660m UTM: N 5,416,150 E 431,850	-50/210 Az	391.1m	June 29/87 pm July 5/87 am	Test coincident, deep and shallow IP resistivity low at 2+05S and a shallow IP chargeability at 2+80. Test VLF conductors at 2+40S and 2+80S.	Intersected felsic tuffs to 169.7 m, then mafic tuff to 270 m with narrow pyrhotite mineralized band in minor felsic succession. Fyrhotite-pyrite-chalcooyrite band contains 0.69 % Cu over 1.0 m @ 224.0 m. A major fault (Fulford Fault?) at 270 m lies above "Active Tuff" which includes: 0.34 % Zn over 2.0 m @ 280.0 m. 1748 ppm Zn over 2.1 m @ 296.0 m. 1403 ppm Zn over 2.0 m @ 320.0 m. Ba-rich cherts and argillite followed by 39.0 m of gabbro at bottom of hole. Cherty argillite includes:11,000 ppm Ba over 2.0 m at 388.0 m. VLF anomalies caused by faults. Pyrrhotite mineralization cause of VLF at 2+40S
CHEM87-35 Section 47+00E	CHIP 1 Claim (East) Grid: 47+00E; 1+83N Elev: 710m UTM: N 5,416,248 E 431,862	~-50/210 Az	359.1m	June 30/87 pm July 5/87 am	Define stratigraphy north of holes CHEM87-34 and 36.	Thick sucession of felsic tuffs with 44.9 m of felsic flow or dome? (183.8 to 227.7m) and minor mafic interbeds.
CHEM87-36 Section 47+00E	CHIP 1 Claim (East) Grid: 47+00E; 1+52S Elev: 640m UTH: N 5,415,970 E 432,200	-45/210 Az	257.6m	July 5/87 pm July 9/87 am	Test VLF enomaly at 2+40S and 2+80S. Test coincident, shallow and deep chargeability enomalies at 1+ 80S. Test coincident shallow and deep IP resistivity lows at 2+80S and 3+00S.	140 m felsic sucession including 4.2 m of semi - massive pyrrhotite-pyrite-chalcopyrite-sphalerite with 0.89 % Cu over 0.8 m 0 107.0 m corresponds to VLF anomaly at 2+405. Fulford Fault at 145.0 m with underlying 6.1 m of "Active Tuff" correlates with CHEM87-34 and weak chargeability anomaly and includes: 1900 ppm Zn over 1.3 m 0 150.7 m 1650 ppm Zn over 1.0 m 0 153.0 m 1228 ppm Zn over 1.8 m 0 155.0 m Bottom half of hole is mafic cherty tuffaceous sediments transitional into dark cherty argillite, as in CHEM87-34.

#### DESCRIPTION OF DRILLING RESULTS

#### General Statement

Drilling on the Chip 1 claim has outlined north-dipping volcanic stratigraphy along strike of Abermin Corporation's Coronation Deposit located 2 km southeast of the claim. A weakly mineralized zone was outlined along 400 m of strike on the east side of the Chip 1 claim.

A major north-dipping fault was encountered on every section drilled. This major structure divides the volcanic sequence into two blocks. It correlates with the Fulford Fault which is a north-dipping, over-steepened reverse fault with a west-northwest strike extending from Fulford Harbour on Saltspring Island along the entire Cowichan - Horne Lake Uplift. Abermin Corporation's Coronation Deposit lies within the hanging wall of this On the Chip 1 claim, however, the strongest fault. sulphide mineralization occurs in the footwall of the Volcaniclastic rocks from the north have been fault. thrust over Late Cretaceous Nanaimo Group sediments to the south along this fault between Lines 29+00E and 38+00E (in the centre of the Chip 1 claim). A north-dipping unconformity separates the Nanaimo sediments from volcaniclastics the south of the fault. Considerable relief is apparent along this conformity.

Sulphides are hosted by a belt of sericitic, felsic, ash to lapilli tuffs and flows collectively known as the "Active Tuff". The "Active Tuff" is characterised by high sericite content and 2 to 30% pyrite, high Ba levels (often 2,000 to 4,000 ppm), variably anomalous Au

levels of 50 to 300 ppb, and Na<sub>2</sub>O depletion. Cu, Pb, Zn and Aq mineralization may be locally present; chalcopyrite commonly is accompanied by trace amounts of pale green "Active mariposite (?). Where present, the Tuff" generally occurs immediately south of the Fulford Fault. The stratigraphic position of the "Active Tuff" appears to be adjacent to the mafic volcanic succession. In the central Chip 1 claim, the "Active Tuff" is partly to completely dyked out by one of several east-trending The "Active Tuff" appears to be continuous from gabbros. Line 45+00E to 49+00E and is at least 15 to 45 m wide. It 178 pyrite contains 5 to with weak base metal mineralization.

The mafic sequence which occurs immediately south of the "Active Tuff" between lines 34+00E and 40+00E is comprised of dark- to medium-green mafic ash to lapilli tuffs, flows and mafic tuffaceous sediments. Bedding is often present; occasional graded beds can be Most graded beds show tops to the south recognized. indicating that stratigraphy is overturned. The mafic tuffs and flows are often spotted with epidote patches 1 to 10 mm long and frequently contain up to 5% black, chloritized hornblende crystals (altered pyroxenes) 1 to 10 mm long. The sequence is about 115 m thick on the west side of Chip 1. The flows are massive with rare amygdaloidal sections. This mafic sequence is "dyked out" on line 43+00E and appears to pinch out into cherty argillites and siltstones farther to the east.

Few holes test the geology north of the Fulford Fault. In general, the felsic tuffs are weakly

chloritic and less sericitic than those south of the fault and they are complexly interbedded with minor mafic and intermediate tuffs.

distinctive, magnetite-bearing felsic flow Δ approximately 50 m thick is present on Line 47+00E (hole CHEM87-35). This flow is massive and contains up to 5% finely disseminated magnetite. Felsic lapilli tuff with clasts of pink-tinged flow material occurs immediately north and south of the flow. Pinkish tinged, magnetitebearing felsic tuffs were also noted 300 m to the east on section 43+00E (top of hole CHEM87-33).

The structure of the property is still not One major fault zone (Fulford Fault) has well understood. been recognized but numerous fault gouges in most of the holes indicate the abundance of splays and possible offsets. The lack of outcrop and ambiguous core axis angles often limit the reliability of dip measurements. Drill sections on the west side of the Chip 1 claim show that the stratigraphy south of the fault is overturned and dips at 50° to the north, whereas stratigraphy appears to dip 60° north, north of the Fulford Fault. On section 47+00E on the east side of Chip 1, the tuffs north of the fault dip 78° north.

A peculiar lithologic sequence was noted on sections 47+00E and 49+00E. The geology intersected by the two "fences" of drill holes (especially section 49+00E) indicates that in addition to the trace of the Fulford Fault, a shallow, south-dipping fault may be present but with small apparent displacement.

# Section 34+00E (Figure 5):

Hole CHEM87-22 intersected a 170 m succession of relatively barren felsic, intermediate and mafic tuffs followed by 20.6 m of gabbro. The Fulford Fault at 197.4 m has "thrust in" a panel of younger Nanaimo Group sediments unconformably overlying a gabbro intrusion at 261.8 m. This fault appears to dip about 65° north which, when projected to surface, correlates well with the axis of the VLF conductor.

The gabbro extends to a depth of 396.00 m and appears to have completely "dyked out" the "Active Tuff".

A sequence of mafic tuffs, flows and tuffaceous sediments occur beneath the gabbro. The hole ends in a massive hornblende-bearing flow at a depth of 474.6 m.

The broad resistivity low and the broad VLF conductor centred at 2+00S are probably explained by the black graphitic argillite of the Nanaimo Group.

# Section 36+00E (Figure 6)

Drill hole CHEM87-32 was collared in felsic tuff and intersected mainly barren felsic tuff above 289.6 m with minor intervals of chlorite schist and mafic flows, tuffs and sills. At 222.3 m, a graded bed of felsic quartz-feldspar crystal tuff fines to the north. The best assay sample is 0.5 m long, starts at 205.9 m with 4% pyrrhotite and 5% chalcopyrite assaying 1.62% Cu. The chargeability anomaly is centred IΡ on this weak zone.

The Fulford Fault, at 289.6 m, separates felsic tuffs from Nanaimo Group sediments. The Nanaimo

Group sediments consist of argillite, sandstone and conglomerate. The deep IP resistivity low is probably due to the graphitic Nanaimo argillite. The Nanaimo sediments rest unconformably on felsic tuffs at 322.8 m.

Pyritic felsic tuffs of the "Active Tuff" occur for 123.5 m below the unconformity. Core axis angles are low, indicating that the hole is sub-parallel to the weakly mineralized zone. Minor chalcopyrite, galena and traces of mariposite are locally present where pyrite reaches up to 8%. This unit is probably the source of the second IP chargeability anomaly centred at 2+40S. The entire unit contains anomalous amounts of Au. The longest continuous sample interval is 56.7 m (starting at 324.0 m) which averages 62 ppb Au. A 0.5 m sample taken at 416.4 m contains 2,731 ppm Cu and 2,900 ppm Ba. A 7.0 interval starting at 410.0 m and including m the previously mentioned sample contains 3,300 ppm Ba.

The hole ended in gabbro at a depth of 465.1 m.

# Section 38+00E (Figure 7):

A fence of two holes CHEM87-29 and 30 was drilled along section 38+00E. Hole CHEM87-30 at the north end of the section, intersected relatively barren felsic tuffs with minor mafic tuffs and flows to a depth of 247.7 These tuffs are sheared and contorted; fault gouges m. are common. Two major fault zones occur in this interval. One is at 42 m and corresponds to the VLF conductor at and other is at 150 m and does not 0+60N, have а geophysical expression. A graded bed at 93.7 m fines to Epidote-altered mafic flow occurs between the south. 247.7 and 274.1 m. Below 274.1 m, the hole intersects felsic to intermediate tuffs until it ends at a depth of 340.2 m. A major fault occurs just above the bottom of the hole, which may be a splay off the main Fulford Fault.

CHEM87-29 was collared in epidote-spotted mafic flows with minor mafic tuffs which extend to a depth of 84.9 m. They appear to correlate with epidote-altered mafic flows between 224.3 and 274.1 m in CHEM87-30 indicating that stratigraphy dips 53° north. Core axis angles, however, suggest steeper dips (75 to 80°) to the north.

Chloritic felsic tuff with less than 2% pyrite was intersected between 84.9 and 139.6 m. Numerous minor slips occur throughout this section. A major fault zone at 100 m correlates with the fault zone at the bottom of hole CHEM87-30 (splay from Fulford Fault). It dips 70° north and explains the VLF conductor at 1+60S.

The Fulford Fault at 143.7 m has "faulted in" younger Nanaimo Group sediments below older mafic tuffs. The fault correlates with the VLF conductor at 2+15S. The Nanaimo sediments consist of dark brown argillite with 2-38 very fine grained pyrite and a basal pebble conglomerate. Pebble conglomerate rests unconformably on mafic ash tuff at 156.6 m. The deep resistivity low is probably an expression of the graphitic Nanaimo argillite.

The "Active Tuff" has either pinched out or been completely eroded away on this section. Mafic ash tuff with minor mafic flows and occasional beds of cherty sediments less than 10 cm thick occur below the unconformity and continue to the end of the hole at a depth of 296.3 m. This mafic unit lies directly beneath the deep and shallow IP chargeability anomalies between 2+20S and 2+80S but the amount of contained sulphides encountered in the hole is insufficient to explain the chargeability anomalies.

# Section 40+00E (Figure 8):

Hole Chem87-31 began in barren chloritic tuff but quickly passed into a 92.3 m section of mafic tuffs and flows down to a depth of 118.4 m. The tuffs are medium- to dark-green, are often epidote-spotted and occasionally range into intermediate compositions. They lie 200 m east along strike of the epidote-spotted mafic flows encountered at the top of CHEM87-29 and in the middle of CHEM87-30 on Line 38+00E. The shallow TP chargeability anomaly at 0+40S and the deep IP chargeability anomaly at 1+25S are not explained by the The hole may have passed over top of the source to core. the anomalies.

Between 118.4 and 192.1 m a succession of barren felsic tuffs, usually quartz-eye bearing, contains several minor intervals of mafic to intermediate tuff. Α 175 m explains the VLF conductor at 1+80S. fault at Another fault at 192.1 m separates chloritic quartz-feldspar crystal tuff from massive gabbro below which extends down to 221.6 m.

The gabbro contains an 0.8 m wide inclusion of felsic ash tuff and is separated by the Fulford Fault from the "Active Tuff" below.

Pyritic sericitic, mostly quartz-eye bearing felsic tuffs make up the "Active Tuff" (between 221.6 and 239.7 m) which contains 1 to 10% pyrite and nil to trace chalcopyrite. The upper 6.5 m of the section contains 1,093 ppm Cu and 103 ppb Au. Mineralization occurs directly beneath the deep IP chargeability anomaly at 2+20S. The shallow IP anomaly at 2+50S is probably an updip expression of the same zone.

Below the "Active Tuff" the hole intersected a succession of mafic tuffs and flows to the end of the hole at 340.5 m. These mafic rocks differ from those found south of the "Active Tuff" in holes farther to the west in that the mafic rocks here contain trace to 3% disseminated ilmenite (average 0.95% TiO<sub>2</sub>)

A small section of altered quartz-eye bearing felsic ash tuff occurs between 249.3 and 250.0 m with 10% pyrite, 2% chalcopyrite and 1% galena. A 0.4 m sample of this tuff contains 0.59% Cu, 1.36% Pb, 134 g/t Ag and 4.77 g/t Au.

## Section 43+00E (Figure 9):

Drill hole CHEM87-33 was collared in a mottled pale salmon pink to green felsic tuff with traces of magnetite. The pink colouration is caused by hematization of the feldspars. This tuff is similar in appearance to magnetite-bearing felsic tuffs and flows in hole CHEM87-35 (163.9 and 250.9 m) on Line 47+00E. Magnetite-bearing tuffs (felsic and mafic) occur to a depth of 25.5 m. Chloritic felsic ash to lapilli tuffs with minor amounts of mafic ash tuff continue to a depth of 83.5 m.

Mafic ash tuffs and two feldspar porphyritic flows occur between 83.5 and 201.1 m. The feldspar porphyritic flows contain 2 to 3% leucoxene and may actually be gabbro sills. The flows contain an average of 1.89% TiO<sub>2</sub> While the tuffs average 0.70% TiO<sub>2</sub>. This mafic sequence is similar to the one near the top of CHEM87-31 (26.1 to 118.4 m) on Line 40+00E and in the CHEM86-16 (119.5 139.5 m) Line to on middle of 45+00E.

Felsic tuffs with less than 1% pyrite and minor (<1.0 m thick) sections of mafic ash tuffs occur from 202.1 m to 265.5 m. The tuffs are light green and weakly chloritic above 231.7 m. The Fulford Fault occurs at 226.7 m and explains the VLF conductor at station 2+00S. The tuffs below the fault may belong to the "Active Tuff" but are not strongly pyritic. The strongly pyritic portion of the "Active Tuff" at this locality may have been "dyked out" by gabbro which was intersected from 265.5 m to the end of the hole. An inclusion of felsic and mafic tuffs occurs in gabbro between 338.8 and 352.3 m.

# Section 47+00E (Figure 10):

This section of three holes along Line 47+00E includes the following drill holes from north to south; CHEM87-34, 35 and 36.

CHEM87-35 was set up at the north edge of the powerline clearing. It intersected a long sequence of relatively barren felsic tuffs and flows, occasionally intruded by mafic dykes, with minor amounts of mafic tuff. A massive felsic feldspar porphyritic flow which may be part of a felsic dome occurs between 183.8 and 243.8 m. It is intruded by two mafic dykes near its lower contact. The flow has a pinkish tinge similar to that in the upper part of hole CHEM87-33. It contains trace amounts of disseminated magnetite. Magnetite-bearing felsic crystal lapilli tuff with clasts of pinkish flow material occur immediately above and below the flow.

Mafic tuff and flow units alternate with thermal biotite-altered, quartz feldspar crystal tuff between 340.0 m and the end of the hole at 359.1 m. The hole ends in a massive mafic hornblende-bearing mafic flow.

CHEM87-34 was collared in a mafic flow and cut through barren felsic tuffs with minor mafic flows, tuffs and dykes to a depth of 169.7 m. A fault at 56 m explains the VLF anomaly at 0+90S. The sequence of mafic flows and tuffs between 63.0 and 74.6 m correlates with a similar sequence at the bottom of CHEM87-35 indicating dips of 80° north.

Mafic tuffs and flows. (some hornblendebearing), and minor felsic tuffs occur from 169.7 to 269.7 m. A narrow interval of felsic tuff with up to 15% chalcopyrite, 15% pyrrhotite and 12% pyrite occurs between 224.0 and 225.6 m. A 1.0 m sample from the top of the interval contains 0.69% Cu. A 0.2 m sample of the mafic This zone correlates in a ash tuff contains 0.76% Cu. structural sense with a similar zone between 103.6 and 107.8 in CHEM87-36, but in hole m CHEM87-36 the mineralization occurs within a thick sequence of felsic tuffs.

A fault at 271.0 m (Fulford Fault) separates mafic volcanics from felsic volcanics below and explains the VLF conductor at 2+80S.

Pyritic guartz-sericite schist ("Active Tuff") occurs from 271.0 to 324.8 m. The felsic schist contains 1 to 4% disseminated and banded pyrite. Generally the increases sulphide content downhole. This zone is probably responsible for the weak shallow and deep IP chargeability anomalies respectively centred at 2+80S and The best assay result from this unit it 1.0 m of 3+00S. 0.52% Zn starting at 280.0 m. The entire unit is slightly anomalous in Au (5 to 140 ppb). A similar but narrower

zone of pyritic, quartz-sericite schist occurs between 150.7 and 156.8 m in CHEM87-36. The quartz-sericite schist/gabbro contact appears to dip 83° to the south.

Massive fine- to coarse-grained gabbro with up to 5% ilmenite occurs from 324.8 to 365.8 m. The lower contact of the gabbro dips 73° north.

At the very bottom of this hole, cherty black argillite and siltstone with minor greywacke was A medium- to dark-green, intersected. fine-grained, peridotite intrudes the sediments between 380.6 altered and 385.4 m. This peridotite is identical to that intersected at the bottom of hole CHEM86-17. Cherty sediments above the peridotite contain trace to 58 fracture-controlled pyrite and an average of 3,400 ppm Ba. Below the peridotite, sediments contain an average 7,875 ppm Ba including a 2.0 m section averaging 1.1% Ba.

CHEM87-36 was collared in felsic feldspar crystal tuff. Felsic crystal tuffs with several gabbro intrusions extend to a depth of 140.6 m. This felsic succession does not correlate with the predominantly mafic rocks in hole CHEM87-34. A pyritic quartz-eye bearing tuff between 103.6 and 107.8 m contains an average of 5% pyrite, 2% pyrrhotite, trace to 2% chalcopyrite and nil to trace sphalerite. The bottom 0.8 m of the section contains up to 50% bedded pyrite with 2% chalcopyrite, and 10% pyrrhotite. A 0.8 m sample of this section assayed 0.89% Cu, 570 ppm Zn, and 55 ppb Au. This pyrrhotite mineralized horizon correlates with one between 224.0 and 225.6 m in CHEM87-34 (described above) and explains the VLF conductor at 2+40S indicating a dip of 67° north for the mineralization.

A thin, epidote-spotted andesite occurs below the felsic sequence to a depth of 144.7 m. The Fulford Fault from 144.7 to 150.7 m has truncated the andesite flow.

Pyritic quartz-sericite schist of the "Active Tuff" occurs below the Fulford Fault in the interval 150.7 to 156.8 m. It contains 2 to 7% disseminated and banded pyrite. A 6.1 m interval contains 1,126 ppm Zn, 52 ppb Au and 2,318 ppm Ba. This interval correlates with a similar but thicker section of pyritic quartz sericite schist in CHEM87-34. It is truncated by an 11.3 m long section of gabbro which may be part of a larger, irregular intrusion intersected by hole CHEM87-27, whose northern contact dips 83° south.

Mafic tuffaceous sediments below this gabbro are intruded by several thin gabbro dykes which may be part of the irregular gabbro body mentioned above.

Cherty argillaceous sediments were intersected at the bottom of the hole. A 2.4 m interval of these sediments contains 2,800 ppm Ba.

#### REFERENCES

- ENNS, S.G. 1987: 1986 Drilling Report on the Chemainus Joint Venture, Victoria Mining Division; Falconbridge Limited, unpublished report, 21 p.
- EVERETT, C.C. and COOPER, W.G. 1984: Geological, geochemical and geophysical report on Chemainus project, Victoria Mining Division; Esso Resources Canada Limited, unpublished report, 89 p.
- ISHIKAWA, Y., SAWAGUCHI, T., IWAYA, S., and HORIUCHI, M., 1976: Delineation of prospecting targets for Kuroko deposits based on modes of volcanism of underlying dacite and alteration haloes: Mining Geology, v. 26, p. 105-117 (in Japanese with English abs.)
- MALLALIEU, D.G., MONEY D.P., ENNS, S.G. and WHITING, C.P. 1987: 1986 Final Report on the Chemainus Project, NTS 92B/13 and 92C/16. Victoria Mining Division, Falconbridge Limited, unpublished report, 44 p.
- MULLER, J.E. 1980: The Paleozoic Sicker Group of Vancouver Island, British Columbia. Geological Survey of Canada Paper 79-30, 22 p.

CLAIMS:

CHIP86 GROUP: work performed on the Chip 1 and Chip 12Fr claims

MINING DIVISION: Victoria

NTS: 092B/13E

PERIOD OF WORK: May 24, 1987 to July 15, 1987

COSTS:

1. Personnel

D.Money, geologist 40 days @ \$115.00/day	\$4,600.00	
J.Pattison, geologist 40 days @ \$136.00/day	\$5,440.00	
T.Cowans, technician		
40 days @ \$96.50/day	\$3,680.00	
	\$13,720.00	\$13,720.00

2. Vehicle Costs

2 GMC 4x4 pickups		
2677 MK: 61 days @ \$30.00/day	\$1,830.00	
2678 MK: 61 days @ \$30.00/day	\$1,830.00	
Redhawk Rentals		
1 Toyota Landcruiser		
61 days @ \$35.00/day	\$2,135.00	
	\$5,795.00	\$5,795.00

3. Room and Board

120 man-days @ \$30.00/day

\$3,600.00

4. Diamond Drilling Costs Burwash Enterprises Ltd., Cobble Hill, B.C.

DDH CHEM87-22 (474.6 m)	\$25,224.88
DDH CHEM87-29 (296.3 m)	\$16,125.75
DDH CHEM87-30 (340.2 m)	\$17,773.18

		\$210,024.95
Sperry Sun Single S 2 months @ \$1575/mo	hot Rental nth	\$3,150.00
Core Boxes		\$3,902.81
Caterpillar Tractor 30 hours @ \$75.00/h	and operator r	\$2,250.00
	\$200,722.14	\$200,722.14
DDH CHEM87-36 (257.6 m)	\$15,588.45	
DDH CHEM87-35 (359.1 m)	\$23,632.49	
DDH CHEM87-34 (391.1 m)	\$22,509.94	
DDH CHEM87-33 (441.3 m)	\$32,804.57	
DDH CHEM87-32 (465.1 m)	\$27,758.10	
DDH CHEM87-31 (340.5 m)	\$19,304.78	

a. Base and Precious Metals

5

Bondar-Clegg and Company Ltd., Vancouver, B.C. Cu, Pb, Zn, Ag, Cd, Co, Mn, Fe, Ni, As, Mo, Au, Ba

214 samples @ \$20.00/sample \$4,280.00

b. Major Oxide Analyses

X-Ray Assay Laboratories, Don Mills, Ont.

469	samples	0	\$19.25/sample	\$8,065.75	
				\$12,345.75	\$12,345.75

\$210,024.95

# 6. Report Preparation

Drafting,	typing,	computer	use,	etc.	\$1,000.00
				TOTAL:	\$246,485.70

# \$111,200.00 to be applied as follows:

6 years to CHIP 1 6 years to CHIP 2 6 years to CHIP 3 6 years to CHIP 3 6 years to CHIP 4 6 years to CHIP 5 6 years to CHIP 7 6 years to CHIP 8 6 years to CHIP 11 5 years to CHIP 12 FR 5 tears to CHIP 13 FR

The balance to be applied to PAC as follows:

50% to Kidd Creek Mines Limited PAC account 50% to Esso Minerals Canada Limited PAC account.
# STATEMENT OF QUALIFICATIONS AND CERTIFICATION

I, Steve G. Enns, of North Vancouver, do hereby

certify that:

- I am a permanently employed geologist of Falconbridge Limited at 701-1281 West Georgia Street, Vancouver, B.C. V6E 3J7
- I have recieved my education as indicated: 1967 B.Sc. Honours Geology from University of Manitoba 1971 M.Sc. Economic Geology from University of Manitoba
- 3. Since graduation I have continuously practiced my profession in British Columbia, Alaska and the Yukon in the employment of various companies listed below: 1971 Cerro Mining of Canada Ltd. 1972 Hudson's Bay Oil and Gas Ltd. 1973-1975 BP Minerals of Canada Ltd. 1975-1979 BP Alaska Exploration Ltd. 1979-1981 Amax of Canada Ltd. 1982-1986 Kidd Creek Mines Ltd. 1986- Falconbridge Ltd.
- The information contained in this report is the result of work conducted by qualified geologists under my supervision and by myself. Individual qualifications are listed.
- 5. Kidd Creek Mines Ltd. (a wholly owned subsidiary of Falconbridge Limited) conducted the work as operator of the Joint Venture with Esso Minerals Canada Ltd. The expenditures accurately reflect the exploration costs.

Dated this <u>//</u> day of <u>December</u>, 1987 at Vancouver, B.C.

Steve G. Enns

Project Geologist

29

# STATEMENT OF QUALIFICATION

- I, John Pattison, of Burnaby, B.C. declare that:
- I am a geologist permanently employed with Falconbridge Limited, at 701-1281 West Georgia Street, Vancouver, B.C. V6E 3J7
- I am a graduate of the University of Toronto with a B.Sc. degree in geology (1983).
- 3. Since graduating, I have practiced my profession in Ontario, the Northwest Territories and British Columbia.

Dated at Vancouver, B.C. this 11 day of Jecent, 1987.

Μ. PATTISON

# STATEMENT OF QUALIFICATIONS

I, David P. Money, an employee of Falconbridge Limited, with offices at 701 - 1281 West Georgia Street, Vancouver, British Columbia, do hereby declare that:

- I am a graduate of the University of Toronto, Toronto, Ontario (1987) with a B.A.Sc. degree in Geological Engineering, Mineral Exploration Option.
- 2. For the past six years I have been actively involved in mineral exploration.
- 3. I am an Associate Member of the Geological Association of Canada.

Dated at Vancouver, B.C., this // R day of December, 1987.

Honey David P. Money

# APPENDIX A

DRILL LOGS AND SELECTED ANALYTICAL RESULTS

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 34+20 E 0+20 N

NTS: 9281	L3	UTM: 541670	)O N	430666	E
Azimuth:	210	Elevation:	555	n	
Dip:	-50	Length:	474	.6 m	

Started: MAY 24, 1987 Completed: 31-MAY-87

Purpose: To examine geology, test a deep, broad resistivity low between 1+00 S and 2+00 S and a VLF conductor between 1+40 S and 2+20 S.

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
57.00	207.0	-49.5	337.40	211.0	-47.0
127.10	207.0	-48.5	410.60	214.0	-46.0
233.50	209.0	-47.0	474.50	217.0	-46.0
282.50	209.0	-47.0			

From To

(m) (m)

.0 6.7 OVERBURDEN AND CASING

6.7 17.6 CHLORITIC INTERMEDIATE CRYSTAL TUFF

Fine-grained feldspar crystals quartz eyes 1 to 4mm < 5%. Locally.2 to.4 m wide crystal- rich tuff beds. Generally greenish-gray in colour. Locally lapilli-sized interval of felsic lapilli, 9.8 to 10.8m. Dark green chlorite-rich bands.1 to.2 m wide at 11.0 to 11.2m ;at 16.9 to 17.6m. Thermal biotite at 8.5 to 9.5m. Strongly foliated throughout 65 degrees to core axis at 7.4 m. 54 Degrees to core axis at 16.7 m. Quartz with minor white calcite bands 1 to 10 cm are locally present here and there between 9 and 15 m ;locally with chalcopyrite at 13.6 m. Shear zone at 14.5 to 15.0 45 degrees to core axis.

-DESCRIPTION-----

Lost core:30 cm at 14.7 m and 20 cm at 23.2 m.

39.0 FELSIC CRYSTAL TUFF 17.6 n/a 1180 Grey feldspar quartz sericite crystal unit. Variable proportions of AB15352 25 n/a 31.9 32.0 .1 20 n/a quartz feldspar and sericite. 5 to 10 % quartz crystals 2 to 10 mm. Unit becomes less sericitic and better sorted between 32.5 and 35.2 m. A few local 5 to 10 cm white quartz bands are present with strongly foliated sheared contacts. The interval is strongly foliated throughout parallel to bedding. BEDDING ANGLES. Bedding 35 degrees to core axis at 20.5 m.

HOLE No: Page Number CHEM87-22 1

Claim No. CHIP 1 Section No.: Line 34+00 E

Logged By: S. Enns and J. Pattison Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg & XRAL

Width

(m)

.1

Cu

(ppm)

17

Рb

n/a

Zn

89

(ppm) (ppm)

Au

n/a

λσ

n/a

(ppm)

Ba

662

(ppb) (ppm)

Core Size: NQ

Sample

No.

AB15351

From

(m)

7.3

To

(m)

7.4

## FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### From То (m) -----DESCRIPTION------(m)

Bedding 40 degrees to core axis at 31.8 m. Bedding 35 degrees to core axis at 33.8 m.

22.8 23.4 Small fault. Variable foliations and gouge zones present.

26.5 29.6 0.15 m of lost core.

33.5 33.9 Minor pyrite (<1%) as foliation parallel disseminations.

36.8 38.1 Fault zone. Gouge and breccia at 43 to 55 degrees to core axis. Strongly contorted to 38.6 m.

40.4 INTERMEDIATE CRYSTAL TUFF 39.0

> Dark grey chlorite rich , strongly foliated at 30 to 35 degrees to core axis. 2 to 3 % 2-4 mm quartz eyes and 10 to 12 % 1-4 mm feldspar crystals. Calcareous.

### 40.4 53.1 FELSIC LITHIC CRYSTAL TUFF

Hard siliceous rock criss-crossed by numerous 1-4 mm white quartz-carbonate veinlets. Many offsets. 1-4 cm white guartz masses. Generally massive grey appearance. Light grey cherty bands 4-10 mm wide at 75 degrees to core axis.

41.5 42.7 0.4 m of lost core.

50.0 52.3 Fault zone. Crushed locally gouge present. Fractured zone extends down to 53.0 m. Small faults (1 cm gouge zones) at 50.2 and 50.4 m at 20 to 30 degrees to core axis.

53.1 57.1 INTERMEDIATE CRYSTAL TUFF

Dark green chlorite rich and strongly foliated.

Epidote patches 1 to 2 cm @ 55 degrees to core axis.

Local bedding 30 degrees to core axis at 54.7m, and 30 degrees to core axis at 55.2m.

Locally 4 to 5% 3 to 5mm guartz crystal with variable chlorite in local sections.

Minor pyrite fractures parallel to foliation 1 to 2mm wide at 54 to 55 m with epidote guartz calcite alteration.

57.1 88.2 FELSIC CRYSTAL TUFF

White foliation guartz sericite crystal tuff. 5 to 6% 2 to 10 mm guartz. Strong foliation 25 degrees to core axis with weak banding pa

	AB19902	59.0	60.0	1.0	26	8	18	<1	<5	700	
	AB19903	60.0	61.0	1.0	5	67	43	<1	<5	840	
rallel	AB15354	60.5	60.6	.1	22	n/a	95	n/a	n/a	900	

48.3

#### AB15353 <5 1200 48.2 .1 6 10 19 <1

HOLE No: Page Number CHEM87-22 2

Sample.	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba	
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	

7

16

18

<1

<5

480

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba ) (ppm)	
		to foliation as bedding ? with disseminated fine-grained 1% pyrite.	AB19904	61.0	62.0	1.0	8	58	16	<1	<5	1000	
			AB19905	62.0	63.0	1.0	4	53	26	<1	<5	1000	
		FAULT GOUGE at 57.3 to 58.3 lost core.	AB19906	63.0	64.0	1.0	5	19	25	(1	<5	1000	
		Mafic dark green sills with epidotized feldspars and a few epidote	AB19907	64.0	65.0	1.0	5	23	29	(1	<5	950	
		clots 10 to 15mm wide with white guartz veinlets @ 65.2 to 66.1.	AB15355	72.3	72.4	.1	28	n/a	16	n/a	n/a	1480	

AB19908

79.0

80.0

1.0

66.2 to 66.4, 67.0 to 68.1 m. Unit is massive near top with moderate foliation and 12 to 15%, 2 to 6mm feldspar with indistinct crystals often completely epidotized and 5 to 7% 2 to 8mm rounded quartz eyes. Lower down at about 72m quartz increases and becomes coarser 7 to 10% 5 to 17mm accompanied with much higher sericite. At 72 to 76 m a stronger foliation is present.Interval becomes darker green gray at depth.

Core loss 0.2 m at 67.4 m. 0.1 M at 72.0 m. 0.5 M at 74.0 m. 0.7 M at 78.3 m.

Small shear 10 degrees to core axis at 74.0 m.

Less pyritic than above 65.2 m at about 0.5% disseminated pyrite as thin 1mm fracture fillings.

White quartz calcite chlorite masses with minor pyrite 76.7 to 79.2m

Blocky core 81 to 87m.

Rapid gradation to next ashy tuff unit below.

### 88.2 110.0 FELSIC ASH TUFF

Strongly foliated gray-green, fine-grained sericite rich rock with 1	AB19909	91.3	92.3	1.0	28	6	25	<1	<5	1200
to 2% 2 to 4mm scattered quartz crystals.	AB19910	97.0	98.0	1.0	29	9	36	<1	<5	970
	AB15356	98.1	98.2	.1	38	n/a	24	n/a	n/a	1070

Foliated 40 degrees to core axis with 92.4. 55 Degrees to core axis at 97.8.

Less than 1% pyrite fracture fillings parallel foliation ① 91.3 to 92.4m and 96.7 to 98.3m. Local siliceous sections show fine bedding 40 degrees to core axis at 93.0, 55 degrees to core axis at 98.0.

Small fault @ 93.6 to 94.5m and contorted foliations below fault.

Minor white 2 to 5cm guartz veins veins 90 to 96 m.

Below 109 m the unit is still felsic in composition but becomes steaky from presence of darker green 2 to 4mm chlorite feldspar bands, beds?. Banding 40 degrees to core axis at 100.7 m 54 degrees to core axis at 99.7 m.

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

4 

		Finish Print Boo										
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Small fault at 109.0 m.										
		Overall foliation parallel to pyrite with less than 1% chalcopyrite pyrite chlorite fracture fillings parallel to foliation at 108.8 m.	· ·									
		Blocky core 0.3m @ 105.5m. 0.5m @ 106.7m. 0.9m @ 108.5m. 0.2m @ 109.0m										
		0.2m • 107.0m.										
110.0	125.8	INTERMEDIATE CRYSTAL TUFF										
		Dark green streaky appearance. Conspicuous quartz sericite crystal tuff with 7 to 10% 2 to 8mm quartz from 112.2 to 112.8m with both contacts 55 degrees to core	AB15357 AB15358	113.2 121.3	113.3 121.4	.1 .1	19 24	n/a n/a	44 86	n/a n/a	n/a n/a	370 180
		15 to 20%, 2 to 8mm Feldspars. Bedding on compositional banding 53 degrees to core axis at 114.2. 50 Degrees to core axis at 123 to 124 m.		-					·			
		Transitional into coarse generally massive feldspar crystal tuff but banded in places. Bedding 5 to 15 cm, lighter calcareous beds 54 degrees to core axis at 115.3 50 degrees to core axis at 123.8. Pervasive epidote replaced feldspars.			·							
		Quartz chlorite pyrite chalcopyrite mass at 125.3 to 125.4.										
125.8	132.9	FELSIC CRYSTAL TUFF Massive dull white unit with 7 to 10% 2 to 8mm quartz in feldspar										
		Poor foliation 60 degrees to core axis 126 to 130 m. Vague bedding indicated by lighter coloured 5 to 10mm bands. Dark green 1 to 6 mm chlorite fragments.			·							
		Dark green chlorite rich sections 128.3 to 128.6, 130.9 to 131.3 m with white quartz calcite veinlets crisscross this interval. Pyrite chalcopyrite veins 5 to 10mm wide at 128.3 and 128.6m sill										
		margins;. Hematitic fractures 130.9 to 131.1m.										
132.9	145.6	MAFIC CRYSTAL TUFF Dark green relatively massive no bedding recognizable. Epidotized	AB15360	133.2	133.3	.1	63	n/a	73	n/a	n/a	410
		pervasive carbonatization. Nil to trace pyrite over most of the section. Foliation is at 65 degrees to core axis at 135.2 m. Upper and lower contacts are also at 65 degrees to core axis.			···• .,				ō	Q# # (1.2)		
		136.0 136.3 Hematite associated with carbonate veinlet.		-								

**PROPERTY: CHEMAINUS JV** HOLE No: Page Number FALCONBRIDGE LIMITED CHEM87-22 DIAMOND DRILL LOG From To Sample From То Width Cu Pb (m) (m) -----DESCRIPTION------No. (m) (m) (m) (maga) (ppm) (ppm) 139.6 143.0 FAULT ZONE ?. Abundant guartz carbonate veining (veins up to 20 cm thick parallel to foliation) and core is broken and rubbly from 139.6 to 140.3 m. 0.25 m of lost core between 139.3 m and 142.3 m. Two to 3 % pyrite between 140.9 and 142.4 m associated with guartz veining. Clay filled slip at 141.8 m at 30 degrees to core axis. 143.3 143.6 Zone of quartz carbonate veining at 55 to 60 degrees to

core axis. Trace pyrite.

145.6 148.1 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF

Pale green-grey with 1 to 10 % quartz eyes 2 to 4 mm in diameter and 5 to 20 % epidotized feldspar crystals 1 to 3 mm long in a fine-grained sericitic matrix. No bedding recognized. Foliation is at 50 degrees to core axis. Lower contact is at 50 degrees to core axis. Nil sulphides except for a 2 mm wide band of pyrite at 145.9 m at 68 degrees to core axis.

# 148.1 156.5 INTERMEDIATE FELDSPAR CRYSTAL TUFF

Dark green similiar to 132.9 to 145.6 m. Epidotized lapilli-sized feldspar crystals comprise 5 to 20 % of the rock. Occasional lapilli to block-sized lithic clast. Nil sulphides over most of the section. Bedding is at 50 degrees to core axis at 151.3 m. Broken core at the lower contact.

144.3 144.4 Bleached silicified zone with 10 % pyrite filling fractures at 50 to 80 degrees to core axis.

150.0 151.0 Moderate pervasive carbonate.

- 151.0 3 cm wide clay filled slip at 50 to degrees to core axis
- 151.0 151.3 Bed of felsic quartz feldspar crystal tuff at 50 degrees to core axis. Moderately carbonatized.
- 151.3 156.5 FAULT ZONE ?. Many clay-filled slips at 60 to 75 degrees to core axis. Moderately carbonatized and up to 5 % hematite disseminated and along foliation planes.
- 158.3 10 cm wide barren guartz carbonate vein at 60 to 80 degrees to core axis.

# 156.5 176.8 MIXED SHEARED ASH TO LAPILLI FELSIC TUFF

Pale to medium grn fine-grained and crushed with nil to 10 % 1 to 4 mm quartz eyes. Weakly chloritized and sericitized. Foliation at 158.5 m and at 162.1 m is at 60 degrees to core axis. Possible bedding plane at 163.7 m is at 60 degrees to core axis. Nil to 2 %

AB15362 148.3 148.4 135 n/a 80 830 . 1 n/a n/a

17

.1

n/a

13

n/a

AB15361 146.1 146.2

n/a 1200 AB15363 157.4 157.5 61 n/a 19 n/a .1 360 AB15364 167.5 167.6 .1 19 n/a 15 n/a n/a n/a n/a 1020 AB15365 169.5 169.6 .1 57 n/a 31 AB15366 176.2 176.3 52 20 n/a n/a 770 .1 n/a

λg

(ppm)

Ba

(ppb) (ppm)

n/a 1350

Au

5

Zn

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)		DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		fracture core axis.	ontrolled pyrite. Lower contact is also at 60 degrees to				·	×					
		157.2	Clay filled slip at 30 degrees to core axis.										
		163.7 168.0	Strongly crushed weak to moderate chloritization.										
		168.0 170.3	FAULT ZONE. Core is highly fractured high clay component. Strongly chloritized and numerous clay filled slips at 40 to degrees to core axis.										
176.8	197.4	FINE GRAINE Fine-graine feldspar ph and rubbly Foliation i	D GABBRO d dark green highly chloritic with less than 5 % enocrysts 1 to 3 mm in length. Core is generally broken over most of the section above 192.0 m (RQD > 12). s at about 50 degrees to core axis. Nil sulphides.	AB15367 AB15368	178.2 195.5	178.3 195.6	.1 .1	37 228	n/a n/a	82 104	n/a n/a	n/a n/a	100 290
		177.4 177.7	Abundant carbonate-quartz veins (about 50 % of rock) parallel to foliation at 50 degrees to core axis. Nil sulphides.							- :•	e a .		
		179.2 179.8	Broken rubbly core.										
		180.6 182.3	Blocky, highly fractured core.										
		182.9	Trace chalcopyrite along foliation planes.										
		183.7 188.0	3 mm wide clay filled slip at 20 degrees to core axis.										
		185.0	2 mm wide quartz veinlet with chalcopyrite at 35 degrees to core axis.						,				
		186.7 189.0	Blocky, highly fractured core.										
		190.2 190.5	Blocky, highly fractured core.										
		192.0	Clay-filled slip at 65 degrees to core axis.										
		193.0 193.5	Blocky, highly fractured core.		:								
		195.1	4 mm wide carbonate hematite vein at 40 degrees to core axis.										
		196.4 197.4	Moderate fracture controlled carbonate alteration.								'n		
197.4	198.2	FAULT ZONE Loosely con	solidated fault breccia with high clay component and a								,		

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- 1

CHEM87-22

moderate amount of carbonate. Upper and lower contacts are at 70

HOLE No: CHEM87-22	Page	Number 7	

From	To		Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)	(m)	DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

degrees to core axis.

### 198.2 218.3 DARK BROWN ARGILLITE

Dark brown very fine-grained and soft with slaty cleavage at 25 to 30 degrees to core axis. Relatively massive bedding rarely seen. Core is broken and crumbly above 209.0 m (RQD > 15). Bedding at 216.6 m is at 55 degrees to core axis. Lower contact is at 68 degrees to core axis.

200.7 1 cm wide clay filled slip at 80 degrees to core axis.

- 203.3 3 cm wide clay filled slip at 75 degrees to core axis.
- 206.3 206.4 Fault zone (?). Crushed with high clay component. The zone is at 60 degrees to core axis.
- 206.7 3 cm wide bed of greywacke at 55 degrees to core axis. Graded bedding fines downhole. A 1 X 4 cm clast of greywacke is 3 cm downhole from the greywacke bed.

213.4 213.7 Several round clasts of greywacke up to 4 cm in diameter

- 215.6 Bedding plane at 65 degrees to core axis.
- 216.3 218.3 Unsorted angular quartz granules and granule to pebble sized round lithic clasts comprise nil to 50 % of the rock.

# 218.3 231.3 GREYWACKE AND PEBBLE CONGLOMERATE

Grey fine-grained massive with 1 to 5 % black mud clasts up to 4 mm long and occasional pebble-sized lithic clasts. Beds of unsorted pebble conglomerate up to 30 cm thick comprise about 10 % of the unit. The pebble conglomerates are matrix supported and contain rounded pebbles of Myra Formation volcaniclastics (50-80%, some with quartz eyes and sulphides) feldspar phyric gabbro (<1-20%) mafic clasts (1-10%) and quartz pebbles (1-3%). Bedding is at 55 to 60 degrees to core axis. Lower contact is at 60 to degrees to core axis. Bedding is at 55 to 60 degrees to core axis. Lower contact is at 60 degrees to core axis.

### 231.3 261.8 COBBLE CONGLOMERATE

Medium green clast supported conglomerate composed of unsorted, rounded to angular pebble-sized clasts of feldspar phyric gabbro (70-80%), sediment sill sediments (nil-5%), Myra volcaniclastics (nil-30%) and quartz (nil-5%) in a matrix of greywacke. Below 256.4 m the matrix is composed mostly of quartz granules. Some Myra clasts contain disseminated sulphides (pyrite and chalcopyrite). Boulder-sized gabbro clasts are common below 255.0 m. Bedding is

From

(m)

To (m)

### FALCONBRIDGE LINITED DIAMOND DRILL LOG

DESCRIPTION	Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

at 68 degrees to core axis at 244.0 m. Occasional local quartz fracture filling. Lower contact is an unconformity at 30 degrees to core axis.

- 237.0 Bull guartz vein 3 to 7 cm thick at 90 degrees to core axis.
- 243.0 243.3 Fault breccia (?) at about 90 degrees to core axis. Angular pale brown clasts in a carbonate rich matrix.
- 243.3 244.0 Relatively clast free section.
- 252.4 253.0 Beds of greywacke with 5 to 10 % granular sized guartz and lithic clasts. Bedding is at about 70 degrees to core axis.
- 254.4 2.5 cm wide clast of felsic tuff with 1 % pyrite and chalcopyrite.
- 4.0 cm wide rounded clast of Myra felsic with 3 % pyrite 254.8 and 1 % chalcopyrite.
- 259.0 1.5 X 4.0 cm clast of felsic Myra tuff with 20 % pyrite.

### 261.8 396.0 FELDSPAR PHYRIC GABBRO

Massive dark green medium to coarse-grained sections 0.5 to 10.0 m long alternate with fine-grained sections 0.1 to 4.0 m long which are usually associated with guartz +/- carbonate veins. Fine-grained below 391.0 m. Feldspar phenocrysts 1 to 4 mm long comprise about 30 % of the rock. Nil to 5 % hematite as grains less than 2 mm in diameter and smeared along foliation planes. Foliation is at 50 degrees to core axis at 359.5 m. Nil to trace chalcopyrite most of which is in minor guartz-carbonate veins at 20 to 60 degrees to core axis. Lower contact is at 15 degrees to core axis.

- 263.7 264.2 Abundant guartz veining (<2 cm wide) and clotting at 20 degrees to core axis. Trace chalcopyrite.
- 266.3 266.6 Fine-grained section associated with a 1.0 cm wide barren guartz vein at 60 degrees to core axis. Weak fracture controlled epidotization.
- 268.7 268.9 Brown mafic dyke or carbonatized zone. Dark brown fine-grained feldspar phyric strong fracture controlled carbonatization. Sharp contacts. Runs almost parallel to the core axis.
- 271.1 271.2 Dark brown fine-grained mafic dyke at 39 degrees to core axis.

AB15369	263.3	263.4	.1	185	n/a	91	n/a	n/a	110
AB15370	287.4	287.5	.1	13	n/a	160	n/a	n/a	150
AB15371	308.4	308.5	.1	146	n/a	156	n/a	n/a	460
AB15372	315.4	315.5	.1	148	n/a	90	n/a	n/a	110
AB15373	349.6	349.7	.1	336	n/a	87	n/a	n/a	120
AB21551	363.0	364.0	1.0	78	12	84	<1	<5	160
AB21552	364.0	365.0	1.0	269	<5	119	<1	5	160
AB21553	365.0	366.0	1.0	57	<5	84	<1	5	50
AB21554	366.0	367.0	1.0	161	. 5	63	<1	<5	40
AB21555	367.0	368.0	1.0	336	<5	96	<1	<5	60
AB15374	369.2	369.3	.1	287	n/a	148	n/a	n/a	860
AB21556	377.0	378.0	1.0	252	5	98	<1	<5	140

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From	То		Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)	(m)	DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

278.1 278.2 Quartz vein 2 cm wide with trace chalcopyrite and a silicified halo which extends 5 cm from the vein.

281.5 281.8 Fine-grained section with 7 % hematite.

- 284.2 288.0 Fine-grained section. Abundant guartz-carbonate veining. Soft beige anhedral mineral occurs as spots less than 3 mm wide throughout the section and comprises less than 5 % of the rock. Quartz-carbonate-chlorite veins from 285.6 to 285.8 m and from 286.4 to 286.8 m at 40 to 80 degrees to core axis.
- 297.0 297.8 Moderate hematite alteration associated with carbonate veinlets at 40 to 80 degrees to core axis.
- 308.3 308.8 Mafic dyke (?). Dark brown fine-grained massive moderate fracture controlled carbonatization and 3 % fracture controlled pyrite. Sharp upper contact at 50 degrees to core axis and lower contact at 72 degrees to core axis.
- 330.0 1.0 cm wide quartz-carbonate vein at 30 degrees to core axis with trace chalcopyrite.
- 332.4 333.6 Barren quartz-carbonate vein at 30 degrees to core axis.
- 333.6 334.4 Abundant guartz-carbonate veins and pods at 30 degrees to core axis.
- 339.4 340.5 Moderate fracture controlled carbonate alteration. Carbonate filled hairline fractures at 30 to 40 to degrees to core axis.
- 352.2 Several blebs of chalcopyrite associated with minor guartz-carbonate veinlets at 58 degrees to core axis.
- 353.6 354.9 Weak fracture controlled carbonatization. Most fractures at 20 degrees to core axis.
- 362.9 368.0 Ouartz-carbonate veins 1.0 to 10.0 cm wide at 20 to 50 degrees to core axis comprise about 20 % of the section. The veins contain up to 2 % chalcopyrite.
- 368.1 369.9 Massive fine-grained dark grey brown mafic dyke. Upper contact is sharp and irregular at 40 degrees to core axis. The lower contact is sharp and irregular at 40 to 55 degrees to core axis. Inclusion (?) of gabbro from 369.4 to 369.7 m at 30 degrees to core axis.
- 371.0 371.2 Mafic dyke as 368.1 to 369.9 with 2 % fracture controlled pyrite. Upper contact is at 20 degrees to core axis and lower contact is at 40 to degrees to core

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# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

HOLE No: Page Number CHEM87-22 10

			DIRHORD DRING HOG										
From (m)	To (m)		DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
			axis.										
		375.6	Quartz vein 2.0 cm wide at 50 degrees to core axis with 1 % chalcopyrite.										
		377.2	0.8 X 0.8 cm wide patch of chalcopyrite and pyrite centred on a quartz clot of about the same size. Several nearby quartz-carbonate veins less than 1.0 cm wide at 20 to 30 degrees to core axis contain specks of chalcopyrite.			2							
		394.4 395.0	Moderate chloritization. Rock is strongly foliated. Foliation is at 20 degrees to core axis.										
		395.0 396.0	Moderate fracture controlled carbonatization at 30 degrees to core axis. Fault breccia at 40 degrees to core axis between 395.5 and 395.6 m.										
396.0	406.7	MIXED TUFFA Medium gree Generally m Lower conta BEDDING ANG 20 to 30 de 30 Degrees 48 Degrees 50 Degrees 40 Degrees	CEOUS SEDIMENTS n fine-grained with patchy thermal biotite alteration. afic to intermediate in composition. Nil sulphides. ct is at 20 degrees to core axis. LES:. grees to core axis at 396.9 m. to core axis at 397.8 m. to core axis at 398.7 m. to core axis at 400.1 m. to core axis at 403.5 m.	AB15375 AB15376	399.7 404.6	399.8 404.7	.1 .1	54 58	n/a n/a	59 30	n/a n/a	n/a n/a	1200 290
406.7	420.3	MASSIVE MAF Medium gree long in a c Finely diss and occurs (deuturic a magnetic. N	TC FLOW In fine-grained massive feldspar crystals less than 4 mm hloritic matrix comprise less than 5 % of the rock. eminated hematite (?) comprises about 5 % of the core in the centre of white specks less than 2 mm in diameter lteration of amphiboles ?). Rock is very weakly il sulphides. Lower contact is at 55 degrees to core axis	AB15377	413.9	414.0	.1	171	n/a	95	n/a	n/a	210
		421.1 421.6	Zone of moderate carbonatization and strong epidotization. Lower contact is at 40 degrees to core axis. Upper contact is indistinct.										
420.3	474.6	MASSIVE MAF As 406.7 to foliation p to 2 mm in hornblende	IC HORNBLENDE-BEARING FLOW 420.3 but has only trace hematite smeared along lanes and nil to 1 % hornblende as subhedral crystals up diameter above 428.0 m. Below 428.0 m up to 10 % crystals up to 4 mm in diameter. Nil to trace	AB15378 AB15379 AB15380 AB15381	428.6 438.3 456.3 467.2	428.7 438.4 456.4 467.3	.1 .1 .1 .1	75 78 217 235	n/a n/a n/a	84 64 61 57	n/a n/a n/a n/a	n/a n/a n/a n/a	460 350 159 196

# HOLE No: Page Number CHEM87-22 11

From	То		Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)	(m)	DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

disseminated chalcopyrite. Foliation is at 55 degrees to core axis at 445.5 and 452.6 m.

- 427.0 428.0 Moderate epidote alteration centred on carbonate veins up to 7.0 cm wide at 20 to 45 degrees to core axis.
- 430.3 433.3 Quartz-carbonate +/- epidote veins less than 1.0 cm wide at 50 degrees to core axis comprise about 5 % of the rock. Carbonate-hematite vein 0.5 cm wide at 80 degrees to core axis at 433.3 m.
- 443.1 5 mm wide carbonate-hematite vein at 80 degrees to core axis.
- 445.4 Carbonate-hematite vein 1.0 cm wide at 70 degrees to core axis.
- 446.5 Quartz-carbonate-hematite vein 5 mm wide at 50 to 60 degrees to core axis cross-cuts quartz-carbonate pods.
- 449.2 449.5 Fault breccia zone at 60 degrees to core axis. Angular clasts some of which are bleached in a quartz calcite matrix.
- 449.5 455.7 Randomly oriented quartz-carbonate +/- hematite filled fractures generally less than 1.0 cm wide comprise about 5 % of the rock. Minor fault breccia 3 cm wide at 70 degrees to core axis at 451.4 m. Rock is darker and more chloritic in this section.
- 471.2 Quartz-carbonate vein 5 mm wide at 50 degrees to core axis with several blebs of chalcopyrite.
- 473.2 473.3 Dark brown feldspar phyric dyke (?). Feldspars are less than 2 mm long and comprise about 4 % of the rock. 2 % finely disseminated pyrite. Contacts are sharp and irregular at 50 to 80 degrees to core axis.

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FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 38+00 E 0+88 S

NTS: 92B1	13	UTM: 5416425 N 430962 H	ŝ
Azimuth:	210	Elevation: 557 m	
Dip:	-50	Length: 296.3 m	

Started: 16-JUNE-87 Completed: 20-JUN-87

Purpose: To test VLF anomalies at 1+60 S and 2+15 S, a deep IP chargeability anomaly between 2+20 and 2+80 S and a deep IP resistivity low between 1+85 and 2+00 S.

DIP TESTS

	mach	DID	Length	muth	Dip
39.00 L48.40	205.0 208.0	-50.0 -48.0	224.60 282.50	210.0 211.0	-46.0 -45.0
	39.00 L48.40	39.00 205.0 148.40 208.0	39.00 205.0 -50.0 148.40 208.0 -48.0	39.00 205.0 -50.0 224.60   148.40 208.0 -48.0 282.50	39.00205.0-50.0224.60210.0148.40208.0-48.0282.50211.0

From	То		Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)	(m)	DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

### .0 12.2 OVERBURDEN AND CASING

12.2 84.9 EPIDOTE SPOTTED MAFIC FLOWS WITH MINOR MAFIC ASH TUFFS Dark green massive fine to medium-grained and spotty epidote alteration. Epidote spots (altered feldspars) are <1-3mm in diameter and comprise about 30 % of the rock. Occasional epidote-carbonate patches up to 10 cm wide with minor pyrite and sometimes chalcopyrite.

> Appears to be tuffaceous between 57.0 and 69.0 m. Rock has a vague banded appearance. Two block sized mafic clasts at 57.9 m. Core is broken and blocky for 4.7 m from the lower contact. The lower contact is at 50 degrees to core axis.

28.3 28.9 Blocky, highly fractured core. Rust along fractures.

- 29.5 31.0 2-3% pyrite and trace chalcopyrite associated with quartz-carbonate +/- epidote veins and clots up to 5 cm wide.
- 36.1 36.7 Broken rubbly core. Fractured surfaces are rusty.
- 62.0 64.5 INTERMEDIATE ASH TUFF epidote spots are rare and rock is intermediate in composition.
- 65.4 Vague banding (bedding?) at 45 degrees to core axis.
- 69.9 20 cm wide band of <1-3mm quartz filled amygdales at 40 degrees to core axis.
- 73.4 Minor slip at 70 degrees to core axis.

AD02401	24.2	24.3	.1	105	n/a	111	n/a	n/a	341
AD02402	51.3	51.4	.1	100	n/a	111	n/a	n/a	472
AD02403	63.7	63.8	.1	43	n/a	67	n/a	n/a	1170
AD02404	79.9	80.0	.1	152	n/a	115	n/a	n/a	108

Claim No. CHIP 1 Section No.: Line 31+00 East

Logged By: J. Pattison Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg & XRAL

Core Size: NQ

**PROPERTY: CHEMAINUS JV** HOLE No: Page Number FALCONBRIDGE LIMITED CHEM87-29 2 DIAMOND DRILL LOG To From Sample From To Width Cu Pb Zn Ag Au Ba (m) (m) -----DESCRIPTION------No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (ppm) 76.0 79.0 Minor hematite within carbonate veinlets and clots. 80.2 81.7 Blocky, highly fractured core. 0.7 m of lost core. 82.0 Flow contact (?) at 52 degrees to core axis. 82.6 84.9 Blocky, highly fractured core. 84.9 88.4 CHLORITIC FELSIC ASH TUFF Pale grey-green hard and siliceous. Chlorite occurs in spots and AD02405 85.7 85.8 .1 138 n/a 38 n/a n/a 1910 streaks. Core is broken and blocky over the entire section. 2 % disseminated and fracture controlled pyrite. Foliation is at 60 degrees to core axis at 87.6 m. Broken core at lower contact. 85.0 87.5 0.4 m of lost core. 87.1 15.0 cm wide fault gouge at about 5 degrees to core axis. 87.8 Minor slip at 60 degrees to core axis. 90.0 MAFIC DYKE 88.4 Massive dark grey-green and fine-grained. Moderate pervasive carbonate alteration. Broken and blocky core over the entire section 99.7 CHLORITIC FELSIC TUFF 90.0 Medium grey-green and well foliated. Foliation is contorted. AD02406 99.4 99.5 .1 99 n/a 33 n/a n/a 551 Locally quartz eye bearing. <1-3%, 1-4mm quartz eyes. Moderate spotty and pervasive chloritization and pervasive sericitization. 1-2 % disseminated and fracture controlled pyrite. Lower contact is sharp at 65 degrees to core axis. 92.4 1.5 cm wide clay filled slip at 50 degrees to core axis. 96.3 Minor slip at 50 degrees to core axis. 97.1 Minor slip at 30 degrees to core axis. 99.7 104.8 FAULT ZONE Loosely consolidated fault breccia comprised of broken and crushed felsic tuff fragments in a clay-rich matrix. Upper contact is at 70 degrees to core axis and lower contact is at 60 degrees to core axis.

LOST CORE INTERVALS:. 99.4-101.5 m 0.6 m of lost core.

103.1-104.2 m 0.9 m of lost core.

To

(m)

From

(m)

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

# HOLE No: Page Number CHEM87-29 3

Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)
AD02407	119.3	119.4	.1	37	n/a	65	n/a	n/a	1020
AD02408	131.7	131.8	.1	141	n/a	47	n/a	n/a	505

As 90.0 to 99.7 m. Numerous minor slips rock has crushed appearance above 108.0 m. Between 108.0 and 125.6 m sections of massive siliceous quartz crystal tuff (~ 5% of unit) alternate with sections of crushed felsic tuff. Below 125.6 m rock is crushed and occasionally mylonitic. Moderate to strong sericitization and weak spotty chloritization. Lower contact is gradational. Trace to 1% disseminated pyrite.

-----DESCRIPTION-----

104.8 107.0 Blocky, highly fractured core. Rock is crushed. Numerous slips at 50-60 degrees to core axis.

107.0 107.3 Fault at 5 degrees to core axis.

107.4 10 cm wide fault at 30 degrees to core axis.

110.0 Several minor slips at 80-90 degrees to core axis.

111.0 Minor slip at 78 degrees to core axis.

115.5 118.3 Blocky, highly fractured core. 0.5 m of lost core between 117.7 and 118.3 m.

118.8 2.0 cm wide clay-filled slip at 48 degrees to core axis.

119.9 121.0 Blocky, highly fractured core.

124.0 Strong foliation at 48 degrees to core axis.

124.0 124.4 Fault breccia at 40 degrees to core axis. Tightly packed clasts of felsic tuff <0.5 - 5.0 cm in diameter in a sericitic matrix.

125.6 126.1 Fault breccia. As 124.0 and 124.4 m except matrix is a soft black mud.

127.1 129.7 Fault breccia. Foliation is at 20-30 degrees to core axis

- 129.7 131.3 Intensely crushed zone. Rock is very soft and loosely consolidated.
- 130.6 132.1 Strongly chloritized zone or mafic dyke at 60 degrees to core axis. Fine-grained and dark green. Moderate hematization and weak fracture controlled quartz-carbonate alteration. Strongly crushed for 70 cm from upper contact.

132.8 133.8 Blocky, highly fractured core.

139.5 Minor slip at 25 degrees to core axis.

		DIAMOND DRILL LOG										
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba ) (ppm)
139.6	143.7	FELSIC LAPILLI TUFF Pale grey to pale green lapilli and occasional block-sized felsic clasts (5-15%) in a light grey sericitic matrix. Occasional pyrite clast. Foliation is at 30-35 degrees to core axis. Lower contact is a sharp fault at 60 degrees to core axis.	AE08600 AD02409 AE08651 AE08652 AE08653	139.6 141.0 141.1 142.0 143.0	140.6 141.1 142.0 143.0 143.7	1.0 .1 .9 1.0 .7	496 51 68 88 181	36 n/a 20 28 18	115 37 72 84 78	1 n/a <1 1 <1	15 n/a 5 5 5	1500 1820 1400 1300 2000
		SULPHIDES:. 139.6-142.0 M Nil-1% disseminated pyrite. 142.0-143.0 m 1-3 % disseminated pyrite. 143.0-143.7 m 5 % disseminated pyrite.										
		141.6 Clay-filled slip at 60 degrees to core axis. Rock is strongly crushed for 50 cm below the slip.										
143.7	155.6	DARK BROWN ARGILLITE Dark brown almost black and soft. Broken and blocky over the entire section. 2-3% very fine-grained pyrite. The pyrite occurs in clots <3 mm in diameter. Massive bedding not observed. Lower contact is sharp at 70 degrees to core axis.	AE08654	143.7	144.7	1.0	92	19	176	<1	<5	860
155.6	156.6	PEBBLE CONGLOMERATE Matrix supported, unsorted, angular quartz (50 %) fine-grained mafic material (30 %), gabbro (10 %) and assorted lithic (<10 %) clasts in a dark brown fine-grained matrix. Lower contact is sharp at 70 degrees to core axis. A slip at 90 degrees to core axis occurs 2.0 cm below the lower contact.										
156.6	285.0	MAFIC ASH TUFF Fine-grained medium green soft, crushed, sheared and strongly chloritic. The unit may include some minor flows. Foliation is at a very low angle to the core axis throughout the section (0-20 degrees to core axis ). Occasional bed (<2.0 cm thick) or clast of cherty grey-green sediment. Nil sulphides. Rock has a more sedimentary appearance below 207.0 m. Thermal biotite alteration is stronger and cherty sediment beds become more common and thicker (up 10.0 cm thick). The cherty beds sometimes contain trace to 1 % pyrite in hairline fractures. Broken core at lower contact.	AD02410 AD02411 AD02412 AD02413 AD02414 AE08655 AE08656 AE08657 AD02415	159.7 173.4 192.7 217.6 223.4 248.0 249.0 250.0 260.3	159.8 173.5 192.8 217.7 223.5 249.0 250.0 251.0 260.4	.1 .1 .1 1.0 1.0 1.0 .1	218 100 163 204 140 126 127 84 230	n/a n/a n/a 66 61 57 n/a	83 83 110 78 97 205 206 132 245	n/a n/a n/a <1 <1 <1 n/a	n/a n/a n/a (5 (5 n/a	601 869 1050 792 831 350 420 300 553
		CORE ANGLES:. Bedding is at 30 degrees to core axis at 164.5 m. Bedding is at 12 degrees to core axis at 169.1 m.										

HOLE No:

CHEM87-29

Page Number

4

Minor slip at 30 degrees to core axis at 169.4 m. Bedding is at 15 degrees to core axis at 175.7 m. Bedding is at 0 degrees to core axis at 179.3 m. Bedding (?) is at 40 degrees to core axis at 190.0 m. Bedding is at 17 degrees to core axis at 203.6 m.

Bedding is at 14 degrees to core axis at 207.0 m. Bedding is at 10 degrees to core axis at 209.4 m. Bedding is at 14 degrees to core axis at 209.7 m. Bedding is at 25 degrees to core axis at 217.0 m. Bedding is at 20 degrees to core axis at 218.0 m. Bedding is at 42 degrees to core axis at 224.3 m. Bedding is at 35 degrees to core axis at 225.9 m. Bedding is at 17 degrees to core axis at 230.0 m. Bedding is at 5 degrees to core axis at 231.0 m. Bedding is at 20 degrees to core axis at 244.0 m. Bedding is at 20 degrees to core axis at 248.5 m. Bedding is at 50 degrees to core axis at 255.4 m. Bedding is at 17 degrees to core axis at 265.0 m. Bedding is at 30 degrees to core axis at 265.2 m. Bedding is at 25 degrees to core axis at 266.8 m. Bedding is at 12 degrees to core axis at 267.6 m. Bedding is at 0 degrees to core axis at 268.5 m. Bedding is at 35 degrees to core axis at 282.8 m.

170.3 173.1 Blocky, highly fractured core.

173.1 174.3 Moderate pervasive thermal biotite alteration.

173.5 175.9 Blocky, highly fractured core.

178.3 180.1 About 0.9 m of EXCESS CORE.

187.7 209.0 Weak-nil thermal biotite alteration.

189.5 190.2 Blocky, highly fractured core.

194.3 Minor slip at 0 degrees to core axis.

195.4 195.7 Blocky, highly fractured core.

- 199.0 203.8 1.0 cm wide clay-filled slip at 0 degrees to core axis. Core is broken and blocky over most of this section.
- 208.1 208.7 0.5 cm wide clay-filled slip at 0 degrees to core axis. Core is broken and blocky.
- 209.0 Moderate to strong patchy thermal biotite alteration. Up to 10 % pale to dark green lapilli-sized clasts.

215.0 Several guartz eyes 3-4 mm in diameter.

231.9 233.5 Blocky, highly fractured core.

234.8 235.4 Blocky, highly fractured core.

240.3 240.8 Blocky, highly fractured core.

HOLE No: Page Number CHEM87-29 5

Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
No.	(m)	(m)	(m)	(mag)	(mpm)	(ppm)	(ppm)	(ppb)	(ppm)

# (

#### Page Number FALCONBRIDGE LIMITED CHEM87-29 6 DIAMOND DRILL LOG То Sample Width Cu Ba From From Pb То Zn Åα Au (m) (m) -----DESCRIPTION-----No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (ppm)

241.1 241.7 Minor slip at 5 degrees to core axis.

241.7 242.9 Blocky, highly fractured core.

245.4 246.3 Blocky, highly fractured core. 0.2 m of lost core between 244.4 and 246.0 m.

250.1 251.2 Blocky, highly fractured core.

252.4 255.4 Blocky, highly fractured core. 0.3 m of lost core between 252.4 and 253.3 m.

273.7 273.9 Blocky, highly fractured core.

- 274.3 275.6 Blocky, highly fractured core. 0.3 m of lost core between 273.4 and 275.5 m.
- 277.8 278.4 Bleached, quartz flooded fault breccia. Upper contact is at 12 degrees to core axis and lower contact is at 30 degrees to core axis.

285.0 296.3 MAFIC FLOW

Massive dark green and fine-grained. Nil-5 % chlorite-filled amygdales < 3 mm in diameter. Nil to trace disseminated chalcopyrite

n/a 401 AD02416 291.7 291.8 76 .1 242 n/a n/a

HOLE No:

#### HOLE No: Page Number CHEM87-30 1

# FALCONBRIDGE LIMITED

DIAMOND DRILL LOG

Hole Location: 38+05 E 1+22 N

NTS: 092/	'B13	UTM:	541660	)5 N	431100	Е
Azimuth:	210	Eleva	ation:	585	m	
Dip:	-50	Leng	th:	340	.2 m	

**PROPERTY:** Chemainus J.V. - Chip Claims

Started: June 17, 1987 Completed: June 21, 1987

Purpose: To test a VLF anomalies at 0+60 N and 1+60 S.

Claim No. CHIP 1 Section No.: 38+00 East

Logged By: David P. Money Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg and X-Ray Assay

Core Size: NQ

	-				DIP T	ESTS											
			Length	Azi- muth	Dip	Length	Azi- muth	Dip	)								
			102.40 203.00	209.0 212.0	-48.0 -48.0	256.00 340.20	212.0 213.0	-46.0 -46.0	)							,	
from (m)	To (m)		DESCRIPTION	4	<b></b>		S	ample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	9.1	OVERBURDEN AND CASING															
.1	40.0	INTERMEDIATE TO FELSIC QU Light grey to medium gree quartz eyes and 10 %, 1 moderately contorted and beds. The rock is oxidiz nil disseminated pyrite. from 39.4 to 39.6.	ARTZ EYE AND n tuff with o to 2 mm, felo hosts local o ed with minor There are 5	FELDSPA on avera ispar gr iust tu r rust , 0.5 to	R CRYSTAL 1 ge 5 %, 2 ains. The r ff beds and throughout 9 1.5 mm, py	CUFF to 3 mm, cock is l/or cherty and trace t write bands	AB AB AB	21636 21637 21638	13.3 25.1 38.4	13.4 25.2 38.5	.1 .1 .1	25 22 32	n/a n/a n/a	28 25 64	n/a n/a n/a	n/a n/a n/a	1090 1060 1510
		Foliations :. At 10.0 the foliation is At 20.8 the foliation is At 30.5 the foliation is At 38.5 the foliation is	at 27 degree: at 52 degree: at 60 degree: at 51 degree:	s to cor s to cor s to cor s to cor s to cor	e axis. e axis. e axis. e axis.												
		Bedding :. At 21.6 the bedding is at	52 degrees	to core	axis.												

AB21639

Rusty felsic tuff with guartz eyes, 2 to 3 %, 1 to 3 mm and no visible sulphides in a medium fine-grained greenish grey siliceous matrix. At 40.7 the foliation is at 65 degrees to core axis and the bedding is at 48 degrees to core axis.

42.1 46.0 FAULT ZONE

4

From 42.1 to 45.3 there is 0.8 m of lost core in a blocky, highly

n/a 1280 41.2 41.3 .1 23 n/a 17 n/a

HOLE No: **PROPERTY:** Chemainus J.V. - Chip Claims Page Number FALCONBRIDGE LIMITED CHEM87-30 2 DIAMOND DRILL LOG Sample Width Cu From То From To Pb Au Ba Zn Ag (m) -----DESCRIPTION------No. (m) (m) (m) (ppb) (ppm) (m) (mpm) (mgg) (mgg) (ppm) fractured core chloritic rock with a shear zone from 45.3 to 46.0. 59.7 ALTERED INTERMEDIATE CRYSTAL TUFF 46.0 Moderately sheared tuff, which is locally weakly to strongly AB21640 47.0 47.1 .1 52 n/a 49 n/a n/a 776 57.2 757 contorted and has been subjected to weak to moderate AB21641 57.1 .1 67 n/a 38 n/a n/a carbonatization and moderate to strong chloritization. The tuff hosts guartz eyes and feldspar grains and calcite occurs in the pressure shadow of the quartz eyes and as local fracture controlled veinlets. There are also minor contorted guartz veins. The unit is disky and medium green with chlorite bands. Foliations :. At 47.0 the foliation is at 55 degrees to core axis. At 49.4 the foliation is at 61 degrees to core axis. At 53.7 the foliation is at 71 degrees to core axis. At 56.9 the foliation is at 59 degrees to core axis. At 58.9 the foliation is at 55 degrees to core axis. 59.7 153.6 OUARTZ EYE BEARING FELSIC TUFF AB21642 n/a 1400 White to grey felsic quartz eye crystal tuff with minor dust or 64.2 64.4 .2 28 n/a 34 n/a fine-grained ash beds. The unit is sulphide poor with a pyrite cube 71.1 71.2 .1 18 46 n/a n/a 980 AB21643 n/a at 64.5 and trace disseminated pyrite locally after 98.2. The AB21644 88.7 88.8 39 n/a 100 n/a n/a 963 .1 depth of oxidation is to 63 m. There are numerous local faults and AB21645 97.2 97.3 .1 41 n/a 126 n/a n/a 880 shears, which are weakly to strongly contorted with orientations AB21646 114.5 114.6 .1 26 n/a 36 n/a n/a 755 of 0 to 90 degrees to core axis. AB21647 128.3 128.4 .1 23 n/a 61 n/a n/a 960 STRUCTURE :. Fault gouge :. 66.1 to 66.2. 79.2 to 80.0. 82.8 to 83.1. 131.7 to 134. 136.3 to 136.9. 139.4 to 140.2. 146.5 to 147.1. 147.5 to 153.6.

Blocky, highly fractured core :. 59.7 to 63.0. 66.0 to 68.5. 74.3 to 92.0. 103.0 to 111.8. 134.0 to 136.3.

Chloritic shear zones :. 96.3 to 96.5. 98.2 to 99.1. 107.6 to 108.0.

# **PROPERTY:** Chemainus J.V. - Chip Claims

HOLE No:	Page Number	
CHEM87-30	3	· · · · ·

DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)	

117.9 to 118.2. 123.3 to 123.7. 140.2 to 140.4. Locally minor between 142.3 and 146.5.

Locally minor between 142.3 and 140.3.

Lost core :.

0.1 M from 67.7 to 68.6. 2.0 M from 75.3 to 78.0. 0.2 M from 74.1 to 75.3. 0.3 M from 85.0 to 87.3. 0.15 M from 88.1 to 89.9. 0.1 M at 107.6. 1.0 M from 111.3 to 113.7.

Foliations :. At 60.0 the foliation is at 70 degrees to core axis. At 69.9 the foliation is at 35 degrees to core axis. At 80.5 the foliation is at 88 degrees to core axis. At 93.5 the foliation is at 55 degrees to core axis. At 96.2 the foliation is at 53 degrees to core axis. At 102.8 the foliation is at 56 degrees to core axis. At 116.0 the foliation is at 57 degrees to core axis. At 127.3 the foliation is at 55 degrees to core axis. At 138.0 the foliation is at approximately 60 degrees to core axis.

Bedding :.

At 93.7 the bedding is at 48 degrees to core axis. No other measurements were obtainable due to the deformed nature of the core.

Tops :.

A bedding at 93.7 indicates that tops is dowhhole.

### 153.6 164.0 MAFIC LAPILLI TUFF

Mafic to intermediate lapilli tuff with epidote lapilli and grains. The tuff is dark to medium green with minor local fault gouge, local quartz - carbonate veins and trace to nil disseminated pyrite and pyrite cubes. There are minor kinks and contortions with the foliation at 163.2 at 45 degrees to core axis and at 155.5 at 70 degrees to core axis. The bedding at 158.3 is at 52 degrees to core axis and at 162.2 it is at 54 degrees to core axis.

### 164.0 224.3 FELSIC TUFF

164.0 175.4 Felsic tuff with minor local intermediate zones. The tuff is white to medium grey - green in colour with epidote grains and trace lapilli. There are minor loca fault slips and quartz veins. From 166.4 to 166.5 there is fault gouge and shear.

isseminated pyrite ortions with the at 155.5 at 70 52 degrees to core s.					• .						
ate zones. The in colour with re are minor local 6.4 to 166.5	AB21649 AB21650 AB21651 AE08620 AE08621	167.3 181.4 195.6 199.5 201.0	167.4 181.5 195.7 201.0 201.7	.1 .1 1.5 .7	34 38 29 46 66	n/a n/a n/a 6 <5	14 17 <10 10 20	n/a n/a <1 <1	n/a n/a <5 <5	1060 1330 1430 1500 1300	

.1

154

n/a

80

n/a

n/a

85

AB21648 157.8 157.9

То

(m)

From

(m)

### PROPERTY: Chemainus J.V. - Chip Claims

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

### From To (m)

(m)

----DESCRIPTION-----

Redding :.

At 165.8 the bedding is at 65 degrees to core axis. At 169.1 the bedding is at 55 degrees to core axis. At 171.4 the bedding is at 60 degrees to core axis.

### Foliation :.

The foliation at 169 is at 54 degrees to core axis.

- 175.4 178.7 Sheared and contorted felsic tuff to sericite schist with local kinked zones and fault gouge. There is a chlorite shear over 5 cm at 177.7 with an orientation of 50 degrees to core axis.
- 178.7 215.2 Medium grey green to very light green white felsic tuff with minor intermediate tuff component locally. Siliceous rock with localized guartz eves and epidote grains. Hosts minor epidote - carbonate clots or lapilli with trace pyrite. The guartz eyes are locally up to 10 %, 1 to 4 mm, average 2 mm. From 201.0 to 201.7 there is 1 to 2 % fine-grained pyrite stringer with trace to 1 % pyrite locally on the margin of this zone. There are rhvolitic lapilli from 192.5 to 193.0. There is a epidote rich zone from 203 to 205, sediment enriched ?. From 182.4 to 185 there are black chlorite - carbonate cross-cutting 2 to 5 mm slips or shears at 20 to 25 degrees to core axis and minor slips and gouge also occur at 186.4, 187.6, 192.2, 193.4, and 193.6.

### Bedding :.

At 184.4 bedding is at 42 degrees to core axis. At 201.2 bedding is at 45 degrees to core axis.

Foliations :.

At 181.5 the foliation is 46 degrees to core axis. At 187.1 the foliation is 66 degrees to core axis. At 192.7 the foliation is 61 degrees to core axis. At 199.8 the foliation is 60 degrees to core axis. At 211.4 the foliation is 55 degrees to core axis.

215.2 224.3 Light green to grey felsic tuff with 5 % 1 to 4 mm guartz eves on average. Minor suggary white guartz veins, ie. 215.0 to 215.2 and there is a zone, 216.0 to 216.2 with minor chlorite. There are local epidote rich beds. There is trace to nil pyrite cubes. The unit terminates in a fault.

Foliations :. At 215.3 the foliation is 72 degrees to core axis. At 218.2 the foliation is 64 degrees to core axis. At 221.3 the foliation is 47 degrees to core axis.

	CHEM87-	30	4	· ·		
To	Width	Cu	Ph	Zn	Åα	Au

No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb	) (ppm)
AE08622	201.7	203.2	1.5	7	8	3	<1	۲5	1100
AB21652	205.4	205.5	.1	39	n/a	12	n/a	n/a	1020
AB21653	213.6	213.7	.1	51	n/a	12	n/a	n/a	1050
AB21654	218.2	218.3	.1	47	n/a	17	n/a	n/a	970

Sample From

# HOLE No: Page Number

Ba

		■ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								· •		
PI	ROPERTY	Y: Chemainus J.V Chip Claims FALCONBRIDGE LIMITED DIAMOND DRILL LOG				HOLE N CHEM87-	o: Pa 30	ge Numbo 5	er			
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		At 222.7 the foliation is 46 degrees to core axis.										
224.3	230.0	SHEARED FINE GRAINED MAFIC FLOW Fine-grained to medium grained locally moderately sheared mafic flow with epidote grains and crystals with trace quartz eyes. The rock is massive with no layering. There are local chlorite - carbonate veins and and a minor fault with clay at 229.9. The foliation at 227.8 is at 43 degrees to core axis.	AB21655	229.8	229.9	.1	252	n/a	89	n/a	- n/a	475
230.0	233.5	FELSIC CRYSTAL TUFF Light grey massive siliceous felsic tuff with 15 % crystals, epidote, feldspar and quartz eyes. There are local feldspar lath rich beds. Bedding appears to be sub-parallel to foliation. The foliation at 230.8 is at 43 degrees to core axis and the foliation at 232.9 is at 54 degrees to core axis. Nil to trace disseminated pyrite occurs.	AB21656	232.8	232.9	.1	40	n/a	24	n/a	n/a	1460
233.5	242.0	FELDSPAR PORPHYRITIC MAFIC FLOW Mafic flow with 20 to 30 %, approximately 1 mm, epidote to feldspar grains and trace quartz crystals. There are minor quartz veins and trace to nil disseminated pyrite. The foliation varies locally from 30 to 90 degrees to core axis.										
242.0	244.9	FELSIC TUFF Epidote crystal rich felsic tuff with large quartz eyes, up to 6 mm in diameter. There is a 15 cm chloritic shear zone at 244.1. The foliation at 243.4 is at 46 degrees to core axis.	AB21657	243.6	243.7	.1	41	n/a	25	n/a	n/a	1300
244.9	245.7	FELDSPAR PORPHYRITIC MAFIC FLOW As from 233.5 to 242.0.										
245.7	247.7	FELSIC TUFF As from 242.0 to 244.9.										
247.7	274.1	MAFIC FLOW										

Mafic flow rich in epidote grains, after feldspar crystals. Minor alteration zones with chlorite stringers. Local quartz - carbonate veins up to 10 cm wide occur, which host trace chalcopyrite blebs. There is local goethitic to hematitic staining in fractures or veinlets (?). At 253.6 there is minor chloritization with 2, 1 to 2 mm, fine-grained pyrite bands. The foliation varies locally from 20 to 90 degrees to core axis.

AB21658249.3249.4.1241n/a120n/an/a327AB21659264.3264.4.1178n/a119n/an/a545

**PROPERTY:** Chemainus J.V. - Chip Claims

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

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# From To (m) (m) -----DESCRIPTION-

274.1 279.3 MASSIVE FELSIC BLOCK TUFF Tuff breccia with epidote blocks. There are quartz - carbonate veins and veinlets with local trace pyrite and trace to nil chalcopyrite.

279.3 283.6 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Felsic to intermediate tuff with epidote grains and minor local quartz eyes. The rock is moderately sheared and epidotized. There are local quartz veins with chlorite margins. The foliation varies locally.

283.6 331.0 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Highly contorted and moderately sheared felsic to intermediate tuff with quartz eyes and minor chlorite shear zones, which host trace to 1 % pyrite. The foliation trend varies from 20 to 90 degrees to core axis. There are minor quartz - carbonate veins and local kink bands and minor local micro-faults.

STRUCTURE :.

Fault gouge :. 283.6 to 284.0. 286.2 to 286.4. 287.6 to 290.0. 290.7 to 291.9. 300.0 to 300.3. 303.2 to 303.3. 303.7 to 304.2.

Shear zones :. 284.0 to 284.4. 285.6 to 285.8.

Clay :. 293.8 to 294.0.

331.0 337.0 FAULT ZONE

Fault breccia with clasts of the underlying rhyolitic tuff.

337.0 340.2 FELSIC TUFF

Massive green felsic tuff or possibly (?) a flow with a cherty component and 3 % stretched epidote grains. Slightly banded with green and white bands/ beds (?). Trace disseminated pyrite occurs. There is 0.9 m of lost core from 337.1 to 340.2 and the core is moderately blocky. HOLE No: Page Number CHEM87-30 6

Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba	
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	

AB21660 339.5 339.7 .2 44 n/a 34 n/a n/a 153

# PROPERTY: Chemainus J.V. - Chip Claims

Ag

Au

(ppm) (ppb) (ppm)

Ba

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

HOLE No: Page Number CHEM87-30 7

From	To	DESCRIPTION	Sample	From	To	Width	Cu	Pb	Zn
(m)	(m)		No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)

. . .

### HOLE No: Page Number CHEM87-31 1

# PROPERTY: CHEMAINUS JV - Chip Claims

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 40+00 E 0+60 S

NTS: 92B1	.3	UTM:	541635	50 N	431138	Ε
Azimuth:	210	Eleva	ation:	570	m	
Dip:	-50	Leng	th:	340	.5 m	

Started: 21-JUNE-1987 Completed: 26-JUNE-1987

Purpose: To test a VLF conductor at 1+80 S, a shallow IP chargeability anomaly between 0+80 and 1+60 S, and an IP chargeability anomaly between 1+25 and 2+00 S.

DIP TESTS

Claim	No.	CHI	[P 1			
Sectio	on No	<b>.</b> :	Line	40+00	Е	

Logged By: J. Pattison Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg and XRAL

Core Size: NQ

		Azi- Length muth Dip	Length	Azi- muth	Dip									
		102.70 209.0 -50.0 191.10 209.0 -48.5	290.50 340.50	210.0 215.0	-48.5 -48.5									
From (m)	To (m)	DESCRIPTION		S	ample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)

### .0 10.7 OVERBURDEN AND CASING

10.7 26.1 CHLORITIC FELSIC TUFF

Light green fine-grained moderate chloritization and sericitization and well foliated. Generally an ash tuff but occasional lapilli-sized felsic clast. Nil to 5 % 2-4 mm quartz eyes. Locally intensely microfractured and brecciated. Microfractures are filled with sericite.

Below 21.0 m there are no quartz eyes. Rock varies from felsic to intermediate in composition, contains up to 25 % epidotized feldspar crystals and has a crushed almost mylonitic appearance. Nil-trace pyrite. Lower contact is at 40 degrees to core axis.

### CORE AXIS ANGLES:.

Foliation is at 40 degrees to core axis at 12.4 m. Foliation is at 50 degrees to core axis at 15.0 m. Bedding (?) is at 50 degrees to core axis at 16.5 m. Minor slip is at 60 degrees to core axis at 17.7 m. Foliation is at 40 degrees to core axis at 18.8 m. Foliation is at 45 degrees to core axis at 19.8 m. Foliation is at 44 degrees to core axis at 23.1 m.

11.8 12.2 Blocky, highly fractured core.

13.0 Intensely microfractured zone. Microfractures are filled with sericite.

# 17.4 20.4 0.2 m of lost core.

19.1 21.0 MAFIC DYKE (?). Strongly chloritic and carbonatized. Rock is dark green fine-grained and mafic in composition. AD02417 15.6 15.7 .1 33 n/a 13 n/a n/a 940

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

			DI	AMOND DRILL LOG										
From (m)	To (m)		DESCRIPTION		Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Broken con	e at upper and lower	contacts.			. *							
		20.2 23.0 Blocky, hi 20.4 and 2 not possil between 22	ghly fractured core. 22.6 m. Fault gouge at the to measure orienta 2.6 and 23.5.	0.4 m of lost core between 22.6 m. Core is broken tion. 0.3 M of lost core										
		24.2 24.3 MAFIC DYKE degrees to contact.	2 (?). Dark green fine o core axis. 1.0 cm wi	-grained massive at <b>40</b> de quartz vein at lower		n.,	×							
		24.7 24.8 Barren qua	artz vein at 60 degree	s to core axis.	•									
		24.8 25.2 MAFIC TUF	. Dark green mafic ep	idote spotted tuff.										
26.1	33.5	MAFIC ASH TUFF Dark green fine-gram diameter. Trace diss core axis at 31.0 m	ined and massive. Occa seminated pyrite. Bed . Lower contact is at	sional quartz eye 2-3 mm in ling is at 37 degrees to 55 degrees to core axis.	AD02418	31.8	31.9	.1	30	n/a	97	n/a	n/a	363
		29.3 29.9 Bleached of	uartz flooded zone at	50 degrees to core axis.										
		30.2 30.6 Blocky, h: planes.	ighly fractured core.	Hematite along foliation					,					
33.5	99.8	MAFIC TO INTERMEDIA Medium green relati lapilli-sized quart: spots (some are feint a chloritic matrix sections may be inter quartz porphyritic i Lower contact is at BEDDING ANGLES:. Bedding is at 60 deg Bedding (?) is at 44 Bedding is at 48 deg	TE ASH TUFF yely massive and epido z grains and 3-10 % as ldspar crystals and ot bominantly mafic in ermediate. Occasional felsic clast. Fractur 65 degrees to core ax grees to core axis at degrees to core axis at	te spotted. 5 % ash to h to lapilli-sized epidote hers are altered clasts) in composition but minor block-sized fine-grained e surfaces are often rusty. is. 36.8 m. at 69.5 m. 94.5 m.	AD02419 AD02420 AD02421 AE08624 AE08625 AE08626 AE08627 AD02423	34.8 45.8 54.3 75.4 85.7 86.7 86.7 88.7 93.8	34.9 45.9 54.4 75.5 86.7 87.7 88.7 88.7 88.7 93.9	.1 .1 .1 1.0 1.0 1.0 1.0	292 115 169 137 277 260 105 110 211	n/a n/a n/a 28 20 6 54 n/a	124 93 97 81 87 56 47 88 88	n/a n/a n/a <1 <1 <1 <1 <1 n/a	n/a n/a n/a <10 <5 5 n/a	521 313 323 1030 830 990 790 950 266
		SULPHIDES:. 40.5-41.8 m 2 % dis: 43.3-47.0 m 1-2 % di chalcopyrite at 35.4 80.0-89.0 m 1-2 % py +/- carbonate +/- ep pyrite.	seminated pyrite. Isseminated pyrite. No 4 m. Yrrhotite disseminated pidote veinlets and <u>1</u>	st as euhedral cubes. Trace and in clots and quartz -2 % fracture controlled										

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w.:

36.1 36.8 MAFIC LAPILLI TUFF. Quartz eyes are rare.

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140

n/a

From Sample To Width Cu Ba Pb Ag Zn Au No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (mgg)

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From To (m) (m)

67.7 86.0 Weak to moderate thermal biotite alteration.

71.3 71.9 Blocky, highly fractured core. Fractures are rusty.

-----DESCRIPTION------

75.1 76.8 Blocky, highly fractured core. Rusty fractures.

80.0 80.4 Blocky, highly fractured core. Rusty fractures.

85.1 86.0 Blocky, highly fractured core. 0.2 m of lost core.

86.9 87.5 FELSIC ASH TUFF. Fine-grained light grey siliceous and massive.

89.3 89.8 Blocky, highly fractured core.

90.0 91.8 Weak patchy thermal biotite alteration.

91.8 93.4 Moderate thermal biotite alteration. Quartz flooded between 92.6 and 92.8 m.

96.5 99.8 Weak patchy thermal biotite alteration.

### 99.8 103.4 FELDSPAR PORPHYRITIC MAFIC FLOW / GABBRO

Massive 1-5 %, 1-3 mm white feldspar laths in a fine-grained green chloritic matrix. Trace disseminated pyrite and pyrrhotite. Occasional quartz +/- carbonate vein < 1.0 cm wide with trace pyrrhotite and pyrite. Lower contact is at 34 degrees to core axis.

### 103.4 114.0 MAFIC TO INTERMEDIATE ASH TUFF

Medium green and epidote spotted. Similiar to 33.5 to 99.8 m except this unit contains beds of cherty pale green to brown tuffaceous sediments up to 15.0 cm thick which contain up to 5 % fracture controlled pyrite. Weak thermal biotite alteration gives rock a banded appearance. Lower contact is at 70 degrees to core axis.

### BEDDING ANGLES:.

Bedding is at 33 degrees to core axis at 103.4 m. Bedding is at 45 degrees to core axis at 104.9 m. Bedding is at 37 degrees to core axis at 108.5 m.

103.4 104.1 Blocky, highly fractured core.

106.6 106.9 Blocky, highly fractured core.

n/a

124

n/a

311

.1

AD02424 102.6 102.7

AD02425 108.9 109.0 .1 192 n/a 151 n/a n/a 369

<sup>87.7 88.7</sup> Numerous (~25 % of the sec). Unoriented quartz +/carbonate +/- epidote veins and pods <3.0 cm wide. 3 % pyrrhotite and 1 % pyrite mostly in veins.

From

(m)

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

### Sample Width Cu To From To Pb Zn λα -----DESCRIPTION------No. (m) (m) (m) (m) (ppm) (mgg) (mgg) (ppm) 109.9 110.2 Blocky, highly fractured core. 0.2 m of lost core between 108.8 and 111.9 m. 111.9 112.5 Blocky, highly fractured core. 112.5 112.7 2 % pyrite 2 % pyrrhotite and trace chalcopyrite concentrated in microfractures. 114.0 118.4 FELDSPAR PORPHYRITIC MAFIC FLOW / GABBRO As 99.8 to 103.4. Trace disseminated pyrite. Lower contact is at AD02426 116.8 116.9 .1 271 n/a 155 n/a about 45 degrees to core axis. 118.4 129.6 ALTERED FELSIC ASH TUFF Light grey to green-grey fine-grained and well foliated (foliation AD02427 120.2 120.3 .1 60 32 n/a n/a is sometimes kinked). Core is broken and blocky over the entire section. Moderately sericitized above 120.2 m. Sericite-filled microfractures are common. Becomes moderately chloritized below 120.2 m. Chlorite tends to occur in discrete streaks and bands .1-3

121.6 128.6 Poker chip core.

core at lower contact.

FOLIATION ANGLES: .

124.9 128.0 3-10 % lapilli-sized felsic clasts and rare chloritic lapilli-sized clasts.

mm wide parallel to foliation. Moderate pervasive carbonatization between 121.6 and 125.0 m. Nil-trace disseminated pyrite. Broken

127.4 128.6 0.6 m of lost core.

### 129.6 139.7 QUARTZ EYE BEARING FELSIC TUFF

Medium grey fine-grained moderately sericitic and weakly chloritic. 6 % clear 1-4 mm guartz eyes stretched slightly parallel to foliation. Below 137.2 m quartz eyes are <1.5 mm in diameter and comprise < 1 % of the rock. Core is broken and blocky over the entire section. Trace disseminated pyrite. Fault at lower contact.

### FOLIATION ANGLES:.

Foliation is at 60 degrees to core axis at 131.1 m. Foliation is at 70 degrees to core axis at 133.0 m. Foliation is at 68 degrees to core axis at 137.1 m. Foliation is at 67 degrees to core axis at 138.1 m.

Foliation is at 50 degrees to core axis at 118.9 m. Foliation is at 47 degrees to core axis at 119.7 m. Foliation is at 53 degrees to core axis at 122.0 m. Foliation is at 57 degrees to core axis at 124.7 m. Foliation is at 60 degrees to core axis at 128.6 m.

> AD02428 131.1 131.2 .1 50 81 n/a n/a 1140 n/a

Au

n/a

n/a

Ba

65

957

(ppb) (ppm)

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Pl	ROPERTY	: CHEMAINUS	JV FALCONBRIDGE LIMITED DIAMOND DRILL LOG				HOLE N Chem87-	o: Pag 31	ge Numb 5	er			
From (m)	To (m)	· –	DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		138.6 138.7	Two minor slips at 40 and 75 degrees to core axis.										
		139.4 139.7	Fault gouge. Loosely consolidated fault breccia. Rock is soft and clay-rich. Not possible to measure the orientation of the fault. 0.2 m of lost core between 139.3 and 142.3 m.										
139.7	145.4	MAFIC TO INT Medium green often kinked sulphides. F Minor slip a lower contac	ERMEDIATE ASH TUFF massive fine-grained and well foliated. Foliation is . Moderate to strong pervasive carbonatization. Nil oliation is at 51 degrees to core axis at 142.2 m. t 60 degrees to core axis at 144.3 m. Ground core at t.	AD02429	140.8	140.9	.1	425	n/a	93	n/a	n/a	271
145.4	145.8	QUARTZ EYE E As 129.6 to contact is s	EARING FELSIC TUFF 139.7. 5 % 1-4 mm quartz eyes. Nil sulphides. Lower harp at 65 degrees to core axis.		, , ,								
145.8	147.8	MAFIC TO INT Similiar to and contorte sharp at 68	ERMEDIATE ASH TUFF 139.7 to 145.4 m. Strongly deformed foliation is kinked d. Moderate pervasive carbonatization. Lower contact is degrees to core axis.	AD02430	147.6	147.7	.1	182	n/a	132	n/a	n/a	762
147.8	153.8	QUARTZ EYE E Felsic tuff m. Up to 7 contorted fo throughout t sulphides. Mafic tuff o contact is a	EARING FELSIC TUFF accounts for 70 % of the unit and is as 129.6 to 139.7 % 1-6 mm quartz eyes. Strongly crushed. Foliation is or 0.6 m from upper contact. Foliation is contorted he unit. Weak to moderate pervasive chloritization. Nil occurs in 3 beds at 60-70 degrees to core axis. Lower at 55 degrees to core axis.	AD02431	150.7	150.8	.1	35	n/a	72	n/a	n/a	848
		FOLIATION AN Foliation is Foliation is	GLES:. at 68 degrees to core axis at 148.2 m. at 60 degrees to core axis at 150.6 m.		:								
		149.0	Clay-filled slip at 65 degrees to core axis.										
		149.4	Clay-filled slip at 45 degrees to core axis.										
		150.8 151.5	Bed of CARBONATIZED MAFIC TUFF at 33 degrees to core axis. As 145.8 to 147.8 m. Drag structures along the upper and lower bedding contacts.	• • •	. <i>1</i>	ي من م ر							
		152.1	Minor slip at 53 degrees to core axis.										
# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)		DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		152.3	3.0 cm wide bed of MAFIC ASH TUFF at 70 degrees to core axis.										
		152.6 152.7	Lapilli to block-sized felsic fragments.										
		152.7 153.4	Carbonatized, crushed MAFIC ASH TUFF bed at 60 degrees to core axis. Minor slip at 60 degrees to core axis at 153.1 m and another at 50 degrees to core axis at 153.2 m										
		153.5 153.8	FAULT GOUGE. Medium green to grey loosely consolidated clay-rich fault breccia at 55 degrees to core axis.										
153.8	160.3	MASSIVE SIL Mottled aph chloritizat Locally up pyrite and Broken core	ICEOUS FELSIC TUFF/FLOW yric very hard siliceous and microfractured. Weak spotty ion. Core is broken and blocky over the entire section. to 5 % 1-2 mm epidotized feldspar crystals. Trace-1% nil-trace chalcopyrite concentrated in microfractures. at lower contact.	AD02432	153.9	154.0	.1	30	n/a	14	n/a	n/a	868
		154.5 156.1	0.6 m of lost core. Fault gouge 3.0 cm wide at 30 degrees to core axis at 156.0 m.		2								
		157.0	Slip at 30 degrees to core axis.										
		157.0 158.3	Many slips at 50-60 degrees to core axis. Rock is crushed and the core is rubbly.										
		158.2 159.1	0.3 m of lost core.										
		158.3 158.8	Weak thermal biotite alteration.										
		158.8 160.3	Moderate sericitization.										
		160.0	Lapilli-sized felsic fragments.										
160.3	165.8	THERMAL BIC SEDIMENTS	TITE ALTERED FELSIC ASH TUFFS AND CHERTY ARGILLACEOUS										
		Grey-brown, chloritized thick secti sediments w 0.5 cm wide entire sect from 0-50 d	moderately sericitized and weakly to moderately tellific ash tuffs (85 % of the unit) with 1.0 to 10.0 cm ons of medium grey cherty fine bedded to laminated with occasional clasts of black cherty argillite up to and 4.0 cm long. Core is broken and and blocky over the tion. Rock has a crushed texture and foliation varies legrees to core axis. Lower contact is arbitrary.	AD02433 AD02434	161.1 164.0	161.2 164.1	.1 .1	39 69	n/a n/a	56 20	n/a n/a	n/a n/a	1430 977
		BEDDING ANG Bedding is Bedding is Bedding is	LES:. at 65 degrees to core axis at 161.7 m. at 40 degrees to core axis at 164.9 m. at 65 degrees to core axis at 165.6 m.										

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From

(m)

To

(m)

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Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

161.7 5.0 cm wide bed of argillaceous sediments at 65 degrees to core axis.

-----DESCRIPTION------

162.7 Slip at 0 degrees to core axis.

162.8 0.5 cm wide clay-filled slip at 47 degrees to core axis.

- 163.1 163.5 40.0 cm wide bed of cherty argillaceous sediments. Broken core at upper and lower contacts. Bedding is at 55 degrees to core axis. 1-2 % disseminated pyrite.
- 164.0 164.2 Cherty argillaceous sediments. Bedding is contorted. Broken core at upper and lower contacts.
- 165.0 Bedded argillaceous cherty sediments. Beds are 2-5 mm wide and are contorted (15-50 degrees to core axis ).

165.8 176.0 FELSIC ASH TUFF

Light grey and fine-grained. Moderate thermal biotite alteration above 169.0 m. Moderately sericitized over most of the section. Weak to moderate patchy chloritization above 169.0 m. Up to 10 % altered feldspar crystals in less sericitized sections. Rock has a crushed appearance and foliation is contorted over most of the section. 1-5 %, 1-3 mm quartz eyes between 174.7 and 175.5 m. Lower contact is a fault at 45 degrees to core axis.

FOLIATION ANGLES:.

Foliation is at 10 degrees to core axis at 166.4 m. Foliation is at 45 degrees to core axis at 166.7 m. 1.0 Cm wide fault gouge is at 30 degrees to core axis at 168.4 m. Foliation is at 30 degrees to core axis at 171.4 m. Foliation is at 30 degrees to core axis at 172.0 m.

168.6 168.8 Blocky, highly fractured core.

169.7 170.0 Fault gouge at 20 degrees to core axis. Core is broken blocky and crushed.

170.5 Minor slip at 15 degrees to core axis.

170.6 171.6 Blocky, highly fractured core.

172.2 Minor slip at 25 degrees to core axis.

173.3 174.0 Blocky, highly fractured core. 0.5 m of lost core between 169.8 and 173.1. 0.1 m of lost core between 173.1 and 173.4. 0.3 m of lost core between 173.4 and 174.0.

AD02435	171.5	171.6	.1	41	n/a	20	n/a	n/a	1320
*******	*****	- · · · ·	• •	· · · · · · · · · · · · · · · · · · ·	44/ 14	~ ~	**/ **		

PROPERTY: CHEMAINUS JV HOLE No: Page Number FALCONBRIDGE LIMITED CHEM87-31 8 DIAMOND DRILL LOG Sample From Width Cu Pb Ba То То Zn Au From Aα ----DESCRIPTION------(m) (m) No. (m) (m) (m) (nom) (mag) (mag) (ppm) (ppb) (ppm) 174.8 175.6 Blocky, highly fractured core. 0.3 m of lost core between 174.0 and 175.6 m. 176.0 178.3 MASSIVE CARBONATIZED MAFIC FLOW/INTRUSION Massive fine-grained dark green. Moderate to strong fracture AD02436 177.0 177.1 .1 530 n/a 131 n/a 205 n/a controlled and pervasive carbonatization. Locally core is speckled  $(\langle 3\% \rangle)$  with a beige alteration mineral (probably a carbonate). Moderate fracture controlled hematization. Hematite is often associated with carbonate veinlets. Core is broken and blocky over most of the section. Broken core at lower contact. 178.3 179.7 CHLORITIC FELSIC ASH TUFF Pale grev-green hard siliceous and microfractured. Weakly AD02437 179.4 179.5 .1 69 n/a n/a 1380 26 n/a chloritized (microfracture controlled). Foliation is at a low angle to the core axis (< 20 degrees). Lower contact is a chloritic slip at 55 degrees to core axis. 178.9 179.1 Slip at 20 degrees to core axis. 179.7 180.8 LITHIC LAPILLI TUFF 1-3 % lapilli-sized felsic and cherty sedimentary lithic fragments in a felsic to intermediate matrix of guartz chlorite biotite and carbonate. Core is broken and blocky over most of the section. 0.4 m of lost core between 178.3 to 180.4 m. Trace disseminated pyrite. Lower contact is a slip at 60-70 degrees to core axis. 180.8 2 X 5 cm clast of felsic guartz eye tuff with 4 % fracture controlled pyrite. 180.8 183.8 MASSIVE MAFIC ASH TUFF 592 As 176.0 to 178.3 but only weak fracture controlled carbonatization AD02438 183.3 183.4 .1 129 n/a 115 n/a n/a and rare <2 mm guartz eves. Core is broken and blocky over most of the section. Lower contact is sharp at 65 degrees to core axis. 183.8 192.1 CHLORITIC QUARTZ-FELDSPAR CRYSTAL TUFF Grey-green, 5-7 %, 1-4 mm quartz and feldspar crystals in a 46 n/a 822 AD02439 185.0 185.1 42 n/a .1 n/a fine-grained to aphyric siliceous matrix. Weakly to moderately sericitic. Weak thermal biotite alteration. Occasional brown lapilli-sized lithic clast. Trace disseminated pyrite. Broken core (fault) at lower contact. 190.4 Slip at 15 degrees to core axis. 1904.0 192.0 Blocky, highly fractured core. 0.2 m of lost core

between 191.1 and 192.0 m.

From

(m)

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### Width Sample From To Cu Pb Zn То (m) (ppm) (m) -DESCRIPTION-No. (m) (m) (ppm) (ppm) 192.1 203.9 GABBRO ? Medium green medium-grained and massive. About 2-5 % ilmenite most AD02440 199.0 199.1 .1 252 n/a 112 of which has altered to leucoxene. Fine-grained for 0.5 m from the upper contact and for 1.0 m f controlled carbonatization an sulphides. Lower contact is a 194.5 195.7 Blocky, highly fr 197.9 198.1 Blocky, highly fr

between 197.2 and

199.7 200.3 Blocky, highly fr between 198.1 and

203.9 204.7 MASSIVE SILICEOUS FELSIC ASH

Massive hard siliceous, mott %) 1-3 mm feldspar crystals. degrees to core axis.

204.2 Slip at 65 degree

204.7 221.6 GABBRO ?

Massive dark green medium to from the upper contact. 2-3% leucoxene. Similiar to 192.1at 55 degrees to core axis.

213.1 213.5 Moderate pervasi

#### 221.6 229.1 SERICITIC FELSIC TUFF

Light grey fine-grained and fracture filled with black ma <1-5 % lapilli-sized felsic 223.2 m. <5 %, 1-2 mm felds 48 degrees to core axis.

#### FOLIATION ANGLES:.

Foliation is at 50 degrees t Foliation is at 20 degrees t Foliation is at 20 degrees to Foliation is at 20 degrees t Foliation is at 30 degrees to core axis at 228.6 m.

#### SULPHIDES:.

221.6-222.6 m 3-5 % pyrite in 1-3 mm bands parallel to foliation and in 2-5 mm long spots stretched parallel to foliation.

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Aσ

(ppm)

n/a

Ba

(ppb) (ppm)

131

Au

n/a

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rom the lower contact. Weak fracture nd moderate hematization. Nil at 70-80 degrees to core axis.										
ractured core. 0.5 m of lost core.										
reaturad area 0.2 m of lost area										
1 198.1 m.										
ractured core. 0.1 m of lost core 1 200.3 m.							-			
. *										
TUFF										
led and microfractured. Occasional (<1 . Nil sulphides. Lower contact is at 15	AD02441	204.3	204.4	.1	39	n/a	35	n/a	n/a	624
es to core axis.										
fine-grained. Biotite rich for 10.0 cm ilmenite most has been altered to -203.9 m. Lower contact is a fault gouge	AD02442 AE08658	214.3 220.6	214.4 221.6	.1 1.0	172 206	n/a 8	91 77	n/a <1	n/a <5	102 180
ve carbonatization.										
well foliated. Occasional hairline	AE08659	221.6	222.6	1.0	400	86	1645	<1	110	1200
aterial (fine-grained sulphides ?).	AE08660	222.6	223.7	1.1	649	21	509	<1	130	920
fragments. Quartz eye bearing below	AE08661	223.7	224.4	.7	2112	33	156	(1	240	940
pars below 227.1 m. Lower contact is at	AE08662	224.4	225.4	1.0	1079	19	149	<1	95	970
	AE08663	225.4	226.3	.9	964	19	196	<1	75	1000
	AE08664	226.3	227.1	.8	2231	23	161	(1	70	1100
	AD02443	227.3	227.4	.1	703	n/a	277	n/a	n/a	1390
o core axis at 222.4 m.	AE08665	227.1	228.1	1.0	784	5	432	<1	30	1100
o core axis at 223.3 m.	AE08666	228.1	229.1	1.0	163	33	190	<1	10	1700
o core axis at 225.7 m.										
o core axis at 226.8 m.										

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From	То		Sample	From	To (m)	Width (m)	Cu (ppp)	Pb (nnn)	Zn (ppm)	Ag (nom)	Au (ppb)	Ba (nnm)
(m)	(m)	DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppp)	(ppm)

222.6-223.7 m 5-7 % pyrite and trace chalcopyrite as above. 223.7-224.4 m 7-10 % pyrite and trace-0.25 % chalcopyrite in 1-3 mm bands and 2-5 mm spots at about 20 degrees to core axis. 224.4-226.3 m 7 % pyrite and trace chalcopyrite as above. 226.3-227.1 m 5-7 % pyrite and 0.25-0.5 % chalcopyrite as above. 227.1-229.1 m 3-5 % disseminated pyrite and occasional lapilli-sized clast of pyrite.

221.6 221.8 Fault gouge at 55 degrees to core axis. Upper 10 cm is a dark brown mud (similiar to the dark brown argillite described in previous holes). Lower 10 cm is crushed felsic tuff.

222.9 223.1 Slip at 0 degrees to core axis.

223.1 223.2 Fault gouge at 30 degrees to core axis.

224.5 Slip at 10 degrees to core axis.

229.1 230.5 MAFIC FLOW ?

Pale green relatively massive and medium-grained. Composed of 30-40 % white < 3 mm feldspars in a chloritic matrix. Weak to moderate pervasive carbonatization. May be a dyke. Lower contact is sharp at 20 degrees to core axis.

#### 230.5 239.7 SERICITIC QUARTZ EYE BEARING FELSIC TUFF

Light grey fine-grained weakly chloritic in places. 1-5 %, 1-5 mm guartz eyes. Locally up to 5 % lapilli-sized felsic fragments. 1-3 **%** pyrite disseminated roughly parallel to foliation. Lower contact is at 40 degrees to core axis.

FOLIATION AND BEDDING ANGLES:. Foliation is at 45 degrees to core axis at 230.7 m. Foliation is at 40 degrees to core axis at 231.9 m. Foliation is at 37 degrees to core axis at 233.2 m. Foliation is at 40 degrees to core axis at 233.4 m. Bedding is at 50 degrees to core axis at 233.7 m. Foliation is at 40 degrees to core axis at 235.0 m. Foliation is at 50 degrees to core axis at 236.2 m. Bedding is at 45 degrees to core axis at 236.8 m. Foliation is at 45 degrees to core axis at 238.0 m.

AE08669	230.5	231.5	1.0	72	14	92	<1	<5	640
AE08670	231.5	232.5	1.0	18	14	68	<1	<5	830
AE08671	232.5	233.5	1.0	15	15	73	<1	<5	760
AE08672	233.5	234.3	.8	53	10	73	<1	10	380
AD02445	234.3	234.4	.1	46	n/a	87	n/a	n/a	720
AE08673	234.5	235.5	1.0	20	24	122	<1	30	810
AE08674	235.5	236.5	1.0	14	12	51	<1	10	960
AE08675	236.5	237.5	1.0	14	22	51	<1	35	1300
AE08676	237.5	238.5	1.0	29	11	60	<1	30	1400
AE08677	238.5	239.7	1.2	210	56	41	<1	25	1200

119

178

56

.9

.1

.5

13

n/a

19

68

100

88

<1

<1

n/a

<5

<5

n/a

30

56

730

233.6 234.0 Bleached zone.

233.7 233.8 Sericitic tuffaceous sediments. Bedding is at 50 degrees to core axis.

235.1 235.3 Bleached, weakly carbonatized zone at 60-40 degrees to core axis with 15 % pyrite.

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AE08667 229.1 230.0

AD02444 229.9 230.0

AE08668 230.0 230.5

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		PINION PRIMI HOG										
From (m)	T0 (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		238.1 238.9 Bed of MAFIC ASH TUFF. Nil sulphides. Broken core at upper and lower contacts. 0.5 cm wide clay-filled slip at 30 degrees to core axis in the middle of the bed.		-								
239.7	249.3	MAFIC TUFFS WITH MINOR MAFIC TUFFACEOUS SEDIMENTS Dark green massive mafic tuff or flow with minor beds and rip up clasts of pale green mafic tuffaceous sediments (<5.0 cm thick). 1-3 % finely disseminated ilmenite. Occasional epidote-rich patch up to 10 cm in diameter. Weak to nil carbonatization. Broken core at lower contact.	AE08678 AD02446 AE08679	239.7 241.9 248.6	240.7 242.0 249.6	1.0 .1 1.0	336 246 129	373 n/a 25	72 106 78	2 n/a <1	160 n/a 15	250 154 120
		BEDDING ANGLES:. Bedding is at 53 degrees to core axis at 242.6 m. Bedding is at 55 degrees to core axis at 247.0 m.	· .·				·					
		239.7 240.4 Finely bedded pale green ash tuff. Bedding is very contorted.										
		245.0 245.4 Blocky, highly fractured core. 0.2 m of lost core.										
		248.8 249.3 Blocky, highly fractured core.										
249.3	250.0	ALTERED FELSIC ASH TUFF Massive hard and bleached looking. 10 % pyrite 2 % chalcopyrite and 1 % galena (?) concentrated in microfractures. Broken core at upper and lower contacts.	AE08680	249.6	250.0	.4	5900	13600	231	134	4766	1300
250.0	340.5	MIXED MAFIC TUFFS AND FLOWS Dark green massive with 1-2 % finely disseminated ilmenite above 275.0 m. Occasional epidote rich patches < 10.0 cm in diameter. From 250.0 to 251.7 m MAFIC LITHIC LAPILLI TUFF. About 20 % pale green lithic fragments in a chloritic matrix. From 251.7 to 259.1 m MAFIC ASH TUFF with minor beds (<3.0 cm thick) and rip up clasts of pale green cherty sediments. 1-5 %, 1-3 mm feldspars. From 259.1 to 262.4 m WEAKLY THERMAL BIOTITE ALTERED MAFIC ASH TUFF. Trace disseminated pyrite. From 262.4 to 275.0 m STRONG THERMAL BIOTITE ALTERED MAFIC TUFF. Occasional bed or clast of pale brown cherty sediment. From 275.0 to 283.5 m FINE MAFIC ASH TUFF. Weak patchy thermal biotite alteration. Occasional minor bed of cherty tuffaceous beds become more common below 279.0 m and less deformed. From 283.5 to 298.5 m massive fine-grained section rare lapilli-sized mafic clast (flow?). Up to 3 % up to 3 mm wide chlorite spher occur in clusters (10.0 cm thick (anwrdaleo2)	AE08681 AD02447 AD02448 AD02449 AD02450 AD02451 AD02452 AD02453	250.0 257.3 262.6 273.7 286.0 296.1 314.6 331.3	251.0 257.4 262.7 273.8 286.1 296.2 314.7 331.4	1.0 .1 .1 .1 .1 .1	353 349 276 164 44 103 39 166	379 n/a n/a n/a n/a n/a	102 104 85 96 91 93 89 90	<li>1 n/a n/a n/a n/a n/a n/a</li>	85 n/a n/a n/a n/a n/a	190 154 615 1480 231 407 535 560
		chlorite spots which occur in clusters < 10.0 cm thick (amygdales?). Also up to 3 % lighter coloured epidote carbonate spots <3 mm wide. Weak fracture controlled hematite-carbonate alteration. Several						•				

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

# From To (m) (m)

irregular epidote carbonate patches up to 15 cm in diameter. Some of these patches have a pinkish caste. Nil to trace pyrite and nil to trace chalcopyrite.

From 298.5 to 318.5 m WEAKLY TO STRONGLY THERMAL BIOTITE ALTERED MAFIC TUFF. Occasional bed of finer light brown tuffaceous sediment and up to 15 % lapilli-sized lithic fragments of tuffaceous sediment From 318.5 to 322.2 m MASSIVE MAFIC FLOW ?. Chlorite spotted as 283.5 to 298.5 m. Trace chalcopyrite associated with guartz-carbonate veinlets and pods. Fault gouge at lower contact

(not possible to measure orientation) 0.3 m of lost core between 319.1 and 322.2 m.

From 322.2 to 326.6 m MAFIC TUFF with beds of tuffaceous sediments. Moderate patchy thermal biotite alteration. Thermal biotite appears to occur in discrete beds.

From 326.6 to 337.4 m MAFIC FLOW ?. Massive no thermal biotite alteration chlorite spots as 283.6 to 298.5 m. Below 328.7 m occasional bleached patch up to 15.0 cm in diameter. Ash tuff from 330.9 to 331.2 m.

Form 337.4 to 340.5 MAFIC ASH TUFF with beds of pale green cherty tuffaceous sediments <3.0 cm thick. Moderate patchy thermal biotite alteration.

#### ANGLES TO CORE AXIS:.

Bedding is at 20 degrees to core axis at 266.9 m. Minor slip at 15 degrees to core axis at 268.5 m. Bedding is at 15 degrees to core axis at 272.8 m. Bedding is at 12 degrees to core axis at 275.6 m. Bedding is at 70 degrees to core axis at 279.7 m. Bedding is at 77 degrees to core axis at 280.0 m. Bedding is at 66-70 degrees to core axis at 281.0 m. Bedding is at 70 degrees to core axis at 281.8 m. Bedding is at 60 degrees to core axis at 299.5 m. Bedding is at 65 degrees to core axis at 299.9 m. Bedding is at 40 degrees to core axis at 301.6 m. Bedding is at 40 degrees to core axis at 304.3 m. Bedding is at 15 degrees to core axis at 306.5 m. Bedding is at 25 degrees to core axis at 315.2 m. Bedding is at 58 degrees to core axis at 323.0 m. Bedding is at 25 degrees to core axis at 338.2 m. Bedding is at 40 degrees to core axis at 339.8 m. Bedding is at 38 degrees to core axis at 340.0 m.

251.7 Broken rubbly core.

259.5 260.0 Blocky, highly fractured core.

278.0 278.3 Blocky, highly fractured core.

313.1 1.0 cm wide clay-filled slip at 15 degrees to core axis.

313.1 318.5 Fault zone. Blocky, highly fractured core. 2.4 m of lost

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Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
No.	(m)	(m.)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

Ba

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Sample Width Cu Pb То From Zn Au From То Ag (m) (m) -----DESCRIPTION------No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (ppm)

core between 312.4 and 318.5 m.

324.3 326.1 Fault zone. Blocky, highly fractured core. 0.7 m of lost core between 323.7 and 325.8 m.

#### HOLE No: Page Number CHEM87-32 1

#### **PROPERTY:** Chemainus J.V. - Chip Claims

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 36+00 E 0+80 N

NTS: 092/	/B13	UTM:	54166	75 I	N 4	30910	E
Azimuth:	210	Eleva	ation:	58	5 n	a	
Dip:	-50	Leng	th:	46	5.1	l m	

Started: June 21, 1987 Completed: June 28, 1987

Purpose: To test VLF conductors at 0+60 N and 1+80 S, a shallow IP chargeability anomaly between 0+80 and 1+00 S and a deep IP chargeability anomaly between 1+25 and 2+20 S. Claim No. Chip 1 Section No.: Line 36+00 East

Logged By: David P. Money Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg and X-Ray Assay

Core Size: NQ

				DIP TI	ESTS											
		Length	Azi- muth	Dip	Length	Azi- muth	Dip									
		50.30	212.0	-50.0	320.30	218.0	-45.0									
		120.70	213.0	-46.0	388.30	220.0	-44.0									
		196.90	216.0	-45.0	455.70	218.0	-42.0									
		260.90	217.0	-45.0												
From	To					S	ample	From	То	Width	Cu	РЪ	Zn	Ag	Au	Ba
(m)	(m)	DESCRIPTION					NO.	(m)	(m)	(m)	( <b>ppm</b> ):	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

.0 20.3 OVERBURDEN AND CASING

20.3 26.1 FELSIC FELDSPAR CRYSTAL TUFF

Medium to dark bluish- green tuff with up to 20 %, up to 2 mm, feldspar crystals. There is a minor fault slip at 20.6 with the orientation at 54 degrees to core axis and there is 0.6 m of lost core just prior to 23.2 and there is 2.1 m of lost core between 23.2 and 26.2. The foliation at 20.4 is at 50 degrees to core axis and at 21.3 it is at 60 degrees to core axis.

26.1 26.6 FAULT GOUGE

- 26.6 30.6 SERICITIC QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with white - green sericite and 1 to 2 %, 1 to 2 mm, quartz eyes and 10 to 15 %, 2 mm, feldspar grains. There is trace to nil disseminated pyrite and a local pyrite band, 1 mm thick, at 29.1. There is 0.6 m of lost core between 28.0 and 29.3. The foliation at 29.4 is at 38 degrees to core axis.
- 30.6 32.7 CHLORITIC SHEAR ZONE

Chloritic shear with minor quartz eyes and calcite grains. There are quartz +/- carbonate +/- feldspar veins, up to 10 cm thick. The upper and lower contacts are at 31 degrees to core axis and 29 degrees to core axis respectively and are very sharp with minor faulting cutting the lower contact. There is minor fault gouge in the zone. AB21661 21.9 22.0 .1 61 n/a 38 n/a n/a 708

AB21662 32.1 32.2 .1 73 n/a 169 n/a n/a 1090

		DIAMOND DRILL LOG										
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
32.7	59.0	SERICITIC QUARTZ-FELDSPAR CRYSTAL TUFF Locally schistose to massive siliceous felsic tuff with $\langle 1$ to 5 %, up to 3 mm, quartz eyes and 5 to 15 %, up to 2 mm, feldspar grains. The rock is locally moderately contorted. The rock has been locally bleached and is medium grey to white. There is blocky, highly fractured core from 36 to 46. There is 0.3 m of lost core from 37 to 38, 0.4 m from 38.4 to 40.5, and 0.4 m from 40.5 to 40.1. There is fault gouge from 40.0 to 40.5. From 42.6 to 42.8 there is a minor chloritic shear at 43 degrees to core axis. The foliation at 46.0 is at 41 degrees to core axis, at 52.7 is at 41 degrees to core axis and at 57.0 is at 27 degrees to core axis. At	AB21663 AB21664	43.7 55.2	<b>43.8</b> 55.3	.1 .1	27 36	n/a n/a	64 30	n/a n/a	n/a n/a	813 974
		41.5 there is a 4 cm quartz +/- chlorite vein with a 1 cm pyrite bleb at an orientation of 10 degrees to core axis.				•						
59.0	59.6	CHLORITE SCHIST Blocky, highly fractured core, possibly a shear zone.			•							
59.6	68.0	SHEARED INTERMEDIATE TUFF Sheared felsic to intermediate tuff with chert (?) or ash / dust tuff beds and minor quartz eyes. There is nil sulphides and local white bull quartz veins with chlorite margins at low angles to the core axis.	AB21665	66.4	66.6	.2	<b>40</b>	n/a	42	n/a	n/a	494
		Foliations :. At 63.0 the foliation is at 32 degrees to core axis. At 67.0 the foliation is at 46 degrees to core axis.					·					
		Bedding :. At 65.4 the bedding is at 45 degrees to core axis. At 62.5 the bedding is at 48 degrees to core axis.										
68.0	69.8	CHLORITE SCHIST Chlorite schist with carbonate veinlets and quartz - carbonate veins. There are minor calcite eyes and the rock is sheared with the foliation at 68.6 at 45 degrees to core axis.	• •				·					
69.8	71.0	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Siliceous grey felsic tuff with up to 1 % , up to 1 mm, quartz eyes and up to 5 % feldspar grains. The rock is moderately kinked and contorted.										

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71.0 72.3 CHLORITE SCHIST

Sheared chlorite - carbonate zone with calcite veins and a 6 cm quartz - chlorite - calcite vein at the base.

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FALCONBRI	DGE	LIMITED	
DIAMOND	DRII	LL LOG	

From To (m) (m) -----DESCRIPTION-----

- 72.3 73.7 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with 2 %, up to 5 mm, quartz eyes and 5 to 20 % feldspar grains locally with a 5 cm shear at 72.8.
- 73.7 74.7 CHLORITE SCHIST As in previous intervals.
- 74.7 79.3 QUARTZ EYE BEARING FELSIC TUFF Moderately schistose to massive siliceous grey felsic tuff with trace quartz eyes. The foliation at 76.7 is at 30 degrees to core axis. At 77.2, there is a 10 cm shear with the orientation at 36 degrees to core axis. From 75.2 to 75.5 there is a fault with chloritic gunge and guartz veins that are cross-cut by slips.
- 79.3 79.8 CHLORITE SCHIST

Black sheared chlorite schist with pervasive and veinlet hosted carbonate.

79.8 80.0 WHITE BULL QUARTZ VEIN +/- CHLORITE WITH NO SULPHIDES

80.0 86.8 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF

Siliceous grey - green moderately contorted felsic tuff with 1 to 3 %, 2 to 4 mm, quartz eyes and up to 20 % feldspar grains. There are minor quartz - carbonate veinlets at orientations of 0 to 90 degrees to core axis. No sulphides occur. The foliation at 84.0 is at 51 degrees to core axis. There is blocky, highly fractured core from 83.3 to 83.8.

86.8 87.0 FAULT GOUGE

87.0 94.1 FELSIC TUFF

Locally chloritic felsic tuff, broken with fault gouge at 89.6 and 91.2 for 15 to 20 cm. From 92.4 to 94.1 there is sericitic quartz eye crystal tuff with fine-grained feldspar grains and minor ash to dust tuff beds. The bedding at 94.0 is at 48 degrees to core axis and the foliation at 93.7 is at 55 degrees to core axis.

94.1 97.3 MAFIC TO INTERMEDIATE LAPILLI TUFF

Sheared and carbonitized mafic to intermediate lapilli tuff with large epidote clots with quartz - carbonate veinlets. The top of the unit is sheared chlorite and carbonate bands.

Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
						·			
AB21666	72.7	72.8	.1	55	n/a	18	n/a	n/a	622

# AB21667 84.7 84.8 .1 54 n/a 44 n/a n/a 939

AB21668 93.4 93.5 .1 29 n/a 14 n/a n/a 1270

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Sample

No.

From

(m)

To

(m)

Width

(m)

Cu

(ppm)

HOLE No: Page Number CHEM87-32 4

Pb

Zn

(ppm) (ppm)

Aα

(ppm)

Au

Ba

(ppb) (ppm)

From	То	
(m)	(m)	DESCRIPTION

97.3 106.5 FELSIC TUFF

- 97.3 97.4 Weakly contorted felsic tuff with epidote grains. The foliation is at 67 degrees to core axis and the bedding is at 47 degrees to core axis.
- 97.4 (?) fault, missing core (?).
- 97.4 99.2 Felsic tuff, intermediate lapilli tuff and fault gouge in the core with the orientation at 0 degrees to core axis.
- 99.2 99.3 Fault gouge.
- 99.3 106.5 Locally weakly to moderately contorted sericitic felsic tuff with trace to 2 %, 2 to 4 mm, quartz eyes and 5 to 15 % fine-grained epidote grains. The foliation at 101 is at 49 degrees to core axis and at 105.8 is at 25 degrees to core axis.
- 106.5 110.3 MAFIC TO INTERMEDIATE LAPILLI TUFF Intermediate / mafic lapilli tuff with epidotized clasts and minor guartz +/- carbonate veining.
- 110.3 110.3 FAULT GOUGE

110.3 115.8 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Locally chloritic and sericitic tuff with local quartz - carbonate veins and kink bands. The foliation is between 60 and 90 degrees to core axis, with the rock being moderately contorted and a chlorite shear at 112.3. There is trace to 1 % local disseminated pyrite.

#### 115.8 137.3 SERICITIC OUARTZ-FELDSPAR CRYSTAL TUFF

Moderately sericitic to siliceous felsic tuff with mm, guartz eves and approximately 10 % feldspar gra minor fracture controlled quartz - carbonate veinlets. The rock is grey - green in colour and at approximately 118 becomes moderately contorted and more siliceous, with an increase in quartz eyes to 4 to 5 % and in average size to 3.5 mm. The foliation at 118.6 is at 61 degrees to core axis. From 119.3 to 119.8 there is a quartz vein with a biotite margin and in spurs, which is at 20 to 25 degrees to core axis and appears to be along a fault slip. At 120.3 there is a 7 cm mafic sill or dyke with epidote grains and the orientation at 74 degrees to core axis. At 121.2 there is a chlorite - carbonate shear. The rock is highly contorted from 124 to 125. From 125 to 132.9 is darkish grey - green with local fracture controlled carbonate veinlets. At 125.1 bedding is at 36 degrees to core axis. At 126.3 the foliation is at 30 degrees to core axis. At 130.0 there is a 1 mm pyrite stringer. There is minor fault gouge at 132.2. From 132.9 to 137.3 there is a bleached

e grains. The and the bedding	AB21669	105.0	105.1	.1	231	n/a	103	n/a	n/a	312	
nd fault gouge in es to core axis.											
sericitic felsic z eyes and 5 to oliation at 101 .8 is at 25	•										
clasts and minor											
TAL TUFF artz - carbonate and 90 degrees rted and a al disseminated	AB21670	114.7	114.8	.1	61	n/a	93	n/a	n/a	927	
2 to 3 %, 2 to 6 ains. There are	AB21671 AE08628	129.1 132.9	129.2 134.0	.1 1.1	38 <1	n/a 12	<10 8	n/a <1	n/a 10	1020 850	

AB21671	129.1	129.2	.1	38	n/a	<10	n/a	n/a	1020
AE08628	132.9	134.0	1.1	<1	12	8	<1	10	850
AE08629	134.0	135.0	1.0	1	11	7	<1	<5	890
AE08630	135.0	136.0	1.0	(1	6	9.	(1	<5	910
AE08631	136.0	137.3	1.3	<1	13	6	(1	<5	1100

# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		white sericitic tuff with 1 to 2 % disseminated pyrite and 3 to 5 %, 2 to 6 mm, quartz eyes. There are minor pyrite stringer from 133.1 to 133.4. There is 5 cm of carbonatization with 5 % pyrite at 135.6. The foliation at 134.0 is at 28 degrees to core axis and at 136.1 is at 39 degrees to core axis.										
137.3	140.0	INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF	AE08632	137.3	138.2	.9	66	9	25	<1	<5	640
140.0	164.6	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Intermediate to felsic crystal rich tuff with chlorite - carbonate shear from 137.5 to 139.0 with minor trace chalcopyrite blebs and up to 3 % pyrite. Fine-grained white to medium grained grey - green siliceous felsic tuff with quartz eyes and local epidote crystal rich beds and epidote crystals throughout. The rock gradually changes throughout the unit. The crystal content varies from trace to 5 %, 1 to 3 mm, quartz eyes and 5 to 20 %, 1 mm, feldspar / epidote grains. The rock is locally contorted with trace to 1 % pyrite bands, up to 1 mm occuring locally.	AB21672 AB21673	141.3 156.9	141.4 157.0	.1 .1	53 31	n/a n/a	10 23	n/a n/a	n/a n/a	1060 1210
		Foliations :. At 142.3 : 45 degrees to core axis. At 149.1 : 46 degrees to core axis. At 153.1 : 42 degrees to core axis. At 161.2 : 41 degrees to core axis.							· ,			
		Blocky, highly fractured core :. 144.4 to 145.1. 159 to 160.										
		Fault gouge :. 151.3 to 151.4. 152.7 to 152.8. 164.3 to 164.3.			- 			·				
164.6	165.8	CHLORITIC SHEAR ZONE Chlorite - carbonate shear with the foliation trend at about 80 degrees to core axis.									•	് പ്
165.8	169.6	5 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Moderately sheared intermediate to felsic tuff with minor felsic ash to dust tuff beds. There are 10 to 15 % epidote grains in a medium to dark green matrix. There is blocky, highly fractured core from 167.2 to 168.2 and from 169.3 to 169.6. Bedding at 168.0 is at 71 degrees to core axis and foliation varies locally from 60 to 90 degrees to core axis and appears to be sub-parallel to bedding.										

HOLE No: Page Number CHEM87-32 5

HOLE No: Page Number PROPERTY: Chemainus J.V. - Chip Claims FALCONBRIDGE LIMITED CHEM87-32 6 DIAMOND DRILL LOG Width Sample From То Cu Pb Zn Aα Au Ra From То -----DESCRIPTION------(m) (m) (mod) (dog) (m) (m) No (m) (mag) (mgg) (mgg) (ppm) 169.6 188.5 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Locally white and siliceous, usually medium to dark green and n/a 1440 AB21674 174.5 174.6 . 1 49 n/a 17 n/a moderately siliceous. Hosts 20 %, up to 1 mm, crystals as 5 % AE08633 177.8 178.3 .5 410 11 38 (1 15 200 guartz eyes and 15 % epidote grains. From 176 to 177 it is AB21675 184.6 184.7 1 397 n/a 60 n/a n/a 203 moderately sheared. At 178.0 there are blebs of chalcopyrite in a guartz yein. At 187.6 there is a carbonate - hematite veinlet. The tuff is bleached from 186.6 to 187.0. Foliations :. 170.4 : 65 degrees to core axis. 174.5 : 65 degrees to core axis. 177.5 : 70 degrees to core axis. 184.1 : 50 degrees to core axis. Bedding :. 174.8 : 53 degrees to core axis. 179.3 : 38 degrees to core axis. 188.5 199.2 MASSIVE FELSIC CRYSTAL TUFF Massive medium grained felsic tuff with 20 to 25 % epidote, 2 to 4 n/a 1120 AB21676 192.8 192.9 59 n/a 18 n/a 1 mm, as grains and laths and 1 to 3 % guartz eyes, 1 to 5 mm. There are local guartz veinlets and the foliation at 191.5 is at 61 degrees to core axis. 199.2 201.3 MAFIC SILL 104 931 Black chloritic mafic sill or dyke with a sharp upper contact and AB21677 199.3 199.4 .1 101 n/a n/a n/a the lower contact at a fault. There are no guartz eyes and there are 20 to 30 % epidote grains. The rock is moderately sheared with carbonate veinlets and moderate pervasive carbonatization locally. The foliation at 199.5 is at 46 degrees to core axis. 201.3 203.3 OUARTZ EYE BEARING FELSIC TUFF Grey to green siliceous tuff with 3 to 5 %, 2 to 4 mm, quartz eyes. The foliation at 202.6 is at 65 degrees to core axis. 203.3 204.4 MAFIC SILL Fine-grained green sill with 30 %, up to 1 mm, epidote grain and minor chlorite - carbonate veinlets and quartz veins. There are sharp contacts, with the lower contact orientation at 58 degrees to core axis and the foliation variable between 30 and 90 degrees to core axis.

204.4 207.6 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF

Felsic tuff with 2 to 4 %, 2 to 5 mm, quartz eyes and locally up to

AE08634 205.9 206.9 1.0 28 <5 20 <1 <5 950

PR	OPENTY	2: Chemainus J.V Chip Claims FALCONBRIDGE LIMITED DIAMOND DRILL LOG				HOLE N CHEM87-	lo: Pa -32	ge Numbe 7	er			
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	То (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	)
·		15 % epidote grains. From 206.85 to 207.35 there is 5 to 6 % chalcopyrite and 3 to 4 % weakly magnetic pyrrhotite as blebs and bands in quartz veins, which comprise 20 % of that interval.	AE08635 AE08636	206.9 207.4	207.4 208.4	.5 1.0	16200 756	10 <5	311 56	9 1	75 <5	
207.6	211.7	MAFIC SILL Same as from 203.3 to 204.35 with minor chalcopyrite and pyrite in a quartz vein at the base of the unit.										
211.7	214.3	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Massive light grey to a epidote yellow coloured felsic tuff with 5 %, 2 to 4 mm, quartz eyes and 35 %, 2 to 3 mm, epidote grains and laths, after feldspar with local epidotized blocks, up to 7 cm long.	AB21678	213.4	213.5	.1	29	n/a	23	n/a	n/a	
214.3	217.5	MAFIC TO INTERMEDIATE LAPILLI TUFF Mafic tuff with minor quartz eyes, epidote lapilli and grains. The foliation is from 60 to 80 degrees to core axis. From 217.2 to 217.5 there is blocky, highly fractured core and fault gouge.										
217.5	219.5	MAFIC FLOW OR TUFF Massive mafic rock with approximately 1 % fracture controlled carbonate veinlets at 0 to 90 degrees to core axis. There is minor pyrite in local quartz veins. There are approximately 20 % epidote grains and no quartz eyes are present.	AB21679	218.8	218.9	.1	35	n/a	16	n/a	n/a	1
219.5	223.2	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with approximately 10 %, 1 to 5 mm, epidote grains and trace quartz eyes. Trace pyrite occurs. A graded crystal rich bed at 222.3 indicates that tops is uphole. At 222.7 the foliation is at 55 degrees to core axis and bedding is at 62 degrees to core axis.										
223.2	251.0	MAFIC FLOW Mafic flow with local zones of epidotization and chloritization with 2 to 3 % carbonate - hematite veinlets. There is local pyrite in the zones of epidotization. At 248.0 there is a 2 to 5 mm band of chalcopyrite and pyrite, which occurs with a quartz vein and hematite. The veins are at orientation of 0 to 90 degrees to core axis and the foliation varies from 30 to 90 degrees to core axis locally.	AB21680 AE08638 AE08637 AE08639 AE08640 AE08541 AE08642	228.8 242.4 243.4 244.4 245.4 246.4 247.6	228.9 243.4 244.4 245.4 246.4 247.6 248.1	.1 1.0 1.0 1.0 1.0 1.2 .5	74 222 175 116 197 81 2951	n/a 10 <5 15 10 17 11	154 45 60 61 51 46 143	n/a <1 <1 <1 <1 <1 <1 1	n/a <5 <5 <5 <5 <5 <5	]
251.0	256.0	FAULT ZONE Fault gouge with local felsic tuff and mafic flow material. From 253.8 to 255.3 there is 1 to 2 % pyrite in a felsic tuff.	AE08643	253.8	254.7	.9	50	9	20	<1	10	4.4 1

FALCONBRIDGE LIMITED

DIAMOND DRILL LOG

HOLE No: Page Number CHEM87-32 8

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
256.0	269.4	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Locally contorted siliceous white to medium grey felsic tuff with feldspar crystals and trace quartz eyes. There are numerous minor cross-cutting carbonate veinlets and local bull quartz veins. Up to 1 % pyrite occurs as bands and blebs. There is 0.5 m of lost core at 268.0 and 0.3 m between 268.5 and 269.4. There is local minor fault gouge.	AB21681	258.2	258.3	.1	32	n/a	12	n/a	n/a	536
269.4	274.4	MAFIC SILL Fine-grained dark green sill with 10 % leucoxene and trace disseminated pyrite. The upper contact is at blocky, highly fractured core and the lower contact is sharp at 47 degrees to core axis. There is moderate fracture controlled carbonate and local quartz - carbonate veinlets. There is minor hematite on the fractures.	AB21682	273.4	273.5	.1	348	n/a	112	n/a	n/a	117
274.4	276.2	QUARTZ EYE BEARING FELSIC TUFF Whitish felsic tuff with 2 to 3 % quartz eyes. There are numerous fracture controlled carbonate veinlets. The foliation at 275.1 is at 55 degrees to core axis. There is $0.2 \text{ m}$ of lost core at 275.6 and the lower contact is at minor fault gouge.			~			• •				
276.2	278.5	MAFIC SILL As from 269.4 to 274.4 and lower contact is fault breccia.										
278.5	283.6	QUARTZ EYE BEARING FELSIC TUFF White siliceous to weakly sericitic felsic tuff with quartz eyes. There is $\langle$ 1 % fracture controlled pyrite. The tuff is weakly to moderately pervasively carbonitized. The tuff is weakly brecciated and the lower contact is a fault breccia.	AB21683	281.0	281.1	.1	43	n/a	36	n/a	n/a	1150
283.6	284.5	MAFIC SILL As from 276.2 to 278.5.										
284.5	285.5	QUARTZ EYE BEARING FELSIC TUFF Highly contorted and moderately silicified quartz eye felsic tuff with fracture controlled carbonate veinlets.										
285.5	286.6	MAFIC SILL As from 283.6 to 284.5.	AB21684	286.4	286.5	.1	243	n/a	99	n/a	n/a	141

286.6 289.6 QUARTZ EYE BEARING FELSIC TUFF As from 284.5 to 285.5 with lower 50 cm sheared.

		E	(										
	PI	OPERTY	Y: Chemainus J.V Chip Claims FALCONBRIDGE LIMITED DIAMOND DRILL LOG				HOLE N CHEM87-	o: Pa 32	ge Numbo 9	er			
	From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	- To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
	289.6	320.4	DARK BROWN ARGILLITE Brown argillite, soft with strong to moderate pervasive carbonatization, with up to 1 % carbonate veinlets and minor pyrite blebs, trace to 1 %. There is up to 2 % very fine-grained pyrite in the matrix. The top of the unit is fault gouge to 292.1. There is blocky, highly fractured core from 314.0 to 320.4.	AB21685 AB21686	300.0 318.3	300.1 318.4	.1 .1	126 126	n/a n/a	136 144	n/a n/a	n/a n/a	637 961
·	320.4	321.4	SANDSTONE Brownish quartzite with bedding at 35 degrees to core axis and argillite, felsic tuff and Nanaimo conglomerate matrix as clasts in the lower 35 cm with grading indicating that tops is uphole.										
	321.4	321.7	DARK BROWN ARGILLITE As before with minor inclusions of the underlying fine-grained green sandstone.										
	321.7	322.4	SANDSTONE Fine-grained green sandstone with 3 to 5 % pyrite blebs.	AE08644	321.7	322.4	.7	156	14	105	<1	10	2000
	322.4	322.8	NANAIMO CONGLOMERATE Gabbro and felsic tuff cobbles in a matrix similar to the green sandstone.	. •									
	322.8	446.3	PYRITIC FELSIC TUFF The unconformity with the Nanaimo Group sedimentary cover is at an orientation of 85 degrees to core axis. The tuff varies in terms of sulphide and whole rock compositions. 322.8 324.7 Brecciated with local Nanaimo Group inclusions. 324.7 349.8 Felsic tuff with trace quartz eyes and locally 5 to 15 % feldspar grains, up to 1 mm. The average pyrite content is 2 % and the content varies locally from 1 to 5 %. The pyrite is disseminated and bedded. There is 0.5 m of lower contact from 342.9 to 344.4 and 0.5 m of lower contact from 344.4 to 345.9. There is blocky, highly fractured core and fault gouge from 343 to 345.9. Locally there are fracture controlled carbonate veinlets. 349.8 Micro-fault. 349.8 351.0 Bleached felsic tuff with stringer pervasive carbonatization and 5 to 7 % pyrite and trace galena (?) 351.0 354.8 Locally weakly to moderately brecciated felsic tuff with quartz - carbonate and carbonate veins and veinlets with 1 to 2 % disseminated pyrite. The foliation is parallel to or sub- parallel to to the core axis. 354.8 355.2 Bleached felsic tuff with 7 % pyrite.	AE08645 AE08646 AE08647 AE08648 AE08649 AE08650 AE08702 AE08703 AE08704 AE08705 AE08706 AE08706 AE08707 AE08708 AE08709 AE08711 AE08712 AE08713 AE08714	324.0 324.7 326.0 327.5 329.0 330.5 332.0 335.0 335.0 335.0 338.0 340.0 341.5 343.0 346.0 341.5 343.0 346.0 347.2 348.5 349.8 351.0	324.7 326.0 327.5 329.0 330.5 332.0 333.5 335.0 336.5 338.0 339.0 340.0 341.5 343.0 346.0 347.2 348.5 349.8 351.0 353.0	.7 1.3 1.5 1.5 1.5 1.5 1.5 1.5 1.0 1.0 1.5 1.0 1.5 1.0 1.5 1.0 1.2 1.3 1.5 1	29 6 3 10 47 75 56 39 46 52 79 60 44 40 37 26 207 167 26	43 41 60 36 50 78 169 78 102 106 107 145 83 57 53 56 41 9 17 14	56 25 24 23 52 23 20 37 55 57 217 453 89 187 99 284 101 37 203 39		35 65 90 15 55 50 35 50 180 95 75 65 65 200 70	1500 3100 2000 2000 1100 1600 1500 1400 960 970 1500 1500 1500 1400 1400 1400 1400 140

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba ) (ppm)
		355.2 367.7 Light to medium grey siliceous to locally sericitic	AE08715	353.0	355.0	2.0	74	33	585	<1	65	1200
		felsic tuff with minor quartz eyes, trace to 2 %, up to	AE08716	355.0	357.0	2.0	52	36	133	<1	60	1500
		7 mm. From 358.0 to 358.2 there is bleaching with a	AE08717	357.0	359.0	2.0	13	42	77	<1	65	1400
		true thickness of 2 cm, which hosts 1 to 2 $\frac{1}{2}$ pyrite and	AE08718	359.0	361.0	2.0	21	61	95	<1	30	1300
		is at an orientation of 3 degrees to core axis, bedding	AE08719	361.0	363.0	2.0	12	92	94	<1	35	1000
		(?). There are local lithic lapilli in the tuff. There	AE08720	363.0	365.0	2.0	19	54	284	<1	20	1100
		are minor quartz - carbonate veinlets. The average	AE08721	365.0	367.0	2.0	15	30	54	<1	35	2300
		pyrite content is 2 %, which is disseminated with trace	AE08722	367.0	369.0	2.0	45	16	48	<1	60	1700
		beds or bands.	AE08723	369.0	371.0	2.0	40	14	59	<1	80	1700
		363.0 Minor fault gouge.	AE08724	371.0	373.0	2.0	27	10	43	<1	100	1600
		367.7 368.0 Fault gouge.	AE08725	373.0	375.0	2.0	32	12	30	<1	35	1400
		368.0 381.0 White grey speckled tuff with minor fracture controlled	AE08726	375.0	377.0	2.0	120	16	38	. <1	25	1700
		carbonate veinlets and 3 to 4 % disseminated pyrite and	AE08727	377.0	379.0	2.0	282	12	45	<1	30	1200
		minor trace stringer pyrite.	AE08728	379.0	380.7	1.7	104	21	17	<1	25	1500
		381.0 388.6 Grey moderately siliceous to sericitic tuff with quartz	AE08729	387.0	388.6	1.6	57	11	13	<1	60	2800
		eyes and lapilli. The tuff is locally weakly to	AE08730	388.6	389.8	1.2	484	10	35	<1	10	2000
		strongly contorted. On average there is trace to 1 %	AE08731	389.8	391.4	1.6	65	8	17	<1	110	1300
		pyrite with 10 to 15 % locally over 5 to 10 cm at 384.9	AE08732	391.4	392.0	.6	17	24	12	<1	5	1200
		and at 386.6. There  are local quartz - carbonate veins	AE08733	392.0	393.0	1.0	14	23	18	<1	40	1200
		with local pyrite cubes. The veins are up to 2 cm thick.	AE08734	393.0	395.0	2.0	35	7	16	<1	35	1300
		388.6 389.8 7 to 8 % fine-grained pyrite bands parallel to foliation	AE08735	400.5	402.0	1.5	31	29	12	<1	15	1800
		in a grey fine-grained quartz sericite schist cross-cut	AE08736	402.0	403.0	1.0	67	39	11	<1	40	2100
		by minor quartz - carbonate veinlets.	AE08737	403.0	404.0	1.0	19	63	16	<1	10	2200
		389.8 391.4 1 to 2 % disseminated and trace band pyrite in a grey	AE08738	404.0	404.8	.8	53	172	51	<1	20	2100
		quartz sericite schist.	AE08739	404.8	406.3	1.5	18	49	16	<1	<5	2600
		391.4 392.0 Trace chalcopyrite and 5 % pyrite as folded and pinched	AE08740	410.0	412.5	2.5	37	22	21	<1	<5	4000
		out bands sub- parallel to and parallel to to	AE08741	412.5	414.0	1.5	104	70	24	<1	20	3300
		foliation. There is also trace fuchsite in this tuff,	AE08742	415.0	416.4	1.4	51	29	35	<1	<5	2900
		which varies locally from massive to schistose and is	AE08743	416.4	416.9	.5	2731	68	236	4	120	2900
		quartz eye bearing.	AE08744	416.9	418.0	1.1	66	22	40	1	<5	2400
		392.0 393.0 2 to 3 % pyrite, which occurs as from 391.4 to 392.0.	AB21687	427.2	427.3	.1	34	n/a	17	n/a	n/a	1210
		393.0 402.0 Tuff contains 1 to 2 % pyrite, which is disseminated and	AE08745	427.3	428.7	1.4	45	12	17	(1	<5	1000
		also occurs as minor bands, which are locally	AE08746	428.7	429.5	.8	187	83	26	(1	30	750
		concentrated over 10 to 15 cm as 5 to 10 % at 393.8 and	AE08/47	429.5	431.0	1.5	61	19	30	(1	(5	810
			AB21688	434.1	434.2	.1	170	n/a	237	n/a	n/a	276
		402.0 404.8 3 to 4 % parallel to foliation pyrite, which is	AE08748	444.0	445.0	1.0	172	11	21		30	710
		The-grained and occurs in 1 to 4 mm bands. The turi	AEU8/49	445.0	440.3	1.3	321	11	32	(1	12	740
		also contains minor parallel to follation quartz veins										
		with trace pyrite. A04 = 416 - 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5										
		404.8 416.6 I to 3 % pyrite, average 1.5 to 2 %, concentrated in				1. A. A.			•			
		discontration and also accurs as minor 1 m bands										
		Als 5 Als 9 9 munito with dust tuff hads perallol to foliation										
		and discordant with trace chalconwrite										
		And discondent with trace thatcopyrite.										
		etringer nervaging carbonstization falsis tuff with an								Ŧ		
		average 1 % nurite locally 10 % over up to 10 am								-		
		A26.0 428.7 Same as above with tr to 1 % pyrite.										

- 428.7 429.5 Quartz eye rich felsic tuff with 15 % disseminated and band pyrite.
- 429.5 429.7 Beige sill with trace pyrite and stringer pervasive

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### HOLE No: Page Number CHEM87-32 11

Sample	From	То	Width	Cu	Pb	Zn	λα	Au	Ba
No.	(m)	(m)	(m)	(nnm)	(nnm)	(nnm)	(ກຸກຸສຸ)	(nnh)	(nnm)

From To (m) (m)

#### carbonatization.

429.7 433.7 Tuff with trace to 1 % disseminated pyrite and trace to nil pyrite bands.

-----DESCRIPTION------

- 433.7 434.4 Beige sill as at 429.5 with sharp lower and upper contacts at 13 degrees to core axis. The sill has been subjected to stringer pervasive carbonatization and the composition is beige biotite and carbonate.
- 434.4 442.0 Quartz eye feldspar rhyolitic tuff with trace to nil pyrite and minor pyrite with quartz carbonate veins.
- 442.0 442.1 Beige sill.

442.1 444.5 Silicified tuff, similar to 434.4 to 442.0.

444.5 446.3 Moderately carbonitized distorted and weakly brecciated felsic tuff with 2 % pyrite. There is local fuchsite throughout in trace quantities. There are quartz carbonate veinlets throughout, that cross-cut and have no dominant orientation.

Foliations :.

To approximately 355 at approximately 0 degrees to core axis. 360 : 20 degrees to core axis. 362 : 18 degrees to core axis. 365.2 : 13 degrees to core axis. 370 : 10 degrees to core axis. 375 : 14 degrees to core axis. 380 : 21 degrees to core axis. 385 : 25 degrees to core axis. 388.7 : 29 degrees to core axis. 389 : 31 degrees to core axis. 390 : 14 degrees to core axis. 395 : 22 degrees to core axis. 400 : 23 degrees to core axis. 405 : 6 degrees to core axis. 410 : 13 degrees to core axis. 415 : 22 degrees to core axis. 420 : 12 degrees to core axis. 425 : 21 degrees to core axis. 430 : 17 degrees to core axis. 435 : 25 degrees to core axis. 440 : 35 degrees to core axis.

445 : 35 degrees to core axis.

#### 446.3 465.1 FINE GRAINED PLAGIOPHYRIC GABBRO

Chilled margin type gabbro with approximately 5 %, 1 to 3 mm, feldspar grains in a fine-grained green matrix. The gabbro is very weakly magnetic with 2 to 3 % fine-grained ilmenite, which is breaking down to hematite. There are local quartz - carbonate veins with chlorite margins.

		J 1.V	131	()	91	<1 CL	(5)	(20
AB21689 456	.9 457.	1.2	242	n/a	96	n/a	n/a	183



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HOLE No: Page Number

Hole Location: 43+00 E 0+40 S UTM: 5416225 N 431407 E NTS: 92B13 Azimuth: 210 Elevation: 595 m

Dip: -50 Length: 441.3 m

**PROPERTY: CHEMAINUS JV - Chip Claims** 

Started: 26-June-1987 Completed: 13-July-1987

#### Purpose: To test a weak, deep IP chargeability anomaly between 1+80 S and 3+00 S.

Length	Azi- muth	Dip	Length	Azi- muth	Dip
38.40	213.0	-52.5	324.90	216.0	-47.5
117.90	214.0	-50.0	388.00	217.0	-46.0
194.10	215.0	-49.0	424.00	217.0	-46.0
276.50	216.0	-48.0			

DIP TESTS

From	то		
(m)	(m)	DESCRIPTION	

9.1 OVERBURDEN AND CASING .0

9.1 15.5 MOTTLED FELSIC TUFF

Mottled, pale salmon pink, green and and cream coloured. Relatively massive hard and siliceous. Rare quartz eye. Pink colour may be due either to rhodonite or to hematization of feldspars. Moderate spotty chlorite alteration and moderate pervasive sericitization. Core is blocky and broken over the entire section. Trace disseminated magnetite and trace fracture controlled pyrite. Broken core at lower contact.

LOST CORE INTERVALS:. 9.1 - 9.8 m 0.6 m of lost core. 9.8 - 11.3 m 0.7 m of lost core. 11.3 - 12.2 m 0.7 m of lost core. 12.2 - 12.5 m 0.1 m of lost core. 12.5 - 13.0 m 0.3 m of lost core.

15.5 19.0 CARBONATIZED MAFIC LAPILLI TUFF

Dark green and fine-grained. Dominantly an ash tuff with up to 5 % AD02455 16.3 16.4 chloritic lapilli-sized fragments stretched parallel to foliation. Foliation is at 40 degrees to core axis at 18.0 m. Nil-3% disseminated magnetite. Broken core at lower contact.

15.5 16.8 0.2 m of lost core.

42 n/a 106 n/a n/a 1140

AD02454 685 57 31 n/a 10.6 10.7 .1 n/a n/a

Pb

Zn

(ppm) (ppm)

Aα

(ppm)

Au

Ba

(ppb) (ppm)

Cu

(ppm)

Width

(m)

Assayed By: Bondar-Clegg & Co and XRAL Core Size: NO

Drilling Co.: Burwash Enterprises

Section No.: 43+00 East

Logged By: J. Pattison

Claim No. CHIP 1

Sample

No.

From

(m)

То

(m)

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

То

(m)

-----DESCRIPTION-----

Similiar to 9.1 to 15.5 m but not as pink. Trace disseminated magnetite. Becomes a chloritic ash tuff below 25.5 m. Occasional chloritic lapilli-sized clast. <1 %, 3-5 mm quartz eyes and no magnetite below 25.5 m. Occasional bed of mafic tuff. Nil sulphides but rusty fractures are common throughout the unit. From 47.3 to 53.9 m 10-30 % lapilli-sized felsic clasts in a quartz + sericite + chlorite matrix. Weak-nil pervasive carbonate. No quartz eyes.

From 53.9 to 58.7 m weakly carbonatized felsic ash tuff and minor argillaceous sediments. Argillaceous sediments are black to medium grey and occur in beds and rip-up clasts  $\langle 2.5 \ cm \ thick \ and \ comprise \langle 5 \ \% \ of \ the \ section \ (some \ are \ graphitic).$ 

From 58.7 to 68.9 m FELDSPAR CRYSTAL TUFF (< 1% quartz eyes ). 5-10 %, 1-4 mm feldspars in a hard very siliceous, almost aphyric matrix. Moderate patchy thermal biotite alteration with beds of thermal biotite altered mafic tuff and tuffaceous sediments up to 1.1 m thick From 59.8 to 60.5 m 20 % lapilli-sized felsic clasts.

From 68.2 to 68.9 m 5 % felsic lapilli-sized clasts.

From 68.9 to 69.8 m chloritic and rust spotted. 5 % chlorite and 2-3% rust spots <4 mm in diameter. Rusty spots are centred on specks of chalcopyrite +/- sphalerite (?). Occasional patch of malachite on fracture surfaces. Mafic tuff bed from 69.2 to 69.5 m which also contains rusty spots.

From 69.8 to 72.2 m felsic ash tuff with rusty fractures and occasional mafic tuff beds.

72.2 to 74.1 m mafic tuff with up to 5 % 1-3 mm epidote spots (altered feldspars). Minor beds with lapilli-sized clasts of cherty felsic rock. Broken core at upper contact. Lower contact is at 35 degrees to core axis.

From 74.1 to 75.4 m felsic feldspar crystal tuff. Mottled appearance due to thermal biotite alteration variable sericite and chlorite content and quartz flooding. Up to 5 % lapilli-sized felsic clasts. Grades into a mafic to intermediate tuff at the lower contact.

75.4-76.3 M mafic tuff with minor beds and clasts of cherty tuffaceous sediments. Grades into felsic tuff.

76.3-77.0 M felsic feldspar +/- quartz crystal tuff. Moderate thermal biotite alteration. Lower contact is gradational.
77.0-78.0 M felsic ash-lapilli tuff. Gradational lower contact.
78.0-82.5 M felsic quartz-feldspar crystal tuff. 15 % epidotized feldspar crystals 1-3 mm long 1-4 % quartz eyes 2-5 mm in diameter. Quartz eyes have a bluish caste. Moderate thermal biotite alteration. Grades into the mafic tuff below.
82.5-83.1 M mafic ash tuff. Nil-trace disseminated chalcopyrite. Lower contact is at 50 degrees to core axis.
83.1-83.5 M felsic quartz-feldspar crystal tuff. As 78.0 to 82.5 m.

LOST CORE INTERVALS:. 20.4-21.3 m 0.2 m of lost core. 21.3-21.9 m 0.2 m of lost core.

Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)
AD02456	20.8	20.9	.1	37	n/a	27	n/a	n/a	874
AD02457	30.0	30.1	.1	36	n/a	18	n/a	n/a	961
AD02458	44.4	44.5	.1	35	n/a	24	n/a	n/a	634
AD02459	54.2	54.3	.1	35	n/a	12	n/a	n/a	1450
AD02460	64.5	64.6	.1	26	n/a	16	n/a	n/a	1370
AE08682	67.9	68.9	1.0	15	5	24	(1	<5	1300
AE08683	68.9	69.8	.9	449	<5	100	<1	<5	1300
AD02461	72.6	72.7	.1	47	n/a	61	n/a	n/a	181
AD02462	79.7	79.8	.1	34	n/a	17	n/a	n/a	1710

From (m)

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

To	DESCRIPTION	Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)		No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)
2 2	25.9-26.5 m 0.5 m of lost core. 26.5-27.4 m 0.7 m of lost core.										

26.5-27.4 m 0.7 m of lost core. 27.4-28.0 m 0.4 m of lost core. 28.0-29.3 m 0.7 m of lost core.

#### STRUCTURE:.

Foliation is at 50 degrees to core axis at 20.0 m. Foliation is at 35 degrees to core axis at 22.5 m. 0.4 Cm wide clay-filled slip at 30 degrees to core axis at 23.3 m. Foliation is at 55 degrees to core axis at 25.0 m. Fault gouge at 80 degrees to core axis at 26.5 m. Bedding is at 40 degrees to core axis at 30.8 m. Foliation is at 70 degrees to core axis at 35.0 m. Foliation is at 60 degrees to core axis at 37.0 m. Minor slip is at 60 degrees to core axis at 37.9 m. Foliation is at 58 degrees to core axis at 38.0 m. Foliation is at 50 degrees to core axis at 39.3 m. Minor slip is at 47 degrees to core axis at 40.1 m. Bedding is at 45 degrees to core axis at 42.2 m. Foliation is at 58 degrees to core axis at 43.4 m. Foliation is at 50 degrees to core axis at 46.4 m. Foliation is at 60 degrees to core axis at 47.2 m. Bedding is at 50 degrees to core axis at 47.2 m. Bedding is at 55 degrees to core axis at 47.6 m. Foliation is at 50 degrees to core axis at 52.1 m. Foliation is at 52 degrees to core axis at 53.3 m. Minor slips are at 55-60 degrees to core axis at 53.8 m. Foliation is at 60 degrees to core axis at 55.0 m. Bedding is at 66 degrees to core axis at 56.8 m. Bedding is at 65 degrees to core axis at 57.3 m. Bedding is at 50 degrees to core axis at 59.5 m. Foliation is at 50 degrees to core axis at 68.2 m. Bedding is at 35 degrees to core axis at 71.0 m. Bedding is at 35 degrees to core axis at 74.1 m. Bedding is at 58 degrees to core axis at 82.2 m.

23.7 Minor hematite along foliation planes.

30.4 30.8 Crushed zone. Core is broken and blocky.

31.8 32.0 Bed of mafic tuff at 40 degrees to core axis. Weak pervasive carbonatization.

32.4 32.6 Nafic tuff bed at 55-60 degrees to core axis. Moderate carbonatized.

33.3 34.1 Blocky, highly fractured core.

41.1 42.2 Blocky, highly fractured core.

42.2 Bed of cherty, cream coloured felsic tuffaceous sediments

From

(m)

То

(m)

HOLE No: Page Number CHEM87-33 4

	Sample	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba
DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppp)	(ppm)
at 45 degrees to core axis.			-							

- 43.0 47.3 Weak-nil thermal biotite alteration. 1-2 % 2-4 mm quartz eyes.
- 47.0 10.0 cm wide bed of carbonatized mafic tuff at 50 degrees to core axis.
- 47.6 5.0 cm wide bed of mafic tuff at 55 degrees to core axis.
- 52.4 10.0 cm wide bed of carbonatized mafic tuff at 25 degrees to core axis.
- 54.0 54.8 Moderate pervasive carbonatization.
- 57.2 57.3 Carbonatized mafic tuff bed at 60-70 degrees to core axis.
- 59.5 59.8 Bed of thermal biotite altered mafic tuffaceous sediments at 50 degrees to core axis.
- 62.5 63.7 Thermal biotite alteration mafic tuffaceous sediments. Medium green-brown, medium-grained with 10-15 % epidote spots < 5 mm in diameter. Upper contact is at 35 degrees to core axis. Lower contact is gradational into felsic feldspar crystal tuff.

68.7 68.9 Mafic tuff bed at 45 degrees to core axis.

## 83.5 140.2 MAFIC TUFF

Medium to dark grey-brown fine-grained and relatively massive. May be intermediate in compositon in some places. Dominantly an ash tuff above 105.6 m but occasional lapilli rich sections. Nil-weak thermal biotite alteration. Up to 2 % 1-3 mm chlorite spots. Fracture surfaces are rusty throughout the unit. Nil-trace chalcopyrite pyrite and sphalerite associated with minor quartz-carbonate clots and veinlets. Locally up to 5 % 1-5 mm epidote spots below 103.8 m.

Below 105.6 m 5-10 % rounded felsic fragments 1.0-10.0 cm in diameter. Trace-2 % disseminated pyrite nil-trace chalcopyrite and sphalerite. Lower contact is at 47 degrees to core axis.

BEDDING ANGLES:.

Bedding is at 57 degrees to core axis at 89.8 m. Bedding is at 50 degrees to core axis at 123.3 m. Bedding is at 60 degrees to core axis at 132.6 m. Bedding is at 50 degrees to core axis at 135.0 m. Bedding is at 47 degrees to core axis at 140.2 m.

94.0 94.1 3.0 cm long clast of felsic tuff.

AD02463	88.4	88.5	.1	16	n/a	83	n/a	n/a	507
AD02464	98.2	98.3	.1	51	n/a	98	n/a	n/a	612
AD02465	108.7	108.8	.1	277	n/a	650	n/a	n/a	221
AD02466	124.4	124.5	.1	179	n/a	134	n/a	n/a	588
AD02467	136.8	136.9	.1	98	n/a	101	n/a	n/a	298

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PI	ROPERTY	Y: CHEMAINUS JV FALCONBRIDGE LIMITED DIAMOND DRILL LOG				HOLE N CHEM87-	io: Pa 33	ge Numbo 5	er			
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
	· · ·	98.2 98.4 Blocky, highly fractured core.										
		134.2 134.7 Blocky, highly fractured core.										
140.2	146.0	FELDSPAR PORPHYRITIC MAFIC FLOW Medium green up to 7 % white 1-4 mm feldspars in a chloritic matrix with 2-3 % finely disseminated leucoxene. Trace-1 % disseminated pyrrhotite and trace pyrite and chalcopyrite associated with quartz-carbonate veinlets. Rusty fractures common. Very	AD02468	143.3	143.4	.1	253	n/a	118	n/a	n/a	160
а ж		fine-grained for 20.0 cm from lower contact. Broken core at lower contact.										
146.0	196.8	MAFIC TUFF As 83.5 to 140.2 m. No chloritic or felsic clasts above 155.7 m. Rusty fractures occur throughout the unit. Trace disseminated pyrite. Weak-moderate patchy thermal biotite alteration. Weak-nil pervasive carbonatization. Mixed mafic to felsic tuffaceous sediments below 194.2 m. Lower contact is at 60 degrees to core axis STRUCTURE:. Slip at 25 degrees to core axis at 146.4 m. Bedding is at 50 degrees to core axis at 165.9 m. Bedding is at 36 degrees to core axis at 188.1 m. Bedding is at 45 degrees to core axis at 194.1 m. Foliation is at 45 degrees to core axis at 194.1 m.	AD02469 AD02470 AD02471 AD02472 AD02473 AD02474	153.6 154.9 165.2 169.3 180.4 192.2	153.7 155.0 165.3 169.4 180.5 192.3	.1 .1 .1 .1	381 40 126 32 157 79	n/a n/a n/a n/a n/a	90 27 125 321 138 43	n/a n/a n/a n/a	n/a n/a n/a n/a	287 1330 324 780 420 917
		<ul> <li>154.6 155.7 QUARTZ EYE-BEARING FELSIC TUFF. Weak thermal biotite alteration. 7-10 %, 2-5 mm quartz eyes in a hard siliceous aphyric matrix. 1-2% disseminated pyrite and nil-trace pyrrhotite and chalcopyrite. 10.0 cm wide band of strongly biotite altered sediment at 155.4 m. Broken core at upper contact. Lower contact is at 47 degrees to core axis.</li> </ul>							<b>.</b>			
		169.9 171.3 FESIC ASH TUFF. Grey hard and siliceous with up to 20 % 1-3 mm sericitzed feldspars. Bedding is at 40-60 degrees to core axis.						-				
		171.3 192.0 Mafic tuff is very massive. No clasts larger than ash-sized.										

192.0 193.4 FELSIC ASH TUFF. Moderately sericitic and weakly chloritic. Minor epidote spots. Nil sulphides. Occasional cherty felsic clasts up to 1.0 cm in diameter. Upper contact is at 50 degrees to core axis and lower contact is at 60 degrees to core axis.

To

(m)

From

(m)

PROPERTY: CHEMAINUS JV

FALCONBRIDGE LIMITED

HOLE No: Page Number CHEM87-33 6 From To Width Cu Pb Zn (m) (m) (m) (ppm) (ppm)

.1

.1

249

35

Aα

n/a

n/a

115

38

n/a

n/a

(mom)

Au

n/a

n/a

Ba

46

869

n/a 1160

(maa) (dqq)

Sample

No.

AD02475 199.9 200.0

AD02476 208.3 208.4

194.2 195.0 Beds < 0.5 cm wide of tuffaceous sediments at 50 degrees to core axis.

-----DESCRIPTION------

#### 196.8 201.1 FELDSPAR PORPHYRITIC MAFIC FLOW

As 140.2 to 146.0 m. Several quartz-carbonate veins and pods up to 3 cm wide with 1-3 % pyrrhotite and trace chalcopyrite. Lower contact is at 52 degrees to core axis.

199.4 199.9 Blocky, highly fractured core.

200.6 201.1 Moderate pervasive carbonatization.

# 201.1 215.3 CHLORITIC FELSIC TUFF

Fine-grained medium green-grey foliated. Foliation is contorted and kinked over most of the section. Weak-nil pervasive carbonatization. Occasional 1-3 mm quartz eye. Foliation is at a very low angle (< 15 degrees) to the core axis between 204.0 and 205.3 m. Trace- 1 % disseminated and fracture controlled pyrite. Nil-trace chalcopyrite. Broken core at lower contact.

#### STRUCTURE:.

Bedding is at 50 degrees to core axis at 202.2 m. 0.5 Cm clay-filled slip at 85 degrees to core axis at 203.2 m. Foliation is at 65 degrees to core axis at 207.3 m. Foliation is at 55 degrees to core axis at 210.8 m. Foliation is at 50 degrees to core axis at 212.4 m.

209.7 210.2 Bed of carbonatized mafic ash tuff at about 50 degrees to core axis. Upper and lower contacts are gradational.

213.7 214.0 Bed of carbonatized mafic tuff. Broken core at upper contact. Lower contact is at 25 degrees to core axis.

214.2 215.3 Blocky, highly fractured core.

#### 215.3 217.5 CHLORITIC QUARTZ EYE BEARING FELSIC TUFF

3-7 %, 1-5 mm quartz eyes in a fine-grained pale green-grey, quartz+sericite+chlorite matrix. Many of the quartz eyes have a bluish caste. Trace finely disseminated pyrite. Very rare lapilli-sized pyrite clast. Foliation at 217.0 m is at 45 degrees to core axis. Lower contact is parallel to foliation at 70 degrees to core axis.

#### 217.5 219.3 CHLORITIC FELSIC TUFF

As 201.1 to 215.3 m. Dominantly an ash tuff but lapilli-sized felsic fragments are abundant between 217.6 and 217.8 m. 0.15 cm wide bed

AD02477 215.7 215.8 .1 36 n/a 30 n/a n/a 884

AD02478 217.8 217.9 .1 60 n/a 34 n/a

From

(m)

To

(m)

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

# of mafic tuff and biotite-rich tuffaceous sediments at 60-70 degrees to core axis. Nil-trace disseminated pyrite. 217.6 Minor slip at 76 degrees to core axis. 219.3 225.6 CHLORITIC QUARTZ EYE BEARING FELSIC TUFF As 215.3 to 217.5 m. Trace-1 % finely disseminated pyrite. Lower AD02479 223.6 223.7 37 n/a .1 contact is at 70-75 degrees to core axis. 232.2 Chloritic slip at 47 degrees to core axis. 224.0 224.3 Two 10.0 cm wide biotite rich mafic tuffaceous sediment beds at 65-70 degrees to core axis. 224.4 224.9 Altered mafic tuff. Bleached and weakly to moderately carbonatized. Irregular upper and lower contacts. 225.6 226.1 ALTERED MAFIC-INTERMEDIATE TUFFACEOUS SEDIMENTS Pale green-brown, bleached, fine-grained and relatively massive. Moderate thermal biotite alteration. Broken core at lower contact. 226.1 226.4 MAFIC ASH TUFF Dark green and fine-grained. Moderate fracture controlled

hematization. Broken core at upper contact. Lower contact is a slip at 70 degrees to core axis.

226.4 228.3 FAULT GOUGE

Up to 20 % 0.5-3.0 cm long fine-grained chloritic felsic clasts in a clay-rich loosely consolidated matrix. Core is broken and blocky over the first 0.2 m of the unit.

228.3 231.7 FELSIC FELDSPAR CRYSTAL TUFF

Light green siliceous and hard with up to 10 % 1-2 mm white feldspar crystals. Strongly crushed above 228.7 m. Weakly to moderately sericitic and weak to nil chloritization. Microfractured. Lower contact is a slip at 75 degrees to core axis.

228.3 229.0 Numerous slips at 70-80 degrees to core axis.

229.3 230.0 MAFIC TUFF. Dark green fine-grained and massive with up to 20 % 1-3 mm epidote spots and 3 % chlorite spots up to 3 mm in diameter often with epidote alteration halos. 1-3 % fracture controlled pyrite and nil-trace disseminated pyrrhotite and trace chalcopyrite associated with quartz-carbonate veins up to 4.0 cm wide. Upper contact is a slip at 70 degrees to core AD02637 230.5 230.6 .1 21 n/a 45 n/a n/a

Ba

(ppb) (ppm)

n/a 1460

983

Au

HOLE No: Page Number CHEM87-33 7

Pb

Zn

54

(ppm) (ppm)

λq

n/a

(ppm)

Cu

(ppm)

Width

(m)

Sample

No.

From

(m)

То

(m)

-----DESCRIPTION-----

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Width From To Sample From То Cu Pb Zn Aσ Au Ba -----DESCRIPTION------No. (m) (m) (m) (m) (ppm) (ppm) (ppb) (ppm) (m) (ppm) (ppm) axis. Lower contact is at 50 degrees to core axis. 231.0 231.1 FAULT ZONE at 40 degrees to core axis. 231.2 231.7 3 % chlorite spots < 2mm in diameter. 231.7 247.6 FELSIC FELDSPAR-QUARTZ CRYSTAL TUFF Light grey to grey-green with 10-15 % < 3 mm feldspar crystals and AD02638 239.3 239.4 28 n/a n/a n/a 409 .1 16 1-10 % < 3 mm quartz eyes in hard siliceous microfractured very AD02639 246.4 246.5 16 n/a 21 n/a n/a 1130 .1 fine-grained to aphyric matrix. Up to Nil to weak sericitization, chloritization and epidotization. Nil-1 % disseminated and fracture controlled pyrite. Lower contact is sharp at 70 degrees to core axis 232.0 232.2 Fault (?). Core is broken and rubbly. 0.3 m of lost core between 230.4 and 232.6 m. 232.6 233.4 Blocky, highly fractured core. 233.7 235.3 Blocky, highly fractured core. Fault centred at 235.1 m. Not possible to measure orientation of the fault. 0.6 m of lost core. 235.7 236.5 Dark green MAFIC TUFF. Relatively massive fine-grained with up to 30 % <3 mm epidote spots. Upper contact is a chloritic slip at 23 degrees to core axis. 1-2 % finely disseminated beige alteration mineral. Weak fracture controlled carbonatization. Broken core at lower contact. 237.1 237.2 Crushed FAULT ZONE at 60 degrees to core axis. 237.7 238.2 Blocky, highly fractured core. 239.0 5.0 cm wide FAULT at 40-50 degrees to core axis. 239.5 239.7 <5 % lapilli-sized felsic clasts and spots of very fine-grained pyrite <2 mm in diameter. 242.2 242.3 FAULT ZONE at 30 degrees to core axis. 242.3 243.3 Rock is crushed and moderately sericitic. Foliation is at 40-50 degrees to core axis. 2-3 % < 3mm chlorite spots (altered clasts ?). 244.0 244.8 Blocky, highly fractured core. Fault at 50 degrees to core axis. 0.6 m of lost core between 242.3 and 244.8 m. 245.2 245.3 FAULT ZONE. Loosely consolidated fault breccia at 60 degrees to core axis.

245.5 245.6 1.0 cm wide fault gouge at 12 degrees to core axis.



# FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)		DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		264.8 265.5	Blocky, highly fractured core. Weak to moderate fracture controlled Fe-carbonate alteration.										
0.45 F		<b>61335</b> 50											
265.5	338.8	GABBRO Dark green : and for 16. 272.0 m. Up leucoxene. alteration. grained tha contain up to moderate associated m, 298.1 an disseminate contact.	massive and fine-grained for 6.5 m from the upper contact 2 m from the lower contact. Becomes medium-grained below to 5 % disseminated ilmenite paritially altered to Locally moderate fracture controlled carbonate The carbonate altered rock is darker green and finer n the unaltered gabbro. The carbonate altered zones to 3 % $\langle 3 mm \rangle$ spots of a beige alteration mineral. Weak fracture controlled hematite alteration is often with calcite veins and veinlets between 272.0 and 286.2 d 304.5 m and btwn 308.6 and 321.1 m. Nil-trace d pyrite and chalcopyrite. Broken core (fault) at lower	AD02643 AD02644 AD02645 AD02646	269.4 280.7 304.3 329.6	269.5 280.8 304.4 329.7	.1 .1 .1	128 333 335 308	n/a n/a n/a	103 122 116 89	n/a n/a n/a n/a	n/a n/a n/a n/a	202 150 198 108
		266.0 266.1	FAULT ZONE. Rubbly core, not possible to measure orientation of the fault.			No 🛥 👡					-		
		273.8 275.2	Slip runs along the core axis. Core is broken and blocky between 274.6 and 275.2 m.										
·		275.7 275.9	FAULT ZONE at 50 degrees to core axis. Core is broken and blocky.					~					
		277.4 280.7	Core is blocky over most of the section. Moderate fracture controlled hematization.										
		284.5 286.1	Blocky, highly fractured core.										
		287.9 301.9	Moderate pervasive carbonatization.										
		291.0	Minor slip at 10 degrees to core axis.										
		294.0 297.2	Blocky, highly fractured core. 0.4 m of lost core between 294.7 and 297.2 m.										
		297.5 298.1	Blocky, highly fractured core.										
		302.3 302.9	Blocky, highly fractured core.										
		304.6 304.8	Blocky, highly fractured core.			•							
		305.8 308.6	Moderate to strong pervasive carbonatization.		14	~ i ~	na mar na nat		•	÷			
		308.4	Minor slip at 25 degrees to core axis.										

310.4 Minor slip at 45 degrees to core axis.

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FALCONBRIDGE LIMITED DIAMOND DRILL LOG

# HOLE No: Page Number MITED CHEM87-33 11 LOG

From (m)	To (m)	DESCRIF	PTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		310.4 312.3 Moderate pervasive car	rbonatization.										
		318.3 8 Minor FAULT GOUGE. Not orientation.	t possible to measure its										-
		321.2 328.6 Sheared fine-grained a Foliation is at 15-25 clay-filled slip at 30	and moderately carbonatized zone. degrees to core axis. 0.5 cm wide D degrees to core axis.										
		330.0 331.3 Fine-grained sheared of 45 degrees to core ax	carbonatized zone. Shearing is at is.										
		337.3 338.4 Inclusion of FLESIC QU up to 10 % <4 mm feld < 5% lapilli-sized for fine-grained to aphyr: hard and microfractum chloritization. Trace lower contacts are at	UARTZ-FELDSPAR CRYSTAL LAPILLI TUF dspar crystals and quartz eyes and elsic fragments in a very ic light grey-green, siliceous, red matrix. Weak pervasive disseminated pyrite. Upper and 30 degrees to core axis.	F									
338.8	340.4	FELSIC ASH TUFF											
		Medium grey-brown with up to 2 % bedding at 30 degrees to core axis biotite alteration and weak chlor: Trace-1 % disseminated and fracts finely disseminated sphalerite. If core axis.	< 2 mm clear quartz eyes. Vague s. Up to Weak to moderate thermal itization and carbonatization. ure controlled pyrite and trace Lower contact is at 30 degrees to	AD02647	339.2	339.3	.1	29	n/a	34	n/a	n/a	1140
240.4	240.2		M11517										
340.4	348.3	Dark brown-green. Moderate to weal fracture controlled carbonatization tuffaceous sediment are common. The fractures. Lower contact is gradate BEDDING ANGLES:. Bedding is at 35 degrees to core a	Norr k thermal biotite alteration and on. Ripped up beds of cherty race-2 % pyrite in hairline tional. axis at 341.3 m.	AD02648	347.2	347.3	.1	86	n/a	80	n/a	n/a	330
		Bedding is at 50 degrees to core a	axis at 347.4 m.										

340.4 341.3 Moderate pervasive carbonatization.

341.4 341.7 4 % <4 mm epidote spots.

342.7 343.2 Blocky, highly fractured core.

345.4 347.0 Trace-2 % <3 mm guartz eyes.

346.0 347.5 Trace-2 % < 4 mm epidote spots.

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P	ROPERT	Y: CHEMAINUS	JV	FALCONBRIDGE LIM DIAMOND DRILL L	IITED .og	·			HOLE N CHEM87-	o: Pa 33	nge Numb 12	er			
From (m)	To (m)		DESCRIPTI	ON		Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Medium gree ash-sized p Bedding is controlled axis.	n chloritic mafic matrix ale green to cream colour at 55 degrees to core axi pyrite. Lower contact is	with up to 5 % lap red felsic and maf s at 348.5 m. Nil a fault at 45 deg	pilli to ic clasts. 2 % fracture prees to core										
352.3	441.3	FELDSPAR PH 20 % white disseminate	YRIC GABBRO feldspars in a medium gre d ilmenite. Rare speck of	een fine-grained ma chalcopyrite or	atrix. 1-3 % pyrite.	AD02649 AD02650	359.3 404.4	359.4 404.5	.1 .1	88 110	n/a n/a	68 62	n/a n/a	n/a n/a	341 438
		352.3 352.5	Fault gouge at 45 degree	es to core axis.											
		352.7 352.9	Fault gouge at 70 degree core.	es to core axis. O.	.2 m of lost										
		352.9 354.8	Moderate pervasive carbo phenocrysts. Calcite-fil common.	onatization. No fel lled fractures and	ldspar gashes are										
		365.3 365.8	Blocky, highly fractured	i core.											
		369.1 369.8	Dark green fine-grained	section.					L.						
		373.1 376.4	Dark green fine-grained core axis at 374.7 m.	section. Slip at 3	30 degrees to				÷,		· · ·				
		382.3 382.6	Blocky, highly fractured	i core.											
		384.6 385.0	Blocky, highly fractured	l core.											
		390.8 391.1	Blocky, highly fractured	1 core.											
		394.8 395.0	) Crushed zone (FAULT) at	35 degrees to core	e axis.										
		405.7 407.1	Fine-grained moderately	carbonatized zone.											
		421.2 423.1	Moderate pervasive carbo hematization associated Slip at 60 degrees to c	onate alteration. N with calcite veins core axis at 421.7	Weak s and veinlets. m.										
		423.4 424.3	Blocky, highly fractured between 422.7 and 424.0	d core. 0.2 m of 10 m.	ost core										
		427.6 428.1	Blocky, highly fractured	i core. 0.2 m of lo	ost core.										
		428.8 441.3	B Finer-grained section way Minor patchy carbonatiza	ith <1 % feldspar ; ation.	phenocrysts.			,				-			
		441.3	Hole abandoned due to ca	aving.				,							

#### HOLE No: Page Number CHEM87-34 1

#### PROPERTY: Chemainus J.V. - Chip Claims FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 47+00 E 0+40 S

NTS: 092/	/B13	UTM:	54161	50 N	431850	Е
Azimuth:	210	Eleva	ation:	660	m	
Dip:	-50	Leng	th:	391	.1 m	

Started: June 28, 1987 Completed: July 5, 1987

Purpose: To test VLF conductors at 0+90, 2+40 and 2+80 S, coincident deep and shallow IP resistivity lows at 2+05 S and a shallow IP chargeability anomaly at 2+80 S.

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
29.30	206.0	-50.0	251.50	207.0	-42.0
87.20	205.0	-45.0	340.80	208.0	-39.5
165.80	204.0	-44.0	L		

Ba From To Sample From Width Au То Cu PЪ Zn λg -----DESCRIPTION------(m) (m) No. (m) (ppm) (ppm) (ppb) (ppm) (m) (m) (ppm) (ppm)

.0 8.2 OVERBURDEN AND CASING

8.2 9.2 MAFIC FLOW Moderately contorted massive, but with a well developed schistosity, mafic rock, which has undergone pervasive carbonatization. Hosts trace to 2 % epidote grains and 1 to 2 % hematite cubes, up to 3 mm, after pyrite. The foliation varies locally from approximately 50 to 80 degrees to core axis.

9.2 11.5 FELSIC TUFF

Green to grey felsic tuff with minor feldspar to epidote grains. At the top there are numerous quartz - carbonate veinlets. There is 0.3 m of lost core from 9.2 to 10.1, 0.7 m lost core from 10.1 to 11.0 and 0.4 m lost core from 11.0 to 11.9. The unit is blocky, highly fractured core with fault gouge at the lower contact.

11.5 13.5 CHLORITIC SHEAR ZONE

Chlorite - carbonate schist with minor carbonate veinlets, which has been highly sheared at approximately 70 to 80 degrees to core axis. There is 0.7 m of lower contact from 11.9 to 13.1.

13.5 22.5 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Grey siliceous felsic tuff with fine-grained feldspar grains and trace quartz eyes and pyrite. The unit is oxidized throughout with strong rust (goethite) from 15.1 to 16.3. The rock is locally weakly contorted. 695

n/a

.1

77

n/a

n/a

839

Claim No. : CHIP 1 Section No.: Line 47+00 East

Logged By: David P. Money Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg and X-Ray Assay

Core Size: NQ

Claim No. Section N

AB21901

8.3

8.4

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		DIAMOND DRILL LOG										
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Foliations :. 15.5 : 65 degrees to core axis. 19.8 : 54 degrees to core axis. 22.4 : 56 degrees to core axis.										
22.5	22.6	CHLORITIC SHEAR ZONE Moderately magnetic chlorite - carbonate shear zone with 2 to 3 % calcite blebs with rust rims. The orientation is at 52 degrees to core axis.					·					
22.6	32.1	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Same as from 13.5 to 22.5 with oxidation ceasing after 30.2 and the inclusion of minor dust tuff or cherty green siliceous beds.	AB21903	25.5	25.6	· .1	43	n/a	27	n/a	n/a	1460
		Foliations :. 25.0 : 63 degrees to core axis. 30.2 : 56 degrees to core axis.										
		Bedding :. 28.2 : 53 degrees to core axis. 30.0 : 66 degrees to core axis.		,								
32.1	38.7	FELSIC TUFF Blocky, highly fractured core felsic tuff with local quartz veins. Lost core : 0.4 m from 32.3 to 33.5, 0.3 m from 33.5 to 34.1, 0.7 m from 36.3 to 37.2 and 0.2 m from 37.2 to 38.7.										
38.7	57.1	FELSIC TUFF Sericite schist, after felsic tuff with trace quartz eyes and feldspar grains. There is local quartz +/- chlorite veinlets, usually 5 mm to 3 cm, but there is a vein from 48.5 to 48.8. There is local sericitization in the upper half and a progressive increase in sericitization in the lower half accompanied by deformation, such as kinking. No sulphides were observed. There is 0.3 m of lost core from 42.0 to 42.7 and there is 10 cm of fault gouge at 53.3.	AB21904 AB21905	43.8 51.3	44.0 51.5	.2	48 35	n/a n/a	<10 10	n/a n/a	n/a n/a	1310 1150
		Foliations :. 44.3 : 58 degrees to core axis. 51.2 : 61 degrees to core axis. 56.6 : 56 degrees to core axis.										

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57.1 57.3 FAULT GOUGE 16.5 Cm of fault gouge.
66.2 : 46 degrees to core axis.

Ba

HOLE No: Page Number CHEM87-34 3

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From То Sample From То Width Cu Pb Zn Aα Au -----DESCRIPTION------(m) (m) No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (ppm) 59.6 MAFIC FLOW 57.3 Moderately sheared carbonitized mafic flow with trace to 2 % epidote grains and local trace pyrite cubes, up to 3 mm. Hosts quartz - carbonate veins up to 5 cm thick. Foliations :. 57.6 : 55 degrees to core axis. 58.8 : 52 degrees to core axis. 63.0 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF 59.6 Green siliceous felsic tuff with approximately 5 % stretched AB21906 59.7 59.8 .1 31 n/a 16 n/a n/a 1220 feldspar ash and trace to 4 % (average 3 %), 3 to 5 mm, guartz eyes local epidote, after feldspar, rich 1 to 3 mm beds at the base of the unit, above the basal 5 cm hydraulic fracture guartz calcite vein. There are minor sericitic zones. Foliations :. 60.0 : 61 degrees to core axis. 61.3 : 71 degrees to core axis. Bedding :. 59.9 : 66 degrees to core axis. 62.8 : 41 degrees to core axis. 63.0 65.8 MAFIC FLOW Fine-grained green mafic flow with 15 to 30 % epidote grains locally. The flow is weakly sheared locally and at 64.6 there is 4 cm of quartz eye felsic tuff, indicating bedding at 51 degrees to core axis. No sulphides occur. Foliations :. 63.4 : 43 degrees to core axis. 65.0 : 49 degrees to core axis. 65.8 71.9 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF White to medium grey - green felsic tuff with 3 to 5 %, 1 to 4 mm, AB21907 n/a 1020 70.3 70.4 .1 63 <10 n/a n/a quartz eyes and approximately 5 %, 1 mm, stretched feldspar grains. The first 25 cm is composed of highly contorted sericite. There is 0.7 m of lost core from 67.0 to 68.0. There is 2 mm of fault gouge at 70.6. No sulphides are present. Foliations :. 68.2 : 49 degrees to core axis. 69.2 : 42 degrees to core axis. 71.8 : 54 degrees to core axis. Bedding :.

PR	ROPERTY: Chemainus J.V Chip Claims FALCONBRIDGE LIMITED DIAMOND DRILL LOG				HOLE N CHEM87-	lo: Pa •34	ge Numb 4	er			
From (m)	To (m)DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
71.9	74.6 MAFIC TUFF Mafic tuff with trace quartz eyes, 10 to 25 % epidote grains, after feldspar, locally and locally up to 8 % chlorite as stretched grains, after hornblende (?). To 72.7 the tuff is extremely contorted. The rock has been subjected to moderate pervasive carbonatization and there are local veins of epidote - quartz - calcite, quartz - calcite, and calcite, up to 7 cm in width.										
	Foliations :. 73.2 : 73 degrees to core axis. 74.0 : 75 degrees to core axis.	с. Т.						·			
74.6	75.1 MASSIVE QUARTZ EYE BEARING FELSIC TUFF Dark green siliceous felsic tuff with 3 to 5 %, < 1 mm to 5 mm, quartz eyes.	AB21908	74.7	74.8	.1	31	n/a	86	n/a	n/a	81
75.1	78.2 CHLORITIC SHEAR ZONE Sheared chlorite - carbonate schist with local very contorted zones. The foliation varies, but trends at approximately 80 degrees to core axis.										
78.2	79.6 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Chloritic and sericitic tuff with 20 to 30 % fine-grained quartz and feldspar crystals to grains. Local carbonate veinlets and weak carbonatization.								·		
	Foliation : 79.1 : 56 degrees to core axis.										
79.6	80.4 CHLORITIC SHEAR ZONE Sheared felsic and intermediate tuff with a dominant composition of chlorite - carbonate.										
80.4	81.7 SERICITIC FELSIC CRYSTAL LAPILLI TUFF Felsic lapilli in a sericite schist matrix with local zones of sericitization. The tuff is weakly to strongly contorted.					. •					
81.7	91.3 MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Locally light grey to medium green tuff with up to 10 % quartz eyes, < 1 to 5 mm, and up to 20 % feldspar grains, 1 to 3 mm.	AB21909	86.7	86.8	.1	31	n/a	16	_ n/a	n/a	807
	Foliations :. 81.8 : 54 degrees to core axis.										

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84.9 : 60 degrees to core axis.

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PR	OPERTY	Chemainus J.V Chip Claims FALCONBRIDGE LIMITED DIAMOND DRILL LOG		:		HOLE N CHEM87-	o: Pa 34	ge Numbe 5	er			
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		90.0 : 67 degrees to core axis.	•									
		Bedding :. 85.2 : 55 degrees to core axis. 89.6 : 76 degrees to core axis.										
91.3	93.2	MASSIVE QUARTZ-FELDSPAR PORPHYRITIC FLOW Black crystal rich massive intrusive or extrusive rhyolite with 15 to 20 %, 1 to 3 mm, feldspar grains and 5 to 10 %, 2 to 5 mm, quartz eyes. Very siliceous with no evidence of bedding or flow banding.	AB21910	92.6	92.8	.2	38	n/a	<10	n/a	n/a	812
93.2	97.1	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Light grey sericitic to siliceous tuff as from 81.7 to 91.3.	AB21911	95.4	95.6	. 2	20	n/a	16	n/a	n/a	987
		Foliations :. 93.5 : 61 degrees to core axis. 96.7 : 45 degrees to core axis.			- <b>2</b> -							
		Lost core :. 0.2 M from 94.0 to 95.1. 0.1 M from 95.1 to 95.4.										
97.1	98.0	MASSIVE QUARTZ-FELDSPAR PORPHYRITIC FLOW As from 91.3 to 93.2, but is dark green.										
98.0	98.4	MAFIC SILL Symmetrically zoned mafic sill with fine-grained speckled rims, 15 cm at upper contact and 2 cm at the lower. The core of the sill is a fine-grained green matrix with 3 %, 2 mm, feldspar grains. There is also a 1 to 2 cm quartz veins. It is non-magnetic. The foliation is at 60 degrees to core axis.										
98.4	101.8	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with (?) bedding and local lapilli. Hosts approximately 5 %, 1 to 3 %, quartz eyes and 10 to 20 % locally, feldspar white grains. The unit is oxidized. Tan brown to green due to presence of thermal biotite. May be a flow, but appears to be tuffaceous.										
		Foliations :. 99.8 : 58 degrees to core axis. 100.1 : 54 degrees to core axis.		•	r ar la na an	••••						
		Bedding :. 100.0 : 67 degrees to core axis.										

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**PROPERTY:** Chemainus J.V. - Chip Claims HOLE No: Page Number FALCONBRIDGE LIMITED CHEM87-34 6 DIAMOND DRILL LOG From То Sample From Width Cu To Рb Zn Ba Aα Au ----DESCRIPTION------(m) (m) No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (ppm) 101.8 103.3 MAFIC SILL Fine-grained green mafic sill with white barren bull quartz veins and locally epidote / feldspar phyric. 103.3 104.5 FELSIC CRYSTAL LAPILLI TUFF Locally biotitic white rhyolitic lapilli tuff with felsic lapilli and feldspar crystals. From 103.9 to 140.1 there is rusty blocky. highly fractured core. Bedding :. 103.6 : 68 degrees to core axis. 103.9 : 70 degrees to core axis. 104.5 108.6 FINE GRAINED PLAGIOPHYRIC GABBRO Fine-grained gabbro with 5 to 7 %, 1 to 2 mm, feldspar grains and AB21912 106.5 106.6 .1 263 n/a 116 n/a 96 n/a local guartz - chlorite veins. 108.6 116.2 ALTERED FELSIC CRYSTAL LAPILLI TUFF Bleached felsic tuff with felsic lapilli and sausuritized feldspar AE08751 111.4 112.8 1.4 <1 (5 1500 45 5 22 grains. Hosts 2 to 3 % fracture controlled pyrrhotite with trace AE08752 112.8 114.6 1.8 28 8 18 <1 <5 1600 chalcopyrite. There is 1.8 m of lost core as approximately 10 cm 26 AE08753 114.6 116.2 1.6 57 8 (1 <5 1000 blocky, highly fractured core from 112.8 to 114.6. Thermal biotite appears throughout and increases with depth. Foliations :. 115.0 : 80 degrees to core axis. 116.0 : 80 degrees to core axis. 116.2 120.7 MASSIVE QUARTZ-FELDSPAR PORPHYRITIC FLOW Grey to green oxidized felsic flow with 10 to 15 %, 1 to 2 mm, <5 1000 AE08754 116.2 117.7 5 45 <1 1.5 28 sausuritized feldspar grains and 1 to 3 % quartz grains. The n/a 1360 AB21913 118.4 118.5 . 1 44 n/a 24 n/a foliation varies locally and averages 55 degrees to core axis. 120.7 121.4 MAFIC SILL Fine-grained green mafic sill with sharp lower and upper contacts, at 42 and 47 degrees to core axis. The sill hosts 1 to 2 % pyrite and trace carbonate veinlets. The foliation averages 45 degrees to core axis. 121.4 154.3 MASSIVE OUARTZ-FELDSPAR CRYSTAL TUFF Dark black to medium grey - green felsic tuff with locally variable AE08755 125.0 126.4 1.4 41 6 31 <1 5 890 crystal content, 2 to 25 % ( average 15 % ), 1 to 3 mm, feldspar 73 <1 <5 1800 AE08756 126.4 127.0 6 .6 88 grains to laths and trace to 5 %, ( average < 1 % ) guartz AE08757 127.0 128.0 1.0 10 8 30 . <1 <5 1200 crystals. There are up to 5 % epidotized clasts, which range from 37 AB21914 128.6 128.8 .1 n/a 23 n/a n/a 847

### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb	Ba ) (ppm)
		1 cm by 0.5 cm to 10 cm thick and continuous across the core. Some clasts have been completely replaced by epidote and others have been rimmed by ep or have 20 to 50 % epidote interstitial to feldspar grains. There is very rusty, bleached and cooked tuff from 142.0 to 143.2 and from 146.2 to 151.6. There is only trace pyrite in the rusty zones. There are trace local, approximately 5 cm, quartz - chlorite - calcite veins. From 144 to 146.5 the thermal biotite is a dominant feature and it occurs to a lesser degree throughout.	AB21915 AE08758 AB21916 AE08759 AE08760 AE08761	134.6 146.6 148.8 148.1 149.0 150.0	134.8 148.1 148.9 149.0 150.0 151.9	.1 1.5 .1 .9 1.0 1.9	56 12 38 27 11 13	n/a 6 n/a <5 11 5	25 31 21 28 26 23	n/a <1 n/a <1 <1 <1	n/a <5 n/a <5 <5	675 1200 680 1100 930 1200
		There are minor other lithologies :. 123.7 123.8 Rusty mafic sill. 126.4 127.0 Intermediate lapilli tuff with epidote lapilli, 20 to 35 %, in a thermal biotite matrix with 1 to 2 % pyrrhotite and trace chalcopyrite.					<i>.</i>					
		Foliations :. 126.6 : 59 degrees to core axis. 131.5 : 61 degrees to core axis. 134.5 : 41 degrees to core axis. 144.1 : 60 degrees to core axis. 152.4 : 56 degrees to core axis.										
154.3	155.9	INTERMEDIATE LAPILLI TUFF 30 to 40 % epidote grains and lapilli in a intermediate to felsic matrix. The tuff is massive and possibly is a flow.	AB21917	154.5	154.6	.1	51	n/a	125	n/a	n/a	120
155.9	169.7	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF At upper contact is similar to 121.4 to 154.3 til 161 where clasts disapear and tuff is locally light green and black zones with on average 5 % feldspar and quartz crystals. There are minor dust tuff beds. Locally there is fracture controlled carbonatization.	AB21918	163.5	163.6	.1	34	n/a	24	n/a	n/a	1970
		Foliations :. 162.3 : 43 degrees to core axis. 163.5 : 20 degrees to core axis. 166.0 : 54 degrees to core axis. 168.5 : 50 degrees to core axis.										
		Bedding :. 162.5 : 43 degrees to core axis. 162.0 : 70 degrees to core axis.										
169.7	224.0	INTERMEDIATE TO MAFIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Dominantly and esitic tuffs with local felsic tuffaceous components with a gradational transition into rhyolitic tuff for 1 to 2 m. The tuff hosts 5 to 30 % epidote to feldspar grains, up to 2 mm, and trace to 2 % up to 2 mm guartz eves There are minor local	AB21919 AB21920 AB21921 AB21921	185.5 201.5 206.5	185.6 201.6 206.6	.1 .1 .1	181 129 196	n/a n/a n/a	234 134 107	n/a n/a n/a	n/a n/a n/a	805 366 638

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From (m)	T0 (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		beds, with chlorite crystals after hornblende. There is trace to nil local chalcopyrite and pyrite associated with epidotization. Thermal biotite occurs from 204.5 to the end of the unit. There is rust from 174 to 187.5 locally.	AB21922 AE08763	218.4 223.0	218.5 224.0	.1 1.0	329 182	n/a <5	140 73	n/a <1	n/a <5	171 1600
• •		Foliations :. 173.0 : 36 degrees to core axis. 178.5 : 15 degrees to core axis. 184.5 : 40 degrees to core axis. 188.4 : 40 degrees to core axis. 194.0 : 36 degrees to core axis. 199.9 : 60 degrees to core axis. 203.6 : 54 degrees to core axis. 209.5 : 50 degrees to core axis. 215.4 : 51 degrees to core axis. 223.7 : 61 degrees to core axis.				·						
		Bedding :. 185.4 : 55 degrees to core axis. 195.8 : 53 degrees to core axis.								•		
224.0	225.0	FELSIC TUFF Felsic tuff with thermal bt and, trace quartz eyes and 30 % sulphides. The sulphides are 12 % pyrite, 12 % pyrrhotite and 6 % chalcopyrite. The sulphides occur as disseminated and pseudo- stringers. Pyrite occurs as cubes which occur separately from and with the other sulphides. The pyrrhotite and chalcopyrite are ductilely deformed and occur together.	AE08764 AB21923	224.0 224.5	225.0 224.6	1.0 0.1	6900 18	17 n/a	151 18	2 n/a	35 n/a	1400 1690
225.0	225.4	INTERMEDIATE ASH TUFF Andesitic fine-grained green tuff with basal quartz eyes. The tuff has been subjected to pervasive carbonatization.	AE08765	225.0	225.4	0.4	568	<5	92	<1	<5	<20
225.4	225.6	FELSIC TUFF 15 % chalcopyrite and 15 % pyrrhotite, with a swirled deformation texture, with quartz veins, which host trace chalcopyrite in a felsic rock, tuff (?).	AE08766	225.4	225.6	0.2	7600	<5	195	2	25	60
225.6	228.4	FELDSPAR PORPHYRITIC MAFIC FLOW Fine-grained green mafic flow with feldspar phenocrysts, similiar to a chilled margin gabbro. Local quartz - epidote veinlets occur. Sheared at 40 degrees to core axis for lower 1 m. There is trace disseminated pyrite. Trace quartz crystals occurs. The foliation at 226.7 is at 44 degrees to core axis.										

228.4 231.1 FELSIC FLOW

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Froi (m	n To ) (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Fine-grained massive felsic flow with purple tint, due to thermal biotite. Blocky, highly fractured core from 228.8 to 231.1.										
231.1	242.0	MAFIC FLOW Medium green mafic flow with 20 to 30 % epidote grains. There are local quartz +/- chlorite +/- epidote veins. In the upper 1 m there are felsic dust tuff beds or cherty beds, 1 mm to 2 cm thick with bedding at 60 degrees to core axis.	AB21924	233.3	233.4	.1	27	n/a	110	n/a	n/a	536
242.0	247.3	SERICITIC QUARTZ EYE BEARING FELSIC TUFF 8 to 9 %, 2 to 8 mm, quartz eyes in a rhyolitic tuff to sericite schist, which is weakly to moderately contorted with local kink bands. Bedding appears to be sub-parallel to the foliation.	AB21925	242.1	242.2	.1	44	n/a	49	n/a	n/a	1090
		Foliations :. 242.3 : 41 degrees to core axis. 243.5 : 61 degrees to core axis. 245.3 : 58 degrees to core axis.										
247.3	247.4	FAULT GOUGE Fault gouge to clay green rubble.										
247.4	269.7	MAFIC FLOW Andesitic fine-grained light green flow with approximately 30 % up to 1 mm epidote grains and local quartz +/- chlorite +/- carbonate veins to veinlets. There is local trace to 0.5 % disseminated pyrite. Contain locally trace to 4 % quartz grains, averages approximately 1 %.	AB21926	264.6	264.8	.1	142	n/a	98	n/a	n/a	187
		Foliations :. 249.0 : 46 degrees to core axis. 261.0 : 51 degrees to core axis.										
269.7	271.0	FAULT GOUGE Andesitic fault gouge and clay for 30 cm from upper contact and then felsic fault gouge to lower contact.										
271.0	324.8	<ul> <li>PYRITIC QUARTZ-SERICITE SCHIST</li> <li>271.0 272.8 Highly to moderately contorted felsic with a deformational breccia structure. Hosts 1 to 2 % pyrite, mostly concordant with some disseminated.</li> <li>272.8 273.0 FAULT ZONE black pyrite rich matrix with minor brecciated clasts.</li> <li>273.0 274.1 Brecciated zone with fault gouge and black fault material. Trend at approximately 70 degrees to core</li> </ul>	AE08767 AE08768 AE08769 AE08770 AE08771 AE08772 AE08773	272.8 280.0 281.0 282.0 285.0 286.0 287.0	274.1 281.0 282.0 283.0 286.0 287.0 288.0	1.3 1.0 1.0 1.0 1.0 1.0	712 912 593 222 80 57 173	64 286 438 42 94 38 20	560 5200 1587 396 262 96 48	1 <1 1 <1 <1 <1 <1	80 30 65 45 5 10 35	1200 1500 1800 1600 1600 2000 2000

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### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From (m)	To (m)		DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
			axis. 2 % pyrite occurs.	AE08774	288.0	289.0	1.0	300	24	31	(1	65	1300
		274.1 274.9	Weak pervasive carbonatization in white rhyolitic rock	AE08775	289.0	290.0	1.0	122	12	16	(1	45	890
			with trace to 1 % disseminated pyrite.	AE08776	290.0	291.6	1.6	68	6	7	<1	20	860
		274.9 275.0	Mafic sill with 1 % disseminated pyrite.	AE08777	291.6	292.6	1.0	70	6	7	<1	20	550
		275.0 281.0	Brecciated felsic with local minor fault slips and	AE08778	292.6	293.8	1.2	95	8	7	(1	30	630
			quartz veins. Pyrite content averages 2 % and locally	AE08779	293.8	295.0	1.2	186	11	232	(1	20	1800
			there is trace to nil chalcopyrite.	AE08780	295.0	296.0	1.0	237	108	415	(1	5	1800
		281.0 281.7	5 to 6 % banded pyrite, bands up to 7 mm at average	AE08781	296.0	297.1	1.1	275	17	1814	<1	30	1800
			foliation of approximately 40 degrees to core axis.	AE08782	297.1	298.1	1.0	482	48	1675	2	130	1500
			Pyrite is fine-grained and hosts trace to nil	AE08783	298.1	299.0	.9	449	68	487	<1	55	1700
			chalcopyrite.	AE08784	299.0	299.9	.9	89 <b>6</b>	13	275	<1	15	1700
		281.7 285.6	Sericite schist with local quartz +/- carbonate veins	AE08785	300.0	300.7	.7	569	<5	342	<1	30	640
			and 1 to 2 % disseminated pyrite with minor local	AE08786	300.7	302.0	1.3	986	10	185	<1	15	1400
			micro-bands of fine-grained pyrite. There is minor	AE08787	302.0	303.0	1.0	416	16	210	<1	15	1400
			fuchsite at 282.75. Foliation varies locally from 20 to	AE08788	303.0	304.0	1.0	277	45	352	<1	95	1100
			30 degrees to core axis. There is minor local fault	AE08789	304.0	305.0	1.0	122	38	432	<1	55	1700
			gouge.	AE08790	305.0	306.0	1.0	132	13	217	<1	45	1600
		285.6 291.6	Highly contorted with chevron style kinking. Local	AE08791	306.0	307.0	1.0	122	10	57	<1	15	1300
			fault gouge at 288.8, 289.4 and 291.4 for on average	AE08792	307.0	307.8		82	12	49	<1	<5	<20
			10 cm. Pyrite is disseminated and banded conformable to	AE08793	307.8	309.4	1.6	-54	21	27	< <u>1</u>	<5	860
			Ioliation, which is sub-parallel to the core axis.	AE08794	309.4	310.4	1.0	50	8	17	(1	35	1200
		• • • •	There is average 4 % pyrite, locally 2 to 7 %. There	AEU8/95	310.4	314.0	1.0	19	10	33	<1 1	40	1200
			are local quartz verns with trace pyrite cubes. There	AEU0/30	214 5	314.5	1.5	20	20	1 4 1	1	20	1100
		201 6 203 8	Silicified rock with annrovimately 2 % discominated	AE00737	316 0	317 5	1.5	59	40	241	2	50	1200
		291.0 295.0	nurite and sericite fault gauge at 292 6 and 293 6	AE00790	320.0	322 0	2.0	173	147	1/03	4	140	2300
			Locally contorted with foliation trend at approximately	AE08800	323.5	324 5	1 0	248	105	1297	- <b>1</b>	45	2400
			25 degrees to core axis. Minor fuchsite at 292.35.	MICCOCC	323.3	541.5	1.0	240	105	1451	*	40	2400
		293.8 297.1	White, bleached and highly contorted sericite schist										
			with local pyrite band rich zones, up to 10 % over 10										
			cm, average 1 to 2 % pyrite, most is disseminated.							÷			
		•	Local chalcopyrite blebs. 1.5 cm fuchsite rich band at										
			295.2.										
		297.1 297.4	Light green mafic sill with 22 cm barren bull quartz										
			vein core.										
•		297.4 297.5	Fault gouge.										
		297.5 298.1	Moderately contorted silicified rock with 2 to 3 %								•		
			disseminated and banded pyrite with trace fuchsite.										
		298.1 299.0	Sericite and carbonate fault gouge.										
		299.0 299.9	Contorted weakly silicified. Micro-scale chevrons. 1 to										
			2 % very fine-grained disseminated pyrite.										
		299.9 300.6	Mafic sill or dyke, fine-grained light light green with										
			1 to 3 % carbonate veinlets that host 1 % pyrite cubes										
			and grains.										
		300.6 307.0	bericite schist with approximately 2 % pyrite										
			alsseminated and local bands, up to 4 mm. 10 blebs of							÷	₩ 8•	6.50 A.C.	
			charcopyrite at 500.9 and trace to nil elsewhere.										
			is 50 degrees to core avis and at 200 is at 50 degrees										
			to core axis From 303 2 to 303 A and 305 0 to 305 1										
		,	there are mafic sills as from 200.4 and 505.0 to 305.1										
			ANALA ALA MATTA SIITS do line 73.3 (n. 100.0.										

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,	From (m)	To (m)		DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
			307.0 307	.8 Dark green mafic sheared and carbonitized sill. Upper contact at 20 degrees to core axis and lower contact is										
			207 0 200	sharp, but irregular.										
			307.8 308	approximately 5 %, up to 2 mm, quartz eyes.										
			308.7 309	1.7 matrix sill as from 307.8 to 308.5 with										
			50000 000	silicification below the sill for approximately 10 cm. Foliation at 309.1 : 59 degrees to core axis.										
			309.1 309	.4 0.3 m of lost core.										
			309.4 310	1.1 2 to 3 % banded pyrite in contorted quartz - sericite schist. Local quartz eyes.										
			310.1 312	2.2 Quartz - sericite schist with 3 to 5 %, 1 to 3 mm, quartz eyes and trace to 1 % local disseminated and										
			312.2 312	banded pyrite. 2.3 Mafic_sill, as from 308.5 to 308.7 with fault gouge										
				over lower 5 cm.										
			312.3 324	1.5 Quartz - sericite with local quartz eyes, up to 5 %, up to 4 mm. Local fuchsite, 1 cm thick, semi-continous bond at 215 1										
				locally trace to 2 % is both disseminated and ranaly								-	· ···	
				bands, fine-grained up to 3 mm. Foliations : 316.1 : 35										
				degrees to core axis, 320.4 : 51 degrees to core axis,										
				323.2 : 38 degrees to core axis and 324.4 : 51 degrees										
				to core axis.										
			324.5 324	1.8 Fault gouge and quartz veins.										
	324 8	365 8	CIBBRO											
	324.0	303.0	324.8 34	1 Fine-grained gabbro, chilled margin, feldspar phyric	1002651	325 8	326 0	3	150	5	76	(1	<b>7</b> 5	50
			52410 54	up to 20 %, up to 2 mm. Contains numerous epidote, quartz, and carbonate veins and veinlets. There is	AB21927	356.8	357.0	.2	260	n/a	103	n/a	n/a	328
				minor hematite lining some vnlt' and after ilmenite.										
				Up to 5 % leucoxene also occurs and the rock is weakly magnetic.										
			348.1 35	7.4 Coarse grained gabbro with 3 to 5 % weakly magnetic ilmenite.										
			357.4 36	1.4 Medium grained.		· .		· .						
			361.4 36	.8 Fine-grained gabbro, less veining than at upper contact.										
	365.8	380.6	CHERTY BI	ACK ARGILLITE AND SILTSTONE WITH MINOR GREYWACKE										
			365.8 368	3.9 Medium to dark green to grey siliceous siltstone with	AD02652	367.8	368.9	1.1	32	7	64	(1	<5	2800
				minor black argillite beds and local fracture	AD02653	368.9	370.3	1.4	50	14	58	<1	<5	4500
				controlled carbonate veinlets and local quartz veins.	AD02654	371.1	372.0	.9	37	7	111	<1	<5	2900
an esta de	• *			There is trace to 0.5 % fracture controlled pyrite.	AD02655	372.7	374.0	1.3	33	7	58	····• <b>(1</b>	· (5····	2700
			368 0 374	Beading at 368 is at 60 degrees to core axis.	AD02656	374.0	375.0	1.0	35	9	54	(1	<5	4000
			300.3 3/1	There are numerous crossessitting fracture controlled.	AU02657	375.0	376.0	1.0	31	√ <b>(5</b>	87		< 5 / E	4000
				carbonate veinlets. The zone bosts annrovimately 5 4	AD02658	378.0	311.0	1.0	20		90 73	(1	< D 25	3500
				pyrite, about 1 % is disseminated and fine-grained 1 %	AD02039	377.7	378.5	. /	54 58	11	59	(1	(5)	3700
								. <del>.</del> .		**	44			- • • •

From (m)	T0 (m)		DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb	Ba ) (ppm
			is fracture controlled and 3 % is in beds as original pyrite beds and/or as replacement.	AD02661 AD02662	378.5 379.5	379.5 380.6	1.0 1.1	35 52	7 · . 8	51 163	<1 <1	.<5 35	3300 2000
,		Bedding :. 369.0 : 30 369.5 : 33	degrees to core axis. degrees to core axis.				,						
		370.2 : 40 370.3 371.1	degrees to core axis. Grey brown siliceous sandstone hosts minor argillite clasts and 1 to 2 % disseminated and banded pyrite.										
		371.1 372.0	There are quartz grains which fine out downhole. Black argillite and tan chert with minor carbonate veinlets and up to 3 % pyrite in the argillite. Bedding at 371.8 is at 40 degrees to core axis.		-								
		372.0 372.7 372.7 372.9	Sandstone as before. Black cherty argillite with 5 % pyrite.										
		312.7 300.4	black argillites. All host fracture controlled carbonate vnlt'. From 377.7 to 378.5 there is a black argillite with numerous 1 to 3 mm pyrite beds / bands, total										
			by file approximately 5%. Bedding : 3/4.8 : 46 degrees to core axis, 376.0 : 45 degrees to core axis, 378.0 : 43 degrees to core axis and 380.4 : 45 degrees to core axis								1 m 1a 		
		380.4 380.5 380.5 380.6	Green chert or siltstone.										
380.6	385.4	PERIDOTITE											
		Medium to d magnetic ro There is c 3 % asbestc 7 mm quartz	lark green fine-grained locally weakly to very strongly ock. There are numerous local green clay fault slips. Clay and fault gouge from 382.8 to 383.1 which hosts 2 to os. The upper contact is very sharp at 381.8 there is a c vein with 2 % chalcopyrite. Minor quartz - calcite -	AB21928 AD02663 AD02664 AD02665 AB21929	380.7 380.6 381.7 381.9 384.3	380.8 381.7 381.9 382.8 384.4	.1 1.1 .2 .9 .1	47 94 239 145 8	n/a 6 8 7 <2	401 177 120 161 100	n/a <1 <1 <1 <1	n/a <5 75 <5 <1	2630 1900 1800 830 162
		blotite vei	ning at the base.		· .								
385.4	391.1	CHERTY BLAC 385.4 387.3	CREAR ARGILLITE AND SILTSTONE WITH MINOR GREYWACKE Green cherts and greywackes.	AD02666	387.0	388.0	1.0	33	5	80	<1 (1	<5 (5	5600
		387.3 389.8	fracture controlled carbonate and local fracture controlled pyrite pseudo-beds, total pyrite approximately 2 %.	AD02668 AD02668 AD02669	389.0 389.0 390.0	390.0 390.0 391.0	1.0 1.0 1.0	58 72 39	8	27 36 24	<1 <1 <1	<5 <5 <5	11000 11000 3900
		389.8 390.2 390.2 391.1	2 1 to 2 % disseminated pyrite in a dark green greywacke. Cherts and argillites as before.										
		Bedding :. 368.8 : 35 388.4 : 26	degrees to core axis. degrees to core axis.	•	·								
		390.5 : 38	degrees to core axis.										

HOLE No: Page Number CHEM87-34 12

Lost core :. 0.4 M from 388.6 to 389.0.



#### PROPERTY: CHEMIANUS J.V. - Chip Claims

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 47+00 E 1+83 N

NTS: 92B13	UTM: 5416248 N 431862 E
Azimuth: 210	Elevation: 710 m
Dip: -50	Length: 359.1 m

Started: 30-June-1987 Completed: 5-July-1987

Purpose: To define stratigraphy north of IP and VLF anomalies tested by holes CHEM87-34 and 36.

HOLE No: Page Number CHEM87-35 1

Claim No. CHIP 1 Section No.: Line 47+00 E

Logged By: S.G. Enns and J. Pattison Drilling Co.: Burwash Enterprises Assayed By: Bondar-Clegg & Co and XRAL

Core Size: NQ

	DIP TESTS																	
			•	Length	Azi- muth	Dip	Length	Azi- muth	Dip									
				32.60 127.10 215.50	206.0 206.0 206.0	-52.0 -48.0 -49.0	281.90 353.60	206.0 206.0	-47.5 -42.0									
From (m)	To (m)			DESCRIPTION	I	~~		S	ample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	3.4	OVERBURDEN	AND CASING															
3.4	19.1	FELSIC QUA Overall co dark grees appearance (?).	RTZ CRYSTAL TUR lour of unit is n slightly chlo . White 2 to 8	FF s pale greenis pritic steaks 8 cm bands are	sh-gray produce parall	but in deta a distinct el to folia	il white an ly banded tion as bea	nd Al ds	02480	16.8	16.9	.1	32	n/a	28	n/a	n/a	903
		Unit 1s st Foliation 50 Degrees 8 to 15 % generally 2 to 3 mm axis	rongly follated and bedding (?) to core axis a 2 to 8 mm quart nil to minor. white quartz ve	d and sericit ) 60 degrees ( at 10.7 m. tz eyes, up to eins about 2 )	e-rich. to core o 1 cm 1 per m 70	axis at 8.7 .ocally; fel ) to 80 degr	m. dspars ees to cor	e			· .							x
		Rare pyrit White irre and 18.2 t Fine grain Lower cont	e as 1 to 4 mm gular quartz vo o 18.4 m. ed dark green s act becomes dan careous	cubes up to : ein masses se section 17.4 rker green bu	l cm - 1 veral cm to 17.6 t retair	ess than 1 h wide at 17 m - early m hs quartz co	%. .0 to 17.4 afic dyke ntent and	m ?. is										
		"canij cai							·									
19.1	24.6	MAFIC TUFF Probably a Unit has a foliated a 5 to 6 % 2 Abrupt, gr	sheared mafic dark green co nd calcareous. to 3 mm quart: adational uppe	tuff. lour, is stre z eyes are pr r contact; lo	aky in a esent in wer cont	appearance, h this unit. tact grades	strongly into massi	Al Ve	002481	21.3	21.4	.1	255	n/a	103	n/a	n/a	142

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### HOLE No: Page Number CHEM87-35 2

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		quartz bearing tuff. At 24.2 m a massive dark green quartz crystal tuff is present. Locally, epidote stringers parallel foliation cleavage.										
24.6	36.5	CHLORITIC FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Unit has a dark green colour, is strongly foliated 60 degrees to core axis at 31.5 m 50 degrees to core axis at 34.7 m. Quartz eyes 4 to 7 %, 2 to 6 mm and up to 8 mm and gray feldspar 7 to 10 %, 3 to 6 mm. At 25 to 26 m a few white flattened lithic clasts 2 to 5 mm by 20 mm long. Pyrite as foliation parallel stringers 2 to 3 % from 25 to 30 m.	AE08684 AE08685 AE08686 AE08687	25.0 26.0 27.0 28.0	26.0 27.0 28.0 29.0	1.0 1.0 1.0 1.0	317 63 51 43	<5 <5 <5 <5	63 49 40 35	<1 <1 <1 <1	<5 <5 <5 5	1100 760 790 770
		green and pale green epidote (after feldspar) bands 5 to 10 mm wide. Weakly calcareous.	·									
36.5	108.2	FELSIC OUARTZ-FELDSPAR CRYSTAL TUFF										
		Unit is similar to 3.4 to 19.1 m. Upper contact grades from 10 % feldpspar to quartz-rich sericite tuff. 12 to 15 %, 2 to 8 mm quartz and abundant sericite. Generally sub-massive; locally streaky due to variable sericite content. A few sericitic lithic clasts parallel foliation cleavage at 41.2 m. Foliation at 40.2 m is at 60 degrees to core axis. Dark green chlorite-rich (plus epidote) strongly sheared section 55 degrees to core axis at 35.5 to 35.7 m. Streaky sections 46.7 to 49.0 defined by finer grained more chlorite-rich. And epidote altered feldspar bands (beds ?) 60 degrees to core axis ;they are often subtle. Pale pistachio green epidote veined sections with irregular quartz	AD02482 AD02483 AE08688 AE08689 AD02484 AD02485 AD02486 AD02487	40.3 53.2 61.3 62.3 70.2 85.5 95.3 105.1	40.4 53.3 62.3 63.3 70.3 85.6 95.4 105.2	.1 .1 1.0 1.0 .1 .1 .1	36 37 8 4 25 23 49 34	n/a <5 6 n/a n/a n/a n/a	38 36 18 21 27 26 64 24	n/a /1 /1 n/a n/a n/a n/a	n/a n/a 5 (5 n/a n/a n/a n/a	1070 1120 1000 1100 1250 1020 1240 649
		veining 43.9 to 44.2 m.										

Feldspars generally more common, 6 to 10 % 2 to 6 mm and generally epidote altered at 50 to 53 m.

At 54.1 to 54.5 m white quartz veins with dark chlorite.

A finer grained crystal tuff interval 46.0 to 48.5 m gives a streaky appearance to this generally massive unit. Local steaking is caused by variable chlorite content.

Foliation of streaks at 62.0 m is at 60 degrees to core axis. Small fault (chlorite slip) 5 cm wide at 59.2 m.

Occassional pyrite crystals, overall less than quarter %.

At 61.5 to 63.4 m foliation parallel fine grained pyrite locally reaches 2 to 3 % in fine grained siliceous looking gray quartz sericite tuff.

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### HOLE No: Page Number CHEM87-35 3

From (m)	T0 (m)	DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Below 66.0 m the unit becomes predominantly greener due to increase in chlorite. Feldspar also increases to 8 to 10 % as 2 to 4 mm crystals										
		Foliation at 69.0 m is at 55 degrees to core axis. Stretched lithic clasts at 69.5 and 72.3 m. White guartz vein masses accompanied by dark chlorite at 71.0 to72.2	·									
		m. From 69.0 to 90.0 m monotonous lithology of variably streaked overall light greenish quartz feldspar crystal tuff. Probable bedding is defined by increased darker chlorite content relative to										
		quartz and feldspar. Feldspar generally is subordinate in amount to quartz.										
		Bedding defines foliation cleavage:. 50 Degrees to core axis at 74.6 m.					•			÷		
		55 Degrees to core axis at 80.3 m. 55 Degrees to core axis at 80.8 m.	`									
	N.	55 Degrees to core axis at 93.7 m. 50 Degrees to core axis at 101.4 m.										
		Blocky core 88.2 to 89.2 m small fault 35 degrees to core axis. Blocky core 90.4 to 91.2 m.										
		Kare pyrite crystals 4 to 6 mm at 89.1 m. Small fault with gouge 92.5 m. Small fault with gouge 105.8 is at 50 degrees to core axis.										
		Dark green chlorite calcite epidote sheared sections:. 50 Degrees to core axis at 97.5 98.1 m.					·					
		50 Degrees to core axis at 99.1 99.3 m with small fault. 50 Degrees to core axis at 102.2 102.9 m. Lower contact sharp.			·							2
			. •									
108.2	113.5	QUARTZ-FELDSPAR PORPHYRITIC FELSIC FLOW										
		This interval is massive less sericitic and only moderately foliated compared to the above unit. Darker gray coloured, possible flow unit.	AD02488	110.2	110.3	.1	24	n/a	25	n/a	n/a	1170

Moderate foliation at 109.0 m is at 55 degrees to core axis.

#### 113.5 127.8 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF

Same gray colour as unit above but with stronger foliation. Lithic clasts here and there. AD02489 124.8 124.9 .1 105 n/a 35 n/a n/a 726

10 to 13 % 2 to 4 mm quartz eyes, 8 to 10 % 2 to 4 mm feldspars with proportional ratios quite variable in broad 0.1 to 0.7 m bands. Also, local 1 to 7 cm dark green chlorite shear zones. Local white quartz veins here and there parallel foliation. Lithic clasts 115.3 m.

Fault with gouge 114.2 to 114.9 m; adjacent foliation 45 degrees to

É

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### HOLE No: Page Number CHEM87-35 4

Sample	From	То	Width	Cu	РЪ	Zn	Ag	Au	Ba
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

n/a 1070

AD02490 137.4 137.5

. 1

46

n/a

33

n/a

From To

(m) (m)

core axis Lost core 0.4 m. Foliations:. 55 Degrees to core axis 121.2 m. 53 Degrees to core axis 125.0 m. Blocky core 126.5 to 127.8 m.

127.8 128.6 EARLY MAFIC SILLS

there.

>

Dark mafic dyke/sill with sharp upper and lower contacts respectively 90 and 60 degrees to core axis. Lithology is fine-grained moderately magnetic (in contrast to tuffs), highly calcareous (HCl fizz) and riddeled with calcite veinlets.

-----DESCRIPTION------

#### 128.6 136.0 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF

Similar to 113.5 to 127.8 m but with dark streaks of sheared dark gray argillaceous bands 3 to 5 mm wide sheared beds. Bedding; 45 degrees to core axis at 131.7 m. 48 Degrees to core axis at 135.4 m. Local large isolated quartz eyes 8 to 12 mm. Small fault @ 130.9 m 58 degrees to core axis. White 0.2 m quartz vein @ 133.5 m. Last 0.2 m of interval is more strongly sheared. Less than 1/4 % pyrite dissemination as 1 to 2 mm crystals here and

### 136.0 141.0 QUARTZ-FELDSPAR PORPHYRITIC FELSIC FLOW

White unit; contrastinly distinctive from above unit, especially near the top of this interval. 15 % 2 to 6 mm white feldspar; 7 to 10 % 2 to 4 mm quartz.

Banded 1 to 3 cm wide; otherwise massive: 55 degrees to core axis at 137.2 m.

#### 141.0 148.0 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF

This interval is strongly foliated, darker gray than above unit and grades from it. The composition looks similar but with more sericite and foliation parallel irregular 5 to 15 mm calcite patches (some pink calcite).

Fault with gouge 35 to 50 degrees to core axis at 144.3 145.3 m Lost Core 0.5 m.

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Lower contact 40 degrees to core axis.

148.0 155.5 FELSIC ASH TUFF

Felsic to intermediate composition dust and ash tuff with hard cherty intervals and minor dark green intervals.

Strong foliation cleavage, except near faults 60 to 68 degrees to core axis.

Faults : 149.0 to 149.2 m 53 degrees to core axis Lost Core 0.2 m. 150.0 to 150.4 m 30 to 74 degrees to core axis gouge and Lost Core 0.4 m.

150.7 to 150.8 m 70 degrees to core axis.

155.5 158.2 EARLY MAFIC DYKE

Sharp upper contact 62 degrees to core axis ; lower contact broken core.

White calcite veinlets and irregular patches; pervasive calcite throughout.

Fine grained equigranular.

158.2 160.7 FELSIC CRYSTAL ASH TUFF

Mainly broken core hard, cherty, and siliceous. 1/2 % pyrite dissemination.

160.7 163.9 EARLY MAFIC DYKE

As above in 155.5 to 158.2. Small 2 cm fault with gouge at 162.5 m 80 degrees to core axis.

#### 163.9 183.8 FELSIC CRYSTAL LAPILLI TUFF

Mottled appearance with gray-green and pink tinged white patches. Possible weak chloritic alteration on fractures especially 166 to 170 m. Pale pink hue appears to be on larger lithic clasts 2 to 3 cm with poorly defined outlines. (Perhaps a welded lithic tuff ?) Very fine grained less than 1/2 mm disseminated magnetite crystals noted - about 1/2 % and cause of pinkish tinge. Darker matrix to the pale patches (clasts) is quartz feldspar crystal composition similar to unit 141 to 148 m above.

AD02492	169.5	169.6	.1	44	n/a	35	n/a	n/a	786
AD02493	177.8	177.9	.1	63	n/a	47	n/a	n/a	1100

AD02491 157.6 157.7 .1 47 n/a n/a n/a 682 86

HOLE No:

CHEM87-35

Page Number

5

Ba

From (m)

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

#### HOLE No: Page Number CHEM87-35 6

To	DESCRIPTION	Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)		No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)
The whi Sma	intervals 170.4 to 171.6 m and 174.0 to 175.0 m looks like a te quartz crystal tuff, with distinctive quartz eyes. 1) mafic dyke 172.5 to 172.8 m - weakly magnetic.										

Small faults with gouge : 30 degrees to core axis at 173.5 m.

45 Degrees to core axis at 176.3 m.

Lower 2 m possibly weakly tectonized - pinkish tinge conspicuous due to disseminated fine grained magnetite presence.

#### 183.8 227.7 QUARTZ-FELDSPAR PORPHYRITIC FELSIC FLOW

This unit has a massive uniform structure without mottled appearance, and has a pinkish tinge. 10 % 2 to 6 mm quartz and 8 to 12 % 2 to 4 mm feldspar and about 1 5

disseminated magnetite. Local, 8 to 9 mm quartz-eyes. Fairly uniform 50 to 55 degrees to core axis foliation cleavage throughout unit.

3 Cm shear slip, dark-green with magnetite and hematite concentrations at 193.3 m and common 193.5 to 194.4 m. From about 197 to 206 m this interval is cross-cut by semi-random sericite and minor chlorite fractures about 15 to 20 per metre. At 204.0 to 204.5 the fracturing reaches pseudo-breccia intensity. Small, creamy-white 1 to 2 cm felsic clasts here and there eg. 209 m. At 203.5 m, a 1 cm quartz vein with blades of hematite (?). Below 209.0 m get fine grained short sections of felsic flow. Local fine grained magnetite concentrations 4 to 5 % magnetite @ 197.2 to 197.4 m in short sections 50 degrees to core axis. At 212 to 217 m the unit is fine to medium grained and becomes pale greenish in colour; it displays a local clastic (lithic) structure due to flow brecciation (?).

Below 217 m unit is generally similar to above 212 m with pinkish tinge and conspicuous quartz eyes and accessory 1/2 to 1 % accessory magnetite.

Local shears with brecciation:.

30 Degrees to core axis at 212.1 m.

60 Degrees to core axis at 218.9 m.

60 Degrees to core axis at 219.1 m.

60 Degrees to core axis at 221.1 m.

45 Degrees to core axis at 224.5 m gouge.

50 Degrees to core axis at 224.8 m.

56 Degrees to core axis at 227.0 m gouge.

Core becomes increasingly blocky below 222.5 m and foliation

cleavage core axis angles gradually change to 45 degrees to core axis.

Lower contact faulted.

AD02494	187.0	187.1	.1	31	n/a	37	n/a	n/a	1410
AD02495 AD02496	206.1	206.2	.1	40	n/a	46	n/a n/a	n/a	1020
AD02497	219.8	219.9	.1	36	n/a	19	n/a	n/a	1590

227.7 228.3 EARLY MAFIC DYKE

#### PROPERTY: CHEMIANUS J.V. Page Number HOLE No: FALCONBRIDGE LIMITED CHEM87-35 7 DIAMOND DRILL LOG From То Width Sample From To Cu РЪ Zn Ag Au Ba (m) (m) -----DESCRIPTION-----No. (m) (m) (m) (ppm) (ppb) (ppm) (ppm) (ppm) (ppm) Calcite veined, and moderately magnetic. AD02498 227.7 227.8 .1 38 n/a 1120 n/a 83 n/a Visible fine-grained disseminated 1 % magnetite visible.

.1

39

n/a

96

n/a

n/a 1330

228.3 230.0 QUARTZ-FELDSPAR PORPHYRITIC FELSIC FLOW

Pink tinge as before.

Very siliceous 0.1 m section adjacent to mafic sill at upper contact. Strong foliation cleavage 40 degrees to core axis.

230.0 232.0 EARLY MAFIC DYKE

Upper contact 40 degrees to core axis Lower contact 36 degrees to AD02499 230.6 230.7 core axis.

As 227.7 to 228.3 m.

Strong foliation cleavage 35 to 40 degrees to core axis.

#### 232.0 243.8 FELDSPAR PORPHYRITIC FELSIC FLOW

Gray colour , fine-grained with less conspicuous quartz-eyes; feldspar crystals predominant.

Locally sheared.

Early mafic dykes 234.8 to 235.0 m contacts 50 degrees to core axis and 55 degrees to core axis respectively and at 237.5 to 237.7 m.

Faults generally small and numerous:.

237.8 to 237.9 m.

238.7 to 239 0 m strongly sheared 238.3 to 239.8 m with foliation 45 to 50 degrees to core axis.

240.9 to 241.2 m 30 degrees to core axis.

243.7 to 243.8 m 45 degrees to core axis.

Pyrite about 1 % 236.6 to 245.0 m as minor disseminations in 1 to 5 cm wide zones parallel to core axis at 40 to 45 degrees.

#### 243.8 250.9 FELSIC LAPILLI TUFF

Felsic clasts generally cream to pale pink tinged flow material less than 1 to 5 cm (as 183.3 to227.7 m). Overall greenish gray colour. Contacts very deformed by shearing and small faults.

Foliation cleavage 35 to 40 degrees to core axis.

A few fine-grained pyrite stringers parallel foliation 250.0 to 250.2 m (2 to 3 % pyrite).

# CHEM87-3

HOLE No: Page Number CHEM87-35 8

		DIAMOND DRILL LOG						·				
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	T0 (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
250.9	254.9	EARLY MAFIC DYKE Both contacts 45 degrees to core axis. Dark-green, strongly foliated but otherwise massive unit. Flat 1 by 5 mm chloite patches parallel foliation at 45 degrees to core axis.										
				•								• •
254.9	268.4	FELSIC CRYSTAL LAPILLI TUFF Greenish-gray strongly foliated locally sheared and faulted unit. Weak pyritic stringers 262.2 m, less than 1 %. Foliation cleavage 55 degrees to core axis. Faults: 258.7 to 259.4 m; 0.4 m Lost Core. 260.0 to 261.2 m; 1.0 m Lost Core; 45 degrees to core axis. 261.4 to 261.8 m; 55 degrees to core axis.	AD02500	262.4	262.5	.1	48	n/a	128	n/a	n/a	583

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268.4 271.6 EARLY MAFIC DYKE

Dark green chlorite schist.

White ragged calcite patches are very common. At 269.2 to 269.4 m white siliceous felsic tuff inclusion. Lower 0.2 m section is epidote altered in 1 to 3 cm patches. Strong foliation cleavage, generally 30 to 40 degrees to core axis. Small fault 5 cm at 271.2 m with gouge, 75 degrees to core axis. Lower contact 65 degrees to core axis.

271.6 278.0 FELSIC CRYSTAL LAPILLI TUFF

Light gray colour, strongly sheared blocky core. At 273.9 to 275.1 m gravel - strong fault; adjacent shearing 50 degrees to core axis; Lost Core 0.9 m. Small fault 275.8 m; 50 degrees to core axis. Fine-grained section 275 to 277.5; bedding 45 degrees to core axis. Abundant guartz carbonate pods between 277.9 and 278.0 m. Broken core at lower contact.

#### 278.0 281.7 FELDSPAR PORPHYRITIC FELSIC FLOW

5 to 10 % < 2 mm epidotized feldspar in a hard massive siliceous aphyric matrix. Weak to moderate, pervasive, chlorite alteration makes the rock a light green colour. Moderately sericitic below 281.0 m. Nil to trace pyrite. Lower contact is at 42 degrees to

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From To (m) (m)

core axis.

281.7 285.8 MAFIC AND FELSIC TUFFS

Roughly 60 % felsic ash tuff in beds 0.3 to 1.4 m thick and 40 % mafic ash tuff in beds 0.2 to 1.0 m thick. The felsic tuffs are light to medium grey-green relatively massive weakly chloritized ash tuffs. The mafic tuffs are dark green foliated contain 1-10 %, 1-3 mm long epidotized feldspars and are weakly to moderately carbonatization with calcite-filled gashes and microfractures. STRUCTURE:. Bedding is at 42 to degrees to core axis at 281.8 m. Foliation is at 42 to degrees to core axis at 281.8 m. Minor slip is at 76 degrees to core axis at 282.4 m.

-----DESCRIPTION------

Bedding is at 60 degrees to core axis at 282.5 m. Bedding is at 65 degrees to core axis at 283.3 m. Bedding is at 68 degrees to core axis at 283.5 m. Foliation is at 62 degrees to core axis at 284.0 m. Bedding is at 74 degrees to core axis at 284.2 m. Bedding is at 76 degrees to core axis at 284.4 m. 0.5 Cm wide clay-filled slip is at 65 degrees to core axis at 285.4 m. Minor clay-filled slip is at 60 degrees to core axis at 285.5 m. Minor clay-filled slip is at 55 degrees to core axis at 285.7 m.

- 281.7 282.2 Moderately carbonatized MAFIC TUFF. Nil sulphides. Quartz-carbonate vein at lower contact.
- 282.2 282.5 Felsic tuff with 5 % 1-3 mm epidote spots (altered feldspars). Lower contact is a chloritic slip at 70 degrees to core axis.
- 282.5 283.5 MAFIC ASH TUFF. 5.0 cm wide bed of felsic ash tuff at 65 degrees to core axis at 283.3 m. Lower contact is at 68 degrees to core axis.
- 283.5 284.2 FELSIC ASH TUFF. Lower contact is at 74 degrees to core axis.
- 284.2 284.4 Mafic tuff. Lower contact is at 76 to degrees to core axis.
- 284.4 285.8 FELSIC TUFF. 5.0 cm wide mafic ash tuff bed at 60-70 degrees to core axis near the upper contact. Below 285.4 m rock has a crushed tectonized appearance. Several clay-filled slips at 60-70 degrees to core axis. Bed of mafic tuff between 285.5 and 285.6 m. Lower contact is at 65 degrees to core axis.

#### 285.8 291.4 MAFIC FLOWS/DYKES AND FELSIC TUFFS

Mafic flows/dykes are fine-grained dark green with numerous

HOLE No: Page Number CHEM87-35 9

Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba	
No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	
AD02601	282.7	282.8	.1	33	n/a	61	n/a	n/a	813	
AD02602	283.8	283.9	.1	29	n/a	<10	n/a	n/a	1550	

AD02603 287.1 287.2 .1 27 n/a 64 n/a n/a 1850

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Ba

(ppm)

Sample	From	То	Width	Cu	Pb	Zn	Ag	Au
No.	(m)	(m)	(m)	(mmm)	(നനത)	(nnm)	(nnm)	(nnh)

From To

(m)

(m) -----DESCRIPTION-

calcite-filled microfractures and clots. Up to 10 % 1-3 mm epidotized feldspars. Very similiar to the Early Mafic Dykes described earlier in this hole. They alternate with beds of grey felsic tuff described in more detail below. Lower contact is at 70 degrees to core axis. STRUCTURE:.

Bedding is at 70 degrees to core axis at 288.2 m. 0.5 Cm wide clay-filled slip at 55 degrees to core axis at 288.4 m. Bedding is at 70 degrees to core axis at 289.7 m. Bedding is at 60 degrees to core axis at 290.7 m.

- 287.2 287.5 FELSIC TUFF. Rare lapilli-sized felsic clast. Lower contact is a slip at 30 degrees to core axis.
- 288.2 288.5 Bed of FELSIC TUFF with <1% rusty <2 mm in diameter centred on a silver metallic mineral ( arsenopyrite or metal from the core barrel).
- 289.1 289.2 FELSIC TUFF.
- 289.7 0.3 cm wide FELSIC TUFF bed at 70 degrees to core axis.
- 290.7 291.0 CHERTY MAFIC TUFFACEOUS SEDIMENTS. Numerous sericite-filled fractures and gashes. Upper contact is at 60 degrees to core axis and the lower contact is at 75 degrees to core axis.

291.4 294.9 MAFIC TUFF WITH MINOR BEDS OF CHERTY SEDIMENTS

Dark green moderately carbonatized mafic tuff with occasional beds up to 1.5 cm thick of cherty sediments. Nil-trace disseminated chalcopyrite. Lower contact is gradational. STRUCTURE:.

Bedding is at 50 degrees to core axis at 292.5 m. Bedding is at 65 degrees to core axis at 292.6 m. Minor slip is at 65 degrees to core axis at 293.3 m. Foliation is at 55 degrees to core axis at 294.2 m.

#### 294.9 335.6 CHLORITIC FELSIC ASH-LAPILLI TUFF

Medium green hard siliceous and aphyric with up to 10 % ash-sized epidotized feldspars. Feldspars tend to occur in bands or patches 3.0 - 7.0 cm wide.  $\langle 1-5\%$  lapilli-sized felsic clasts. Moderate to strong chloritization. 2-3 %, 2-5 mm quartz eyes between 317.6 and 319.6 m and between 332.0 and 334.0 m. Foliation is at a low angle to degrees to core axis ( $\langle 25 \ degrees \rangle$  between 301.4 and 303.9 m. STURCTURE:.

Bedding is at 60 degrees to core axis at 296.5 m. Foliation is at 65 degrees to core axis at 300.4 m. Minor slip is at 25 degrees to core axis at 301.8 m. Minor slip is at 15 degrees to core axis at 302.8 m.

AD02606	295.7	295.8	.1	19	n/a	14	n/a	n/a	688
AD02604	296.8	296.9	.1	23	n/a	13	n/a	n/a	1180
AD02605	307.4	307.5	.1	30	n/a	16	n/a	n/a	1240
AD02607	319.4	319.5	.1	28	n/a	16	n/a	n/a	1780
AD02608	332.5	332.6	.1	34	n/a	14	n/a	n/a	1020

#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG

From	То		Sample	From	То	Width	Cu	Pb	Zn	Ag	Au
(m)	(m)	DESCRIPTION	No.	· (m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppl

Bedding is at 50 degrees to core axis at 304.6 m. Foliation is at 15 degrees to core axis at 310.0 m. Bedding is at 47 degrees to core axis at 310.9 m. Bedding is at 55 degrees to core axis at 312.8 m. Bedding is at 45 degrees to core axis at 315.1 m. 1.0 Cm wide clay-filled slip is at 80 degrees to core axis at 317.0 m Slip is at 90 degrees to core axis at 317.6 m. Bedding is at 55 degrees to core axis at 320.5 m. Foliation is at 52 degrees to core axis at 324.3 m. Bedding is at 40 degrees to core axis at 324.9 m. Bedding is at 45 degrees to core axis at 325.7 m. Bedding is at 40 degrees to core axis at 326.0 m. Bedding is at 50 degrees to core axis at 326.8 m. Bedding is at 50 degrees to core axis at 328.1 m. Bedding is at 45 degrees to core axis at 330.0 m. Bedding is at 45 degrees to core axis at 331.5 m. Foliation is at 55 degrees to core axis at 333.5 m. Bedding is at 50 degrees to core axis at 334.6 m.

- 298.1 298.6 Carbonatized MAFIC ASH TUFF. Broken core at upper and lower contacts.
- 298.6 300.0 Foliation is contorted and kinked. Strong chlorite-calcite alteration between 299.3 and 299.7 m. 1 % disseminated pyrite.
- 309.4 310.3 Carbonatized MAFIC TUFF with nil-3 % disseminated magnetite. Quartz vein parallel to core axis at the upper contact. Lower contact is a slip at 30 degrees to core axis.

310.9 311.0 MAFIC TUFF BED at 47 degrees to core axis.

- 312.8 312.9 MAFIC TUFF BED at 55 degrees to core axis.
- 315.1 1.0 cm wide MAFIC TUFF bed at 45 degrees to core axis.
- 317.6 318.5 Blocky, highly fractured core. Rock is crushed.
- 320.5 321.8 Massive MAFIC FLOW OR TUFF. Upper contact is at 55 degrees to core axis and lower contact is at 75 degrees to core axis.

322.0 322.3 Bed of MAFIC TUFF.

324.7 324.9 Carbonatized MAFIC TUFF bed at 48 degrees to core axis.

325.0 325.7 MAFIC TUFF bed at 45-50 degrees to core axis.

325.9 326.1 MAFIC TUFF bed with 3 % disseminated pyrite at 40 degrees to core axis.

HOLE No: Page Number 11

ple	From	То	Width	Cu	Pb	Zn	Ag	Au	Ba	
ο.	· (m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	

CHEM87-35

PROPERTY: CHEMIANUS J.V. HOLE No: Page Number FALCONBRIDGE LIMITED CHEM87-35 12 DIAMOND DRILL LOG From То Sample From То Width Cu РЪ Zn Aσ Ba Au (m) (m) -----DESCRIPTION------No. (m) (m) (m) (ppm) (mqq) (mqq) (ppm) (mgg) (dgg) 326.8 327.2 MAFIC TUFF bed at 50 degrees to core axis. 327.6 328.1 MAFIC TUFF/FLOW at 50 degrees to core axis. 328.4 328.7 MAFIC TUFF at 50 degrees to core axis. 328.7 335.6 INTERBEDDED FELSIC ASH TUFF (70%) AND MAFIC ASH TUFF (30%). Felsic tuff beds are <1.0 cm to 10.0 cm thick and mafic tuff beds are (1.0-5.0 cm thick). 335.6 340.0 THERMAL BIOTITE ALTERED FELSIC ASH-LAPILLI TUFF Massive mottled green-brown with nil to 2 % 2-4 mm guartz eyes. Up AD02609 337.2 337.3 .1 25 n/a 15 n/a n/a 1510 to 15 % 1-3 mm epidotized feldspars. Nil sulphides. Foliation is at 55 degrees to core axis at 339.3 m. Lower contact is at 55 degrees to core axis. 340.0 341.9 MAFIC ASH TUFF Medium green massive 5 - 10 % ash-sized epidotized fragments. 0.5 cm AD02610 341.2 341.3 .1 37 n/a 483 48 n/a n/a cream-coloured chert bed at 55 degrees to core axis at 341.8 m. Nil sulphides. Lower contact is at 60 degrees to core axis. 341.9 347.7 THERMAL BIOTITE ALTERED OUARTZ-FELDSPAR CRYSTAL TUFF 20 % white 1-2 mm feldspar crystals and <1-7 %, 2-4 mm guartz eves AD02611 345.4 345.5 .1 47 n/a 22 n/a n/a 1220 in a mottled, pale brown-green, hard, siliceous very fine-grained to aphyric matrix. Nil sulphides. Lower contact is at 55 degrees to core axis. 344.5 344.7 Bed of MAFIC ASH TUFF at 55 degrees to core axis. 346.0 346.1 Bed of MAFIC ASH TUFF at 55 degrees to core axis. 347.7 351.0 MAFIC ASH TUFF Massive fine-grained dark green to brown-green. Weak to moderate AD02612 350.8 350.9 37 315 .1 n/a 45 n/a n/a patchy thermal biotite alteration. Two bleached patches. One 20.0 cm wide at 348.7 m and another 10.0 cm wide at 350.0 m. Patches are medium-grained and feldspar rich (looks like a leucocratic mafic intrusive). Lower contact is gradational. 351.0 354.4 THERMAL BIOTITE ALTERED OUARTZ-FELDSPAR CRYSTAL TUFF As 341.9 to 347.7 m. Nil sulphides. Broken core at the lower contact

353.3 353.6 Ground core.

From	To	DESCRIPTION	Sample	From	To	Width	Cu	Pb	Zn	Ag	Au	Ba
(m)	(m)		No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)
354.4	359.1	MASSIVE MAFIC HORNBLENDE-BEARING FLOW Massive dark green fine-grained with 2-4 %, 1-4 mm subhedral chloritized hornblende crystals and up to 10 % 2-10 mm wide epidote spots. Nil-trace disseminated chalcopyrite and sphalerite.	AD02613	358.6	358.7	.1	296	n/a	172	n/a	n/a	327

356.0 Flow contact (?) at 50 degrees to core axis.

357.8 358.0 Blocky, highly fractured core.

HOLE No: Page Number CHEM87-36 1

Claim No. CHIP 1 Section No.: Line 47+00 East

Logged By: David P. Money Drilling Co.: Burwash Enterprises, Cobble Hill Assayed By: Bondar-Clegg, Vancouver and X-Ray Assay, Don Mills

Άu

Ag (ppm) Ba

155

n/a

(ppb) (ppm)

Core Size: NQ

PROPERTY: Chemainus J.V. - Chip Claims

FALCONBRIDGE LIMITED DIAMOND DRILL LOG

Hole Location: 47+00 E 1+50 S

 NTS:
 092/B13
 UTM:
 5415970 N
 432200 E

 Azimuth:
 210
 Elevation:
 640 m

 Dip:
 -45
 Length:
 257.6 m

Started: July 6, 1987 Completed: July 9, 1987

Purpose: To test VLF anomalies at 2+40 and 2+80 S, coincident shallow and deep IP chargeability anomalies at 1+80 S, coincident deep and shallow IP resistivity lows at 2+05 S and IP chargeability anomalies at 2+80 and 3+00 S

DIP TESTS

		Length	Azi- muth	Dip	Length	Azi- muth	Dip	•					
		32.00 110.90	211.5 211.0	-46.0 -46.0	203.00 257.60	210.0 211.5	-44.0 -44.0	)					
From (m)	To (m)	DESCRIPTION	4			Sa	umple No.	From (m)	To (m)	Width (m)	Cu (nom)	Pb (DDm)	Zn (ppm)

.0 11.0 OVERBURDEN AND CASING

11.0 21.9 FELSIC FELDSPAR CRYSTAL TUFF

Same as tuff beginning at 9.2 in DDH CHEM87-34. Blue to white rusty, oxidized felsic tuff, locally siliceous with 5 to 15 %, up to 2 mm, average 1 mm, feldspar grains. Locally weakly contorted. Minor local vugs, may have hosted calcite, some associated with minor local quartz veins and veinlets. Trace disseminated pyrite occurs.

Bedding :. 11.5 : 73 degrees to core axis. 17.0 : 68 degrees to core axis. 21.6 : 54 degrees to core axis.

Foliations :. 12.6 : 58 degrees to core axis. 17.1 : 63 degrees to core axis.

21.9 22.0 FAULT ZONE

Rusty clay and blocky, highly fractured core.

22.0 34.2 FINE GRAINED PLAGIOPHYRIC GABBRO Dyke or sill of chilled margin type gabbro with 5 to 10 %, up to 2 mm, feldspar phenocrysts. The gabbro is rusty and broken with 0.7 m lost core from 32.0 to 33.4. There are numerous vugs throughout the gabbro and in the rare quartz veins. AB21930 17.1 17.3 .2 52 n/a 371 n/a n/a 1670

27.8 27.9 .1 204 n/a 106 n/a

AB21931

From (m)

T0	DESCRIPTION	Sample	From	T0	Width	Cu	Pb	Zn	Ag	Au Ba	ı
(m)		No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb) (pp	om)
55.5 F	ELSIC QUARTZ-FELDSPAR CRYSTAL TUFF 4.2 35.4 Rusty blocky, highly fractured core with 0.4 m of lost core.	AB21932 AB21933	38.6 51.2	38.7 51.3	.1 .1	25 37	n/a n/a	24 27	n/a n/a	n/a 1310 n/a 1670	) )

- 35.4 40.0 Very rusty tuff with 2 % biotite +/- goethite (?). The tuff is white to medium grey and is very likely altered hydrothermally, with the est A.I. = 75, H.A.I. = 82. The crystal content varies from 2 to 10 %, 1 to 3 mm, quartz eyes and 5 to 15 %, up to 2 mm, feldspar grains. There is trace local pyrite.
- 40.0 41.5 Medium grey to bluish siliceous tuff with approximately 10 % feldspar to epidote grains and trace guartz eyes.
- 41.5 43.8 Moderately rusty version of 40.0 to 41.5.
- 43.8 55.5 Grey to blue tuff with local rusty zones, up to 30 cm thick, with thermal biotite appearing at 48.8. The rust is centred on fractures. There tuff is locally crystal poor, with up to 10 % feldspar grains in the more porous rusty zones and trace to 1 % quartz eyes and trace to 2 % feldspar grains in the weakly contorted grey siliceous zones. There is local epidotization, up to 5 cm thick with 1 to 2 % associated disseminated and fracture controlled pyrite. There is trace to 1 % local disseminated and stringer pyrite throughout the zone.

Foliations :.

36.4 : 70 degrees to core axis. 44.4 : 73 degrees to core axis. 50.4 : 52 degrees to core axis.

55.5 61.6 FINE GRAINED PLAGIOPHYRIC GABBRO

Fine-grained gabbro with 3 to 10 % feldspar grains and rust coated fracture and local vugs, concentrated especially in the trace local quartz veins.

Lost core :. 0.5 M from 56.7 to 58.5. 0.2 M from 58.5 to 60.7. 0.3 M from 60.7 to 61.6.

61.6 63.0 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Rusty and vuggy green tuff with 5 to 10 % feldspar grains and trace quartz eyes. Hosts local quartz veins.

63.0 65.9 ALTERED FELSIC CRYSTAL TUFF

Siliceous or silicified grey to white felsic tuff with up to 1 % pyrite +/- goethite stringers. The crystal content varies from approximately nil to 30 % epidote grain to crystals, up to 3 mm. There are local quartz +/- carbonate veins and local chlorite +/- goethite veins.

AB21934 56.3 56.4 .1 208 n/a 97 n/a n/a 98

AB21935 64.4 64.5 .1 125 n/a <10 n/a n/a 1540

	Sample	From	То	Width	Cu	РЬ	Zn	Ag	Au	Ba
DESCRIPTION	No.	(m)	(m)	(m)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)

Foliations :. 63.8 : 47 degrees to core axis. 65.6 : 38 degrees to core axis.

65.9 67.6 MAFIC STLL

Weakly magnetic mafic sill, dyke or flow with approximately 20 % epidote grains in a medium to dark green fine-grained matrix. There are local minor guartz - carbonate +/~ biotite veinlets and trace pvrite.

67.6 76.3 FELSIC FELDSPAR CRYSTAL TUFF

Moderately siliceous bluish grey locally rusty tuff with 5 to 15 %. up to 2 mm feldspar / epidote grains. There are minor guartz +/carbonate +/- biotite veins and veinlets. There is trace local disseminated and fracture controlled pyrite.

68.8 : 43 degrees to core axis. 74.5 : 34 degrees to core axis.

Lost core : 0.2 m from 71.9 to 73.2.

- 76.3 77.5 MASSIVE FELSIC LAPILLI TUFF Massive light green felsic tuff with epidotized lapilli.
- 77.5 82.0 FELSIC FELDSPAR CRYSTAL THEF

Medium grey locally oxidized and yuggy felsic tuff with trace to 20 % feldspar to epidote grains. There is bleaching centred at 80.6. The foliation averages approximately 70 to 80 degrees to core axis.

- 83.0 MAFIC SILL 82.0 Salt and pepper texture mafic sill or dyke. Weak pervasive carbonatization. Non-magnetic.
- 83.0 103.6 FELSIC TUFF
  - 83.0 89.0 FELSIC OUARTZ-FELDSPAR CRYSTAL TUFF, moderately sericitic to siliceous medium grey felsic tuff with 5 to 15 % fine-grained feldspar / epidote and trace to 5 %, up to 3 mm. guartz eves. There are local kink bands. There are white bull guartz veins +/- chlorite +/- biotite +/pyrite.
  - 89.0 95.0 SILICIFIED FELSIC FELDSPAR CRYSTAL TUFF, silicified white to light grey, locally weakly to moderately contorted felsic tuff with average 10 %, up to 2 mm,

AB21936	82.4	82.5	.1	147	n/a	77	n/a	n/a	261	
					•					
AB21937	86.8	87.0	.2	33	n/a	28	n/a	n/a	1410	
AB21938	91.6	91.7	.1	24	n/a	14	n/a	n/a	2900	
AD02670	102.0	103.6	1.6	13	<5	62	<1	<5	1300	

Τo

(m)

From

(m)

- - Foliations :.

# PROL 1: Chemainus J.V. - Chip Claims

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FALCONBRIDGE LIMITED DIAMOND DRILL LOG

	•											
From (m)	T0 (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		feldspar grains with minor feldspar / epidote crystal rich, up to 10 cm bands. There is local pyrite blebs and fracture controlled stringers which are up to 1 % over 1 m 95.0 103.6 Locally varies from silicified lapilli tuff, with epidotized lapilli to as at the start, ie. 83 - 89. Local quartz +/- chlorite veins with trace to 5 % pyrite over up to 5 cm. Local kink bands and is weakly contorted					• . •					
		Foliations :. 85.2 : 61 degrees to core axis. 88.0 : 56 degrees to core axis. 93.0 : 49 degrees to core axis. 99.2 : 49 degrees to core axis. 102.2 : 75 degrees to core axis.						-				
		Bedding :. 89.7 : 73 degrees to core axis. 94.1 : 65 degrees to core axis.										·
103.6	107.8	<ul> <li>PYRITIC QUARTZ EYE BEARING FELSIC TUFF</li> <li>Locally bleached and sheared felsic tuff with trace to 5 %, up to 4 mm, quartz eyes. Hosts pyrite, pyrrhotite, chalcopyrite and sphalerite.</li> <li>103.6 103.9 7 % pyrite, 2 % chalcopyrite, 2 % pyrrhotite and trace sphalerite. Siliceous grey rhyolitic tuff with the pyrite as fine-grained cubes in pseudo- bands with the other sulphides in the pyrite bands.</li> <li>103.9 105.4 Weakly to moderately bleached grey to white, weakly contorted tuff with quartz eyes and 1 to 2 % disseminated pyrite, approximately 1 % disseminated pyrrhotite and trace to 1 % disseminated chalcopyrite and sphalerite.</li> <li>105.4 105.7 Sheared sericite and chlorite with approximately 4 % pyrrhotite and trace to 0.5 % chalcopyrite.</li> <li>105.7 106.8 Similiar to both 103.9 to 105.4 and 105.4 to 105.7. Greyish moderately to weaked sheared tuff with sericite development and quartz eyes. Sulphide stringers appear to be parallel to foliation, but this may be due to deformation. Hosts approximately 2 % pyrrhotite, 1 % pyrite and trace to 0.5 % chalcopyrite and sphalerite.</li> <li>106.8 107.4 50 % coarse grained pyrite in beds with up to 2 % chalcopyrite. There are trace local pyrrhotite stringers 107.4 107.8 10 % pyrrhotite and up to 1 % chalcopyrite in rock similiar to 105.4 to 105.7.</li> </ul>	AD02671 AD02672 AD02673 AD02674	103.6 104.8 106.0 107.0	104.8 106.0 107.0 107.8	1.2 1.2 1.0 .8	1900 700 365 8900	22 32 8 41	765 360 189 570	1 <1 <1 5	20 45 <5 55	1800 2600 2100 2300
107.8	140.6	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Locally light grey to medium - dark black - green weakly sericitic to siliceous felsic tuff, changes are transitional and moderate.	AD02675 AB21939	107.8 114.9	109.0 115.0	1.2	310 64	. 5 n/a	110 48	<1 n/a	<5 n/a	2100 850

Foliations :.

From

(m)

To

(m)

HOLE No: Page Number FALCONBRIDGE LIMITED CHEM87-36 5 DIAMOND DRILL LOG Width Sample From То Cu Рb Zn Aα Au -----DESCRIPTION------No. (m) (m) (m) (ppm) (ppm) (ppm) (ppm) (ppb) (ppm) Hosts trace to 4 %, up to 3 mm, guartz eyes and locally up to 15 % AB21940 128.8 128.9 .1 32 n/a 35 n/a n/a epidote / feldspar grains. From 138.0 to 140.6 appears to be AB21941 138.8 138.9 .1 32 n/a 34 n/a n/a silicified with thermal biotite. Is sericitic at the upper contact. There are local minor guartz +/- biotite veins and veinlets. Oxidized to 128.6. 109.5 : 64 degrees to core axis. 115.0 : 61 degrees to core axis. 128.8 : 76 degrees to core axis. 137.1 : 61 degrees to core axis. 140.2 : 72 degrees to core axis.

AB21942 143.3 143.4

AD02676 149.0 150.7 1.7

140.6 144.7 EPIDOTE SPOTTED ANDESITE Light to medium green flow, locally contorted with chevron kinks. Hosts 10 to 30 % epidote grains. Trace local guartz - carbonate veinlets.

144.7 150.7 FAULT ZONE

144.7 145.0 Chloritic fault gouge and green and grey clays. 145.0 145.9 Sheared to fault gouge chlorite and carbonate.

145.9 147.1 Grey clay and sericite shear and rubble with local minor chlorite bands.

- 147.1 149.1 Chlorite clay, shears and local rock with pyrite and guartz veins.
- 149.1 150.7 Felsic shear, clay and rubble.

Trend varies, average approximately 60 to 80 degrees to core axis.

#### 150.7 156.8 PYRITIC QUARTZ-SERICITE SCHIST

- 150.7 151.1 Sericite schist with foliation at 30 degrees to core axis and 1 % disseminated pyrite and 2 to 3 % pyrite parallel to foliation.
- 151.1 155.2 Light grey fault gouge to schist with foliation approximately 0 degrees to core axis and is moderately contorted. Hosts trace local fuchsite and 2 % disseminated pyrite.
- 155.2 156.8 Moderate contorted light greenish sericite schist with trace local guartz eyes, 1 % disseminated and parallel to foliation pyrite to 156.0 and 5 to 7 % banded pyrite with trace to 0.25 % chalcopyrite in up to 5 mm bands.

Foliations :.

- To 154 : 0 to 30 degrees to core axis locally, contorted.
- 155.0 : 16 degrees to core axis.
- 155.5 : 51 degrees to core axis.
- 156.0 : 53 degrees to core axis.
- 156.3 : 58 degrees to core axis.

AD02677	150.7	152.0	1.3	96	44	1900	2	55	2600
AD02678	152.0	153.0	1.0	23	29	265	1	45	3000
AD02679	153.0	154.0	1.0	63	165	1650	2	75	2300
AD02680	154.0	155.0	1.0	27	30	275	1	35	2100
AD02681	155.0	156.0	1.0	71	45	1050	1	20	1600
AD02682	156.0	156.8	.8	880	147	1450	3	90	2200

.1

188

92

n/a

33

119

86

n/a

<1

n/a

Ba

811

744

989

15 1200

#### HOLE No: Page Number CHEM87-36 6

From То Sample From To (m) (m) -----DESCRIPTION------No. (m) (m) 156.8 168.1 FINE GRAINED PLAGIOPHYRIC GABBRO Locally sheared and fine-grained, but dominantly 20 to 40 % AD02683 156.8 158.0 feldspar grains in a fine-grained dark green chloritic matrix with AB21943 162.2 162.4 trace to nil ilmenite. There are numerous guartz +/- epidote +/-

168.1 197.0 MAFIC TUFFACEOUS SEDIMENTS

168.1 170.0 Sheared and moderately contorted soft green sediment with numerous quartz - carbonate - chlorite veins and veinlets. Local weak thermal biotite.

chlorite +/- biotite veins and veinlets with no sulphides and thicknesses up to 20 cm and orientations from 0 to 90 degrees to core axis. The upper contact is at 52 degrees to core axis and the lower contact is in blocky, highly fractured core. The foliation varies locally from approximately 40 to 90 degrees to core axis.

- 170.0 181.2 Immature soft green tuffaceous mafic sediment with local cherty epidote contorted bands. Foliation is parallel to sub- parallel to the core axis. There are local minor quartz, quartz - chlorite +/- biotite +/epidote veins.
- 181.2 184.0 Blocky, highly fractured core and local competent green tuffaceous sediments. There is 0.6 m of lower contact from 181.2 to 181.8 and 0.6 m of lower contact from 183.5 to 184.7.
- 184.0 190.8 Similiar to green mafic tuffaceous sediments, but is brown, locally has minor cherty bands. Lower transition to green is gradational over 0.5 m. Cherty near the base with minor fracture controlled pyrite, locally up to 1 %. Bedding and foliations vary locally.
- 190.8 191.8 Brecciated green cherty with minor fault gouge and trace fracture controlled pyrite.
- 191.8 5 cm fault gouge with slip at 21 degrees to core axis.
- 191.8 197.0 Immature sediment to tuffaceous sediment, soft and mafic, dominantly brown, locally green. 1 % local fracture controlled carbonate veinlets. Foliation and bedding vary, average approximately 50 degrees to core axis. Minor local fracture controlled pyrite, trace to nil.

#### 197.0 202.0 CONGLOMERATE

Mafic green tuffaceous sediments and cherts, faulted and brecciated with numerous fracture controlled carbonate veinlets. Trace pyrite as ripped beds (?). Lower zone hosts cherty cobbles and boulders.

202.0 206.6 MAFIC TUFFACEOUS SEDIMENTS

Green to brown mafic tuffaceous sediments as before.

o Width Cu Pb Zn

(ppm)

150

260

(m)

1.2

.2

Ba

80

291

(ppb) (ppm)

Au

10

n/a

Aα

(ppm)

<1

n/a

(ppm) (ppm)

795

90

9

n/a

AB21944	173.3	173.4	.1	120	n/a	77	n/a	n/a	556
AD02684	189.0	191.0	2.0	106	6	63	<1	<5	1500

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#### FALCONBRIDGE LIMITED DIAMOND DRILL LOG То Sample From То Width Cu Pb Zn Åα An Ba From -----DESCRIPTION------No. (m) (m) (mgg) (dgg) (m) (m) (mgg) (mmm) (mmm) (maga) (m) 206.6 208.2 FINE GRAINED PLAGIOPHYRIC GABBRO Gabbro sill or dyke with approximately 5 to 10 % feldspar grain in fine-grained green matrix with local guartz and epidote veinlets. 208.2 232.0 CHERTY TUFFACEOUS SEDIMENTS Begins with brown sandstone/ quartzite as in DDH CHEM87-34 and alternates with green cherty tuffaceous sediments. Bedding is not visible and the foliation ranges very locally from 30 to 70 degrees to core axis. Lost core :. 0.5 M from 198.0 to 198.7. 0.2 M from 223.1 to 223.2. 0.2 M from 230.0 to 231.0. 232.0 242.2 FINE GRAINED PLAGIOPHYRIC GABBRO From 232 to 240 is competent and relatively unbroken gabbro with 5 AB21945 237.9 238.1 .2 73 204 n/a 93 n/a n/a to 15 %, up to 2 mm, feldspar grains and local guartz +/- chlorite +/- biotite and epidote veins to veinlet. From 240 on it is sheared or blocky, highly fractured core. Lost core :. 0.6 M from 240.0 to 240.8. 242.2 257.6 CHERTY ARGILLACEOUS SEDIMENTS Black, brown and grey cherty beds and argillites as in DDH AD02685 244.0 246.4 2.4 58 7 46 <1 <5 2800 CHEM87-34 with minor mafic tuffaceous sediment inclusions. Lost core :. 0.7 M from 242.3 to 243.8. 0.3 M from 245.2 to 246.2. 0.4 M from 250 to 250.5. 0.8 M from 250.5 to 251.9. 0.2 M from 251.9 to 252.3. 0.2 M from 252.3 to 253.0. 0.7 M from 253.0 to 254.2. Bedding :. 243.9 : 47 degrees to core axis. 245.3 : 47 degrees to core axis. 255.4 : 36 degrees to core axis.

# APPENDIX B

ANALYTICAL RESULTS -- METALS

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## DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD (MINOR ELEMENTS)

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppan)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm.)	CD (ppm)	HO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MI
4015250	40.20	49 30	1200 0	6 0	19.0	<u> </u>		<u> </u>	1.0	10.0	6 0	(1.0	(1.0	24.0	TEAVET	2	
AB15353	48.20	40.30	1200.0	0.0	17.0	(0.5	(5.0	(1.0	1.0	10.0	5.0	(1.0		24.0	ICHICL	:	н
AB19902	59.00	60.00	/00.0	26.0	18.0	(0.5	(5.0	2.0	2.0	8.0	5.0	<1.0	2.0	59.1			
AB19903	60.00	61.00	840.0	5.0	43.0	<0.5	<5.0	2.0	2.0	67.0	7.0	<1.0	2.0	10.4			
AB19904	61.00	62.00	1000.0	8.0	16.0	<0.5	<5.0	1.0	1.0	58.0	<5.0	<1.0	1.0	33.3			
AB19905	62.00	63.00	1000.0	4.0	26.0	<0.5	<5.0	1.0	5.0	53.0	7.0	<1.0	2.0	13.3			
AB19906	63.00	64.00	1000.0	5.0	25.0	<0.5	<5.0	4.0	2.0	19.0	6.0	<1.0	1.0	16.7			
AB19907	64.00	65.00	950.0	5.0	29.0	<0.5	<5.0	4.0	2.0	23.0	6.0	<1.0	2.0	14.7			
AB19908	79.00	80.00	480.0	7.0	18.0	<0.5	<5.0	<1.0	1.0	16.0	<5.0	<1.0	<1.0	28.0			
AB19909	91.30	92.30	1200.0	28.0	25.0	<0.5	<5.0	4.0	5.0	6.0	65.0	<1.0	2.0	52.8			
AB19910	97.00	98.00	970.0	29.0	36.0	<0.5	<5.0	7.0	12.0	9.0	363.0	<1.0	2.0	44.6			
AB21551	363.00	364.00	160.0	78.0	84.0	<0.5	<5.0	36.0	191.0	12.0	9.0	<1.0	<1.0	48.2			
AB21552	364.00	365.00	160.0	269.0	119.0	<0.5	5.0	36.0	130.0	<5.0	<5.0	<1.0	<1.0	69.3			
AB21553	365.00	366.00	50.0	57.0	84.0	<0.5	5.0	19.0	64.0	<5.0	<5.0	<1.0	<1.0	40.4			
AB21554	366.00	367.00	40.0	161.0	63.0	<0.5	<5.0	18.0	54.0	5.0	<5.0	<1.0	<1.0	71.9			
AB21555	367.00	368.00	60.0	336.0	96.0	<0.5	<5.0	25.0	79.0	<5.0	<5.0	<1.0	<1.0	77.8			
AB21556	377.00	378.00	140.0	252.0	98.0	<0.5	<5.0	25.0	74.0	5.0	<5.0	<1.0	<1.0	72.0			

Page No.

SAMPLE NUMBER	FROM	то	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	C0 (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	НО (ррм)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08600	139.60	140.50	1500.0	496.0	115.0	1.1	15.0	14.0	3.0	36.0	10.0	<1.0	1.0	81.2			
AE08655	248.00	249.00	350.0	126.0	205.0	<0.5	<5.0	25.0	22.0	66.0	21.0	<1.0	1.0	38.1			
AE08656	249.00	250.00	420.0	127.0	206.0	<0.5	<5.0	25.0	16.0	61.0	16.0	<1.0	<1.0	38.1			
AE08657	250.00	251.00	300.0	84.0	132.0	<0.5	<5.0	22.0	24.0	57.0	19.0	<1.0	1.0	38.9			

## DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD (MINOR ELEMENTS)

Hole No. CHEM87-29

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm.)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppa)	AS (ppm)	CD (ppm)		CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08620	199.50	201.00	1500.0	46.0	10.0	<0.5	<5.0	8.0	3.0	6.0	43.0	<1.0	1.0	82.1	*****		
AE08621	201.00	201.70	1300.0	66.0	20.0	<0.5	<5.0	14.0	6.0	<5.0	16.0	<1.0	1.0	76.7			
AE08622	201.70	203.20	1100.0	7.0	3.0	<0.5	<5.0	3.0	2.0	8.0	75.0	<1.0	1.0	70.0			

## DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD (MINOR ELEMENTS)

Hole No. CHEM87-30

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm.)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	HO (ppm)	CU/(CU+ZN) ROCK * 100	CODES ALI	MIN
AE08624	85.70	86.70	830.0	277.0	87.0	<0.5	<5.0	26.0	20.0	28.0	19.0	<1.0	1.0	76.1		
AE08625	86.70	87.70	990.0	260.0	56.0	<0.5	10.0	26.0	15.0	20.0	163.0	<1.0	2.0	82.3		
AE08626	87.70	88.70	790.0	105.0	47.0	<0.5	<5.0	19.0	13.0	6.0	52.0	<1.0	.1.0	69.1		
AE08627	88.70	89.70	950.0	110.0	88.0	<0.5	5.0	21.0	21.0	54.0	19.0	<1.0	2.0	55.6		
AE08658	220.60	221.60	180.0	206.0	77.0	<0.5	<5.0	33.0	79.0	8.0	<5.0	<1.0	<1.0	72.8		
AE08659	221.60	222.60	1200.0	400.0	1645.0	<0.5	110.0	9.0	11.0	86.0	25.0	8.0	2.0	19.6		-
AE08660	222.60	223.70	920.0	649.0	509.0	<0.5	130.0	7.0	4.0	21.0	29.0	2.0	2.0	56.0		
AE08661	223.70	224.40	940.0	2112.0	156.0	<0.5	240.0	11.0	3.0	33.0	23.0	<1.0	2.0	93.1		
AE08662	224.40	225.40	970.0	1079.0	149.0	<0.5	95.0	5.0	1.0	19.0	19.0	<1.0	2.0	87.9		
AE08663	225.40	226.30	1000.0	964.0	196.0	<0.5	75.0	6.0	2.0	19.0	12.0	<1.0	3.0	83.1		
AE08664	226.30	227.10	1100.0	2231.0	161.0	<0.5	70.0	4.0	2.0	23.0	18.0	<1.0	1.0	93.3		
AE08665	227.10	228.10	1100.0	784.0	432.0	<0.5	30.0	1.0	1.0	5.0	<5.0	1.0	<1.0	64.5		
AE08666	228.10	229.10	1700.0	163.0	190.0	<0.5	10.0	5.0	2.0	33.0	8.0	<1.0	2.0	46.2		
AE08667	229.10	230.00	30.0	119.0	68.0	<0.5	<5.0	38.0	195.0	13.0	110.0	<1.0	1.0	63.6		
AE08668	230.00	230.50	730.0	56.0	88.0	<0.5	<5.0	14.0	66.0	19.0	28.0	<1.0	2.0	38.9		
AE08669	230.50	231.50	640.0	72.0	92.0	<0.5	<5.0	18.0	84.0	14.0	34.0	<1.0	2.0	43.9		
AE08670	231.50	232.50	830.0	18.0	68.0	<0.5	<5.0	4.0	6.0	14.0	9.0	<1.0	3.0	20.9		

Hole No. CHEM87-31

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SAMPLE NUMBER	FROM	то	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppt)	C0 (ppm.)	NI (ppm)	PB (ppm)	AS (ppm)	CB (ppm)	HO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08671	232.50	233.50	760.0	15.0	73.0	<0.5	<5.0	3.0	7.0	15.0	9.0	<1.0	2.0	17.0			
AE08672	233.50	234.50	380.0	53.0	73.0	<0.5	10.0	15.0	28.0	10.0	13.0	<1.0	3.0	42.1			
AE08673	234.50	235.50	810.0	20.0	122.0	<0.5	30.0	8.0	17.0	24.0	13.0	<1.0	4.0	. 14.1			
AE08674	235.50	236.50	960.0	14.0	51.0	<0.5	10.0	3.0	1.0	12.0	12.0	<1.0	2.0	21.5			
AE08675	236.50	237.50	1300.0	14.0	51.0	<0.5	35.0	4.0		22.0	8.0	<1.0	3.0	21.5			,
AE08676	237.50	238.50	1400.0	29.0	60.0	<0.5	30.0	2.0	1.0	11.0	13.0	<1.0	2.0	32.6			
AE08677	238.50	239.70	1200.0	210.0	41.0	<0.5	25.0	15.0	35.0	56.0	23.0	<1.0	2.0	83.7			
AE08678	239.70	240.70	250.0	336.0	72.0	1.6	160.0	35.0	82.0	373.0	20.0	<1.0	1.0	82.3			
AE08679	248.60	249.60	120.0	129.0	78.0	<0.5	15.0	33.0	77.0	25.0	7.0	<1.0	1.0	62.3			
AE08680	249.60	250.00	1300.0	5900.0	231.0	134.4	4765.6	9.0	7.0	13600.0	<5.0	7.0	7.0	96.2			
AE08681	250.00	251.00	190.0	353.0	102.0	<0.5	85.0	36.0	69.0	379.0	16.0	<1.0	2.0	77 6			
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SAMPLE NUMBER	FROM	ro	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	C() (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) ROCK * 100	CODES ALT	MIN
				·								**************************************		·		
AE08628	132.90	134.00	850.0	<1.0	8.0	<0.5	10.0	2.0	5.0	12.0	<5.0	<1.0	<1.0	•		
AE08629	134.00	135.00	890.0	1.0	7.0	<0.5	<5.0	3.0	3.0	11.0	<5.0	<1.0	1.0	12.5	• •	
AE08630	135.00	136.00	910:0	<1.0	9.0	<0.5	<5.0	1.0	1.0	6.0	<5.0	<1.0	<1.0			
AE08631	136.00	137.30	1100.0	<1.0	6.0	<0.5	<5.0	1.0	2.0	13.0	<5.0	<1.0	1.0			
AE08632	137.30	138.20	640.0	66.0	25.0	<0.5	<5.0	27.0	6.0	9.0	<5.0	<1.0	1.0	72.5		
AE08633	177.75	178.25	200.0	410.0	38.0	<0.5	<5.0	20.0	11.0	11.0	<5.0	<1.0	1.0	91.5		
AE08634	205.85	206.85	950.0	28.0	20.0	<0.5	<5.0	3.0	7.0	<5.0	<5.0	<1.0	1.0	58.3		
AE08635	206.85	207.35	930.0	16200.0	311.0	8.5	75.0	74.0	23.0	10.0	13.0	4.0	4.0	98.2		
AE08636	207.35	208.35	700.0	756.0	56.0	1.0	<5.0	16.0	15.0	<5.0	<5.0	<1.0	<1.0	93.1		
AE08638	242.40	243.40	630.0	222.0	45.0	<0.5	<5.0	19.0	7.0	10.0	<5.0	<1.0	<1.0	83.2		
AE08637	243.40	244.40	1000.0	175.0	60.0	<0.5	<5.0	13.0	10.0	<5.0	<5.0	<1.0	<1.0	74.5		
AE08639	244.40	245.40	500.0	116.0	61.0	<0.5	<5.0	19.0	10.0	15.0	<5.0	<1.0	1.0	65 <b>.</b> 5 ~		
AE08640	245.40	246.40	710.0	197.0	51.0	<0.5	<5.0	19.0	8.0	10.0	<5.0	<1.0	<1.0	79.4		
AE08641	246.40	247.60	530.0	465.0	72.0	<0.5	<5.0	22.0	18.0	<5.0	<5.0	<1.0	1.0	86.6	·	
AE08642	247.60	248.10	530.0	2951.0	143.0	1.2	<5.0	32.0	27.0	11.0	<5.0	<1.0	1.0	95.4		
AE08643	253.80	254.70	1000.0	50.0	20.0	<0.5	10.0	8.0	3.0	9.0	<5.0	<1.0	1.0	71.4		
AE08644	321.70	322.40	2000.0	156.0	105.0	<0.5	10.0	17.0	18.0	14.0	<5.0	<1.0	2.0	59.8		
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Hole No. CHEM87-32

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppr)	AG (ppu)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppn)	НО (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
													****		*****		
AE08645	324.00	324.70	1500.0	29.0	56.0	<0.5	35.0	5.0	8.0	43.0	<5.0	<1.0	1.0	34.1			
AE08646	324.70	326.00	3100.0	6.0	25.0	<0.5	25.0	2.0	2.0	41.0	<5.0	<1.0	1.0	19-4			
AE08647	326.00	327.50	2000.0	6.0	24.0	<0.5	65.0	3.0	2.0	60.0	<5.0	<1.0	1.0	20.0			
AE08648	327.50	329.00	2000.0	3.0	23.0	<0.5	65.0	3.0	4.0	36.0	<5.0	<1.0	2.0	11 5			
AE08649	329.00	330.50	1100.0	10.0	52.0	<0.5	90.0	4.0	<1.0	50.0	<5.0	<1.0	1.0	16.1			
AE08650	330.50	332.00	1600.0	47.0	23.0	<0.5	15.0	5.0	15.0	78.0	7.0	<1.0	4.0	42 1			
AE08701	332.00	333.50	1500.0	75.0	20.0	0.7	55.0	6.0	1.0	169.0	6.0	<1.0	1.0	70.0			
AE08702	333.50	335.00	1400.0	56.0	37.0	<0.5	50.0	5.0	5.0	78.0	<5.0	<1.0	2.0	78.9			
AE08703	335.00	336.50	960.0	39.0	55.0	<0.5	35.0	4.0	<1.0	102.0	(5.0	<1.0	1 0	DV.2			
AE08704	336.50	338.00	980.0	46.0	57.0	<0.5	55.0	4.0	<1.0	106.0	(5.0	() 0	-1.V	41.5			
AE08705	338.00	339.00	970.0	52.0	217.0	<0.5	70.0	5.0	<1.0	107 0	6.0	(1.0	1.0	44.7			
AE08706	339.00	340.00	1500.0	79.0	453.0	<0.5	180.0	4 0	<1.0	145 0	17.0		1.0	19.3			
AE08707	340.00	341.50	1500.0	60.0	89.0	<0.5	160 0	5.0	() ()	143.0	17.0	2.0	1.0	14.9			
AE08708	341.50	343.00	1400.0	44 0	197 0	20.5	05.0	J.V	<1.0	83.0	23.0	<1.0	2.0	40.3			-
AE08709	343.00	346 00	1400.0	****	10/.0	(0.J	93.0	4.0	<1.0	57.0	14.0	<1.0	2.0	19.0			
AF09710	246 00	340.00	1400.0	40.0	99.0	<0.5	75.0	4.0	1.0	53.0	11.0	<1.0	2.0	28.8			
HEV0/10	340.00	347.20	1400.0	37.0	284.0	<0.5	65.0	4.0	2.0	56.0	<5.0	1.0	2.0	11.5			
HE08711	347.20	348.50	1200.0	26.0	101.0	<0.5	50.0	4.0	1.0	41.0	<5.0	<1.0	2.0	20 5			

Hole No. CHEM87-32

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS {ppm}}	CD (ppm)	НО (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
																	*****
AE08712	348.50	349.80	1300.0	207.0	37.0	0.9	65.0	6.0	3.0	9.0	8.0	<1.0	<1.0	84.8			
AE08713	349.80	351.00	380.0	167.0	203.0	<0.5	200.0	27.0	50.0	17.0	35.0	<1.0	<1.0	45.1			
AE08714	351.00	353.00	1200.0	26.0	39.0	<0.5	70.0	7.0	10.0	14.0	7.0	<1.0	1.0	40.0			
AE08715	353.00	355.00	1200.0	74.0	585.0	<0.5	65.0	7.0	8.0	33.0	14.0	3.0	1.0	11.2			
AE09716	355.00	357.00	1500.0	52.0	133.0	<0.5	60.0	10.0	10.0	36.0	17.0	<1.0	1.0	28.1		•	
AE08717	357.00	359.00	1400.0	13.0	77.0	<0.5	65.0	4.0	1.0	42.0	8.0	<1.0	1.0	14.4			
AE08718	359.00	361.00	1300.0	21.0	95.0	<0.5	30.0	5.0	<1.0	61.0	9.0	<1.0	1.0	18.1			
AE08719	361.00	363.00	1000.0	12.0	94.0	<0.5	35.0	4.0	<1.0	92.0	7.0	<1.0	1.0	11.3			
AE08720	363.00	365.00	1100.0	19.0	284.0	<0.5	20.0	4.0	<1.0	54.0	9.0	1.0	1.0	6.3			
AE08721	365.00	367.00	2300.0	15.0	54.0	<0.5	35.0	5.0	<1.0	30.0	9.0	<1.0	1.0	21.7			
AE08722	367.00	369.00	1700.0	45.0	48.0	<0.5	60.0	5.0	<1.0	16.0	7.0	<1.0	2.0	48.4			
AE08723	369.00	371.00	1700.0	40.0	59.0	<0.5	80.0	5.0	1.0	14.0	8.0	<1.0	1.0	40.4			
AE08724	371.00	373.00	1600.0	27.0	43.0	<0.5	100.0	4.0	<1.0	10.0	<5.0	<1.0	2.0	38.6			
AE08725	373.00	375.00	1400.0	32.0	30.0	<0.5	35.0	4.0	<1.0	12.0	8.0	<1.0	1.0	51.6			
AE08726	375.00	377.00	1700.0	120.0	38.0	<0.5	25.0	6.0	<1.0	16.0	<5.0	<1.0	2.0	75.9			
AE08727	377.00	379.00	1200.0	282.0	45.0	<0.5	30.0	6.0	2.0	12.0	5.0	<1.0	2.0	86.2			
AE08728	379.00	380.70	1500.0	104.0	17.0	<0.5	25.0	7.0	2.0	21.0	5.0	<1.0	1.0	85.9			

Hole No. CHEM87-32

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#### DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD (MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppa)	ZN (ppm)	AG (ppm)	AU (ppd)	CO (ppm)	NI (ppm)	PB (ppa)	AS (ppm.)	CD (ppm)	НО (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
				<b>57</b> •	10.0	<i>(</i> <b>, , ,</b>											
AE08729	387.00	388.60	2800.0	57.0	13.0	<0.5	60.0	5.0	<1.0	11.0	7.0	<1.0	3.0	81.4			
AE08730	388.60	389.80	2000.0	484.0	35.0	<0.5	10.0	12.0	2.0	10.0	12.0	<1.0	3.0	93.3			
AE08731	389.80	391.40	1300.0	65.0	17.0	<0.5	110.0	5.0	<1.0	8.0	<5.0	<1.0	2.0	79.3			
AE08732	391.40	392.00	1200.0	17.0	12.0	<0.5	5.0	4.0	1.0	24.0	<5.0	<1.0	2.0	58.6			
AE08733	392.00	393.00	1200.0	14.0	18.0	<0.5	40.0	5.0	1.0	23.0	<5.0	<1.0	2.0	43.7			
AE08734	393.00	395.00	1300.0	35.0	16.0	<0.5	35.0	3.0	1.0	7.0	<5.0	<1.0	2.0	68.6			
AE08735	400.50	402.00	1800.0	31.0	12.0	<0.5	15.0	5.0	1.0	29.0	<5.0	<1.0	2.0	72.1			
AE08736	402.00	403.00	2100.0	67.0	11.0	<0.5	40.0	4.0	1.0	39.0	<5.0	<1.0	5.0	85.9			
AE08737	403.00	404.00	2200.0	19.0	16.0	<0.5	10.0	3.0	<1.0	63.0	<5.0	<1.0	2.0	54.3			
AE08738	404.00	404.80	2100.0	53.0	51.0	<0.5	20.0	3.0	1.0	172.0	<5.0	<1.0	2.0	51.0			
AE08739	404.80	406.30	2600.0	18.0	16.0	<0.5	<5.0	3.0	<1.0	49.0	<5.0	<1.0	1.0	52.9			
AE08740	410.00	412.50	4000.0	37.0	21.0	<0.5	<5.0	3.0	<1.0	22.0	<5.0	<1.0	2.0	63.8			
AE08741	412.50	414.00	3300.0	104.0	24.0	<0.5	20.0	4.0	<1.0	70.0	<5.0	<1.0	2.0	81.2			
AE08742	415.00	416.40	2900.0	51.0	35.0	<0.5	<5.0	3.0	1.0	29.0	<5.0	<1.0	2.0	59.3			
AE08743	416.40	416.90	2900.0	2731.0	236.0	4.3	120.0	11.0	1.0	68.0	5.0	2.0	3.0	92.1			
AE08744	416.90	418.00	2400.0	66.0	40.0	0.6	<5.0	3.0	41.0	22.0	<5.0	<1.0	5.0	62.3			
AE08745	427.30	428.70	1000.0	45.0	17.0	<0.5	<5.0	5.0	22.0	12.0	<5.0	<1.0	3.0	72.6			

Hole No. CHEM87-32

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## DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD (MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	ВА (ррж)	CU (ppm)	2N (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm.)	AS (ppm)	CD (ppm)	HO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
<b>.</b> .									•				•			**********	
AE08746	428.70	429.50	750.0	187.0	26.0	<0.5	30.0	17.0	13.0	83.0	71.0	<1.0	17.0	87.8			
AE08747	429.50	431.00	810.0	61.0	30.0	<0.5	<5.0	8.0	16.0	19.0	8.0	<1.0	5.0	67.0	1		
AE08748	444.00	445.00	710.0	172.0	21.0	<0.5	30.0	13.0	11.0	11.0	<5.0	<1.0	6.0	89.1			
AE08749	445.00	446.30	740.0	327.0	32.0	<0.5	15.0	17.0	15.0	11.0	11.0	<1.0	3.0	91.1			
AE08750	446.30	447.30	<20.0	157.0	91.0	<0.5	<5.0	30.0	61.0	<5.0	10.0	<1.0	2.0	63.3			

Hole No. CHEM87-32

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (рря)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	МО (ррм)	CU/(CU+ZN) * 100	ROCK	CODES ALT	МІМ
		· .			· .	•											****
AE08682	67.90	68.90	1300.0	15.0	24.0	<0.5	<5.0	9.0	23.0	5.0	<5.0	<1.0	1.0	38.5			
AE08683	68.90	69.80	1300.0	449.0	100.0	<0.5	<5.0	18.0	18.0	<5.0	<5.0	1.0	1.0	81.8			

Hole No. CHEM87-33

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FROM	TO	BA (ppm)	ԸՍ (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
							. <b></b> .			، بي هو ت هنر يو ها الل بير 14 <sup>وي</sup> ه			*********	******		
111.40	112.80	1500.0	45.0	22.0	<0.5	<5.0	6.0	5.0	5.0	47.0	<1.0	1.0	67.2			
112.80	114.60	1600.0	28.0	18.0	<0.5	<5.0	7.0	6.0	8.0	47.0	<1.0	1.0	60.9			
114.60	116.20	100010	57.0	26.0	<0.5	<5.0	7.0	3.0	8.0	25.0	<1.0	1.0	68.7			
116.20	117.70	1000.0	28.0	45.0	<0.5	<5.0	6.0	6.0	5.0	5.0	<1.0	1.0	38.4			
125.00	126.40	890.0	41.0	31.0	<0.5	5.0	10.0	1.0	6.0	<5.0	<1.0	1.0	56.9			
126.40	127.00	1800.0	88.0	73.0	<0.5	<5.0	15.0	3.0	6.0	<5.0	<1.0	2.0	54.7			
127.00	128.00	1200.0	10.0	30.0	<0.5	<5.0	6.0	2.0	8.0	<5.0	<1.0	1.0	25.0			
146.60	148.10	1200.0	12.0	31.0	<0.5	<5.0	5.0	3.0	6.0	5.0	<1.0	1.0	27.9			
148.10	149.00	1100.0	27.0	28.9	<0.5	<5.0	5.0	1.0	<5.0	<5.0	<1.0	1.0	49.1			
149.00	150.00	930.0	11.0	26.0	<0.5	<5.0	5.0	2.0	11.0	<5.0	<1.0	1.0	29.7			
150.00	151.90	1200.0	13.0	23.0	<0.5	<5.0	3.0	3.0	5.0	<5.0	<1.0	1.0	36.1	* - : -		
212.10	213.10	1000.0	1050.0	78.0	<0.5	<5.0	17.0	10.0	70.0	<5.0	<1.0	18.0	93.1	1		
223.00	224.00	1600.0	182.0	73.0	<0.5	<5.0	23.0	13.0	<5.0	<5.0	<1.0	5.0	71.4			
224.00	225.00	1400.0	6900.0	151.0	2.1	35.0	55.0	18.0	17.0	12.0	<1.0	50.0	97.9			
225.00	225.40	<20.0	568.0	92.0	<0.5	<5.0	36.0	72.0	<5.0	<5.0	<1.0	5.0	86.1			
225.40	225,60	60.0	7600.0	195.0	2.2	25.0	35.0	66.0	<5.0	<5.0	1.0	63.0	97.5			
272.80	274.10	1200.0	712.0	560.0	0.5	80.0	10.0	8.0	64.0	42.0	3.0	5.0	56.0			
	FROM 111.40 112.80 114.60 116.20 125.00 126.40 127.00 146.60 148.10 149.00 150.00 212.10 223.00 224.00 225.00 225.40 272.80	FROM TO   111.40 112.80   112.80 114.60   112.80 114.60   114.60 116.20   116.20 117.70   125.00 126.40   125.00 126.40   126.40 127.00   127.00 128.00   146.60 148.10   149.00 150.00   150.00 151.90   212.10 213.10   223.00 224.00   225.00 225.40   225.40 225.60   272.80 274.10	FROM TO BA (ppm)   111.40 112.80 1500.0   112.80 114.60 1600.0   114.60 116.20 1000i0   114.60 116.20 1000i0   116.20 117.70 1000.0   125.00 126.40 890.0   125.00 126.40 890.0   125.00 126.40 1200.0   146.60 148.10 1200.0   1448.10 149.00 1100.0   149.00 150.00 930.0   150.00 151.90 1200.0   212.10 213.10 1000.0   223.00 224.00 1600.0   225.00 225.40 <20.0	FROM TO BA (ppm) CU (ppm)   111.40 112.80 1500.0 45.0   112.80 114.60 1600.0 28.0   114.60 116.20 1000i0 57.0   116.20 117.70 1000.0 28.0   125.00 126.40 890.0 41.0   126.40 127.00 1800.0 88.0   127.00 128.00 1200.0 10.0   146.60 148.10 1200.0 12.0   144.10 1200.0 12.0 149.00 150.00   150.00 151.90 1200.0 13.0   212.10 213.10 1000.0 1050.0   223.00 224.00 1600.0 182.0   225.00 225.40 <20.0	FROM TO BA (ppm) CU (ppm) ZN (ppm)   111.40 112.80 1500.0 45.0 22.0   112.80 114.60 1600.0 28.0 18.0   114.60 116.20 1000i0 57.0 26.0   116.20 117.70 1000.0 28.0 45.0   125.00 126.40 890.0 41.0 31.0   126.40 127.00 1800.0 88.0 73.0   127.00 128.00 1200.0 10.0 30.0   146.60 148.10 1200.0 12.0 31.0   148.10 149.00 1100.0 27.0 28.0   149.00 150.00 930.0 11.0 26.0   150.00 151.90 1200.0 13.0 23.0   212.10 213.10 1000.0 1050.0 78.0   223.00 224.00 1600.0 182.0 73.0   224.00 225.00 1400.0 6900.0 151.0	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROMTOBA (ppm)CU (ppm)ZN (ppm)AG (ppm)AU (ppm)AU (ppm)111.40112.801500.045.022.0<0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm) AU (ppm) CO (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm) AU (ppb) CO (ppm) NI (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm) AU (ppb) CO (ppm) NI (ppm) PB (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm) AU (ppb) CO (ppm) NI (ppm) PB (ppm) AS (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm) AU (ppm) CO (ppm) NI (ppm) PB (ppm) AS (ppm) CD (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) AG (ppm) AU (ppm) CO (ppm) NI (ppm) PB (ppm) AS (ppm) CD (ppm) HO (ppm)   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZN (ppm) A6 (ppm) AU (ppm) CO (ppm) NI (ppm) PB (ppm) AS (ppm) CD (ppm) MO (ppm) CU (ppm) MO (ppm) MO (p	FROM TO BA (\$pm) CU (\$pm) 2M (\$pm) AG (\$pm) AU (\$pm) CD (\$pm) NI (\$pm) PB (\$pm) AS (\$pm) CD (\$pm) MO (\$pm) CU (\$CU+2M) (\$pm) ROCK   111.40 112.80 1500.0 45.0 22.0 <0.5	FROM TO BA (ppm) CU (ppm) ZM (ppm) AB (ppm) AU (ppm) CO (ppm) NI (ppm) PB (ppm) AS (ppm) CD (ppm) MO (ppm) CU/(CU+ZH) (ppm) COCH CD (pT)   111.40 112.80 1500.0 45.0 22.0 <0.5

Hole No. CHEM87-34

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	. NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	HO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
													-	*****			
AE08768	280.00	281.00	1500.0	912.0	5200.0	<0.5	30.0	12.0	10.0	286.0	61.0	36.0	6.0	14.9			
AE08769	281.00	282.00	1800.0	593.0	1587.0	0.6	65.0	17.0	12.0	438.0	<5.0	9.0	5.0	27.2			
AE08770	282.00	283.00	1600.0	222.0	396.0	0.6	45.0	6.0	3.0	42.0	<5.0	2.0	3.0	35.9			
AE08771	285.00	286.00	1600.0	80.0	262.0	<0.5	5.0	6.0	3.0	94.0	<5.0	1.0	3.0	23.4			~ \v
AE08772	286.00	287.00	2000.0	57.0	96.0	<0.5	10.0	7.0	3.0	38.0	6.0	<1.0	3.0	37.3			
AE08773	287.00	288.00	2000.0	173.0	48.0	<0.5	35.0	10.0	5.0	20.0	33.0	<1.0	5.0	78.3			
AE08774	288.00	289.00	1300.0	300.0	31.0	<0.5	65.0	10.0	3.0	24.0	57.0	<1.0	3.0	90.6			
AE08775	289.00	290.00	890.0	122.0	16.0	<0.5	45.0	11.0	2.0	12.0	38.0	<1.0	2.0	88.4			
AE08776	290.00	291.60	860.0	68.0	7.0	<0.5	20.0	10.0	3.0	6.0	13.0	<1.0	2.0	90.7			
AE08777	291.60	292.60	550.0	70.0	7.0	<0.5	20.0	10.0	5.0	6.0	20.0	<1.0	2.0	90.9			
AE08778	292.60	293.80	630.0	95.0	7.0	<0.5	30.0	11.0	7.0	8.0	22.0	<1.0	5.0	93.1			
AE08779	293.80	295.00	1800.0	186.0	232.0	<0.5	20.0	17.0	17.0	11.0	11.0	1.0	3.0	44.5			
AE08780	295.00	296.00	1800.0	237.0	415.0	<0.5	5.0	11.0	10.0	108.0	<5.0	4.0	2.0	36.3			
AE08781	296.00	297.10	1800.0	275.0	1814.0	<0.5	30.0	8.0	34.0	17.0	<5.0	15.0	2.0	13.2			
AE08782	297.10	298.10	1500.0	482.0	1675.0	1.7	130.0	12.0	30.0	48.0	<5.0	12.0	2.0	22.4			
AE08783	298.10	299.00	1700.0	449.0	487.0	<0.5	55.0	9.0	15.0	68.0	<5.0	3.0	2.0	48.0		• •	
AE08784	299.00	299.90	1700.0	896.0	275.0	<0.5	15.0	6.0	12.0	13.0	<5.0	2.0	1.0	76.5			
AE08783 AE08784	298.10 299.00	299.00 299.90	1700.0	449.0 896.0	487.0 275.0	<0.5 <0.5	55.0 15.0	9.0 6.0	15.0 12.0	68.0 13.0	<5.0 <5.0	3.0 2.0	2.0 1.0	48.0 76.5			

Hole No. CHEM87-34

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	'NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	HQ (ppm)	CU/(CU+ZN)ROCK * 100	CODES ALT	мім
					•••••••••••••••••••••••••••••••••••••••			****		<u>نہ ہے و</u> اہ بہ تلا <sub>نلہ</sub> ہے جو جا کر نا	### <b>6 is is a</b> , <b>6 is a a</b> .					
AE08785	300.00	300.70	640.0	569.0	342.0	<0.5	30.0	32.0	64.0	<5.0	<5.0	<1.0	1.0	62.5		
AE08786	300.70	302.00	1400.0	986.0	185.0	<0.5	15.0	5.0	8.0	10.0	<5.0	1.0	1.0	84.2		
AE08787	302.00	303.00	1400.0	416.0	210.0	<0.5	15.0	5.0	6.0	16.0	<5.0	1.0	1.0	66.4		
AE08788	303.00	304.00	1100.0	277.0	352.0	<0.5	95.0	17.0	17.0	45.0	<5.0	2.0	1.0	44.0		
AE08789	304.00	305.00	1700.0	122.0	432.0	<0.5	55.0	7.0	5.0	38.0	<5.0	3.0	1.0	22.0		
AE08790	305.00	306.00	1600.0	132.0	217.0	<0.5	45.0	10.0	6.0	13.0	<5.0	1.0	1.0	37.8		
AE08791	306.00	307.00	1300.0	122.0	57.0	<0.5	15.0	8.0	9.0	10.0	<5.0	<1.0	2.0	68.2		
AE08792	307.00	307.80	<20.0	82.0	49.0	<0.5	<5.0	33.0	190.0	12.0	<5.0	<1.0	1.0	62.6		
AE08793	307.80	309.40	860.0	54.0	27.0	<0.5	<5.0	9.0	49.0	21.0	<5.0	<1.0	3.0	66.7		
AE08794	309.40	310.40	1200.0	50.0	17.0	<0.5	35.0	5.0	7.0	8.0	8.0	<1.0	3.0	74.6		
AE08795	310.40	312.00	1200.0	19.0	33.0	<0.5	25.0	5.0	5.0	16.0	7.0	<1.0	3.0	36.5		
AE08796	313.00	314.50	1100.0	80.0	386.0	0.5	20.0	8.0	5.0	13.0	<5.0	4.0	4.0	17.2		
AE08797	314.50	316.00	990.0	39.0	141.0	1.1	35.0	4.0	5.0	28.0	<5.0	<1.0	4.0	21.7		
AE08798	316.00	317.50	1200.0	50.0	210.0	2.1	50.0	6.0	4.0	97.0	<5.0	1.0	4.0	19.2		
AE08799	320.00	322.00	2300.0	173.0	1403.0	3.7	140.0	5.0	3.0	147.0	<5.0	9.0	5.0	11.0		
AE08800	323.50	324.50	2400.0	248.0	1297.0	1.2	45.0	5.0	5.0	105.0	<5.0	7.0	5.0	16.0		
AD02651	325.75	326.00	50.0	150.0	76.0	<0.5	<5.0	36.0	104.0	5.0	44.0	<1.0	2.0	66.4		

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Hole No. CHEM87-34

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# DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD (Minor Elements)

SAMPLE NUMBER	FROM	TO	BA (ppm.)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	МО (ррм)	CU/(CU+ZN) ROCK + 100	CODES ALT	MIN
AD02652	367.80	368.90	2800.0	32.0	64.0	<0.5	<5.0	8.0	45.0	7.0	<5.0	<1.0	2.0	33.3		
AD02653	368.90	370.30	4500.0	50.0	58.0	<0.5	<5.0	5.0	40.0	14.0	<5.0	<1.0	2.0	46.3		
AD02654	371.10	372.00	2900.0	37.0	111.0	<0.5	<5.0	5.0	26.0	7.0	<5.0	<1.0	2.0	25.0		
AD02655	372.70	374.00	2700.0	33.0	58.0	<0.5	<5.0	23.0	166.0	7.0	22.0	<1.0	2.0	36.3		
AD02656	374.00	375.00	4000.0	35.0	54.0	<0.5	<5.0	4.0	32.0	9.0	<5.0	<1.0	2.0	39.3		
AD02657	375.00	376.00	4600.0	31.0	87.0	<0.5	<5.0	3.0	28.0	<5.0	<5.0	(1.0	11.0	26.2		
AD02658	376.00	377.00	3500.0	25.0	90.0	<0.5	<5.0	3.0	22.0	7.0	<5.0	<1.0	4 0	20.5		
AD02659	377.00	377.70	3500.0	32.0	73.0	<0.5	<5.0	3.0	21.0	6.0	<5.0	<1.0	4.0	30.5		
AD02660	377.70	378.50	3700.0	58.0	59.0	<0.5	<5.0	4.0	39.0	11.0	<5.0	<1.0	7.0	49.6		
AD02661	378.50	379.50	3300.0	35.0	51.0	<0.5	<5.0	3.0	26.0	7.0	(5.0	(1.0	5 0	17.0		
AD02662	379.50	380.60	2000.0	52.0	163.0	<0.5	35.0	9.0	57.0	8.0	(5.0	<1.0	2.0	40.7		
AD02663	380.60	381.70	1900.0	94.0	177.0	<0.5	<5.0	36.0	194 0	6.0	<5.0	(1.0	. 2.0.	24.2		
AD02664	381.70	381.90	180010	239.0	120 0	70.5	75 0	40.0	171.0	6.0	(3.0	<1.0	3.0	34.7	. '	
AD07665	201 00	202.00		20010	120.0		/5.0	40.0	230.0	8.0	<5.0	<1.0	3.0	66.6		
HDV2003	361.90	382.80	830.0	145.0	161.0	<0.5	<5.0	44.0	301.0	7.0	<5.0	<1.0	3.0	47.4		
AD02666	387.00	388.00	5600.0	33.0	80.0	<0.5	<5.0	5.0	20.0	5.0	42.0	<1.0	<1.0	29.2		
AD02667	388.00	389.00	11000.0	58.0	27.0	<0.5	<5.0	5.0	28.0	7.0	35.0	<1.0	2.0	68.2		
AD02668	389.00	390.00	11000.0	72.0	36.0	<0.5	<5.0	5.0	26.0	8.0	<5.0	<1.0	1.0	66.7		

Hole No. CHEM87-34

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm.)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	HO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AD02669	390.00	391.00	3900.0	39.0	24.0	<0.5	<5.0	2.0	18.0	6.0	18.0	<1.0	<1.0	61.9			

Hole No. CHEM87-34

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CÜ (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	НО (ррм)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08684	25.00	26.00	1100.0	317.0	63.0	<0.5	<5.0	16.0	17.0	<5.0	<5.0	<1.0	2.0	83.4			
AE08685	26.00	27.00	760.0	63.0	49.0	<0.5	<5.0	15.0	16.0	<5.0	<5.0	<1.0	3.0	56.2			
AE08686	27.00	28.00	790.0	51.0	40.0	<0.5	<5.0	14.0	15.0	<5.0	<5.0	<1.0	1.0	56.0			
AE08687	28.00	29.00	770.0	43.0	35.0	<0.5	5.0	11.0	12.0	<5.0	<5.0	<1.0	<1.0	55.1			
AE08688	61.30	62.30	1000.0	8.0	18.0	<0.5	5.0	3.0	1.0	<5.0	<5.0	<1.0	<1.0	30.8		· .	
AE08689	62.30	63.30	1100.0	4.0	21.0	<0.5	<5.0	3.0	2.0	6.0	<5.0	<1.0	<1.0	.16.0			

Hole No. CHEM87-35

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SAMPLE NUMBER	FROM	TO	BA (ppm.)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AD02670	102.00	103.60	1300.0	13.0	62.0	<0.5	<5.0	5.0	4.0	<5.0	8.0	<1.0	<1.0	17.3			
AD02671	103.60	104.80	1800.0	1900.0	765.0	1.0	20.0	7.0	6.0	22.0	57.0	5.0	10.0	71.3			
AD02672	104.80	106.00	2600.0	700.0	360.0	<0.5	45.0	12.0	10.0	32.0	40.0	2.0	7.0	66.0			
AD02673	106.00	107.00	2100.0	365.0	189.0	<0.5	<5.0	6.0	4.0	8.0	32.0	1.0	2.0	65.9			
AD02674	107.00	107.90	2300.0	8900.0	570.0	5.0	55.0	46.0	30.0	41.0	93.0	4.0	79.0	94.3			
AD02675	107.80	109.00	2100.0	310.0	110.0	<0.5	<5.0	8.0	8.0	5.0	32.0	<1.0	4.0	73.8			
AD02676	149.00	150.70	1200.0	92.0	86.0	<0.5	15.0	5.0	11.0	33.0	10.0	<1.0	4.0	51.7			
AD02677	150.70	152.00	2600.0	96.0	1900.0	1.5	55.0	5.0	4.0	44.0	6.0	8.0	6.0	4.8			
AD02678	152.00	153.00	3000.0	23.0	265.0	1.0	45.0	5.0	4.0	29.0	32.0	1.0	6.0	8.0			
AD02679	153.00	154.00	2300.0	63.0	1650.0	2.0	75.0	5.0	6.0	165.0	20:0	9.0	9.0	3.7			
AD02680	154.00	155.00	2100.0	27.0	275.0	0.5	35.0	5.0	6.0	30.0	33.0	<1.0	4.0	8.9			
AD02681	155.00	156.00	1600.0	71.0	1050.0	0.5	20.0	5.0	4.0	45.0	34.0	4.0	4.0	6.3			
AD02682	156.00	156.80	2200.0	880.0	1450.0	3.0	90.0	4.0	6.0	147.0	54.0	5.0	10.0	37.8			
AD02683	156.80	158.00	80.0	150.0	795.0	<0.5	10.0	35.0	83.0	9.0	23.0	<1.0	2.0	15.9			
AD02684	189.00	191.00	1500.0	106.0	63.0	<0.5	<5.0	20.0	28.0	6.0	32.0	<1.0	1.0	62.7			
4002685	244 00	746 40	2800 0	58 0	46 0	<0.5	(5.0	7.0	30.0	7 0	(5.0	(1.0)	7 0	55 0			

Hole No. CHEM87-36

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SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	МО (рры)	CU/(CU+ZN) + 100	ROCK	CODES ALT	MII
		ب بنه هي جو جو جو مي		*****	***				*******						*********		
AE08690	15.20	16.60	1000.0	14.0	31.0	<0.5	<5.0	4.0	4.0	5.0	<5.0	<1.0	3.0	31.11			
AE08691	16.60	18.00	920.0	79.0	30.0	<0.5	<5.0	8.0	6.0	<5.0	6.0	<1.0	3.0	72.48			
AE08692	18.00	19.00	1300:0	315.0	43.0	<0.5	15.0	15.0	10.0	6.0	<5.0	<1.0	7.0	87.99			
AE08693	19.00	20.00	1500.0	310.0	41.0	<0.5	25.0	12.0	8.0	7.0	13.0	<1.0	7.0	88.32			
AE08694	20.00	21.00	1600.0	28.0	26.0	<0.5	5.0	7.0	5.0	7.0	14.0	<1.0	3.0	51.85			
AE08695	21.00	22.00	1900.0	28.0	24.0	<0.5	<5.0	6.0.	3.0	9.0	<5.0	<1.0	2.0	53.85			
AE08696	22.00	23.00	1700.0	23.0	29.0	<0.5	<5.0	4.0	2.0	7.0	33.0	<1.0	4.0	44.23			
AE08697	23.00	24.00	1200.0	50.0	25.0	<0.5	<5.0	7.0	4.0	6.0	<5.0	<1.0	3.0	66.67			
AE08698	24.00	25.00	1600.0	34.0	29.0	<0.5	<5.0	6.0	4.0	7.0	<5.0	<1.0	3.0	53.97			
AE08699	25.00	26.00	1700.0	14.0	23.0	<0.5	<5.0	4.0	2.0	8.0	26.0	<1.0	3.0	37.84	•		
AE08700	26.00	27.00	1200.0	14.0	14.0	<0.5	<5.0	1.0	2.0	7.0	17.0	<1.0	2.0	50.00			
AB21951	27.00	28.00	1300.0	45.0	36.0	0.5	<5.0	4.0	5.0	14.0	15.0	<1.0	2.0	55.56			
AB21952	28.00	29.00	1900.0	104.0	25.0	<0.5	10.0	13.0	8.0	8.0	31.0	<1.0	4.0	80.62			
AB21953	29.00	30.00	1500.0	57.0	22.0	<0.5	<5.0	7.0	4.0	9.0	8.0	<1.0	3.0	72.15			
AB21954	30.00	31.00	2000.0	74.0	26.0	<0.5	<5.0	7.0	5.0	8.0	12.0	<1.0	3.0	74.00			
AB21955	31.00	32.00	2100.0	32.0	28.0	<0.5	10.0	6.0	3.0	6.0	23.0	<1.0	1.0	53.33			
A821956	32.00	33.00	· 2000.0	29.0	23.0	、 (0.5	<5.0	5.0	4.0	8.0	19.0	(1.0	<1.0	55 77			

Hole No. CHEM87-37

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) # 100	ROCK	CODES ALT	MIN
																	*******
AB21957	33.00	34.00	1800.0	31.0	18.0	<0.5	<5.0	3.0	5.0	9.0	<5.0	<1.0	<1.0	63.27			
AB21958	34.00	35.00	2400.0	24.0	19.0	<0.5	15.0	7.0	5.0	10.0	12.0	<1.0	1.0	55.81			
AB21959	35.00	36.00	230010	48.0	17.0	<0.5	10.0	5.0	4.0	9.0	<5.0	<1.0	1.0	73.85			
AB21960	36.00	37.00	2100.0	88.0	41.0	0.5	10.0	7.0	6.0	17.0	12.0	<1.0	1.0	68.22			
AB21961	37.00	38.00	2400.0	23.0	25.0	<0.5	<5.0	5.0	4.0	24.0	<5.0	<1.0	<1.0	47.92		·	
AB21962	38.00	39.00	2100.0	53.0	42.0	<0.5	10.0	5.0.	3.0	40.0	26.0	<1.0	1.0	55.79			
AB21963	39.00	40.00	910.0	110.0	76.0	<0.5	10.0	25.0	12.0	17.0	10.0	<1.0	1.0	59.14			
AB21964	40.00	41.00	1700.0	99.0	75.0	<0.5	10.0	17.0	10.0	11.0	79.0	<1.0	3.σ	56.90			v
AB21965	41.00	42.00	2800.0	44.0	56.0	<0.5	5.0	12.0	8.0	12.0	<5.0	<1.0	1.0	44.00			
AB21966	42.00	43.00	2300.0	30.0	42.0	<0.5	20.0	5.0	2.0	50.0	9.0	<1.0	2.0	41.67			
AB21967	43.00	44.00	2600.0	39.0	46.0	<0.5	5.0	4.0	4.0	63.0	26.0	<1.0	1.0	45.88			
AB21968	14.00	45.00	2900.0	19.0	26.0	<0.5	<5.0	5.0	4.0	37.0	11.0	<1.0	<1.0	42.22			
AB21969	45.00	46.00	2800.0	52.0	55.0	<0.5	25.0	9.0	6.0	107.0	20.0	<1.0	2.0	48.60			
AB21970	46.00	47.00	4500.0	240.0	615.0	3.0	40.0	7.0	6.0	395.0	28.0	3.0	5.0	28.07			
AB21971	47.00	48.00	4500.0	200.0	750.0	2.0	70.0	7.0	4.0	200.0	<5.0	3.0	5.0	21.05			
AB21972	48.00	49.00	2600.0	22.0	28.0	<0.5	95.0	8.0	3.0	12.0	31.0	<1.0	4.0	44.00			
AB21973	49.00	50.00	2300.0	26.0	30.0	<0.5	70.0	6.0	4.0	13.0	24.0	<1.0	5.0	46.43			

Hole No. CHEM87-37

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	МО (ppm)	CU/(CU+ZN) * 100	ROCK	COBES ALT	MIM
															*		
AB21974	50.00	51.00	4100.0	132.0	64.0	1.0	110.0	12.0	7.0	8.0	26.0	<1.0	5.0	67.35			
AB21975	51.00	52.00	3200.0	12.0	11.0	<0.5	40.0	9.0	4.0	<5.0	<5.0	<1.0	4.0	52.17			
AB21976	52.00	53.00	1700.0	29.0	14.0	<0.5	25.0	5.0	3.0	<5.0	37.0	<1.0	3.0	67.44			
AB21977	53.00	54.00	2100.0	10.0	13.0	<0.5	<5.0	5.0	3.0	5.0	<5.0	<1.0	4.0	43.48			
AB21978	54.00	55.00	1600.0	30.0	15.0	<0.5	<5.0	7.0	3.0	<5.0	21.0	<1.0	4.0	66.67			
AB21979	55.00	56.00	1700.0	41.0	21.0	<0.5	5.0	9.0	5.0	7.0	8.0	<1.0	3.0	66.13			
AB21980	56.00	57.00	1700.0	119.0	25.0	<0.5	15.0	11.0	6.0	13.0	7.0	<1.0	6.0	82.64			
AB21981	57.00	58.00	1900.0	138.0	26.0	<0.5	15.0	7.0	6.0	16.0	12.0	<1.0	6.0	84.15			
AB21982	58.00	59.00	1800.0	20.0	39.0	<0.5	<5.0	6.0	4.0	7.0	11.0	<1.0	3.0	33.90			
AB21983	59.00	60.00	1100.0	7.0	25.0	<0.5	<5.0	3.0	3.0	6.0	<5.0	<1.0	4.0	21.87			
AB21984	60.00	61.00	960.0	20.0	22.0	<0.5	<5.0	5.0	4.0	6.0	<5.0	<1.0	3.0	47.62			
AB21985	61.00	62.00	1100.0	53.0	16.0	<0.5	<5.0	4.0	4.0	6.0	18.0	<1.0	3.0	76.81			
AB21986	62.00	63.00	960.0	19.0	17.0	<0.5	<5.0	2.0	2.0	7.0	<5.0	<1.0	2.0	52.78			
AB21987	63.00	64.00	1000.0	5.0	18.0	<0.5	<5.0	2.0	2.0	<5.0	6.0	<1.0	2.0	21.74			
AB21988	64.00	65.00	720.0	20.0	19.0	<0.5	<5.0	4.0	3.0	5.0	20.0	<1.0	1.0	51.28			
AB21989	65.00	66.00	960.0	40.0	15.0	<0.5	<5.0	4.0	3.0	<5.0	<5.0	<1.0	1.0	72.73			
AB21990	66.00	67.00	1200.0	14.0	12.0	<0.5	<5.0	4.0	4.0	<5.0	27.0	<1.0	1.0	53.85			

Hole No. CHEM87-37

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	АU (ррБ)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AB21991	67.00	68.00	1200.0	8.0	11.0	<0.5	15.0	4.0	2.0	<5.0	21.0	<1.0	1.0	42.11			
AB21992	68.00	69.00	1600.0	18.0	14.0	<0.5	<5.0	4.0	3.0	<5.0	21.0	<1.0	2.0	56.25			
AB21993	69.00	70.00	190020	5.0	13.0	<0.5	<5.0	4.0	2.0	<5.0	<5.0	<1.0	1.0	27.78			
AB21994	70.00	70.60	2000.0	6.0	21.0	<0.5	<5.0	2.0	2.0	<5.0	<5.0	<1.0	1.0	22.22			
AB21995	70.60	71.60	630.0	63.0	113.0	<0.5	<5.0	26.0	40.0	5.0	<5.0	<1.0	1.0	35.80			
AB21996	72.30	73.30	270.0	260.0	82.0	<0.5	<5.0	29.0 <sub>2</sub>	61.0	<5.0	<5.0	<1.0	1.0	76.02			
AB21997	73.30	74.00	2400.0	116.0	31.0	<0.5	<5.0	14.0	12.0	12.0	<5.0	<1.0	3.0	78.91	· .		
AB21998	74.00	75.00	1800.0	320.0	480.0	1.5	150.0	14.0	17.0	28.0	24.0	2.0	6.0	40.00			
AB21999	75.00	76.00	1600.0	440.0	63.0	<0.5	20.0	13.0	10.0	7.0	17.0	<1.0	5.0	87.48			
AB22000	76.00	77.20	3600.0	410.0	49.0	1.0	50.0	11.0	10.0	10.0	47.0	<1.0	3.0	89.32			
AF00151	77.20	78.00	3700.0	720.0	3800.0	6.0	750.0	10.0	8.0	101.0	14.0	20.0	20.0	15.93			
AE00152	78.00	79.30	2800.0	260.0	104.0	1.5	35.0	6.0	4.0	11.0	24.0	<1.0	8.0	71.43			
AF00153	79.30	80.30	1900.0	86.0	30.0	1.0	5.0	4.0	3.0	11.0	9.0	<1.0	4.0	74.14			
AF00154	80.30	81.10	850.0	580.0	103.0	1.0	10.0	34.0	41.0	17.0	33.0	<1.0	4.0	84.92			
AF00155	81.10	82.10	1600.0	280.0	1900.0	0.5	55.0	8.0	8.0	20.0	20.0	10.0	4.0	12.84			
AF00156	82.10	83.10	1500.0	168.0.	230.0	, <0.5	15.0	70	4.0	19.0	18.0	1.0	4.0	42.21			
AF00157	83.10	84.00	1800.0	410.0	405.0	1.0	35.0	7.0	4.0	18.0	22.0	2.0	5.0	50.31			

Hole No. CHEM87-37

SAMPLE NUMBER	FROM	то	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	НО (ррм)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AF00158	84.00	84.50	1400.0	540.0	970.0	1.0	10.0	25.0	34.0	32.0	16.0	7.0	4.0	35,76			
AF00159	84.60	85.60	410.0	77.0	165.0	<0.5	<5.0	25.0	54.0	8.0	<5.0	<1.0	5.0	31.82			•
AF00160	98.30	99.30	2500,0	600.0	1000.0	3.5	274.3	14.0	13.0	1116.0	30.0	6.0	2.0	37.50			
AF00161	99.30	99.50	4000.0	28500.0	236100.	78.5	1440.0	19.0	27.0	3700.0	31.0	807.0	95.0	10.77			
AF00162	99.50	99.70	6400.0	4900.0	22900.0	45.3	2262.8	14.0	13.0	4800.0	48.0	148.0	14.0	17.63			
AF00163	99.70	100.70	6300.0	15400.0	9800.0	30.0	445.7	25.0	40.0	473.0	10.0	76.0	20.0	61.11			
AF00164	100.70	101.80	14000.0	33800.0	6200.0	54.9	548.6	: 58.0	59.0	76.0	<5.0	79.0	17.0	84.50		· .	
AF00165	101.80	102.80	7900.0	12500.0	1300.0	20.0	171.4	14.0	9.0	135.0	13.0	12.0	4.0	90.58			н 1 А
AF00166	102.80	103.50	9800.0	12800.0	800.0	21.0	68.6	13.0	9.0	38.0	<5.0	8.0	5.0	94.12			
AF00167	103.50	104.30	8800.0	1600.0	700.0	6.4	<68.6	8.0	3.0	695.0	29.0	5.0	3.0	69.57			
AF00168	104.30	105.00	12000.0	2300.0	600.0	2.3	137.1	42.0	17.0	94.0	<5.0	4.0	3.0	79.31			
AF00169	105.00	105.50	31000.0	4800.0	7600.0	7.0	137.1	104.0	64.0	124.0	8.0	94.0	19.0	38.71			
AF00170	105.50	106.00	30000.0	8100.0	300.0	12.0	480.0	70.0	53.0	62.0	<5.0	2.0	13.0	96.43			
AF00171	106.00	106.50	24000.0	16500.0	300.0	26.0	788.6	28.0	20.0	194.0	15.0	3.0	12.0	98.21			
AF00172	106.50	107.10	15000.0	3300.0	200.0	6.0	68.6	73.0	60.0	284.0	<5.0	2.0	16.0	94.29			
AF00173	107.10	108.10	1700.0	600.0	300.0	° <b>0.</b> 5	68.6	39.0	105.0	125.0	31.0	<1.0	3.0	66.67			
				. •	Not Set 18 July			•									

Hole No. CHEM87-37

# APPENDIX C

ANALYTICAL RESULTS -- MAJOR OXIDES

SAMPLE NUMBER	FROM	то	XS 102	%AL203	ZCAO	ZMGO	ZNA20	<b>X</b> K20	ZFE203	ZT 102	ZP205	ZHNO	ZLÓI	SUK	 A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
												***			 			
AB15351	7.30	7.40	53.00	16.30	7.05	2.23	3.00	2.63	7.20	0.46	0.34	0.26	7.77	100.24	32.60	17.00	89.00	16.04
AB15352	31.90	32.00	72.60	13.50	2.23	0.83	3.00	2.47	2.09	0.23	0.06	0.06	2.93	100.00	38.69	20.00	25.00	44.44
AB15354	60.50	60.60	70.80	13.60	2.80	0.68	1.06	3.80	2.78	0.23	0.05	0.05	2.93	98.78	53.72	22.00	95.00	18.80
AB15355	72.30	72.40	70.00	13.60	3.31	1.32	1.05	3.43	2.12	0.25	0.06	<u>0.04</u>	3.85	99.03	52.14	28.00	16.00	63.64
AB15356	98.10	98.20	66.10	15.30	3.68	1.37	0.55	4.01	3.53	0.41	0.13	0.05	4.62	99.75	55.98	38.00	24.00	61.29
AB15357	113.20	113.30	42.80	12.40	14.50	4.89	0.71	1.12	8.82	0.53	0.10	0.27	14.08	100.22	28.32	19.00	44.00	30.16
AB15358	121.30	121.40	50.80	16.20	6.09	7.77	4.30	0.32	10.50	0.68	0.11	0.19	3.46	100.42	43.78	24.00	86.00	21.82
AB15360	133.20	133.30	49.40	15.90	8.87	5.28	3.40	0.06	10.00	0.66	0.11	0.23	5.70	99.61	30.32	63.00	73.00	46.32
AB15361	146.10	146.20	71.60	13.70	4.34	0.51	2.36	2.27	2.14	0.25	0.06	0.05	2.70	99.98	29.32	17.00	13.00	56.67
AB15362	148.30	148.40	52.90	17.80	6.50	3.20	1.97	2.00	9.01	0.69	0.14	0.19	5.54	99.94	38.04	135.00	80.00	62.79
AB15363	157.40	157.50	72.00	14.80	0.71	1.69	3.75	2.23	2.21	0.31	0.09	0.04	2.08	99.91	46.78	19.00	61.00	23.75
AB15364	167.50	167.60	73.20	12.20	2.36	1.09	5.71	0.43	2.40	0.27	0.06	0.05	2.31	100.08	15.85	19.00	15.00	55.88
AB15365	169.50	169.60	68.90	13.20	2.04	2.36	2.99	1.48	4.86	0.30	0.07	0.07	3.23	99.50	43.29	57.00	31.00	64.77
AB15366	176.20	176.30	73.50	12.30	2.94	0.55	5.12	1.14	2.13	0.22	0.07	0.04	1.85	99.86	17.33	52.00	20.00	72.22
AB15367	178.20	178.30	49.60	13.30	10.10	6.24	2.70	0.18	11.80	1.76	0.14	0.16	3.85	99.83	33.40	37.00	82.00	31.09
AB15368	195.50	195.60	48.70	12.90	10.00	6.98	2.37	0.34	13.40	1.83	0.16	0.22	2.85	99.75	37.18	228.00	104.00	68.67
AB15369	263.30	263.40	48.40	13.70	10.90	7.24	2.14		12.50	1.66	0.15	0.18	3.16	100.13	36.02	185.00	91.00	67.03

Hole No. CHEM-87-22

SAMPLE NUMBER	FROM	то	XS 102	XAL203	%CAO	ZHGO	ZNA20	ZK20	ZFE203	XT 102	ZP205	2HN0	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ '(Cu+Zn)
							**********											
AB15370	287.40	287.50	43.70	17.70	4.98	7.26	4.46	0.07	12.60	2.27	0.21	0.15	6.93	100.33	43.71	13.00	160.00	7.51
AB15371	308.40	308.50	50.20	17.40	5.59	4.50	4.39	0.78	9.27	0.66	0.26	0.17	6.08	99.30	34.60	146.00	156.00	48.34
AB15372	315.40	315.50	48.90	14.20	11.30	6.51	1.80	0.15	12.70	1.77	0.17	0.19	2.00	99.69	33.70	148.00	90.00	62.18
AB15373	349.60	349.70	48.90	13.60	11.60	6.24	2.09	0.15	10.50	1.50	0.12	0.16	4.93	99.79	31.82	336.00	87.00	79.43
AB15374	369.20	369.30	48.20	17.70	7.69	4.94	3.08	1.30	9.83	0.75	0.18	0.17	6.24	100.08	36.68	287.00	148.00	65.98
AB15375	399.70	399.80	55.80	16.20	4.98	3.85	4.16	1.24	8.07	0.87	0.27	0.16	3.77	99.37	35.77	54.00	59.00	47.79
AB15376	404.60	404.70	70.20	12.90	4.75	0.75	5,28	0.36	3.21	0.34	0.08	0.06	2.16	100.09	9.96	58.00	30.00	65.91
AB15377	413.90	414.00	47.80	14.40	11.40	7.06	2.05	0.26	13.10	1.78	0.17	0.20	1.93	100.15	35.24	171.00	95.00	64.29
AB15378	428.60	428.70	48.20	17.80	4.96	7.97	4.34	0.45	11.50	. 1.08	0.11	0.16	3.39	99.96	47.52	75.00	84.00	47.17
AB15379	438.30	438.40	47.80	14.40	12.50	8.80	1.68	0.55	10.70	0.57	0.13	0.17	2.77	100.07	39.74	78.00	64.00	54.93
AB15380	456.30	456.40	49.60	12.20	12.10	10.30	2.16	0.21	9.68	0.53	0.12	0.17	3.08	100.15	42.43	217.00	61.00	78.06
AB15381	467.20	467.30	50.30	14.30	11.10	8.27	2.98	0.22	9.62	0.60	0.15	0.16	2.39	100.09	37.62	235.00	57.00	80.48

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SAMPLE NUMBER	FROM	то	XS 102	ZAL203	%CAO	ZMGO	ZNA20	ZK20	XFE203	<b>XI 102</b>	XP205	ZMNO	XLO I	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ ′(Cu+Zn)
																		*
AD02401	24.20	24.30	54.00	17.30	7.54	4.41	3.22	0.68	9.14	0.66	0.12	0.18	2.85	100.10	32.11	105.00	111.00	48.61
AD02402	51.30	51.40	53.80	17.80	4.79	5.10	4.25	0.84	9.02	0.68	0.12	0.15	3.08	99.63	39.65	100.00	111.00	47.39
AB02403	63.70	63.80	53.90	20.20	1.96	5.73	6.60	0.93	5.59	0.83	0.16	0.10	3.54	99.44	44.05	43.00	67.00	39.09
AD02404	79.90	80.00	52.10	15.40	5.85	7.50	2.74	0.04	9.81	0.66	0.08	0.19	5.31	99.68	46.75	152.00	115.00	56.93
AB02405	85.70	85.80	66.10	16.30	3.15	0.99	3.90	2.01	3.88	0.23	0.13	0.06	2.85	99.60	29.85	138.00	38.00	78.41
AD02406	99.40	99.50	70.80	14.50	1.72	1.14	5.88	1.11	2.73	0.29	0.07	0.05	1.93	100.22	22.84	99.00	33.00	75.00
AD02407	119.30	119.40	69.00	14.60	2.52	1.40	3.33	3.09	2.82	0.27	0.08	0.07	3.00	100.18	43.42	37.00	65.00	36.27
AD02408	131.70	131.80	50.10	20.60	3.64	4.75	4.98	1.67	7.11	0.92	0.16	0.08	5.47	99.48	42.69	141.00	47.00	75.00
AD02409	141.00	141.10	72.60	15.10	0.99	1.01	2.96	2.72	1.77	0.35	0.07	0.06	1.93	99.56	48.57	51.00	37.00	57.95
AD02410	159.70	159.80	49.30	16.70	4.29	10.10	4.21	0.50	9.45	0.72	0.18	0.18	4.62	100.25	55.50	218.00	83.00	72.43
AB02411	173.40	173.50	53.10	15.10	4.94	7.96	3.73	2.36	9.02	0.68	0.17	0.17	2.16	99.39	54.34	100.00	83.00	54.64
AD02412	192.70	192.80	43.50	15.80	6.27	10.60	1.29	2.41	13.30	1.02	0.20	0.25	4.47	99.11	63.25	163.00	110.00	59.71
AD02413	217.60	217.70	47.10	17.20	5.35	10.40	2.62	2.09	10.10	0.69	0.18	0.19	3.85	99.77	61.05	204.00	78.00	72.34
A002414	223.40	223.50	49.70	17.10	6.41	7.13	2.89	2.95	9.27	0.82	0.23	0.20	2.54	99.24	52.01	140.00	97.00	59.07
AD02415	260.30	260.40	49.80	17.50	5.01	6.91	4.25	1.32	10.60	0.89	0.21	0.19	2.70	99.38	47.06	230.00	245.00	48.42
AD02416	291.70	291.80	48.90	16.00	7.97	8.30	3.51	0.26	11.20	0.83	0.17	0.21	2.85	100.20	42.71	242.00	76.00	76.10

Hole No. CHEM87-29

DIAMOND	DRILL	CORE I	.ITHOGEOCHEMICAL	RECORD
		(MAJOR	ELEMENTS)	

SAMPLE NUMBER	FROM	то	ZS 102	XAL203	ZCAO	ZHGO	ZNA20	ZK20	%FE203	XT 102	ZP205	ZHNO	ZLOI	รบห	A.I.	Cu (ppm)	Zn (ppm) <sup>·</sup>	100*Cu/ (Cu+Zn)
			*********							*		<i></i>						
AB21636	13.30	13.40	69.90	14.50	1.00	1.36	4.02	3.06	2.56	0.28	0.07	0.09	2.08	98.92	46.82	25.00	28.00	47.17
AB21637	25.10	25.20	69.00	13.60	3.68	1.00	2.48	3.00	1.65	0.24	0.06	0.08	4.08	98.87	39.37	22.00	25.00	46.81
AB21638	38.40	38.50	65.40	12.60	5.28	2.09	1.64	2.13	3.59	0.27	0.07	0.13	5.93	99.13	37.88	32.00	64.00	33.33
AB21639	41.20	41.30	70.30	14.40	3.41	0.31	2.45	2.97	1.64	0.26	0.07	0.13	4.08	100.02	35.89	23.00	17.00	57.50
AB21640	47.00	47.10	59.70	13.60	6.62	2.92	3.20	1.91	4.65	0.36	0.07	0.17	7.00	100.20	32.97	2 52.00	49.00	51.49
AB21641	57.10	57.20	65.30	14.20	3.66	1.99	4.12	2.15	3.70	0.33	0.07	0.08	4.24	99.84	34.73	67.00	38.00	63.81
AB21642	64.20	64.40	70.40	13.30	3.02	0.90	2.64	2.91	2.08	0.24	0.06	0.09	4.08	99.72	40.23	28.00	34.00	45.16
AB21643	71.10	71.20	66.20	12.10	5.98	1.34	0.70	3.17	3.17	0.25	0.06	0.17	6.85	99.99	40.30	18.00	46.00	28.12
AB21644	88.70	88.80	70.70	13.90	2.74	0.71	2.93	2.63	2.23	0.25	0.07	0.10	3.46	99.72	37.07	39.00	100.00	28.06
AB21645	97.20	97.30	69.20	13.90	3.37	0.49	3.01	2.84	2.19	0.29	0.07	0.10	3.93	99.39	34.29	41.00	126.00	24.55
AB21646	114.50	114.60	71.10	13.60	2.96	0.46	3.48	2.37	1.89	0.25	0.06	0.07	3.39	99.63	30.53	26.00	36.00	41.94
AB21647	128.30	128.40	71.20	13.90	2.35	0.70	2.23	2.81	2.63	0.24	0.06	0.06	3.31	99.49	43.39	23.00	61.00	27.38
AB21648	157.75	157.90	46.20	15.10	10.70	5.74	2.64	0.04	10.10	0.69	0.11	0.23	8.54	100.09	30.23	154.00	80.00	65.91
AB21649	167.30	167.40	68.50	13.30	5.03	1.35	2.53	1.74	2.70	0.29	0.07	0.04	4.39	99.94	29.01	34.00	14.00	70.83
AB21650	181.40	181.50	71.70	14.00	2.17	1.23	4.12	1.65	2.83	0.33	0.08	0.06	1.77	99.94	31.41	38.00	17.00	69.09
AB21651	195.60	195.70	70.40	13.40	3.67	0.82	1.57	3.06	1.84	0.24	0.06	0.04	4.00	99.10	42.54	29.00	<10.00	) 152.63
AB21652	205.40	205.50	70.00	15.10	2.51	0.74	4.75	1.75	2.49	0.38	0.10	0.07	· 1.54	99.43	25.54	39.00	12.00	76.47

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SAMPLE NUMBER	FROM	то	X\$ 102	ZAL203	ZCAO	ZMGO	XNA20	ZK20	ZEE203	XI 102	XP205	2880	ZLOI	รบห	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
																~ • = = = <del>.</del>		
AB21653	213.60	213.70	72.00	14.20	1.65	0.86	4.71	1.51	2.50	0.26	0.06	0.03	1.31	99.09	27.15	51.00	12.00	80.95
AB21654	218.20	218.30	72.60	13.80	2.20	0.97	3.02	2.33	1.96	0.25	0.06	0.02	2.77	99.98	38.73	47.00	17.00	73.44
AB21655	229.80	229.90	51.40	18.30	6.07	4.31	3.85	1.09	10.20	0.72	0.13	0.19	3.23	99.49	35.25	252.00	89.00	73.90
AB21656	232.80	232.90	72.20	13.50	2.15	1.24	4.86	1.52	2.77	0.26	0.06	0.05	1.47	100.08	28.25	40.00	24.00	62.50
AB21657	243.60	243.70	72.10	13.60	2.57	0.31	3.31	2.31	3.03	0.26	0.06	0.07	1.70	99.82	34.67	41.00	25.00	62.12
AB21658	249.30	249.40	53.20	17.10	4.67	6.59	4.35	0.54	9.43	0.71	0.14	0.20	3.23	100.16	44.15	241.00	120.00	66.76
AB21659	264.30	264.40	49.60	17.20	6.09	7.78	2.69	0.98	10.40	0.73	0.13	0.23	4.16	99.99	49.94	178.00	119.00	59.93
AB21660	339.50	339.70	77.00	11.40	1.95	0.35	6.31	0.12	1.50	0.14	0.04	0.04	1.16	100.01	5.38	44.00	34.00	56.41

SAMPLE NUMBER	FROM	то	ZS 102	ZAL203	ZCAO	ZHGO	ZNA20	XK20	%7E203	XT 102	%205	ZMNO	XLO I	รมห	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
																	**********	*
AB21661	21.90	22.00	65.50	• 14.40	3.48	1.66	3.51	2.47	4.21	0.34	0.07	0.09	4.39	100.12	37.14	61.00	38.00	61.62
AB21662	32.10	32.20	61.90	15.90	3.96	2.11	3.54	2.36	4.79	0.26	0.18	0.14	5.00	100.14	37.34	73.00	169.00	30.17
AB21663	43.70	43.80	70.20	13.60	2.55	0.91	3.17	2.74	2.05	0.25	0.06	0.09	3.85	99.47	38.95	27.00	64.00	29.67
AB21664	55.20	55.30	70.80	14.20	2.03	0.92	3.77	2.66	1.83	0.26	0.06	0.05	3.39	99.98	38.17	36.00	30.00	54.55
AB21665	66.40	66.60	72.00	13.90	1.75	1.03	4.52	1.57	2.24	0.30	0.07	0.06	2.46	99.90	29.31	40.00	42.00	48.78
AB21666	72.70	72.80	70.60	11.90	4.32	1.21	3.38	1.57	1.95	0.27	0.07	0.10	4.70	99.97	26.53	55.00	18.00	75.34
AB21667	84.70	84.80	67.00	13.80	4.22	1.17	2.35	2.55	3.33	0.30	0.08	0.10	4.77	99.67	36.15	54.00	44.00	55.10
AB21668	93.40	93.50	68.70	14.40	4.05	0.88	1.97	2.87	2.20	0.31	0.07	0.04	4.62	100.11	38.38	29.00	14.00	67.44
AB21669	105.00	105.10	47.90	16.90	9.99	4.03	2.51	0.49	11.00	0.78	0.14	0.26	6.16	100.16	26.56	231.00	103.00	69.16
AB21670	114.70	114.80	57.50	13.90	7.45	3.18	1.47	2.49	5.23	0.43	0.12	0.25	8.08	100.10	38.86	61.00	93.00	39.61
AB21671	129.10	129.20	69.50	13.40	4.61	0.76	0.79	3.47	2.28	0.27	0.06	0.04	4.95	100.03	43.93	38.00	<10.00	
AB21672	141.30	141.40	70.70	15.60	1.87	0.84	3.33	3.12	1.70	0.37	0.13	0.04	1.77	99.47	43.23	53.00	10.00	84.13
AB21673	156.90	157.00	72.10	14.90	1.10	1.20	4.40	2.09	2.26	0.36	0.10	0.05	1.54	100.10	37.43	31.00	23.00	57.41
AB21674	174.50	174.60	69.50	14.60	3.08	1.11	3.53	2.23	2.10	0.27	0.06	0.03	2.54	99.05	33.57	49.00	17.00	74.24
AB21675	184.60	184.70	53.20	16.50	6.98	4.21	4.02	0.57	9.23	0.66	0.13	0.17	4.31	99.98	30.29	397.00	60.00	86.87
AB21676	192.80	192.90	72.40	13.80	2.59	1.17	4.92	1.53	1.81	0.26	0.06	0.05	1.47	100.06	26.44	59.00	18.00	76.62
AB21677	199.30	199.40	48.10	16.40	6.69	5.02	2.58	2.01	10.90	0.70	0.11	0.23	6.85	99.59	43.13	101.00	104.00	49.27

Hole No. CHEM87-32

SAMPLE NUMBER	FROM	TO	XS 102	XAL203	ZCAO	2HGO	2NA20	XK20	XFE203	21102	XP205	ZHNO	7L0I	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu, `(Cu+Zn
																•		
AB21678	213.40	213.50	73.20	13.90	2.84	0.87	2.16	2.68	2.40	0.25	0.06	0.06	1.77	100.19	41.52	29.00	23,00	55.77
AB21679	218.80	218.90	71.70	13.40	2.20	0.83	2.09	3.19	2.83	0.30	0.07	0.07	2.39	99.07	48.38	35.00	16.00	68.63
AB21680	228.80	228.90	51.20	16.10	4.86	6.91	2.85	1.14	9.14	0.67	0.12	0.24	6.93	100.06	50.77	74.00	154.00	32.46
AB21681	258.20	258.30	71.00	13.70	3.01	1.04	5.25	1.22	1.56	0.26	0.09	0.03	3.16	100.32	21.48	32.00	12.00	72.73
AB21682	273.40	273.50	44.40	12.80	8.25	6.55	1.93	0.55	13.00	1.87	0.17	0.17	10.08	99.77	41.09	348.00	112.00	75.65
AB21683	281.00	281.10	71.90	14.00	2.08	0.51	4.87	2.40	1.73	0.26	0.09	0.03	2.23	100.10	29.51	43.00	36.00	54.43
AB21684	286.40	286.50	45.40	12.60	10.30	5.15	2.35	0.37	10.80	1.47	0.15	0.18	11.00	99.77	30.38	243.00	99.00	71.05
AB21685	300.00	300.10	54.40	17.90	2.95	3.60	2.29	1.71	8.32	0.89	0.21	0.09	6.47	98.83	50.33	126.00	136.00	48.09
AB21686	318.30	318.40	53.60	17.20	2.33	3.46	2.42	1.85	10.30	0.90	0.22	0.10	6.85	99.23	52.78	126.00	144.00	46.67
AB21687	427.20	427.30	74.80	15.70	0.91	0.62	0.94	3.09	1.18	0.35	0.12	0.01	2.46	100.18	66.73	34.00	17.00	66.67
AB21688	434.10	434.20	44.30	11.80	11.70	8.86	0.33	0.05	9.99	0.68	0.15	0.11	10.31	98.28	42.55	170.00	237.00	41.77
AB21689	456.90	457.10	49.10	14.30	11.40	6.55	1.59	0.19	12.90	1.73	0.17	0.20	2.16	100.29	34.16	242.00	96.00	71.60

Hole No. CHEM87-32

SAMPLE NUMBER	FROM	то	ZS 102	XAL203	ZCAO	ZHGO	ZNA20	%X20	XFE203	ZT 102	XP205	ZHNO	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
							*****				********							
AD02454	10.60	10.70	71.00	12.40	3.63	0.61	5.65	0.92	2.01	0.28	0.07	0.10	3.16	99.83	14.15	57.00	31.00	64.77
AD02455	16.30	16.40	55.30	16.90	5.43	2.60	2.26	2.91	6.94	0.47	0.35	0.17	6.16	99.49	41.74	42.00	106.00	28.38
AD02456	20.30	20.90	73.90	13.50	1.49	0.65	5.74	1.19	1.66	0.29	0.03	0.05	1.77	100.32	20.29	37.00	27.00	57.81
AD02457	30.00	30.10	68.70	13.60	3.99	1.45	2.29	2.38	2.46	0.26	0.06	0.04	4.77	100.00	37.88	36.00	· 18.00	66.67
AD02458	44.40	44.50	72.30	13.20	1.34	1.32	5.10	1.19	3.07	0.24	0.06	0.06	2.23	100.11	28.04	35.00	24.00	59.32
AD02459	54.20	54.30	66.50	14.40	4.45	1.38	0.79	3.68	2.75	0.29	0.07	0.03	5.54	99.87	49.17	35.00	12.00	74.47
AD02460	64.50	64.60	69.00	14.90	3.47	2.57	3.00	2.47	2.44	0.32	0.08	0.04	1.70	99.99	43.79	26.00	16.00	61.90
AD02461	72.60	72.70	51.80	16.80	8.54	5.38	2.75	0.44	10.80	0.76	0.13	0.17	2.85	100.42	34.02	47.00	61.00	43.52
AD02462	79.70	79.80	72.70	13.90	2.65	0.66	4.01	2.41	2.65	0.26	0.06	0.04	0.85	100.09	31.55	34.00	17.00	66.67
AD02463	88.40	88.50	50.70	17.20	5.69	7.15	4.11	0.93	10.60	0.68	0.09	0.21	2.93	100.29	45.19	16.00	83.00	16.16
AD02464	98.20	98.30	48.80	16.70	6.84	7.38	2.92	1.01	12.10	0.76	0.14	0.25	3.46	100.36	46.23	51.00	98.00	34.23
AD02465	108.70	108.80	51.90	18.00	6.29	4.37	5.70	0.36	9.20	0.72	0.14	0.25	2.46	99.39	28.29	277.00	650.00	29.88
AD02466	124.40	124.50	56.00	17.50	4.21	4.58	6.00	1.12	7.76	0.68	0.12	0.16	2.00	100.13	35.83	179.00	: 134.00	57.19
AD02467	136.80	136.90	55.30	17.80	4.34	4.39	6.84	• 0.46	7.39	0.66	0.11	0.16	2.08	99.53	30.26	98.00	101.00	49.25
AB02468	143.30	143.40	47.90	14.20	10.20	6.45	1.44	0.29	13.60	1.87	0.18	0.20	3.08	99.41	36.67	253.00	118.00	68.19
AD02469	153.60	153.70	54.80	16.90	7.35	3.71	4.36	0.80	8.07	0.62	0.12	0.16	2.77	99.66	27.81	381.00	90.00	80.89
AD02470	154.90	155.00	70.60	13.80	2.51	1.09	5.04	1.99	3.02	0.29	0.06	0.06	. 1.39	<b>99.85</b> ,	28.97	40.00	27.00	59.70

Hole No. CHEM87-33

DIAMOND	DRILL	CORE	LITHOGEOCHEMICAL	RECORD
		CMAJC	R ELEMENTS)	

SAMPLE NUMBER	FROM	TO	25102	ZAL203	ZCAO	ZHGO	%NA20	ZK20	ZFE203	ZT 102	ZP205	ZHNO	%L0I	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
		*********														<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>		
AD02471	165.20	165.30	51.20	17.90	6.98	5.97	4.42	0.94	8.83	0.72	0.13	0.26	2.70	100.05	37.74	126.00	125.0	50.20
AD02472	169.30	169.40	69.90	11.90	6.45	1.26	2.59	0.86	4.64	0.30	0.10	0.14	1.93	100.07	19.00	32.00	321.0	9.02
AD02473	180.40	180.50	53.10	17.50	4.08	6.58	5.19	0.82	8.54	0.73	0.13	0.20	2.93	99.80	44.39	157.00	138.0	0 53.22
AD02474	192.20	192.30	62.30	17.30	7.65	1.08	2.04	1.99	4.79	0.24	0.15	0.14	2.23	99.91	24.06	79.00	43.0	0 64.75
AD02475	199.90	200.00	49.10	13.30	11.50	6.20	1.10	0.12	13.60	1.90	0.19	0.21	2.31	99.53	33.40	249.00	115.0	0 68.43
AD02476	208.30	208.40	73.70	12.00	3.15	0.72	0.72	3.16	2.63	0.28	0.06	0.08	3.31	99.81	50.06	35.00	38.0	0 47.9
AD02477	215.70	215.80	73.20	13.50	1.82	0.70	1.96	3.14	1.98	0.25	0.06	0.07	2.54	99.22	50.39	36.00	30.0	0 54.5
AD02478	217.80	217.90	74.30	13.40	1.40	0.67	0.62	3.62	2.47	0.29	0.07	0.06	2.54	99.44	67.99	60.00	34.0	0 63.8
AD02479	223.60	223.70	72.90	14.70	0.62	0.81	2.60	3.39	1.94	0.30	0.07	0.04	1.35	99.12	56.60	37.00	54.0	0 40.6
AD02637	230.50	230.60	65.90	15.20	2.46	2.06	1.42	3.62	3.48	0.24	0.06	0.07	4.31	98.82	59.41	21.00	45.0	0 31.8
AD02638	239.30	239.40	75.80	12.60	1.35	0.37	6.09	0.84	0.89	0.20	0.06	0.02	1.47	99.69	13.99	28.00	16.0	0 63.6
AD02639	246.40	246.50	70.70	14.70	1.52	0.88	4.25	2.80	2.16	0.24	0.06	0.04	2.08	99.43	38.94	16.00	21.0	0 43.2
AD02640	248.40	248.50	76.20	13.00	0.36	1.29	3.29	2.40	1.35	0.20	0.05	0.02	1.54	99.69	50.20	19.00	16.0	0 54.2
AD02641	251.10	251.20	69.60	13.40	2.29	2.35	2.62	2.71	0.99	0.22	0.06	0.02	4.39	98.65	50.75	25.00	10.0	0 71.4
AD02642	264.40	264.50	73.20	12.90	2.33	0.30	3.17	3.44	1.33	0.20	0.05	0.03	2.39	99.34	40.48	17.00	27.0	0 38.6
AD02643	269.40	269.50	47.80	18.60	5.25	4.91	4.42	0.29	12.60	0.87	0.41	0.18	3.54	98.87	34.97	128.00	103.0	0 55.4
AD02644	280.70	280.80	47.90	13.30	9.17	5.33	1.88	0.19	15.30	2.42	0.21	0.22	3.08	99.00	33.31	333.00	122.0	0 73.1

DIAMOND	DRILL	CORE LITHOGEOCHEMICAL	RECORD
		(MAJOR ELEMENTS)	

SAMPLE NUMBER	FROM	то	ZS 102	XAL203	ZCAO	ZKGO	ZNA20	ZK20	ZFE203	XT I 02	XP205	ZMNO	ZLOI	รบห	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ '(Cu+Zn)
AD02645	304.30	304.40	48.50	13.40	9.62	4.73	2.06	0.34	15.30	2.45	0.22	0.22	1.93	98.77	30.27	335.00	116.00	74.28
AD02646	329.60	329.70	48.50	13.30	10.50	6.28	1.94	0.18	13.60	1.88	0.16	0.21	2.85	99.40	34.18	308.00	89.00	77.58
AD02647	339.20	339.30	68.20	13.50	3.26	0.89	3.96	2.54	3.35	0.33	0.07	0.08	3.08	99.16	32.51	29.00	34.00	46.03
AD02648	347.20	347.30	54.30	17.30	5.46	1.39	6.27	1.01	8.21	1.06	0.37	0.16	3.54	99.07	16.99	86.00	80.00	51.81
AD02649	359.30	359.40	47.60	14.30	11.80	7.92	1.81	0.41	11.20	1.29	0.11	0.18	2.39	99.01	37.97	88.00	68.00	56.41
AD02650	404.40	404.50	48.00	14.60	11.30	7.93	2.12	0.44	10.60	1.15	0.11	0.16	2.62	99.03	38.41	110.00	62.00	63.95

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Hole No. CHEM87-33

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SAMPLE NUMBER	FROM	TO	XS102	XAL203	ZCAO	ZKGO	ZNA20	XK20	ZFE203	XT 102	XP205	ZHNO	7L0I	SUK	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
																	ب، <del>ب</del> النظاف الي بي ي	
AB21901	8.30	8.40	50.00	17.20	6.60	2.91	2.18	2.98	9.10	0.74	0.13	0.17	7.85	99.86	40.15	695.00	77.00	90.03
AB21902	14.10	14.20	67.10	12.40	5.31	1.21	1.79	2.29	3.24	0.27	0.07	0.14	6.00	99.82	33.02	53.00	36.00	59.55
AB21903	25.50	25.60	68.40	17.00	1.45	0.46	4.49	2.83	2.09	0.38	0.07	0.05	2.54	99.76	35.64	43.00	27.00	61.43
AB21904	43.80	43.95	66.20	14.30	4.73	1.44	3.76	1.25	3.18	0.31	0.07	0.05	4.85	100.14	24.06	48.00	<10.00	•
AB21905	51.30	51.45	69.30	13.40	4.03	0.98	2.37	2.23	2.88	0.35	0.10	0.04	4.47	100.15	33.40	35.00	10.00	77.78
AB21906	59.70	59.85	70.00	14.20	2.97	1.21	3.47	1.98	2.52	0.26	0.07	0.04	3.23	99.95	33.13	31.00	16.00	65.96
AB21907	70.30	70.40	69.70	13.90	3.50	1.16	2,56	2.31	2.28	0.27	0.07	0.03	4.54	100.32	36.41	63.00	<10.00	)
AB21908	74.70	74.80	43.00	15.80	8.79	8.54	1.52	0.08	12.20	0.79	0.21	0.22	9.00	100.15	45.54	31.00	86.00	26.50
AB21909	86.70	86.80	70.90	13.50	2.78	1.33	2.79	2.30	2.48	0.26	0.06	0.03	3.62	100.05	39.46	31.00	16.00	65.96
AB21910	92.60	92.75	72.70	12.80	2.14	0.93	4.50	1.46	2.08	0.24	0.06	0.04	2.54	99.49	26.47	38.00	<10.0	þ
AB21911	95.40	95.60	71.70	13.50	1.68	1.46	3.76	1.96	2.83	0.26	0.06	0.05	2.54	99.80	38.60	20.00	16.00	55.56
AB21912	106.50	106.60	48.00	14.00	10.60	6.40	1.97	0.21	13.30	1.90	0.18	0.20	2.31	99.07	34.46	263.00	116.0	69.39
AB21913	118.40	118.50	73.00	13.80	2.12	0.47	5.29	1.99	2.43	0.33	0.07	0.07	0.77	100.34	24.92	44.00	24.0	0 64.71
AB21914	128.60	128.75	71.70	13.90	1.72	0.85	5.80	1.30	2.87	0.33	0.07	0.08	0.93	99.55	22.23	37.00	23.0	0 61.67
AB21915	134.60	134.75	72.20	13.60	2.63	0.90	5.33	1.21	2.84	0.31	0.06	0.07	1.24	100.39	20.95	56.00	25.0	0 69.14
AB21916	146.85	146.95	74.50	13.10	1.62	0.77	5.74	0.86	2.21	0.30	0.06	0.05	0.93	100.14	18.13	38.00	21.0	0 64.41
AB21917	154.50	154.60	43.40	18.70	11.40	5.47	1.23	0.46	14.00	0.92	0.15	0.32	4.00	100.05	31.95	. 51.00	125.0	0 28.98

Hole No. CHEM87-34

SAMPLE NUMBER	FROM	то	XS102	XAL203	XCA0	ZHGO	ZNA20	ZK 20	%7E203	XT IO2	ZP205	ZHNO	ZLO I	รบห	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
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AB21918	163.50	163.60	70.60	14.90	1.35	1.44	2.51	3.95	2.56	0.34	0.07	0.04	1.54	99.30	58.27	34.00	24.00	58.62
AB21919	185.50	185.60	54.20	16.90	6.35	4.89	4.96	0.77	7.64	0.68	0.18	0.20	2.93	99.70	33.35	181.00	234.00	43.61
AB21920	201.50	201.60	50.60	15.90	7.94	7.58	3.59	0.65	9.87	0.67	0.12	0.24	2.23	99.39	41.65	129.00	134.00	49.05
AB21921	206.50	206.60	52.80	16.50	7.09	5.35	1.02	2.25	11.30	0.69	0.20	0.25	2.70	100.15	48.38	196.00	107.00	64.69
AB21922	218.40	219.50	49.40	16.80	9.37	4.89	0.73	0.80	12.90	0.70	0.14	0.28	3.70	99.71	36.04	329.00	140.00	70.15
AB21923	224.50	224.60	74.50	13.00	2.01	1.03	3.30	2.10	1.88	0.31	0.07	0.05	1.77	100.02	37.09	18.00	18.00	50.00
AB21924	233.30	233.40	51.00	17.00	6.38	5.26	2.68	1.12	10.30	0.71	0.11	0.20	5.08	99.84	41.32	27.00	110.00	19.71
AB21925	242.10	242.20	68.10	13.30	3.15	2.35	2.16	2.53	4.41	0.29	0.08	0.09	3.23	99.69	47.89	44.00	49.00	47.31
AB21926	264.65	264.80	54.70	17.10	8.41	2.97	2.99	0.37	8.93	0.66	0.13	0.18	3.62	100.06	22.66	142.00	98.00	59.17
AB21927	356.80	356.95	48.00	13.80	10.30	6.39	2.31	0.31	12.70	1.73	0.16	0.19	3.54	99.43	34.70	260.00	103.00	71.63
AB21928	380.70	380.80	44.20	13.80	7.02	11.40	1.73	1.46	12.30	1.63	0.22	0.38	4.16	98.30	59.51	47.00	401.00	10.49
AB21929	384.30	384.40	41.00	7.78	8.25	22.60	0.23	0.19	11.80	1.14	0.27	0.19	6.08	99.53	72.88	7.50	100.00	6.98

SAMPLE NUMBER	FROM	то	2\$102	ZAL203	ZCAO	ZKGO	ZNA20	ZK20	%FE203	<b>XT 102</b>	ZP205	ZMNO	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
AD02480	16.80	16.90	69.30	13.10	4.64	0.58	2.65	2.66	2.07	0.24	0.06	0.05	4.39	99.74	30.77	32.00	28.00	53.33
AD02481	21.30	21.40	45.00	17.00	6.77	6.09	4.49	0.30	11.20	0.91	0.14	0.20	6.85	98.95	36.20	255.00	103.00	71.23
AD02482	40.30	40.40	70.10	14.20	2.39	0.92	3.08	3.27	2.33	0.26	0.06	0.07	2.85	99.43	42.78	36.00	38.00	48.65
AD02483	53.20	53.30	69.60	14.60	2.86	1.54	2.05	3.19	2.48	0.25	0.06	0.06	2.62	99.31	49.07	37.00	36.00	50.68
AD02484	70.20	70.30	69.40	14.90	2.64	1.03	2.43	3.64	1.32	0.27	0.06	0.06	3.54	99.79	47.95	25.00	27.00	48.08
AD02485	85.50	85.60	70.50	12.80	3.72	0.98	2.51	2.63	1.79	0.22	0.05	0.09	4.24	99.53	36.69	23.00	26.00	46.94
AD02486	95.30	95.40	70.10	14.80	0.92	2.10	2.66	2.76	3.25	0.26	0.06	0.05	2.70	99.66	57.58	49.00	64.00	43.36
AD02487	105.10	105.20	73.90	10.80	3.59	1.05	3.35	1.41	1.68	0.19	0.05	0.08	3.46	99.56	26.17	34.00	24.00	58.63
AD02488	110.20	110.30	77.10	12.00	0.41	1.81	3.38	1.73	1.26	0.22	0.05	0.03	1.70	99.69	48.29	24.00	25.00	48.98
AD02489	124.80	124.90	66.10	13.70	4.00	1.52	5.90	1.25	3.13	0.30	0.07	0.09	3.93	<u>99.99</u>	21.86	105.00	35.00	75.00
AD02490	137.40	137.50	71.30	13.30	2.47	0.98	2.87	2.64	2.15	0.23	0.06	0.04	3.93	99.97	40.40	46.00	33.00	58.23
AD02491	157.60	157.70	51.20	18.10	5.46	3.78	3.78	0.92	8.97	0.53	0.23	0.16	6.39	99.52	33.72	47.00	86.00	35.34
AD02492	169.50	169.60	68.90	13.00	2.98	1.40	3.93	1.97	2.68	0.24	0.06	0.10	4.77	100.03	32.78	44.00	35.00	55.70
AD02493	177.80	177.90	65.00	14.70	3.17	1.61	3.43	2.72	3.11	0.34	0.08	0.09	5.54	99.79	39.62	63.00	47.00	57.27
AD02494	187.00	187.10	70.50	13.60	1.98	0.80	4.43	2.08	2.36	0.24	0.06	0.08	3.46	99.59	31.00	31.00	37.00	45.59
4002495	196 20	196 40	70 90	13 30	2 00	0.84	4.49	1.95	2.00	0.24	0.06	0.07	2 21	99 41	30.04	43.00	30.00	58 90
HEV247J	178.30	170.40	/0.90	13.30	2.00	v.01	1.17	1.75	6 J	v.41	0.00	0.07	3.31	77.41	30.08	13.00	50.00	56.90
AU02496	206.10	206.20	68.60	13.00	3.46	0.99	3.51	2.37	2.69	0.23	0.05	0.11	4.85	99.86	32.53	40.00	46.00	46.51

Hole No. CHEM87-35

SAMPLE NUMBER	FROM	то	X\$102	XAL203	XCA0	ZHGO	XNA20	XK20	XFE203	XT102	XP205	ZMNO	ZLOI	SUK	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ (Cu+Zn)
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AD02497	219.80	219.90	72.10	13.60	2.07	0.59	3.45	2.47	2.12	0.25	0.06	0.05	3.08	99.84	35.66	36.00	19.00	65.45
AD02498	227.70	227.80	61.80	16.60	3.54	1.25	3.07	3.09	5.36	0.26	0.18	0.11	4.77	100.03	39.63	38.00	83.00	31.40
AD02499	230.60	230.70	64.10	17.00	2.17	1.15	3.33	3.06	4.58	0.27	0.19	0.09	3.77	99.71	43.36	39.00	96.00	28.89
AD02500	262.40	262.50	72.40	11.10	3.58	1.30	2.65	1.73	2.90	0.27	0.08	0.11	3.77	99.89	32.72	48.00	128.00	27.27
AD02601	282.70	282.80	50.60	20.80	4.47	4.67	3.72	1.01	9.00	0.73	0.54	0.07	4.16	99.77	40.95	33.00	61.00	35.11
AD02602	283,80	283.90	70.50	14.40	4.33	0.51	2.56	2.07	1.81	0.33	0.10	0.03	3.39	100.03	27.24	29.00	<10.00	) 152.63
AD02603	287.10	287.20	46.50	15.70	9.82	4.74	2.59	0.93	9.06	0.70	0.13	0.14	9.54	99.85	31.36	27.00	64.00	) 29.67
AD02606	295.70	295.80	64.20	15.20	5.40	1.51	5.56	0.48	4.48	0.38	0.11	0.08	2.77	100.17	15.37	19.00	14.00	57.58
AD02604	296.80	296.90	67.30	14.10	4.05	1.40	5.40	0.82	3.37	0.37	0.10	0.07	2.85	99.83	19.02	23.00	13.00	63.89
AD02605	307.40	307.50	66.00	14.60	4.05	1.35	2.41	2.62	3.44	0.43	0.10	0.04	4.77	99.81	38.06	30.00	16.0	65.22
AD02607	319.40	319.50	71.70	13.00	3.74	0.82	1.99	2.18	2.09	0.23	0.05	0.04	3.85	99.69	34.36	28.00	16.00	63.64
AD02608	332.50	332.60	70.10	13.40	3.51	1.41	1.93	2.48	2.68	0.25	0.07	0.05	4.08	99.96	41.69	34.00	14.0	70.83
AD02609	337.20	337.30	67.50	14.10	4.29	1.09	2.05	2.99	3.54	0.35	0.10	0.05	3.16	99.22	39.16	25.00	15.04	62.50
AD02610	341.20	341.30	51.80	16.80	8.12	4.79	2.87	1.25	9.49	0.63	0.12	0.16	4.24	100.27	35.47	37.00	48.0	43.53
AD02611	345.40	345.50	71.90	13.50	2.76	1.40	4.12	1.52	2.82	0.25	0.06	0.04	1.47	99.84	29.80	47.00	22.0	68.12
AD02612	350.80	350.90	52.90	16.80	6.76	5,13	3.53	0.91	9.80	0.65	0.13	0.15	2.46	99.22	36.99	37.00	45.0	45.13
AD02613	358.60	358.70	53.10	17.10	4.81	6.64	5.89	0.32	8.63	0.66	0.12	0.14	2.54	99.95	39.41	296.00	172.0	63.25
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Hole No. CHEM87-35

SAMPLE NUMBER	FROM	TO	XS IO2	ZAL203	%ĊAO	ZHGO	ZNA20	ZK20	%7E203	XT 102	ZP205	ZHNO	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/ ′(Cu+Zn)
																		- <b>-</b>
AB21930	17.10	17.30	71.00	14.70	2.41	0.96	3.76	1.94	2.65	0.35	0.07	0.11	1.62	99.57	31.97	52.00	371.00	12.29
AB21931	27.80	27.90	49.00	14.50	10.90	6.12	1.58	0.32	12.80	1.82	0.17	0.19	2.70	100.10	34.04	204.00	106.00	65.81
AB21932	38.60	38.70	72.70	13.70	1.11	0.62	4.53	1.89	2.75	0.33	0.06	0.07	1.70	99.46	30.80	25.00	24.00	51.02
AB21933	51.20	51.30	69.20	15.10	2.85	0.83	3.59	2.74	2.53	0.36.	0.07	0.06	1.85	99.18	35.66	37.00	27.00	57.81
AB21934	56.30	56.40	49.00	14.00	10.80	6.22	2.16	0.24	12.60	1.78	0.17	0.20	2.16	99.33	33.26	208.00	97.00	68.20
AB21935	64.40	64.50	74.40	12.20	2.59	0.28	4.31	1.80	2.23	0.28	0.08	0.04	1.39	99.60	23.16	125.00	<10.00	
AB21936	82.40	82.50	44.50	13.10	10.30	15.60	0:53	0.47	10.10	0.42	0.07	0.19	4.31	99.59	59.74	147.00	77.00	65.62
AB21937	86.90	87.00	70.10	14.30	2.36	1.92	0.92	4.00	2.38	0.34	0.08	0.06	3.39	99.85	64.35	33.00	28.00	54.10
AB21938	91.60	91.70	74.80	12.80	1.63	1.26	2.63	2.68	1.11	0.29	0.06	0.04	1.47	98.77	48.05	24.00	14.00	63.16
AB21939	114.90	115.00	67.50	15.60	2.73	1.36	4.38	1.75	4.28	0.45	0.13	0.12	1.62	99.92	30.43	64.00	48.00	57.14
AB21940	128.90	128.90	72.10	13.90	2.25	1.45	4.33	1.48	2.88	0.29	0.07	0.06	1.47	100.28	30.81	32.00	35.00	47.76
AB21941	138.80	138.90	69.90	14.90	2.65	1.14	5.01	1.27	3.37	0.36	0.09	0.07	1.39	100.15	23.93	32.00	34.00	48.48
AB21942	143.30	143.40	53.20	17.10	7.72	3.85	1.77	1.71	8.24	0.63	0.12	0.21	5.16	99.71	36.94	188.00	119.00	61.24
AB21943	162.20	162.40	48.40	13.50	10.50	6.46	2.32	0.45	12.30	1.67	0.16	0.19	3.46	99.41	35.02	260.00	90.00	74.29
- AB21944	173.30	173.40	49.10	15.80	3.37	9.95	3.63	1.65	9.39	0.73	0.19	0.18	5.77	99.76	62.37	120.00	77.00	60.91
AB21945	237.95	238.15	46.20	11.90	11.30	8.74	1.80	0.21	13.60	1.65	0.15	0.21	2.93	98.69	40.59	73.00	93.00	43.98

Hole No. CHEM87-36


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		L E G E N D
30 msec		
- SO msec		
20 msec		NANAIMO GROUP
IO m sec		6b Grouweeke
o		60 Greywacke
		oa congromerate
	·	INTRUSIVE ROCK
		5c Peridotite
		5b Mafic sill
······································	~	5a Gabbro
		SICKER GROUP
1+00 N		4b Cherty black argillite and siltstone with minor
		greywacke
		4a Brown greywacke
		3b Felsic tuff
		3a Felsic flow
	~~~	2b Intermediate tuff
	600	2a Intermediate flow
		1c Mixed mafic tuffaceous sediments
		1b Mafic tuff
		1a Mafic flow
		SYMBOLS
		py pyrite po pyrrhotite
		cpy chalcopyrite sp sphalerite
		ga galena qe quartz eyes
		hb hornblende ep epidote
		bedding
	500	foliation
		me fault
		younging direction
	,	•ABIB961,65 Whole rock sample, Ishikawa index >60
		geochemical/assay sample
		K rocks with komatilitic compositions
		u unconformity
		——— geological contact (inferred)
		active tuff
		significant sulphides (>2%, >10% total)
		GEOLOGICAL BRANCH
		ASSESSMENT REPORT
	400	
		1 1/ 025
		I A X/S
		$L \cup , \cup L $
		0 20 40 60 80 m
	-	SUALE: 1:1,000
		FALCONBRIDGE LTD.
		CHEMAINING INIT VENTIBE
		Vancouver Joland British Columbia
	700	vancouver Island, British Columbia
	300 —	1 OFOTION 40 - 005
		SECTION 40+ UVE
		(looking west)
		DDU CUEM07 21
		WURK BT: UP
1400 N		DATE OF WORK: JULY, 1007 FIG. NO.: FIG. NO.:
	1	DRAWN BY: VJG
		DATE: Sept. 9, 1987 N.T.S. NO.: 928/13



30 msec		
20 msec		
IO msec		
o		
	•	6c Arginite 6b Greywacke
		6a Conglomerate
		5c Peridotite
1+00 <b>N</b>		5b Mafic sill
		5a Gabbro
		SICKER GROUP
		4b Cherty black argillite and siltstone with minor
		greywacke
		4a Brown greywacke
	600	- 3a Felsic flow
		2b Intermediate tuff
		2a Intermediate flow
		1c Mixed mafic tuffaceous sediments
		1b Mafic tuff
		1a Mafic flow
		SYMBOLS
		py pyrite po pyrrhotite
		cpy chalcopyrite sp sphalerite ga galena qe quartz eyes
		hb hornblende ep epidote
	500	— — bedding
		foliation
		unne fault
		younging direction
		•AB19951,65 whole rock sample, Ishikawa index >60
		K rocks with kometitic compositions
		u unconformity
		geological contact (inferred)
		active tuff
		significant sulphides (>2%, >10% total)
	400	GEOLOGICAL BRANCH
		ASSESSMENT REPORT
		16916
		0 20 40 60 80 m
		FALCONRDIDGE I TO
		CHEMAINUS JOINT VENTURE
		Vancouver Island, British Columbia
		SECTION 43 + UVE
		(looking west)
		DDH CHEM87-33
		3
		WORK BY: JP
		DATE OF WORK: July, 1987 PROJECT NO: FIG. ND.:
		DRAWN BY: VJG 116 9
		DATE: Sept. 9, 1987 N.T.S. ND.: 928/13

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