84-#539 - 12317

# DIAMOND DRILLING REPORT PEPPA GROUP

Victoria Mining Division

NTS 92B/13W 48° 725 ; 123° 47'

Owner: Corporation Falconbridge Copper

Operator: Corporation Falconbridge Copper

GEOLOGICAL BRANCH
by A. J. Da AdS SESSMENT REPORT

Tyee

June 28, 1984

# Claims

CF Group #8 Lenora

Rocky 2 CF Group #13

Rocky 1

Phil Fraction

Rocky 3 CF Group #14 Key City

Rocky 4 CF Group #15 Richard III

Rocky 5 CF Group #16 Magic Fraction

Rocky 6 Fr. CF Group #17 NT

Acme Fraction CF Group #18 Golden Rod
CF Group #1 Banana Nellena

CF Group #1 Banana Nellena
CF Group #2 Acme M.C. Moline Fraction

CF Group #3 Tony Blue Bell.

CF Group #4 Donagan Estelle

CF Group #5 XL Westholme

CF Group #6 Herbert International Fraction

CF Group #7 Dixie Fraction Donald

Thelma Doubtful Fraction International A Fr.

Imperial Fraction Muriel Fraction Westholme Fraction

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# Introduction

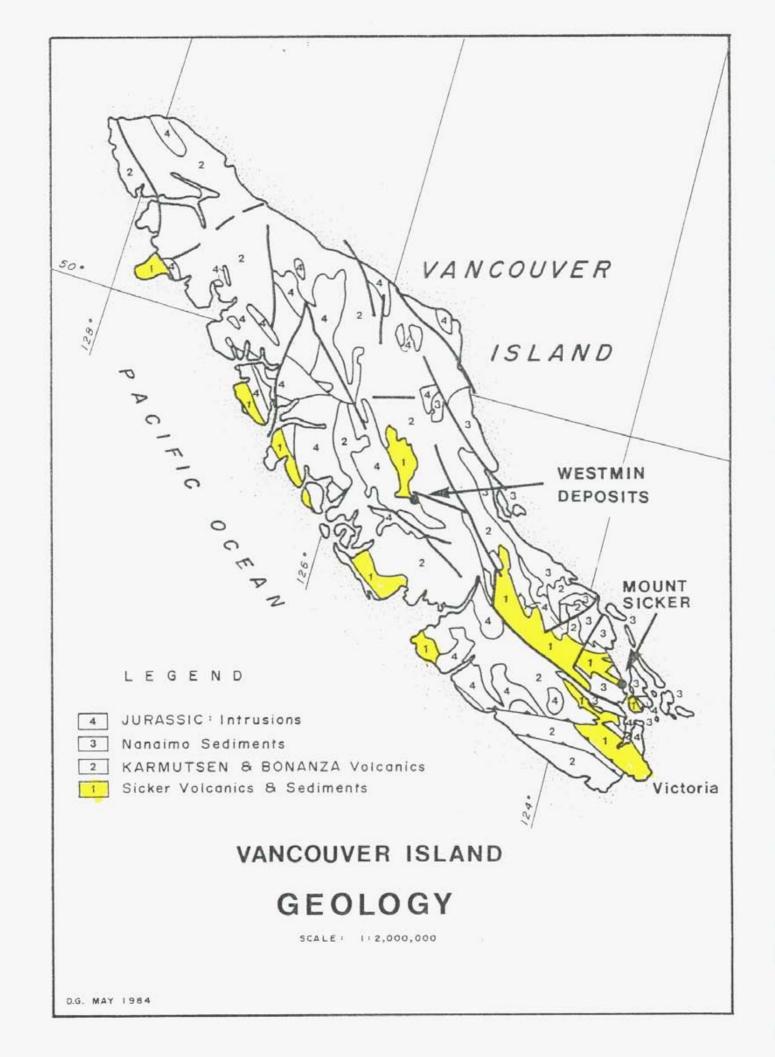
# Location and Access

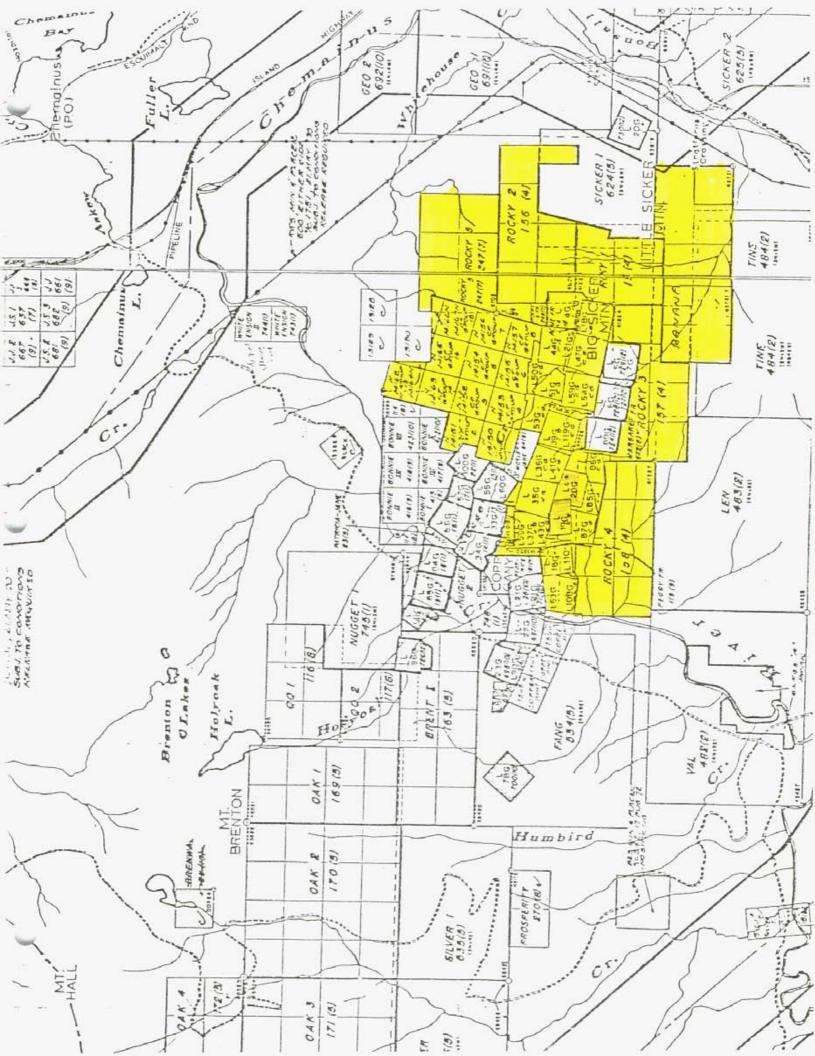
The Peppa Option is located 13km north of Duncan, B. C. on the slopes of Big Sicker Mountain. Access is by 2 wheel drive vehicle (Figure 1).

Property

The property consists of the following contiguous claims (Figure 2).

Name	Units	Record No.	Month
Rocky 1	4	1.55	April.
Rocky 2	8	1.56	April.
Rocky 3	8	157	April
Rocky 4	8	158	April.
Rocky 5	6	247	July
Rocky 6 Fr.	1	248	July
Acme Fraction	1.	254	August
CF Group #1	1	14150	0ctober
CF Group #2	1	1.41.51	0ctober
CF Group #3	1	14152	0 ctober
CF Group #4	1	1.41.53	0ctober
CF Group #5	1	14154	0ctober
CF Group #6	1	1.41.55	0ctober
CF Group #7	1	14156	0ctober
CF Group #8	1	14157	0 ctober
CF Group #13	1	14162	0ctober
CF Group #14	1	14163	0ctober
CF Group #15	1	14164	0ctober
CF Group #16	1	14165	0ctober
CF Group #17	1	14166	0ctober
CF Group #18	1	14167	0ctober
Banana	10	1073	August
Acme M.C.	1.	4 G	





Tony	1.	18G	
Donagan M.C.	1.	18G	
XL	1.	1.9 G	
Herbert	1	20 G	
Dixie Fraction M.C.	1.	21 G	
Lenora	1.	35G	
Tyee M.C.	1.	36 G	
Key City	1	37 G	
Richard III M.C.	1	39G	
Magic Fraction M.C.	1.	41 G	
NT Fraction	1.	43G	
Golden Rod M.C.	1.	44 G	
Nellena M.C.	1.	47 G	
Moline Fraction M.C.	1.	50 G	
Blue Bell M.C.	1.	51 G	
Estelle M.C.	1.	53G	
Westholme M.C.	1	54 G	
International. Fraction	1	60G	
Donald	1	63G	
Thelma Fraction	1.	85G	
Imperial Fraction	1	86 G	
Doubtful Fraction	1	87 G	
Muriel Fraction	1	1.08G	
International A Fr.	1.	1119	0ctober
Westholme Fr. M.C.	1	59G	
Phil Fraction	1	110G	

# History

The property is part of the Mt. Sicker Camp which has had a history of sporadic mining activity since 1897. The Tyee mine, part of the Peppa Group, produced 305,787 tons of 3.31% Cu, 7.51% Zn, 0.13 oz/ton Au and 2.75 oz/ton Ag from 1909-1952.

The Peppa Group was part of the Mt. Sicker property when Mt. Sicker Mines Ltd. was formed in 1966. In 1972 Ducanex made a reconnaissance geological map of the area and drilled a few holes.

Mt. Sicker Mines Ltd. was taken over by Peppa Resources and the property was optioned to S.E.R.E.M. in 1979. S.E.R.E.M. geologically mapped, soil sampled and ran VLF and some DEEPEM on the property. They drilled 16 holes totalling about 3000 metres testing geophysical targets.

S.E.R.E.M. dropped the option in 1982 and Corporation Falconbridge Copper optioned the property in 1983.

## Work Done

Two diamond drill holes have been drilled on the property in this program. The first, MTS-4 was drilled on the Herbert claim, was 239.6 metres long, and was of BQ size.

The second, MTS-5, was drilled on the XL claim, was 154.5 metres long, and was of BQ size.

# Technical Data

Hole MTS-4 was drilled to test the Lenora-Tyee horizon below the workings. The hole intersected mixed mafic and felsic volcanics and was stopped at 239.6 metres.

Hole MTS-5 was drilled to test the Lenora-Tyee horizon west of the old workings. The hole intersected diorite and mafic to felsic volcanics. The hole was stopped at 154.5 metres. Core from both holes is stored at 5215 Hykawy Road, Duncan, B. C.

### Conclusions

The holes did not encounter Lenora-Tyee type mineralization but did intersect significant volcanics. Further drilling will be necessary to better define the geology.

F. BOISVENU DIAMOND DRILLING LTD. C/O 200 2695 GRANVILLE STREET VANCOUVER, B.C. V6II 3H4

# INVOICE

DATE: May 23, 1984

or: Corporation Falconbridge Copper

6415 - 64th Street Delta, B.C.

V4K 4E2

Surface drilling May 16-18, 1984 FOR:

\$ 6,287.50 6247.50 Drilling Moving -<del>560:00</del>-780.15 Materials Tropari testing 210.00

> \$ 7,837.65 7237.65

1 CASING PLUGS 264.00

70580-600-205 - 100% 7501.65

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### F. BOISVENU DIAMOND DRILLING LTD. C/O 200 2695 GRANVILLE STREET VANCOUVER, B.C. V6II 3II4

### INVOICE

DATE: May 23, 1984

or: Corporation Falconbridge Copper

6415 - 64th Street Delta, B.C.

V4K 4E2

Surface drilling May 1-15, 1984 FOR:

_		
Drilling	<del>\$40,309.50</del>	40189.50
Moving	2,644.00	
Others	910.00	
Materials	2,710.26	
Tropari testing	560.00	
Tractor	275.00	
	\$47,408.76	47288.76

10580-600-204 - 28526.41 70580-600-205 - 18762.35

F BOISVENU DIAHOND MAY 23/84 DRILLING 7:0:5:80 6.00 204 2852641 600 205 71015180

# STATEMENT OF QUALIFICATIONS

# I, Alex J. Davidson hereby certify that:

- 1) I hold a Bachelor of Science Degree (Geology Major) and a Master of Science Degree in Economic Geology from McGill University, Montreal, Quebec.
- 2) I have practised my profession in exploration continuously since graduation.
- 3) I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and the results of the field work conducted on the property.

Alex J. Davidson MSc.

Vancouver, British Columbia

# CORPORATION FALCONBRIDGE COPPER

X METRIC UNITS IMPERIAL UNITS

						DRILL HOLE REC	ORD			IM	PERIAL UNITS
HOLE NUMBER MTS 4	GRID CFC 1984		FIELD COORDS	LAT. 9+00S	DEP. 2+44.6W	ELEV.	COLLAR BRNG.		COLLAR DIP 44 <sup>0</sup>	HOLE SIZE BQ	FINAL DEPTH 239.6m
205	CLAIM# Herbe	ert	SURVEY COORDS.	9+00S	2+50.7W	485.84	DATE STARTED: DATE COMPLETE	May 11, 1984 ED: May 14/84	CONTRACTOR: CORE STORAGE:	F. Boisvenu Hykawy Rd,	Drilling Ltd. CASING. Yes
PURPOSE This hole w	was <sup>t</sup> o test the	míne horizon	below the	Lenora pit	•			,		Duncan ROD COLLAR SUF	LOG PULSE EM SURVEY :  NEY MULTISHOT SURVEY :
	ACID 1	rests			TROPARITESTS					JLTISHOT DATA	
OEPTH(m)	CORRECTED ANGLE	DEPTH( )	CORRECT ANGLE	ED	DEPTH( m)	AZIMUTH	OIP	DEPTH		AZIMUTH	DIP
30.5m.	38.5°				50.6	359.5	410				
60.96m	41°				209.4	360.0	42°				
91.44m.	41.0°				238.0	363.5	40°				
121.92m.	39.5°										
152.4m.	41.0°										
182.9m.	39.0°							Cased with E	VC Sch 40 i	to 180.14m.	·
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HOLE NO	MTS 4	
	* - BP'SGEPORT RICHMOND	

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FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
0 - 6.7	Overburden						
17.4	Diorite	Gray	f.g.	Euhedral, white phenocrysts and glomerophenocrysts (< 6mm) in chloritized ferromagresian matrix. Chilled margin (15.95 to 17.4) shows with decreasing grain size, fewer feldspar phenocrysts. Basal contact lost in drilling.		Minor carbonate veinlets	
17.4 to 27.2	Feldspar Dacite . Tuff?			Euhedral white feldspar phenocrysts (< 2mm, ~ 20%)		Minor chloritic alter- tion.	< 1% diss. py.
27.2 to 29.95	Interbedded Tuff			F.g., gray, foliated at top, more siliceous in centre. Qtz-chlorite vein from 27.75 to 27.9.		Minor chlorite	barren
27.95 to 37.2	Feldspar Dacite Tuff(?)			Similar to 17.4 to 27.2		Small carbonate vein- lets at high angle to core common between 33.5 and 34.8. Hematite on fractures.	Qtz vein with associated minor chlorite and diss. py (< 2%) from 33.1 to 33.4
37.2 to 67.57	Intermediat Tuff	e Green	F•g•	Subhedral feldspar pheno- crysts (< 2mm) in f.g. matrix of ferromagnesian minerals. Similar to overlying unit but more mafic. Feldspars are sausseritized.		Carbonate and purplish hematite on fractures. Epidote patches with silica from 51.7 to ~61.0m. Silicified from 66.7 to 67.3m.	Barren
7.57 to 67.7	Gouge & Qtz vein						
67.7 to 67.95	Bedded Int.			F.g. green & white bedded ash.	60°		Barren

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	AL TERATION	SULPHIDES
67.95 to 87.87	Intermediat	e		Grandes from aphanitic to f.g. over 2m. Becomes similar to f.g. diorite below 72m.		Epidote occurs as 1/2cm patches in f.g. ash. Patches occasionally up to 3cm across. Carbonate veinlets with hematite borders.	Barren
87.87 to 154.1	Mafic Tuff(?)			Top portion (87.87 to 88.9) is bedded. Change to aphanitic chloritic mafic volcanic which grades into f ash tuff similar to 67.95 to 87.87m. at ~93.4m. Minor gouge and qtz vein at 88.0 to 88.45m. Broken rock at 93.05 to 93.4 Good internal contact at 102.5m. Feldspar phenocrysts up to 2mm prominent in certain sections. Foliated with qtz vein at basal contact. Little indication of fault.	_	Silicification. Hematite and silicification pronounced from 93.6 to 102m. Below 128m, hematite on fractures disappears. Moderate chlorite in some f.g. sections.	Barren except for occasionatraces of pyrite.
154.1 to 159.89	Banded Chert Mafic Tuff and Chlorite			Thin beds (1/2 to 1cm) wide of gray chert, ash and chloritic ash. Becomes more siliceous towards base.		Moderate chlorite in some ash(?) layers.	Diss. pyrite (1-3%) associated with chloritic layers and chert. Chert(?) layer of 156.0m contains 25% sulphides (8% cp, 17% py) over 1cm.
159.89 to 160.57	Cherty Rhyolite?			Massive chert to siliceous rhyolite.			1-2% diss. py.
.60.57 to	Rhyolite Lapilli Tuff			Cherty fragments in a chloritic matrix. Fragments subhedral, up to 5cm.		Matrix strongly chloritized from 160.57 to 166m.	1-2% diss. py.

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
172.88 to 173.62	Mafic Dyke			Top contact sharp and slightly irregular.	70 <sup>0</sup>	Carbonate veinlets.	Barren
173.62 to 180.83				Similar to unit above dyke but more siliceous material, fragments less clear. May be contorted bedding or fragments at 175m.		Minor chlorite. Vein- lets and small patches of creamy, white mineral.	Pyritic band from 176.22 to 176.26m. 30% py & 5% cp. Generally 2-5% py associated with chert.
180.83 to	Rhyolite Flow?			Occasional quartz eyes (< 2mm, 1-2%) set in massive siliceous rhyolite.		Creamy, white mineral as small veinlets.	Trace pyrite.
190.2 to 196.23	Felsic Lapilli . Tuff			Weak foliation in upper part of unit.	45 <sup>0</sup>		1-5% py as diss.
196.23 to 199.3	Chloritized Felsic Lapilli Tuff			Dark green chloritic rock with patches and bands of chert.		Intensely chloritic.	0-7% diss. py.
199.3 to 199.98	Semi-Massiv Sulphides i a Chert Breccia			Gray chert forms matrix to chert fragments.			10-40% py in matrix of a chert breccia.
199.98 to 211.88	Felsic Lapilli Tuff?			Gray felsic rhyolite with sections which appear to contain fragments.		Minor sericite and chlorite.	Trace pyrite.
211.88 to 232.57				Massive white to green rhyolite with small (< 1mm) Scattered qtz eyes? Qtz eyes difficult to distinguis	n •	Silicified from 218.15 to 219.45.	Barren.

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
232.57 to 233.89	Mafic Dyke?	Gray	Aphanit	c Massive, soft. Sharp contac	ts.	Chloritic.	Barren.
233.89 to 235.57	Rhyolite with Scattered Quartz Eyes	White		Small scattered qtz eyes, white, massive rhyolite.			Barren.
235.57 to 236.5	Mafic Dyke or Tuff.			Aphanitic, similar to 232.57 to 233.89, gradational upper contact.		Chloritic, soft.	Barren.
236.5 to 239.6	Rhyolite with Scattered Qtz Eyes			Similar to 233.89 to 235.57.		Creamy white coloured veinlets more pronounced Sometimes associated wit quartz. Feldspar?	
1-9.6	ЕОН						
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HOLE NO MTS 4

# CORPORATION FALCONBRIDGE COPPER

X METRIC UNITS

DRILL HOLE RECORD

HOLE NUMBER MTS 5	GRID CFC 1983 Grid		FIELD COORDS	LAT.	DEP.	ELEV.	COLLAR BRNG.	0°	COLLAR DIP _45	HOLE SIZE BY	K FINAL DEPTH 154.5m.
PROJECT 205	CLAIM F SURVEY COORDS.			8+15.78	5+33.8W	459.50	DATE STARTED DATE COMPLETE	May 15/84 D:May 17/84	CONTRACTOR	GE. Hykamy Road	,CASING: Yes
PURPOSE To test the ex	PURPOSE  To test the extension of the Lenora-Tyee horizon to the				ar altered f	elsic tuff.			- <del>                                    </del>	Duncan RODI COLLAR SUR	OG PULSE EM SURVEY VEY MULTISHOT SURVEY
	4 ACID T	ESTS				2 TROPARITESTS				MULTISHOT DATA	
DEPTH( m)	CORRECTED ANGLE	DEPTH(m)	CORRECTE ANGLE	ĒD	DEPTH(m)	AZIMUTH	DIP	DEPTH	j	AZIMUTH	OIP
61.0	42.5°				96.62	7.5°	-40°			,	
91.4	40.0°				150.0	13.5°	-34°				
121.9	35.5°							Cased PVC	to 154.8	metres.	
18.3	43.0°				,						
1											
,											

HOLE NO	MTS 5
ZIPPY PPINT	BRIDGEPORT RICHMOND

LOGGEDBY Marc Legault

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
0 - 12.2m2 to 45.7	Diorite (mafic intrusive)	Dk Green	fine- medium	, ,		carbonate ubiquitous  - in veins 1cm wide   (with up to 30% quartz   in larger veins) -   random? orientations   making up generally   less than 5% of core.  - in intrusive ground-   mass 2-3% calcite   (weak ankerite or   ferrodolomite).  Hematite  - rare , in irregular   slips and gouge, over   less than 1cm width.   No real pattern   discerned.  - chloritic veinlets   become abundant (1-2%   2mm wide) in chill   along with weak quartz	Generally weak to none at chill zone.
45.7 to 65.5m	Intermediat to felsic ash tuff (quartz phenocrysts rare to non	Grey	ash 2mm	- mm sized light coloured fragments(?) seen in some areas - lost in zones of strong schistosity particularly at: 45.7-45.8 - moderate 47.3-47.6m - paper pulp Schistosity generally well developed throughout excepzones of Sil bleaching.		wk-mod sericite- gives rock paper schist at 47.3 - 47.6m.  wk chlorite sericite  silica sericite - narrow 3-4m section ~48.4m. (increase in hardness).	Trace - 1% fine disseminated pyrite occurs throughout.  up to 20% dissem. pyrite with occasional chalcopyrite along 5cm wide sections at 46.5 py 5cm in zone of sericitizatio 50.2 - 1% cpy/2cm 61.35 - 10cm 30-40% dissept.

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FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
45.7 to 65.5m Con't	Coarse Ash Tuff(?) near base at 65m.		(ash)	gradually darkens and became grainy and has weak banding toward 65.0m. (banding due to bleaching/chloritization? 15%, mm sized dark subangular fragments in pale matrix.	)	silicified(?) less sheared, bleached massive looking. 55.0-56.9m (still has nottled look. 58.6-59.0 ditto. Carbonate/quartz carb veins weakly developed throughout < 2mm wide.	65.1- 2cm 30% pyrite with Tr. cpy. 65.5 - 2cm 30% cpy at contact with 3cm section of silicified material.
65.5 to 67.4m	Mafic Volcanic Ash Tuff?	Dark Green	Fine ash <.5mm	Tuffaceous texture/look with 1-2% dark green fragments. Tr 1% 1.5mm quartz to mafic filled amygdules??  Wavy - foliation developed - "weakly kinked at 67.0m.	60–50 <sup>0</sup>	Weak moderate chloritic alteration probably function of mafic character give soft.  - weak carbonate (calcit veinlets 1% through section.	Tr - 1% dissem. fine pyrite Occasionally 5-7% fine pyrite in pea sized claster stretched(?) out along foliation.  e)
67.4 to 67.5m.	Mafic Intrusive (feldspar porphyry) or crystal bearing tuff?	Green	Fine < 1.Omr	Feldspar porph phyric 10-15% mm subhedral euhedral creamy feldspars irregularly distributed in dark matrix.  Contact sharp between aphanitic mafic volcanic and feldspar phyric section.  No banding, feldspars in clots.	_ ~ 35 <sup>°</sup>		1% disseminated pyrite (not seen in diorites logged previously in other holes).
67.5 to 68.9m.	Mafic Volcanic ash tuff? (same as 65.5-67.4m) or coarse flow?	Dark Green	fine (ash?) <.5mm	Trace 2-4mm qtz amygdules (or pheno?)		Weak - moderate chloriti alteration gives softish character to section. Tr very fine carbonate veinlets.	c Tr - fine disseminated pyrite. Often 2-3mm clusters alligned (stretched) along foliation (or bedding).

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FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
68.9 to 70.2m	Intermediat to felsic (silicified ash tuff	Gray	Fine ash <1.0mm	Almost massive looking in section — weakly sheared. Tr. mm. sized quartz pheno-crysts? Darks towards 70.2m.		V. weak chloritic alter- ation. Subtle green mottling in more bleached zones.	Tr 2% disseminated pyrite throughout.
						2mm. wide carb. filled fractures form less than 1% of core.	
70.2 to 70.5m.	Mafic volcanic (tuff?)	Green to pale gre		1-2% 2-3mm carb filled amygdules? in very fine-grained mafic. Looks almost tuffaceous?		Weak carbonate veinlets.	Nil.
70.5 to 71.3m.	Mafic Intrusive		f.g. 1-2mm	Fine grained along borders 1.0mm grain size. Feldspars abundant in sub- hedral to anhedral mass (2.0mm in size) in centre of dyke. Upper contact irregular Lower contact Contact beings at 71.0m.	30° 0-5°	Bleached in coarse core.	Tr1% pyrite near Lower contact zone.
71.3 to 71.5m.	Fine graine mafic tuff? with cherty clots	Green	Fine	Fine grained look of mafic tuff seen above. Probably dilated by these dykes.		Chloritic	1-5% disseminate pyrite.
71.5 to 71.6m.	Finely band coloured ch sediment/tu	erty like		Thin mm thick alternating bands (with v. fine disseminated pyrite in some dark bands).  - Parting along bands.  - Weak slump/fault structure	Parallel to Core	Weakly Chloritic.	Tr. fine pyrite.
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HOLE NO MTS 5

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
71.6 to 72.7m.	Feldspar ash tuff Porphyry (intermediat composition)		ash 1-2mm Phenos	Up to 20-25% subhedral feldspar phenocrysts 0.5-2mm in size zones? corroded cores often seen. Do see occasional mm Quartz eye?. Lower contact marked by 2-3c wide pyrite zone and Cherty horizon (3 cm?) thick.		Feldspars are saussura- tized? to a pale yellow green colouring. Often with altered cores. Weak chloritic alteration Some local siliceous areas which may represent silicified zones. Weak carbonate (1%) veinlets.	Tr1% fine disseminated pyrite throughout.
72.7 to 78.6	Feldspar (to lapilli) tuff porphyr			Same as above except: variable feldspar 5-25% 75.9 - 5cm wide section contact - stretched light coloured feldspar phyric fragment 3X 1cm in size - alligned with foliationTr. 1% 2-3mm quartz eyes (amyg?) -foliationmafic mm sized fragments visible, abundant near 75.5- 76.4mcherty - siliceous zone with 1-2% feldspars at 74.8m to 75m.		Saussuatization of feldspars generally.  Chloritic shears 3mm wide at 75.3m 76.1m	76.5 m. — cm wide pyrite chałcopyrite.
78.6 - 78.7	Intermediate to felsic weakly feld- spar phyric tuff	Gray	Fine <1.Om	Trace quartz phenocrysts (1.0mm). Saussuratized feldspar occur (up to 2%) within the section but are not homogeneously distributed schist/foliation		Weak pervasive sericite chlorite alteration. Chlorite is spotty, visible in planes of schistosity. Weak (quartz) carb. veinlets.	Tr pyrite in this fractures and disseminations.

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
79.7 - 84.4	Felsic Tuff		Fine to Coarse Ash	<ul> <li>Tr quartz phenocrysts (more abundant than last section)</li> <li>Fragment size varies but generally coarseer down sec</li> <li>may see occasional mm sized fragments at 80-82m.</li> <li>up to 15-20% visible dark fragments up to 3.0mm long (1mm thick) average 2.0mm.</li> </ul>	• tion		
84.4 - 84.5	Mafic Intru- sive (or tuff)		Fine <o.5mm< td=""><td>Massive looking. Upper Lower</td><td>35° ~30°</td><td>Chloritic. 5-7% 2mm irregular carbonate veinlets.</td><td>Nil.</td></o.5mm<>	Massive looking. Upper Lower	35° ~30°	Chloritic. 5-7% 2mm irregular carbonate veinlets.	Nil.
84.5	Felsic fine	Light Grey	Very Fine	Same as 79.7 - 84.4			
84.6 - 85.0	Mafic(?) to Intermediate tuff		fine < 0.5mm	Dark chloritic looking at 84.6 grading into light coloured fine tuff at 85.0 good schistosity developed	40°	Moderate chlorite alteration throughout, evidenced by good schistosity 3-5% carb veinlets in dark material at 84.7.	3-5% py in 5cm section near 84.9m along schisto- v.sity.
85.0	2cm true thickness dark chlorit mafic fine tuff	dark green ic	Very Fine barely visible	Contact parallel to schisto- sity.	35°	Weak-moderate pervasive chlorite (not sure of significance).	3-4% disseminated fine pyrite along schistosity.
85.0 - 89.2	Felsic Tuff	medium	Fine ash <b>4</b> 0.5mm	Occasional quartz eyes, abundant near 88.9- 1.2% 1-3m anhedral quartz. Hard to impossible to see fragments with even moderate schistosity  lower contact at	™ ~25° 25°	Moderate to weak sericite on whole, micaceous but hard. cm wide chite quartz veins make up 1% of core	.87.7 conformable (?) 0.5- 1cm wide 40% py with 5% cpy. Tr. disseminated pyrite throughout.

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FROM TO	AOCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
89.2 - 89.5	Fine mafic tuff (or mafic intru- sive)	Dark Green	Fine 1.0 mm avg.	Weakly feldspar phyric 1-2% mm sized subhedral phenocryst Discern. mafic fragments (?) (or poorly crystallined ferro magnesian). 2-3mm fragment seen?		1-2% fine carbonate veinlets - hair like & 1% large irregular carbonate veins - 5mm thick.	1-2% fine pyrite in matrix and along carbonate veins.
89.5 - 104.2m	Fine to coarse felsi tuff	Light c Grey	Range ≺2mm Avg. ∢O.5mm	Tuffaceous to massive looking massive sections grade in and out rapidly. Has a speckled appearance.  Tr Quartz eyes — phenocrysts subrounded anhedral 1.0mm.  Moderate schistosity developed		Weak pervasive sericite alteration throughout.  Thin 3-5mm thick chloritic slips (along schistosity) occurs throughout less than 1% of core with 2-5% disseminated associated. At 101.6 - 20cm wide zonthick carb (quartz) vein - 25% of core.	e
104.2 - 104.4m	Mafic very fine ash tuff	Light grey	vv Fine	Has a tuffaceous grin, soft- barely discern what may be 0.5mm grit. Lower contact parallel to schistosity	№ 30°	Weak chlorite alteration	Tr. dissem. pyrite in a few clots 3-4mm in size.
104.4 - 119.7	Fine ash felsic tuff			Tr quartz phenocrysts/eye anhedral 1.0mm average. Core has speckled appearance with pepper grain like fragments(?) throughout schistsity moderately developed	≈45°	Very weak sericite chlorite alteration. Chlorite moderate definischistosity near 114.2. Weak bleaching in zones of strong quartz-carb veining 2cm thick white veins near 115.9, 116.3, 116.5, 116.7, 117.5m.	1% Tr disseminated fine pyrite throughout.  ng 3-5% dissm pyrite over 3-4 cm at 114.2m.

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
119.7 - 120.6	Quartz- phyric fels ash tuff.	Medium ic Grey	Fine Ash	1% mm sized quartz pheno- crysts rounded to elliptical shapes. May see rare mm sized frag- ment, tuffaceous looking. Siliceous zone at 119.7 in contact with chloritic material up-hole. Weak schistosity.	50°	Very weak sericite throughout.	Tr. to nil fine dissem- inated pyrite along schist- osity.
120.6 - 139.2	Felsic Tuff	Medium -Light Grey	Fine Ash O.5mm	Tr quartz eye - 1.0mm sized rarely seen.  Minor mm sized chloritic zones suggestive of bedding? paraellel to schistosity(127.  (131.0) at 131.1 - chewed up core and cleavage/schistosity is poor and at low angle to core axis		V. weak sericitic alteration, sericity defining schistose as before, Weak chloritic streaks are often seen in core throughout. 130.1-130.4 - chloritic dark zone cutting along length of core - 40% of core. Weak spotty chlorite in zone between 141.5-145.6 136.7-137 - moderate sericite giving paper th schistosity.	pyrite ubiquitous. 123.5 5cm section of 1-2% fine disseminated pyrite.  142.6 Tr. cpy in cm thick chloritic zone with 20% pyrite along schistosity.
139.2-	Quartz phyric Felsic Tuff	Medium Grey	Fine Ash	1-2% 2mm sized rounded quartz "blebs' give rock a mottled look. distinctive but no real contacts up or down hole - likely a phase of felsion ash tuff schistosity.	20° - 25°	V. weak sericite, weak silicification?	Tr to nil pyrite - finely disseminated.
139.8- 149.7	Felsic Tuff	Light Grey	Fine Ash O.5mm	same as before, weak schist- osity.	25 <sup>°</sup>	V. weak sericite, weak chloritic streaks help define schistosity planes.	Tr - nil fine disseminated pyrite.

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FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES
149.7 - 154.5 (EOH)	(Feldspar phyric)felsi Tuff	c		Tr 1% white feldspar phenocrysts 0.5-2mm in size average 0.5mm, euhedral to anhedral, generally subhedral Tr quartz 'eyes' 1.0mm average		Weak sericite and v. weak chlorite streaks define schistosity planes.	Tr — Py 2mm fine dissem— inated pyrite throughout.
				152.6 bedding contact schistosity	35°-40° 35°		
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