



DRILL HOLE RECORD

Hatfield EL 15/73

Mackintosh EL 2/70

Property Mineral Lease 4M/75

Location Que River

Property

District Tasmania.

Bearing (M) 105° 45'

Hole No QR 82

Commenced 25.1.1976

Completed 8.2.1976

% Recovery 95

Grid bearing (M) 8° 45'

Date 12.2.1976

Objective To test beneath QR 29, 6700N 450 RL.

Core size NQ to 96 m BQ to 305.6 E.O.H.

Logged C.H. YOUNG

Co-ordinates 6699.6N 4604.0E

Dip 63° 39'

Alt./R.L. 692.62

SURVEY DATA

DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE
0	65	96	Clinometer & Tube Compass
0	63° 39'	105° 45'	Surveyors Pick up
23	65	109.5	Old Eastman
68	63.5	109.0	"
87	63.25	108.0	"
116	62.0	109.5	"
136	60.5	-	"
146	59.5	109.5	"
176	55.0	113.5	"
194	54.0	113.0	"
227	52.0	115.0	"
257	50.0	117.0	"
280	46.0	116.0	"
302	42.0	116.0	"

GRAPH DERIVED DATA

DEPTH	DIP	BEARING(M)
0.0	63.3	105.9
25.0	64.9	106.1
50.0	63.9	106.6
75.0	63.4	105.0
100.0	62.9	104.7
125.0	61.3	105.2
150.0	59.0	106.9
175.0	55.0	109.9
200.0	53.5	109.5
225.0	52.1	111.3
250.0	50.7	113.3
275.0	47.0	112.8
300.0	42.2	112.2

CALCULATED CO-ORDINATES

NORTHING	EASTING	ALTITUDE
6699.60	4604.00	692.62
6698.22	4614.83	670.13
6696.79	4625.54	647.59
6695.43	4636.55	625.19
6694.23	4647.78	602.88
6692.97	4659.41	580.79
6691.38	4671.74	559.11
6689.08	4685.15	538.16
6686.31	4699.49	517.87
6683.25	4714.29	497.96
6679.60	4729.45	478.42
6675.54	4745.38	459.61
6671.31	4762.66	442.07

REMARKS

227.9 - 305.6 m E.O.H. Minor pyrite with trace sphalerite and galena as disseminations, aggregates and irregular veinlets. Includes 291.8 - 295 m Chlorite alteration zone interpreted as zone intersected in QR 29.

HOLE No QR 82

DATE 16/2/76

INITIAL ANALYSIS:

CHECK LAB:

SAMPLE NO	FROM M	TO M	IW cm	REMARKS	%Cu		%Pb		%Zn		%Fe	ppm Ag	ppb Au	ppm Au	INT.	%Cu	%Pb	%Zn
					AAS	XRF	AAS	XRF	AAS	XRF	TIT	AAS	AAS	FIRE				
179384	268.55	269.75	120	Datum 268.8	<0.01		0.05		0.01			< 2	35					
179385	269.75	272.45	270	" 271.00	0.02		0.48		0.70			<2	70					
179386	272.45	274.88	243	" 275.00	0.03		0.30		0.45			2	50					
179387	274.88	276.50	162	" 275.60	0.06		0.71		0.86			7	100					
179388	276.50	278.40	190	" 278.40	0.02		0.46		0.55			2	60					

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					INITIAL ANALYSIS:									CHECK LAB:				
SAMPLE NO	FROM M	TO M	IW cm	REMARKS	%Cu		%Pb		%Zn		%Fe	ppm Ag	ppb Au	ppm Au	INT.	%Cu	%Pb	%Zn
					AAS	XRF	AAS	XRF	AAS	XRF	TIT	AAS	AAS	FIRE				
179389	286.20	288.54	234	Datum 289.7	0.05		0.20		0.49			4	25					
179390	288.54	290.65	211	" 289.7	0.05		0.30			1.65		6	35					
179391	290.65	291.65	100	" 292.80	<0.01		0.14		0.08			< 2	<20					
179392	291.65	293.27	162	" 292.80	0.02		0.24		0.50			< 2	<20					
179393	293.27	295.34	197	" 295.9	0.03		0.21		0.50			2	<20					
179394	295.34	296.85	151	" 295.90	0.02		0.19		0.30			< 2	<20					

Feature : Bedding
 Foliation
 Fragment-size & shape

Shearing
Fault
Vein
 c carbonate
 q quartz

Mineralization : Trace 1-5%
 Common 5-15%
 Abundant 15-60%
 Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		No Core.							
	3.0 AP (DTL)								
	1.0	Green chloritised locally sericitised and carbonated <u>feldspar crystal tuff-lava</u> . Partly weathered with iron oxide on fractures down to 8.8 m. Feldspar crystals are represented by aggregates of chlorite-sericite to 3 mm often euhedral in outline. The groundmass is fine grained green to buff in colour quartzo-feldspathic. Occasional aggregates of green-white carbonate to 4 mm may be amygdules. Very small flecks < 1 mm of white carbonate are randomly distributed throughout the groundmass. 10.4 m Sample for Petrology 178839. The rock appears to be a porphyritic lava.	BROKEN CORE						Pyrite <1% as disseminations of fine subhedral to euhedral crystals.
	0.8								
	5 0.8								
	0.9								
	0.3								
	0.7								
	0.8								
	0.7 10								
	2.5								
	12.3								
	2.0	Green chloritised locally carbonated feldspar crystal tuff-lava breccia. Irregular fragments to 6 cm of feldspar crystal tuff-lava occur in a matrix of similar composition and texture. 13.6 m Fracture zone subparallel to C.A. commonly chlorite lined.	BROKEN CORE						
	15 0.1								
	0.1								
	0.2								
	1.0	Green chloritised locally carbonated and sericitised feldspar crystal tuff-lava breccia. Similar to above 15 m. Lithic fragments up to 15 cm are irregular in outline and consist of feldspar crystal tuff-lava, occasionally flow banded. The groundmass is of similar composition and texture.	BROKEN CORE						
	18.8 1.0								
	0.8 20								
	0.8								
	0.3								
	0.4								
	0.6								
	0.5								
	25								



DIAMOND DRILL LOG

Hole No QR 82 Page No 2.

Feature : Bedding
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 Vein carbonate
 quartz

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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	0.9	AP as above.							Pyrite <1% as above.
	1.5							26.1	Rare Sph, Gn as aggregates to 3 mm in carbonate vein.
	1.8								
	2.6								
	31.7	Gradational Contact.							
	1.1	AP Green chloritised and carbonated lithic tuff agglomerate.							
	1.5	Lithic fragments are irregular in outline from 0.5 mm to 6 cm, they consist of porphyritic lava with phenocrysts of feldspar represented by irregular aggregates to 3 mm of white carbonate (occasionally pink when altered to albite).							
	0.8								
	35	Small flecks <1 mm of white-brown carbonate are randomly distributed. The groundmass is green (chloritic) and fine grained.							
	0.5								
	2.4								
	39.0	39.0 m Sample for Petrology 178840.							
	2.4	The matrix is pale green and consists of quartz-carbonate and contains numbers of white carbonate aggregates to 3 mm after feldspar.							
	3.1								
	2.0								
	45								
	1.5								
	2.0								
	49.0	49.0 Fractures (joints?) 30° - 50° to core axis.							
	1.0								
	50								

BROKEN CORE



DIAMOND DRILL LOG

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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	3.0	AP as above.							Pyrite <1% as above.
	2.7	Chlorite aggregates to 2 mm and occasional aggregates of epidote are interpreted to represent hornblende and pyroxene respectively.							
	3.0								
	60	60.0 m Fractures 10° to core axis.							
	3.0								
	65	64.6 - 64.8 m Carbonate cemented breccia zone minor epidote, hematite.							
	2.1								
	1.6	67.6 - 67.9 m Carbonate cemented breccia zone minor hematite.							
	0.6								
	70	70.8 m Epidote aggregates to 2 cm in carbonate vein.							
	0.6								
	2.4	Fractures sub-parallel - 20° - 30° to core axis.							
	75								



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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	3.0	76.8 m 20 cm fragment of vesicular feldspar crystal tuff-lava.	<i>Handwritten symbols and notes in the visual log column, including 'Bluish hematite' and 'carbonate'.</i>						Pyrite <1% as above.
	3.0								79.3 Rare Gn as aggregates to 5 mm in carbonate vein.
	80								
	3.0								
	3.0	84.0 m Minor aggregates of epidote.							
	85								
	0.3	86.4 m Red-brown coating in carbonated fracture zone, micaceous hematite?							
	1.6								
	2.7								
	90								
	1.7	90.6 m 30 cm Fault and carbonate vein with minor hematite? and epidote.							
	1.6								
	1.0								
	95								
	1.0								
	2.0								
	3.0								
	100								



DIAMOND DRILL LOG

Hole No QR82

Page No 12.

Feature : Bedding Shearing
 Foliation Fault
 Fragment - size & shape Vein carbonate quartz

Mineralization : Trace 1-5%
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 Abundant 15-60%
 Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
0.6		PyP ₁ as above.						275.3	Py 5% locally 10% trace Sph, galena as disseminations, aggregates and irregular veins.
1.8		Bedding at 40° to core axis has been noted.							
1.0									
2.6	280								
3.0		Below 282.0 m the rock becomes increasingly sericite rich.							
	283.2								
		Grey-green sericitised lithic tuff agglomerate.							
1.0	285	The rock is sheared and sericitised, lithic fragments are generally obscure. They appear to be altered DTL occasionally sericitised trachyte? or pyrite. The groundmass is fine grained and sericite rich.							
2.0		Cleavage 30° to core axis.							
		286.0 m - 294 m There are numerous							
2.7	288.0	<u>Fault zone. Pug & breccia 30° to C.A.</u>							
	288.25	irregular blue-grey chert bands to 2 cm.							
	289.0	Grey sericitised lithic tuff.							
	290	Lithic fragments to 2 cm have been noted.							
3.1		Bedding at 40° to core axis perpendicular to cleavage also at 40° to core axis.							
	291.8								
		Chlorite alteration zone.							
		Dark green chlorite with rounded white carbonate aggregates to 4 mm. (Altered lithic tuff).							
3.1									
	295								
		Grey sericitised and carbonated lithic tuff. Lithic fragments to 1 cm consist of feldspar crystal tuff lava, sericitised trachyte occasionally chert and pyrite.							
3.1		The matrix is blue-grey in colour locally sericitised and silicified.							
2.0	300								
								295.0	Pyrite 3%-5% rare
								295.4	Sph, Gn.
									5 cm Sph 3%, Gn 2% in carbonate veinlets.



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Page No 13.

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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
								300.1	Trace Sph, Gn in carbonate vein.
1.4	301.9	Fault zone. Pug, breccia, sheared and broken core 40° - 50° to core axis.							
2.0	303	Grey sericitised locally carbonated lithic tuff agglomerate. Lithic fragments are irregular to sub-rounded up to 5 cm. They consist of pale green feldspar crystal lava,							
1.2	305.6	E.O.H. fine grey tuff and occasionally chert. The matrix is fine grained and siliceous.							