





### DRILL HOLE RECORD

Location Que River

Property Mackintosh 2M/75

District Tasmania, Australia. Bearing (M) 95°28'

Hole No QR 79

Commenced 20.1.1976

Completed 29.1.1976

% Recovery 98

Grid bearing (M) 8°45'

Date 30.1.1976

Objective To test N lens 7900N, 450 RL beneath QR 50.

Core size NQ to 300 m E.O.H.

Logged C.H. YOUNG

Co-ordinates 7899.4N 4935.08E

Dip 64°38'

Alt./R.L. 690.24

SURVEY DATA				GRAPH DERIVED DATA			CALCULATED CO-ORDINATES			REMARKS
DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE	DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE	
0	64°38'	95°28'	Surveyors pick up.	0	64.5	95.5	7899.4	4935.08	690.24	
25	65	100	Eastman	25	64.5	95.5	7900.01	4945.83	667.68	
49	63	100	Single Shot	50	64.0	95.75	7900.60	4956.67	645.16	269 - 269.6 m Interpreted N lens position,
75	62	103	Camera	75	62.25	98.0	7900.97	4967.96	622.86 ✓	disseminated pyrite and base metal
100	59	105	"	100	59.0	100.0	7900.90	4980.22	601.08 ✓	sulphides.
127	55.25	104	"	125	55.75	100.0	7900.61	4993.69	580.04 ✓	
154	55	105	"	150	55.0	100.0	7900.30	5007.89	559.47 ✓	
182	55	104	"	175	55.0	100.0	7899.98	5022.23	538.99 ✓	
212	54	105	"	200	55.25	100.0	7899.67	5036.52	518.48 ✓	
242	54	104	"	225	54.5	100.0	7899.36	5050.90	498.03	
269	54	103	"	250	54.5	99.5	7899.11	5065.41	477.68	
296	53.5	103	"	275	54.0	98.5	7899.04	5080.02	457.39	
				300	53.5	97.5	7899.24	5094.80	437.23	



# DIAMOND DRILL LOG

Feature : Bedding Shearing   
 Foliation Fault   
 Fragment - size & shape 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
	5								
1.2	6.0	DTL Green - buff sericitised locally chloritised and carbonated feldspar crystal tuff lava. The rock is generally iron stained down to 14 m.							Pyrite < 1% as disseminations and aggregates generally along fractures.
1.3		Feldspar crystals represented locally by pale green aggregates of sericite and also white aggregates of carbonate?							
0.65	10	The groundmass is fine grained buff in colour altered pale green by abundant sericite.							
1.4		9.3 - 10.0 m fractures parallel to core axis.							
1.3		Irregular fractures 30° - 50° to core axis.							
		Iron oxide is common on fractures down to 17.5 m.							
2.8	14.2	Buff to pink carbonated and sericitised feldspar crystal tuff lava. Similar to above, sericite alteration is not as severe.							
1.5	15	Minor carbonate cemented breccia zones have been noted parallel to core axis.							
1.5									
1.5	18.6								Pyrite 1-3% as disseminations and aggregates of subhedral crystals to 1 mm, generally concentrated along (healed) fractures.
1.5	20								
0.6	20.5	Fault zone. Pale green heavily sericitised and sheared feldspar crystal tuff lava.							
0.5		Pug, 70% sheared and broken core. quartz veins to 3 cm (crystalline quartz).							
1.5		Chlorite coating on irregular fractures.							
	24.3								
	25	Pink-buff locally grey carbonated locally sericitised feldspar crystal tuff lava.							Py < 1% as disseminations and aggregates along irregular fractures.



# DIAMOND DRILL LOG

Hole No 4879

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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	OCCLUSION	AGGREGATE	MASSIVE	DEPTH m	MINERALIZATION
	1.5	Feldspar crystals are represented by pale green aggregates of sericite and occasionally white carbonate to 3 mm.							Pyrite <1% as above.
	26.8	The groundmass is fine grained & siliceous.							
	27.0	<del>FAULT zone. Sheared, Iron stained.</del>							
	3.0	The rock is partly weathered down to 27.5 m.							
	1.5	The rock is fine grained massive pink lava altered grey along irregular fractures containing pyrite.							
	30	Joints 30° - 50° to core axis.							
	1.5	Irregular fractures at irregular angles.							
	1.5								
	1.5								
	1.5								
	1.5								
	1.5								
	1.6								
	1.4								
	40								
	2.4								
	0.6								
	2.8								
	45								
	2.8								
	50								

THICKENED SECTION



# DIAMOND DRILL LOG

Hole No WR 79 Page No 3.

Feature : Bedding Shearing   
 Foliation Fault   
 Fragment - size & shape 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
	3.0	50.0 - 61.8 m The rock is partly weathered, iron stained, apparently due to weathering along fault zones.							Pyrite < 1% as above.
	51.5	<u>Fault zone.</u> Minor pug, 90% broken core (zone of deep weathering).							
	3.0	52.5 m 30 cm massive white quartz vein, minor chlorite. Joints at 30° - 50° to core axis.							
	55								
	2.6								
	1.6								
	0.5	59.1 <u>Fault zone.</u> Minor pug, 70% sheared and broken core, weathered zone.							
	0.8								
	1.0								
	1.5	Below 61.8 m the core is generally unbroken, joints often chlorite lined at 50° - 60° to core axis.							
	1.5	The rock is spotted in appearance due to aggregates of white carbonate after feldspar?, occasionally pale green sericite, randomly distributed in a pink-buff quartzo-feldspathic groundmass.							
	1.5	65 Below 65 m grey coloured alteration zones up to 2 cm wide along-side fractures are common.							
	1.5								
	1.5								
	1.5								
	1.5								
	3.1	71.2 - 71.5 m Massive white quartz carbonate vein, some chlorite 60° to core axis.							







Feature : Beading   
 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	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		PyP <sub>1</sub> as above.						Pyrite 3-5% as above.
	127.3	Grey carbonated locally sericitised and silicified lithic tuff agglomerate. Lithic fragments are predominantly feldspar crystal tuff-lava often pale green when sheared and sericitised. The matrix is grey and siliceous. The rock no longer appears to be a "volcanic" conglomerate. It is more like a primary pyroclastic deposit.						
	130	130.9 m Sample for Petrology 147322.						
	135							
	140							
	142.2	142.2 m Sample for Petrology 155231.						142.1 10 cm pyrite 15%.
	144.0	Fault zone. Pug, sheared and broken core						
	144.6	40° to core axis. Carbonate veining.						
	147.5	147.5 m 3 cm disrupted chert?						
	148.1	Fault zone. Minor pug, 50% sheared and broken core.						
	149.8							

BRANCH CORE

Feature : Bedding Shearing   
 Foliation Fault *F*  
 Fragment size & shape 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
1.3		PyP <sub>1</sub> as above.							Pyrite 3%-5% as above.
1.5									
1.5									
1.5	154.3	Grey-buff fractured feldspar crystal tuff-lava? The rock appears to be an autobrecciated lava similar in composition to the fragments above 154.3 m.							
1.5	155	The rock is altered grey in colour along irregular pyrite filled fractures.							
1.0	157.8	Grey carbonated locally silicified and sericitised lithic tuff agglomerate. As above 154.3 m.							
3.0	160								
3.0	165								
3.0	170	169.0 m Fractures sub-parallel to core axis.							
3.0	173.8	Gradational Contact.							
1.2	174.0	fault zone. Subparallel to E.A.							173.8 Py 2%-3% locally 10% as disseminations, aggregates and fracture filling.
1.2	174.25	Grey-green to buff carbonated and sericitised locally pyritic feldspar crystal							174.0 10 cm pyrite 20%.
1.2	174.25								











# DIAMOND DRILL LOG

Hole No



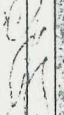







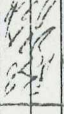





QR 79

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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
	3.0	Altered DTL as above.							Pyrite 2%-3%, locally 10% as above.
	3.0								
	205								
	3.0								
	208.2	2 Gradational Contact.							
		PyF <sub>1</sub> 208.2 m 1 cm irregular grey quartz Grey-buff locally sericitised and carbonated <u>lithic tuff agglomerate</u> . Mixed fragment types irregular in outline from 0.5 mm to 10 cm. Principally green-buff DTL as above 208.2 m, other fragments include sericitised trachyte? and grey chert. Sericite occasionally wraps around fragments. The matrix is grey and siliceous. Fragment alignment 35° to core axis.							
	210								
	3.0								
	3.0								
	214.7	7 Gradational Contact.							
	215	DTL Similar to above 208.2 m. Grey to buff carbonated locally sericitised <u>feldspar tuff-lava</u> . Elongate aggregates of white carbonate to 4 mm have been noted - possibly amygdules.							
	3.0								
	217.7	7 PyF <sub>1</sub> Grey-buff locally sericitised and carbonated <u>lithic tuff agglomerate</u> . As above 214.7 m.							
	219.3								
	3.0								
	220	DTL Grey-buff carbonated locally sericitised <u>feldspar crystal tuff-lava</u> . Similar to above 208.2 m, locally brecciated.							
	3.0								
	222.0	222.0 m Sample for Petrology 178347.							
	223.8								
	225	PyF <sub>1</sub> Grey-buff sericitised and carbonated <u>lithic tuff agglomerate</u> . As above.							



# DIAMOND DRILL LOG

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

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 Abundant 15-60%  
 Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	224.7	20 cm pale buff in colour, highly silicified zone, also 15 cm at 225.2 m.							Pyrite 2%-3%, locally 10% as above.
3.0	226.1	DTL Grey-buff carbonated locally sericitised feldspar crystal tuff-lava. Similar to above 225.8 m. Fractures 15° to core axis.							
3.0	230								
3.0	231.4	Fault zone. Minor pug, sheared and broken core 20° to core axis.							
3.0	232.3								
3.0	235	Fractures 10° to core axis have been noted.							
3.0	239.2	Fault Contact.							
3.0	240	PyP <sub>1</sub> Fault zone. Pug, sheared and broken core 40° - 70° to core axis.							239.2 Py 3%-5% as disseminations and aggregates. 240.1 Trace Gn as aggregates to 1 cm in quartz carbonate vein.
3.0	241.1								
2.4	243.3	Grey sericitised locally carbonated feldspar crystal lithic tuff agglomerate. This rock may be a sheared and altered DTL. Lithic fragments are irregular in outline from 0.5 to 5 cm and consist of altered feldspar crystal tuff-lava. Irregular aggregates of white carbonate randomly distributed throughout the matrix are thought to represent feldspar crystals.							243.3 2 cm Py 60%.
0.55	245	Fragmented fragments appear to be "stretched" in the direction of foliation at 35° to core axis. Below 244.5 m the rock is less sheared - grey to buff carbonated locally sericitised lithic tuff agglom.							245.8 Py 10%, locally 15%.
3.0	247.3	Grey-buff silicified locally carbonated and sericitised lithic tuff agglomerate. The rock appears to be an auto-brecciated feldspar crystal tuff-lava. Fragments up to 6 cm of feldspar crystal tuff-lava							246.7 Pyrite 3%-5% as above, rare galena as disseminations and aggregates to 5 mm, generally restricted to fractured areas interstitial to the fragments.
3.0	250								



# DIAMOND DRILL LOG

Hole No

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## Feature

Bedding



Shearing



## Mineralization

Trace 1-5%

Foliation



Fault



Common 5-15%

Fragment - size &amp; shape



Vein

c carbonate  
q quartz

Abundant 15-60%

Massive &gt; 60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	3.0	are characterized by aggregates of sericite after feldspar in a buff silicified quartzo-feldspathic groundmass. Fragments are occasionally sheared and sericitized with a "bread-crust" appearance.							Pyrite 3%-5%, rare Gm as above.
	3.0	Minor pyrite and silica commonly fill fractures interstitial to the fragments.							
	255								
	3.0								
	260								
	3.0								
	265								
	3.0								255.1 2 cm pyrite 50% as an irregular vein 20° to C.A.
	3.0								Below 263.1 m Py 3%-5%, locally 10%-20%, trace Gm as disseminations and aggregates.
	269.0 - 269.6 m	Interpreted as lens position.							269.0 Py 15%, Sph 1%-2%, Gm 2%-3% as disseminations, aggregates and irregular veins.
	270.3 - 271.0 m	Carbonate-quartz alteration zone. Carbonate veins up to 5 cm have been noted.							270.3 Py 3%-5% as disseminations and aggregates.
	271.0 m	15 cm grey disrupted cert.							271.0 Sphalerite (trace) as aggregates to 3 cm in quartz carbonate vein.
	273.3								
	1.0	The core is generally sheared and highly sericitized, gray color, locally carbonated, little to no silica.							
	275	urate. bearing 20° to core axis.							



# DIAMOND DRILL LOG

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 Foliation Fault   
 Fragment-size & shape Vein c carbonate  
 q quartz

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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	2.8	Sheared and sericitised as above.							Pyrrite 1/2-5% as disseminations and aggregates rare galena as disseminations and aggregates to 2 mm.
	3.0	280							
		281.0							
	3.0	Grey locally sericitised and carbonated coarse lithic tuff/lithic tuff agglomerate.							
		Mixed fragment types. Lithic fragments from 0.5 to 3 cm are generally sub-rounded (i.e. abraded) and are thus transported volcanic debris. They consist of altered feldspar crystal tuff-lava, sericitised trachyte? and grey recrystallised chert, often the fragments are completely sericitised and elongated in the direction of foliation at 35° - 40° to core axis. The matrix is grey fine grained and siliceous.							
		285							
	3.0	Below 287.8 m the rock is commonly sheared sericite and carbonate are more abundant. Fragment outlines are often obscure.							
		290							
	3.0	Schistosity 40° - 50° to core axis.							
		293.05							
	3.0	Grey-buff silicified locally carbonated and sericitised lithic tuff agglomerate. Autobrecciated feldspar crystal tuff-lava? Similar to above 273.3 m.							
		295							
	2.4								
	1.6								
		300 3.0.1.							