Cominco

DRILL HOLE RECORD

Location Que River Area Property MackintoshEL2/70 District Tasmania, Australia Alt./R.L. 687.4 Hole No QR33

Commenced 15/4/75 Completed 20/4/75 Core size NQ to 167m EOH Co-ordinate 7600.4N 5273.5E Date 22/4/75

Objective Northern extension of 'S' lens. % Recovery 94 Bearing (M) 98° Grid bearing (M) 8.68° Logged RDB Dip 50°

SURVEY DATA

DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE
23	47.5	102	Eastman
56	45	104	single
83	44	104.5	shot
113	40.5	104.5	camera
167	36.5	105	"

GRAPH DERIVED DATA

DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE	REMARKS
0	49.5	100	7600.4	5273.5	687.4	
25	47.5	102	7599.72	5290.05	668.68	
50	45.5	103.5	7598.49	5307.21	650.55	
75	44.5	104.5	7596.85	5324.81	632.87	
100	42	104.5	7595.01	5342.92	615.75	100.8 - 101.9m Py 90% Probable 'S'
125	39.5	104.5	7593.08	5361.76	599.43	lens.
150	37.5	104.5	7591.10	5381.22	583.87	
167	36.5	105	7589.66	5394.72	573.64	E.O.H.

Cominco

DIAMOND DRILL LOG

Hole N° QR33 Page N° 1

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							
	8.6								
1.0		Pink-buff carbonated fine grained feldspar crystal tuff (lava?)							Pyrite rare.
0.9	10	Occasional small sericite? flecks may be altered feldspar crystals.							
1.3		Small sugary quartz crystals, light grey in colour have corroded margins.							
2.1		Iron staining is common along fractures, at 30° to the core axis down to 20m.							
1.3		Leisegang banding also occurs down to 11m.							
	15	Foliation is weak, but is about 30° to the c.a.							
1.8		Some areas have pink bands (to 0.5cm) - possibly an iron stain effect.							
1.3									
1.7									
	20								
0.9									
	21.3							21.3	Py as fine disseminations and aggregates of euhedral to subhedral crystals.
2.6		Grey sericitised lithic tuff. see below 23.8m							
	22.15	FAULT ZONE Fault pug and core chips.							
	23.1								
	23.8								
0.7		Below 23.8m the core has a green buff colouration, possibly due to chlorite-sericite alteration.							
	25								

Cominco

DIAMOND DRILL LOG

Hole No QR-33 Page No 2

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault (F), 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	25.9	DTL As above.		25.9	
3.0		PvP Grey, sericitised lithic tuff agglomerate. Large angular to subangular fragments to 5cm of grey feldspar crystal tuff have pale green sericite and carbonate replacing feldspar crystals. Some zones appear to be sheared with the fragments thoroughly sericitised and with fine dusty pyrite. Brown-grey dacitic lava fragments appear carbonated and have euhedral sericite aggregates. Minor 'wisps' of filamentous pumice may be altered to white sericite and carbonate. The matrix is 'ashy', carbonated, and may be a light grey quartz			Pyrite < 1% as veins and aggregates of euhedral to subhedral crystals, fragments and fine interstitial dust.
1.4	30				
1.5					
3.0	34.4				
	35	FAULT ZONE Sheared and broken core. Some pug.			
0.9	35.4	feldspar crystal tuff.			
1.4					
	37.75	FAULT ZONE. Sheared and broken core. Some pug.			
1.85	38.7				
0.9	40	Below 40m, carbonate 'spotting' possibly replacing feldspar and irregular aggregates (to 2mm) possibly interstitial fillings, are common. Fractures are ragged and usually at 50° to the core axis.			
3.0					
	43.0				
3.0	45	Mottled light grey coarse feldspar crystal tuff. The unit is carbonated. Feldspar? crystals have been replaced by pale green sericite which has in turn been replaced by fine dusty pyrite in many cases.			
	46.5				
3.0		Below 46.5m, the unit is a grey, locally sericitised, carbonated, silicified lithic tuff agglomerate			
	50				

Cominco

DIAMOND DRILL LOG

Hole No QR33 Page No 3

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

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

CORE REC'D	DEPTH m	GEOLOGY	MINERALIZATION
2.1	51.1	As above.	Pyrite as above. Minor secondary Gn and Sph occurs with carbonate veins.
		FAULT ZONE. Pug and sheared core.	
0.9	52.1	Thoroughly disrupted, the unit is genetically very similar to above between 25.9 and 43.0m.	
3.0	55		
1.3			
1.7			
	59.0	Grey feldspar quartz crystal tuff. Occasional lithic fragments (to 3cm usually 1cm) are thoroughly sericitised and have fine dusty pyrite throughout. Carbonate aggregates (to 1mm) often containing minute quartz crystals are common and can occur in the sericitised fragments.	
3.0	60		
3.0		The unit has a light grey ashy appearance where sericitisation is minimal. Foliation is indistinct, while fractures are usually between 60 and 30° to the c.a.	
	65		65
3.0		Below 67m, the unit becomes disrupted and irregular bands of silicified fine tuff and light grey chert bands are common.	Py 3% as aggregates and veins of euhedra to subhedral crystal Secondary Sph and G occurs with carbonat veins.
2.8		Below 71m, the unit appears to be a coarse lithic tuff, sericitised and carbonated that grades to a dark grey siliceous feldspar? crystal tuff below 77m.	
	70		
0.3			
3.0			
			73.6 Py 20%, Sph 1%, Gn tr. Cpy as small veins and aggregate
	75		

Cominco

DIAMOND DRILL LOG

Hole N° QR33 Page N° 4

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault (F), 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	DEPTH m	MINERALIZATION
3.0		The feldspar crystals? are possibly represented by abundant quartz-carbonate 'spots' often pink coloured (albitised??)		76	As above. Pyrite 3%
3.0		Veins of quartz, carbonate and a pink-red iron stained quartz? to 5cm are common between 74-84m.			
3.0	80	Fractures are often irregular and can be between 30 and 60° to the core axis.		80	Pyrite < 1%
1.4					
1.6	85	Below 85m, the unit becomes carbonated, slightly silicified and blue-grey in colour.			
3.0					
3.0	90	Below 90m, the unit is a blue-grey coarse lithic tuff. It becomes chloritised and below 93.5m it has a yellow-brown-green colour and is completely sericitised with fragment outlines emphasized by dark green chlorite.			
3.0					
3.0	95	Pale grey-green, variably yellow-green, sericitised and carbonated locally silicified quartz, feldspar crystal tuff-lava. Apart from rare lithic bands to 15cm, the unit has an overall 'ashy' appearance.		95	Py 3% as irregular bands, aggregates and veins of euhedral to subhedral crystals
3.0				98.8	Py 15% as above.
	100				

Cominco

DIAMOND DRILL LOG

Hole No QR33 Page No 5

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault (F), 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	DEPTH m	MINERALIZATION
3.0	105	Small irregular euhedral and 'shard' like aggregates (to 2mm) of carbonate, sericite, quartz and chlorite occur throughout the unit. The groundmass is usually yellow-green-grey carbonated, fine gr. and has minute quartz grains throughout. At 105.5m, a lithic band (to 15cm) shows graded bedding from a coarse lithic tuff with fragments (to 2cm) to a fine grey tuff with dusty pyrite throughout. The appearance is typical of that of a water lain tuff and it suggests that facing is up hole, to the west.	TRACE COMMON ABUNDANT MASSIVE	100.8 101.9 103	Py 15% as above. Py 90% Py 15% Py 3% as irregular random veins, bands and aggregates of euhedral to subhedral crystals. Often found as fracture fillings.
3.0					
3.0	110				
3.0					
3.0	115	Below 116m, carbonate aggregates and irregular veins (to 2cm) have random occurrence.	c		
3.0					
2.6	120	A grey irregular fracture pattern sometimes gives the unit a pseudo-agglomeritic appearance. The fractures often contain fine dusty pyrite.	c c	122	Py 5-10% occurs as above.
3.1					
	125				

Cominco

DIAMOND DRILL LOG

Hole No QR33 Page No 6

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault (F), 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	DEPTH m	MINERALIZATION
		As above.			Pyrite as above.
3.1		Foliation is about 30° to the core axis while fractures are about 60° to the core axis. Below 122m the unit is somewhat disrupted, possibly autobrecciated.	c		
3.1	130		c		
3.1	133.75	FAULT ZONE Pug, broken and sheared core.	F		
1.7	135				
3.1	135.9	Below 135.9, the unit is brecciated (autobrecciated?) and has a grey-green colouration. It has a pseudo-agglomeritic appearance because of the variable alteration effects of chlorite, and carbonate but genetically it is very similar to above 133.75m. Alteration along the fractures appears to be chlorite and/or sericite.	F c q q q	135.9	Pyrite 1-3% as above
1.2	140				
3.0			q		
3.0	145				
3.0		Below 146m similar to similar to between 95-133.75m.	q		
			q		

Cominco

DIAMOND DRILL LOG

Hole N° QR33 Page N°7

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault (F), 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		As above.							Pyrite 1-3% as above
		Below 135.9m, quartz, quartz-carbonate and carbonate veins to 10cm are common.							
3.0									
	155								
3.0		Some areas are brecciated with grey, sericite alteration along the irregular fractures with fine dusty pyrite occurring in sericitised zones.							
2.8									
	160								
3.1		Overall faulting is minimal below 95m, and the unit appears to be quite competent.							
1.8	165								
1.3									
	167	E. O. H.							