Cominco

DRILL HOLE RECORD

Location Que River Area | Property Mackintosh EL 2/70 | District Tasmania, Australia. | Alt./R.L. 698.24 | Hole No QR 41

Commenced 6.5.1975 | Completed 11.5.1975 | Core size HQ to 152 m E.O.H. | Co-ordinate 7451.2N 5104.7E | Date 13.5.1975

Objective To test Q lens for grade and Metallurgy. | % Recovery 97 | Bearing (M) 97° 27' | Grid bearing (M) 8.75° | Logged C.H. YOUNG | Dip 50° 12'

SURVEY DATA

DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE
0	50	98°?	Clinometer and Compass
0	50° 12'	97° 27'	Theodolite
27	50	102.5	Eastman
*27	50	105	Single
65	47.5	102	Shot
*65	47.5	105.5	Camera
107	44.5	103.5	"
*107	44.5	105.5	"
150	43	106	"
*150	43	104.5	"

* Cleveland's Eastman Camera

GRAPH DERIVED DATA

DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE	REMARKS
0	50	97.5	7451.2	5104.7	698.24	
25	50	98	7451.5	5120.8	679.09	
50	48.5	98	7451.7	5137.1	660.2	
75	46.5	98.25	7451.9	5154.0	641.7	
100	45	99	7451.9	5171.4	623.8	118.8 - 127.3, Q lens. Base metal
125	43.5	100	7451.7	5189.3	606.4	mineralization.
152	43	101.5	7451.0	5209.0	587.9	E.O.H.

Cominco

DIAMOND DRILL LOG

Hole No QR 41 Page No 1.

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
		No Core.							
	3.0	~~DTL.~~							
1.2		Fine grained light green to buff coloured carbonated dacitic tuff lava. Carbonated feldspar phenocrysts up to 0.5 mm are common, in an altered quartz feldspar groundmass.	BROKEN CORE						Generally barren. Rare secondary pyrite, fine subhedral to euhedral crystals to 0.5 mm.
	5								
2.1		Partly oxidised and rusty orange in colour down to 9.8 m, occasionally oxidised along fractures down to 27.5 m.							
		The rock is weakly banded (flow banding?) at various core angles, generally at 35° to core axis.	BROKEN CORE						
1.8		Chlorite is common on fracture planes.							
	10	Alteration along old carbonate cemented fracture planes often turns the rock grey in colour.							
1.0		Minor carbonate veinlets are common. Fractures 50° to core axis.							
2.8									
	15								
3.0									
3.0									
	20								
3.0									
	22	MTL Similar to the rock above. Darker in colour (dark brown) due to the presence of discrete magnetite grains. It is possible that this rock represents the dacitic tuff lava in its most unaltered state i.e. before magnetite becomes iron oxide.	F						
3.0									
	25								

Cominco

DIAMOND DRILL LOG

Hole N° QR 41 Page N° 2.

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
		The rock is not uniformly magnetic. The dark coloured rock contains the most magnetite.							Rare pyrite as above.
	27								
3.0		DTL Pink-buff coloured dacitic tuff lava as described above 22 m. Fractures 25° - 50° to core axis.							
3.0	30								
3.0									
3.0	35	35.6 - 38.5 m Fractures at various core angles, chlorite lined. The unit is generally competent, some sections up to 60 cm are unbroken.							
3.0									
3.0	40								
3.0									
3.0	45								
3.0									
	50								

Cominco

DIAMOND DRILL LOG

Hole No QR 41 Page No 3.

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		DTL as above.							Rare pyrite as above.
3.0	55	Below 56 m irregular, small white carbonate veins are common.							
3.0			c						
			c						
	60								
3.0			c						
3.0			c						
	65								
3.0									
	69.2								
3.0	70	Fault zone Broken core, some pug, quartz and chlorite 10° to core axis.							
	71.5								
3.0									
	75								

Cominco

DIAMOND DRILL LOG

Hole N° QR 41 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	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
3.0		DTL as above. Light buff in colour, fine grained. Minor carbonate cemented breccias are common.	BROKEN CORE						Rare pyrite as above.
3.0			BROKEN CORE						
3.0	80								
3.0									
3.0	85								
3.0									
3.0	90								
3.0									
3.0	95								
3.0	96.3	MTL Dark brown - maroon coloured weakly magnetic tuff lava. Weak flow banding? at 75° to core axis. Occasional sub-rounded fragments of similar composition to the matrix (to 2 cm) have been noted.							
3.0	100								

Cominco

DIAMOND DRILL LOG

Hole N° QR 41 Page N° 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
	100.3	DTL Pink to buff coloured dacitic tuff lava as described above.			Rare pyrite as above.
3.0		The rock is fine grained. Carbonate veining is less common.			
3.0	105				
	106.4	MTL Dark brown, weakly magnetic as described above.			
3.0					
	110	DTL Pale green to buff in colour. Fine grained. Sugary quartz phenocrysts to 3 mm have been noted.			
3.0		Weak flow banding? 65° to core axis.			
3.0	115				
	117	Pyp Fault contact 30° to core axis.	F	117	Pyrite 10% as fine disseminations of subhedral t euhedral crystals to 1 mm
3.0		Grey sericitised lithic tuff.			
	118	Fault zone Pug sheared and broken core. Large fragments of massive sulphide separated by a barren quartz vein		118.8	Massive sulphides in fault zone. Py 30%,
	119.7	occur within this fault zone.		119.6	Sph.20%, Gn 15%.
	120	There are a variety of lithic fragments in this unit that are sub-rounded to sub-angular in shape up to 1 cm. Fragments appear to consist of dacitic lava, fine grained tuff and occasionally chert. The rock has the appearance of a washed, (waterlain grit).			Disseminated sulphides. Py 20% occasionally as veins with colloform textures, more commonly as fine disseminations subhedral to euhedral crystals. Sph 5% as fine
3.0		122.3 - 126 m The rock is heavily chloritised and sericitised. The matrix is very fine grained and "ashy". There is a weak bedding at 40° to core axis.			disseminations and irregular blebs to 1 cm Gn 3% fine grained often enveloping Sph. Splashes of Cpy, trace overall.
	125				

Cominco

DIAMOND DRILL LOG

Hole N° QR 41 Page N° 6.

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	DEPTH m	MINERALIZATION
3.0		Chlorite alteration is common down to 137.1 m. Weak foliation 35° to core axis.			Sulphides as above.
3.0	130	In the vicinity of 129 m the rock is disrupted and contains some cherty material bedded at approx. 30° to core axis.		127.3 129.5	Py 15% as minor veins and disseminations of fine subhedral to euhedr crystals. 128.1 m splas of Cpy, trace overall. Py 50% as dissemination of fine subhedral to euhedral crystals and a irregular veins often showing colloform textu trace Sph and Gn.
3.0					
3.0	135	Disruption of minor carbonate veins between 134 - 136 m illustrates the deformed nature of the unit.			
	137.1			137.1	Py 5% as fine disseminations within the matrix and as subhedral to euhedral crystals to 1 mm. Massive pyrite up to 90% occurs as indicate
3.0	140	Grey carbonated and silicified lithic tuff agglomerate. Lithic fragments up to 5 cm are sub-angular to sub-rounded dacitic lava with characteristic blebs of sericite up to 3 mm (after feldspar) other fragments are fine grained grey in colour and maybe fine tuff. The matrix is fine grained and light grey in colour.			
3.0					
3.0	145				
3.0					
	150				

Cominco

DIAMOND DRILL LOG

Hole Nº QR 41 Page Nº 7.

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	152	Grey lithic tuff agglomerate as above. E.O.H.						152	Pyrite as above.
	155								

HOLE No QR 41 DATE 21/5/75

SAMPLE No	FROM (M)	TO (M)	IW (cm)	REMARKS	INITIAL ANALYSIS: %Cu AAS	%Cu XRF	%Pb AAS	%Pb XRF	%Zn AAS	%Zn XRF	%Fe TIT	ppm Ag AAS	ppb Au AAS	ppm Au FIRE	CHECK LAB: AMDEL INT	%Cu XRF	%Pb XRF	%Zn XRF
159525	117.25	118.80	155		0.02		0.09		0.12			3	55					
159526	118.80	120.35	155		0.22			5.64		6.47		150	>500	3.3				
159527	120.35	122.25	190		0.22			2.50		5.19		35	310					
159528	122.25	125.09	284		0.11		0.63			2.05		17	50					
159529	125.09	127.13	204		0.07		0.19		0.51			8	65					
159530	127.13	128.75	162		0.09		0.06			1.06		4	50					
159531	128.75	129.69	94		0.08		0.06		0.85			2	50					
159532	129.69	132.21	252		0.01		0.04		0.17			4	30					
	118.80	122.25	345		0.22		3.91		5.77			86.7		1.7		0.22	3.65	5.60