

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 6
No. 7/73

CO-ORDINATES 4700E 4920N AZIMUTH 191°m DRILLERS PARRY COMMENCED 28.06.82 DEPTH 221 metres HOLE No. DD82 LB3
RL COLLAR INCLINATION -46° DRILL TYPE ROTARY COMPLETED 12.07.82 CASING LEFT Nil DPO No(s) 30205

TENEMENT NAME SHEFFIELD
PLAN - MAP REFERENCE LAKE BARRINGTON PROSPECT

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weather, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ANALABS...)							
From (M)	To (M)										Cu	Pb	Zn	Ag	As	Au		
0.0	0.6				TRICONES - NO CORE													
0.6	11.0	447	NQ		BRECCIA - CONGLOMERATE													
11.0	44.8	32.98	BQ		Mod. well rounded volcanic clasts of chert, lava, elliptical volcanic, granitic fragments and silty particles upto 5cm diameter cemented in a fairly gritty volcanic matrix. Thin zones of gritty stuff after 30.5m	Mod weathered 0.6-14m. then very weathered until 30.5m. Many thin gas-concretes after 5" in upper portion of the core, joints Fe stained - mod fractured. Occ Fe staining in breccia-conglomerate. At 28m a 1cm py vein. Other	572.780	0.6	8.7	2.55	140	15	15	x	50	-		
					32-40m bands of feeder breccia-conglomerate with interbedded +1m zones of leached sulphide rich qtz veins - Mn staining + py - tuffaceous gneiss	At 28m a 1cm py vein. Other gaseous veins and fracture fillings esp. at 25m. 2 major sets of joints 1° at 26° to long core axis 2° at 19° - each being almost at rt 13° to each other	781	8.7	11.0	1.92	250	5	10	x	x	-		
					42-44.8m massive ferruginous - gritty py - cp veins wavy Fe bedding 43.6m small tourmalinized granite clast.	At 30m and 37m Mn staining and secondary hematite in fractures.	782	11.0	14.0	2.25	1100	x	10	x	50	-		
							783	14.0	14.52	0.52	24%	25	15	150	1000	0.187		
							784	14.52	16.27	1.75	775	10	35	x	x	-		
							785	16.27	18.17	1.30	430	x	15	x	50	-		
							786	18.17	20.00	1.76	245	10	20	x	100	-		
							787	20.00	22.30	2.30	320	5	25	x	50	-		
							788	22.30	24.40	2.10	540	x	15	0.5	x	-		
							789	24.40	26.40	2.0	2700	30	15	3.5	100	-		
							790	26.40	27.70	1.30	445	25	10	1.0	x	-		
							791	27.70	28.0	0.30	2600	50	20	3.5	50	-		
							792	28.0	30.0	1.35	4500	15	50	x	x	-		
							793	30.0	31.7	1.60	1400	15	15	x	50	-		
							794	31.70	23.80	2.1	1150	5	30	x	x	-		
							795	33.80	36.0	2.2	575	x	10	x	x	-		
							796	36.0	37.24	1.24	990	20	10	0.5	x	-		
							797	37.24	39.0	1.76	2400	10	10	x	x	-		
							798	39.0	40.9	1.30	1300	25	15	6.5	x	-		
							799	40.9	41.5	0.60	2400	15	50	2.0	x	-		
							800	41.5	42.9	1.40	800	60	20	60	50	x		
							801	42.9	43.8	0.30	3250	10	10	1.5	x	-		
							802	43.8	45.0	1.15	135	x	10	0.5	x	-		
44.8	46.0	1.2	BQ		CRITTY TUFF (PORPHYRIC RHYOLITE) Tuffaceous rock containing Amphibole lava clasts to 10cm	Minor 5° in core	803	45.0	47.0	2.0	1950	5	20	x	x	-		

* GROUND SAMPLES

B12010

DRILL CORE LOG

TENEMENT NAME SHEFFIELD

PLAN - MAP REFERENCE LAKE BARRINGTON PROJECT

CO-ORDINATES 4700E/4300N AZIMUTH 191°m

DRILLERS PARRY COMMENCED 28.06.82

DEPTH 221 metres HOLE No. DD2 LB3

RL COLLAR INCLINATION -46°

DRILL TYPE BOYLES COMPLETED 12.07.82

CASING LEFT Nil DPO No(s) 30205

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by AMLABS)								
From (M)	To (M)										Cu	Pb	Zn	Ag	As	Au			
					Lava clasts vary from yellow fine grained with angular of eyes to red-br clasts f.g. lava with weathered feldspar and of eyes - porphyritic.														
					T.S. 45m PORPHYRITE RHYOLITE T.S. probably of a lava clast.														
46.0	61.0	13.37	BQ		<u>BRECCIA - CONGLOMERATE</u> Much finer grained than previous generally no greater clasts than 1cm occ. to 5cm. occ lava blocks 58-59m coarse more feldspathic zone - minor py.	py > Cp veins common. Min ² zones after weathered - granular.	972804* 805 806 807 808 809* 810*	47.0 49.2 50.2 52.4 54.4 55.1 57.9	49.2 50.2 52.4 54.4 55.1 57.9 61.0	2.17 1.0 2.2 2.0 0.7 2.8 3.1	325 2200 1630 235 4400 220 210	x x x x 10 10 5	55 60 55 40 45 35 20	x x x x x x x	x x 50 x 100 0.5 150	-	-	-	-
61.0	66.4	5.4	BQ		<u>GRITTY TUFFS</u> Coarse grained buff-grey zone V. fract. bedded, over thin breccia-cong bands	py infilling of fract. zone	811 812 813 814	61.0 62.0 63.5 65.0	62.0 63.5 65.0 66.4	1.0 1.5 1.5 1.4	335 1400 1550 600	25 35 65 35	10 10 5 95	0.5 1.0 1.5 x	150 150 100 150	-	-	-	-
66.4	77.0	9.55	BQ		<u>BRECCIA - CONGLOMERATE</u> Start fine grained - becomes coarse grained at 68m as before. Larger lava clasts upto 15cm. Gritty tuff band at 70m. Clasts of red-br rhyolitic lava first noticed in core at 74.5m.	Fault at 70.2m - py zone V. broken core - rhyolitic altered 75-76m: mod fractural py veins (infilling?) occ zones veins.	815 816 817 818 819*	66.4 68.35 70.5 71.9 74.0	68.35 70.5 71.9 74.0 77.0	1.95 2.0 1.4 1.9 2.3	200 285 535 495 1040	5 x x 15 5	40 120 30 65 40	x x 0.5 x 0.5	100 100 x x x	-	-	-	-
												* GROUND SAMPLES							

612011

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3 of 6
No. 7/73

TENEMENT NAME... SHEFFIELD
PLAN - MAP REFERENCE LAKE BARRINGTON PROSP.
DEPTH... 221 metres
HOLE No. DD 82 LB 3
COMPLETED... 12.07.82
CASING LEFT... Nil
DPO No(s)... 30305

CO-ORDINATES 4700E/4320N AZIMUTH 131° DRILLERS PARRY COMMENCED 28.06.82
RL COLLAR..... INCLINATION... -4.6° DRILL TYPE... BOYLES

DEPTH om (M)	To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by AMLABS.....)					
											Cu	Pb	Zn	Ag	As	Au
17.0	103.0	26.0	8Q		LAPILLI TUFF (LOGGED AS IGNIMBRITE?) More compact rock - autostratified? - welded. Occ thin ash flows. Int L @ 83m - 65°. V. fine py. infilling fractures At 85 and 86m. thin py. & joints infilled with brecciated chalk and py. at 85+86m int LS 7° Granitic dent at 88m. Large lava clast at 73.5m	V. py 89-93.3. Sl more fractured V. py 91-93m. T.S. 96m - LAPILLI TUFF.	372820	89.0	89.3	0.3	155	75	30	30	500	-
73.0	105.0	2.0	8Q		GRITTY TUFF Pale gy - qtz and feldspar clasts occ lava clasts	More porous - weathered horizons occ. py in veins.										
105.0	110.0	5.0	8Q		LAPILLI TUFF (LOGGED AS KNIMBRITE?) As above - some clasts of silicified lava, chert, lava.											
110.0	111.6	1.6	8Q		INTERMEDIATE DYKE? Generally yellow-gy clay V. weathered some remnant feldspar - pyroxene/amphibole crystals.	Sl foliated Fault at 111m										
111.6	180.8	62.3	8Q		ALTERED LAVA Red brn occ sil. vuggy. occ clasts of chert & chert of albite - epidote alt. V. thin int. dyke at 125m and 128.5m - maybe large clasts - weathered clayey zones	mod. well fractured - pyritic some zones V. pyritic. Yellow (epidote?) alt 122-124m Epidote alt 130.5 - 131.2m.	372821	119.2	121.0	1.8	115	80	30	10	50	-

612012

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 4 of 6

TENEMENT NAME.....SHEFFIELD..... No. 7/73

PLAN - MAP REFERENCE LAKE BARRINGTON GRID

CO-ORDINATES 4700E/4920N AZIMUTH.....191°..... DRILLERS.....PARRY..... COMMENCED.....28.06.82..... DEPTH.....221 metres..... HOLE No. JDR2 LB3

RL COLLAR..... INCLINATION.....-46°..... DRILL TYPE.....SCALES..... COMPLETED.....12.07.82..... CASING LEFT.....Nil..... DPO No(s).....30205

DEPTH (m)	To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ANALABS)							
											Cu	Pb	Zn	Ag	As	Au		
					Int. dyke (clast?) at 131.8m	med gr alt ⁿ zone 120-136.3m												
					135-136.3m V. weathered prob. intercalated quartz tuff	thin red-brown fractured alt ⁿ zone	372822	134.0	137.0	2.82	585	50	150	x	50	-		
						Becomes more fractured at 137.5m	823	137.0	139.0	2.0	2400	130	195	0.5	50	-		
					T.S. 133.0 - Sericitized Porphyritic Feltsite	Mg rich chlorite alt ⁿ zone same with thin Cp veinlets from 138.8m	824	139.0	140.8	1.8	3000	95	195	0.5	100	-		
					now double down to 138.8m	At 140.8 3x2cm veins Cp > py followed by 100mm m. fractured chlorite	825	140.8	140.98	0.18	9.142	865	4000	52	400	0.083		
						alt ⁿ of qtz-carb veins Ba? occ	826	140.98	143.0	1.87	65	60	225	x	x	-		
						thin Cp veinlets 150-156m pink	827	143.0	144.8	1.80	340	35	225	0.5	x	-		
						red ore fractured ore thin of qtz-carb	828	144.8	146.0	1.2	260	35	135	0.5	50	-		
						- barite? veinlets - siderite?	829	146.0	147.5	1.9	870	80	250	1.0	50	-		
						At 156m first presence of Cp stringer	830	147.5	149.6	1.9	2800	300	1050	35	150	-		
						min ² in qtz-carb veins Cp stringer	831*	149.6	152.0	2.4	455	495	350	1.0	50	-		
						157-158m 162-163m strong qtz-	832*	152.0	155.0	3.0	185	35	130	x	x	-		
						carb-barite veins also cont. bl sh	833	155.0	156.6	1.6	1050	x	65	x	50	-		
						brecciated fragments - Cp min ²	834	156.6	157.1	0.5	1.442	1025	1850	13	100	0.076		
						Int L 14°	835	157.1	157.98	0.87	4.602	3025	2600	71	50	0.405		
						chlorite + epidote alt ⁿ	836	157.98	160.04	2.06	230	30	65	0.5	50	-		
						Almost describe ore as a brecciated	837	160.04	162.70	1.66	2300	15	75	1.0	100	-		
						lava here, contains much alabaster	838	162.70	163.20	1.50	4200	20	50	15	x	-		
						material - brecciated in veins.	839	163.2	165.3	2.10	355	15	40	1.0	50	-		
						171.5m V. broken qtz-carb veining	840	165.3	167.3	2.0	390	20	85	x	100	-		
						172.5 - less fractured	841	167.3	168.3	1.0	2.302	495	280	27	x	0.167		
						174.8m - tension good vein style	842	168.3	169.0	0.7	5.002	575	285	26	50	0.377		
						brecciated shale - qtz-carb vein	843	169.0	170.0	1.0	2.052	385	725	21	300	0.089		
						Int L 5°	844	170.0	170.8	0.7	4.202	685	740	44	450	0.430		
						178m bleached zone 30cm pale qtz	845	170.8	172.45	1.65	8575	685	260	12	100	0.043		
						with coarse qtz carb vein	846*	172.45	174.8	2.35	245	35	105	x	x	-		
						* cm wide.	847*	174.8	178.5	3.70	165	10	75	0.5	x	-		
							848*	178.5	180.5	2.30	45	x	60	x	x	-		

* GROUND CORE

612013

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 5 of 6

TENEMENT NAME SHEFFIELD No. 773

PLAN - MAP REFERENCE LAKE BARAKTON PROSPECT

CO-ORDINATES 4700E/4920N AZIMUTH 191°m DRILLERS PARRY COMMENCED 28.06.82 DEPTH 221 metres HOLE No. DD82 LB 3

RL COLLAR INCLINATION -46° DRILL TYPE BOYLES COMPLETED 12.07.82 CASING LEFT Nil DPO No(s) 30205

DEPTH om M)	To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by... AMALAB...)									
											Cu	Pb	Zn	Ag	As	Au				
						Line shows increasing chlorite alt ⁿ generally red-bn lava tan gr. often fractured and v. dk gr Mg chlorite. alt ⁿ zone with Cp ² py veins														
180.8	201.8	20.35	8Q		<u>Vitric Tuff? - Altered Lava?</u> Generally reddish gr more dead particles interbedded with lava zone seems to be more Pb min ² . Lava zone at 187.2-189m has v. strong chloritic alt ⁿ zone Cp - py min ² T.S. 184.3m - PORPHYRITIC RHODITE T.S. 194.4m - SERICITISED PORPHYRITIC FELSITE	At 185.8 and 187.2m chlorite alt ⁿ so strong in places it makes the host rock - (ca) 199-200m	97284-9 850 851 852 853 854 855* 856* 857*	180.8 182.0 183.9 185.85 188.0 188.0 189.5 191.0 194.0 197.0	182.0 183.90 185.85 188.0 189.5 191.0 194.0 197.0 200.0	1.20 1.90 1.95 2.15 1.50 1.50 2.35 3.0 3.0	315 100 195 75 70 200 110 335 120	10 15 20 5 10 35 15 5 25	35 35 50 45 70 75 105 180 100	0.5 0.5 X 0.5 X X X X X	X 50 X 50 X 150 X 50 X	- - - - - - - - -				
201.8	216.0	14.2	8Q		<u>ALTERED LAVA</u> Red-bn volcanic lava cont. zone of v. strong dk gr mag. chlorite alt ⁿ often with Cp min ² T.S. 204m - SERICITISED PORPHYRITIC FELSITE	At 209m Cp vein 3cm wide 207.85-209m min ² zone Cp > Zn Pb Thin zone rock part with chlorite alt ⁿ as dk gr - veinlets?	858* 859 860 861 862 863 864* 865*	200.0 202.0 204.6 206.0 207.85 209.0 210.2 213.0	203.0 204.6 206.0 207.85 209.0 210.2 213.0 216.0	3.0 1.6 1.4 1.85 1.45 1.2 2.8 3.0	280 280 570 490 1529 1750 195 160	340 50 35 45 1050 90 15 15	170 380 60 415 1050 245 100 70	X X X X X 2.0 X X	X X X 100 250 250 150 X	- - - - - - - -				

* GROUND CORE

412014

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 6 of 6

TENEMENT NAME SHEFFIELD No. 7/3

PLAN - MAP REFERENCE LAKE BARRINGTON PROSPECT

CO-ORDINATES T700E/4920N AZIMUTH 191°m DRILLERS PERRY COMMENCED 28.06.82 DEPTH 221 metres HOLE No. DD82 LB 3

RL COLLAR INCLINATION -46° DRILL TYPE CONES COMPLETED 12.07.82 CASING LEFT Nil DPO No(s) 30205

DEPTH From (M)	To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ANLABS)					
											Cu	Pb	Zn	Ag	As	Au
216.0	218.9	2.78	80		VITRIC TUFF St. more fractural - more chlorite zones and qtz-carb veins containing brecciated volcanic fragments	chlorite alt ⁿ along	972866	216.0	218.7	2.58	755	110	75	1.0	X	-
218.9	221.0	2.1	80		LAVA Generally fine lith altered over thin qtz-carb veins, chlorite alt. developed along fractures	chlorite alt ⁿ along fractures	867*	218.7	221.0	2.1	250	45	175	0.5	50	-
					E.O.H.											
					<u>SURVEY DATA</u>											
					<u>DEPTH</u>	<u>AZIMUTH</u>	<u>DECLINATION</u>									
					0m	191°m	-46°									
					50m	195°m	-43°									
					116m	196°m	-39°									
					158m	197°m	-37°									
					190m	? (199°m)	-35°									
					220m	? (201°m)	-33°									

* GROUND CORE.

612015