CRA Exploration Pty. Limited - Diamond drill core log				Hole No: DD97ZA3
Tenement: EL 28/88 Avebury, Tasmania			**Map Ref.:** SK 55-5, Queenstown	
Collar R.L.: 150m		Co-ordinates: 354793E, 5357206N	Hole Orientation: 65° towards 360	Logged by: TJG
From	**To**	**Geological Desciption**	**Special Features**	**Core Orientation**
0	8	Limonitic Fe-stained overbuden (?siltstone).	Possible bedding angle @ 20° to LCA	
8	10.2	Ferruginous clay altered siltstone. Orange Fe-staining. 3 to 10mm clasts evident may be indicative of a conglomerate.	Minor limonite.	
10.2	28	Ferruginous siltstone. Orange to light grey	Minor limonite. Bedding @ 25 - 30° to LCA. Some shearing evident.	
28	92.5	Fine- to medium-grained blue/grey to greenish chloritic volcanic. Initially quite broken, becoming more competant around 36.0m. Partially silicified, with small zone of chert.	Contact with siltsone marked by a clay-altered puggy zone. @ 34.3m - quartz carbonate vein 3cm thick which contains a 2mm pyrite vein. Minor Limonite present, none below 40m. ?Chrysotile/gypsum veins @ 40° to LCA	
92.5	95.5	3m cavitiy. Waterwashed, chloritic volcanic pebbles.		
95.5	109.1	Grey to bluish green, medium- to fine-grained volcanic unit. Cloritic clasts up to 5cm.	Minor fine-grained disseminated sulphides. Fine-grained pinkish-white mineral throughout, possibly a sulphide.	
109.1	119.3	Highly silicified, chloritic mafic volcanic, becoming increasingly altered with depth. Some epidote evident, as well as large chlorite clasts, often washed out. Contact with chert below irregular and marked by carbonate veins @ moderate angle to LCA.		
119.3	154	Silicified siltstone. Banding @ 45 to 60° to LCA. Chlorite veins @ moderate angle to LCA. Banding in chert steepens around 124.3m, steepening to 30° around 153m. Occasional brittle disruption evident. Reddish bands in chert associated with Fe-sulphides.	Straw-coloured crystals with reddish cores @ 119.8 - 124.2m & 133.6m. Fe sulphides in @ 121m, largely pyrite but possibly some pyrrhotite. Silicified chlorite veins around 138m containing sphalerite, galena, pyrite and pyrrhotite.	
154	162.5	Irregularly banded silicified siltstone and coarser unit, ?volcanic (feldspar phenocrysts). Coarser units more chloritic. Banding in siltstone @ 45° to LCA. Carbonate veining.		
162.5	181.6	Similar to above unit, but more fractured. Irregular steep veining responsible for hydraulic fracturing. Carbonate veining @ 30° to LCA. Broken core from 165.7 related to cavities. Serpentine associated with carbonate from 180.4m indicative of ultramafic.	Chalcopyrite @ 180m associated with pyrite. 30cm wide magnetite-rich band from 180.5m.	
181.6	188.2	Greenish calc-silicate unit. Patchy serpentinite throughout, indicative of altered ultramafic. Becoming increasingly serpentine-rich between 184.9 & 185.5m. Contact with unit above more or less gradational becoming increasingly carbonate rich.	Sparsely disseminated sphalerite has strong association with pyrrhotite. Rare galena.	
188.2	189.7	Similar to unit abovee, but more serpentine-rich. Carbonate-rich altered ultramafic. Serpentine almost ?colloidal.	Rare sphalerite. Up to 1% disseminated pyrrhotite. Greenish mineral present in minor amounts, similar to malachite but doesn't have the same colour.	
189.7	192.3	Carbonate-rich unit with occasional serpentine. 20cm serpentine-rich band @ 191.5m and 10cm band @ 190.3m. Disseminated magnetite throughout.	Pyrrhotite patchy, in very crude bands. Pinkish bronze mineral gives the appearance of native copper, patchy (minor).	
192.3	194	Serpentine-rich band. Colloidal. Carbonate-rich.	Minor disseminated sulphide (Cu-looking).	
194	198.4	White carbonate-rich unit. Possibly some silicification. Occasional black crystalline minerals, ?pyroxene. 15cm band from 194.3m has sedimentary appearance. Appears to be composed largely of banded pyrrhotite and dolomite. Rock greenish with depth.	Rare sulphides inluding pinkish bronze mineral (non-magnetic).	
198.4	199.8	Contact irregular but approximately 20° to LCA. Unit grey, becoming greenish, with lower contact grading to a green calc-silicate. Unit probably an altered ultramafic possibly serpentinised.	Wavy magnetite + pyrrhotite bands throughout, with 10cm band from 199m	

CRA Exploration Pty. Limited - Diamond drill core log				Hole No: DD97ZA3
Tenement: *EL 28/88 Avebury, Tasmania*			***Map Ref.:*** *SK 55-5, Queenstown*	
Collar R.L.: 150m		Co-ordinates: 354793E, 5357206N	Hole Orientation: 65° towards 360	Logged by: TJG
199.8	205.3	Greenish-white calc-silicate. Sparsely disseminated black crystals possibly pyroxene. Minor serpentine. Carbonate-rich. Becoming grey between 204.2 and 204.7m associated with an increase in mafics, magnetite and pyrrhotite.	Non-magnetic pinkish bronze sulphides in sparsely disseminated 1cm patches.	
205.3	209	Serpentinite, with slightly irregular magnetite-rich bands up t 40cm.. Serpentine very green and soft. Some radial, acicular asbestos present.	Aggregates (up to 1cm) of non-magnetic pinkish bronze *mineral throughout. These have silvery-grey altered* margins, ?niccolite. Pyrrhotite in crude bands (<1%), associated with second sulphide phase, ?pentlandite.	
209	211.4	White-green calc-silicate with 35cm serpentine-rich band from 210.55m. From 209.3 to 210m brownish bands (?dolomite and ?pyrrhotite) have a sedimentary appearance. Some relict chromite in calc-silicate and possibly some ?adularia. Epidote present.	Fine-grained sulphides ?pyrrhotite in serpentinite.	
211.4	213.5	Dark green unit with common carbonate veining. Little silicification evident. Occasionl 'sedimentary' bands comprising ?dolomite evident. Unit generally devoid of sulphides.		
213.5	228.5	Pinkish, carbonate-veined chert (silicified siltstone). Carbonate veins <1mm, with occasional 1cm veins, generally @ >45° to LCA. 1.1m zone of green calc-silicate from 225.7m.		
228.5	241.4	Highly deformed, grey, silicified, carbonate-rich unit (siltstone).Occasional breccia zone with angular to sub-angular clasts. Banding variable due to deformation. Pinkish bands in overall grey unit, similar to unit above.		
241.4	243.9	Pink silicified siltstone. Carbonate-rich. Rare fine-grained pyrite.		
243.9	246.9	Silicified, grey carbonate-rich sitstone. Occasional carbonate veins. Devoid of sulphides. Chlorite-rich in parts + epidote. Occasional pinkish bands.		
246.9	256	Highly deformed silicified siltstone. Initially chloritic with granular epidote evident. Carbonate veins common (1 up to 1cm).	Sulphides in @ 247.5m, yellowish green and pinkish *bronze, one possibly replacing the other. Pyrite and* pyrrhotite around 247.8m. 2nd zone of sulphides between 252.5 and 254m. Pyrrohtite and yellowish green sulphide dominant.	
EOH				