027

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

SHEET No. 1/4

661028

4454·57 N

TENEMENT NAME TENTH LEGION No. 53M/75

PLAN – MAP REFERENCE TAS h 2

CO-ORDINATES 5299·73E AZIMUTH 180° GRID DRILLERS PARRY COMMENCED 4·4·82 DEPTH 200·0 m. HOLE No. TLC 13

RL COLLAR 248·69 m. INCLINATION -45° DRILL TYPE Boyles 37 COMPLETED 9·4·82 CASING LEFT PVC pipe DPO No(s) 30140

DEPTH From (M)	DEPTH 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	Sn	W
			NQ		TRICONE DRILLED TO 9m – No Core											
0	12·0	0·5	to		9m – 21·5 LOST CORE ZONE.											
2·0	25·0	0·4	56m	Cst	21·5 – ?24·5 WEATHERED CALC SILICATE	21·5 – 24·5 No mineralisation										
5·0	28·0	0·5	BQ		Soft white puggy clay with remnant	frags soft white f.gr. rock – Cst?										
8·0	31·0	1·4	↓	SS/Cst	24·5 – 25·4 INTERBEDDED SILTSTONES + CALC SILICATE.											
1·0	34·0	0·7			Pale brown – grey totally weathered soft calc silicate with quartzose											
4·0	47·0	1·0			sandy siltstone interbeds. Bedding 70–75°.											
7·0	50·0	0·4			25·4 – 28·0 LOST CORE ZONE.											
0·0	53·0	2·7		SS	28·0 – ?29·0. Pale pinkish brown hornfelsed sediments											
3·0	59·0	1·4		Cst	?29·0 – ?30·8 – White soft weathered calc-silicate											
9·0	62·0	1·7		Q	?30·8 – ?31·2 Pale pinkish brown quartzite		CUT									
2·0	65·0	2·6		Css	?31·2 – ?31·6 Calc Silicate Skarn.		973548	?31·2	?31·6	0·4	15	30	185	<0·5	<4	<4
5·0	68·0	3·0			Highly sheared and faulted serpentine – magnetite – tremolite rock.											
8·0	71·0	2·8			Poorly banded 70°, magnetite 20–30%, weathered to reddish haematite (sp.?)		GRIND									
				Cst	?31·6 – ?47·0 Calc Silicate Rock	31·6 – 47·0 Minor epidote, traces	973875	31·6	47·0	0·9	25	65	80	<0·5	<4	<4
					Pale grey medium hard massive	Mn, sp. The interval has been										
					tremolite rock, weakly banded 50°	significantly faulted and shattered. high										
						core losses.										
				Css	?47·0 – ?50·0 Calc Silicate Skarn		CUT									
					Banded crystalline skarn rock. tremolite + ?phlogopite mica with		973549	47·0	50·0	0·6	35	40	155	<0·5	8	<4
					10% magnetite which has been degraded to haematite by weathering											
					Banding 65°. Reddish brown "haematite" possibly sphalerite?		GRIND									
				Cst	?50·0 – 54·3 CALC SILICATE ROCK	50·0 – 54·3 Minor epidote and reddish	973876	50·0	54·3	4·3	10	80	130	<05	34	8
					As above, 31·6 – 47·0. 50·0 Bedding 60°	brown Mn garnet.										
					54·3 – 59·0 LOST CORE ZONE		CUT									
				M/Css	?59·0 – 68·7 MAGNETITE SKARN	59·0 – 63·0 Magnetite 20–30%.	973550	59·0	61·0	1·0	75	30	1400	<0·5	16	<4
					White tremolite rock, with abundant	locally massive for 5 to 10 cm, patches	551	61·0	61·8	0·7	25	35	2100	<0·5	4	<4
					magnetite disseminated along fractures	sp – locally 2–3%. Minor patches	552	61·8	62·5	0·7	10	15	1950	<0·5	4	<4
					and associated with serpentine	brown idocrase/vesuvianite.	553	62·5	63·0	0·4	15	25	2350	<0·5	6	<4
					alteration.	63·0 – 64·1 Pinkish brown breccia	554	63·0	64·1	0·7	95	40	5350	<0·5	<4	<4
						– serpentinised + weathered, trace mag	555	64·1	65·1	1·0	210	30	2300	<0·5	14	<4

028

C.R.A. EXPLORATION PTY. LIMITED

661029

DRILL CORE LOG

SHEET No. 2/4

TENEMENT NAME TENTH LEGION No. 53M/75

PLAN – MAP REFERENCE

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. TLC 13

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) 30140

DEPTH From (M)	DEPTH 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	Sn	W
71·0	74·0	2·9				64·1 – 67·9 Magnetite 30-40%	973556	65·1	65·9	0·8	235	30	3200	<0·5	4	<4
74·0	76·0	1·6				with serpentinised Cst. Trace sp	557	65·9	66·8	0·9	80	25	2250	<0·5	27	<4
76·0	79·0	2·4				throughout, also minor ?idocrase.	558	66·8	67·2	0·4	30	25	3950	<0·5	<4	<4
79·0	82·0	2·5				67·9 – 68·7 Sphalerite 10-15%, mag 10%	559	67·2	67·9	0·7	30	20	6400	<0·5	8	<4
82·0	85·0	2·4					560	67·9	68·7	0·7	75	25	9600	<0·5	80	<4
				Dol/S	68·7 – 79·9 ALTERED DOLOMITE	68·7 – 69·8 Pyrite diosem as blebs to	561	68·7	69·8	1·1	45	30	225	<0·5	<4	<4
					Massive grey crystalline dolomite	2mm, 10%; magnetite 20%, finely diosem,	562	69·8	71·4	1·7	185	30	850	<0·5	<4	<4
					with segregated serpentine and mag	69·8 – 71·4 1-2% garnet, finely diosem	563	71·4	71·9	0·5	160	30	210	<0·5	<4	<4
					may be up to 10-20% of the rock.	mag 2-3%, trace galena, weak trace sp	564	71·9	73·0	1·1	30	35	250	<0·5	<4	<4
					Crudely foliated/banded 45-60° CA.	; py 1-2% in bone coloured tremolite.	565	73·0	73·4	0·4	25	35	1500	<0·5	<4	<4
					69·8 – 71·4 Cst, minor mag + garnet	71·4 – 71·9 Mag 20%, diosem in serpentine	566	73·4	74·1	0·7	20	50	435	<0·5	<4	<4
					71·4 – 71·9 Serpentinite, remnant tremolite	; pyrite 10%, diosem	567	74·1	75·3	1·2	20	35	125	<0·5	<4	<4
					71·9 – 73·4 Very altered dolomite.	71·9 – 73·4 Dark grey dolomite – serpentinised	568	75·3	77·2	1·6	10	20	210	<0·5	<4	<4
					73·4 – 74·1 serpentine/magnetite	and with diosem mag 10-15% and py 3-5%.	569	77·2	79·4	1·6	35	15	300	<0·5	<4	<4
					74·1 – 79·9 Extent of serpentinisation	73·4 – 74·1 Almost black serpentine	570	79·4	79·9	0·5	45	15	615	<0·5	<4	<4
					and the amount of magnetite gradually	with 25-30% very finely diosem magnetite										
					decreases.	and bands/veinlets pyrite/marcasite 7%										
						74·1 – 79·4 Dark grey crystalline dol.										
						with abundant pyrite 7-10% as veinlets										
						and thin bands to 3mm, also as discrete										
						blebs to 4mm. Trace sp in veinlets.										
						Minor pyrrhotite to 7% in small silicified										
						zones to 20 cm.										
						79·4 – 79·9 Serpentinised zone – mag	GRIND SAMPLES									
						10%, py 8-15%.	973877	79·9	82·2	1·8	15	30	215	<0·5	<4	<4
				Dol	79·9 – 82·2 DOLOMITE, altered	79·9 – 82·2 Mag 5-7%, py as veinlets	CUT									
					Grey dolomite shot through with black	and stringers 3-5%	571	82·2	83·4	0·5	20	20	3000	<0·5	<4	<4
					thin bands of serpentine and ultrabasic mag. Banding 65°											
				S	82·2 – 83·4 FAULTED SERPENTINITE											
					Dark green-brown oxidised faulted											
					serpentine rock, with a trace magnetite											

029

661030

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

SHEET No. 3/4

TENEMENT NAME TENTH LEGION No. 53M/75

PLAN – MAP REFERENCE

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. TLC 13

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s). 30140

DEPTH From (M)	DEPTH 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	Sn	W
75.0	88.0	0.6		Dol.	83.4-1992 DOLOMITE	83.4-85.0 mag 3-5%, trace py, po	973878 GRIND SAMPLES	83.4	85.0	1.6	5	25	160	<0.5	<4	<4
88.0	91.0	0.8			Massive grey crystalline dolomitic											
91.0	94.0	2.0			marble shot through with thin bands											
94.0	97.0	1.6			& dark serpentinite and fine grained											
97.0	100.0	1.9			diosam. magnetite		CUT									
00.0	103.0	1.8			85.0 – ?87.5 faulted serpentinite	85.0 – ?87.5 no mineralisation, faulted	572	85.0	?87.5	0.2	15	15	2000	<0.5	<4	<4
03.0	106.0	2.3			88.0 – 90.4 Fault zone – greasy brown	87.5 – 88.0 As above	GRIND									
06.0	109.0	2.8			friable clay.	88.0 – 90.4 No mineralisation	879	87.5	94.0	3.1	5	20	135	<0.5	<4	<4
09.0	112.0	1.0			97.0 ± 3m fault zone – lost core.	90.4 – 115.0 Magnetite 1-2%, pyrite	880	94.0	97.0	1.6	5	20	145	<0.5	<4	<4
12.0	115.0	0.8			100.0 ± 2m fault zone – " "	to 5-10% in short intervals as blebs	881	97.0	100.0	1.9	5	25	115	<0.5	<4	<4
15.0	118.0	2.2				etc, overall trace → 1%	882	100.0	103.0	1.8	5	30	70	<0.5	<4	<4
18.0	121.0	0.5			115.0 – 115.3 Faulted + weathered serpentine	– no mineralisation	883	103.0	106.0	2.3	<5	25	50	<0.5	<4	<4
21.0	124.0	1.6			115.3 – 115.6 – Dyke – f.gr spotted	– no mineralisation	884	106.0	109.0	2.8	<5	15	70	<0.5	<4	<4
24.0	127.0	2.3			rock – poss Cst		885	109.0	112.0	1.0	5	20	60	<0.5	<4	<4
27.0	130.0	2.7			115.6 – 116.6 – Brown fault pug.	– trace magnetite	886	112.0	115.0	0.8	30	20	310	<0.5	<4	<4
30.0	133.0	2.6			116.6 – 117.6 Dolomite as above.		887	115.0	118.0	2.2	5	25	130	<0.5	<4	<4
33.0	136.0	2.1			117.6 – 118.2? Porphyry Dyke? – Contact 80° – trace magnetite + pyrite.		888	118.0	121.0	0.5	10	20	70	<0.5	<4	<4
36.0	139.0	2.8			Sugary textured rock – highly siliceous,		889	121.0	124.0	1.6	5	25	70	<0.5	<4	<4
					with minor brownish spots – probably		890	124.0	127.0	2.3	5	20	50	<0.5	<4	<4
					a quartzite?		891	127.0	130.0	2.7	<5	25	50	<0.5	<4	<4
					118.2 – 120.8 Serpentine, faulted +		892	130.0	133.0	2.6	<5	25	95	<0.5	<4	<4
					sheared – only 10 cm recovered		893	133.0	136.0	2.1	5	25	55	<0.5	<4	<4
					120.8 – 124.1 highly altered dol	120.8 – 124.1 mag. 5-7%. foliated	894	136.0	139.0	2.8	<5	20	30	<0.5	<4	<4
					– serpentine 30% dolomite is reduced	at 45° approx.										
					to remnant brownish spots surrounded											
					by black serpentine + magnetite rich											
					material.											
					124.1 – 139.0 Massive pale grey dol;	124.1 – 127.0 pyrite as disseminated										
					less serpentine	blebs 3-5%, trace po; mag 1-2%.										
					Small fault at 127 m.	127.0 – 139. py 1-2%, mag 2-3%.										

030

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

SHEET No. 4/4

661031

TENEMENT NAME TENTH LEGION No. SM175

PLAN – MAP REFERENCE

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. TLC13

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) 3014.0

DEPTH From (M)	DEPTH 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	Sn	W
39.0	142.0	0.8			139.0 – ?141.6 Basic Dyke?	144.6 – 165.7 extensively faulted +	895	139.0	142.0	0.8	<5	40	135	<0.5	<4	<4
142.0	145.0	2.4			F.gr green crystalline micaceous	broken trace pyrite – mostly leached	973896	142.0	145.0	2.4	<5	25	90	<0.5	<4	<4
45.0	148.0	0.6			rock which has been serpentinised – v	away. Faint brownish films about	897	145.0	148.0	0.6	10	25	110	<0.5	<4	<4
148.0	151.0	1.1			similar to 115.3 – 115.6.	joints. Weak trace magnetite.	898	148.0	151.0	1.1	5	30	45	<0.5	<4	<4
51.1	154.0	1.6			141.6 – 144.6 Serpentine 20% – Rarely		899	151.0	154.0	1.6	<5	25	50	<0.5	<4	<4
154.0	157.0	2.8			banded, mag 10%. Banding 60°.		900	154.0	157.0	2.8	<5	20	45	<0.5	<4	<4
157.0	160.0	1.7			– v similar to holes 3 + 5 – segregated		901	157.0	160.0	1.7	5	20	155	<0.5	<4	<4
160.0	163.0	1.8			calcite lenses up to 6 mm thick.		902	160.0	163.0	1.8	5	20	90	<0.5	<4	<4
63.0	166.0	0.5			144.6 – 178.5 massive faintly mottled	165.7 – 178.5 Slightly darker grey	903	163.0	166.0	0.5	20	20	90	<0.5	<4	<4
66.0	169.0	3.1			white + pale grey crystalline	due to increased magnetite – 1-2%	904	166.0	169.0	3.1	5	20	30	<0.5	<4	<4
69.0	172.0	2.8			dolomite with a sometimes	in places, mostly <1%. Trace po –	905	169.0	172.0	2.8	<5	20	35	<0.5	<4	<4
72.0	175.0	2.9			'sugary' texture – soft + friable – due	up to 2%, partially degraded to py.	906	172.0	175.0	2.9	<5	35	30	<0.5	<4	<4
75.0	178.0	2.1			to faulting and subsequent leaching.	Some of the "magnetite" may be	907	175.0	178.0	2.1	5	20	45	<0.5	<4	<4
178.0	181.0	2.3				small clots of ultrafine grained po.	908	178.0	181.0	2.3	5	25	45	<0.5	<4	<4
81.0	184.0	3.1					909	181.0	184.0	3.1	<5	20	45	<0.5	<4	<4
184.0	187.0	3.0				176.5 m – 10 cm serp – calcite – ?fluorite	910	184.0	187.0	3.0	<5	25	30	<0.5	<4	<4
187.0	190.0	2.9				vein – green mineral. 5° LCA	911	187.0	190.0	2.9	<5	30	25	<0.5	<4	<4
90.0	193.0	3.0			178.5 – 184.4 Slightly darker grey	178.5 – 184.4 same mag content as	912	190.0	193.0	3.0	<5	30	30	<0.5	<4	<4
193.0	196.0	3.0			+ more impure – less segregated	above, but more finely disseminated	913	193.0	196.0	3.0	<5	25	30	<0.5	<4	<4
96.0	199.2	3.2			184.4 – 195.4 Nearly white dolomite	less po/py										
					with minor pale grey intervals	184.4 – 195.4 1-8% blebs magnetite										
						disem along fine fractures, 1%. trace py.										
					195.4 – 197.5 Darker grey coarsely	195.4 – 197.5 ultrafine disem mag,										
					crystalline dolomite	1%.										
					197.5 – 199.2 Brecciated magnetite	197.5 – 199.2 f.gr mag rich material										
					rich material – 5-7%, very fine grained	as breccia clasts 5-7%										
					END OF HOLE 199.2 metres.											