CRA EXPLORATION PTY. LIMITED

342094

DRILL-HOLE SUMMARY LOG

HOLE NAME: DD95 ZF37 GRID AMG EAST 59792 NORTH 44323

PROSPECT FIREWOOD SIDING AMG GRID EAST 360635·9 NORTH 5350142·6

EL: ZEEHAN 1 EL 28/88 RL DEPTH 212·0

DATE DRILLED: MAY 1995

LOGGED BY: SJT / RGP

DRILLING CO.: DD TAS

DRILL TYPE: DD

DRILL RIG: LY38

LOC DRILL CORE: ZEEHAN

SURVEYS: DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
0	082	-45°			
50	085	-48°			
100	085	-49°			
150	086	-49°			
200	086	-49·5°			

OBJECTIVES OF HOLE:

To test "upper zone" mineralisation in dolomitic Gordon Limestone near the Crotty Quartzite contact. Wacker + air-core drilling in the vicinity intersected common 0.1-1% Zn.

LITHOGICAL SUMMARY:

FROM	TO	FORM CODE	COMMENTS
0	8·5	Qha	Overburden; no recovery
8·5	28·3	Sc	White med grained sandstone - Crotty Quartzite
28·3	56·0	Sc	Sandy clays + sandstones/siltstone - Crotty Quartzite
56·0	76·0	Ogud	Dolomite - intermixed with sandstone.
76·0	100·3	Ogud	Dolomitised argillaceous calcarenite
100·3	137·0	Ogul	Fine grained argillaceous calcarenite with bioclasts
137·0	139·0	Ogmu	Laminated Micrite Unit
139·0	180·5	Ogul	Fine grained calcarenite with bioclasts + argillite
180·5	200·5	Ogul	Calcarenite with coarse bioclasts + argillite
200·5	210·4	Ogsi	Transitional Siltstone Unit
210·4	212·0	Ogs:	Siltstone Unit

MINERALISATION SUMMARY:

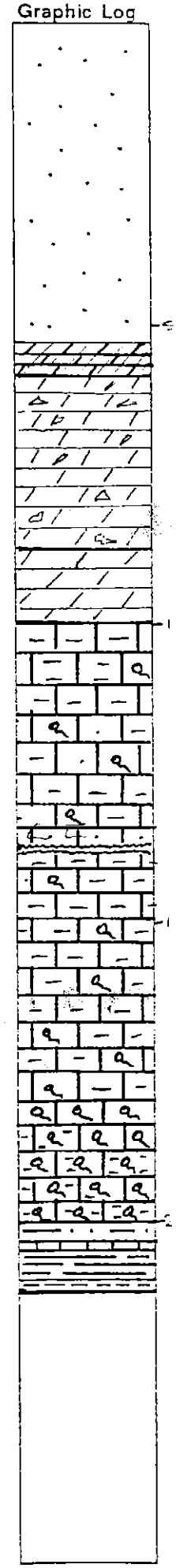
FROM	TO	COMMENTS
49·0	59·0	0·38% Zn hosted by sandy clays of the Crotty Quartzite and dolomite of the Ogud unit of the Gordon Limestone
87·8	91·0	0·5% Zn hosted by brown clay zones - ? dolomite poor recovery.

CONCLUSIONS:

Extent of dolomitisation much reduced re DD95ZF37.

Bedding @ 20m 70° to c/A @ 53m 60° to c/A @ 134m 45° to c/A @ 150·7 60° to c/A.

Graphic Log



360636E
5350143N
59792E

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DRILL CORE LOG

SHEET No. 1 of 5

TENEMENT NAME Brewer Siding No. 1

PLAN – MAP REFERENCE

CO-ORDINATES 44323N AZIMUTH 070° DRILLERS DD TA COMMENCED 18/5/95 DEPTH 212.0 HOLE No. ZE37

RL COLLAR INCLINATION 45° DRILL TYPE LY38 COMPLETED 2/6/95 CASING LEFT DPO No(s)

DEPTH From (M)	DEPTH To(M)	Core Rec. %	RQD DATA	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)
0	8.5	0		Qha	Overburden - no recovery.						
8.5	9.8	77	3x	Sc	White med grained uniform sandstone; fabric parallel to c/A ? cleavage; fabric 60° to c/A; bedding 60° to c/A.						
9.8	12.6	61	3	Sc	Brown weathered sandstone ? bioturbation.						
12.6	12.9	100	5	Sc	Brecciated sandstone in a clay gauge - brown sandstone.						
12.9	16.0	61	5x	Sc	Light grey/white sandstone locally brecciated with white gauge/clay; becoming browner d/hole; Grey/green clay zone 15.6-15.7m.						
16.0	20.5	67	4x	Sc	Grey sandstone with a clay gauge zone 16.4-16.55m 75° to c/A (Purity coloured) White clay zones present.	Bedding 70° to c/A.					
20.5	29.0	89	3	Sc.	Grey uniform massive sandstone with weathered brown zones possibly bioturbated, becoming lower and more weathered downhole.						

Rec (mm)	Rec (To)	Rec (m)	Rec (%)
0	8.5	0	0
8.5	9.8	0.9	69
9.8	11.5	1.1	65
11.5	12.9	1.0	71
12.9	14.5	.7	27
14.5	15.5	.8	80
15.5	16.5	.8	80
16.5	17.5	.4	40
17.5	18.5	.5	50
18.5	20.0	1.2	80
20.0	21.5	1.5	100
21.5	23.5	1.6	80
23.5	26.5	3.0	100
26.5	28.0	1.1	73
28.0	29.5		
29.5	32.5	3.0	100
32.5	35.5	2.1	70
35.5	38.5	3.0	100
38.5	41.5	2.0	66
41.5	44.5	1.0	33
44.5	47.5	0.6	20
47.5	50.5	1.5	50
50.5	53.5	1.9	63
53.5	56.5	2.0	80
56	58	0.3	15
58	61	1.5	50
61	64	1.5	50
64	66.6	1.1	42
66.6	68.5	1.0	53
68.5	69.6	0.1	9
69.6	71.0	0.2	14

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DRILL CORE LOG

SHEET No. 2 of 5

TENEMENT NAME FIREWOOD SIDING No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES 360636E AZIMUTH 070° MAG DRILLERS DD TAS COMMENCED 18.5.95 DEPTH 212.m HOLE No. ZF37

RL COLLAR 5350143N INCLINATION 45° DRILL TYPE LY38 COMPLETED 2.6.95 CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. %	RQD DATA	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....)
28.0	28.3	100	5	Sc	Brown sandy clay - core loss						
28.3	32.5	100	5X	Sc	Brown/grey rotted sandstone with a clay component, becoming greyer and less weathered at base.	Bedding 80° to c/A (?) @ 31.2m bedding 60° to c/A					
32.5	35.5	70	5X	Sc	Brown (Grey) clay - possibly weathered sandstone + clay						
35.5	39.5	95	5	Sc	Grey/brown (? siderite) shales siltstone + sandstone - weathered possible sulphides - decomposed. Lower contact 60° to c/A.	Minor pyrite fractures parallel to bedding 60° to c/A.	5465770	35.5	39.4		
39.5	44.5	33	5X	Sc	Lt grey/white sandy clay unit with silicified sandstone zones (med grained sandstone)						
44.5	50.5	50	5	Sc	Lt grey sandy clay with minor limonitic alteration.						
50.5	51.7	100	5	Sc	Grey/fawn coloured clay	weak fabric 60° to c/A.					
51.7	53.7	100	5	Sc	Brown/grey clay with sandstone fragments (well rotted)	Bedding 60° to c/A.					
53.7	58.3	50	5	Qal	Brown ferruginous clay - rotted limestone.						

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DRILL CORE LOG

SHEET No. 3 of 5

TENEMENT NAME: FIREWOOD SIDING No. ......

PLAN – MAP REFERENCE ......

CO-ORDINATES: 360636E | AZIMUTH: 070° | DRILLERS: DDTAS | COMMENCED: 18.5.95 | DEPTH: 212 m | HOLE No. ZF37

RL COLLAR: 5350143N | INCLINATION: 45° | DRILL TYPE: LY38 | COMPLETED: 2.6.95 | CASING LEFT ...... | DPO No(s) ......

DEPTH From (M)	DEPTH To (M)	Core Rec %	RQ DATA	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
58.3	61.6	50	4x	Ogud	Grey dolomitised calcarenite.					
61.6	66.6	40	4x	Ogud	Dolomitised limestone +/- ?sandstone - transitional sequence. Brown colouration					
66.6	69.6	35	4x	Ogud	Vuggy dolomite.					
69.6	76.0	50	3x	Ogud	Vuggy grey dolomite with calcite vug infill locally.	?white matrix brecciation locally - ?re Irish type.				
76	87.8	50	4x	Ogud	Dark grey/grey dolomitised ?argillaceous calcarenite with brown clay surfaces. Broken core + core loss	Minor calcite/dolomite filled vugs				
87.8	92.0	30	5x	Ogud	Brown/grey clay zones with weathered(?) dolomite zones poor recovery					
92.0	100.0	64	2x	Ogud	Dark grey extensive/partial dolomitised argillaceous calcarenite with localised synsedimentary breccias	rare vugs				
100.0	100.5	50	5	Ogud	Broken core - as above					
100.5	104	80	2	Ogul	Grey/dark grey fine grained calcarenite with major argillite zones; occ bioclastic band <10cm	Bedding 90° to c/A. Cavity 102.5-103. Minor irregular <1cm scale				

ASSAY VALUES (Analysed by ......)

REC (from)	REC (To)	REC (m)	REC (%)
71.3	72.0	1.2	60
72.0	75.0	0.4	20
75	75.5	0.5	100
75.5	77.5	1.3	65
77.5	79	0.5	33
79	81	1.3	65
81	82.3	1.0	77
82.3	85.0	1.2	44
85	87.8	0.9	50
87.8	89	0.2	17
89	91	0.7	35
91	94	1.0	33
94	97	3.0	100
97	100	2.1	70
100	103	2.1	70
103	106	2.7	90
106	108.7	2.7	100
108.7	110.7	2.0	100
110.7	112.0	1.3	100
112.0	115	3.0	100
115.0	117.3	2.3	100
117.3	118	0.7	100
118	121	3.0	100
121	124	3.0	100
124	127	3.0	100
127	130	3.0	100
130	133	3.0	100
133	136	3.0	100
136	139	3.0	100
139	142	3.0	100
142	145	3.0	100

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DRILL CORE LOG

SHEET No. .....

TENEMENT NAME FIREWOOD SPRING No. 408

PLAN – MAP REFERENCE .....

CO-ORDINATES 360636E AZIMUTH 070° DRILLERS DDTAS COMMENCED 18:5:95 DEPTH 212 m HOLE No. ZF37

RL COLLAR 5350143N INCLINATION 45° DRILL TYPE LY38 COMPLETED 2:6:95 CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To(M)	Core Rec. %	RQD DATA	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)
1	105.2	100	5	Ogul	Grey/brown clay (v.wet) possible fault gouge.						
2	108.7	100	1	Ogul	Dark grey/grey bioclastic argillaceous calcarenite with minor calcite veining locally sub-brecciation veins boarders often oolitic.	Calcite veins 45° to c/A.					
7	118.0	100	1	Ogul	Dark grey uniform looking argillaceous calcisiltite with bioclastic zones.	① 115m bedding 70° to c/A. minor pyrite blebs with calcite cavity-fill					
8.0	118.3	100	5	Ogul	Calcite vein and clay gouge	60° to c/A.					
33	126.8	100	1	Ogul	Fine/medium grained calcarenite with a major argillite component.	② 119.6m 3cm calcite vein 45° to c/A: bedding 55°/6 c/A.					
					③ 123.2 – 123.6 distinct bioclastic unit	④ 121.5 large blebs of pyrite associated with calcite vugs calcite vein 15° to c/A.					
8	134.2	100	1	Ogul	Distinct irregularly interbedded grey fine grained calcarenite locally bioclastic and dark grey argillaceous calcisiltite	Bedding ⑤ 128m 45° to c/A.					
1.2	137.0	100	1	Ogul	Synsedimentary limestone breccia; bioclastic micrite clasts and stromps ? stromatolitic textures						

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C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. ....

TENEMENT NAME Firewood Siding No. 5

PLAN – MAP REFERENCE ....

CO-ORDINATES 360636E AZIMUTH 070 DRILLERS DDTAS COMMENCED 18-5-95 DEPTH 212 m HOLE No. ZF37

RL COLLAR 5350/43N INCLINATION 45° DRILL TYPE LY38 COMPLETED 2-6-95 CASING LEFT .... DPO No(s) ....

DEPTH From (M)	DEPTH To (M)	Core Rec. %	RQD DATA	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ....)
137·1	138·9	100	1	Qgul	Interlaminated argillite and fine grained grey calcarenite	Bedding 60° to c/A.					
138·9	139·5	100	1	Qgul	Syn-sedimentary breccia as before.						
139·5	147	100	1	Qgul	Interbedded grey med/fine grained grey calcarenite and dark grey argillaceous ?micrite. Localised zones of bird's eye micrite, well defined bedding	Bedding @ 146·5m 60° to c/A Major large calcite veins @ 146·8 m 3cm calcite vein 41° to c/A.					
147·0	149.	100	1	Qgul	Fine grained, locally micritic calcarenite with minor argillite as irregular interbeds. Slight nodular appearance.						
149		100	1	Qgul	Zone of cavities, core loss, and major calcite veining	Bedding @ 150·7m 60° to c/A					
	See next Page.										

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

SHEET No. 5 of 5

TENEMENT NAME FIREWOOD SIDING No.

PLAN – MAP REFERENCE

CO-ORDINATES 360636E AZIMUTH 070° DRILLERS DD TAS COMMENCED 18.5.95 DEPTH 212 m HOLE No. 2F37

RL COLLAR 5350143N INCLINATION 45° DRILL TYPE LY 38 COMPLETED 2.6.95 CASING LEFT DPO No(s)

DEPTH From (M)	DEPTH To (M)	Core Rec. %	RQD DATH	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
137.0	139.0		1F	Cgmv	LAMINATED MICRITE Grey micrite with planar algal laminations 138.3 S_o – c.a ∠ 58°					
139.0	167.1		3F	Cgul	PLANAR BEDDED LIME MUDSTONE Banded grey & dark grey 10-50mm lime mud bands between 50-200mm grey micrite bands. Micrite locally has birdseye & star-shaped shrinkage? textures filled with calcite 143.0 S_o – c.a ∠ 59°					
167.1	180.6		4X	Cgul	CALCITE & DOLOMITE VEINED LIMESTONE Limestone cut by 10-20% of 2-10mm calcite & dolomite veins. Massive dolomite vein between 175.9–178.0m					
180.6	210.4		2F	Cgul	CALC-RUDITE Grey richly fossiliferous calc-rudite. Large angular clasts in fossiliferous mud/calcarenite matrix. Reef or reef slope?					
210.4	212.0		2F	Cgsi	SILTSTONE Dark grey massive siltstone. No reaction with 25% HCl!					

ASSAY VALUES (Analysed by TRICE ROWES)

To	RQD	Rec
148	1X	3.0
151	3F	2.2
154	1	2.7
156.7	1	2.7
159.8	1	3.1
162.9	2F	3.1
166	3V	3.1
169	3V	2.4
171	3F	2.9
174.4	2F	2.25
176.8	4F	0.8
178	4F	0.3
180.5	4X	0.3
183.6	3F	1.95
186.7	4F	1.3
187	5X	0.2
190	3F	1.6
193	2F	2.75
196	1F	2.95
199	1	3.0
202	1	2.9
205	2F	2.7
208	1F	2.95
211	1F	2.8
212	2F	1.0

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