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

270107

TENEMENT NAME PARATTAH No. EL 18/82

PLAN – MAP REFERENCE

CO-ORDINATES 539590.4mE 5320994mN AZIMUTH NA DRILLERS OVERLAND COMMENCED 23.10.84 DEPTH 44.40m HOLE No. DD84 PT-37

RL COLLAR 400.90 INCLINATION -90° DRILL TYPE SCOUT 250 COMPLETED 24.10.84 CASING LEFT DPO No(s)

DEPTH From (m)	DEPTH To (m)	CORE RECOVERY m	CORE RECOVERY %	CORE SIZE	CORE DESCRIPTION	WEATH.	DEFECT SPACING	Sample No.	From (m)	To (m)	Rec (m)	ASSAY VALUES (Analysed by ACIRL) RD	A	Composites RD	A	M	VM	S	SE	FC
0	3.0			TRICONE ROLLER - PRECOLLAR																
					0-3.0: Alluvium, and ? EW mudstone															
3.0	3.6	0.4		NQ	3.0-4.4: Mudstone, iron oxide coloured	EW														
3.6	6.6	3.1	>100	"	4.4-5.2: 1B siltstone and mudstone	HW														
				"	5.2-5.35: Mudstone	HW														
				"	5.35-6.00: Sandstone, lithic, mg	HW														
				"	6.00-6.75: Sandstone, lithic, mg ± coaly debris	MW														
6.6	9.6	2.96	99	"	6.75-7.60: Sandstone, lithic, mg ± coaly debris	SW														
				"	7.60-9.28: Sandstone, lithic, mg	SW/F														
9.6	12.6	1.4	47	"	9.28-10.10: Sandstone, lithic, mg ± coaly debris	MW/SW														
				"	10.10-14.60: Sandstone, lithic, mg, carbonaceous *mudstone*	(F					BOCO	≃	10.1m							
12.6	15.6	2.85	95	"	debris 13.15-14.6m	(														
				"	14.60-15.88: CPC of grey mudstone in mg lithic sandstone															
				"	15.88-16.54: Sandstone, lithic, mg															
				"	16.54-16.60: Mudstone, grey to dark grey															
				"	16.60-16.74: Coal, heavy dull ± carbonaceous mudstone															
				"	16.74-16.78: Shale, dark brown															
				"	16.78-16.87: *Shale, buff to grey/green*															
15.6	18.6	3.0	100	"	16.87-17.18: Coal, dull (D)			989743	16.87	17.18	0.31	1.54								
				"	17.18-17.23: Shale, dark brown (cf 16.74-16.78)			(												
				"	17.23-17.35: Shale, grey/green (cf 16.78-16.87)			(744			0.17	2.22								
				"	17.35-18.60: Coal, dull (D) - v. uniform			(												
				"	18.60-18.72: Coal, dull, 30% B (Db)			(745			1.46	1.38								
				"	18.72-18.81: Coal, dull (D)			(												
				"	18.81-18.94: Shale, buff			746			0.13	2.23								
				"	18.94-18.96: Coal, dull (D)			747			0.02	1.29								
				"	18.96-19.00: Shale, dark brown			748			0.04	2.20								
				"	19.00-19.07: Coal, dull, 20% B (Db)			989749	19.00	19.07	0.07	1.42								
				"	19.07-19.16: Mudstone, grey + fissile															
				"	19.16-19.40: Sandstone, quartz, vfg, minor siltstone															

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C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 2

270108

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD84 PT-37

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

DEPTH From (m)	DEPTH To (m)	CORE RECOVERY m	CORE RECOVERY %	CORE SIZE	CORE DESCRIPTION	WEATH.	DEFECT SPACING	Sample No.	From (m)	To (m)	Rec (m)	ASSAY VALUES (Analysed by) RD	RD	A	Composites RD	A	M	VM	S	SE
18.6	21.6	2.37	79	NQ	19.40-20.30: 1B Siltstone & mudstone (... ? loss of mudstone															
					from 18.6-21.6 in this interval)															
				"	20.30-20.34: Coal, dull (Dmb)															
				"	20.34-20.84: Mudstone, grey (? core loss)															
				"	20.84-20.93: Coal, dull (Dmb),1B with grey mudstone															
				"	20.93-20.97: Mudstone, carbonaceous															
				"	20.97-22.46: Mudstone, grey, massive															
				"	22.46-22.52: Coal, dull (D)			989750	22.46	22.52	0.06	1.48								
21.6	23.2	1.6	100	"	22.52-22.58: Shale, dark brown			751			0.06	2.24								
				"	22.58-22.73: Coal, dull (D)															
				"	22.73-23.18: Coal, dull (Dmb) 5-10% B with ≃ 1 x 10mm			752			0.60	1.30								
					shale band															
				"	23.18-23.22: Shale, grey and dark brown															
				"	23.22-23.27: Mudstone, grey/brown, spotted, orange zeolite			753			0.09	2.20								
					in joints															
				"	23.27-23.53: Coal, dull ≤ 10% B (Dmb), orange zeolite in			754			0.26	1.27								
					cleats															
23.2	24.3	1.03	94	"	23.53-23.77: Mudstone, pale grey, fissile with orange			755			0.24	2.31								
					zeolite in joints															
				"	23.77-23.89: Coal, dull (D)															
				"	23.89-24.22: Coal, dull 10%B (Dmb)			756			0.45	1.38								
				"	24.22-24.26: Shale, grey			757			0.04	2.19								
				"	24.26-24.38: Coal, dull, 20% B (Db), orange zeolite			758			0.12	1.41								
				"	24.38-24.43: Shale/mudstone - ? granular			759			0.05	2.24								
					(... cf 28.93-28.98m in PT-39)															
				"	24.43-24.60: Coal, dull (D)															
				"	24.60-24.69: Coal, dull 30% B (Db) orange zeolite															
24.3	25.6	1.25	96	"	24.69-24.93: Coal, dull (D)			760			0.83	1.40								
				"	24.93-25.18: Coal, dull & bright, > 50% B (Db)															
				"	25.18-25.26: Coal, dull, 25% B (Db) with calcite parallel				24.43	25.26	0.83									
					to So (bedding)															

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C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 3

270109

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD84.PT.37...

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

DEPTH From (m)	DEPTH To (m)	CORE RECOVERY m	CORE RECOVERY %	CORE SIZE	CORE DESCRIPTION	WEATH.	DEFECT SPACING	Sample No.	From (m)	To (m)	Rec (m)	ASSAY VALUES (Analysed by .....) RD	A	Composites RD	A	M	VM	S	SE
				NQ	25.26-25.43: Mudstone, carbonaceous - faulted contact, B														
					coal fragments to 25-33m from minor 1mm Bd ploes and calcite														
					parallel to So to 25-43m														
				"	25.43-25.64: Mudstone, dark grey, v. minor <1mm mode coal														
					ploes														
25.6	27.4	1.74	97	"	25.64-26.03: 1B grey mudstone/siltstone														
				"	26.03-26.80: Sandstone, quartz rich lithic with mudstone 1B's														
				"	26.80-27.40: Sandstone, lithic, f to mg abundant mudstone														
					clasts, minor coal fragments and laminae														
				"	27.40-27.49: Siltstone														
				"	27.49-27.74: Coal, bright 75% B (Bd)			(989761	27.49	27.84	0.35								
				"	27.74-27.84: Coal, dull, 30% B (Db)			(											
27.4	30.4	3.0	100	"	27.84-27.96: Mudstone, grey														
				"	27.96-29.56: Sandstone, lithic, f to mg, "dirty" -														
					carbonaceous laminae														
				"	29.56-29.94: Coal, dull, 25% B (Db)			989762	29.56	29.94	0.38								
				"	29.94-30.08: Mudstone, grey, with several 2-5mm coal (Bd)														
					laminae														
				"	30.08-30.10: Coal, bright, 75% B (Bd)														
				"	30.10-31.62: Mudstone, grey massive sl. carbonaceous for														
30.4	32.2	1.74	97	"	basal 0.30m														
				"	31.62-32.06: 1B siltstone/fg quartz rich lithic sandstone														
				"	32.06-32.12: Mudstone, grey														
				"	32.12-32.22: Coal, dull (Dmb)														
				"	32.22-32.77: Mudstone, grey & silty with 1B's of very fg														
					quartz rich lithic sandstone														
				"	32.77-33.45: Sandstone, lithic, fg, with siltstone 1B's														
				"	33.45-33.46: Coal, dull (Dmb)														
				"	33.46-33.49: Mudstone, grey														
				"	33.49-33.51: Coal, dull, (Db)														

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

[redacted]EET [redacted]4

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD84 PT-37

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

DEPTH From (m)	DEPTH To (m)	CORE RECOVERY m	CORE RECOVERY %	CORE SIZE	CORE DESCRIPTION	WEATH.	DEFECT SPACING	Sample No.	From (m)	To (m)	Rec (m)	ASSAY VALUES (Analysed by .....) RD	A	Composites RD	A	M	VM	S	SE
				NQ	33.51-33.60: 1B grey mudstone/siltstone with 1mm coal plies														
				"	33.60-33.82: Mudstone, grey, silty														
32.2	36.4	4.2	100	"	33.82-34.33: 1B siltstone and quartz rich lithic sandstone														
					- fg														
				"	34.33-34.80: Mudstone, grey														
				"	34.80-35.00: Mudstone, carbonaceous														
				"	35.00-35.15: Mudstone, grey														
				"	35.15-35.30: Mudstone, carbonaceous														
				"	35.30-35.45: Mudstone, grey														
				"	35.45-35.55: Mudstone, carbonaceous														
				"	35.55-35.72: Mudstone, grey														
				"	35.72-36.50: 1B mudstone/siltstone/fg quartz rich lithic														
					sandstone														
36.4	42.4	6.0	100	"	36.50-38.30: Sandstone, lithic, variably quartz rich, fg														
42.4	44.4	1.95	97	"	38.30-44.40: Sandstone, lithic, mg to cg, faintly spotted														
					(but not chloritic)														
					EOH - 44.40m														