





034

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

SHEET No. 2/19

TENEMENT NAME... ARTHUR RIVER ELN No. 13/70

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH 300° AMG DRILLERS K. PARRY COMMENCED 12.8.83 DEPTH 452.45m HOLE No. DD83LR5

RL COLLAR..... INCLINATION 46° DRILL TYPE BOYLES 37 COMPLETED 19.9.83 CASING LEFT..... DPO No(s) 30364

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... AMDEL)						
From (M)	To (M)										MgO	CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	FeO	LOI	
94.10	95.00	0.55	NQ		Buff	% Cryptocrystalline Magnesite											
95.00	95.80	0.80			White												
95.80	101.00	1.36			102.60m - 106.7m	Magnesite											
101.00	104.00	2.32			Angular magnesite breccia	Buff	40%	1056351	102.6	106.7		29.0	17.2	6.85	0.12	0.54	43.9
104.00	104.36	0.36			Approx 40% magnesite patches.												
104.36	107.00	1.750															
107.00	110.00	2.24			106.7m - 114.5m	Buff	5%	1056352	106.7	111.0		23.8	26.3	2.14	0.18	0.56	44.4
110.00	113.00	2.70			Sandy dolomite with												
113.00	113.45	0.45			angular magnesite patches.	Buff	5%	1056353	111.0	114.5		24.8	24.1	3.22	0.24	0.87	44.8
113.45	116.00	2.51															
					114.5m - 116.1m												
					Angular magnesite breccia.	Buff	40%	1056354	114.5	116.1		33.2	13.1	5.90	0.11	0.45	46.4
					Approx 40% magnesite patches.												
116.00	118.00	1.67	NQ		116.1m - 133.4m	Buff	< 5%	1056355	116.1	120.0		25.8	21.2	7.00	0.20	0.36	43.4
118.00	122.00	3.06	BQ		Sandy dolomite with rare												
122.00	125.00	1.80			angular magnesite patches	"	"	1056356	120.0	125.0		19.9	22.8	15.1	0.10	0.08	35.4
125.00	125.37	0.36			only. Laminated in places.	"	"										
125.37	127.00	1.40				"	"	1056357	125.0	130.0		22.8	27.1	8.15	0.14	0.11	39.3
127.00	128.00	0.92				"	"										
128.00	131.00	2.47				"	"	1056358	130.0	133.4		17.7	25.9	18.5	0.10	0.21	35.2
131.00	131.35	0.20															
131.35	133.40	2.00															
133.40	134.00	0.55			133.4m - 205.2m	Buff	85%	1056359	133.4	137.3		35.9	3.76	19.6	0.07	0.19	40.4
134.00	137.00	2.92			Massive magnesite. Spotted.	Buff	85%	1056360	137.3	140.6		57.1	1.41	20.3	0.16	0.50	40.3
137.00	140.00	3.00															
140.00	142.80	2.68															
142.80	143.20	0.40				Leached zone. Cavities		1056361	140.6	141.4		10.9	34.7	17.5	0.15	0.96	33.4
143.20	146.00	2.60															
146.00	148.90	1.02	BQ				50%	1056362	141.4	146.00		38.8	0.91	15.8	0.06	0.65	43.3

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

SHEET No. 3/9

TENEMENT NAME.....ARTHUR.....RIVER No. 13/70

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... 300° AMG..... DRILLERS..... K. PARRY..... COMMENCED..... 12.8.83..... DEPTH..... 152.45m..... HOLE No. DD831R5

RL COLLAR..... INCLINATION..... 4.6°..... DRILL TYPE..... BOYLES 37..... COMPLETED..... 19.9.83..... CASING LEFT..... DPO No(s)..... 30364

DEPTH om (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... AMDEL.....)										
										MgO	CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	L.O.I					
148.4	151.80	3.12	BQ		Buff/ White Magnesite															
151.8	155.00	2.03																		
155.00	155.80	0.66																		
155.80	158.00	2.00																		
158.00	161.00	2.93																		
161.00	164.00	2.98			Heavily leached zone.		1056364	151.80	155.30											
164.00	165.90	1.75																		
165.90	167.00	1.25					1056365	155.30	157.30											
167.00	170.00	2.98																		
170.00	173.00	2.59			Heavily leached zone.		1056366	157.30	158.90											
173.00	176.00	3.00																		
176.00	179.00	2.97			Partly leached from 162.5m-164.0m	White	1056367	158.90	164.00											
179.00	182.00	2.81																		
182.00	185.00	3.00				Buff	1056368	164.00	168.00											
185.00	185.82	0.82																		
185.82	188.00	2.18				Buff	1056369	168.00	170.00											
188.00	191.00	3.00																		
191.00	194.00	3.00			Many leached zones →	Buff	1056370	170.00	174.55											
194.00	195.50	1.50																		
195.50	197.00	1.35			Heavily leached →	Buff	1056371	174.55	176.00											
197.00	199.45	2.45																		
199.45	200.00	0.49			Weathered in places →	Buff	1056372	176.00	181.00											
200.00	203.00	3.00																		
203.00	205.6	2.46	BQ	"	"	Buff	1056373	181.00	186.00											
				"	"	Buff	1056374	186.00	189.62											
				"	"	Buff	1056375	189.62	195.00											
					Slight weathering →	Buff	1056375	189.62	195.00											
					Heavily weathered →	Buff	1056376	195.00	197.00											

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

SHEET No. 4/9

TENEMENT NAME... ARTHUR RIVER ELN No. 13/26

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... 300° AMG DRILLERS..... K. PARRY..... COMMENCED..... 12.8.83

DEPTH..... 452.45m..... HOLE No. DD831R5

RL COLLAR..... INCLINATION..... 46° DRILL TYPE..... BOYLES 37..... COMPLETED..... 19.9.83

CASING LEFT..... DPO No(s)..... 30364

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... AMDEL.....)							
From (M)	To (M)										H <sub>2</sub> O	CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	L.O.I.		
205.6	206.0	0.39	BQ		Buff/White Magnesite	% Crystalline Magnesite												
206.0	209.0	2.90																
209.0	212.0	3.00																
212.0	215.0	3.00																
215.0	215.95	0.92			White	95%	1056377	197.00	202.00		41.3	2.16	6.80	0.03	1.22	47.6		
215.95	218.0	2.56																
					Buff	95%	1056378	202.00	203.20		42.3	1.43	7.00	0.05	0.62	47.9		
					Heavily weathered 203.2m - 203.7m - Buff	95%	1056379	203.20	205.20		35.4	5.45	15.4	0.03	0.87	42.6		
					205.2m - 216.5m													
					Sandy dolomite													
							1056380	205.20	212.00		21.1	2.66	6.65	0.09	0.24	43.5		
							1056381	212.00	216.50		23.2	23.5	7.30	0.08	0.33	43.9		
					216.5m - 228.0m													
218.00	221.00	3.00			Angular magnesite breccia	B	1056382	216.50	221.00		22.2	14.0	27.4	0.04	0.15	34.5		
221.00	224.00	3.00			Matrix is extremely siliceous													
224.00	225.36	1.26			(chalcedonic silica) between	✓	1056383	221.00	226.00		25.2	8.60	32.6	0.04	0.12	33.1		
225.36	227.00	1.75			221.0m and 228.0m.													
227.00	230.00	3.00				W	1056384	226.00	230.00		34.0	1.78	24.9	0.06	0.12	37.9		
					228.0m - 230.0m													
					Cuneiform magnesite.													
					Strongly sharry. Siliceous matrix.													
230.0	233.0	3.00			230.0m - 236.6m	W	1056385	230.0	233.25		41.4	1.44	8.95	0.08	0.60	46.5		
233.0	235.22	2.25			Massive magnesite.													
235.22	236.0	0.77			Strongly spotted.	W	1056386	233.25	236.6		45.6	1.04	1.88	0.07	0.30	50.0		
236.0	239.0	3.00																
239.0	242.0	2.95	BQ															

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

SHEET No. 5/9

TENEMENT NAME... ARTHUR RIVER EL No. 13/10

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH... 300° AMG DRILLERS... K. PARRY COMMENCED... 12.8.83 DEPTH... 452.45m HOLE No. DD83LR5

RL COLLAR..... INCLINATION... 46° DRILL TYPE... BOYLES 37 COMPLETED... 19.9.83 CASING LEFT..... DPO No(s) 30364

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... AMDEL...)								
om (M)	To (M)										MgO	CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	L.O.I.			
					236.6m - 237.2m Angular magnesite breccia	White Buff	% Cryptocrystalline magnesite	1056387	236.6	240.0		36.0	6.45	12.9	0.05	0.37	43.3		
					237.2m - 237.6m Massive magnesite. Heavily spotted.														
					237.6m - 238.0m Waxy magnesite breccia														
					238.0m - 240.0m Cuneiform magnesite.														
242.0	245.0	3.00	BQ		240.0m - 254.8m Massive sandy dolomite siliceous and cherty in places.														
245.0	245.32	0.20																	
245.32	248.00	2.79																	
248.00	251.00	3.00																	
251.00	254.00	3.00																	
254.00	255.19	1.13			254.8m - 255.8m Angular magnesite breccia.	B	50%	1056391	254.8	258.0		33.7	8.05	15.3	0.01	0.38	42.9		
255.19	257.0	1.90																	
257.0	260.0	2.94	BQ		255.8m - 258.0m Massive magnesite Heavily spotted.														

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

SHEET No. 7/9

TENEMENT NAME ARTHUR RIVER No. 13/78

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH 300° AMG DRILLERS K. PARRY COMMENCED 12.8.83

DEPTH 452.45m HOLE No. DD83LR5

RL COLLAR..... INCLINATION 46° DRILL TYPE BOYLES 37 COMPLETED 19.9.83

CASING LEFT..... DPO No(s) 30364

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 <u>AMDEL</u> )					
om (M)	To (M)					From (M)	To (M)					MgO	CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	L.O.I.
317.0	320.0	3.01	BQ		<i>Massive magnesite cont'd.</i>	<i>Buff/White</i>	<i>% Cryptocrystalline magnesite</i>										
320.0	323.0	3.02															
323.0	323.58	0.51				<i>B</i>	<i>80%</i>	<i>1056905</i>	<i>322.0</i>	<i>327.0</i>		<i>38.9</i>	<i>4.30</i>	<i>11.2</i>	<i>0.07</i>	<i>0.28</i>	<i>45.7</i>
323.58	326.0	2.44															
326.0	329.0	2.94				<i>B</i>	<i>75%</i>	<i>1056906</i>	<i>327.0</i>	<i>332.0</i>		<i>38.8</i>	<i>3.70</i>	<i>12.6</i>	<i>0.04</i>	<i>0.42</i>	<i>44.8</i>
329.0	332.0	2.96															
332.0	333.66	1.61			<i>Weathered interval.</i>	<i>B</i>	<i>50%</i>	<i>1056907</i>	<i>332.0</i>	<i>335.0</i>		<i>24.9</i>	<i>17.0</i>	<i>17.1</i>	<i>0.09</i>	<i>0.71</i>	<i>40.1</i>
333.66	335.0	1.40															
335.0	338.0	3.05				<i>B</i>	<i>80%</i>	<i>1056908</i>	<i>335.0</i>	<i>339.3</i>		<i>40.1</i>	<i>2.88</i>	<i>8.90</i>	<i>0.07</i>	<i>0.38</i>	<i>46.6</i>
338.0	339.2	1.10															
339.2	341.0	1.54			<i>Cemented cavity fill breccia.</i>	<i>B</i>	<i>25%</i>	<i>1056909</i>	<i>339.3</i>	<i>340.4</i>		<i>14.0</i>	<i>20.4</i>	<i>29.4</i>	<i>0.69</i>	<i>2.88</i>	<i>31.9</i>
341.0	343.66	2.70															
343.66	344.0	0.34				<i>B</i>	<i>85%</i>	<i>1056910</i>	<i>340.4</i>	<i>345.5</i>		<i>40.6</i>	<i>4.00</i>	<i>8.10</i>	<i>0.03</i>	<i>0.47</i>	<i>46.0</i>
344.0	347.0	2.96															
347.0	350.0	2.01			<i>Intensely leached. Numerous cavity-fill breccia zones.</i>			<i>1056911</i>	<i>345.5</i>	<i>350.0</i>		<i>25.2</i>	<i>17.2</i>	<i>13.3</i>	<i>0.97</i>	<i>1.89</i>	<i>41.6</i>
350.0	353.0	3.00			<i>" " " " " "</i>												
353.0	354.4	1.17			<i>" " " " " "</i>			<i>1056912</i>	<i>350.0</i>	<i>354.7</i>		<i>18.2</i>	<i>26.4</i>	<i>10.3</i>	<i>0.87</i>	<i>2.62</i>	<i>41.7</i>
354.4	356.0	1.69															
356.0	359.0	2.89			<i>Partly leached &amp; weathered.</i>	<i>B</i>	<i>30%</i>	<i>1056913</i>	<i>354.7</i>	<i>358.0</i>		<i>22.3</i>	<i>19.5</i>	<i>15.6</i>	<i>0.39</i>	<i>1.14</i>	<i>40.1</i>
359.0	362.0	3.10															
362.0	364.44	2.40				<i>B</i>	<i>85%</i>	<i>1056914</i>	<i>358.0</i>	<i>363.0</i>		<i>41.0</i>	<i>3.78</i>	<i>6.80</i>	<i>0.10</i>	<i>0.42</i>	<i>47.4</i>
364.44	365.0	0.66															
365.0	368.0	3.00				<i>B</i>	<i>85%</i>	<i>1056915</i>	<i>363.0</i>	<i>368.0</i>		<i>39.0</i>	<i>4.24</i>	<i>10.1</i>	<i>0.06</i>	<i>0.30</i>	<i>45.6</i>
368.0	371.0	3.00															
371.0	374.0	3.04				<i>B</i>	<i>85%</i>	<i>1056916</i>	<i>368.0</i>	<i>373.0</i>		<i>39.5</i>	<i>4.46</i>	<i>9.00</i>	<i>0.07</i>	<i>0.17</i>	<i>46.0</i>
374.0	374.33	0.25															
374.33	377.0	2.665				<i>W</i>	<i>85%</i>	<i>1056917</i>	<i>373.0</i>	<i>378.0</i>		<i>39.8</i>	<i>4.98</i>	<i>6.00</i>	<i>0.08</i>	<i>0.18</i>	<i>47.2</i>
377.0	380.0	2.98															
380.0	383.0	2.99			<i>Highly siliceous cherty zones</i>	<i>W</i>	<i>80%</i>	<i>1056918</i>	<i>378.0</i>	<i>383.0</i>		<i>38.9</i>	<i>5.40</i>	<i>6.95</i>	<i>0.05</i>	<i>0.21</i>	<i>46.7</i>
383.0	384.33	1.26															
384.33	386.0	1.56	BQ			<i>B</i>	<i>90%</i>	<i>1056919</i>	<i>383.0</i>	<i>388.0</i>		<i>42.1</i>	<i>4.14</i>	<i>5.70</i>	<i>0.02</i>	<i>0.25</i>	<i>42.1</i>

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

TENEMENT NAME... ARTHUR RIVER... No. 13/78

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH... 300° AMG... DRILLERS... K. PARRY... COMMENCED... 12.8.83... DEPTH... 452.45m... HOLE No. DD83LR5

RL COLLAR..... INCLINATION... 4.6°... DRILL TYPE... BOYLES 37... COMPLETED... 19.9.83... CASING LEFT..... DPO No(s)... 30364

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... AMDEL.....)						
From (M)	To (M)					MgO	CaO					SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	L.O.I			
386.0	389.0	3.06	BQ		Masseine magnesite cont'd.	Buff/white	% Cryptocrystalline magnesite											
389.0	392.0	3.16																
392.0	394.1	2.00																
394.1	395.0	0.90				B	90%	1056920	388.0	391.5		41.2	4.10	6.25	0.07	0.30	47.5	
395.0	398.0	3.05																
398.0	401.0	3.02			Strongly siliceous shaly zones → W		75%	1056921	391.5	395.0		39.1	6.00	9.15	0.06	0.22	45.6	
401.0	404.0	3.00																
404.0	407.0	3.07				B	60%	1056922	395.0	400.0		37.3	7.30	8.05	0.17	0.34	46.0	
407.0	410.0	2.96																
410.0	413.0	3.02				B	95%	1056923	400.0	405.0		40.2	4.70	5.70	0.07	0.41	47.9	
413.0	414.0	0.91																
414.0	416.0	2.09				B	90%	1056924	405.0	410.0		38.5	6.20	6.55	0.07	0.56	47.1	
416.0	419.0	3.10																
419.0	422.0	2.85				B	90%	1056925	410.0	415.0		36.3	8.45	7.35	0.08	0.60	46.4	
422.0	423.75	1.69																
423.75	425.0	1.07				W	95%	1056926	415.0	418.8		40.3	4.22	6.95	0.07	0.86	47.3	
425.0	428.0	2.10																
428.0	429.30	1.09			Partly weathered & leached → B		50%	1056927	418.8	423.5		34.9	8.50	8.95	0.16	1.73	45.2	
429.3	429.98	0.11																
429.98	431.0	0.59			Intensely leached and cavernous.			1056928	423.5	430.0		21.0	23.9	8.10	0.17	3.56	41.8	
431.0	434.0	2.97			" " " "			1056929	430.0	434.0		27.1	17.6	4.78	0.12	4.76	44.5	
434.0	434.59	0.48			" " " "			1056930	434.0	438.4		31.8	14.4	1.82	0.08	5.00	44.9	
434.59	437.0	2.30			" " " "			1056931	438.4	441.2		42.3	3.44	1.97	0.08	2.64	49.7	
437.0	440.0	3.09																
440.0	443.0	2.18				B	85%	1056932	441.2	442.4		24.4	20.3	17.8	0.27	1.11	36.6	
443.0	444.57	1.43			441.2m - 442.4m													
444.57	446.0	1.46			Fault zone. Elongate patches of sandy dolomite (≤ 2cm across) in an anastomosing matrix of magnesite and talc schist.			1056932	441.2	442.4		24.4	20.3	17.8	0.27	1.11	36.6	
446.0	448.13	2.20	BQ															

346041

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

TENEMENT NAME ARTHUR RIVER No. 13/70

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH 300° AMG DRILLERS K. PARRY COMMENCED 12.8.83

DEPTH 452.45m HOLE No. DD83LR5

RL COLLAR..... INCLINATION 46° DRILL TYPE BOYLES 37 COMPLETED 19.9.83

CASING LEFT..... DPO No(s) 30364

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... <u>AMDEL</u> )								
om (M)	To (M)										H <sub>2</sub> O	CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	L.O.I.			
<u>448</u>	<u>449.0</u>	<u>0.79</u>	<u>BQ</u>		<u>442.4m - 445.6m</u>														
<u>449.0</u>	<u>451.3</u>	<u>2.14</u>																	
<u>451.3</u>	<u>452.45</u>	<u>1.18</u>	<u>BQ</u>		<u>Weathered magnesite</u>		<u>1056933</u>	<u>442.4</u>	<u>445.6</u>		<u>35.7</u>	<u>12.3</u>	<u>1.27</u>	<u>0.08</u>	<u>1.65</u>	<u>48.8</u>			
				<u>E.O.H.</u>	<u>445.6m - 446.6m</u>														
					<u>Sandy dolomite</u>		<u>1056933</u>	<u>445.6</u>	<u>446.6</u>		<u>25.2</u>	<u>21.9</u>	<u>4.70</u>	<u>0.50</u>	<u>1.86</u>	<u>44.5</u>			
					<u>446.6m F.W. CONTACT</u>														
					<u>446.6m - 447.9m</u>														
					<u>Contorted laminated pyritic calcareous siltstone.</u>														
					<u>447.9m - 452.45m</u>														
					<u>Amphibolite.</u>														
					<u>E.O.H.</u>														

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