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EL 46

EDIACARA RANGE

PROGRESS AND FINAL REPORTS TO LICENCE EXPIRY/SURRENDER FOR THE PERIOD 16/3/1973 TO 15/3/1975

Submitted by
Carpentaria Exploration Co. Pty Ltd
1975

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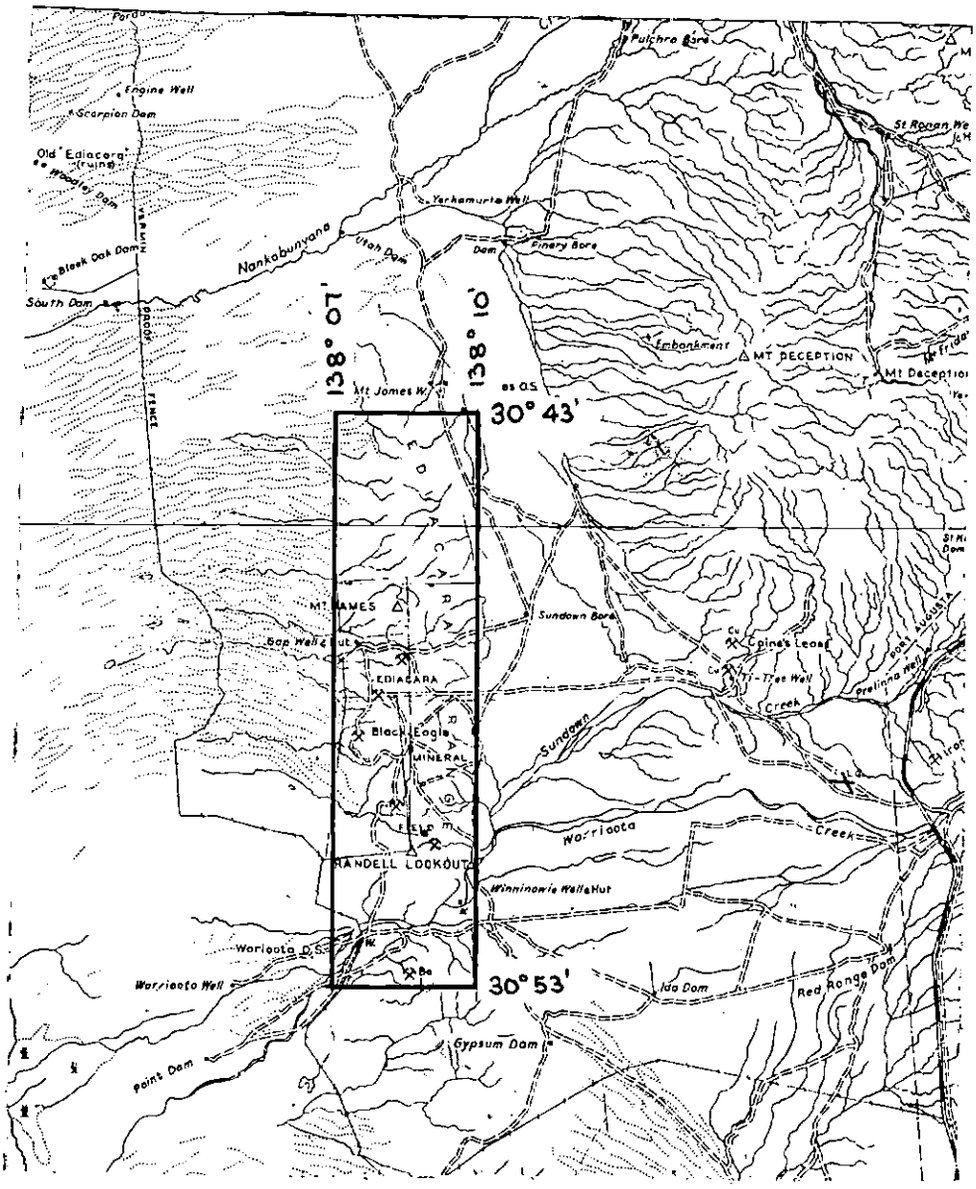
Government of South Australia
Primary Industries and Resources SA

SCHEDULE "A"



SCALE: 1:250000

CARPENTARIA EXPLORATION CO. PTY. LTD.

DOCKET DM. 909/72 AREA 88 km²

1:250000 PLANS COPLEY

LOCALITY EDIACARA RANGE – 25km. W OF BELTANA

EL. No. 46 EXPIRY DATE ~~15 3 74~~ 15 · 3 · 75

PROPOSED

OFFER 23·1·72

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CONTENTS ENVELOPE 2254

TENEMENT: E.L. No 46 Ediacera

TENEMENT HOLDER: Carpentaria Exploration Co Pty. Ltd

EXPLORATION LICENCE 46

"EDIACARA"

Quarterly Report to 16th June, 1973.

P. J. BINKS

EXPLORATION LICENCE 46. "EDIACARA" QUARTERLY REPORT TO 16.6.73.

During the last quarter the following work has been carried out:

Metallurgical investigation of "Cu-Pb-Ba ore".

The Technical Services Section of Mt. Isa Mines has carried out Metallurgical investigations of the complex supergene mineralisation in the Black Eagle Mine area of Ediacara. This mineralisation was intersected by our Company during the tenancy of SML.637.

The report by the Technical Services Section 6 presented in Appendix I.

Field Work

The area has been visited to site possible further drill holes.

26-6-73

P.J. BINKS

C00005

APPENDIX 1.

C000006

SCOPE

Brief preliminary testwork is reported for two samples from the Ediacara leached zone, as supplied by Mr P.J. Binks, District Geologist for Carpentaria Exploration Company Pty Ltd, in Adelaide.

The samples are:-

QS 3422 (lead section)
QS 3423 (copper section)

Testwork completed includes superpanning and flotation. Size-assay analyses were also carried out on the head samples.

CONCLUSIONS

1. The low head grade of the samples will make economic recovery of saleable products at acceptable recoveries very difficult and perhaps impossible.

2. The most promising mineral in both samples is barytes, ($BaSO_4$), for which concentrates grading up to 49.4% Ba have been made by flotation, at a recovery of 51% from an 8.3% Ba head.

3. A copper concentrate of saleable grade (25.6% Cu) was made from sample QS 3423 but at exceedingly low recovery (16.4%).

4. The available data concerning the nature of the lead mineralisation indicates that production of a lead concentrate will not be possible.

5. Samples for any further testwork that may be requested should be placed directly in heavy calibre plastic bags or in clean drums, but not in sacks as this has led to contamination by seed chaff and fibres. Also, bulk samples would be preferable to churn drill samples as these accentuate slime problems.

M.J. Wort

cc.
Technical Services Manager
Manager, Carpentaria Exploration Company Pty Ltd, Brisbane
District Geologist, Carpentaria Exploration Company Pty Ltd, Adelaide
Chief Research Geologist
Research Metallurgist - MJW
File
RESIR File
Concepts: Flotation, Copper, Malachite, Barytes, MillingResearch.

1. DESCRIPTION OF SAMPLES

1.1 Sample QS 3422 (Lead Section)

The sample as received consisted of yellow-brown earthy fines, solid lumps, and cavernous lumps of agglomerated particles. Lumps reach 4" in diameter.

Nominal head grades: 1.29% Pb, 0.36% Cu, 1.6% Mn, 8.3% Ba, 1.6% S, and 8.6% Fe.

Available weight: 32.0 Kg after crushing and assaying.

1.2 Sample QS 3423 (Copper Section)

As for QS 3422, but more earthy and dusty with less lumps. Lumps up to $1\frac{1}{2}$" in size were noted.

Available weight: 20.3 Kg after crushing and assaying.

Nominal head grades: 1.01% Pb, 0.61% Cu, 1.7% Mn, 9.8% Ba, 2.1% S, 9.7% Fe. A size-assay analysis of the head and test results suggest that 9.8% Ba is too high and that a head grade of 8.7% Ba is more reliable.

1.3 General Mineralogy

Report CMS 71/9/9 and a supplement were provided, detailing results of investigations carried out by Central Mineralogical Services, Adelaide.

The general findings of this report were that the lead was strongly linked with Fe-Mn oxide phases and that no discrete lead minerals occurred. Malachite was present as small nodules, and barytes was present.

The degree of similarity of the samples described in CMS 71/9/9 with QS 3422-3 is not known. However, our work has confirmed the presence of barytes and malachite and also that the lead and manganese are closely associated. A blackish-brown "Mn oxide" mineral was prominent in panned samples. Yellow sulphide minerals are present in trace amounts. Binocular microscope examination of copper flotation products indicated that very minor cuprite is also present.

2. FEED PREPARATION

The supplied samples were individually jaw crushed and then roll crushed to a nominal top size of 10 mesh Tyler. Representative samples were then cut out for assay, and about 8 Kg of each sample were then cut out and split by rotary sampler into 1Kg lots for laboratory testwork and for size-assay analysis.

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3. SIZE-ASSAY DISTRIBUTIONS OF HEAD SAMPLES

Size-assay distributions from 10 mesh to 400 mesh and of infrasized minus 400 mesh material were obtained. Data for QS 3422 and QS 3423 are given in Appendix Tables 1 and 2 respectively.

The close parallelism of the Ba and S distributions through the fractions confirm barytes as the only significant barium mineral present, and the very low content of sulphide minerals is also confirmed.

An assay and distribution discontinuity occurs at 65 mesh, the plus 65 mesh fractions being of noticeably higher grade than the minus 65 mesh fractions. The reasons for this are obscure. Ba and S seem to cross this discontinuity with less of a drop in assay values than shown by Pb, for example.

4. TESTWORK

4.1 Superpanning

A Haultain Superpanner was used for assessing the amenability of the samples to gravity separation. Feed was prepared by screening out the plus 65 mesh material and desliming the minus 65 mesh material by decantation.

Superpanner concentrate and slime-laden overflow were removed and collected separately. An initial concentrate was subsequently repassed and split into a final concentrate and a middling product. A diagrammatic flowsheet is given in the Appendix, Figure 1.

Superpanning tests carried out on samples QS 3422 and QS 3423 were OG 211 and OG 212 respectively.

A certain amount of fine ?'seed chaff' was found to contaminate the samples. Most of this remained in the tailings.

4.2 Flotation

Most of the flotation tests were directed at recovery of barytes, for which several potential collectors are available including Aero 710, 801, 825 and 845. Aero 710 was used in tests OG 210 and OG 215 using sample QS 3422, and again in tests OG 214 using sample QS 3423. 'Drymet' sodium metasilicate was used for slime dispersion in all barytes flotation tests. Removal of primary minus 400 mesh slimes was employed in tests OG 210 and OG 214.

Malachite flotation using sodium sulphide and sodium secondary butyl xanthate was tested on an un-deslimed sample of QS 3423 in test OG 216. Sample QS 3423 was selected for initial testing rather than QS 3422 because of the observed greater content of malachite particles in QS 3423.

To prepare the head samples (nominally 10 mesh top size) for flotation, grinding was carried out on the plus 100 mesh material for tests OG 210, 214 and 216, and on the whole sample for test OG 215.

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4. TESTWORK (Continued)

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4.2 Flotation (Continued)

Minor fine chaff present in the feed samples became ground to flour during feed preparation and may have adversely affected flotation selectivity and reagent requirements.

5. RESULTS

5.1 Superpanning

On account of the high specific gravity of barytes (4.3-4.6), it would seem that barytes would report to the superpanner concentrate along with the other heavy minerals expected to be present - eg. Coronadite (S.G 4.7-5.0); Cesarolite (S.G. 5.29); goethite (S.G 4.3), etc. However, it was possible to make a fairly clean barytes concentrate and to restrict the dark Pb-Mn-Fe oxide grains largely to the middlings and the tailing. This suggests that these dark grains are either porous or contain substantial admixed light gangue minerals, as suggested in the mineralogical report supplied (CMS 71/9/9).

In both tests OG 211 and 212, over 50% of the lead, copper and barytes was contained in the plus 65 mesh fraction which was scalped from the superpanner feed. If plus 65 mesh material was lightly ground and then superpanned, the overall recoveries could be approximately double those obtained using minus 65 mesh material only.

Test	Sample	% Ba	% Recovery
OG 211	QS 3422	52.1	18.7
OG 212	QS 3423	52.9	15.2

Test data sheets are given in Appendix Tables 3 and 4.

Excluding metal in the plus 65 mesh fraction and metal removed in slimes, the bulk of the lead manganese, and copper reported to the tailing.

5.2 Flotation

Sample	Test	Conc. Grade %	Recovery % of Head	Recovery % of test feed
QS 3422	OG 210	49.4 Ba	51.04	63.25
QS 3422	OG 215	31.9 Ba	65.89	65.89
QS 3423	OG 214	29.9 Ba	51.33	71.83
QS 3423	OG 216	25.6 Cu	16.38	16.38

Test data sheets are given in the Appendix, Tables 5 to 8.

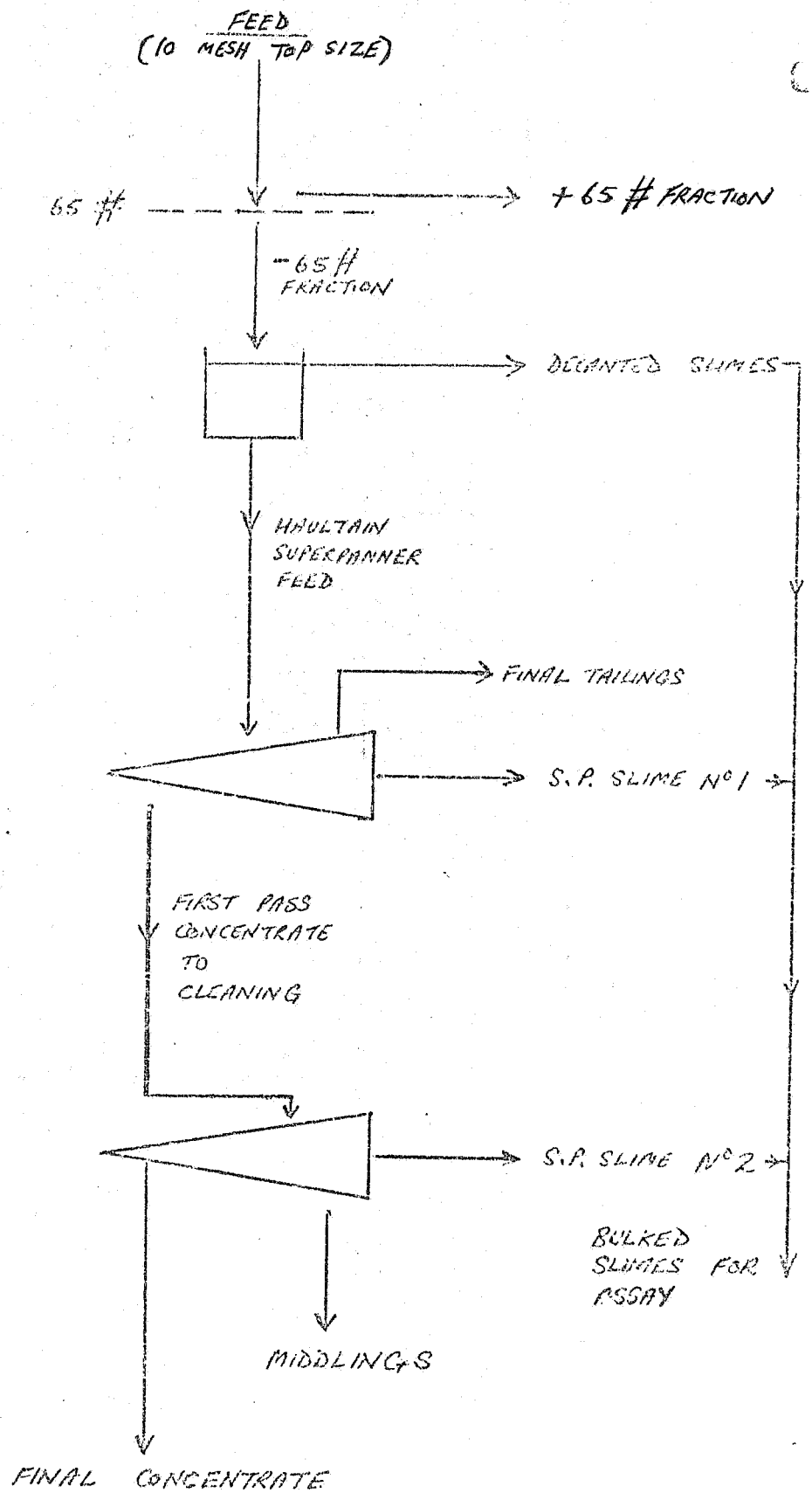
6. EVALUATION OF RESULTS

In terms of recovery, flotation gives superior results even allowing for a doubling of the baryte recoveries obtained by superpanning.

Depending on the intended use, specifications for barytes concentrates range from 83 to 97.5% $BaSO_4$ with limits on Fe and other impurities. For drilling mud the product must have a minimum S.G. of 4.3 and have not more than 5% of plus 325 mesh particles (44 microns): Fe_2O_3 must be less than 1%. Some of the anionic reagents commonly used to float barytes are detrimental to its use as drilling mud and must be removed from the particle surfaces by heat during the drying stage.

While the best preliminary barium concentrates obtained (49.4% Ba) correspond to an 83.9% $BaSO_4$ content, the Fe content (1.1% Fe) is on the high side. Refinement of test conditions could almost certainly improve the product grade and recovery. Whether the processing cost would allow the product to compete for a market with other currently operating South Australian deposits of near-pure vein barytes is however doubtful unless this mineral came into very short supply.

Despite high consumption of sodium sulphide and xanthate, the bulk of the copper in test OG 216 remained in the tailing. While this performance could almost certainly be improved on by further testwork, the grade of this sample is so low for a copper oxide ore that the cost of processing is not considered justified.



DIAGRAMMATIC FLOWSHEET FOR TESTS OG 211 AND OG 212 ON HAULTAIN SUPERPANNER

FIG. 1

LABORATORY TESTING REPORT

NE 421 5/71

METALLURGIST: M. WORT | C/C or W/O: 465 | TEST NO: OG / SAMPLE QS3422 | DATE: 24/9/72 | ORE ✓ | SLAG | DROSS

FRACTION				ASSAY %					CONTENT					DISTRIBUTION %						
Number	Name	% Weight	Cum % Weight	Pb	Cu	Fe	S	Mn	Ba				Pb	Cu	Fe	S	Mn	Ba		
	+10 MESH	3.44		1.34	0.43	6.4	1.5	3.25	5.6				3.93	4.23	2.84	2.60	6.17	2.35		
	-10 +14	5.99		1.57	0.43	6.0	2.1	3.60	8.3				8.00	7.37	4.04	6.33	11.90	6.36		
	-14 +20	7.51		1.66	0.44	6.1	2.5	3.85	10.3				10.62	9.43	5.91	7.45	15.96	7.43		
	-20 +28	6.13		1.71	0.43	6.4	2.8	3.85	12.0				8.92	7.54	5.06	8.63	13.03	8.97		
	-28 +35	5.36		1.60	0.41	6.4	3.0	3.60	13.8				7.31	6.29	4.42	8.09	10.65	9.02		
	-35 +48	5.18		1.48	0.37	6.4	3.2	3.00	13.8				6.53	5.49	4.28	8.34	8.58	8.72		
	-48 +65	4.75	38.36	1.24	0.34	6.3	3.1	2.45	14.6				5.01	4.63	3.86	7.40	6.43	8.46		
	-65 +100	4.73		0.94	0.22	4.8	2.5	1.57	11.0				3.79	2.97	2.93	5.94	4.10	6.55		
	-100 +150	5.57	51	0.63	0.151	3.4	1.7	0.96	8.0				2.99	2.40	2.44	4.76	2.95	5.44		
	-150 +200	5.43	54.09	0.59	0.145	3.2	1.8	0.82	8.6				2.72	2.26	2.24	4.91	2.46	5.70		
	-200 +270	2.80		0.57	0.163	3.6	2.7	0.83	10.3				1.36	1.31	1.30	3.80	1.28	3.52		
	-270 +325	2.26		0.62	0.190	3.1	2.9	0.84	11.2				1.19	1.23	0.90	3.29	1.05	3.09		
	-325 +400	1.71		0.70	0.22	4.6	3.2	0.84	11.9				1.02	1.09	1.02	2.75	0.79	2.48		
		60.86	60.86										63.37	56.24	41.84	76.29	85.35	79.57		

COMMENTS

500 g for sizing and infusizing

Most assays available 23/10/72

Ba assays available 1/11/72

C00013

MCGILL UNIVERSITY LABORATORY TESTING REPORT	METALLURGIST:	C/C or W/O:	TEST NO:	DATE:	DIS	✓	SEP
	R. WEST	465	09/SAMPLE QS 3422	26/1/72	DROSS		

FRACTION				ASSAY %					CONTENT					DISTRIBUTION %					COMMENTS
Number	Name	% Weight	% Weight cum	Pb	Cu	Fe	S	Mn	Ba				Pb	Cu	Fe	S	Mn	Ba	
	INTERSTAGE OF																		
	-400# FRACTION																		
	F1	0.31																	
	F2	0.21																	
	F3	0.77	1.29	1.34	0.73	8.4	5.4	0.85	18.6				1.47	2.67	1.40	3.51	0.61	2.93	
	F4	2.90		0.71	0.44	5.6	2.5	0.75	7.8				1.75	3.66	2.09	3.65	1.20	2.75	
	F5	2.85		0.72	0.47	6.6	1.9	0.64	7.7				1.75	3.83	2.43	2.73	1.00	2.68	
	F6	1.64		0.74	0.67	7.4	1.9	0.63	6.4				1.03	3.14	1.57	1.57	0.57	1.28	
	F7	30.46		1.18	0.35	12.9	0.8	0.67	2.9				30.60	30.46	50.68	12.26	11.27	10.77	
		39.14											36.60	43.78	58.17	23.72	14.65	20.42	
	+400 #	60.86											63.39	56.24	41.84	76.29	85.35	77.59	
	-400 #	39.14											36.60	43.78	58.17	23.72	14.65	20.42	
		100.00											99.99	100.02	100.01	100.01	100.00	100.01	
	CALCD HEAD			1.17	0.35	7.75	1.98	1.81	8.2										
	ACTUAL ASSAY HEAD			1.04	0.31	7.4	2.1	1.72	8.3										
	NORMAL ASSAY HEAD			1.29	0.36	8.6	1.6	1.6	8.3										

C00014

MT ISA MINE LABORATORY TESTING REPORT

METALLURGIST: M. WORT

C/C or W/O: 465

TEST NO: OG / QS 3423 SAMPLE

DATE: 21/9/72

ORE ✓ CLAS

DROSS

CONCENTS

FRACTION				ASSAY %					CONTENT					DISTRIBUTION %					
Mesh	Name	% Weight	% Weight Cum	Pb	Cu	Fe	S	Mn	Ba				Pb	Cu	Fe	S	Ba	Ba	
	+ 10 MESH	4·41		1·14	1·10	6·4	0·9	3·45	3·7				5·00	6·57	3·25	1·85	7·67	1·95	Most assays
	−10 + 14 "	7·75		1·38	1·18	6·9	1·5	4·10	5·9				10·64	12·38	6·17	5·41	16·02	5·46	available 28/10/72.
	−14 + 20 "	8·07		1·46	1·19	7·5	2·0	3·85	8·1				11·72	13·00	6·98	7·51	15·66	7·81	Ba assays
	−20 + 28 "	6·88		1·49	1·04	7·6	2·7	3·60	10·7				10·19	9·70	6·03	8·65	12·49	8·96	available 1/11/72
	−28 + 35 "	5·62		1·50	0·96	7·6	3·3	3·40	12·9				8·38	7·31	4·92	8·63	9·64	8·66	
	−35 + 48 "	5·77		1·34	0·90	7·3	3·8	3·00	14·7				7·69	7·03	4·86	10·21	8·73	10·13	
	−48 + 65 "	4·69	43·19	1·26	0·81	7·8	4·0	2·50	16·6				5·88	5·15	4·22	8·73	5·91	9·30	
	−65 + 100 "	3·43		1·01	0·67	15·4	4·6	2·04	17·6				3·44	3·11	6·09	7·34	3·53	7·22	
	−100 + 150 "	3·16		0·87	0·54	5·8	3·6	1·60	18·1				2·74	2·32	2·11	5·30	2·55	6·08	
	−150 + 200 "	3·39		0·55	0·45	5·0	3·7	1·28	12·7				1·85	2·07	1·95	5·84	2·10	5·15	
	−200 + 270 "	2·20		0·54	0·39	3·7	3·6	1·02	14·4				1·18	1·16	0·94	3·69	1·13	3·77	
	−325 + 325 "	2·11		0·59	0·39	4·2	3·5	0·87	13·0				1·23	1·11	1·02	3·43	0·93	3·28	
	−325 + 400 "	1·82		0·62	0·38	4·2	3·3	0·77	12·6				1·12	0·93	0·88	2·80	0·71	2·74	
		57·30											71·06	71·84	49·42	72·39	87·07	80·53	

MINERAL RESEARCH LABORATORY TESTING REPORT

Mineral Sands Set 5/71

METALLURGIST: M. WORT

C/C or W/O: 465

TEST NO: OG/QS 3423 SAMPLE

DATE: 26/9/72

ORE ✓ SLAG

DROSS

FRACTION				ASSAY %						CONTENT							DISTRIBUTION %						COMMENTS
Head or	Name	% Weight	% Weight	Pb	Cu	Fe	S	Mn	Ba				Pb					Cu	Fe	S	Mn	Ba	
	INTRASIZING OF																						
	−400# FRACTION																						
	F1	—																					
	F2	0·05																					
	F3	1·66	1·71	0·85	0·46	5·0	5·6	0·71	20·8				1·44					1·07	0·99	4·46	0·61	4·25	
	F4	3·50		0·54	0·39	5·6	2·2	0·61	8·4				1·88					1·84	2·26	3·58	1·08	3·51	
	F5	3·50		0·54	0·39	6·4	1·8	0·57	5·6				1·88					1·86	2·58	2·93	1·01	2·34	
	F6	2·22		0·55	0·41	7·2	1·3	0·57	4·4				1·21					1·23	1·84	1·34	0·64	1·17	
	F7	29·77		0·76	0·55	12·5	0·6	0·64	2·3				22·51					22·17	42·91	8·31	9·60	8·18	
		40·70											28·92					28·17	50·58	20·62	12·94	19·45	
	+400#	59·30											71·06					71·84	49·42	79·39	87·07	80·53	
	−400#	40·70											28·92					28·17	50·58	20·62	12·94	19·45	
		100·00											99·98					100·01	100·00	100·01	100·01	99·98	
	RETURN ASSAY HEAD			0·96	0·71	8·3	2·2	1·95	8·7														
	CALCULATED HEAD			1·01	0·74	8·67	2·15	1·98	8·14														
	NOMINAL HEAD ASSAY			·01	0·61	9·7	2·10	1·70	9·8														

LABORATORY TESTING REPORT

HOULTAIN SUPERJIGNER

METALLURGIST: M. WOO / S. D. ROSQUINET

C/C or W/O: 465

TEST NO: OG 211

DATE: 9/10/72

ORE ✓ SLAG DROSS

Number	Name	Weight	% Weight	ASSAY % Pb	Mn	Cu	Ba	Fe	CONTENT Pb	Mn	Cu	Ba	Fe	DISTRIBUTION % Pb	Mn	Cu	Ba	Fe	COMMENTS
	+65# FRACTION	311.50	40.82	1.49	3.25	0.34	12.1	8.0	60.82	132.67	13.88	493.92	326.56	51.87	74.10	53.33	57.27	34.37	Approx 3/4 kg Sample
	COMBINED SLIMES	303.72	39.81	1.02	0.65	0.17	3.33	13.2	40.61	25.88	6.77	132.57	525.49	34.44	14.46	26.01	15.37	55.30	C/4 used for
	SUPERJIGNER CONC.	23.65	3.10	1.27	0.66	0.13	52.1	3.1	3.94	2.05	0.40	161.51	9.61	3.36	1.15	1.54	18.73	1.01	trial run)
	" MIDDLINGS	11.66	1.53	1.98	3.00	0.27	27.1	10.7	3.03	4.59	0.41	41.46	16.37	2.58	2.56	1.58	4.81	1.72	
	" TAIL	112.50	14.74	0.60	0.94	0.31	2.24	4.9	8.84	13.86	4.57	33.02	72.23	7.54	7.74	17.56	2.83	7.60	SAMPLE 98 34.32
		763.03	100.00	1.17	1.79	0.26	8.62	9.50	117.24	179.03	26.03	862.48	950.26	99.99	100.01	100.02	100.01	100.00	
	NITINAT HEAD GRADES			1.29	1.6	0.36	8.3	8.6											Feed is contaminated with fine seed chaff.

PURE BARYTES = 58.85% Ba

52.1 / 58.85 = 88.53% BARYTES

LABORATORY TESTING REPORT

451 5/71

METALLURGIST: M. WORT / S. D. PASQUALE

W/C or W/O: 465

TEST NO: OG212

DATE: 9/10/72

ORE ✓ SLAG

DROSS

Number	FRACTION Name	Weight	% Weight	ASSAY % Pb	Mn	Ca	Ba	Fe	CONTENT Pb	Mn	Ca	Ba	Fe	DISTRIBUTION % Pb	Mn	Ca	Ba	Fe
	+65# FRACTION	456.00	46.28	1.34	3.35	0.82	10.6		62.02	155.04	37.95	490.57		61.29	78.25	68.44	55.44	
	COMBINED SLIMES	375.36	38.10	0.65	0.60	0.31	3.53		24.78	22.86	11.81	134.49		24.47	11.54	21.30	15.20	
	SUPERPANNER CONC.	25.08	2.55	1.24	0.56	0.11	52.9		3.16	1.43	0.28	134.90		3.12	0.72	0.51	15.25	
	" MIDDLINGS	19.35	1.96	1.26	1.38	0.21	45.0		2.47	2.70	0.41	88.20		2.44	1.36	0.74	9.97	
	" TAIL	109.50	11.11	0.79	1.45	0.45	3.30		8.78	16.11	5.00	36.66		8.68	8.13	9.02	4.14	
	CALC. HEAD	985.29	100.00	1.01	1.98	0.55	8.85		101.19	198.14	55.45	884.82		100.00	100.00	100.01	100.00	
	LOST SLIMES	14.71																
		1000.00																
	NORMAL HEAD ASSAYS			1.01	1.7	0.61	9.8											
					PURE BARYTES = 58.85% Ba													
					52.9 / 58.85 = 89.89% BARYTES													

COMMENTS

1 Kg. SAMPLE

EDIACARA

QS 3423

Feed is contaminated with fine seed chaff

FLOAT TEST ISA MINE 480 (C) 5/71	METALLURGIST M. WORT	TEST No. OC 210	DATE 4/10/72

General Description of Test Procedure: 1KG SAMPLE DESLIMED AT 400 MESH TYLER MESH SCRUBBING. EDTA CONDITION QS 3422 SAMPLE.

COMMENTS: +100# FRACTION REGROUND & RULKED WITH −100 +400# FRACTION

FLOT'N FEED DRY WEIGHT: 609.5 gms. 2.7L. CELL. 750 RPM.

FEED CONTAINED: Band of baytis with dark brown/black oxides behind

1ST RO. CON.: White heavies band. Also orange, clear and black grains.

2ND RO. CON: Pink dyed Ben in first float.

2ND RO. TAIL: Dark red-brown heavies band. No baytis band.

3RD RO. FLOAT: A pumpkin hair-line of black heavies, then dark red-brown heavies with some malachite.

Operation	Time — mins. Cond'g	Time — mins. Float	ph	MLS 5% AERO 710	MLS 5% DRYMET	Reagents ~~lbs/ton — g/t ton~~					
PULP UP CELL			8.5								
CONDITION	6		9.8	5 & 3'	10						
1ST Ro. FLOAT		2									
2ND " "		2									
AGITATE	14		9.55								
COND	1			5	2½						
3RD Ro FLOAT		3½									
AGITATE	9½										
COND	2			5	5						
4TH Ro. FLOAT		3	10.25								
AGITATE	5										
COND	2			10							
5TH Ro. FLOAT		3									
Ro N°1 CON: 1ST CL		2					2.7L	CELL			
2ND CL. COND	1		10.2		3		1.3L	CELL			
FLOAT		2									
TOTAL MLS				25	20½						
g/tonne				2050	1673						

TEST RESULT

Product	% Wt.	ASSAY % Pb	Mn	Ba	Cu	Fe	DISTRIBUTION % Pb	Mn	Ba	Cu	Fe
2ND CL-CON	13.82	0.37	0.38	49.4	0.06	1.1	4.30	2.17	63.25*	1.58	2.35
2ND CL. TAIL	8.52	1.12	2.10	21.9	0.56	3.4	8.02	7.40	17.29	10.78	4.47
1ST CL. TAIL	15.14	1.63	3.50	10.3	0.64	6.2	20.76	21.92	14.45	21.90	14.49
Ro. CON 2	3.99	1.94	4.05	8.41	0.63	9.9	6.51	6.68	3.11	5.07	6.10
Ro. CON 3	12.07	1.73	3.75	1.18	0.51	8.9	17.56	18.72	1.32	13.92	16.58
Ro CON 4	8.58	1.20	2.55	0.32	0.38	7.5	8.66	9.05	0.25	7.37	9.33
Ro. CON 5	18.41	1.15	2.40	0.12	0.48	6.7	17.81	18.27	0.20	17.98	19.04
Ro. TAIL	19.47	1.00	1.96	0.07	0.42	9.0	16.38	15.78	0.13	18.49	27.05
TEST HEAD	100.00	1.19	2.42	10.79	0.44	6.48	100.00	99.99	100.00	99.99	100.01
FLOT'N FEED	61.94	1.19	2.42	10.79	0.44	6.48	62.34	85.09	80.70	89.11	
−400# SLIMES	38.06	1.17	0.69	4.2	0.32	—	37.66	14.91	19.30	10.89	
CALCD HEAD	100.00	1.18	1.76	8.28	0.21		100.00	100.00	100.00	100.00	
ASSAYED HEAD		1.29	1.6	8.3	0.36	8.6					

TABLE 5

* 63.25% of 80.70% = 51.04% of HEAD Ba.

FLOAT TEST
ISA MINE 420 (C) 5/71

METALLURGIST: M. WORT

TEST No.: OG215

DATE: 20/10/72

General Description of Test Procedure: EDMEREN QS 3422 UNDESLIMED HEAD

COMMENTS: 1 Kg Charge ground in Mill No 3 with 400 ml/s water (standard). Ore reduced to stiff cream in grinding mill — 600 ml/s would have been better.

FIRST CONDITIONING: Extra Daymet added for dispersion

RO. FLOAT 1: Very weak mineralisation

" " 2: Mineralization stronger, abundant froth which tends to collapse rapidly on its top surface.

RO. FLOAT 3: Tail still contains guanobly barytes

RO. FLOAT 5: No barytes band guanobte from tail.

Operation	Time — mins. Cond'g	Time — mins. Float	ph	MLS % AEROTIO	MLS % DRYMET	Reagents lbs/ton — g/g ton
GRIND	10				10	
COND			8·8 NAT ↓ 9·35	5	10	
RO. FLOAT 1		3½				
COND	1			5·2		
RO. FLOAT 2		2½				
			9·15			
COND	1			10		
RO. FLOAT 3		4				
COND				5	5	
RO. FLOAT 4		2				
FLOAT 5 (NO COND)		3¾		10		
			9.25			
RO. CONS BULKED FOR CLEANING						
1st CL. COND			9·75		5	
FLOAT		6				
2nd CL. COND	1		9·3 ↓ 9·9		3	
FLOAT		~4				
	2nd CL. TAIL: Only thin white band of barytes guanobte.					

TEST RESULT

Product	% Wt.	ASSAY % Ba	ASSAY % Fe	DISTRIBUTION % Ba	DISTRIBUTION % Fe
2nd CL. CON	15·01	31·9	3·8	65·89	6·28
2nd CL. TAIL	11·04	7·3	10·7	11·09	13·02
1st CL. TAIL	34·73	3·97	10·7	18·97	40·94
RO. TAIL	39.22	0·75	9·2	4·05	39·76
CALC'D HEAD	100·00	7·27	9·38	100·00	100·00
ASSAYED HEAD		8·3	8·6		

REAGENT CONSUMPTIONS:

AERO 710: 35·2 MLS ≡ 1750 g/tonne

DRYMET: 33·0 MLS ≡ 1650 g/tonne

TABLE

FLOAT TEST ISA MINE 4.5(2) 5/71	METALLURGIST M. WORT	TEST No. OG 214	DATE 20/10/72

General Description of Test Procedure
COMMENTS:

EDIACARA QS 3423 WITH PRIMARY -400# SLIMES REMOVED AFTER ATTRITION SCRUBBING TO CLEAN PARTICLES
+100 MESH FRACTION GROUND FOR 10 MINS WITH 200 MLS WATER IN No4 MILL
THEN RECOMBINED WITH DESLIMED FEED FOR FLOT'N: 2.7L CELL, 800 RPM.

1ST RO TAIL: black-brown resinous heavies pannable with minor malachite and occasional free yellow sulphides. No white barytes band pannable.

2ND RO CONC: white band pannable - of similar S.G. to Mn/Fe heavies?

Operation	Time — mins. Cond'g	Time — mins. Float	ph	MLS. 5% Aero 710	5% Dexmet	Reagents ~~lbs/ton g/g ton~~
(+100# GRIND)	10					
PULP IN CELL			8.4			
COND	6½			5 at 3½	10	
RO. No 1.		2				
AGITATE	15		9.4			
COND	3			5.2 at ½	5.0	
RO. No 2		3¼				
			9.8			
1st CL.		2½		1½		
		+1½				Still barytes in Cl. Tail
		+1				Only thin band of barytes in Cl. Tail
2ND CL.		4¾				
3RD CL		3'				Quite a strong white band pannable but bulk of material is orange gangue.

TEST RESULT

Product	% Wt.	ASSAY % Pb	Cu	Mn	Ba	Fe		DISTRIBUTION % Pb	Cu	Mn	Ba.	Fe
3RD CL. CON.	26.83	0.38	0.38	0.66	29.9	2.6		8.02	11.27	5.98	71.83	7.92
3RD CL. TAIL	12.72	0.78	0.63	1.51	6.6	4.4		7.80	9.56	6.48	7.52	6.35
2ND CL. TAIL	9.84	1.44	1.16	3.39	14.5	8.9		11.14	12.61	11.26	12.78	9.93
1ST CL. TAIL	25.24	1.87	1.21	3.33	2.75	11.1		37.12	33.75	28.36	6.22	31.78
RO. TAIL	25.37	1.8	1.17	5.6	0.73	15.3		35.92	32.80	47.93	1.66	44.5
	100.00	1.27	0.90	2.96	11.17	8.82		100.00	99.99	100.01	100.01	100.01
HEAD FROM SIZE-ASSAY ANALYSIS OF WHOLE FEED		0.96	0.71	1.95	8.7							
FLOT'N FEED	55.22				11.17						71.46	
-400# PRIMARY SLIMES	44.78				5.5						28.54	
	100.00				8.63						100.00	

∴ 71.83% of 71.46% = 51.33% recovery of barium in feed.

BOND TEST ... 450 (C) ... 5/71	METALLURGIST M. WORT	TEST No. OG 216	DATE 26/10/72

General Description of Test Procedure: EDIACARA QS 3423. ORE SCRUBBED TO REMOVE SLIME COATINGS WITH 10 MLS DRYMET FOR 15 MINS

COMMENTS: PLUS 100 MESH SCREENED OUT – AS MUCH SEED CHAFF AS POSSIBLE DECANTED

+100 MESH FRACTION: Contains malachite particles up to 3¼ mm dia.

+100 MESH: Ground with full ball charge for 10 mins with 10 mls 5% drymet then recombined with rest of sample for flotation.

RO. No 1: Fine bubbled froth of same colour as pulp – muddy!

RO. No 2: Early conc. contains barytes and a malachite band.

3rd RO: Frothed hard. Tail still contains yellowy-green malachitic particles

1st CL.: Traces of dark green in the froth after ½' aeration.

3RD CL. FLOAT: 1 ML Na_2S – too much! Depressing action. Overcome by adding Drymet.

Operation	Time — mins. Cond'g	Float	ph	Reagents MLS 5% DRYMET	5% Na_2S	1% SSBX	DROPS MIBC				
+100# GRIND	10										
COND			11.5 ↓10.1	5	10						5.3L CELL
FLOAT RO. 1.		2				5	2	(Early conc. on pan; contains barytes, minor malachite, rare yellow sulphides, (pyrite))			
AGITATE	8										
COND	4		↓10.3	5	5	5					
RO 2 FLOAT		4									
COND	4		10.3	5		3					
RO. 3. FLOAT		4					1				
			10.1								
RO. CONS	BULKED	AND	ALLOWED	TO	SETTLE	FOR	1 HR.				
1st CL. COND	6		9.8 ↓10.4		5	2					2.7L CELL
CL. 1		5									
		↓9.95	10.1	2							
COND	1										1.3L CELL
2ND CL. FLOAT		2½									
& SCAV		3	↓9.8		3	1	2				
3RD CL. FLOAT		2+2½		5 at 2'	1	0.5					

TEST RESULT

Product	% Wt.	ASSAY % Cu	Ba					DISTRIBUTION % Cu	Ba		
3RD CL. CON	0.41	25.6	8.1					16.38	0.41		
3RD CL. TAIL	2.84	1.4	30.6					6.21	10.86		
2ND CL. TAIL	3.24	1.28	12.9					6.47	5.22		
1ST CL. TAIL	14.41	0.63	7.4					14.17	13.32		
RO. TAIL	79.10	0.46	7.1					56.77	70.18		
	100.00	0.64	8.00					100.00	99.99		
NOMINAL HEAD ASSAY		0.61	9.8*								
... ANALYSIS			8.7								

REAGENT CONSUMPTIONS: { SSBX 16½ MLS ≡ 820 g/tonne; DRYMET 22 MLS ≡ 1100 g/tonne; Na_2S 24 MLS ≡ 1200 g/tonne

* SUSPECT SAMPLE CONTAMINATION

TABLE 8

21

000022

Carpentaria Exploration Company Pty.Ltd.,
3 Greenhill Road,
Wayville,
S.A. 5034.
19th.September 1973.

The Director of Mines,
Department of Mines,
Box 38 Rundle Street P.O.,
ADELAIDE. S.A. 5001.

Dear Sir,

Quarterly Report E.L. 46"Ediacara" to 16-9-1973

Drilling has just started to test for possible down dip enrichment of the copper, lead, barite mineralisation intersected by our Company in the Black Eagle Mine area at Ediacara. The first hole (T46) is currently at 122m and is just entering the leached zone. The first 91m of this hole were drilled through fresh dolomite by rotary drilling (percussion) methods. Atthis depth diamond coring was started and NQ core is currently being taken. Severe drilling problems are being encountered at the present time due to loss of circulation in cavities. Drilling is being carried out by Longyear of Australia using their "Air Core 38" rig.

The statement of expenditure incurred on this licence area during the last quarter is attached to this letter.

Yours faithfully,
For and on behalf of Carpentaria Exploration Company Pty.Ltd.,

P.J.Binks. District Geologist.

000023

E.L. 46. Ediacara. Statement of Expenditure to 16/9/73.

	$
Administration	296
Assaying	27
Plant hire	194
Operating labour	854
Stores and provisions	258
Transportaion	179
Travelling expenses	65
This Period	1873
Previously reported	4700
Total	6 573

E.L. 46 "Ediacara" 000024

Quarterly Report to the 14th. December 1973.

Department of Mines Copy.

E.L. 46 Quarterly Report to the 14th. Dec. 1973.

During the last quarter three diamond holes were drilled along the western margin of the Ediacara Basin to test for down-dip continuationof secondary copper lead mineralisation intersected by our Company in the Black Eagle Mine area. The combined depth of the holes was 532.2m, of which 341.2m was diamond drilled. Interesting mineralisation occurs at the interface of leached and fresh dolomite.

Positions of the holes are shown on Drawing No.15249 while drill logs with assays are presented in the Appendix. Cross sections of the holes are shown on Drawing Nos. 15237 and 15245 while plots of assays aginst depth are shown on Drawing No. 15248. Assays from an earlier hole drilled by C.R.A. are shown plotted against depth on Drawing No. 15250.

P.J.Binks.

000044

E.L. 46. Statement of Expenditure to the 14th. Dec. 1973.

Administration	1 794
Assaying	155
Freight	8
Contract Drilling	25 414
Plant Hire	840
Operating Labour	4 143
Stores & Provisions	1 388
Transportation	429
Travelling Expenses	228
This Period	34 399
Previously Reported	6 573
TOTAL TO DATE	$40 972

APPENDIX

Logs

DRILL HOLE T46 (EDIACARA)

LOCATION: 205m. east Black Eagle Mine.
DECLINATION: Vertical.
COMMENCED: 5.9.73
COMPLETED: 23.9.73
DEPTH OF HOLE: 245.0m.

CONTRACTOR: Longyear (Australia) P/L.
RIG: Longyear 38 Air Core Drill.
TYPE OF DRILLING: Rotary Percussion to 91.4m. NQ diamond drilling 91.4m. to 245.0m.
PERCENTAGE CORE RECOVERY: 74.
LOGGED BY: A. Wiedeman, E. Dwyer, P. Binks.

Interval metres	Recovery	Sample No. of split core and percussion samples QS. Series	Sample No. of core Rockchip samples G. Series	Assays Copper ppm*	Lead ppm	Zinc ppm	Silver ppm	CO_2 %	Geol. Description
0 - 1.52	Nil								
1.52 - 3.05	Good	10061							Pale grey to brown, slightly weathered massive dolomite
- 4.57	"	62							Minor Mn.Ox. spotting.
- 6.10	"	63							"
- 7.62	"	64							"
- 9.14	"	65							"
- 10.67	"	66							"
- 12.19	"	67							"
- 13.72	"	68							"
- 15.24	"	69							"
- 16.76	"	70							"
- 18.29	"	71							"
- 19.81	"	72							"
- 21.34	"	73							"
- 22.86	"	74							"
- 24.38	"	75							"
- 25.91	"	76							"
- 27.43	"	77							"
- 28.96	"	78							Pale grey massive dolomite. Minor Mn.Ox. spotting.
- 30.48	"	79							"
- 32.00	"	80							" & minor chert.
- 33.53	"	81							" "
- 35.05	"	82							Pink and pale grey massive dolomite. Minor Mn.Ox. spotting.
- 36.58	"	83							"
- 38.10	"	84							Pale grey dolomite.
- 39.62	"	85							"
- 41.14	"	86							" - slightly leached.
- 42.67	"	87							" & Fe.Ox. staining.
- 44.19	"	88							Pale grey massive dolomite. Slightly leached.
- 45.72	"	89							"
- 47.24	"	90							"

* Except where % shown.

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Assays Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	CO_2 %	Geol. Description
47.24 - 48.77	Good	10091							Pale grey massive dolomite. Slightly leached.
- 50.29	"	92							"
- 51.82	"	93							Pale grey vughy dolomite with Mn.Ox. staining.
- 53.34	"	94							" Calcite in vughs.
- 54.86	"	95							"
- 56.38	"	96							"
- 57.91	"	97							" - slightly leached.
- 59.03	"	98							" "
- 60.96	"	99							" "
- 62.48	"	10100							" "
- 64.01	"	01							" "
- 65.53	"	02							" "
- 67.06	"	03							" "
- 68.58	"	04							" " - trace pyrite.
- 70.10	"	05							" " "
- 71.62	"	06							" "
- 73.15	"	07							Grey massive dolomite, slightly leached.
- 74.67	"	08							" & clay "
- 76.20	"	09							" " "
-77.70	"	10							" " "
- 79.25	"	11							" " "
- 80.77	"	12							" " "
- 82.30	"	13							" " "
- 83.82	"	14							" " "
- 85.34	"	15							Grey dolomite.
- 86.86	"	16							" & trace pyrite.
- 88.30	"	17							" "
- 89.91	"	18							" "
- 91.44	"	10119							" "
			Change to core drilling						
91.52 - 92.00	0.48								Pink to grey massive dolomite with small vughs.
- 93	1.00								"
- 94	1.00								"
- 95	1.00								"
- 96	0.45								"
- 97	0.00								"

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	CO_2 %	Geol. Description
97 - 98	0.22								Pink to grey massive dolomite with small vughs.
- 99	0.55								"
-100	1.00								"
-101	0.90								"
-102	1.00								"
-103	1.00								Grey massive dolomite with small vughs - trace pyrite.
-104	1.00								Grey massive dolomite with small vughs.
-105	1.00								"
-106	1.00								"
-107	1.00								"
-108	1.00								"
-109	1.00								"
-110	1.00								"
-111	1.00								"
-112	1.00								"
-113	1.00								" - slightly leached between 112.05 and 112.15m.
-114	0.95								" - and few thin clay seams.
-115	1.00								Massive grey dolomite.
-116	1.00								"
-117	0.95								"
-118	0.10								"
-119	0.20								"
-120	1.00								"
-121	1.00								"
-122	0.90								"
-123	0.50								"
-124	0.50								"
-125	1.00								"
-126	1.00								"
-127	0.10								Brecciated grey dolomite.
-128	0.50								"
-129	0.50								"
-130	1.00								"
-131	1.00								"
-132	1.00								"

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	CO_2 %	Geol. Description
132-133	1.00								Partly leached friable grey dolomite.
-134	0.00								------
-135	0.30								"
-136	0.50								Massive grey dolomite.
-137	0.70								"
-138	0.65								"
-139	0.00								------
-140	0.48								Fractured grey dolomite.
-141	0.65								"
-142	0.52								"
-143	0.20								"
-144	0.63								"
-145	0.50		362684	130	290		3		Fractured & partly leached, pale yellow brown dolomite.
-146	0.65								
-147	0.54		362685	180	810		3		" "
-148	0.60								
-149	0.00								------
-150	0.70		362686	80	280		7		Fractured and slightly leached pale yellow brown dolomite.
-151	0.50		362687	440	3190		< 1		Highly leached yellow dolomite & yellow brown clay.
-152	0.65								" "
-153	0.00								" to 151.25 then grey dolomite.
-154	0.44		362688	170	750		1		"
-155	0.36		362689	100	460		< 1		Leached yellow-grey dolomite.
-156	0.00								------
-157	0.00								------
-158	0.00								------
-159	0.00								-------
-160	0.90		362690	140	1040		2		Fractured grey dolomite (159.4 - 159.9? sludge).
-161	0.25		362691	90	1740		1		" - slightly leached.
-162	0.90								" "
-163	0.92		362692	290	1340		1		" "
-164	0.50								" "
-165	0.00								------
-166	0.00								------

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	CO_2 %	Geol. Description
166-167	0.34		362693	110	890		1		Fractured grey dolomite.
-168	0.32								"
-169	0.70		362694	230	1590		1		Grey fractured dolomite, partly leached, black staining at 169.9m.
-170	0.25								"
-171	1.00		362695	250	6500		5		Intensely leached pale brown dolomite & clay. Black staining at 170.85 - 171.0m.
-172	1.00								Partly "
-173	0.57		362696	330	840		1		" "
-174	0.43								Brecciated grey dolomite.
-175	0.32		362697	95	170		2		Pale grey leached dolomite.
-176	0.55								Fractured grey dolomite - partly leached.
-177	1.00		362698	85	270		2		"
-178	0.70								"
-179	0.65		362699	95	850		< 1		"
-180	0.58								"
-181	0.90		362700	320	380		2	44.3	"
-182	0.50								"
-183	0.70		362701	290	220		< 1	43.6	"
-184	0.90								"
-185	1.00		362702	930	640		5	43.6	"
-186	1.00								"
-187	1.00		362703	760	790		1	43.5	Partly leached yellow-grey clay & dolomite.
-188	1.00								Partly "
-189	1.00		362704	1900	1290		10	45.8	" "
-190	1.00								" "
-191	1.00		362705	950	690		1	33.2	Intensely "
-192	0.53								Partly "
-193	0.50	4039	362706	470	1700	430	1	36.1	Pale yellow-grey brecciated (primary) dolomite -
-194	1.00	4040		(350	60		1	40.3)	" partly leached.
-195	1.00	4041	362707	320	110	220	1	32.9	"
-196	0.75	4042		300	95	290	1	28.1	"
-197	0.35	196.75 - 197.0 - 4043	362708	(320	220		1	39.4)	"
-198	0.70	(197.0 - 197.3 - 4044		1080	1650	870	2	40.6	" & black staining at 196.94 - 197.0m.
		(197.6 - 198.0 - 4045		4850	950	190	4	34.8	
				(1130	990		2	27.4)	Grey & brown clay with black staining
				1.4%	850	170	10	11.1	(?tennorite) 197.2 - 198.0 Pale brown silty clay.
				1300	6000	500	2	1.35	

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	CO_2 %	Geol. Description
198-199	1.00	4046	)	1060	7000	700	5	0.95	Brown silty & sandy clay--angular fragments of quartzite up to 3cm. in diameter at 198.8m.
			) 362709	(1120	6990		5	2.0)	
-200	1.00	4047	)	1270	9000	670	12	2.8	Brown silty & sandy clay. ?Bedding 45° to core axis.
-201	1.00	4048	)	1230	8500	700	5	4.0	"
-202	1.00	4049	) 362710	(1000	6990		1	2.05)	
			)	1300	9000	520	2	3.85	"
-203	0.64	4050	)	3750	6000	400	8	1.85	"
			) 362711	(1110	6490		1	2.3)	
-204	1.00	4051	)	1150	4600	530	2	1.5	" & 10cm. band yellow sandy clay at 203.3m. Bedding 45° to core axis.
-205	1.00		)						Pink to brown clay sand & silt - bedding 45° to core
-206	1.00		) 362712	690	3190		< 1	1.3	" " axis.
-207	0.55		) 36713	740	390		60	1.8	" " "
-208	0.00								------
-209	0.22		)						" " "
-210	1.00		) 362714	620	790		1	0.8	Purple-brown sandy & silty clay.
-211	0.87		)						"
-212	1.00		) 362715	790	1590		1	1.2	"
-213	0.40		)						"
-214	0.10		) 362716	1220	3490		4	2.45	"
-215	1.00		)						"
-216	1.00		) 362717	920	1590		1	1.6	"
-217	1.00		)						"
-218	1.00		) 362718	810	840		< 1	1.55	" 216.2 to 216.5 grey clay sandstone Bedding 45° to core axis.
-219	1.00		)						Pink to brown clay silt.
-220	1.00		) 362719	950	1140		< 1	1.65	Yellow to brown "
-221	1.00		)						Brown sandy clay & clay silt.
-222	1.00		) 362720	760	310		< 1	3.0	Yellow to brown sandy clay & clay silt.
-223	0.40		)						Brown sandy clay.
-224	1.00		) 362721	530	590		< 1	2.05	"
-225	1.00		)						223.0 - 223.4 Brown sandy clay 223.4 - Pink to white clay sandstone.
-226	1.00		) 362722	480	40		< 1	0.35	Grey well bedded clay sandstone. Bedding 45° to core axis.
-227	1.00		)						Grey to yellow-brown sandstone & clay.
-228	1.00		) 362723	570	240		< 1	1.05	Pale yellow sandy clay.
									Grey to yellow & brown sandy clay & sandstone.

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	CO_2 %	Geol. Description
228-229	1.00		)						Pale brown sandy & pebbly clay - 228.0 - 228.1 - Dark
-230	1.00		) 362724	2300	160		<1	9.1	brown to black sandy clay. White silty sandstone & brown sandy clay. Fe.Ox. and Mn.Ox. staining at 229.1m.
-231	1.00		)	390	22		<1	0.95	White silty sandstone & brown sandy clay.
-232	1.00		) 362725						Grey silty and clayey sandstone.
-233	1.00		)						" & pale brown clay.
-234	1.00		) 362726	1250	50		<1	2.5	233.0 - 233.8 Brown silty clay , 233.8 - laminated pink siltstone & grey brown clay.
-235	1.00		)						Grey to pink &yellow fine grained silty sandstone & clay.
-236	1.00		) 362727	330	10		<1	0.15	Well bedded pale brown to pink silty clays and sands - Bedding 45° to core axis.
-237	1.00		)						Red & yellow laminated silts & clays.
-238	1.00		) 362728	620	8		<1	0.15	Pink & white laminated silty sandstone.
-239	1.00		)						Pink, white & yellow silts, sandy clay & sandstone.
-240	1.00		) 362729	3850	10		<1	0.15	White silty & clayey sandstone.
-241	1.00		)						White & pink silts & clays with thin sandstone bands.
-242	1.00		) 362730	1600	45		<1	0.15	" Bedding 45° to core axis.
-243	1.00		)						Yellow & white clay & sandstone.
-244	1.00		) 362731	42	<5		<1	0.20	Pale yellow & white clayey sandstone (quartzite).
-245	1.00		) 362732	18	<5		<1	0.10	"

End of hole.

DRILL HOLE T47 (EDIACARA)

LOCATION: 135m. East Black Eagle Mine.
DECLINATION: Vertical.
COMMENCED: 25.9.73.
COMPLETED: 3.10.73
DEPTH OF HOLE: 200.5m.

CONTRACTOR: Longyear (Australia) P/L.
RIG: Longyear 38 Air Core Drill.
TYPE OF DRILLING: Rotary Percussion to 70.1m.
PERCENTAGE CORE RECOVERY: 84.
LOGGED BY: T. Mayer, A. Wiedeman, P. Binks.

Interval metres	Recovery	Sample No. of split core & percussion samples QS. series	Sample No. of core rockchip samples G. Series	Assays Cu. ppm.*	Pb. ppm.	Zn. ppm.	Ag. ppm.	Co_2 %	Geol. Description
0 - 3.05	Good	10120							Grey slightly weathered, massive dolomite, minor Mn.Ox.
- 4.57	"	21							" staining.
- 6.10	"	22							Grey dolomite with Mn. Ox. and Fe. Ox. staining.
- 7.62	"	23							"
- 9.14	"	24							"
-10.67	"	25							Red-grey dolomite with slight Mn. Ox. staining on joints.
-12.19	"	26							Grey, slightly leached dolomite.
-13.72	"	27							Pale, red-grey dolomite with minor Mn.Ox. staining & spot
-15.24	"	28							" ting.
-16.76	"	29							"
-18.29	"	30							"
-19.81	"	31							"
-21.34	"	32							"
-22.86	"	33							"
-24.38	"	34							"
-25.91	"	35							"
-27.43	"	36							"
-28.96	"	37							"
-30.48	"	38							"
-32.00	"	39							"
-33.53	"	40							"
-35.05	"	41							"
-36.58	"	42							"
-38.10	"	43							Pink & grey massive dolomite with minor Mn. Ox. staining.
-39.62	"	44							"
-41.14	"	45							"
-42.67	"	46							Pale yellow brown "
-44.19	"	47		280	500	160	1	45.3	" to pink slightly leached dolomite.
-45.72	"	48		340	750	180	1	45.4	" "
-47.24	"	49		330	1250	190	1	45.7	" "

* Except where % shown.

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Assays Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol. description
47.24-48.77	Good	10150		320	700	200	1	45.4	Red-brown partly leached dolomite with Mn.Ox. staining
-50.29	"	51		600	850	270	1	45.0	Red-brown leached dolomite with crystalline fine grained white mineral.
-51.82	"	52		840	900	310	1	42.7	"
-53.34	"	53		790	800	300	1	42.6	"
-54.86	"	54		560	600	220	1	42.6	"
-56.38	"	55		700	750	240	1	44.2	"
-57.91	"	56		750	800	260	1	42.2	"
-59.03	"	57		540	230	130	1	43.5	"
-60.96	"	58		670	120	110	1	43.0	"
-62.48	"	59		1050	90	120	5	44.2	Red-brown partly leached dolomite.
-64.01	"	60		770	90	140	4	43.4	Pink grey dolomite.
-65.53	"	61							"
-67.06	"	62							"
-68.58	"	63							"
-70.10	"	64							"
			change to core drilling						
70.10-71.00	0.00								------
71 - 72	0.90		)						Pale grey brecciated (primary slump breccia) dolomite
- 73	0.75		) 362734	410	95		10		" with minor pyrite & Mn.Ox. staining.
- 74	1.00		)						"
- 75	1.00		) 35	130	45		1		"
-76	1.00		)						"
- 77	0.75		) 36	260	10		1		Fractured & broken partly leached grey dolomite.
- 78	0.64		)						"
- 79	0.00		) 37	170	20		1		"
- 80	0.70		)						"
- 81	0.00		) 38	120	20		1		"
- 82	0.20		)						"
- 83	0.45		) 39	110	45		1		Extremely fractured & broken, partly leached grey dolomit
- 84	0.40		)						"
- 85	0.29		) 40	130	15		1		"
- 86	0.60		)						"
- 87	0.31		) 41	170	25		1		"
- 88	0.50		)						Extremely fractured & broken leached yellow brown to cream dolomite.
- 89	0.60		) 42	180	15		2		Fractured, pale grey dolomite.
- 90	0.45		)						"
- 91	0.50		) 43	210	15		1		"

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Assays Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol. Description
91 - 92	0.50		362744	170	250		1		Friable, leached pale-grey dolomite.
- 93	0.38								"
- 94	0.00								"
- 95	0.58		45	280	190		1		Extremely fractured & leached pale-grey dolomite.
- 96	0.63								"
- 97	1.00		46	320	2200		2		"
- 98	1.00								Almost wholly leached pale yellow-brown dolomite.
- 99	0.90		47	440	1200		1		Extremely fractured & leached pale grey dolomite.
-100	1.00								"
-101	1.00		48	480	610		1		Extremely fractured & partly leached pale grey dolomite.
-102	1.00								"
-103	1.00		49	310	810		1		"
-104	1.00								"
-105	1.00		50	310	1050		1	38.9	"
-106	1.00								"
-107	1.00		51	220	1450		1	41.8	"
-108	1.00								" & minor Mn.Ox. staining.
-109	1.00		52	270	780		1	42.3	" "
-110	1.00								" "
-111	1.00		53	310 x	1700		1	41.0	Pale grey massive dolomite - partly leached.
-112	1.00		54	550	2650		1	41.4	"
				830	8000	800	3	42.9	
-113	1.00	4026		1040	5500	1090	1	43.0	Fractured, partly leached dolomite with minor Mn.Ox. staining.
-114	1.00	27	55	1950	4100		1	42.0	Vughy, pale grey dolomite with Mn.Ox. & ?Tennorite in fractures.
-115	1.00	28		2850	1750	1020	1	43.9	Partly leached pale yellow-brown dolomite & ?Tennorite in fractures.
-116	1.00	29		4000	4500	1800	<1	42.9	
			56	2.9%	1450		4	31.6	"
-117	1.00	116.0 - 116.5 - 30		3.5%	950	2700	6	37.0	116.0 - 116.5 Grey dolomite with abundant black staining (?Tennorite) in fractures & vughs.
		116.5 - 117.0 - 31		3400	4200	1%	3	1.9	116.5 - 117.0 Brown clay - extremely sharp contact against dolomite.
-118	1.00	~~32~~		3550	2.37%	3400	7	1.1	Brown clay with blackstaining - partly leached dolomite from 117.0 - 117.25m.
-119	1.00	33	57	4700	2.0%		10	4.85	
				2000	2.4%	2000	34	3.5	Brown clay with fragments of grey dolomite and qtz. grains.
-120	1.00	34		1350	1.44%	1200	3	3.6	"
			58	1350	1.5%		2	8.5	
-121	1.00	35		740	6000	630	1	7.8	Pale grey to brown clay with fragments of dolomite between 120.1 - 120.5
-122	0.65	36		630	7000	540	10	4.5	Pale grey silty & sandy clay.
-123	0.45	37	59	750	4250		30	2.05	
				550	5500	500	5	0.2	Pale grey-brown silty & sandy clay.

2.07%

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol. Description
123-124	1.00	4038		550	7000	660	2	0.8	Pale grey-brown silty and sandy clay.
-125	1.00		60	(550	7400		12	1.5)	Pale brey to brown clayey sand.
-126	1.00		61	800	1.1%		1	1.95	Brown sandy clay with coarse (3mm.) ~~crystal~~ qtz. grains.
-127	1.00								Brown sandy clay with coarse sand. Bedding 45° to core axis.
-128	0.77		62	650	8500		3	1.7	Brown sandy clay.
-129	0.55								"
-130	0.82		63	550	7000		1	2.15	129.0 - 129.3 Grey-brown sandy dolomite. 129.3 - 130.0 Brown sandy clay
-131	0.10								Brown sandy clay.
-132	0.50		362800	450	5500		1		Brown sandy clay.
-133	1.00								Grey to brown partly leached sandy dolomite. Bedding 45° to core axis.
-134	0.60		362764	700	8200		1	2.65	Brown sandy clay.
-135	1.00								Yellow brown silty and sandy clay.
-136	0.25		65	600	3450		1	2.9	Brown sandy clay.
-137	0.48								Fractured & leached yellow sandy dolomite.
-138	1.00		66	340	920		1	0.9	Very leached yellow brown sandy dolomite.
-139	1.00								Grey to yellow brown silty & sandy clay.
-140	1.00		67	370	540		1	1.2	" & thin band (10cm) pink qtzite.
-141	1.00								"
-142	1.00		68	300	130		1	0.75	" & silty clay.
-143	1.00								"
-144	0.93		69	470	150		1	1.8	Pale yellow-brown silty & sandy clay.? Bedding 45° to
-145	1.00								" core axis.
-146	1.00		70	420	130		1	1.15	" & silty clay.
-147	1.00								146.0 - 146.4 Yellow brown silty clay.
-148	1.00		71	500	35		1	1.05	146.4 - 147.0 White clayey sand with purple staining Bedding 45° to core axis.
-149	1.00								White & yellow-brown silty & sandy clay.
-150	1.00		72	220	100		1	0.75	White clayey sandstone with bands of finely laminated shale.
-151	1.00								White clayey sandstone.
-152	1.00		73	680	40		1	0.25	150.0 - 150.5 Pale brown sandy clay.
-153	1.00								150.5 - 151.0 Grey clayey sand.
-154	1.00		74	480	28		1	4.2	Pink-grey sandstone. Bedding 35° to core axis.
-155	1.00								Medium-grey clayey sandstone.
-156	1.00		75	170	8		1	0.25	Pink-grey sandstone.
-157	1.00								White medium grained quartzite. 45° to core axis.
-158	0.85		76	20	5		1	0.2	"
-159	1.00								Pink to white finely laminated clayey sandstone. 45°.
									Pink & white clays, silt & sand. Bedding parallel to core axis.
									Pink to white finely laminated silts, clay & sand. "

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Assays Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol. Description
159-160	1.00		)						Pink to white finely laminated silts, clay & sand.
			)362777	15	10		1	0.05	Bedding 50° to c.a. at 159.8m.
-161	0.65		)						" Bedding parallel to c.a.
-162	0.55		)						" Bedding 30° to c.a.
			) 78	22	30		1	4.2	
-163	0.15		)						" & clayey sandstone.
-164	1.00		)						163.0 - 163.1 Pink clayey sandstone. Bedding 20°to c.a.
			) 79	8	5		1	1.9	163.1 - 164.0 White finely grained quartzite.
-165	1.00		)						White fine grained quartzite.
-166	1.00		)						"
			) 80	8	5		1	0.2	
-167	1.00		)						"
-168	1.00		)						"
			) 81	22	5		1		
-169	1.00		)						"
-170	1.00		)						"
			) 82	70	10		1		
-171	1.00		)						"
-172	0.90		)						"
			) 83	25	8		1		
-173	1.00		)						" & pink staining.
-174	1.00		)						" Bedding 30° to c.a.
			) 84	32	5		1		
-175	1.00		)						" - fractured.
-176	1.00		)						White friable sandstone with thin (3cm) pink clay seams
			) 85	15	8		1		
-177	1.00		)						White fine grained quartzite.
-178	1.00		)						Friable pinky-white clayey sandstone.
			) 86	22	15		1		
-179	1.00		)						Pink & grey finely laminated silty sandstone.
-180	1.00		)						" Bedding parallel to c.a.
			) 87	10	8		1		
-181	1.00		)						Pink & white clayey sandstone.
-182	1.00		)						" " & silty sandstone.
			) 88	12	5		1		
-183	1.00		)						Yellow stained fine grained white quartzite.
-184	0.48		)						Pink & yellow silty sandstone.
			) 89	25	5		1		
-185	1.00		)						Yellow to pink fine grained silty sandstone. Bedding 80° to c.a.
-186	1.00		)						Pink to grey fine grained quartzite.
			) 90	10	5		1		
-187	1.00		)						186.0 - 186.5 Pink laminated silts and sands.
-188	0.70		)						186.5 - 187.0 White fine grained quartzite.
			) 91	8	5		1		Fractures off-white, fine grained quartzite.
-189	1.00		)						White to pale brown quartzite. Bedding 30° to c.a.
-190	1.00		)						White fine grained quartzite.
			) 92	15	5		1		
-191	1.00		)						"
-192	1.00		)						" Bedding 30° to c.a.
			) 93	10	5		1		
-193	1.00		)						"
-194	1.00		)						Fractured white quartzite with white clay seams.
			) 94	12	5		1		
-195	1.00		)						"

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol Description
-196	1.00		)						Fractured white quartzite with white clay seams.
-197	1.00		) 95	8	5		1		Fractured white quartzite.
-198	1.00		)						"
-199	1.00		) 96	8	5		1		
-200	1.00		)						"
200-200.5	0.5		) 97	12	5		1		

End of hole.

DRILL HOLE T48 (EDIACARA)

Location: 1300m south-south-east Black Eagle Mine
Declination: Vertical
Commenced: 4.10.73
Completed: 8.10.73
Dep th of hole: 87.7m.

Contractor: Longyear (Australia) P/L
Rig: Longyear 38 Air Cure Rig
Type of drilling: Rotary percussion to 30.5m.
NQ diamond drilling 30.5 to 87.7m.
Percentage Core Recovery:
Logged by: A.Wiedeman, P. Binks.

Interval Metres	Recovery	Sample no.of splitcore & percussion samples. - QS. Series.	Sample no.of core rock chip samples. G. Series.	ASSAYS Cu ppm*	pb ppm	Zn ppm	Ag ppm	Co_2 %	Geol. Description
0 - 3.05	Good	10165		75	210				Grey weathered dolomite
- 4.57	"	66		100	600				Grey crystalline dolomite Fe Ox staining on joints
- 6.10	"	67		65	650				"
- 7.62	"	68		60	440				"
- 9.14	"	69		100	800				"
- 10.67	"	70		90	750				Grey to brown dolomite, minor Mn.Ox.staining
- 12.14	"	71		130	750				"
- 13.72	"	72		80	390				" - partly leached
- 15.24	"	73		80	640				"
- 16.76	"	74		80	600				" "
- 18.29	"	75		85	480			45.6	" "
- 19.81	"	76		110	470			44.4	Grey to brown dolomite - partly leached
- 21.34	"	77		85	330			46.1	Pale grey dolomite - minor Mn.Ox. staining
- 22.86	"	78		100	460			45.6	"
- 24.38	"	79		100	1200			46.5	"
- 25.91	"	80		95	1250			46.2	"
- 27.43	"	81		1050	6000			44.8	Pale grey dolomite - partly leached. Mn.Ox. and malachite staining
- 28.96	"	82		3400	7.6%			32.9	Pale grey dolomite with brown clay - Mn.Ox. and malachite nodules
- 30.48	"	83		4700	3.5%			28.9	Grey dolomite and brown clay with abundant nodules of malachite azurite and Mn.Ox.

6 samples
6.6m
12.6%

12 samples
12.6m

11 samples
11m.
1.66%

Interval	Recovery	Sample No. QS. Series	Sample No. G. Series	Assays Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol. Description
			Change to	core			drilling		
30.48-31.00	0.50	4001	)	1.54%	22.2%	3900	88	1.4	Brown clay with abundant modules of malachite &
			) 362801	(7500	23.0%	3700	22	0.6)	azurite between 30.5 and 30.65 m.
31-32	0.85	2	)	3250	24.0%	4150	15	0.4	Off white to yellow brown silty clay with bands up to 2 cm. of silicified Mn.Ox.
-33	0.73	3	) 2	2550	8.7%	4320	10	0.45	Pale red-brown silty clay with fragments Mn.Ox.
			)	(2500	71%	3700	9	2.05)	
-34	1.00	4	)	1870	5.95%	2350	6	5.4	Pale brown silty clay with minor Mn.Ox. staining.
-35	1.00	5	)	2200	3.2%	1900	47	5.0	" - weathered dolomite 34.0-34.1m.
			) 3	(1650	2.1%	1360	8	2.65)	
-36	1.00	6	)	1420	1.92%	1000	10	1.0	"
-37	1.00	7	)	1380	2.28%	1270	1	6.0	Brown silty clay with small fragments unleached dolomite
			) 4	(1100	3.3%	1200	18	4.35)	
-38	1.00	8	)	780	1.74%	1040	2	4.2	Yellow-brown silty clay.
-39	1.00	9	)	1020	2.3%	1360	35	5.6	"
			) 5	(650	1.3%	1320	7	0.5)	
-40	1.00	10	)	400	7500	640	2	0.55	Grey to pale brown clay with few fragments dolomite.
-41	1.00	11	)	1120	1.08%	560	1	0.4	" & 1 cm. band angular quartzite fragments
			) 6	(1350	1.3%	950	12	2.1)	at 40.15 m.
-42	0.94	12	)	1030	1.44%	780	6	2.4	41.0 - 41.3 Yellow & red-brown silty clay.
									41.3 - 42.0 Partly leached yellow dolomite with Mn.Ox.
-43	0.68	13	)	1130	1.0%	400	1	1.15	White to yellow brown clay with large fragments dolomite
			) 7	(1100	1.1%	700	3	1.15)	
-44	0.70	14	)	1000	1.05%	630	4	1.85	Red brown Mn.Ox. stained goethite and clay.
-45	1.00	15	)	1130	1.47%	740	5	8.3	44.0 - 44.7m. stained goethite with thin veins calcite.
			) 8	(1000	1.0%	740	2	2.9)	44.7 - 45.0m. Grey to brown silty clay.
-46	1.00	16	)	1100	7500	740	2	1.6	Grey to yellow & red brown silty clay.
-47	0.85	17	)	1120	3850	720	1	0.2	Yellow brown silty clay.
			) 9	(1000	5000	600	1	3.55)	47.0 - 47.1m Grey clay. 47.1 - 47.8 brown vughy goethite
-48	1.00	18	)	950	9500	530	1	2.05	with MnOx. staining & clear crystalline mineral in
									47.8 - 48.0m Grey clay. vughs.
-49	1.00	19	)	480	5500	380	2	1.55	48.0 - 48.4m Mn.Ox. stained goethite.
			) 10	(425	2250	330	4	1.45)	48.4 - 49.0m Mottled grey & yellow sandy clay.
-50	0.73	20	)	230	650	22	20	0.25	Pale purple grey silty clay.
-51	1.00	21	)	250	1500	55	1	0.05	50.0 - 50.9m Grey & purple grey silty clay.
			) 11	(410	2200	120	1	0.1)	50.9 - 51.0 m. Purple-grey goethite.
-52	0.62	22	)	570	2150	140	1	0.15	Grey to purple goethite & yellow-brown clay.
-53	1.00	23	)	520	1150	160	1	0.3	Pale Brown sandy clay & clayey sand.
			) 12	(460	740	140	1	0.2	
-54	1.00	24	)	790	650	210	1	0.1	"
-55	1.00		)						"
			) 13	600	70	160	1	0.9	
-56	0.75		)						"

Intervals	Recovery	Sample No. QS. Series	Sample No. G. Series	Cu. ppm	Pb. ppm	Zn. ppm	Ag. ppm	Co_2 %	Geol. Description
56-57	1.00		14	600	60	70	1	0.45	Pale brown sandy clay & clayey sand. 56.1 - 57.0 m. Pale yellow to white sandstone.
-58	0.93								57.0 - 57.2m. White friable sandstone. 57.2 - 58.0m. Yellow brown sandy clay.
-59	1.00		15	300	85	75	1	0.65	White friable sandstone & pale brown sandy clay. Bedding 60° to c.a.
-60	1.00								" Bedding 55° to c.a.
-61	1.00		16	600	45	100	1	0.3	Yellow brown silty clay.
-62	1.00								"
-63	1.00		17	650	45	42	1	0.2	" white quartzite for 62.5 - 63.0.
-64	1.00								Yellow brown finely laminated (shale) Bedding 55° to c.a
-65	1.00		18	290	80	55	1	0.1	"
-66	1.00								"
-67	1.00		19	310	75	55	1	0.2	Grey to yellow brown silty, finely laminated shale. Bedding 55° to c.a.
-68	1.00								"
-69	1.00		20	430	55	30	1	0.45	" & grey silty sandstone.
-70	1.00								" "
-71	1.00		21	20	60	8	1	0.5	White silty and clayey sandstone.
-72	1.00								White & pink silty & clayey sandstone.
-73	1.00		22	15	5	18	1	0.4	"
-74	1.00								White clayey sandstone.
-75	1.00		23	2	5	5	1	0.05	White friable sandstone.
-76	1.00								White, silty friable sandstone.
-77	1.00		24	2	5	5	1	0.05	White, silty friable sandstone.
-78	1.00								White quartzite. Bedding 55° to c.a.
-79	0.80		25	5	5	5	1	0.1	"
-80	1.00								"
-81	1.00		26	2	5	5	1	0.05	"
-82	1.00								"
-83	0.92		27	5	180	8	1	0.1	"
-84	1.00								White to pale brown quartzite.
-85	1.00		28	8	38	12	1	0.1	White quartzite.
-86	1.00								"
-87	1.00		362829	20	80	12	1	0.05	"
87.0-87.7	0.70								"
			End of hole						

49A

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EXPLORATION LICENCE 46 'EDIACARA'

PROGRESS REPORT FOR QUARTER ENDED 15TH MARCH, 1974

No further field work has been carried out within Exploration Licence 46 during the quarter.

Assessment of geological information on the area and the results of drilling carried out last quarter has continued. On the basis of this assessment and in the light of information obtained from our recent drilling of the similar environment within Exploration Licence 78 'Moro Gorge' it was decided to apply for an extension of Exploration Licence 46 for a further 12 months.

A statement of expenditure for the quarter is attached.

.....
for E.M. Bennett
Manager

496

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EXPLORATION LICENCE NO. 46 'EDIACARA'

STATEMENT OF EXPENDITURE FOR QUARTER ENDED

MARCH 15, 1974

	$
ADMINISTRATION	314
ASSAYING	62
CONTRACT DRILLING	1 916
PLANT HIRE	133
OPERATING LABOUR	891
STORES AND PROVISIONS	130
TRANSPORTATION	133
TRAVELLING EXPENSES	22
THIS PERIOD	3 601
PREVIOUSLY REPORTED	40 972
TOTAL TO DATE	$44 573

for E.M. Bennett
Manager.

000053

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

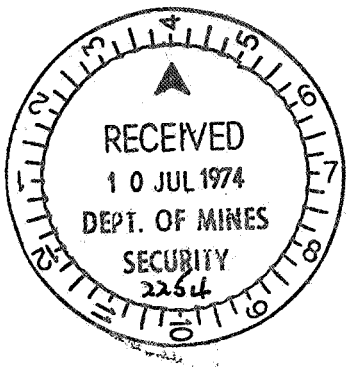
EXPLORATION LICENCE 46 "EDIACARA"

PROGRESS REPORT FOR QUARTER ENDED JUNE 16TH, 1974

Due to exceptionally wet conditions Exploration Licence 46 has been inaccessible and consequently no field work has been carried out during the quarter.

A geologist has been assigned to this project and he is currently reviewing previous work.

for E.M. Bennett,
Manager.



000054

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

E.L. NO.46 'EDIACARA'

STATEMENT OF EXPENDITURE FOR QUARTER ENDED 15TH JUNE 1974

There was no expenditure charged to this Exploration Licence during the quarter, as no field work was possible.

for E.M. Bennett,
Manager.

000045

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EXPLORATION LICENCE NO.46 "EDIACARA"

PROGRESS REPORT FOR QUARTER ENDED 15TH SEPTEMBER, 1974

During the quarter the results of all previous investigations undertaken on the "Ediacara" area by Carpentaria Exploration Company Pty. Ltd. and others, were evaluated.

One field trip was undertaken to assess the situation in the field and to determine the number of existing drill holes suitable for down-hole geophysical examination.

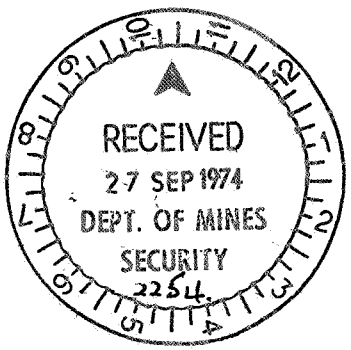
Only 7 of the 80 holes examined were found to be open below 50 m depth and the idea of using down-hole geophysics was discarded.

Future work on Exploration Licence No.46 will depend on the results of a drilling programme to be undertaken in early November on Exploration Licence No.78 "Moro Gorge", which has the equivalent geological environment and similar type of mineralization. Should the drilling at "Moro Gorge" prove successful, then surface techniques used to define drilling targets can be used at "Ediacara". If the drilling fails to provide encouragement then it is unlikely that work will be warranted at Ediacara and the area will be relinquished.

A Statement of Expenditure is attached.

.....

FOR E.M. BENNETT,
MANAGER.



CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EXPLORATION LICENCE NO.46 "EDIACARA"

EXPENDITURE REPORT FOR QUARTER ENDED 15TH SEPTEMBER, 1974

Administration	$	100
Plant Hire		23
Operating Labour		288
Stores & Provisions		74
This Period		485
Previously Reported		44 573
Total to Date	$	45 058

FOR E.M. BENNETT,
MANAGER.

000048

Carpentaria Exploration Company Pty. Ltd.

INCORPORATED IN QUEENSLAND
REGISTERED OFFICE: M.I.M. BUILDING, 160 ANN STREET, BRISBANE, QUEENSLAND

TELEX ADDRESS:
"MIMHOLD AA 40160 BRISBANE"

TELEPHONE: 21 0044

TELEGRAPHIC CODE:
"MINESEARCH BRISBANE"

P.O. BOX 1042
BRISBANE, Q. 4001

WFS:SF:17-640

January 23, 1975.

The Director of Mines,
Department of Mines,
P.O. Box 38,
Rundle Street,
ADELAIDE. SOUTH AUSTRALIA. 5000.

EXPLORATION LICENCE NO.46 "EDIACARA"

Dear Sir,

We submit with this letter our Progress Report for the quarter ended December 15, 1974. There was no expenditure incurred during the quarter.

Yours faithfully,
CARPENTARIA EXPLORATION COMPANY PTY. LTD.

A.W. Howe
Administration Manager

Encl.

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EXPLORATION LICENCE NO.46 "EDIACARA"

PROGRESS REPORT FOR QUARTER ENDED DECEMBER 15, 1974

No field work has been carried out within Exploration Licence No.46 during the quarter.

As stated in the previous Quarterly Report, results of drilling on Exploration Licence No.78 "Moro Gorge" are required before a decision can be made on renewal of Exploration Licence No.46. This drilling was commenced in December 1974 and should be completed in late January 1975.

Results to date indicate little likelihood of exploration being perpetuated in either of Exploration Licences 46 or 78. However, the final decision for relinquishment will be reserved until the drilling programme is completed.

A.W. Howe
Administration Manager

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CARPENTARIA EXPLORATION COMPANY PTY. LTD.

MINING TENEMENT

PROGRESS REPORT

EXPLORATION LICENCE NO.46 "EDIACARA", S.A.

FINAL REPORT

DATE: March 7, 1975.

COPY: MINES

EXPLORATION LICENCE NO. 46 - EDIACARA - S.A.

FINAL REPORT

1. INTRODUCTION

Exploration Licence No. 46 "Ediacara" was applied for on August 21, 1972 and granted for a period of one year from March 16, 1973. It was extended for a further 12 months from March 16, 1974.

It was hoped that surface prospecting techniques being applied in the similar geological environment of Exploration Licence No. 78 "Moro Gorge" would be successful and could be applied to Ediacara. No field work has been carried out at Ediacara pending these results. Drilling of anomalies at Moro Gorge has not been successful.

2. INVESTIGATIONS COMPLETED TO DATE

Owing to the large numbers of reports issued on Ediacara by various organizations, this report summarizes the work and conclusions reached by Carpentaria Exploration Company Pty. Ltd. (C.E.C.) personnel only.

The Supervising Geophysicist (memo to Manager, C.E.C., in C.E.C. report to the Mines Department "Special Mining Lease No. 353 'Lake Torrens Plains', Quarterly Report to November 12, 1970") has reinterpreted Mines Department induced polarization conducted over the Ediacara basin in 1961-1963, and concluded that the survey failed to locate known mineralization, and therefore probably failed to detect any mineralization. Many anomalies were recorded but these were probably due either to membrane effects of clays within the Ajax Limestone or the readily polarizable Parachilna Formation.

The mineralization at the northern end of the basin consists of galena coated with non-polarizable anglesite and cerussite

2. INVESTIGATIONS COMPLETED TO DATE (cont.)

and this effectively insulates the mineralization from the induced polarization field. Several anomalies drilled by the Mines Department were found to be barren.

The Mines Department and C.R.A. Exploration Pty. Limited drilling outlined 2 separate mineralized lenses in the northern end of the basin around Greenwood's Workings of 12×10^6 t of 0.84% lead and 17×10^6 t of 1.23% lead respectively (Johns 1972).

C.E.C. drilling revealed 4 mineralized bodies in the vicinity of the Black Eagle mine on the western side of the basin with possible reserves of:- DRILL HOLES.

1) 194 000 t - 0.74% copper, 8.25% barite T27, T28, T39-T45.

2) 320 000 t - 0.92% copper T2A, T4, T5, T6.

3) 225 000 t - 21.2% barite T27, T28, T39 - T45.

4) 1 700 000 t - 12% barite, 1.0% lead (Okill 1972) T2A, T4, T5, T6.

Okill suggested that further drilling be undertaken in the Southern Workings area, where C.E.C. holes T30 and T31 intersected 6.1 m of 2.05% lead and 10.67 m of 6.69% lead respectively. These holes are situated close to Mines Department holes 3-6, E25 and E26 which did not intersect significant mineralization, and the potential for an orebody in this area is very limited.

3. RELEVANT PLANS INCLUDED IN DEPARTMENT OF MINES QUARTERLY REPORT

Quarterly Report	Plan No.	Title
December 14, 1974	15327	Grid and Drill Holes T48, T12, E45
	15245	Grid and Drill Holes T48, T12, E45
	15248	Drillhole assays
	15249	Geology
	15250	Drillhole assays

REFERENCES

Dwyer, E.A. 1970, "Special Mining Lease No. 353 'Lake Torrens Plains', Quarterly report to the Mines Department for period ended November 12, 1970."

Johns, R.K. 1972, "Base Metal Occurrences in the Northern Flinders Ranges", Geol. Survey of S.A. Report of Investigations 37.

Okill, R. 1972, "Special Mining Lease No. 637 'Ediacara', Quarterly report to the Mines Department for period ended August 12, 1972."

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EXPLORATION LICENCE NO.46 "EDIACARA"

FINAL STATEMENT OF EXPENDITURE

	$
Expenditure during 1st year to March 16, 1974	44 573
Expenditure during 2nd year to March 16, 1975	485
Total Expenditure since E.L. granted	$45 058

No further field expenditure was incurred on this Licence in the last quarter. The extension of the term from March 16, 1974, was requested to allow full evaluation of the exploration information obtained from this and other areas which were geologically similar.

A.W. Howe
Administration Manager

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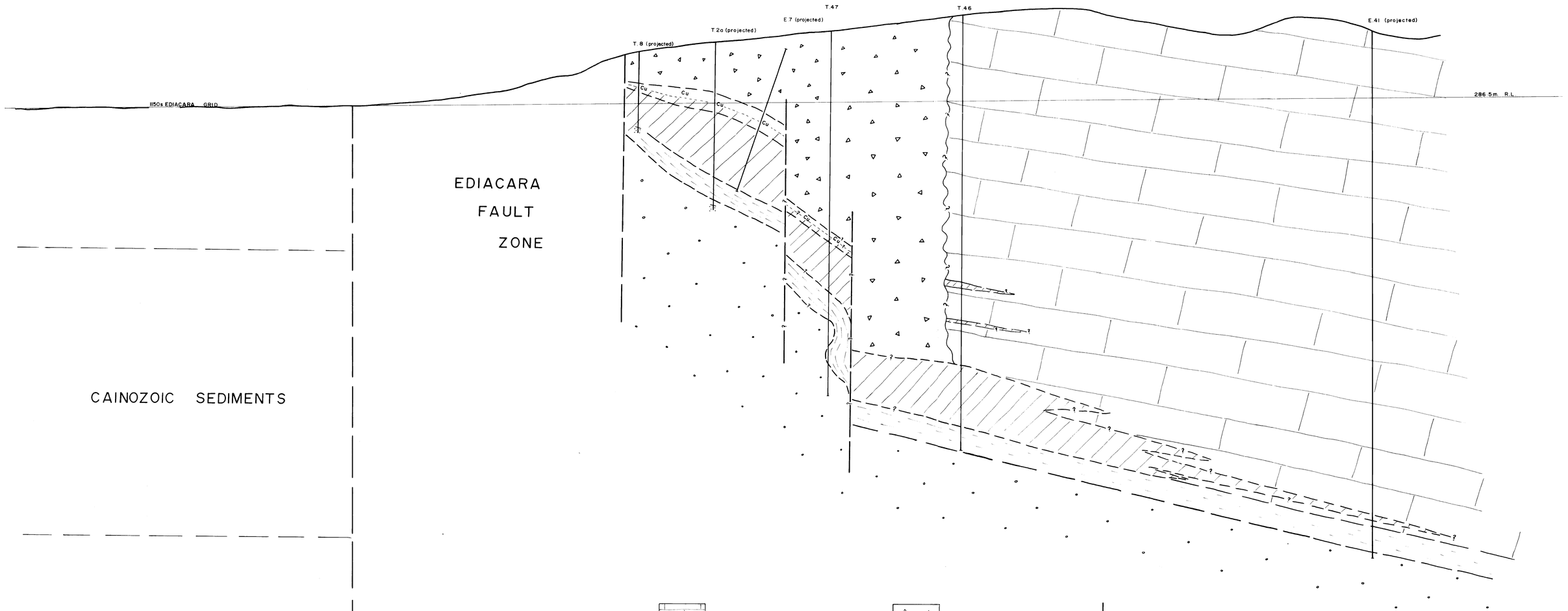
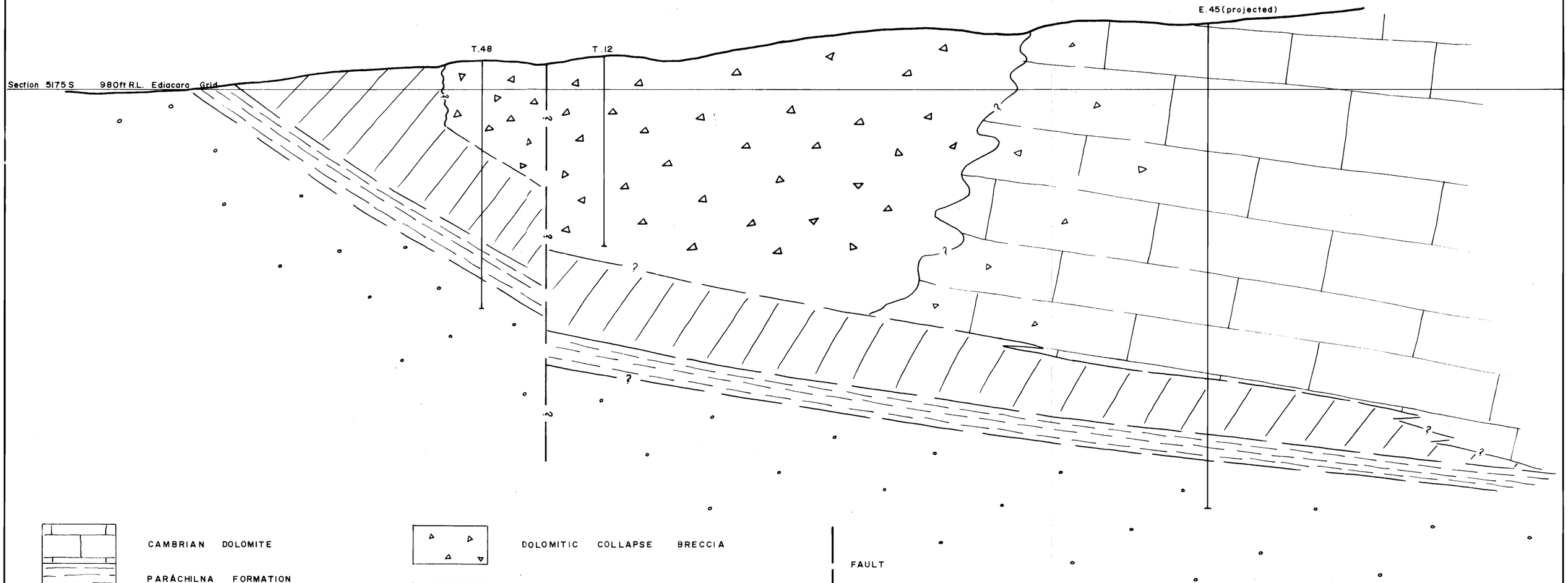


ENV 2254-1

REVISION		SCALE: 1:1000	CARPENTARIA EXPLORATION COMPANY PTY LTD
		GEO P.J.B.	
		DRAWN: E.D.	SECTION 1150 S
		CHECKED:	
		DATE: 14.11.73	EDIACARA GRID
		MICROFILMED:	
		ROLL N°:	
		MINING FIELD or DISTRICT: E.L.46 EDIACARA S.A.	DRG.N°: 15245



CAMBRIAN DOLOMITE

PARACHILNA FORMATION

POUND QUARTZITE

DOLOMITIC COLLAPSE BRECCIA

LEACHED ZONE

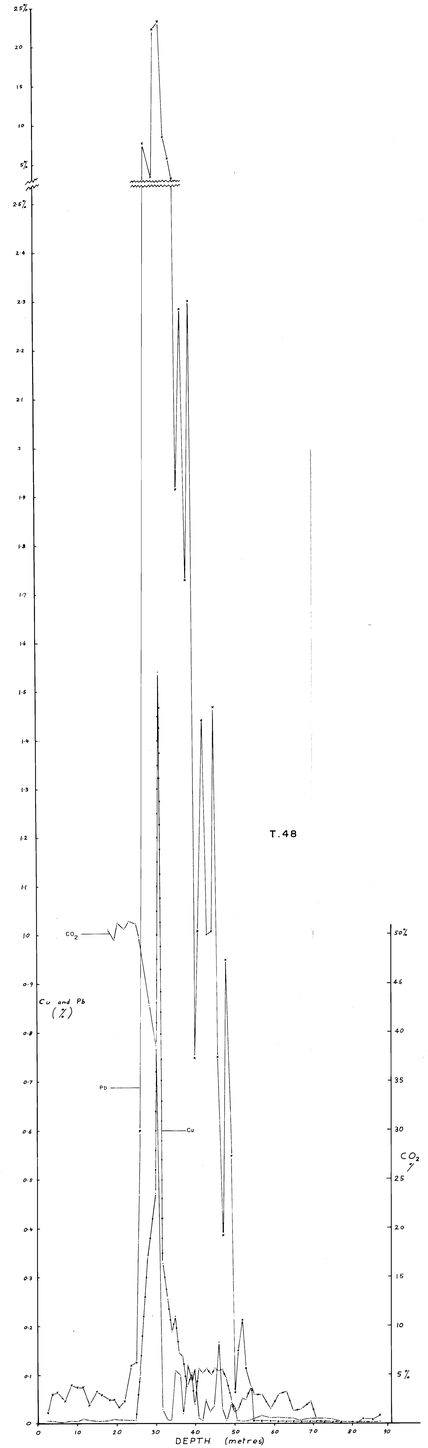
FAULT

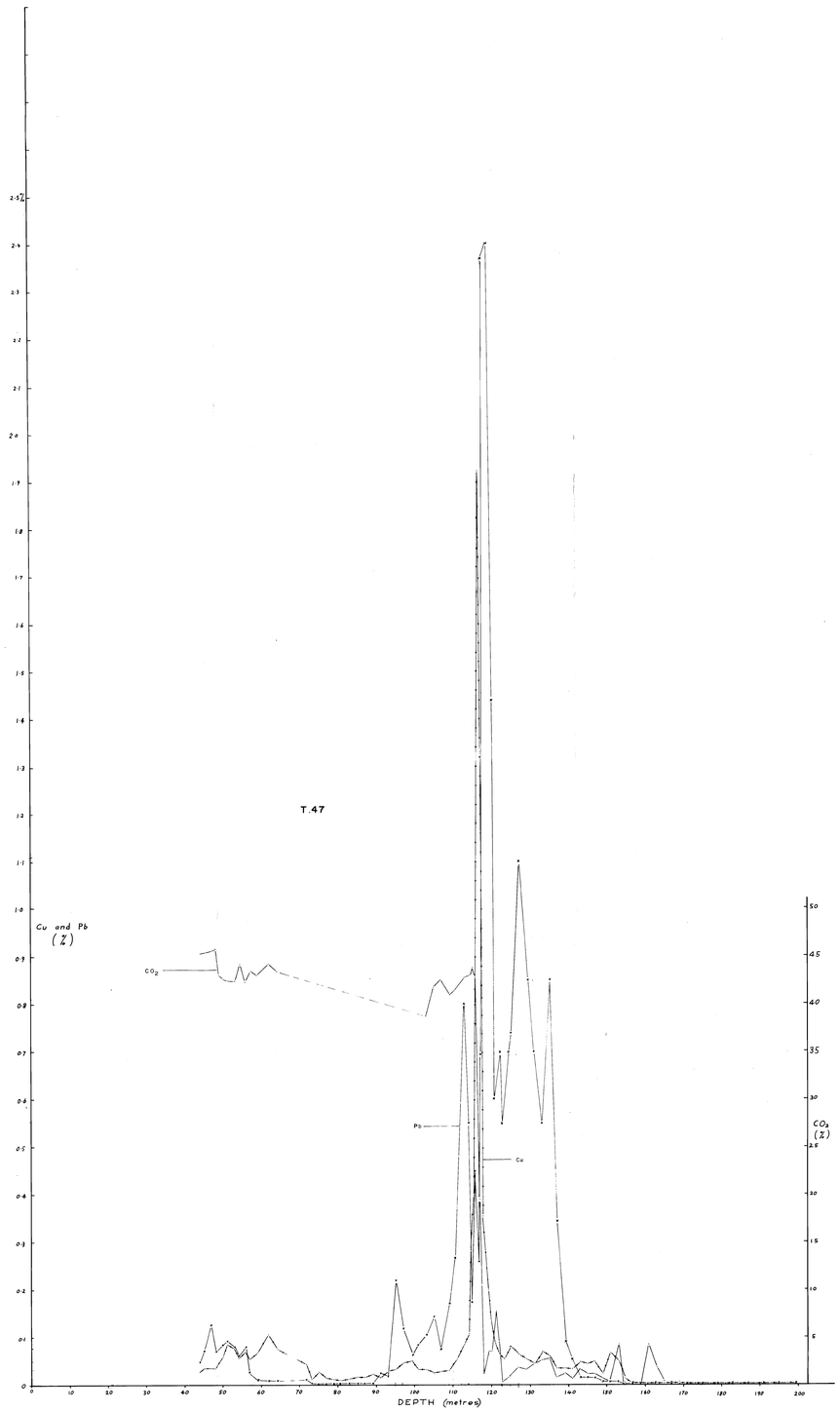
T.48

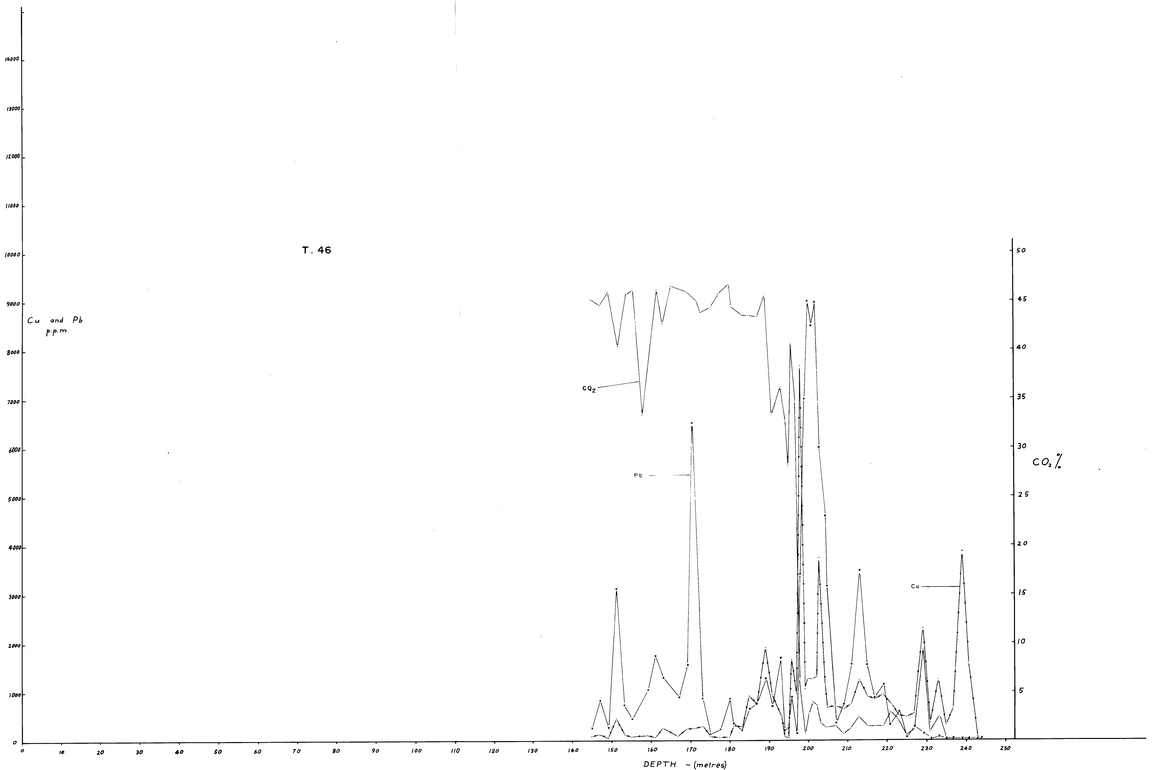
DRILL HOLE

ENV 2254-2

REVISION		SCALE: 1:1000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
		GEO P.J.B.	
		DRAWN: E.A.D.	SECTION 5175S
		CHECKED:	EDIACARA GRID
		DATE: NOV '73	DRILL HOLES T.48, T.12, E.45
		MICROFILMED:	
		ROLL No:	
		MINING FIELD or DISTRICT: E.L.46 EDIACARA S.A.	DRG.No: 15237

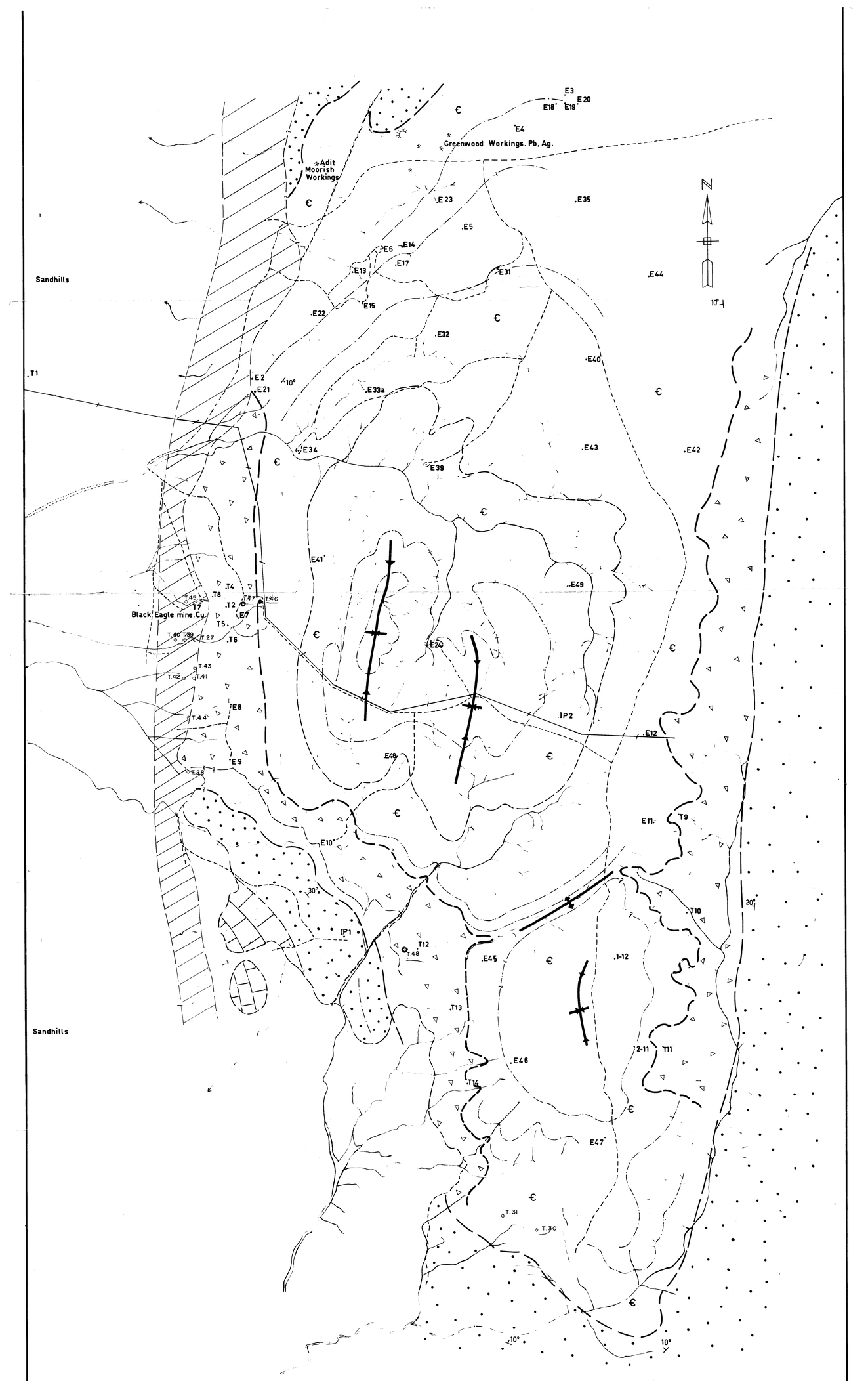






ENV 2254-3

REVISION		SCALE: as shown	CARPENTARIA EXPLORATION COMPANY PTY LTD.
		GEO P.J.B	
		DRAWN: E.A.D	D.D.H's T.46, T.47, T.48
		CHECKED:	PLOTS OF ASSAYS
		DATE: 16.12.73	(Cu, Pb, and CO_2)
		MICROFILMED:	AGAINST DEPTH
		ROLL N°:	
		MINING FIELD or DISTRICT: E.L. 46 EDIACARA S.A.	DRG.N°: 15248

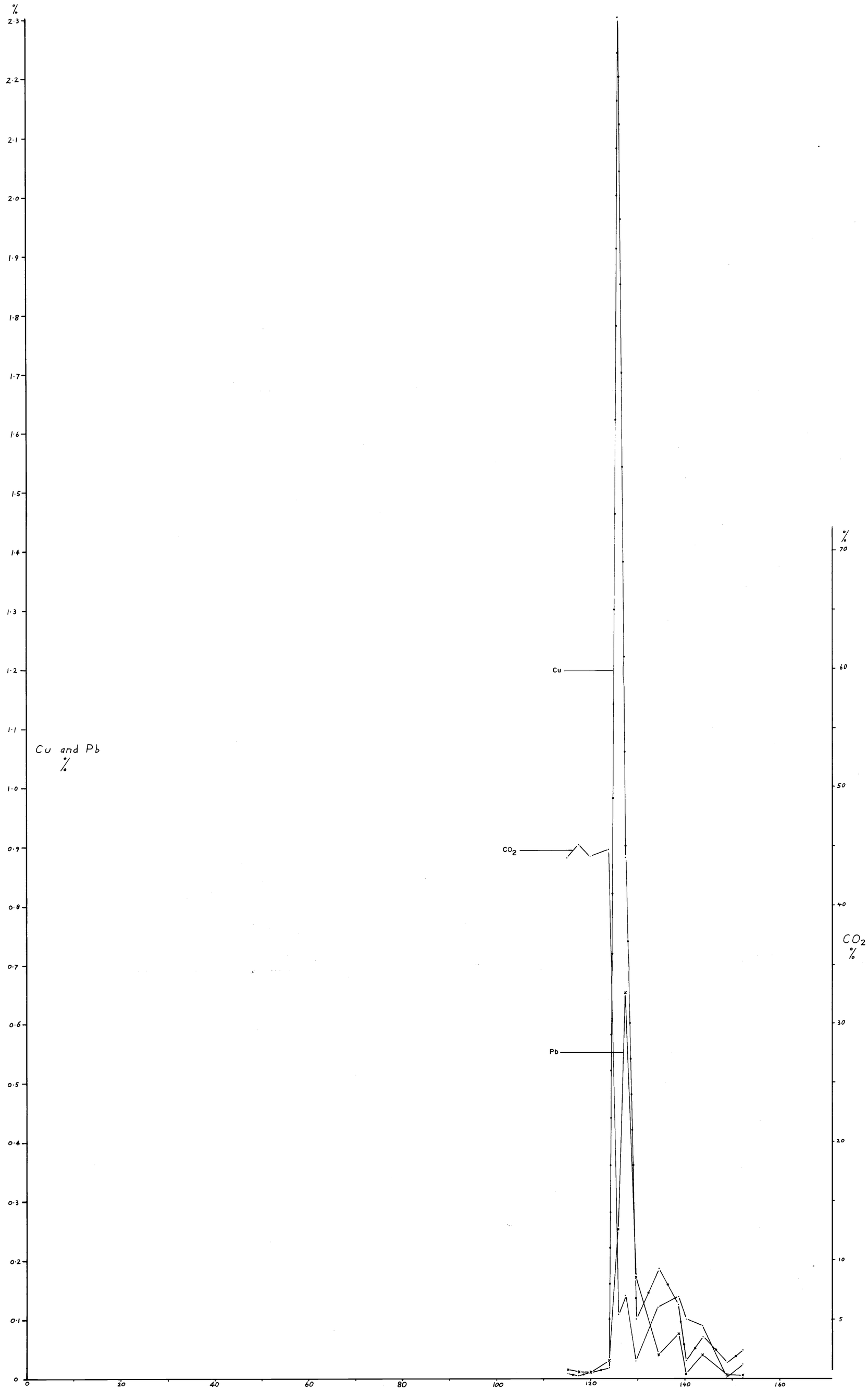


LEGEND

- Collapse Breccia Zone
- € Cambrian Dolomite
- Pound Quartzite
- Wonoka Formation
- Lithological Trend Lines
- Anticlinal Axis
- Synclinal Axis
- Ediacara Fault Crush Zone
- Tracks
- Streams
- Fence
- E47 .T12 Drill Holes and Titles
- Mines and Prospects
- 10° Dip
- Dump
- Inferred Fault

REVISION		CARPENTARIA EXPLORATION COMPANY PTY. LTD.
E.L. 46 EDIACARA		
INTERPRETIVE GEOLOGICAL MAP		
SCALE 1" = 500' (1cm = 50m)	GEOL. P.J. Binks	DATE 17.12.73
CHECKED	DRAWN E.A. Dwyer	DRG No 19249

ENV 2254-4



ENV 2254-5

REVISION		SCALE: as shown	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
		GEO P J B	
		DRAWN: E A D	D.D.H. E.45
		CHECKED:	PLOT OF **ASSAYS**
		DATE: 17.12.73	(Cu, Pb and CO_2)
		MICROFILMED:	AGAINST DEPTH
		ROLL N°:	
		MINING FIELD or DISTRICT: **E.L. 46 EDIACARA S.A.**	DRG. N°: 15 250