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EL 186

PANDURRA AREA SOUTH AUSTRALIA

SURRENDER REPORTS
APRIL 1976

Submitted by
Pacminex Pty Ltd

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Resources and Energy Group,
GPO Box 320, Adelaide, SA 5001.

Enquiries: Customer Services
Resources and Energy Group
7th Floor
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000
Facsimile: (08) 8204 1880



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Department of State Development

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TENEMENT HOLDER: C.S.R. Ltd.

REPORTS:

TONKIN, D.G. 1976

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Licence 186 Pandurra area, South Australia
April 1976

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PACMINEX PTY. LIMITED

RELINQUISHMENT REPORT
FOR PORTION OF
EXPLORATION LICENCE 186
PANDURRA AREA, SOUTH AUSTRALIA

PMR 73/76



APRIL, 1976

D. G. TONKIN

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SOUTH AUSTRALIA

EXPLORATION

9E.L. 186

GEOLOGY

SURVEY

INPUT

STRATIGRAPHY

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DRILLING

REVIEW

1976

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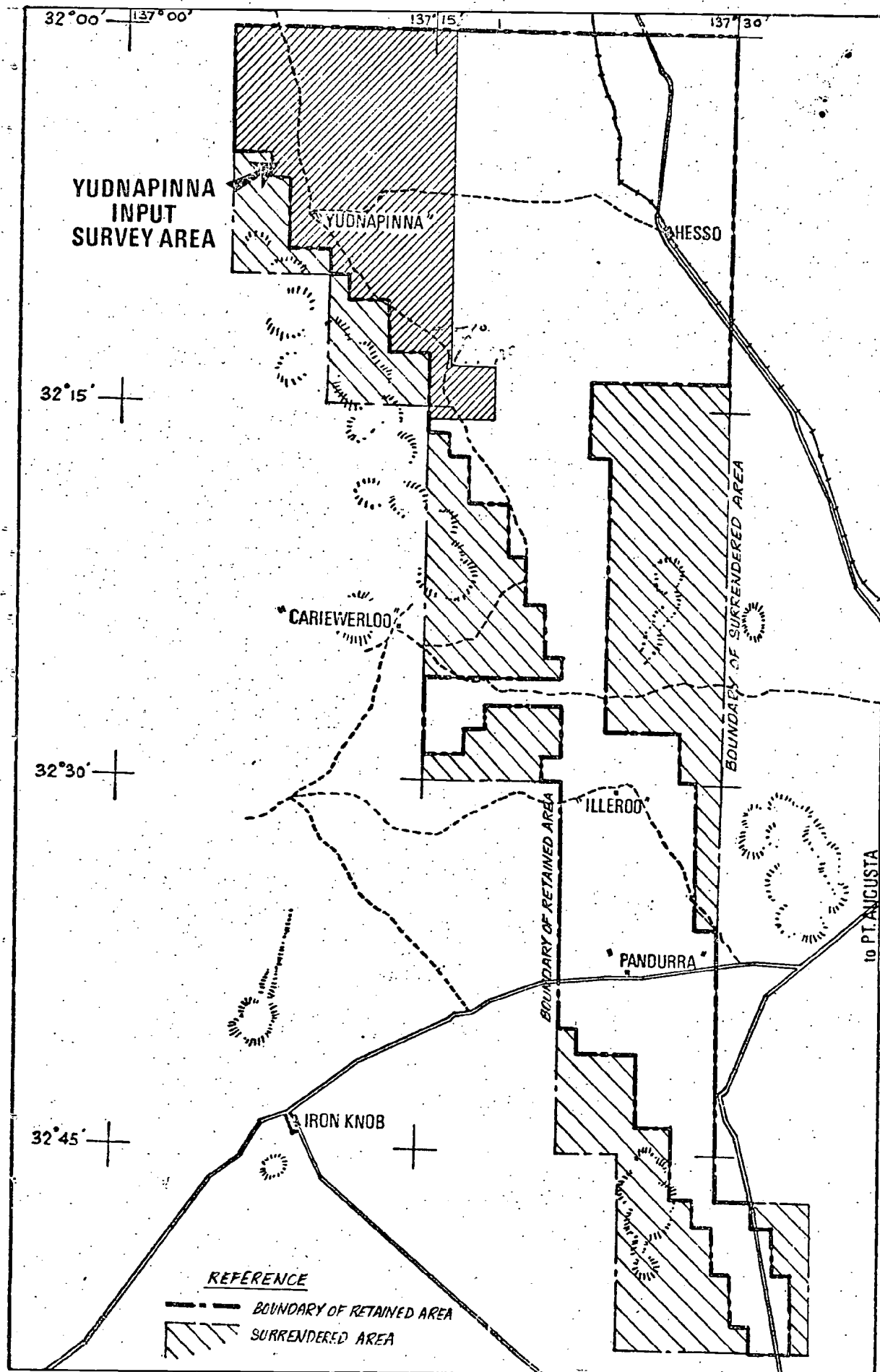


FIGURE 1

LOCATION MAP E.L. 186 (PANDURRA) S.A.
SHOWING AREA SURRENDERED AND LOCATION OF INPUT SURVEY

1. INTRODUCTION

Exploration Licence 186 (E.L. 186), known as the Pandurra Area, South Australia was granted to CSR Limited on the 7th of April, 1975. It covered an area of 2,215 km². The identical area had been held since March 1973 under Exploration Licence 50, by Mount Gunson Mines Pty. Limited, a CSR Limited subsidiary.

In October, 1975 CSR Limited applied for the Minister's consent to surrender approximately 738 square kilometres of Exploration Licence No. 186, reducing the area retained to 1,477 square kilometres. Consent was granted in March, 1976.

This report describes exploration in the excised portions, which are outlined in Figure 1. These portions are considered to have a low exploration potential for copper and other base metals.

2. SUMMARY

Surface geological mapping and open hole stratigraphic drilling were carried out in the relinquished portions of E.L. 186. As a result of this work, the surrendered area is considered to have a lower potential for base metal mineralisation, of the type sought, than the area being retained.

3. EXPLORATION OBJECTIVES

The Pandurra Area was taken up for the exploration of copper deposits similar to those found at Mt. Gunson and also for base metal deposits that may be associated with other favourable depositional environments. It was considered to have potential for the Mt. Gunson type of deposits because outcrops of Pandurra Formation rocks were known to occur in the area. At Mt. Gunson, rocks of the Pandurra Formation form the principal host to copper mineralisation. Copper is concentrated in the Pandurra Formation at or near an erosional unconformity separating the Pandurra Formation from the overlying Whyalla Sandstone.

4. EXPLORATION STRATEGY

Exploration strategy was to locate geologically favourable areas which would then be more closely prospected. This meant outlining the Pandurra Formation and tracing its contact with the overlying Whyalla Sandstone. It also meant finding any areas where Pandurra Formation occurred at shallow depth, beneath a thin cover of Whyalla Sandstone.

AGE		ROCK SEQUENCE	
CAMBRIAN			
ADELAIDEAN	MARINOAN		SIMMENS QUARTZITE MEMBER
			CORRABERKA SANDSTONE MEMBER
		TENT HILL FORMATION	TREGOLANA SHALE MEMBER
			WHYALLA SANDSTONE MEMBER
	STURTIAN	'YUDNAPINNA BEDS'	Red bed dolomitic siltstones; discontinuous
		WOODCALLA DOLOMITE	Black dolomitic laminites
			Dolomite (stromatolitic, oolitic, arenaceous)
		'MC LEAY BEDS'	Sandstones, quartzites and shales; discontinuous.
	? TORRENSIAN?		Basal ('Elizabeth Creek') conglomerate; discontinuous.
		PANDURRA FORMATION	Crithy red sandstones; silicified near top, conglomeritic near base.
	WILLOURAN	ROOPENA VOLCANICS	Mafic lavas
CARPENTARIAN		GAWLER RANGE VOLCANICS	
		CORUNNA CONGLOMERATE	

D.G.T. / S.C.P. 1974

Figure 2. THE ADELAIDEAN SEQUENCE OF THE STUART SHELF

5. EXPLORATION METHODS

The methods adopted for the exploration programme were outcrop mapping, sub-outcrop mapping, sub-surface interpretation guided by stratigraphic drilling and airborne geophysical surveys. Because the various rock units have been relatively undisturbed since they were deposited, their distribution and development can only be traced by extensive drilling.

5.1 Geological Mapping

Reconnaissance geological mapping was done between June and September, 1973. In many places surface float material was used to interpret the nature of the rock sub-outcrop. Later stratigraphic drilling proved this procedure to be unreliable. Drawing No. I534-2 shows the bedrock lithology in the portions relinquished. This plan is based on information obtained from both surface geological mapping and stratigraphic drilling.

5.2 Stratigraphic Drilling

Stratigraphic open hole drilling programmes were undertaken in October/November 1973, March 1974 and June/July 1974. The first programme was drilled by AFRAC Drilling Pty. Limited, the second and third by Thomson Drilling Co. Pty. Limited. Mayhew 1000 rotary drilling rigs were used each time.

Twenty-one rotary holes were drilled in the relinquished portions of E.L. 186. Drill hole logs, including geochemical assay data, are appended to this report. Current stratigraphic interpretations of these logs are also appended. Figure 2 depicts the current interpretation of the Adelaidean Sequence on the Stuart shelf. Drill hole locations are shown on Drawing No. I534-2.

5.3 Airborne INPUT Surveying

The two surrendered blocks in the north-western corner of E.L. 186 were covered by part of an airborne INPUT electromagnetic survey (Figure 1). This survey was flown by Geoterrex Pty. Limited in February, 1975.

Within the relinquished portions of E.L. 186, EM conductivity was uniformly low. This was taken as confirming the presence of Pandurra Formation rocks in outcrop or sub-outcrop throughout the surrendered area. Plans showing INPUT 4th channel contours and isomagnetic contours for the surrendered areas are included with this report (Drawing NO.'s I534-3 and I534-4).

6. MINERAL POTENTIAL

The area relinquished is considered to have low potential for the minerals sought. In those portions adjacent to the western border of E.L. 186, the Pandurra Formation crops out, with little or no covering by Adelaidean sediments. Rocks older than the Pandurra Formation also crop out in some of the relinquished portions on the western side of E.L. 186 (See Drawing No. I534-2).

On the eastern side of E.L. 186 two portions were surrendered, because the depth, to the geological strata considered favourable, was too great. This was especially so in the area covered by North Tent Hill and the Horse Shoe Hill Range, where mesas rise to more than 200 metres above the level of the plain.

APPENDIX ISTRATIGRAPHIC INTERPRETATIONS OF DRILL HOLE LOGS

APPENDIX ISTRATIGRAPHIC INTERPRETATIONS OF DRILL HOLE LOGS

<u>Hole No. EX 19</u>	0-18 m	:	Quaternary Sediments
	18-30 m	:	"Yudnapinna Beds"
	49 30-49 m	:	Woocalla Dolomite; leached to Magazine Hill type clay.
	67+ 49-97.5 m	:	Woocalla Dolomite; dolomitic shale facies
<u>Hole No. EX 20</u>	0- 9 m	:	Quaternary Sediments
	9-15 m	:	Tregolana Shale
	24 15-64 m	:	"Yudnapinna Beds"
	64-96 m	:	Woocalla Dolomite; dolomitic shale facies
<u>Hole No. EX 29</u>	0-10.5 m	:	Quaternary Sediments
	10.5-47.7 m	:	Pandurra Formation
<u>Hole No. EX 30</u>	0-15 m	:	Quaternary Sediments
	15-24.4 m	:	Pandurra Formation
<u>Hole No. EX 31</u>	0- 3 m	:	Quaternary Sediments
	3- 6 m	:	Silcrete
	6-53.9 m	:	Pandurra Formation
	53.6-54.9 m	:	Fine-grained igneous rock (Gawler Range Volcanics?)
<u>Hole No. EX 32</u>	0- 6 m	:	Quaternary Sediments
	6-18 m	:	"Yudnapinna Beds"
	18-42.7 m	:	Gawler Range Volcanics (acid volcanics)
<u>Hole No. EX 35</u>	0-7.5 m	:	Quaternary Sediments
	7.5-64 m	:	Tregolana Shale
	29 64-93 m	:	"Yudnapinna Beds"

APPENDIX I CONT.2

<u>Hole No. EX 44</u>	0- 3 m	: Quaternary Sediments
	3-21 m	: "Yudnapinna Beds"; leached to a clay
	59+ 21-79.9 m	: "Yudnapinna Beds"
<u>Hole No. EX 58</u>	0- 3 m	: Quaternary Sediments
	3-64 m	: Pandurra Formation
<u>Hole No. EX 64</u>	0- 6 m	: Quaternary Sand
	6-12 m	: Cainozoic Sediments
	44 } 12-36 m	: "Yudnapinna Beds"; leached to a clay
	36-56 m	: "Yudnapinna Beds"
	56-70 m	: Woocalla Dolomite; dolomitic shale facies
<u>Hole No. EX 65</u>	0- 6 m	: Quaternary Sediments
	6-61 m	: Pandurra Formation
<u>Hole No. EX 93</u>	0-33 m	: Tregolana Shale
	33-42 m	: "Yudnapinna Beds"? (or Tregolana Shale?)
<u>Hole No. EX 100</u>	0- 3 m	: Quaternary
	3- 9 m	: Gawler Range Volcanics
<u>Hole No. EX 101</u>	0- 3 m	: Quaternary
	3-46.5 m	: Pandurra Formation
<u>Hole No. EX 102</u>	0- 6 m	: Quaternary Sediments
	6-15 m	: Pandurra Formation
<u>Hole No. EX 105</u>	0- 5 m	: Quaternary Sediments
	5- 9 m	: Gawler Range Volcanic? weathered to a clay.
	9-18 m	: Gawler Range Volcanics? (?acid volcanics).

APPENDIX I CONT. 3

<u>Hole No. EX 106</u>	0- 3 m	:	Quaternary Sand
	3- 9 m	:	Silcrete
	9-12 m	:	Gawler Range Volcanics? weathered to a clay
	12-18 m	:	Gawler Range Volcanics? (?acid volcanic)
<u>Hole No. EX 107</u>	0-12 m	:	Cainozoic
	12-30 m	:	Gawler Range Volcanics? weathered to a clay
	30-33 m	:	Gawler Range Volcanics? (?acid Volcanic)
<u>Hole No. EX 108</u>	0- 6 m	:	Quaternary
	6-7.5 m	:	Silcrete
	7.5-33 m	:	Gawler Range Volcanics? (?acid Volcanic)
<u>Hole No. EX 109</u>	0- 3 m	:	Quaternary
	3-77 m	:	Pandurra Formation
<u>Hole No. EX 110</u>	0- 2 m	:	Quaternary
	2- 4 m	:	Silcrete
	4-72 m	:	Pandurra Formation

APPENDIX II

STRATIGRAPHIC DRILL HOLE LOGS

PROJECT AREA: PANDURRA

PROJECT No. 405

SPUDED: 11 - 10 - 73

COMPLETED: 12 - 10 - 73

LOCATION: "CARIWEAKOO"

CO-ORDS: X: Y:

ELEVATION: 75.664m

DIRECTION: V

INCLINATION: V

TOTAL DEPTH: 97.5 m.

HOLE TYPE: ROTARY

DRILLING CONTRACTOR: AFRAC

DRILLER: R. TAYLOR

LOGGED BY: D.G.T.

DATE:

BIT SIZE:

TO

TO

TO

CORE RECOVERY	METRAGE	DESCRIPTION	Core bodd'g angle and joint spacing	LOG SCALE: 1 : 600	SAMPLE No.	Assayed length	ASSAY VALUE P.P.M.				
							Cu	Pb	Zn	Mn	
	0	SAND : 0 - 3m		0	85373	3	30	30	30		
		GRAVEL : 3m - 6m		3	85374	3	15	<20	25		
		CLAY : 6m - 15m		6	85375	3	20	<20	45		
		Red clay		9	85376	3	15	<20	35		
				12	85377	3	20	<20	30		
	15	SAND : 15m - 18m. Loose, fine, red/brown		15	85378	3	15	<20	25		
		WHYALLA SANDSTONE : 18m to 30m		18	85379	3	10	<20	20		
		18m to 21m : medium grained, rounded quartz		21	85380	3	10	<20	10		
		21m to 27m : fine grain, white & pink grains		24	85381	3	10	<20	10		
		27m to 30m : S.S., pink/brown, clayey.		27	85382	3	20	20	20		
	30	MAGAZINE HILL CLAY 30m to 49m		30	85383	3					
		30m to 34m - Soft, greenish		34	85384	3	40	20	25		
		34m to 37m - Sandy, yellow & grey		37	85385	3					
		37m to 49m - Grey clay, sandy.		40	85386	3	15	<20	70		
				43	85387	3					
	46			46	85388	3	690	55	230	270	
		WOOCALLA DOLOMITE 49m to 97.5m		49	85389	3	170	55	120	1100	
		49m to 52m - Grey mudstone		52	85390	3	130	50	100	150	
		52m to 89.5m - Black, calcareous (dolomitic) shale		55	85391	3	65	50	85	2100	
				58	85392	3	50	50	95		
	61			61	85393	3					
				64	85394	3	55	50	140		
				67	85395	3					
				70	85396	3	45	60	200		
				73	85397	3					
	76			76	85398	3	45	55	130		
	79			79	85399	3					
	82			82	85400	3	50	45	90		
	85	89.5m to 91m - Hard, grey dolomite		85	85401	4.5					
	88			89.5	85402	3	210	210	70		
	91	91m to 97.5m - Black dolomitic shale		91	85403	3					
	94			94	85404	3	160	30	110		
	98	97.5m END HOLE		97.5							

PACMINEX PTY. LTD.

HOLE No. Ex 29

PAGE / OF /

PROJECT AREA: PANDURAA

PROJECT No. 405

SPUDDER: 15 - 10 - 73

COMPLETED: 15-10-73

LOCATION: "CARLEWENGOO"

CO-ORDS: X: Y:

ELEVATION: DIRECTION: V INCLINATION: V TOTAL DEPTH: 45.7 m

HOLE TYPE: ROTARY DRILLING CONTRACTOR: AFRAC DRILLER: R. TAYLOR

LOGGED BY: D.G.T. DATE: BIT SIZE: TO TO TO

[illegible]

HOLE No. EX 30
PAGE 1 OF 1

PROJECT AREA: PANDURRA		PROJECT No. 405	
SPUDED: 16-10-73		COMPLETED: 16-10-73	
LOCATION: "CAAIWERRAO"		CO-ORDS: X: Y:	
ELEVATION:	DIRECTION: V	INCLINATION: V	TOTAL DEPTH: 24.4 m.
HOLE TYPE: ROTARY	DRILLING CONTRACTOR: AFRAC		DRILLER: R. TAYLOR
LOGGED BY: D.G.T.	DATE:	BIT SIZE: TO	TO

[illegible]

U24
HOLE No. EX 31
PAGE 1 OF 1

PROJECT AREA: PANDURRA		PROJECT No. 405	
SPUDDED: 16-10-73		COMPLETED: 16-10-73	
LOCATION: "CARRIEMULLOO"		CO-ORDS: X: Y:	
ELEVATION: 126.819m	DIRECTION: Y	INCLINATION: Y	TOTAL DEPTH: 54.9 M.
HOLE TYPE: ROTARY & DIAMOND CORE		DRILLING CONTRACTOR: AFRAC	DRILLER: R. TAYLOR
LOGGED BY: D.G.T.	DATE:	BIT SIZE:	TO TO TO

[illegible]

PACMINEX PTY. LTD.

HOLE No. EX 32

PAGE / OF

PROJECT AREA: PANDURRA

PROJECT No. 405-

SPUDDER: 16 - 10 - 73

COMPLETED: 16 - 10 - 73

LOCATION: "CARIBWERRLOO"

CO-ORDS: X: Y:

ELEVATION: 121.962 m. DIRECTION:

✓

INCLINATION:

✓

TOTAL DEPTH:

42-7 m

HOLE TYPE: ROTARY

DRILLING CONTRACTOR: AFRAC

DRILLER: A. TAYLOR

LOGGED BY: D.G.T. DATE:

BIT SIZE:

TO

TO

TO

[illegible]

026
EX 35

PAGE 1 OF 1

PROJECT No. 405-

COMPLETED: 31-10-73

CO-ORDS: X: _____ **Y:** _____

93 m.

DRILLER: R. TAYLOR

BIT SIZE:

TO

TO

TO

CORE RECOVERY	METRAGE	DESCRIPTION	Core bedd'g angle and joint spacing	LOG SCALE: 1:600	SAMPLE No.	Assayed length	ASSAY VALUE P.P.M.				
							Cu	Pb	Zn		
	0										
	3	SOIL: Orange soil & calcare			85673	3	35	420	60		
	6	GRAVEL: 3m to 7.5m			85674	3	15	420	30		
	9				85675	3	15	420	30		
	12	TREGOKANA SHALE: 7.5m to 64m			85676	3	5	420	45		
	15				85677	3	10	420	45		
	18	7.5 to 34m: Red/brown chocolate like			85678	3	10	420	50		
	21	micaceous mudstone.			85679	3	5	420	45		
	24	Non-calcareous.			85680	3	20	420	80		
	27				85681	3	10	420	60		
	30				85682	3	40	420	60		
	34				85683	3	10	420	65		
	37				85684	3	15	420	60		
	40	34m to 64m: As above, but			85685	3	10	420	60		
	43	harder & a steeply			85686	3	5	420	55		
	46	cleavage face (mica).			85687	3	10	420	55		
	49				85688	3	15	420	60		
	52				85689	3	15	25	55		
	55				85690	3	10	420	60		
	58				85691	3	10	420	55		
	61				85692	3	5	420	60		
	64				85693	3	5	420	60		
	67	? WHYALLA S.S.: 64m to 93m			85694	3	65	420	50		
	70	64 - 93m: Green fine grain s.s.			85695	3	30	420	50		
	73	& siltstone			85696	3	10	420	50		
	76	67m: Water table. (300gal/hr.)			85697	3	50	420	40		
	79				85698	3	15	20	45		
	82	N.B. Mudstone chips in samples are			85699	3	15	30	40		
	85	probably contamination.			85700	3	10	40	85		
	88				85701	3	10	420	80		
	93				85702	4.5	10	45	60		

027

EX 44

OF 1

405

8-11-73

$$Y =$$

79.9 m

DRILLER: R. TAYLOR

TO

CORE RECOVERY	METRAGE	DESCRIPTION	Core bedd'g angle and joint spacing	LOG SCALE: 1:600	SAMPLE No.	Assayed length	ASSAY VALUE P. P. M.				
							Cu	Pb	Zn		
0		Soil 0-3			85871	3.05	20	220	40		
3		CLAY 3-21			872	"	20	220	40		
6		3-6 sticky, hard, red.			873	"	15	25	30		
9		6-12 Brittle, green/white			874	"	5	20	25		
12		12-18 Khaki chips			875	"	10	20	30		
15		18-21 Mustard chips			876	"	5	220	30		
18					877	"	15	20	40		
21		YUDNAPINNA BEDS?: 21 - 79.9			878	"	10	220	30		
24		21-30 Siltst., shaley, micaceous, brown & green.			879	"	10	20	65		
27					880	"	10	220	70		
30		30-32 Sandst., green/grey, fine, c pink lithics			881	"	10	220	25		
34		37-46 Siltst., shaley, brown & green			882	"	10	220	35		
37		46-49 Sandst., green, fine grained			883	"	5	220	40		
40		49-58 Siltst., grey. Sandst. red lithic green			884	"	5	220	35		
43					885	"	10	220	35		
46		58-79.9 Siltstone, sandy, grey & green, hard.			886	"	10	20	25		
49					887	"	30	220	25		
52					888	"	25	35	35		
55					889	"	10	220	20		
58					890	"	15	220	40		
61					891	"	15	220	20		
64					892	"	15	220	10		
67		(Hole abandoned : slow penetration (3m/hr))			893	"	15	220	20		
70					894	"	20	220	30		
73					895	"	20	20	25		
76					896	3.66	10	220	20		
79		END HOLE.		79.9							
		66-69m Petrography BMR 127/75									

031

EX 93

OF

PROJECT No. 405

COMPLETED: 22 - 3-74

CO-ORDS: X: Y:

ELEVATION: 82.949m DIRECTION: V INCLINATION: V TOTAL DEPTH: 42 m

HOLE TYPE: ROTARY DRILLING CONTRACTOR: THOMPSON DRILLER: G. SCANNON

LOGGED BY: D.G.T. DATE: BIT SIZE: 12 mm TO TO TO

[illegible]

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HOLE No. EX-100 032
PAGE 1 OF 1

PROJECT AREA: PANDURRA

PROJECT No. 405-

SPUDDER: 26-3-74

COMPLETED: 26 - 3 - 74

LOCATION: "MYALL CREEK"

CO-ORDS: X: Y:

ELEVATION: DIRECTION: V INCLINATION: V TOTAL DEPTH: 9 m.

HOLE TYPE: ROTARY DRILLING CONTRACTOR: THOMSON DRILLER: G. SCANLON

LOGGED BY: D.G.T. DATE: BIT SIZE: 121 mm .TO TO TO

[illegible]

PACMINEX PTY. LTD.

HOLE No. U33
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PAGE 1 OF 1

PROJECT AREA: PANDUAAA

PROJECT No. 405

SPUDDER: 26.3.74

COMPLETED: 26. 3. 74

LOCATION: "CARRIEWEALOO"

CO-ORDS: X: Y:

ELEVATION: 129.988" DIRECTION:

INCLINATION: v

TOTAL DEPTH: 46.5 m.

HOLE TYPE: ROTARY

DRILLING CONTRACTOR: THOMPSON

DRILLER: G. SCANLON

LOGGED BY: D.G.T. DATE:

BIT SIZE: 12/ mm TO

TO . . . TO

[illegible]

U34
HOLE No. EX 102
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[illegible]

HOLE No. 038
EX 108
PAGE 1 OF 1

PAGE 1 OF 1

PROJECT No. 405

COMPLETED: 28.3.74

CO-ORDS: X: Y:

HOLE TYPE: ROTARY DRILLING CONTRACTOR: THOMSON DRILLER: G. SCANLON

LOGGED BY: D.G.S. DATE: BIT SIZE: 121 mm TO TO TO

[illegible]

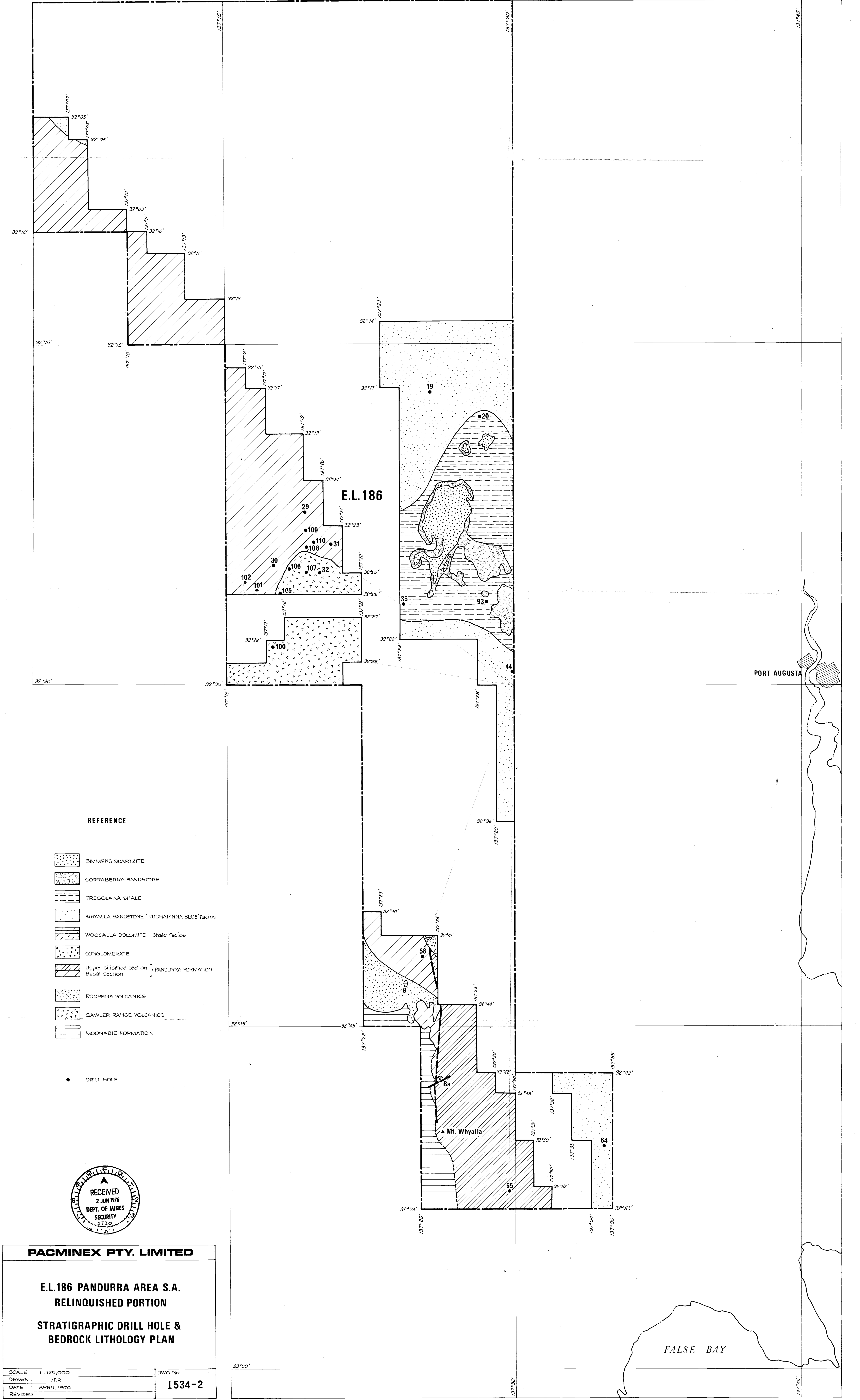
PROJECT AREA: PANDURRA PROJECT No. 405
SPUDED: 28.3.74 COMPLETED: 29.3.74
LOCATION: "CARRIEWATER" CO-ORDS: X: Y:
ELEVATION: DIRECTION: V INCLINATION: V TOTAL DEPTH: 77 m
HOLE TYPE: ROTARY DRILLING CONTRACTOR: THOMSON DRILLER: G. SCARFON
LOGGED BY: D.G.T. DATE: BIT SIZE: 121 mm TO TO

CORE RECOVERY	METRAGE	DESCRIPTION	Core bedd'g angle and joint spacing	LOG SCALE: 1: 600	SAMPLE No.	Assayed length	ASSAY VALUE PPM			
							Cu	Pb	Zn	
		GRAVEL & SOIL 0-3		0						
		PANDURRA FORMATION: 3-77		3	86780	3.0	25	40	45	
				6	781	"	10	40	20	
				9	782	"	10	50	60	
		3-39 Purple gtz. grains, not well rounded, in white clay matrix		12	783	"	10	20	20	
		Soft at first, becoming hard at 12 m. Cuttings have appearance of Pandurra Formation (Poss. reworked?)		15	784	"	40	30	40	
				18	785	"	10	20	20	
				21	786	"	25	20	30	
				24	787	"	10	20	20	
				27	788	"	15	20	20	
		39 Water table.		30	789	"	20	20	15	
		39-48 Coarse grained s.s. with red matrix Hard.		33	790	"	20	20	25	
				36	791	"	10	20	20	
		48-66 Fine grained, ± red pink grains. Hard. (Possibly reworked Pandurra Fm?)		39	792	"	10	30	30	
				42	793	"	20	20	20	
				45	794	"	15	30	30	
				48	795	"	15	20	30	
				51	796	"	20	20	30	
				54	797	"	10	30	30	
				57	798	"	15	20	30	
				60	799	"	15	30	30	
				63	800	"	20	30	25	
		66-77 Fine grained, ± red matrix & pink grains. Some green shale bands. Very hard (Possibly reworked Pandurra Fm?)		66	801	"	10	30	25	
				69	802	"	20	30	30	
				72	803	"	20	30	35	
				75	804	"	15	40	30	
				77	86805	2.0	50	40	20	
		END OF HOLE								

HOLE No. EX 110
PAGE 1 OF 1

PROJECT AREA: PANDURRA		PROJECT No. 405	
SPUDED: 29.3.74		COMPLETED: 30.3.74	
LOCATION: "CARRIEWEALOO"		CO-ORDS: X: Y:	
ELEVATION:	DIRECTION: N	INCLINATION: N	TOTAL DEPTH: 72 m
HOLE TYPE: ROTARY		DRILLING CONTRACTOR: THOMSON	DRILLER: G. SCARHON
LOGGED BY: D.G.T.	DATE:	BIT SIZE: 125 mm TO	TO TO

CORE RECOVERY	METRAGE	DESCRIPTION	Core bedd'g angle and joint spacing	LOG SCALE: 1 : 600	SAMPLE No.	Assayed length	ASSAY VALUE P.P.M.		
							Cu	Pb	Zn
		50% GRAVEL 0-2		0					
		SILCRETE 2-4		3	86 806	3.0	20	60	40
		PANDURRA FM: 4-72		6	809	"	10	30	20
		4-12 Friable white s.s.		9	808	"	10	20	30
				12	809	"	5	20	20
				15	810	"	10	20	30
		12-20 Friable pink/purple s.s.		18	811	"	15	20	25
		Harder at 20m. (Poss. reworked Pandurra Fm.)		21	812	"	10	20	25
				24	813	"	20	20	25
		20-24 Very coarse gr. grains in pink purple matrix.		27	814	"	22	20	20
				30	815	"	10	20	40
				33	816	"	10	20	20
		24-51 Coarse gr. in purplish matrix. Some patches of white matrix. From 36m matrix redder, a little greenish patches. Reasonably soft. (Poss. reworked Pandurra Fm.)		36	817	"	15	20	30
				39	818	"	10	20	20
				42	819	"	10	20	25
				45	820	"	10	20	20
				48	821	"	10	20	25
		51 m. Water table. Matrix becomes red.		51	822	"	15	20	30
				54	823	"	15	20	25
				57	824	"	10	20	35
		51-63 Red & white subrounded gr. + good trace of Heavy mineral.		60	825	"	15	20	30
				63	826	"	5	30	30
		63-72 As above + green shale in thin bands. Harder.		66	827	"	20	20	30
				69	828	"	20	20	25
				72	86 829	"			
		END OF HOLE							



REFERENCE

- SIMMENS QUARTZITE
- CORRABERRA SANDSTONE
- TREGOLANA SHALE
- WHYALLA SANDSTONE "YUDNAPINNA BEDS" facies
- WOOCALLA DOLOMITE Shale facies
- CONGLOMERATE
- Upper silicified section } PANDURRA FORMATION
- Basal section }
- ROOPENA VOLCANICS
- GAWLER RANGE VOLCANICS
- MOONACHIE FORMATION

• DRILL HOLE

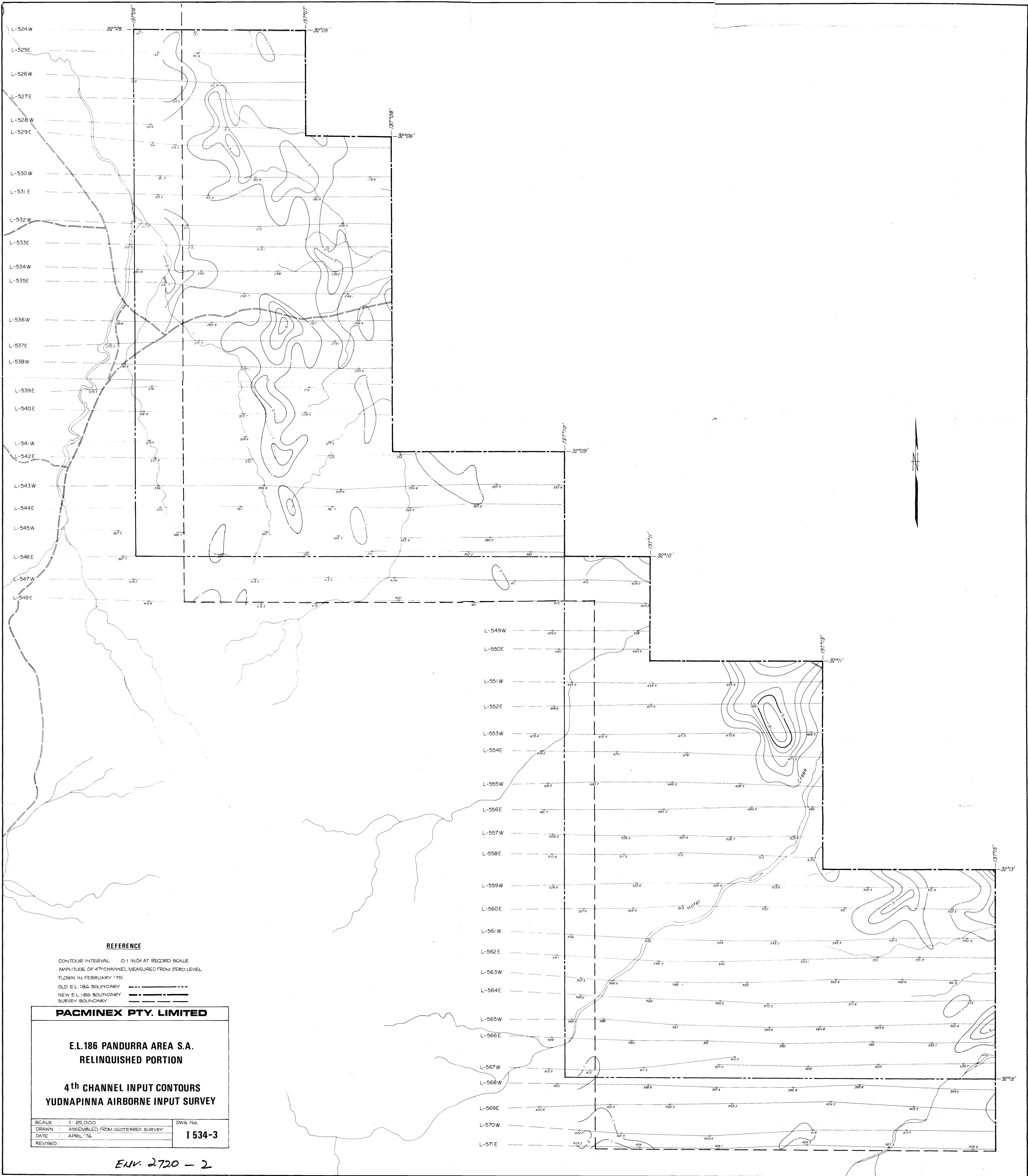


PACMINEX PTY. LIMITED

E.L.186 PANDURRA AREA S.A.
RELINQUISHED PORTION
STRATIGRAPHIC DRILL HOLE &
BEDROCK LITHOLOGY PLAN

SCALE : 1 : 125,000
DRAWN : /P.R.
DATE : APRIL 1976
REVISED :

DWG. No.
1534-2



REFERENCE

CONTOUR INTERVAL 0.1 INCH AT RECORD SCALE
AMPLITUDE OF 4th CHANNEL MEASURED FROM ZERO LEVEL
FLOWN IN FEBRUARY '75
OLD E.L. 186 BOUNDARY
NEW E.L. 186 BOUNDARY
SURVEY BOUNDARY

PACMINEX PTY. LIMITED

E.L. 186 PANDURRA AREA S.A.
RELINQUISHED PORTION

4th CHANNEL INPUT CONTOURS
YUDNAPINNA AIRBORNE INPUT SURVEY

SCALE : 1: 25,000
DRAWN : ASSEMBLED FROM GEOTERREX SURVEY
DATE : APRIL '76
REVISED :

DWG. No.
I 534-3

ENV. 2720 - 2

