

Open File Envelope

No. 9135

EL 2118 AND EL 2119

SWAN REACH AND MORGAN

**JOINT ANNUAL AND FINAL REPORTS TO LICENCES'
SURRENDER, FOR THE PERIOD 22/11/1995 TO 7/5/1998**

Submitted by
Mount Isa Mines Exploration Pty Ltd
1998

© 30/11/1998

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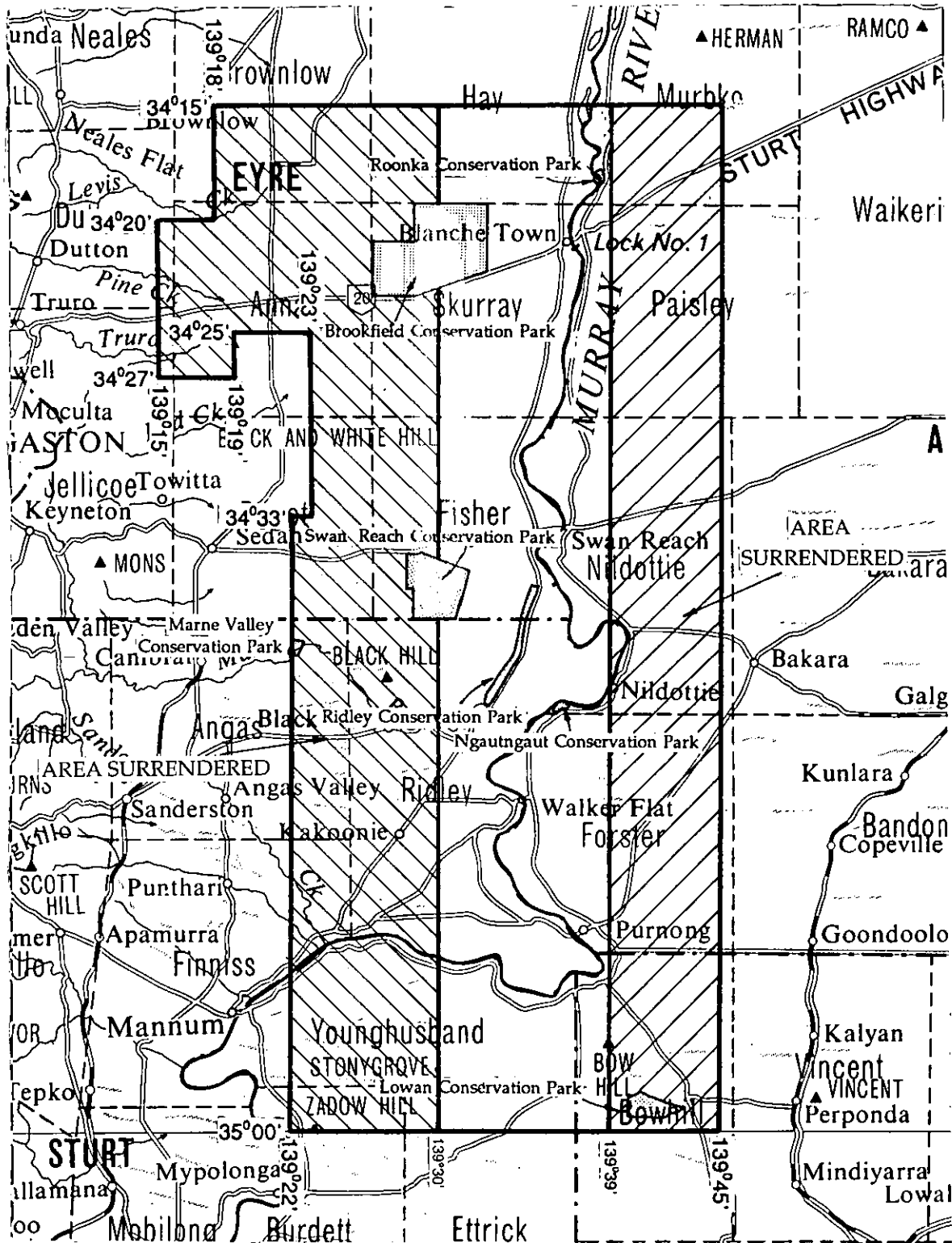
Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

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

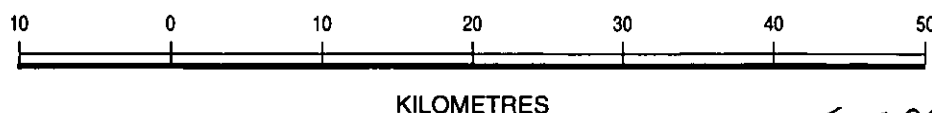


Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1 : 500 000



APPLICANT : MOUNT ISA MINES LIMITED

DM : 231/95

1:250 000 PLANS : ADELAIDE , RENMARK

LOCALITY : SWAN REACH AREA - Approximately 90 km ENE of Adelaide

DATE GRANTED : 22 Nov 1995

DATE EXPIRED: 21 Nov 1996

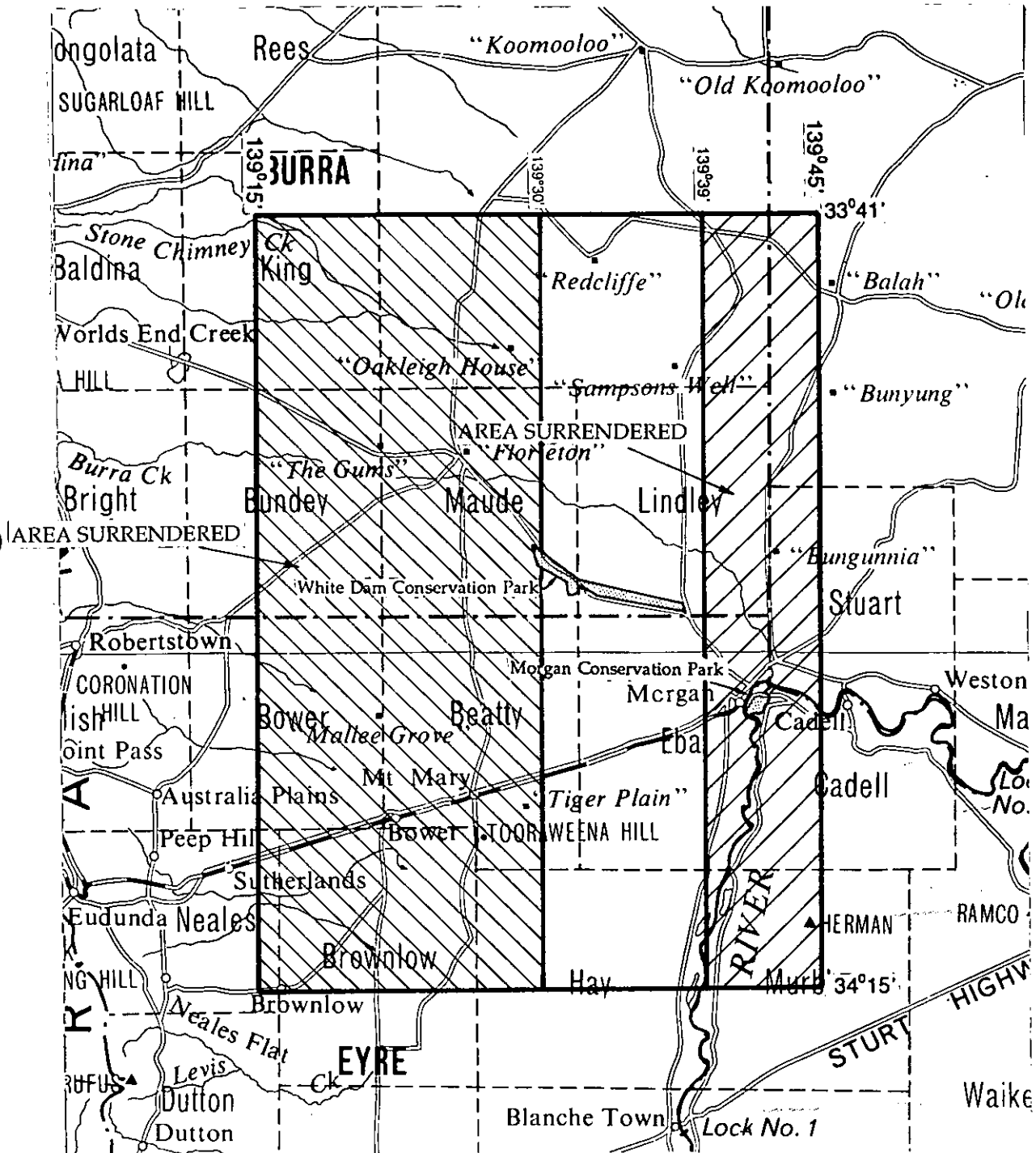
EL No : 2118

1106
2236
AREA : ~~2904~~ square kilometres (approx.)

SURRENDERED

97
98

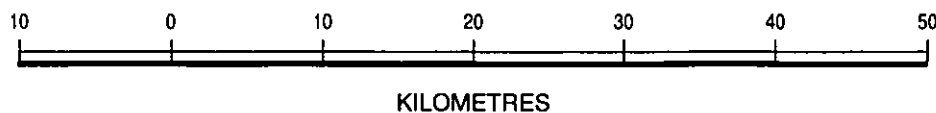
SCHEDULE A



SC 97/10

SCALE 1 : 500 000

SURRENDERED



APPLICANT : MOUNT ISA MINES LIMITED

DM : 232/95

861
2343
AREA : ~~2902~~ square kilometres (approx.)

1:250 000 PLANS : BURRA , CHOWILLA , ADELAIDE , RENMARK

LOCALITY : MORGAN AREA - Approximately 140 km northeast of Adelaide

DATE GRANTED : 22 Nov. 1995

DATE EXPIRED : 21 Nov. 1996

EL No : 2119

97
98

ENVELOPE 9135

TENEMENT: EL 2118, Swan Reach
EL 2119, Morgan

TENEMENT HOLDER: MIM Exploration Pty Ltd

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REPORT:	Rudzinkas, K., 1998. Re: EL 2118, Swan Reach and EL 2119, Morgan.	9135 R 3 Pgs 47-49

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M.I.M. EXPLORATION PTY LTD

(ACN 009 681 118)

TECHNICAL REPORT

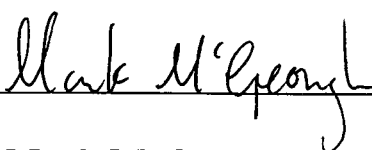
No. 2727

TITLE:	EL 2118 "SWAN REACH" EL 2119 "MORGAN"
	ANNUAL REPORT FOR THE YEAR ENDING 22 NOVEMBER , 1996
ISSUING DEPARTMENT:	EXPLORATION
AUTHOR:	S. BUSUTTIL
INVESTIGATIONS CONDUCTED BY:	C. GERAKITEYS, S. BUSUTTIL and J. ANDERSON
SUBMITTED BY:	M. McGEOUGH
DATE:	FEBRUARY 1997

DISTRIBUTION

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Approved for Distribution:



Mark McGeough

District Geologist - South Australia

KEY WORDS

TEM

ROCK CHIPS

COPPER

TEALE FLAT

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 - 5.2 Rock Chip Samples Teale Flat
 - 5.3 Calcrete Survey
6. CONCLUSIONS and RECOMENDATIONS

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- Appendix 2 - Assay Results

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51214	EL 2118 "Swan Reach" - Location Plan	1:500 000
51215	EL 2119 "Morgan" - Location Plan	1:500 000
51216	EM Traverses over TMI "Stonefield"	1:50 000
51242	TEM Line 4 "Stonefield" Layered Earth Inversions	1:10 000

M.I.M. EXPLORATION PTY LTD

EL 2119 "MORGAN" and EL 2118 "SWAN REACH"

Annual Report for the Year ending

22 November, 1996

1. INTRODUCTION

This report presents the results of work carried out by M.I.M. Exploration Pty Ltd (MIMEX) under Exploration Licences 2118 "Swan Reach" and 2119 "Morgan" for the first 12 months of tenure.

2. LOCATION and ACCESS

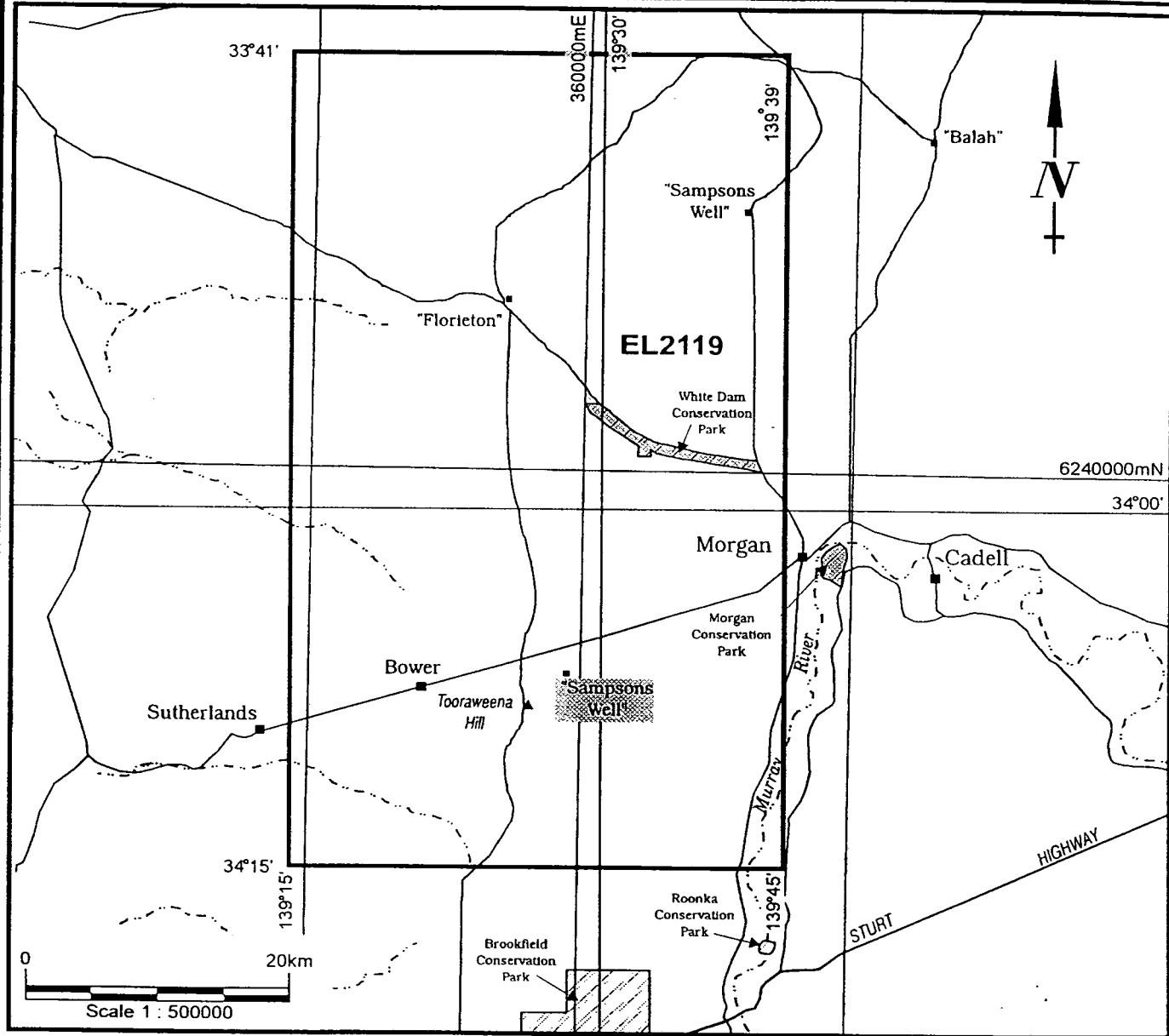
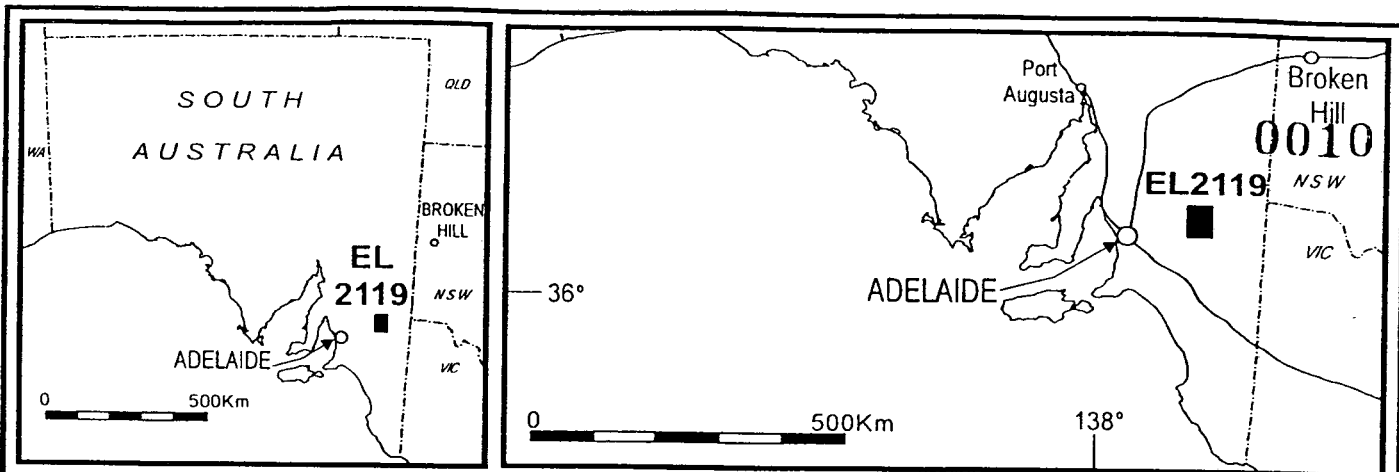
Exploration Licences 2118 and 2119 are centred approximately 140 km NE and 90 km ENE of Adelaide respectively. The combined area covered by both licences is 2313 km². Access from Adelaide is via the Sturt Highway which passes through EL 2118. A good network of sealed and unsealed roads exists in the area.

3. TENURE

Exploration Licences 2118 and 2119 were granted to MIMEX for a term of 1 year on the 22nd of November, 1995 with a commitment of \$150,000 for each licence. Both ELs have subsequently been reduced and renewed for an additional year expiring on the 21st November 1997. The current EL boundaries are provided in Drawings 51214 and 51215.

4. GEOLOGY and PREVIOUS EXPLORATION

Both leases are almost entirely covered by Tertiary and Quaternary Murray Basin sediments. The Murray Basin is interpreted to be underlain by Cambrian sediments of the Kanmantoo Group which have been intruded by Delamerian granites and mafics. Aeromagnetic data clearly maps intrusive boundaries within the Cambrian sediments,



M.I.M. EXPLORATION PTY LTD

A.C.N. 009 681 118

PROJECT / TITLE :

EL2119 MORGAN LOCATION PLAN

Mining District or Region: SWAN REACH			Compiled by : RJE	Scale : 1:500000
Revised by :	Date :	1 : 250 000 Ref : SI54-5	Drawn by : REMc	Date : 3/2/97
		1 : 100 000 Ref : 6730	Drwg No : 51215	

highlighting prospective sites for intrusive related gold and base metal mineralisation, which is the main target being sought here.

Previous Exploration:

North Broken Hill - explored mainly around the Black Hill Norite during the mid to late seventies in the search for Cu and Ni.

CRA Exploration 1976-1984 - targeted stratiform base metal mineralisation within the Kanmantoo group, primarily using drilling and geophysics.

5. EXPLORATION completed by MIMEX

5.1 EM Traverses Stonefield

Four Moving Loop EM traverses were carried out in the Stonefield area (within EL 2118) during May of 1996. The traverses were carried out to:

1. determine the resistivity of Murray Basin sediments.
2. further investigate copper anomalism intersected in some previous MESA drilling (Hough, 1995).
3. target possible skarn mineralisation associated with highly magnetic intrusive margins.

A plan of the four traverses are presented over TMI magnetics in Drawing Number 51216 and the log-log profile plots are presented in Appendix One. No conductivity anomalies have been detected by the survey.

Layered Earth inversions of traverse 4 (Drawing No. 51242) indicate that the Murray Basin sediments have resistivities around 1-2 Ohmm.

5.2 Rock Chip Sampling - Teale Flat

Rock chip sampling was carried out in the Teale Flat area (within EL 2119) adjacent to the Murray River valley. The samples were taken from a large previously unknown¹ outcrop of mylonitised andesite (approx location 366000E 614000N). The assay results presented in Appendix 2 show elevated Cu and Mn.

Aeromagnetic data shows a long north trending magnetic linear which coincides with the sampled outcrop.

¹ The Outcrop was discovered by Colin Gatehouse of MESA late in 1996

5.3 Calcrete Survey

Calcrete samples are being collected as part of a work experience program conducted through the Onkaparinga TAFE geoscience course. No results have been supplied to date.

6. CONCLUSIONS and RECOMENDATIONS

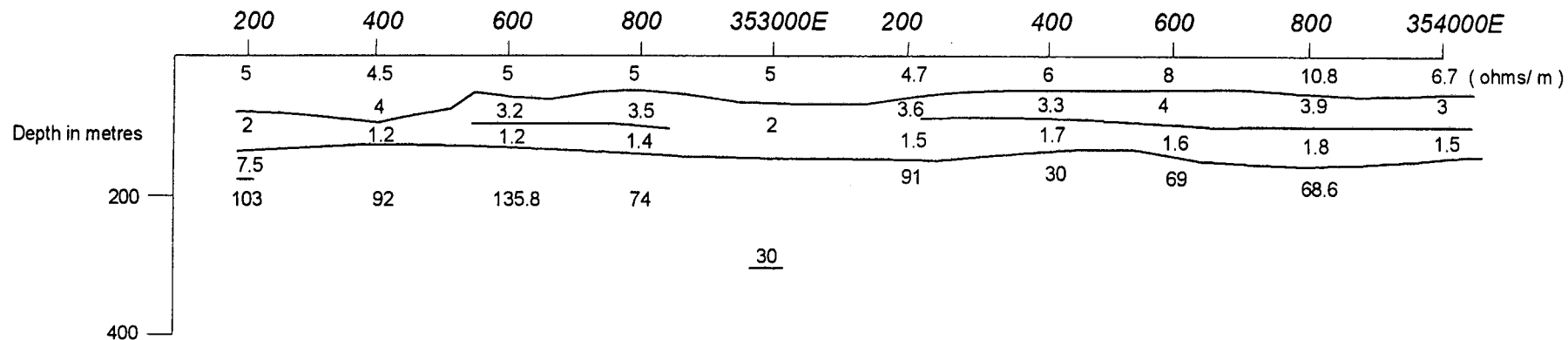
The results gained thus far from the Teale flat rock chips have been encouraging. Analysis of the aeromagnetic anomaly which passes through the outcrop will be carried out. Followed by additional geochemical sampling.



Stephen Busuttil
Exploration Geophysicist - Eastern Australia

REFERENCES

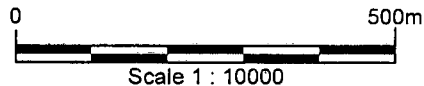
Hough, J.K, "Stonefield Bedrock Drilling 1995", MESA report, Report Book 95/037



30

(15.2)

SE	2.25	1.64	2.18	0.98	2.61	1.84	2.87	0.5	0.6	1.3	Simulated error
EP's	4.0	4.8	4.6	5.2	4.7	4.5	5.9	5.8	5.9	5.4	Number of Effective Parameters
APRE	2.87	2.23	2.4	1.2	3.14	2.0	3.8	0.63	0.77	1.42	Average Predicted Residual Error



M.I.M. EXPLORATION PTY LTD

A.C.N. 009 681 118

PROJECT / TITLE :

SWAN REACH EL 2118

TEM LINE 4 'STONEFIELD' 6197100N LAYERED EARTH INVERSIONS

Mining District or Region:	KANMANTOO	Compiled by :	SB	Scale :	1 : 10,000
Revised by :	Date :	1 : 250 000 Ref :	SI 54 - 9	Drawn by :	RJE
		1 : 100 000 Ref :		Drwg No :	51242
				Fig. No.	0013

MOUNT ISA MINES LIMITED

EL 2118 SWAN REACH

STATEMENT OF EXPENDITURE FOR YEAR ENDED NOVEMBER 21, 1996

LABOUR	17,671	
SUPPLIES - OFFICE	103	
SUPPLIES - FIELD	1,013	
GENERAL - FIXED	129	
GENERAL - VARIABLE	60	
TRAVEL & ACCOMMODATION	2	
ASSAYS	1,287	
AERIAL GEOPHYSICS	0	
DRILLING	228	
CONTRACT & CONSULTING - INTERNAL	1,213	
CONTRACT & CONSULTING - EXTERNAL	8,820	
RESEARCH	0	
LAND TENURE & ENVIRONMENT	8,835	
TOTAL DIRECT COST	<hr/>	39,361
ADD: TECHNICAL SUPPORT & ADMIN.		19,717
TOTAL PROJECT EXPENDITURE TO DATE		<hr/> <hr/> \$ 59,078

MOUNT ISA MINES LIMITED

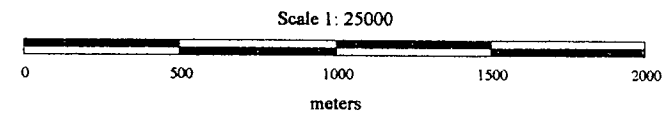
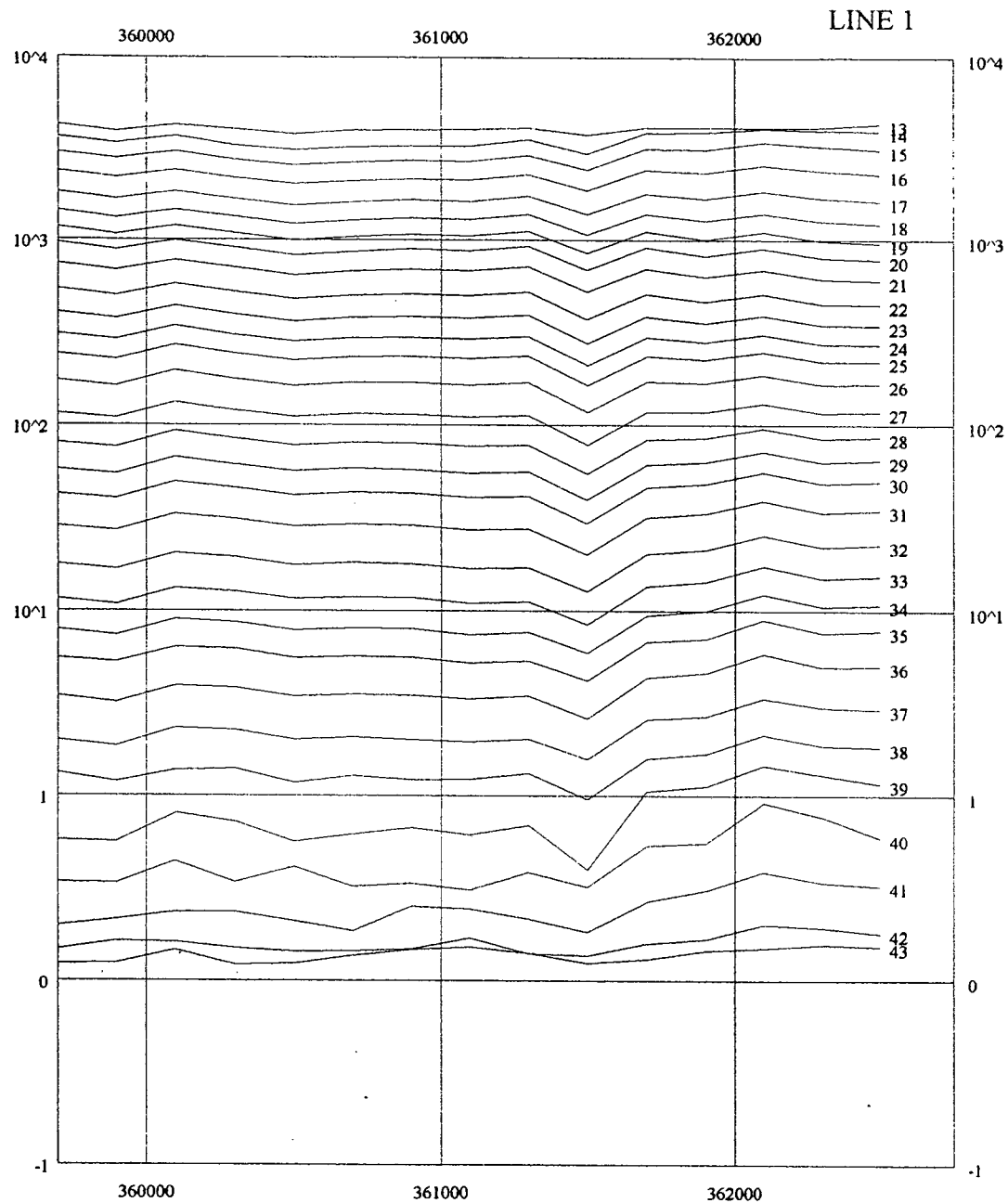
EL 2119 MORGAN

STATEMENT OF EXPENDITURE FOR YEAR ENDED NOVEMBER 21, 1996

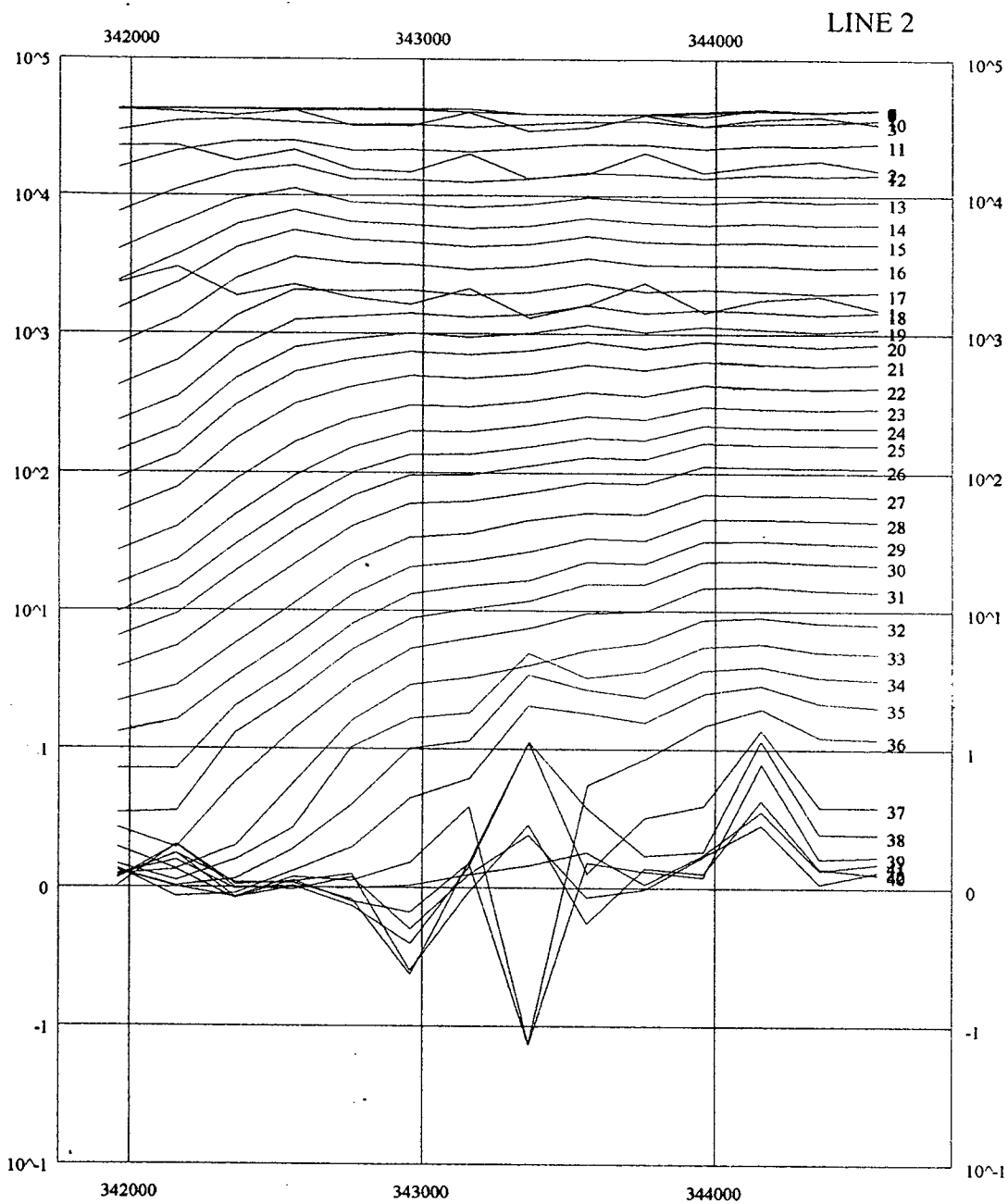
LABOUR	4,450	
SUPPLIES - OFFICE	16	
SUPPLIES - FIELD	103	
GENERAL - FIXED	84	
GENERAL - VARIABLE	0	
TRAVEL & ACCOMMODATION	0	
ASSAYS	0	
AERIAL GEOPHYSICS	0	
DRILLING	0	
CONTRACT & CONSULTING - INTERNAL	0	
CONTRACT & CONSULTING - EXTERNAL	5,588	
RESEARCH	0	
LAND TENURE & ENVIRONMENT	8,835	
TOTAL DIRECT COST	<hr/>	19,076
ADD: TECHNICAL SUPPORT & ADMIN.		5,932
TOTAL PROJECT EXPENDITURE TO DATE		<hr/> <hr/> \$ 25,008

Appendix 1

Sirotem Survey Results



MIM EXPLORATION PTY LTD	
E.L. 2118 SWANREACH	
STONEFIELD	
SIROTEM SURVEY 200M Moving loop with SATX 200M Stations Z - Component 2nd JULY 1996 LINE 1 6204830N	
Ref : Surveyed by SEARCH EXPLORATION SERVICES	
Scale 1: 25000	
Date : 10/7/96	Report :
	Plan :



MIM EXPLORATION PTY LTD

E.L. 2118 SWANREACH

STONEFIELD

SIROTEM SURVEY
200M Moving loop with SATX
200M Stations
Z - Component
5nd JULY 1996

LINE 2
6197890N

Ref : Surveyed by SEARCH EXPLORATION SERVICES

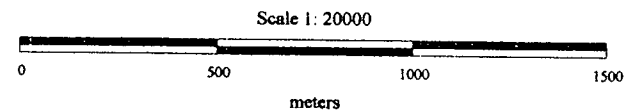
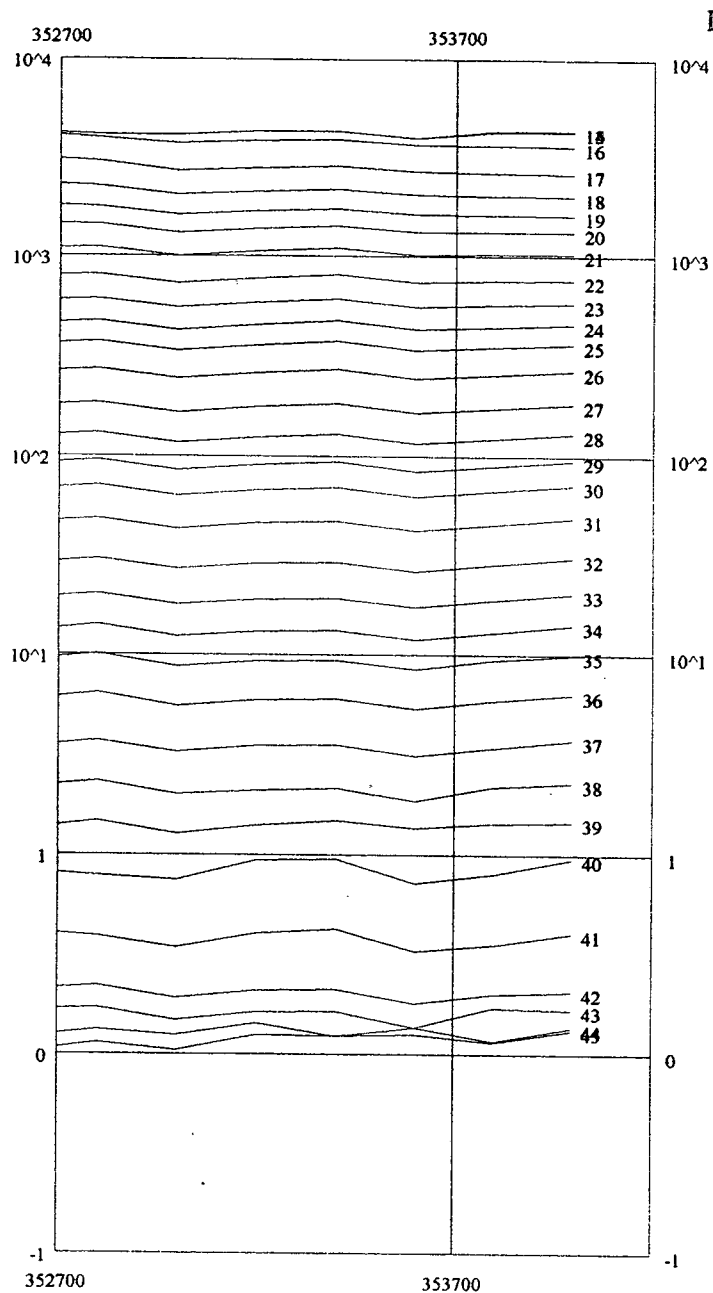
Scale 1: 25000

Date : 10/7/96

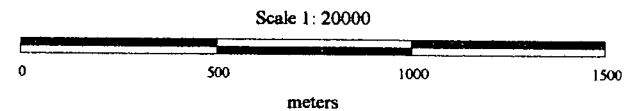
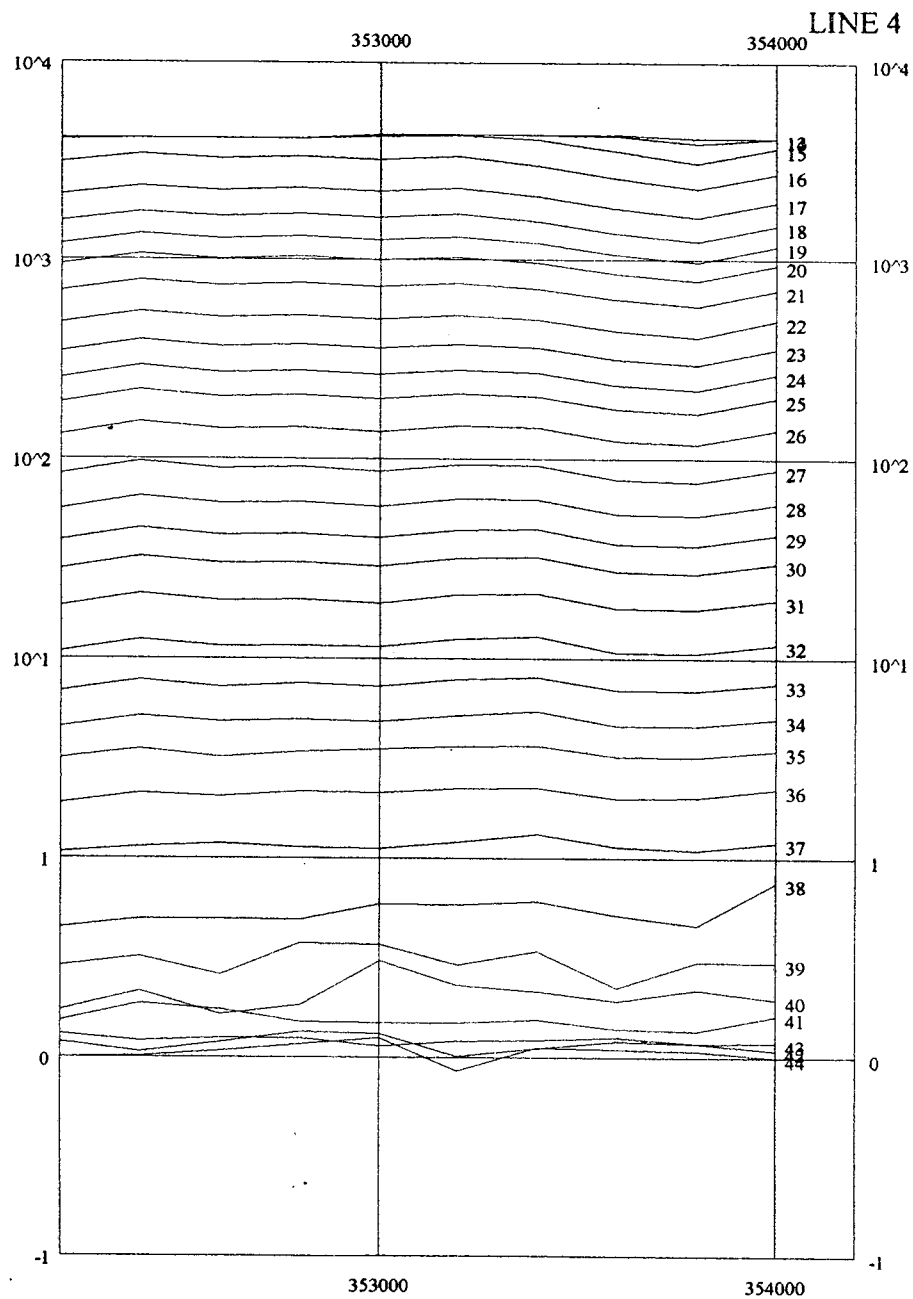
Report :

Plan :

0018



MIM EXPLORATION PTY LTD	
E.L. 2118 SWANREACH	
STONEFIELD	
SIROTEM SURVEY 200M Moving loop with SATX 200M Stations Z - Component 3rd JULY 1996 LINE 3 6197890N	
Ref : Surveyed by SEARCH EXPLORATION SERVICES	
Scale 1: 20000	
	Report :
Date : 10/7/96	Plan :



MIM EXPLORATION PTY LTD

E.L. 2118 SWANREACH

STONEFIELD

SIROTEM SURVEY
200M Moving loop with SATX
200M Stations
Z - Component
3rd JULY 1996

LINE 4
6197100N

Ref : Surveyed by SEARCH EXPLORATION SERVICES

Scale 1: 20000

Date : 10/7/96

Report :

Plan :

0020

Appendix 2

Assay Results

Analabs Pty. Ltd.
ACN 004 591 664
16 Sunbeam Road, Glynde
South Australia 5070
Telephone: (08) 336 5099

ANALYSIS REPORT

John Anderson/Colin Gatehouse
M.I.M. Exploration Pty Ltd
13 Maple Ave
Forestville


SA 5035

Job : AD015860
Client Reference : a0072
Page(s) : 4
Date : 23/12/96
Date Received : 13/11/96
Number of Samples : 9

Copies to :

Comments :

The results in the following analytical report pertain to samples as received at this laboratory for preparation and/or analysis as requested by the client.

Approved Signatory: ^{FOR} David Nelson 

Our reference : AD015860
Your reference : a0072
Project code :
Report date : 23/12/96
Report number : 00000046
Report status : Final
Page : 1 of 4

Analabs Pty. Ltd.
ACN 004 591 664
16 Sunbeam Road, Glynde
South Australia 5070
Telephone : (61 8) 336 5099
Facsimilie : (61 8) 336 5564

ANALYTICAL DATA

Sample	Ag	As	Cr	Cu	Mn	Pb
6828 R 203533	<0.4	<20	21	86	469	<1
6828 R 203534	<0.4	<20	17	12	352	<1
6828 R 203535	<0.4	21	34	13	1263	<1
6828 R 203536	<0.4	<20	51	503	650	<1
6828 R 203537	<0.4	85	45	6	854	<1
6828 R 203538	<0.4	23	13	7	372	<1
6828 R 203539	<0.4	<20	227	291	826	46
6828 R 203643	<0.4	22	199	1226	1465	285
6828 R 203540	<0.4	23	210	158	971	49

Method Units Detection Limit Upper Method	GA107 ppm 0.4	GA107 ppm 20	GA107 ppm 3	GA107 ppm 1	GA107 ppm 1 GA107	GA107 ppm 1
--	---------------------	--------------------	-------------------	-------------------	----------------------------	-------------------

Notes:
N.A. = not analysed
= element not determined
I.S. = insufficient sample
L.N.R. = listed not received

Our reference : AD015860
Your reference : a0072
Project code :
Report date : 23/12/96
Report number : 00000046
Report status : Final
Page : 2 of 4

Analabs Pty. Ltd.
ACN 004 591 664
16 Sunbeam Road, Glynde
South Australia 5070
Telephone : (61 8) 336 5099
Facsimilie : (61 8) 336 5564

ANALYTICAL DATA

Sample	Al2O3	CaO	Fe2O3	K2O	LOI	MgO
6828 R 203533	16.98	5.32	6.40	2.05	0.93	2.46
6828 R 203534	14.53	1.65	4.35	4.17	0.54	0.83
6828 R 203535	15.18	4.37	10.58	0.28	6.86	6.30
6828 R 203536	14.64	8.23	9.79	0.30	2.68	3.84
6828 R 203537	7.98	0.41	51.31	2.92	8.49	1.09
6828 R 203538	14.77	0.78	5.59	2.05	0.79	2.39
6828 R 203539	16.01	10.53	12.80	0.61	1.82	6.65
6828 R 203643	18.84	8.78	8.33	0.29	1.58	2.94
6828 R 203540	18.22	15.79	13.82	0.21	3.28	3.45

Method	OX408	OX408	OX408	OX408	OX408	OX408
Units	%	%	%	%	%	%
Detection Limit	0.05	0.01	0.01	0.01	0.01	0.01

Notes:
N.A. = not analysed
= element not determined
I.S. = insufficient sample
L.N.R. = listed not received

Our reference

Your reference

Project code

Report date

Report number

Report status

Page

: AD015860

: a0072

:

: 23/12/96

: 00000046

: Final

: 3 of 4

Analabs Pty. Ltd.

ACN 004 591 664

16 Sunbeam Road, Glynde

South Australia 5070

Telephone : (61 8) 336 5099

Facsimilie : (61 8) 336 5564

ANALYTICAL DATA

Sample	MnO	Na2O	P2O5	SiO2	SO3	TiO2
6828 R 203533	0.09	4.15	0.303	59.55	<0.01	0.91
6828 R 203534	0.05	3.87	0.088	69.97	<0.01	0.39
6828 R 203535	0.17	4.19	0.232	50.05	<0.01	1.39
6828 R 203536	0.16	2.28	0.142	57.11	<0.01	1.10
6828 R 203537	0.13	1.39	0.213	25.20	0.12	0.61
6828 R 203538	0.05	6.11	0.135	66.85	<0.01	0.62
6828 R 203539	0.45	2.80	0.397	45.75	<0.01	2.00
6828 R 203643	0.52	5.37	0.572	49.75	<0.01	2.50
6828 R 203540	0.48	0.75	0.416	40.99	<0.01	2.07

Method Units Detection Limit	OX408 % 0.01	OX408 % 0.05	OX408 % 0.005	OX408 % 0.05	OX408 % 0.01	OX408 % 0.01
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Notes:

N.A.

S.

N.R.

= not analysed

= element not determined

= insufficient sample

= listed not received

Our reference : AD015860
Your reference : a0072
Project code :
Report date : 23/12/96
Report number : 00000046
Report status : Final
Page : 4 of 4

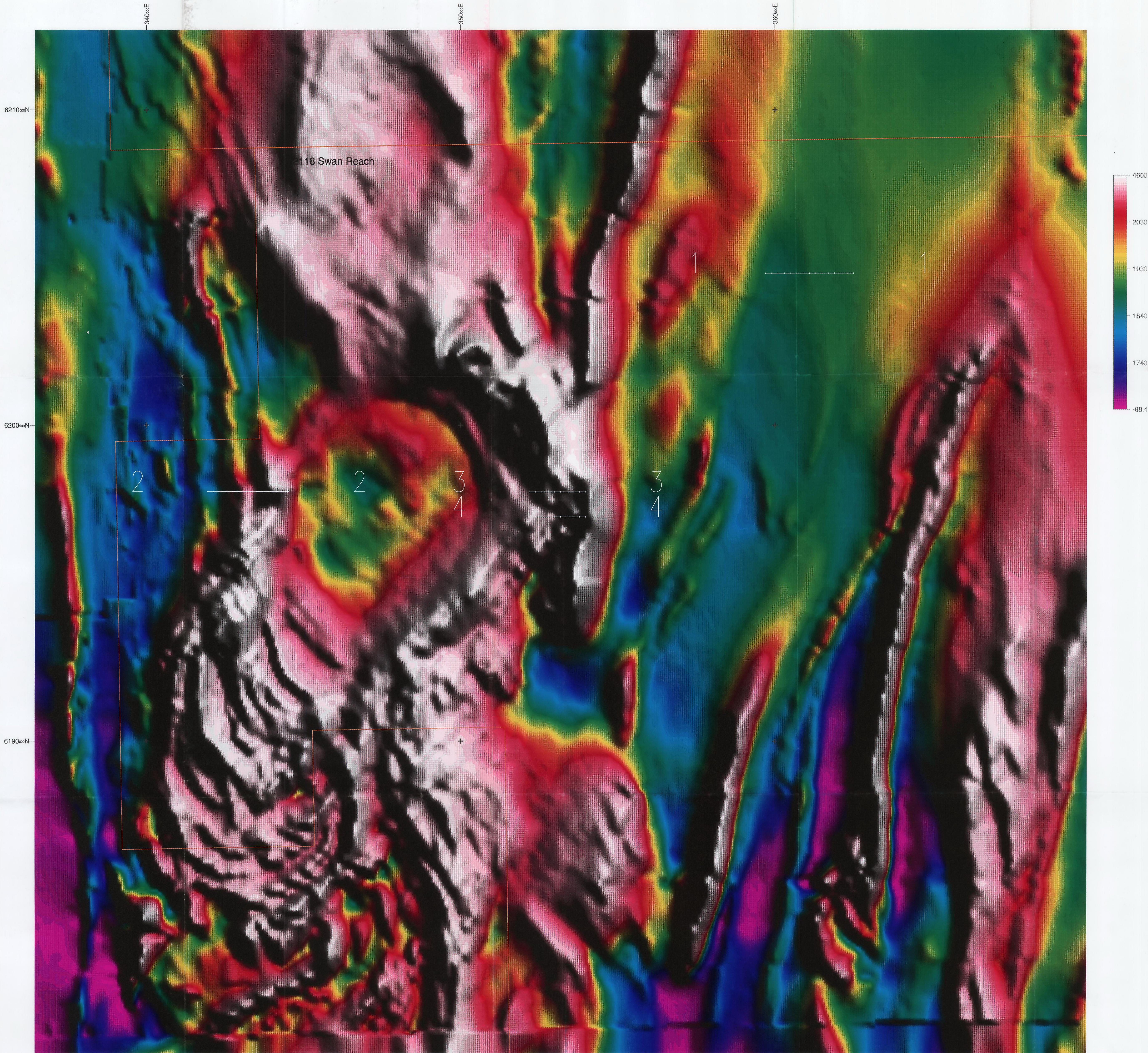
Analabs Pty. Ltd.
ACN 004 591 664
16 Sunbeam Road, Glynde
South Australia 5070
Telephone : (61 8) 336 5099
Facsimile : (61 8) 336 5564

ANALYTICAL DATA

Sample	Zn	Au	Total
6828 R 203533	49	15	99.20
6828 R 203534	15	2	100.4
6828 R 203535	122	2	99.60
6828 R 203536	62	1	100.3
6828 R 203537	50	< 1	99.80
6828 R 203538	70	< 1	100.1
6828 R 203539	87	< 1	99.90
6828 R 203643	76	< 1	99.60
6828 R 203540	125	< 1	99.60

Method Units Detection Limit	GA107 ppm 1	GS333 ppb 1	OX408 % 0.01
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Notes:
N.A. = not analysed
= element not determined
I.S. = insufficient sample
L.N.R. = listed not received



MIM EXPLORATION
EASTERN AUSTRALIA

REVISIONS				SOUTH AUSTRALIA EL 2118 SWAN REACH STONEFIELD 1996 EM TRAVERSES OVER TMI 9135-1	Compiled: SB Printed: djet650 Traced: initials Checked: initials Plate No. Drawing No. 51216
Init.	Date	Init.	Date		
Map Projection: TMAG54 Geodetic Datum: AGD66				Scale: 1:50000	Date: 4.2.96
Location Code:					

0 1.5 3 4.5
Kilometers

M.I.M. EXPLORATION PTY LTD

(ACN 009 681 118)

TECHNICAL REPORT**No. 2739**

TITLE: EL 2118 "SWAN REACH" and
2119 "MORGAN"

ANNUAL REPORT
as at 22nd NOVEMBER 1997

ISSUING DEPARTMENT: EXPLORATION

AUTHOR: J. GUNTER

**INVESTIGATIONS
CONDUCTED BY:** S. BUSUTTIL, C. GERAKITEYS
and J. ANDERSON

SUBMITTED BY: M. McGEOUGH

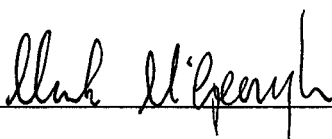
DATE: JANUARY 1998



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Approved for Distribution

A handwritten signature in black ink, appearing to read 'Mark McGeough', is written over a horizontal line.

Mark McGeough

District Geologist - South Australia

KEY WORDS

EM

REASSAYING

BLACK HILL NORITE

STONEFIELD

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5. EXPLORATION completed by MIMEX
 - 5.1 Rock Chip Sampling & Petrology - Teale Flat
 - 5.2 Aeromagnetics - Automag & Forward Modelling - Teale Flat
 - 5.3 Ground Magnetic Traverses - Teale Flat
6. CONCLUSIONS and RECOMMENDATIONS

STATEMENTS of EXPENDITURE

APPENDICES

- | | |
|------------|-----------------------------|
| Appendix 1 | <i>Assay Results</i> |
| Appendix 2 | <i>Mineralogical Report</i> |

LIST of DRAWINGS

<u>Drawing No.</u>	<u>Title</u>	<u>Scale</u>
51128a	Kanmantoo Region Tenement Locations	n/a
51397	EL 2118 “Swan Reach” Rock Chip and Ground Magnetics Locations	n/a
51437	EL 2118 “Swan Reach” Teale Flat Prospect Ground Magnetic Traverses	1:50 000
51438	EL 2118 “Swan Reach” Teale Flat Prospect Automag solutions and forward modelling results	1:100 000

M.I.M. EXPLORATION PTY LTD**EL 2118 "SWAN REACH" and EL 2119 "MORGAN"****Annual Report
for the Year ending****22nd November 1997****1. INTRODUCTION**

This report presents the results of work carried out by M.I.M. Exploration Pty Ltd (MIMEX) under Exploration Licences 2118 "Swan Reach" and 2119 "Morgan" for the second 12 months of tenure.

2. LOCATION and ACCESS

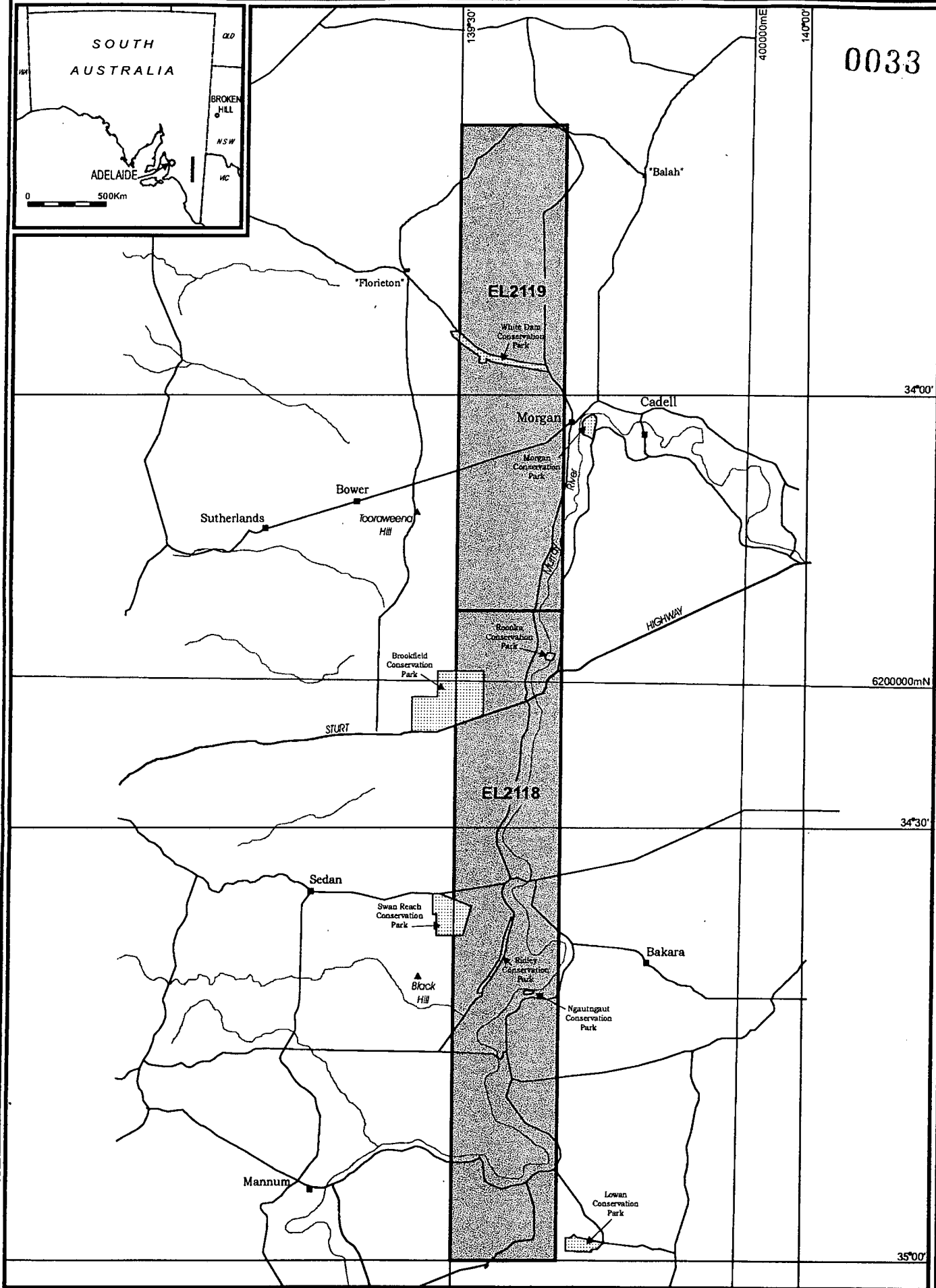
Exploration Licences 2118 and 2119 are centred approximately 140 km NE and 90 km ENE of Adelaide respectively. Recent relinquishment in order to better focus on exploration within the Kanmantoo Group has left a combined area of 2058 km². Access from Adelaide is via the Sturt Highway which passes through EL 2118. A good network of sealed and unsealed roads exists in the area.

3. TENURE

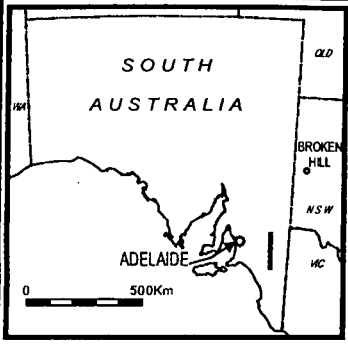
Exploration Licences 2118 and 2119 were granted to MIMEX for a term of 1 year on the 22nd November, 1995 with a commitment of \$150 000 for each licence. Both ELs were reduced and renewed on 22nd November 1996, and have been further reduced and renewed for an additional year expiring on the 21st November 1998. The current EL boundaries are provided in Drawing 51128a.

4. GEOLOGY and PREVIOUS EXPLORATION

Both leases are almost entirely covered by Tertiary and Quarternary Murray Basin sediments. The Murray Basin is interpreted to be underlain by Cambrian sediments of the Kanmantoo Group which have been intruded by Delamerian granites and mafics. Aeromagnetic data clearly maps intrusive boundaries and structure within the Cambrian sediments, highlighting prospective sites for intrusive stratigraphic or structurally controlled gold and base metal mineralisation, which is the main target sought by MIMEX.



0033



M.I.M. EXPLORATION PTY LTD

A.C.N. 009 681 118

PROJECT / TITLE :

KANMANTOO REGION
TENEMENT LOCATIONS

Mining District or Region: KANMANTOO			Compiled by: RE	Scale: n/a
Revised by: R.McInnes	Date: 9/10/97	1: 250 000 Ref: SI54-10	Drawn by: REMc	Date: 1/7/96
		1: 100 000 Ref: n/a	Drwg No: 51128a	Fig. No.



Previous Exploration:

North Broken Hill - explored mainly around the Black Hill Norite during the mid to late seventies in the search for Cu and Ni.

CRA Exploration 1976-1984 - targeted stratiform base metal mineralisation within the Kanmantoo Group, primarily using drilling and geophysics.

5. EXPLORATION completed by MIMEX

5.1 Rock Chip Sampling and Petrology - Teale Flat

After encouragement from rock chips in the Teale Flat area (reported in the November 1996 Annual), an additional four rock chip samples were acquired (at approximately the same location - 3660000E 6140000N). Two of the four samples were of gossanous material and the remaining two were of adjacent rocks. The assay results are presented in Appendix 1, and show significantly elevated Cu in two samples, and slightly anomalous Au in three samples.

Petrology was completed by Pontifex and Associates Pty Ltd on two of the four samples, indicating one sample of mylonitised and ferruginised andesitic tuff, and one gossanous sample of a quartz-epidote-actinolite plagioclase schist with metasomatic characteristics, rare malachite and oxidised pyrite, and trace chalcopyrite. Full descriptions are provided in Appendix 2.

5.2 Aeromagnetism - Automag and Forward Modelling - Teale Flat

AGSO aeromagnetic data over the Teale Flat area delineates a north south striking-linear magnetic anomaly apparently coinciding and possibly sourced by the copper anomalous andesitic outcrop described above. In order to determine the best place to concentrate further work on the covered extensions of the anomalous outcrop - Automag processing and forward modelling of the regional AGSO aeromagnetic data was carried out.

'Automag' is the commercial name given to the algorithm developed by Dr. Zhiqun Shi (MIM Exploration), which estimates various source parameters, such as depth, susceptibility, dip etc. from line located magnetic data. A summary of the results of the Automag is presented in Drawing Number 51438. The automag solutions at various points along the anomaly of interest, indicate depths ranging from <10m (at the outcrop location) to >150m. The dip directions on the same anomaly vary but are predominantly to the east.

Forward modelling of the AGSO data was carried out as a check to the Automag solutions. A summary of the forward modelling is also presented in Drawing Number 51438. A broad agreement between the forward modelling and the automated solution exists.

The modelling results, indicate that the magnetic source in question is within viable drilling depths.

5.3 Ground Magnetic Traverses - Teale Flat

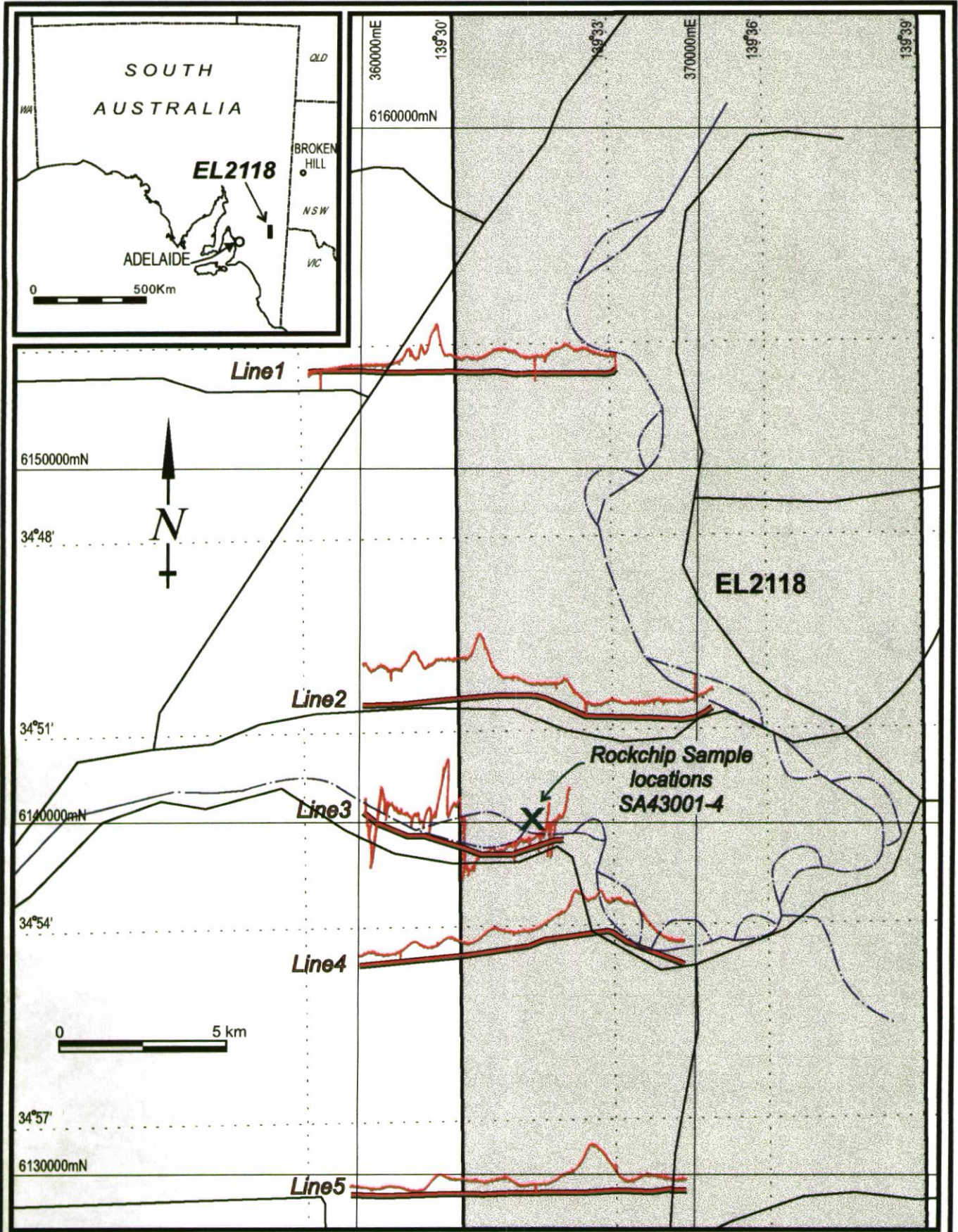
To further detail the magnetic anomaly of interest, five ground magnetic traverses were carried out. Approximately 46 line kilometres of ground magnetics were completed, and Drawing No. 51437 contains a plan and profile presentation of the magnetic data acquired with locations of rock chip and magnetic traverses shown on Drawing No. 51397.

No modelling of the ground magnetic data has been carried out as yet but visual inspection of the data indicates that the source of the anomaly plunges to the north and south. Modelling of the ground magnetics is planned

6. CONCLUSIONS and RECOMMENDATIONS

Further rock chip sampling has provided more encouragement to follow up the Teale Flat andesitic mylonite, and more geochemical sampling should be conducted to follow up this geochemical and magnetic anomaly in order to define a drill target. Depth to basement modelling has suggested that drilling to basement in the immediate vicinity of this area is viable, and if surface geochemistry is not successful, the target may be better investigated by drilling.

Jennifer Gunter
Geologist - South Australia



M.I.M. EXPLORATION PTY LTD

A.C.N. 009 681 118

PROJECT / TITLE :

EL2118 SWAN REACH

ROCKCHIP AND GROUND MAGNETICS LOCATIONS

Mining District or Region: KANMANTOO			Compiled by : JG	Scale : n/a
Revised by :	Date :	1 : 250 000 Ref : SI54-10	Drawn by : REMc	Date : 15/12/97
		1 : 100 000 Ref : 6828	Drwg No : 51397	Fig. No.

MOUNT ISA MINES LIMITED

EL 2118 "SWAN REACH"

STATEMENT OF EXPENDITURE FOR YEAR ENDED 21st NOVEMBER 1997

LABOUR MEX	14,693	
SUPPLIES & SUPPLIES - OFFICE FIXED	3,635	
INFRASTRUCTURE	1,431	
PERSONNEL COSTS - FIXED	0	
PERSONNEL COSTS - VARIABLE	0	
MISC. GOVERNMENT CHARGES	0	
SUPPLIES & SERVICE - OFFICE VARIABLE	20	
SUPPLIES & SERVICE - FIELD	405	
TRAVEL & ACCOMODATION	17	
DRILLING	0	
CONTRACT & CONSULTANT SERVICE	583	
GEOPHYSICS	0	
GEOCHEMICAL	1,355	
RESEARCH	500	
LABOUR - EXTERNAL	0	
JOINT VENTURE CONTRIBUTIONS	0	
LAND TENURE & ENVIRONMENT	6,714	
TOTAL DIRECT COST		29,353
ADD: TECHNICAL SUPPORT & ADMIN.		4,696
ADD: PREVIOUSLY REPORTED AMOUNT		59,078
TOTAL PROJECT EXPENDITURE TO DATE		\$ 93,127

MOUNT ISA MINES LIMITED

EL 2119 "MORGAN"

STATEMENT OF EXPENDITURE FOR YEAR ENDED

21st NOVEMBER 1997

LABOUR MEX	5,807	
SUPPLIES & SUPPLIES - OFFICE FIXED	3,137	
INFRASTRUCTURE	1,075	
PERSONNEL COSTS - FIXED	0	
PERSONNEL COSTS - VARIABLE	0	
MISC. GOVERNMENT CHARGES	0	
SUPPLIES & SERVICE - OFFICE VARIABLE	167	
SUPPLIES & SERVICE - FIELD	596	
TRAVEL & ACCOMODATION	10	
DRILLING	0	
CONTRACT & CONSULTANT SERVICE	0	
GEOPHYSICS	0	
GEOCHEMICAL	530	
RESEARCH	0	
LABOUR - EXTERNAL	0	
JOINT VENTURE CONTRIBUTIONS	0	
LAND TENURE & ENVIRONMENT	6,948	
TOTAL DIRECT COST		18,270
ADD: TECHNICAL SUPPORT & ADMIN.		2,923
ADD: PREVIOUSLY REPORTED AMOUNT		25,008
TOTAL PROJECT EXPENDITURE TO DATE		\$ 46,201

Appendix 1

Assay Results

Our reference : AD015856
Your reference : SA96MM05
Project code :
Report date : 28/11/96
Report status : Final
Page : 1 of 2

Analabs Pty. Ltd.
ACN 004 591 664
16 Sunbeam Road, Glynde
South Australia 5070
Telephone : (61 8) 336 5099
Facsimilie : (61 8) 336 5564

ANALYTICAL DATA

Sample	Cu	Pb	Zn	Fe	Mn	Ni
SA43001	13	<5	61	37	1126	7
SA43002	32	<5	129	6	532	44
SA43003	7015	24	72	8	1519	54
SA43004	2517	34	39	9	4194	17

Method Units Detection Limit	GA142 ppm 2	GA142 ppm 5	GA142 ppm 2	GA142 ppm 5	GA142 ppm 3	GA142 ppm 3
------------------------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------

Notes:
N.A. = not analysed
- = element not determined
S. = insufficient sample
L.N.R. = listed not received

Our reference

Your reference

Project code

Report date

Report status

Page

: AD015856

: SA96MM05

:

: 28/11/96

: Final

: 2 of 2

Analabs Pty. Ltd.

ACN 004 591 664

16 Sunbeam Road, Glynde

South Australia 5070

Telephone : (61 8) 336 5099

Facsimilie : (61 8) 336 5564

ANALYTICAL DATA

Sample	Au	Co	Ag	Mo	As	Bi
SA43001	0.004	11	<1	<10	59.6	<1
SA43002	0.001	21	1	<10	3.0	<1
SA43003	0.004	40	1	<10	16.3	<1
SA43004	0.005	30	<1	<10	12.8	<1

Method Units Detection Limit	GG334 ppm 0.001	GA142 ppm 3	GA142 ppm 1	GA142 ppm 10	HA142 ppm 0.5	HA142 ppm 1
------------------------------------	-----------------------	-------------------	-------------------	--------------------	---------------------	-------------------

Notes:

A.

= not analysed

= element not determined

= insufficient sample

= listed not received

N.R.

Appendix 2

Mineralogical Report

TELEPHONE (08) 8332 6744
FAX (08) 8332 5062

26 KENSINGTON ROAD, ROSE PARK
SOUTH AUSTRALIA 5067
A.C.N. 007 521 084

P.O. BOX 91, KENT TOWN
SOUTH AUSTRALIA 5071

MINERALOGICAL REPORT NO. 7272
by Ian R. Pontifex MSc.

December 10th, 1996

TO :

Mr John Anderson
MIM Exploration Pty Ltd
13 Maple Avenue
FORESTVILLE SA 5035

YOUR REFERENCE :

MIM Order No. 0070

MATERIAL :

Rock Samples

IDENTIFICATION :

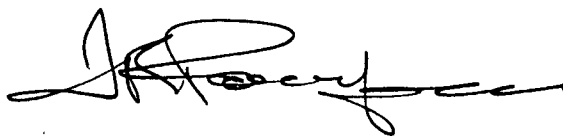
SA43001, SA43003

WORK REQUESTED :

Polished thin section preparation, petrographic
description and report.

SAMPLES & SECTIONS :

Returned to you with this report.



PONTIFEX & ASSOCIATES PTY. LTD.

INTRODUCTION

The two samples SA43001 and SA43003 described in this report from polished thin section, follow Pontifex Report Nos. 7237 (13/11/96) and 7268 (5/12/96), on samples from the same area to Colin Gatehouse (MESA) and to MIM.

Some similarities are established between these two samples with the previous rocks, as noted in the descriptions. Sample SA43001 is a sheared/mylonitised and ferruginised andesitic tuff (and phyllite) incorporating a boudinaged quartz vein, but without gossanous characteristics.

Sample SA43003 is a quartz-epidote-actinolite plagioclase schist, apparently a sheared and recrystallised basaltic-andesitic tuff, but with apparent metasomatic veining and minor permeation of quartz-albite (locally with rare fine malachite and oxidised pyrite and trace minute inclusions of fresh chalcopyrite), also enrichment in magnetite.

SA43001

“Platy sample” with a central core of boudinaged disrupted quartz veins, sheared and recrystallised. Attenuated lenses either side of mylonitised/ferruginised andesitic tuff, and of crenulated sericitic fine schist, partly intensely ferruginised but no evidence of gossanous characteristics.

Field Note : ?Gossans, ?veins

Several interfingering, lenses form this foliated/platy sample, with dimensions up to 8mm thick and 30mm long, apparently representing a protomylonite.

- (1) The centre of the sample consists of several /boudinaged lenses of attenuated vein quartz mosaic, apparently a pre (or syn)-tectonic vein, but without any evidence of contained “mineralisation”.
- (2) Lenses (or thick foliae) either side of the central band of tectonised vein quartz consist of mylonitised plagioclase crystal-rich tuff, with small stressed plagioclase crystals, within a totally recrystallised/cryptocrystalline cherty-quartz-albite matrix/groundmass, which has also been very permeated and replaced by migratory limonite. These lenses are basically the same as the whole of R203537 previously described.
- (3) A third rock type, on either side of (2) above this schist, consists of crenulated sericite schist (or phyllite) incorporating sparse small plagioclase crystals related to (2) above,. At the immediate contacts with (2) above, this schist is intensely limonitised, passing outwards to the extreme margins of this platy sample into somewhat disjointed small “breccia blocks” of the same lithology, less ferruginised. This exact lithology is not seen in the samples described in Report Nos. 7237, 7268.

SA43003

Basaltic-andesitic tuff, sheared and recrystallised to form a quartz-epidote-actinolite plagioclase schist. Apparently metasomatised (during tectonism) with enrichment in fine magnetite also in quartz and albite, some in veins locally with accessory fine malachite oxidised pyrite.

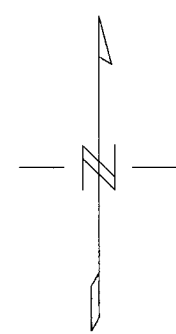
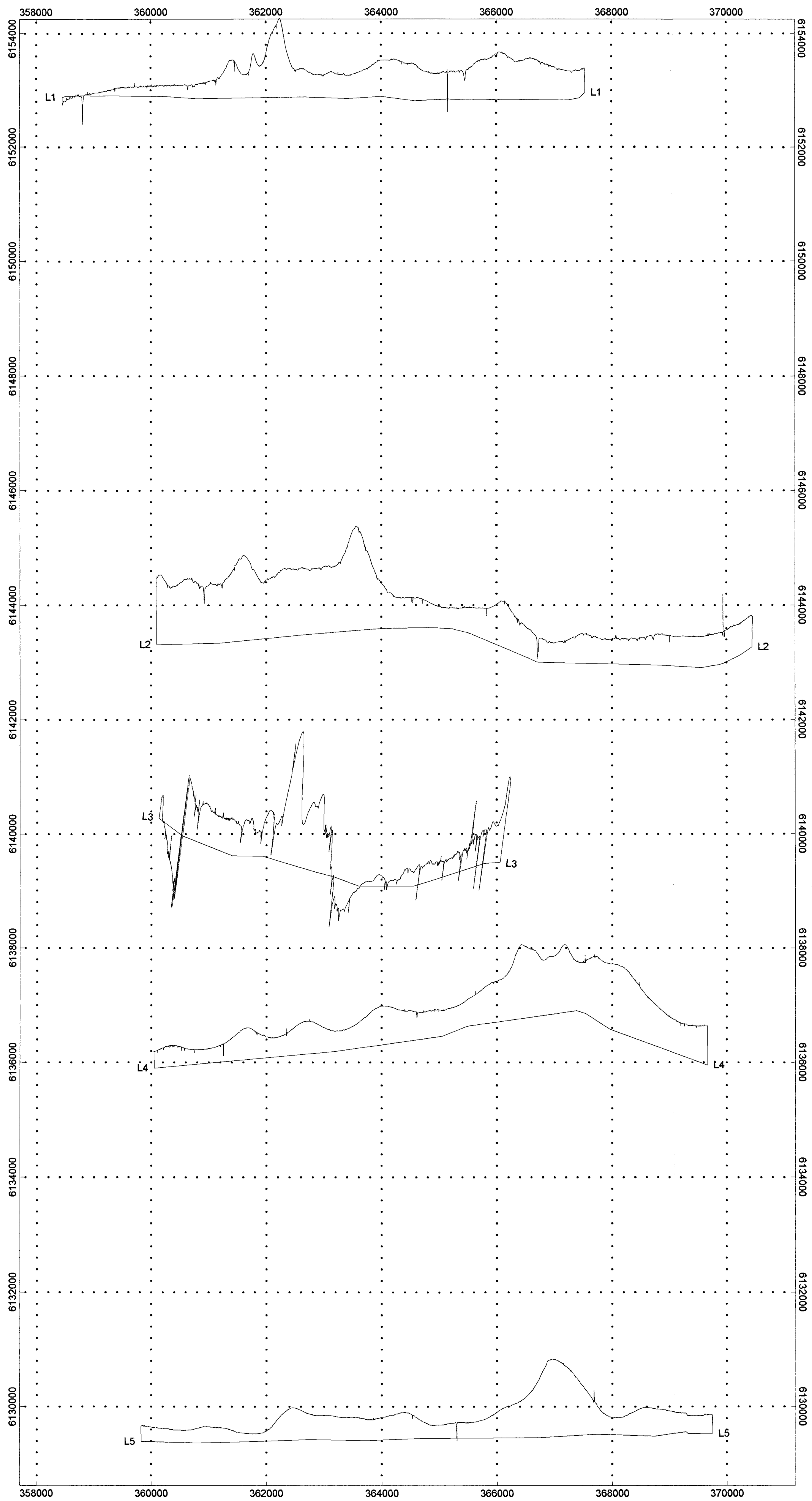
Abundant plagioclase crystals (50% of the whole rock) mostly about 0.3mm but rarely to 1mm are more or less layered throughout this rock. These occur through a finer metamorphic crystalline, quite strongly schistose (sheared and recrystallised) matrix of actinolitic-hornblende, epidote > quartz and albite.

The gross composition indicates a basaltic-andesite composition, but the scattered plagioclase crystals appear to be too abundant for a lava, and the precursor is identified as a crystal tuff. [This broadly compares with sheared "andesitic-tuffaceous" and "basaltic" volcanics previously described.]

Unique to this sample however, is the presence of several poorly defined, apparently metasomatic veins intrusive along the schistosity of diffuse and locally coarse mosaic of quartz and albite, which probably also related to diffuse fine albite and quartz through the schistose matrix.

Also, anomalously abundant (~10%) fine magnetite is scattered along the schistosity, locally forming short trains. This magnetite is more abundant than would be expected to be inherent to a "basaltic-andesite", and is assumed to be introduced with the apparent metasomatism noted above.

Accessory (1%) very fine malachite, and goethite as apparent boxwork after very fine pyrite occurs along the margin of one of the quartz-albite veins, and trace minute inclusions of fresh chalcopyrite occur in the same vein.



Scale 1:50000
 500 0.0 500 1000 1500 2000 2500 3000 3500
 (meters)

MIM EXPLORATION PTY. LTD.
EL 2118 'SWAN REACH' TEALE FLAT PROSPECT GROUND MAGNETIC TRAVERSES
Base level = 59000 nT Vertical Scale = 500 nT/cm Drawing Number = 51437

9135-2

EL 2118 Swan Reach

AGSO Data
Depths from Modelling marked
Profile Base = 60000nT
Vertical Scale 150 nT/cm
(Blue)

outcrop

Teale Flat Outcrop

Automag Trends
Estimated Depth and Dip indicated
(Red)

<div><div>MIMEXPLORATION</div><div>M.I.M. EXPLORATION PTY LTD A.C.N. 009 681 118</div><div>EL 2118 'SWAN REACH' TEALE FLAT PROSPECT AUTOMAG SOLUTIONS AND FORWARD MODELLING RESULTS over AGSO MAGNETICS (grid)</div></div>			
Region:	1:250,000 ref.: Renmark	Author: SB	Scale: 1:100000
Projection:		Drawn: SB	Date: 9.2.98
Revised By:	Revision Date:	Drawing No: 51438	Fig. No:

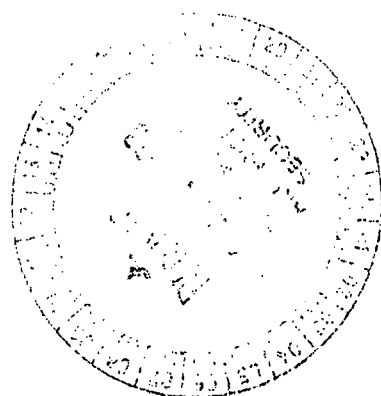


13 Maple Avenue,
Forestville
South Australia 5035

Telephone: (08) 8371 4533
Facsimile: (08) 8371 4322

29 May 1998

**The Chief Executive Officer
PIRSA
GPO Box 2355
ADELAIDE SA 5001**



Dear Sir / Madam

RE: ~~ELs 2118~~ "SWAN REACH" and 2119 "MORGAN"

Due to the refocussing of exploration efforts in South Australia to two major regions, the Curnamona Craton, and Gawler Craton, and reassessment of exploration potential in the Kanmantoo Group, EL 2118 "Swan Reach" and EL 2119 "Morgan" were surrendered.

No further work has taken place on the ELs since we lodged the annual reports in January 1998. Would you therefore please accept this letter as our final report. Final expenditure statements are attached.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'K Rudzinskas', written in a cursive style.

Klevas Rudzinskas
Tenement Officer - Eastern Australia

A handwritten signature in dark ink, appearing to read 'Jeff', written in a cursive style.

MOUNT ISA MINES LIMITED**EL 2118 - SWAN REACH****FINAL STATEMENT OF EXPENDITURE FOR PERIOD ENDED 30TH APRIL, 1998**

LABOUR MEX	2,337	
SUPPLIES & SERVICE - OFFICE FIXED	450	
INFRASTRUCTURE	2,282	
PERSONNEL COSTS - FIXED	0	
PERSONNEL COSTS - VARIABLE	68	
MISC GOVERNMENT CHARGES	0	
SUPPLIES & SERVICE - OFFICE VARIABLE	104	
SUPPLIES & SERVICE - FIELD	50	
TRAVEL & ACCOMMODATION	1,768	
DRILLING	0	
CONTRACT & CONSULTANT SERVICE	609	
GEOPHYSICS	0	
GEOCHEMICAL	962	
RESEARCH	0	
LABOUR - EXTERNAL	0	
JOINT VENTURE CONTRIBUTIONS	0	
LAND TENURE & ENVIRONMENT	3,382	
TOTAL DIRECT COST		12,012
ADD: TECHNICAL SUPPORT & ADMINISTRATION		1,922
TOTAL CURRENT TERM		13,934
PREVIOUSLY REPORTED		93,127
TOTAL PROJECT EXPENDITURE TO DATE		\$107,061


WENDY ARTHUR
EXPLORATION ACCOUNTANT

8:3329/05/98

Mines & Energy SA

R98/00329



MOUNT ISA MINES LIMITED

EL 2119 MORGAN

FINAL STATEMENT OF EXPENDITURE FOR PERIOD ENDED 30TH APRIL, 1998

LABOUR MEX	1,246	
SUPPLIES & SERVICE - OFFICE FIXED	256	
INFRASTRUCTURE	0	
PERSONNEL COSTS - FIXED	0	
PERSONNEL COSTS - VARIABLE	0	
MISC GOVERNMENT CHARGES	0	
SUPPLIES & SERVICE - OFFICE VARIABLE	0	
SUPPLIES & SERVICE - FIELD	46	
TRAVEL & ACCOMMODATION	0	
DRILLING	0	
CONTRACT & CONSULTANT SERVICES	0	
GEOPHYSICS	0	
GEOCHEMICAL	0	
RESEARCH	0	
LABOUR - EXTERNAL	0	
JOINT VENTURE CONTRIBUTIONS	0	
LAND TENURE & ENVIRONMENT	2,635	
TOTAL DIRECT COST		4,183
ADD: TECHNICAL SUPPORT & ADMINISTRATION		669
TOTAL CURRENT TERM		4,852
PREVIOUSLY REPORTED		46,201
TOTAL PROJECT EXPENDITURE TO DATE		<u>\$51,053</u>

Wendy Arthur
 WENDY ARTHUR
 EXPLORATION ACCOUNTANT

Mines & Energy SA

R98/00330

