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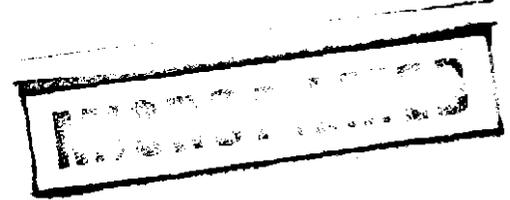
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88-2886

**OPEN FILE**

MINES	
File Ref.	EL 57/83
- 8 DEC 1988	
Doc. Ref.	
Action Officer	initials
LETTER	
7.12.88	
REFERS	
Resubmit to	Date

FINAL REPORT



PARTIAL RELINQUISHMENT E.L. 57/83

MT. DONALDSON

TASMANIA

88-2886

H. D. NOLAN  
DECEMBER 1988

AMG REFERENCE POINTS ADDED

## INTRODUCTION

The Mt. Donaldson Exploration Licence 57/83 covers an area of 28 km<sup>2</sup> located west of the Savage River in Western Tasmania.

The Licence was initially issued to Geopeko in January 1984 and transferred to H. D. Nolan in November of 1984.

Reduction to 50% of the original Licence area is now due and the relinquishment portion is detailed on the enclosed map.

## EXPLORATION

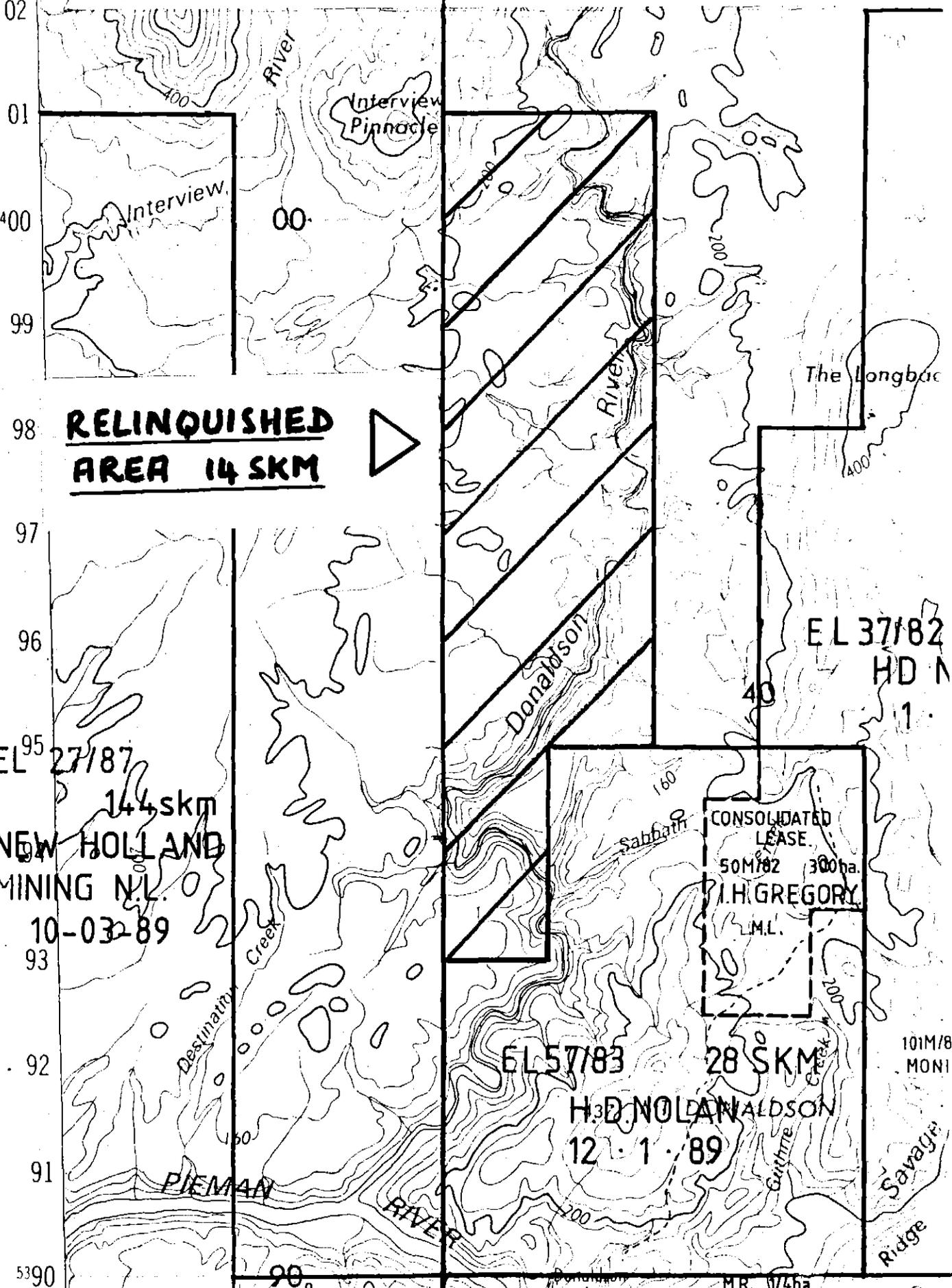
Exploration conducted within the relinquished area of the Licence is limited to that work carried out by Geopeko in 1984 and detailed in their annual report by Pemberton in May 1984 (report enclosed).

Geopeko investigated two airborne detected magnetic anomalies with on ground reconnaissance grid lines, ground magnetics, geological mapping and selected soil sampling.

Geopeko attributed the magnetic anomalies to magnetite bearing siltstone. The results were not encouraging and no further work was conducted.

1 : 50 000

34 35 36 37 38 39 40 41



**RELINQUISHED  
AREA 14 SKM**

EL<sup>95</sup> 27187  
144skm  
**NEW HOLLAND  
MINING N.L.**  
10-03-89

CONSOLIDATED  
LEASE  
50M/82 300ha.  
**I.H.GREGORY  
P.M.L.**

EL 57183  
**H.D. NOLAN ALDSON**  
12-1-89

EL 37182  
HD N  
1

101M/8  
MONI

M.R. 11/4ha.

02

GEOPEKO  
A DIVISION OF PEKO-WALLSEND OPERATIONS LIMITED

ANNUAL REPORT ON E.L. 57/83

MT DONALDSON  
TASMANIA

J. PEMBERTON  
MAY, 1984

DEPARTMENT OF MINES - TASMANIA  
 MINERAL INDUSTRY UNPUBLISHED REPORT  
**DATA SHEET**

REPORT NUMBER TCR \_\_\_\_\_  
 ICF  RF  OF

AUTHOR(S): PETTERTON, JOHN DATE: MAY, 1984

TITLE: ANNUAL REPORT ON E.L. 57/83  
MT RONALDSON

COMPANY(S): SEOPERCO

FORMAT: No. of Volumes: 1 Structure: 6 PAGES, 2 FIGURES, 2 PLANS

COMPANY REF. (if any): \_\_\_\_\_

LICENCE / LEASE: E2 57/83

LOCALITY: SK55-  1  2  3  4  5  6  7  8

Map sheet: BORNIE

Geographic:  
 (not in title)

<b>MAPPING - GEOLOGICAL</b> <input type="checkbox"/> Surface - scale : <input type="checkbox"/> Mine/Underground	<b>GEOPHYSICS</b> GND/AIR <input checked="" type="checkbox"/> <input type="checkbox"/> Magnetic <input type="checkbox"/> Electromagnetic <input type="checkbox"/> Radiometric <input type="checkbox"/> A.P. <input type="checkbox"/> S.P. <input type="checkbox"/> E.P. <input type="checkbox"/> E.I.P./M.I.P. <input type="checkbox"/> Resist. <input type="checkbox"/> Gravity <input type="checkbox"/> Seismic - Refraction <input type="checkbox"/> Seismic - Reflection <input type="checkbox"/> On-shore <input type="checkbox"/> Off-shore <input type="checkbox"/> Well-logging	<b>GEOCHEMISTRY</b> <input type="checkbox"/> Stream Sediment <input checked="" type="checkbox"/> Soil: <u>C Horizon</u> <input type="checkbox"/> Rock - chip <input type="checkbox"/> Gossan <input type="checkbox"/> Water : _____ <input type="checkbox"/> Biogeochemistry <input checked="" type="checkbox"/> Cu <input checked="" type="checkbox"/> Pb <input checked="" type="checkbox"/> Zn <input checked="" type="checkbox"/> Sn <input checked="" type="checkbox"/> W <input type="checkbox"/> Mo <u>Fe, Mg</u> <input type="checkbox"/> Rock: <input type="checkbox"/> Maj. <input type="checkbox"/> Tr.	<input type="checkbox"/> PETROLOGY <input type="checkbox"/> ORE GENESIS <input type="checkbox"/> ORE RESERVES <input type="checkbox"/> FEASIBILITY STUDY <input type="checkbox"/> MINERAL PROCESSING <input type="checkbox"/> MINING <input type="checkbox"/> ENVIRONMENT <input type="checkbox"/> ENGINEER. GEOLOGY <input type="checkbox"/> INDUST. MINERALS <input type="checkbox"/> CONSTRUCT. MAT. <input type="checkbox"/> FUELS : _____

MINERALS: TIN

MINE / DEPOSIT NAME(S): \_\_\_\_\_

OTHER KEYWORDS: GROUND MAGNETICS, C HORIZON  
SAMPLES.

ANNOTATION: GROUND FOLLOW UP OF AIRBORNE  
ANOMALIES.

CONTENTSPage No

1.	INTRODUCTION	2.
2.	MAGNETIC FOLLOW UP AT DON 1	3.
3.	MAGNETIC FOLLOW UP AT DON 2	4.
4.	CONCLUSION	5.

APPENDIX

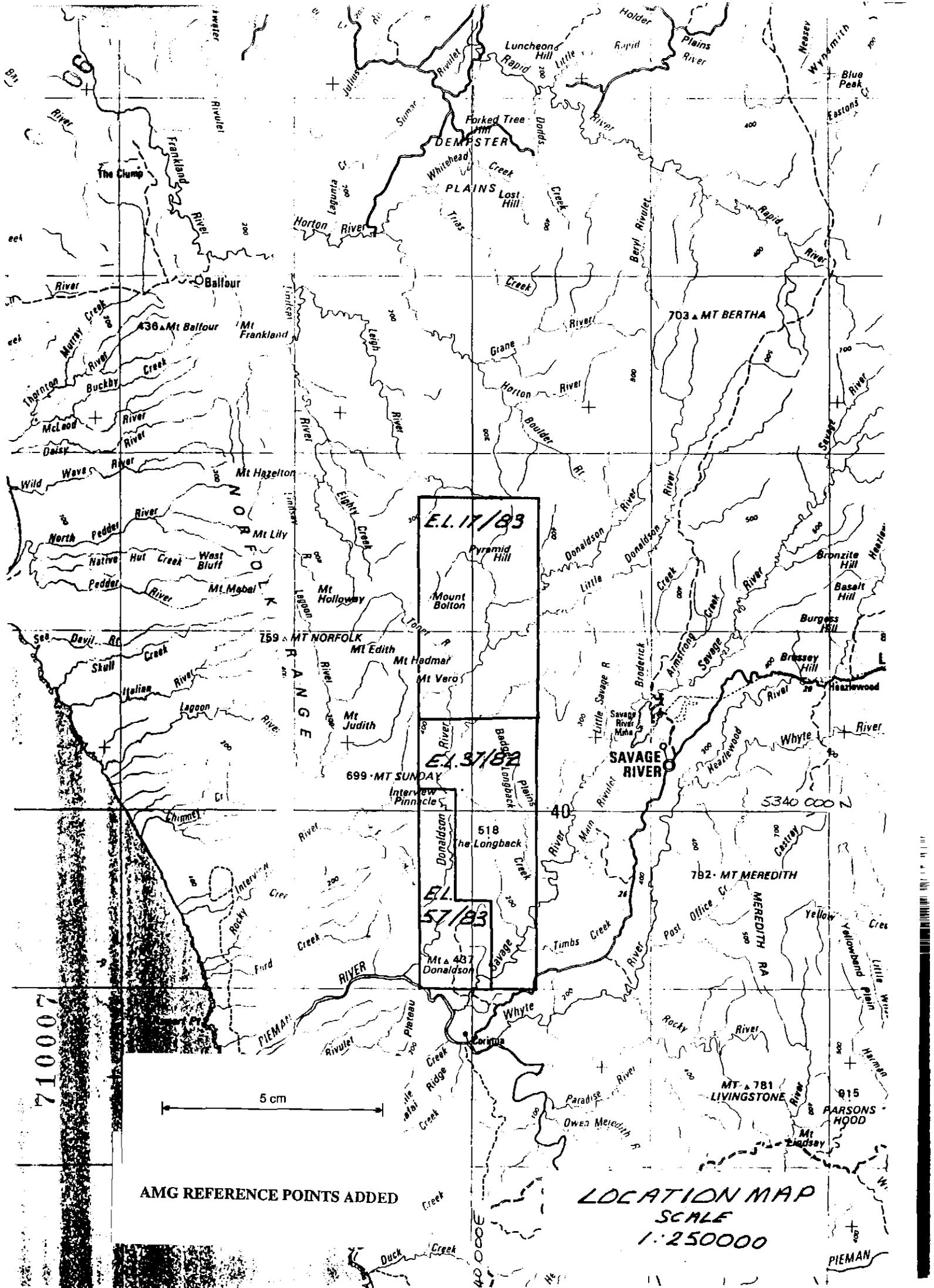
1.	C HORIZON SOIL SAMPLE RESULTS	6.
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FIGURES

1.	MAGNETIC PROFILES FOR DON 1 & SOIL SAMPLE NUMBERS
2.	MAGNETIC PROFILES FOR DON 2 & SOIL SAMPLE NUMBERS

PLANS

1.	AEROMAGNETICS AND PROSPECT MAP
2.	PROSPECT AND RECONNAISSANCE GRID MAP



E.L. 17/83

E.L. 37/82

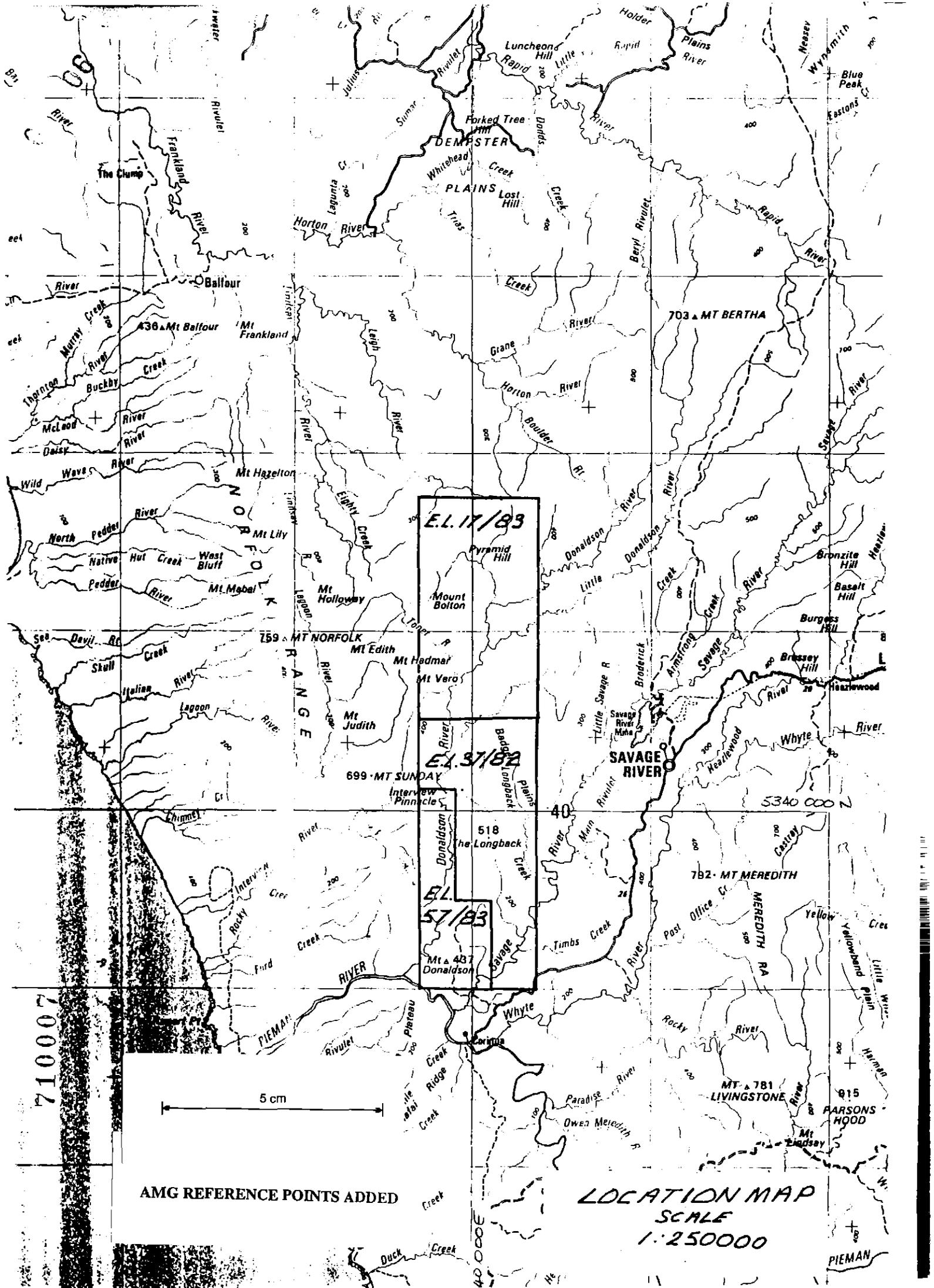
E.L. 57/83

AMG REFERENCE POINTS ADDED

LOCATION MAP  
SCALE  
1:250000

710007

5 cm



20

1. INTRODUCTION

The Mt Donaldson E.L. covers an area of 29sq km south west of Savage River in Western Tasmania. Access to the south east is by logging tracks across the Savage River with the rest of the area being restricted to helicopters.

Two magnetic anomalies were followed up using a tin skarn model of pyrrhotite/magnetite replacement mineralization. The area falls on the western boundary of the Arthur Lineament and is composed of Precambrian metasediments bounded by major fault structures.

08  
2.MAGNETIC FOLLOW UP AT DON 1

Don 1 was a discrete moderate anomaly in heavy rainforest and rugged topography. The aeromagnetics are displayed on Plan 1 and the reconnaissance grid on Plan 2. C-Horizon auger samples were taken over the peak of the anomaly on line OON (see Figure 1).

The results from both the magnetics and soil sampling were disappointing (see Appendix 1). Outcrop over the peak of the anomaly was sampled:-

KR 11190 - OON 225E - Felsic Amphibolite

KR 11191 - OON 100E - Magnetite bearing siltstone

The anomaly was therefore attributed to these two source rocks.

09

3. MAGNETIC FOLLOW UP AT DON 2

Don 2 was a complex moderate anomaly in semi-open country. Two lines were cut and read for magnetics with line 10200N being power augered (see profiles on Figure 2 and soil sample locations). Rock samples collected were:-

KR 11172	-	10 000N	10 000E	-	green siltstone
KR 11173	-	10 000N	9 720E	-	magnetite bearing siltstone
KR 11186	-	10 200N	9 470E	-	magnetite bearing siltstone
KR 11187	-	10 200N	9 480E	-	magnetite bearing siltstone
KR 11188	-	10 200N	9 520E	-	magnetite bearing siltstone
KR 11189	-	10 200N	9 700E	-	magnetite bearing siltstone

The auger results were below background and the anomaly was considered explained by the abundant disseminated magnetite in outcrop.

4.

CONCLUSION

No encouragement was obtained from the follow up of these two anomalies. Any further work would concentrate on a regional approach with panned concentrate sampling and mapping.

APPENDIX 1

C-HORIZON SOIL SAMPLE RESULTS



Incorporated in Queensland

# Australian Laboratory Services

PTY. LTD.

CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

Office & Laboratory

32 Shand Street  
Stafford, Q. 4053

PO Box 66  
Everton Park, Q. 4053

Phone: (07) 352 5577  
Telex: ALSEV 42344

Client: **GEORGO LIMITED,**  
Address: **P.O. BOX 598**  
**DEVONPORT, TAS. 7310**

Page 1 of 12

Batch Number: C100

Contact: **MR. J. PEMBERTON**

No. of Samples: 171

Date Received: 15/03/84

Order No. **K 859, KP 3380**

Sample Type: **SOIL**

Date Completed: 23/03/84

SAMPLE NUMBER	Element Unit Method	Cu ppm G001	Pb ppm G001	Zn ppm G001	Ag ppm G001	Fe % G001
TS 24801		<2	10	15	<1	0.35
TS 24802		<2	10	5	<1	0.17
TS 24803		<2	10	10	<1	1.58
TS 24804		<2	10	15	<1	2.68
TS 24805		<2	10	15	<1	2.18
TS 24806		<2	10	15	1	2.41
TS 24807		5	20	30	1	3.20
TS 24808		<2	15	190	1	6.09
TS 24809		<2	5	30	<1	1.57
TS 24810		<2	5	45	<1	2.57
TS 24811		<2	10	60	<1	2.22
TS 24812		<2	15	75	1	1.92
TS 24813		<2	10	70	<1	3.02
TS 24814		<2	10	50	<1	1.97
TS 24815		<2	10	70	<1	2.56
TS 24816		<2	10	45	<1	3.02
TS 24817		<2	15	60	<1	2.06
TS 24818		5	55	20	1	3.15
TS 24819		5	20	60	1	5.68
TS 24820		<2	15	35	<1	1.79
TS 24821		<2	15	40	<1	1.65
TS 24822		<2	15	35	<1	2.23
TS 24823		<2	20	65	<1	3.15
TS 24824		<2	20	20	<1	1.44
TS 24825		<2	20	40	1	3.11
TS 24826		<2	20	55	<1	2.54
TS 24827		<2	15	80	1	3.24
TS 24828		<2	20	65	1	3.36
TS 24829		<2	20	65	1	2.80
TS 24830		<2	15	50	1	3.84
Detection Limit:		2	5	2	1	0.01

Comments:



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Everton Park, Q. 4053  
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Telex: ALSEV 42344

Client  
Address:

GEOPEKO LIMITED,  
P.O. BOX 598  
DEVONPORT.

TAS. 7310

Page 2 of 12

Contact:

MR. J. PEMBERTON

Order No.

K 859, KP 3380

Sample Type:

SOIL

Batch Number: C100

No. of Samples:

171

Date Received:

15/03/84

Date Completed:

23/03/84

SAMPLE NUMBER	Element Unit Method	Sn ppm XRF 1A	W ppm XRF 1A	Ba ppm XRF 1A		
TS 24801		<5	30	450		
TS 24802		<5	30	450		
TS 24803		<5	10	960		
TS 24804		<5	10	970		
TS 24805		<5	10	880		
TS 24806		<5	20	620		
TS 24807		<5	10	680		
TS 24808		<5	10	310		
TS 24809		<5	10	590		
TS 24810		<5	10	1000		
TS 24811		<5	20	550		
TS 24812		<5	<10	580		
TS 24813		5	<10	590		
TS 24814		<5	<10	430		
TS 24815		<5	30	280		
TS 24816		<5	10	450		
TS 24817		<5	<10	610		
TS 24818		<5	10	490		
TS 24819		<5	10	430		
TS 24820		<5	10	510		
TS 24821		<5	10	600		
TS 24822		<5	10	560		
TS 24823		<5	10	530		
TS 24824		<5	10	510		
TS 24825		5	10	580		
TS 24826		<5	10	460		
TS 24827		<5	10	440		
TS 24828		5	10	560		
TS 24829		<5	<10	630		
TS 24830		<5	<10	650		
Detection Limit		5	10	10		

Comments:

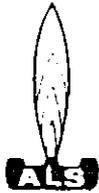


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*G J Kilmister*

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Telex: ALSEV 42344

Page 3 of 12

Client: **GEOPEKO LIMITED,**  
Address: **P.O. BOX 598**  
**DEVONPORT, TAS. 7310**

Batch Number: **C100**

Contact: **MR. J. PEMBERTON**

No. of Samples: **171**  
Date Received: **15/03/84**  
Date Completed: **23/03/84**

Order No: **K 859, KP 3380**

Sample Type: **SOIL**

SAMPLE NUMBER	Element Unit Method	Cu ppm G001	Pb ppm G001	Zn ppm G001	Ag ppm G001	Fe % G001
TS 24831		<2	20	55	1	2.55
TS 24832		<2	15	45	1	3.27
TS 24833		<2	15	40	1	2.31
TS 24834		30	15	25	1	4.60
TS 24835		2	10	25	1	3.04
TS 24836		<2	10	40	1	2.76
TS 24837		<2	10	20	1	1.78
TS 24838		<2	10	25	<1	1.99
TS 24839		<2	15	40	1	4.36
TS 24840		<2	10	30	<1	2.25
TS 24841		<2	10	35	1	2.36
TS 24842		<2	10	30	1	1.95
TS 24843		<2	10	25	1	2.15
TS 24844		5	10	10	<1	0.34
TS 24845		2	10	2	1	0.49
TS 24846		2	5	2	1	1.14
TS 24847		2	10	2	1	0.69
TS 24848		10	15	20	1	1.23
TS 24849		2	15	2	<1	0.43
TS 24850		5	15	2	<1	0.55
TS 24851		15	25	30	2	1.53
TS 24852		10	15	15	<1	1.35
TS 24853		10	20	30	1	2.81
TS 24854		2	15	2	<1	0.65
TS 24855		2	15	2	<1	0.98
TS 24856		5	20	10	1	2.46
TS 24857		2	15	2	<1	0.65
TS 24858		5	15	2	<1	0.75
TS 24859		10	30	90	2	6.88
TS 24860		10	20	5	1	0.94
Detection Limit		2	5	2	1	0.01

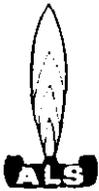
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Client: **GEOPEKO LIMITED,**  
Address: **P.O. BOX 598**  
**DEVONPORT, TAS. 7310**

Batch Number: **C100**

Contact: **MR. J. PEMBERTON**

No. of Samples: **171**  
Date Received: **15/03/84**  
Date Completed: **23/03/84**

Order No. **K 859, KP 3380** Sample Type: **SOIL**

SAMPLE NUMBER	Element Unit Method	Sn ppm XRF 1A	W ppm XRF 1A	Ba ppm XRF 1A
TS 24831		<5	<10	500
TS 24832		<5	<10	620
TS 24833		5	<10	670
TS 24834		<5	<10	800
TS 24835		<5	10	580
TS 24836		5	<10	530
TS 24837		<5	<10	480
TS 24838		<5	10	770
TS 24839		<5	<10	530
TS 24840		<5	<10	560
TS 24841		<5	10	530
TS 24842		<5	10	570
TS 24843		<5	10	540
TS 24844		<5	20	60
TS 24845		<5	40	70
TS 24846		<5	40	<10
TS 24847		<5	70	10
TS 24848		<5	10	430
TS 24849		<5	20	200
TS 24850		<5	20	270
TS 24851		<5	<10	40
TS 24852		5	10	290
TS 24853		<5	10	410
TS 24854		<5	10	310
TS 24855		<5	10	250
TS 24856		<5	20	200
TS 24857		<5	20	140
TS 24858		<5	20	150
TS 24859		<5	10	80
TS 24860		<5	20	230
Detection Limit:		5	10	10

Comments:



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Client  
Address

GEOPEKO LIMITED,  
P.O. BOX 598  
DEVONPORT, TAS. 7310

Page 7 of 12

Batch Number: C100

Contact MR. J. PEMBERTON

No. of Samples: 171

Date Received: 15/03/84

Order No. K 859, KP 3380

Sample Type: SOIL

Date Completed: 23/03/84

SAMPLE NUMBER	Element Unit Method	Cu ppm G001	Pb ppm G001	Zn ppm G001	Ag ppm G001	Fe % G001
TS 24891		5	20	35	1	1.85
TS 24892		2	15	35	1	1.60
TS 24893		30	15	30	1	2.49
TS 24894		2	10	<5	1	0.75
TS 24895		2	15	10	1	1.04
TS 24896		5	15	20	1	0.93
TS 24897		30	15	10	1	1.21
TS 24898		10	20	15	1	1.14
TS 24899		5	25	35	1	1.58
TS 24900		5	20	30	1	1.95
TS 24901		2	15	20	<1	1.05
TS 24902		2	20	15	<1	1.02
TS 24903		2	20	10	1	0.87
TS 24904		2	20	10	<1	0.83
TS 24905		<2	15	25	<1	2.45
TS 24906		<2	15	35	<1	2.36
TS 24907		<2	15	30	<1	2.22
TS 24908		10	20	45	<1	3.06
TS 24909		20	20	20	1	4.94
TS 24910		210	40	50	2	10.8
TS 24911		250	35	85	1	10.6
TS 24912		15	20	25	2	4.05
TS 24913		10	20	65	1	4.58
TS 24301		<2	15	10	1	0.96
TS 24302		5	15	10	2	1.16
TS 24303		2	15	15	1	1.04
TS 24304		<2	15	20	1	1.13
TS 24305		2	20	15	<1	1.01
TS 24306		<2	15	15	<1	0.62
TS 24307		2	15	15	1	1.27
Detection Limit		2	5	2	1	0.01

Comments



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Incorporated  
in Queensland



Page 9 of 12

Client: **GEOPEKO LIMITED,**  
P.O. BOX 598  
DEVONPORT, TAS. 7310

Batch Number: C100

Contact: **MR. J. FEMBERTON**

No. of Samples: 171  
Date Received: 15/03/84  
Date Completed: 23/03/84

Order No. **K 859, KP 3380** Sample Type: **SOIL**

SAMPLE NUMBER	Element Unit Method	Sn ppm XRF 1A	W ppm XRF 1A	Ba ppm XRF 1A		
TS 24891		<5	10	790		
TS 24892		<5	10	590		
TS 24893		<5	10	470		
TS 24894		<5	40	110		
TS 24895		<5	10	340		
TS 24896		<5	10	330		
TS 24897		<5	20	300		
TS 24898		<5	10	470		
TS 24899		<5	20	260		
TS 24900		<5	10	410		
TS 24901		<5	20	360		
TS 24902		<5	20	210		
TS 24903		<5	10	370		
TS 24904		<5	10	370		
TS 24905		5	10	650		
TS 24906		<5	10	520		
TS 24907		<5	10	490		
TS 24908		<5	10	530		
TS 24909		<5	10	530		
TS 24910		<5	<10	90		
TS 24911		<5	<10	170		
TS 24912		<5	10	650		
TS 24913		5	10	670		
TS 24301		<5	<10	540		
TS 24302		<5	<10	500		
TS 24303		5	10	540		
TS 24304		<5	20	440		
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TS 24306		<5	20	420		
TS 24307		<5	10	510		
action limit		5	10	10		

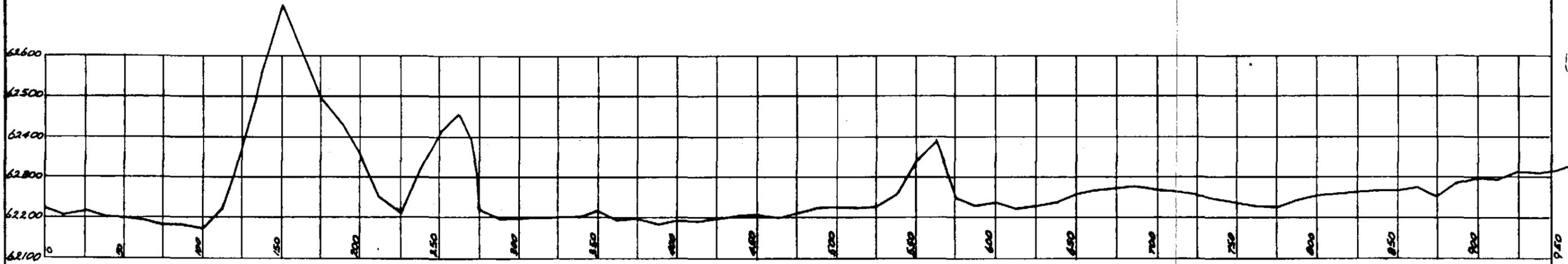
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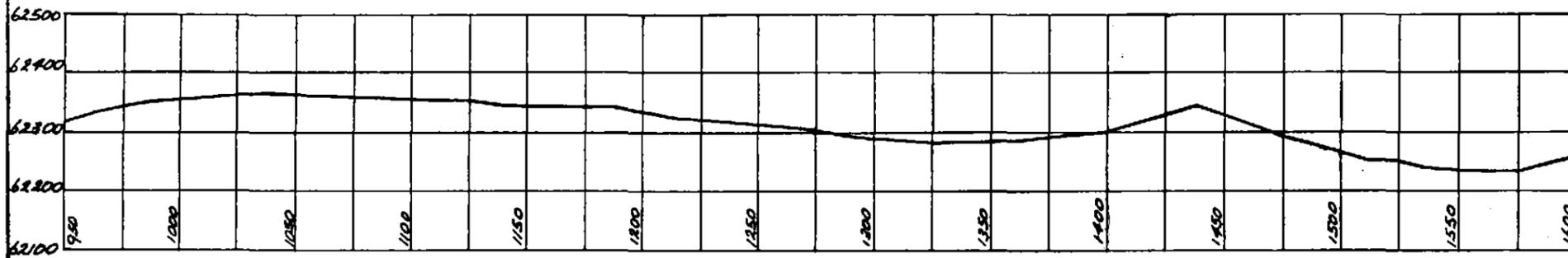
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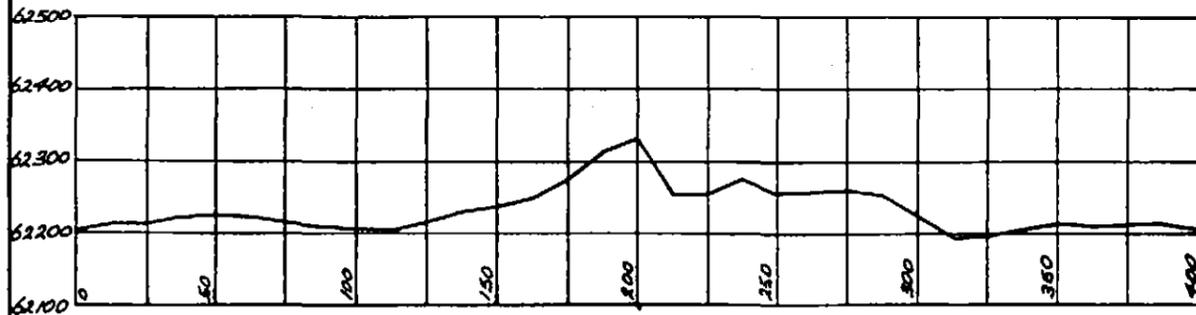
Registered



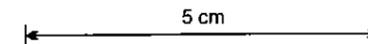
TS 24905 → CHORIZON SAMPLE No's TO → TS 24913



LINE 00N



LINE 150N



SCALE  
1cm VERTICAL = 100 AT  
1:2500 HORIZONTAL

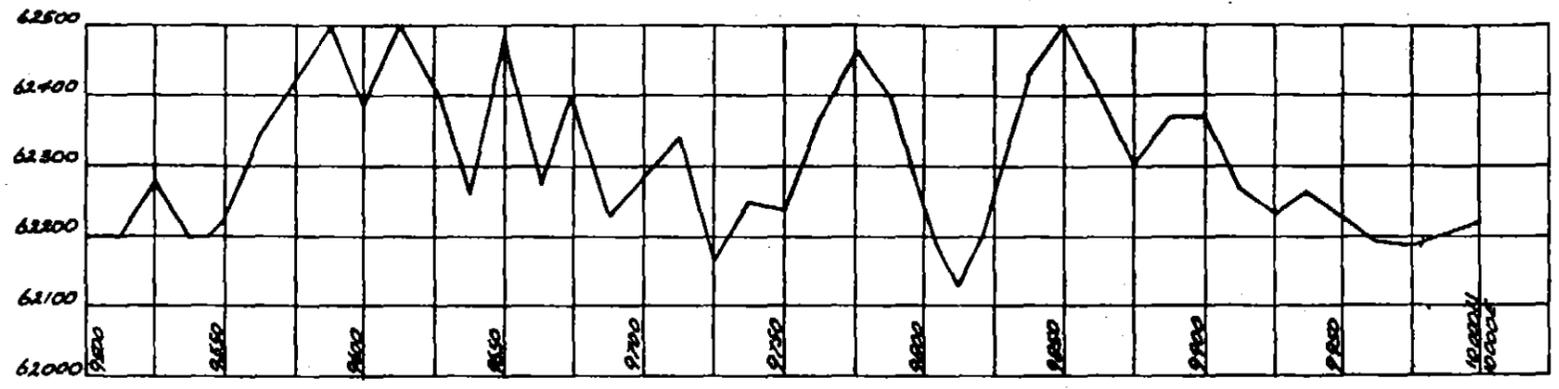
88-2886

MAGNETIC PROFILES  
FOR DON 1 + SOIL SAMPLE  
LOCALITIES

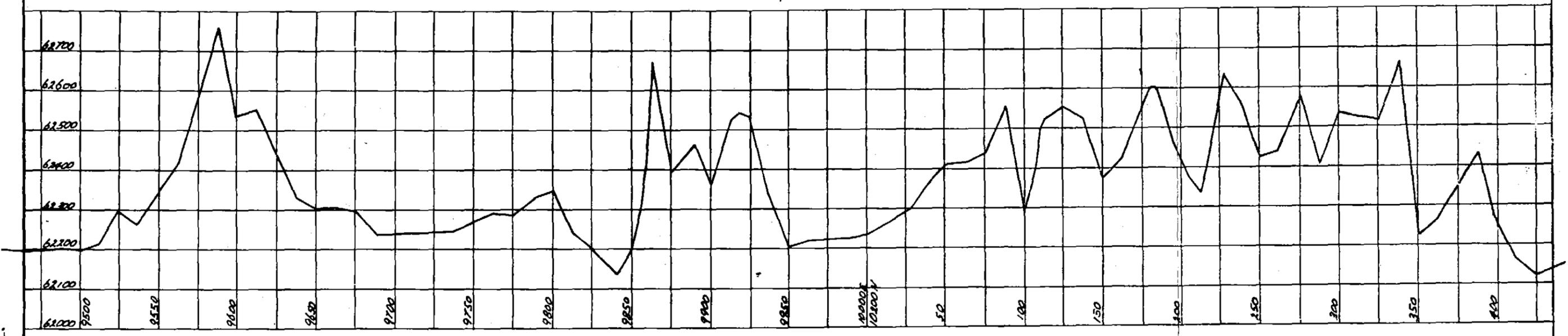
FIG 1

19

710020



SOUTHERN LINE 10000N



TS 24803 → CHORIZON SAMPLE No's →

→ To TS 24843 N  
10450 E

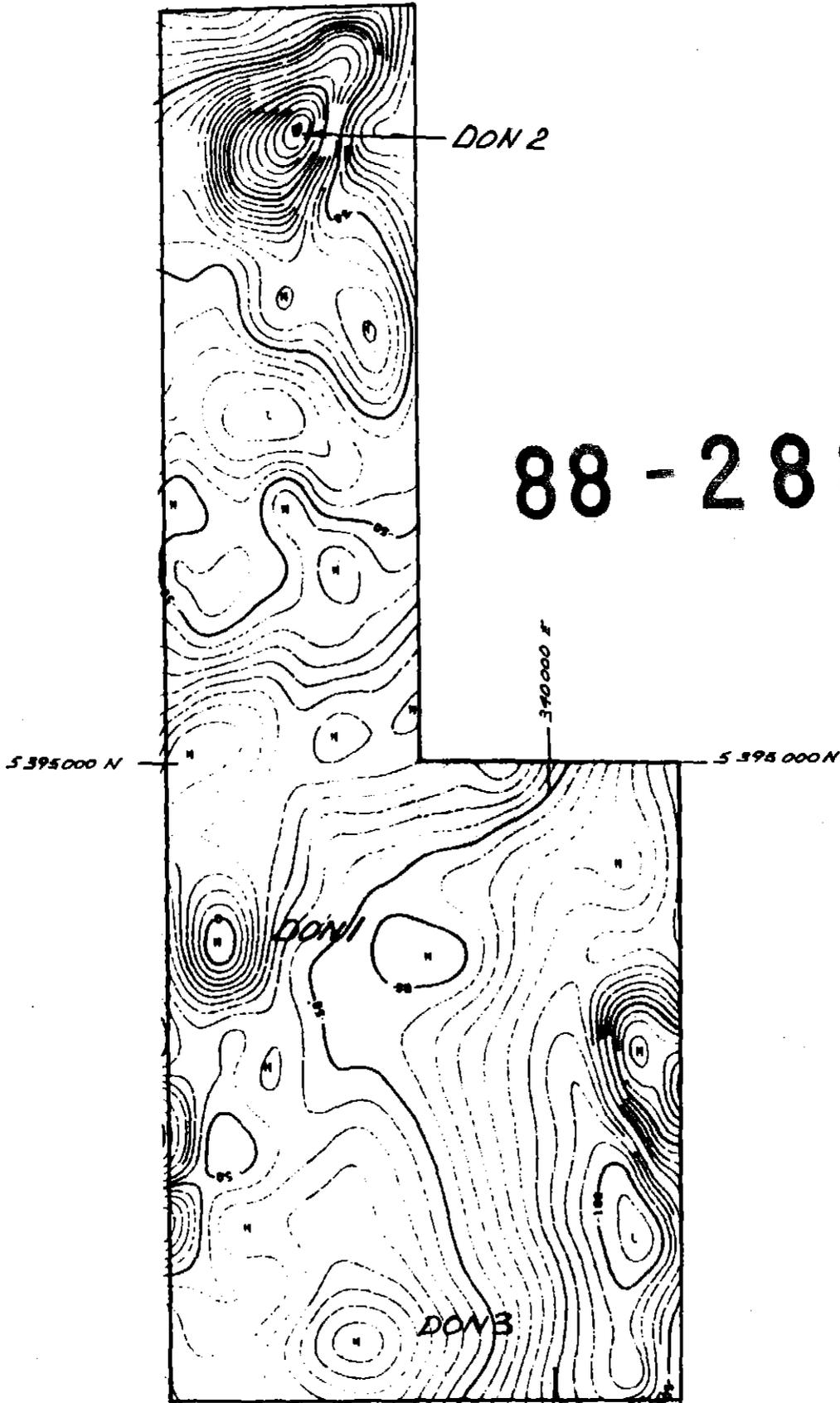
5 cm

SCALE  
1cm VERTICAL = 100 NT  
1:2500 HORIZONTAL

88-2886

MAGNETIC PROFILES  
FOR DON 2 + SOIL SAMPLE  
LOCALITIES

FIG 2

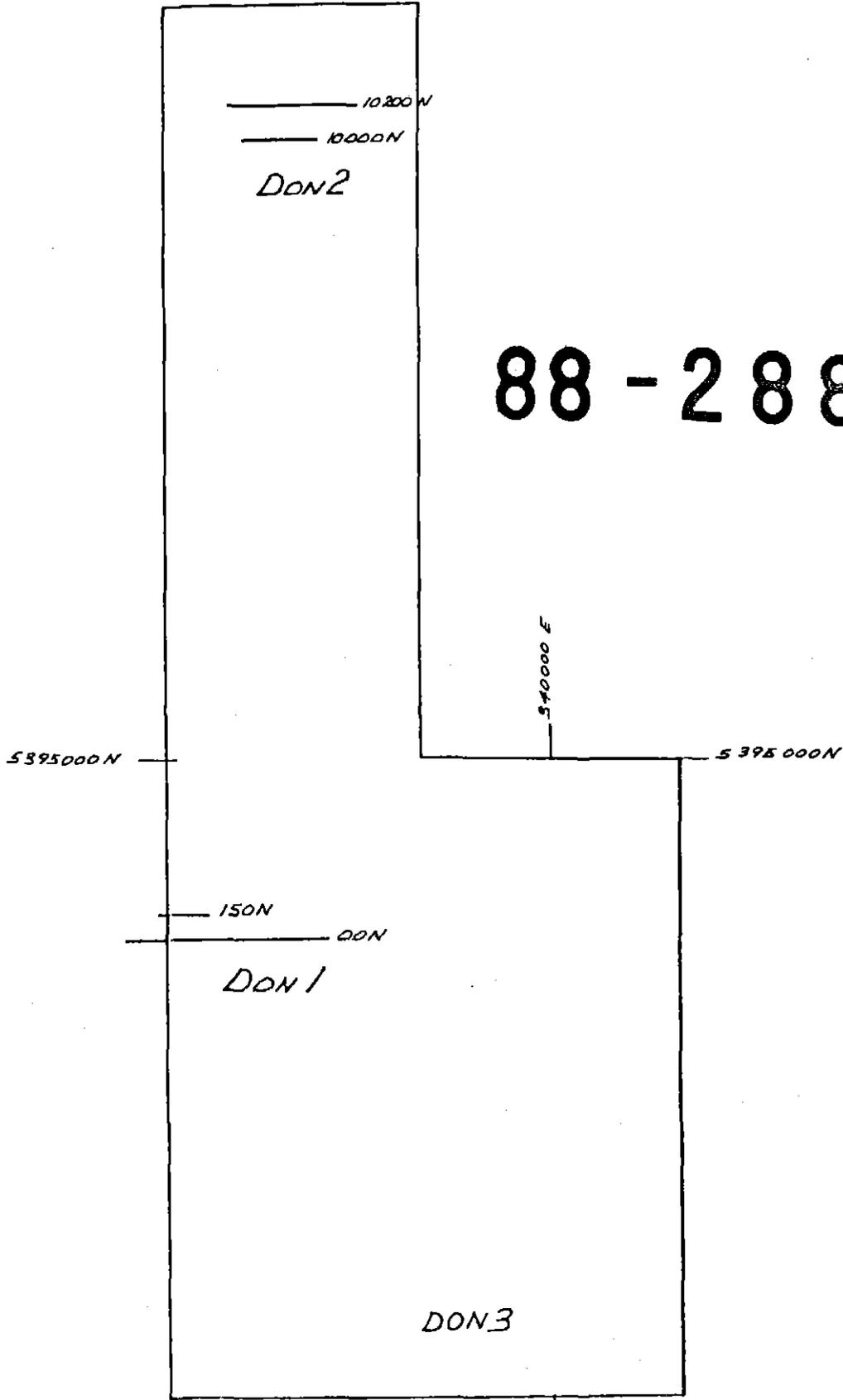


88 - 2886

5 cm

MT DONALDSON E.L. 57/83  
 TASMANIA  
 1:50000  
 AEROMAGNETICS  
 + PROSPECTS MAP  
 PLAN 1

88 - 2886



34000 E

Mt DONALDSON E.L. 57/83  
TASMANIA  
1:50000  
RECONNAISSANCE GRIDS  
+ PROSPECTS MAP  
PLAN 2