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PACMINEX PTY. LIMITED

XEROFILMED

GEOCHEMICAL TESTING OF AIRBORNE

E.M. ANOMALIES

E.L. 53/70

STANLEY RIVER, TASMANIA

PMR 195/76

76-1186

OPEN FILE

SYDNEY

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P.M. MACNAMARA

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	3 TO 80

003

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338004

FIGURES

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1 LOCATION MAP : E.L.'S 53/70 AND 18/74,
WEST TASMANIA. 1:100,000

1

PLANS (IN POCKET)

SCALE

PMX DWG NO.

K 553-2 GEOCHEMICAL TRAVERSES OF AIRBORNE
ELECTROMAGNETIC ANOMALIES, E.L. 53/70
STANLEY RIVER, TASMANIA

1:10,000

K 553-1 GEOLOGY AND AEROMAGNETIC TRENDS,
STANLEY - PIEMAN RIVER AREAS, TASMANIA

1:20,000

TABLES

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10

KEYWORDS

TASMANIA

EXPLORATION

GEOLOGY

ELECTROMAGNETIC

SURVEY

SOIL

SEDIMENT

CHIP

9EL 53/70

GEOCHEMISTRY

AERIAL

MAGNETIC

1976

STREAM

ROCK-
STONES

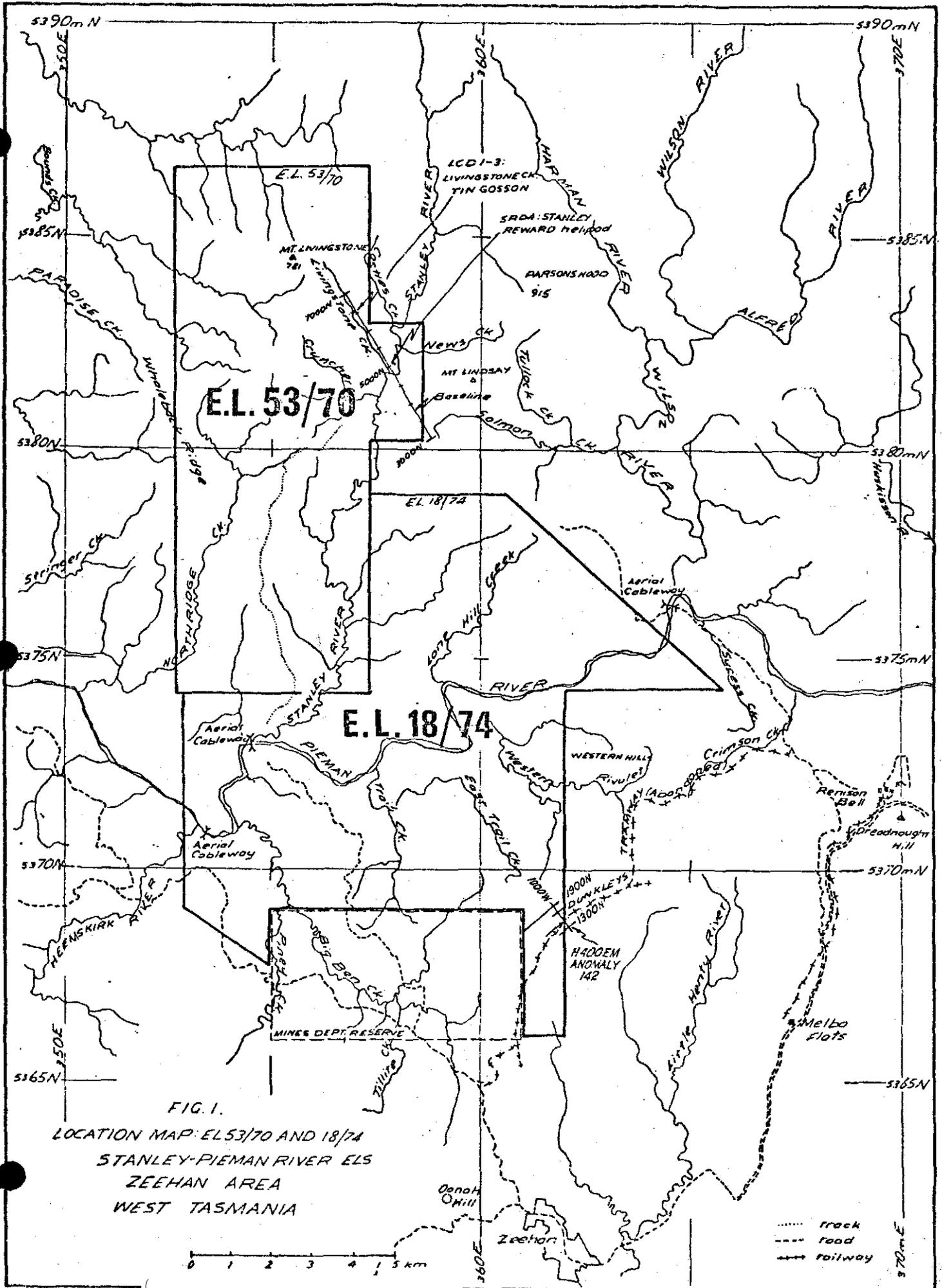
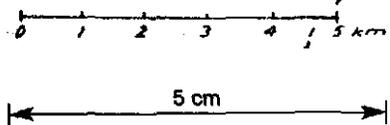


FIG. 1.
 LOCATION MAP: ELS 53/70 AND 18/74
 STANLEY-PIEMAN RIVER ELS
 ZEEHAN AREA
 WEST TASMANIA



..... track
 - - - - road
 + + + + railway

1. INTRODUCTION

1.1 Pacminex Pty. Limited has been conducting exploration on E.L. 53/70, Stanley River (65 km²) by agreement with the licence holder, Valley Exploration (Holdings) Pty. Limited. Figure 1 outlines the boundary of the E.L.

1.2 In April, 1975 approximately 350 line kms of airborne electromagnetics (E.M.) and magnetics were flown over the E.L. in a NE-SW direction. The lines were spaced 0.2 km apart. A McPhar H400 dual frequency E.M. system plus a Geometrics G 803-type proton magnetometer mounted on a helicopter were used to carry out the survey. A report covering the work was received from the contractors, Geox Pty. Limited in August, 1975 (Haigh, 1975).

1.3 The geophysical report indicated sixty-seven E.M. anomalies within E.L. 53/70. Of these, twenty-one occur near the Stanley Reward grid (see Figure 1) and are the subject of a separate report. This report deals with the results of geochemical traverses across forty-four airborne detected E.M. anomalies away from the Stanley Reward grid. The work was carried out between 26th January and 16th February, 1976, using up to three two-man parties.

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2. SUMMARY

2.1 The forty-four airborne E.M. anomalies tested occur in Oonah Quartzite and Slate. None have strong magnetic features associated such as might be expected to occur with Renison-type massive cassiterite-sulphide bodies. Most of the E.M. anomalies appeared to be associated with black shales and siltstones in which pyrite was seen to be strongly developed.

2.2 A number of weak to moderate geochemical anomalies were detected and are listed on Table I. The only area of any real significance is in the vicinity of E.M. Anomaly 19 (see DWG K553-2). This area requires detailed testing by panning up the slope towards the granite contact near Mount Livingstone.

A number of other weak geochemical anomalies may be worth checking further also.

2.3 The mainly negative results of geochemical follow-up work on these forty-four E.M. anomalies together with the magnetic trends plotted on DWG K553-1 indicate further work should be concentrated mainly in the vicinity of Stanley Reward.

2.4 Various alluvial workings recorded in old reports on granites near Stanley Reward suggest these areas deserve some attention for possible disseminated tin mineralisation.

003

3. TITLE

Pacminex Pty. Limited has been conducting exploration on E.L. 53/70, Stanley River (65 km²) by agreement with the licence holder, Valley Exploration (Holdings) Pty. Limited since November, 1973. The Exploration Licence requires renewal at six monthly intervals in June and December.

4. LOCATION, ACCESS AND TOPOGRAPHY

4.1 Location

E.L. 53/70, Stanley River is centred on the West Coast of Tasmania, 20 km NNW of Zeehan and north of the Pieman River. The mineralized zone of most interest is in the vicinity of the Stanley Reward Prospect. It lies in the eastern part of the E.L. and is cut by the Stanley River (see Figure 1).

4.2 Access

There are no roads within the Exploration Licence. The Hydro-Electric Commission (H.E.C.) is at present building a road westwards from just north of Tullah to their proposed dam site on the lower Pieman River. Its planned course would bring it through the southern part of the Stanley Reward grid probably in late 1977.

A walking track northward from the Mines Department cage across the Pieman River provides the only access through the centre of the area to Stanley Reward. This track continues from Stanley Reward south-westwards to Mount Lindsay. It meets a road built by Renison Limited north-westward from Renison Bell outside E.L. 53/70 near Salmon Creek (Figure 1). This road is not conveniently enough situated to be of use during exploration on E.L. 53/70.

4.3 Topography and Vegetation Cover

Except around Stanley Reward most of the E.L. is composed of one main rock unit (Oonah Quartzite and Slate). Topographically it is moderately to somewhat steeply undulating. The larger rivers, however, are deeply incised. The Pieman River, for instance, has steep, high, heavily wooded banks. All water courses are moderately to heavily wooded. This prevents easy access to and across the drainage channels during traversing.

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The country is steeper and more heavily timbered in the north-east of the E.L. near Stanley Reward. This mainly reflects the lithological changes in this area due to the Crimson Creek Formation and the Meredith Granite which form steep, heavily wooded slopes. In addition, most of the flat areas around Stanley Reward are covered by dense secondary growth (ti-tree, boura and "horizontal").

5. GEOLOGY

5.1 DWG K 5553-1 shows the main geological units in the area; the boundary positions are approximate only. Aeromagnetic trends have been plotted on this drawing also. These will eventually assist in fixing the main boundaries more accurately after more field work is carried out to check the significance of the individual aeromagnetic trends.

5.2 The main rock units within E.L. 53/70 are as follows :-

<u>SYSTEM</u>	<u>SYMBOL</u>	<u>UNIT NAME</u>	<u>LITHOLOGY</u>
Quaternary	Ora	-	alluvium
	Org	-	gravels
Tertiary	Tg	-	gravels
Permian	Pt	Zeehan Glacial Formation	pebbly mudstones
Cambrian	Ec	Crimson Creek Formation	khaki shales, greywackes, volcanics etc.
		"Marker Sequence"	dolomite, shale, cherts etc.
U. Proterozoic (or Lower Cambrian)	Puo	Oonah Quartzite and Slates	quartzite, quartzitic siltstone, grey shale, black shale etc.

5.3 The main prospective horizon in the Zeehan district is the contact between the Oonah Quartzite and Slates (referred to as Puo) and the Crimson Creek Formation (Ec). This Puo/Ec contact zone is occupied by a "Marker Sequence" (Newnham 1975) composed of shallow water rocks of variable lithology. Typically dolomites, cherts (often hematitic) and siltstones are present and sometimes conglomerate, oolitic cherts and shales etc.

The "Marker Sequence" contains the Renison Bell tin-sulphide mineralisation (Newnham, 1975). Many of the mines near Zeehan occur in it, or just below it in the upper part of the Puo.

5.4 Within E.L. 53/70, some 3-4 km strike length of "Marker Sequence" apparently occurs beneath alluvials in the Stanley Reward area. Two stanniferous limonite bodies (cassiterite-bearing massive sulphide gossans?) occur on the edges of this flat. The airborne geophysical survey showed that the greatest concentration of E.M. and magnetic anomalies within E.L. 53/70 occur in this vicinity. This area has been gridded and tested in detail (see Figure 1 and DWG K 533-1) and is the subject of a separate report at present being compiled.

5.5 Most observed dips within the E.L. are to the east, suggesting a simple parallel sequence of Oonah Quartzite and Slate (Puo) beds dipping eastwards with the top of the Puo near the Stanley Reward area. However, in detail folding could be complex as intense small scale folding is evident at outcrop scale. Although not subsequently confirmed by the field follow up programme, it was originally thought possible that the numerous weak aeromagnetic trends in the Puo could represent the same horizon(s) repeated across strike by strike faulting or drag folding. If so, the potentially prospective upper section of the Puo could have been involved also. Any E.M. anomalies within it would therefore occur westwards and possibly well away from the main Puo/Ec contact.

5.6 This report therefore deals with the geochemical traversing of those E.M. anomalies away from the Stanley Reward grid. All apparently occur within the Oonah Quartzite and Slate (Puo) but their exact stratigraphic position is unclear due to possible complex folding.

6. AIRBORNE E.M. AND MAGNETIC SURVEY

6.1 After a six month delay due to bad weather, instrument malfunctions and helicopter accidents an airborne E.M./magnetic survey was flown over E.L. 53/70 in April, 1975. The survey was conducted by Geoex Pty. Limited using a helicopter-mounted McPhar H400 E.M. system and a Geometrics G 803 proton precession magnetometer. The McPhar H400 E.M. equipment is a dual frequency sequential transmission system operating on 340 Hz and 1070 Hz.

Approximately 350 line km of airborne E.M./magnetics were flown on NE-SW lines spaced 0.2 km apart during the survey. A report which included flight line records, plots of E.M. anomalies and contoured magnetic results was received from Geoex Pty. Limited in August 1975 (Haigh, 1975).

6.2 This report indicates that within E.L. 53/70 sixty-seven E.M. anomalies occur (see DWG K 553-2). Sixty-five of these anomalies were tested by geochemical traverses. Of these one-third (21) are concentrated in the Stanley Reward area and were checked by grid testing. This present report deals with the other forty-four away from the Stanley Reward grid. None of the forty-four had strong magnetic features associated, in contrast to those in the vicinity of the Stanley Reward grid.

7. GROUND GEOCHEMICAL TESTING OF AIRBORNE E.M. ANOMALIES

7.1 Between 25th January and 16th February, 1976 up to three parties of two people each were engaged in checking airborne detected E.M. anomalies. A helicopter was used to position the ground parties. Ground checking consisted of locating the airborne E.M. anomaly on the flight line mosaic, transferring the position to a stereo-pair of photos and then locating the position in the field. Sampling of minor gulleys, draining each anomaly area was done in all cases. Soil sampling traverses with samples at 25 m intervals were run across many of the anomalies and rock chip samples were also collected. Many low order E.M. anomalies and most of those covered by dense scrub which would have required lines to be cut through them in order to run soil sampling traverses were checked only by sampling of minor gullies draining them.

The soil/drainage samples were forwarded to a laboratory for final drying and sieving to -80 mesh. Rock chip samples were pulverized by the laboratory prior to analysis. Chemical analyses are shown in Appendix I. The distribution of samples is shown on DWG K 553-2.

7.2' Approximately 580 drainage mud, soil and rock chip samples were collected from the vicinity of the forty-four E.M. anomalies tested. The sample numbers used (DWG K 553-2 and Appendix I) have four components consisting of a project number prefix (600) followed by the E.M. anomaly number assigned by Haigh (1975) on DWG K 553-2 followed by the sample number and type i.e. sample numbers 600 003 678 S, 600 055 890 M, 600 053 575 R.

<u>PROJECT</u> <u>PREFIX</u>	<u>E.M.</u> <u>ANOMALY</u>	<u>SAMPLE</u> <u>NUMBER</u>	<u>SAMPLE</u> <u>TYPE</u>
600	055	890	M (creek mud)
600	003	678	S (soil)
600	053	575	R (rock chip)

E.M. ANOMALY/ SAMPLE NUMBER	CHEMICAL ANALYSIS (PPM)						SAMPLE DESCRIPTION
	Sn	Cu	Zn	Pb	Bi	Ag	
<u>3</u> 600 003 712 S		2	34	10	2		black soil
<u>6</u> 600 006 661 R	X	22	35	16	6	0.8	black shale
<u>10</u> 600 010 824 M	X	2	60	8			gully mud
<u>15</u> 600 015 808 R	X	26	140	34			thin bedded black shale
<u>19</u> 600 019 201 S	20	2	4	4		X	bank sample
202 M	X	5	7	6		0.2	black mud
206 M	20	4	4	6		0.2	black org. mud
213 S	20	2	10	12		X	Oonah Quartzite soil
217 R	X	36	5	14	10	0.6	pyritic & pin-holed limonitic siltstone - green stains (copper ??)
689 S	20	2	4	4		0.2	black soil on siltstone
<u>37(43)</u> 600 037 730 S	20	2	2	4		X	light grey soil, quartz fragments
737 S	20	1	1	3		X	light grey soil, quartz fragments
738 S	20	2	2	3		X	light grey soil, quartz fragments
741 S	20	1	1	4		X	dark brown soil
742 S	20	3	11	5		X	light grey soil
743 S	20	1	1	6		X	light brown soil
<u>53</u> 600 053 504 S		2	4	44	6		grey-brown soil
505 M		X	4	32	2		dark grey gully mud
575 R	20	70	8	12	4	0.6	limonitic scree pebbles - weathered shale ? in Oonah Quartzite
<u>62, 63</u> 600 053 037 S		2	4	34	4		light brown soil, quartz fragments
038 S		2	4	22	6		light brown soil quartz fragments
042		2	6	28	12		light yellow brown clay, atz, frags.
046 S		2	6	22	4		light bron soil, quartz fragments
053 S		4	10	24	6		light grey soil, quartz fragments
055 S		2	6	24	4		light grey soil, mainly quartz

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E.M. ANOMALY/ SAMPLE NUMBER	CHEMICAL ANALYSIS (PPM)						SAMPLE DESCRIPTION
	Sr	Cu	Zn	Pb	Bi	Ag	
600 053 534 S 535 S 552 S		2 6 2	6 200 44	24 16 14	6 4 2		brown-grey soil siltstone frags. brown soil and quartz fragments
<u>71</u> 600 071 183 S 184 S 102 S 106 S	20 20 20 20	1 1 1 2	1 1 2 1	3 3 5 9		X X X 0.2	grey-brown soil grey-brown soil grey-brown clayey soil grey-brown clayey soil

7.3 Govey (1975) indicated the following threshold drainage values within similar terrain (E.L. 18/74) to the south.

Cu	10 ppm
Zn	15 ppm
Pb	24 ppm

These are possibly a little high compared with the population of values shown in Appendix I, but are reasonably valid.

All values for tin shown in Appendix I are either less than (X), or equal to, 20 ppm.

7.4 The highest values obtained are shown on Table I below.

7.5 None of the values shown are particularly high. However there is a discrepancy in the values obtained from the -80 mesh drainage samples near E.M. anomaly 19. A previous drainage survey (Macnamara, 1974, page 9) obtained a -80 mesh sediment sample value of 240 ppm Sn at sample site 600 019 202 M and confirmed a tin anomaly located here by an even earlier survey. The 1976 survey of the same drainage obtained less than 20 ppm Sn at site 600 019-202 M. and only 20 ppm just above it at 600 019 206 M. The discrepancy may be due to the sparse particulate nature of cassiterite within the drainage sediment or to its very localised occurrence in (say) an old remnant gravel bank. The source of the cassiterite is presumably the contact zone of the granite near Mount Livingstone (see DWG K 553-1). The -80 mesh results indicate that cassiterite is probably too "spotty" in distribution to rely entirely on this type of sample. Panning would be required to check the drainage off the granite contact in the vicinity of E.M. anomaly 19.

7.6 Possibly some of the other anomalies yielding 20 ppm Sn could be checked by panning large drainage samples also.

7.7 The following locations listed on Table I may deserve some follow-up work, including panning of stream sediments.

7.7.1 E.M. Anomaly 19 and Environs

Check the general area by panning towards the granite contact near Mount Livingstone, especially from around sample site 600 019 202 M.

7.7.2 Possibly E.M. anomaly 37 (20 ppm Sn in six soil samples).

7.7.3 Possibly E.M. anomaly 53 at site 600 053 535 S (200 ppm Zn).

7.7.4 Possibly E.M. anomaly 71 (20 ppm Sn in four soil samples).

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Only E.M. anomaly 19 deserves any extensive sampling because of the 240 ppm Sn value obtained previously and the presence of a granite contact as a possible source.

8. AEROMAGNETIC TRENDS

8.1 The flight line geophysical charts incorporated in Haigh's (1975) report have been used to plot the position of various aeromagnetic trends and possible trends on DWG K 553-1.

The various trends/possible trends have been sub-divided into the following categories:-

- magnetic highs (peaks)
- magnetic lows
- magnetic trends
- possible magnetic trends

The most strongly developed features are in the north-east part of E.L. 53/70 near the Puo/Ec and granite contacts. These have been denoted as L1 and L2 (magnetic lows) and H1, H2 and H3 (magnetic highs) on DWG K 553-1.

8.2 Within the main body of the Oonah Quartzite and Slate (Puo) most of the trends/possible trends are very subtle features only. Correlation from flight line to flight line is uncertain or ambiguous in many instances. The trend directions are reasonably true but the trend signatures themselves are too subtle to be recognisable as repetitions across strike due to possible folding strike faulting etc. In general the trends conform with the regional NW to NNW trending strike of the main regional rock units.

8.3 In the south-west of E.L. 53/70, there is an apparent change in the magnetics. This has been denoted on DWG K 553-1 by an approximate boundary marked -b-b-b. To the east, the magnetics show a smooth even declining gradient going eastwards. To the west, the magnetics become more irregular and are not imposed on a regular regional gradient such as occurs to the east.

The significance of the boundary is unknown. It may indicate a change in the rock unit (which is not apparent

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at surface) or a deeper feature.

8.4 The most important trends are those marked L1-L2 and H1-H3. Tin mineralisation found to date occurs to the east of aeromagnetic anomaly L2. L2 apparently occurs close to the contact of the underlying Oonah Quartzite and Slate and the overlying "Marker Sequence" at the base of the Crimson Creek Formation. The two known tin-limonite-magnetite "gossan" occurrences on Livingstone Creek at 6600 N and near Stanley Reward at 5200 N occur on magnetic high H2, which also occurs close to the contact of the Meredith Granite in the area. It marks one of the most prospective horizons within the gridded area but is not the only mineralized horizon.

8.5 There is no evidence to suggest L1 and L2 are repetitions of the same horizon. This aspect was considered a possibility as Newnham (1975) did not indicate a magnetic marker horizon below the "Marker Sequence" in the Oonah Quartzite and Slate.

8.6 A number of soil sampling traverses were run across the H1 horizon in 1976. These did not indicate any tin anomalies. The full results will be given in a later report covering the grid testing of the Stanley Reward Prospect.

8.7 A more detailed plot of the aeromagnetic and E.M. trends on a 1:10,000 mosaic is likely to show up a number of cross faults in the NE part of E.L. 53/70. This work is in progress at present.

9. CONCLUSIONS

9.1 Detailed drainage sampling especially by panning is required up slope from E.M. anomaly 19 and sample site 600 019 202 M. This should test the area at least to the granite contact around Mount Livingstone.

9.2 The drainage should also be tested further in the vicinity of H1 and L1 magnetic horizons.

9.3 Most work in the future should be concentrated on the Stanley Reward grid.

9.4 The granites deserve some attention aimed at checking their disseminated tin potential. Various alluvial workings are recorded in them in early records (Waterhouse, 1914).

PMM/LK

10. REFERENCES

1. BLISSET, A.H., 1962 : Geological Survey Explanatory Report on the Zeehan 1 Mile Sheet. Tasmanian Department of Mines.
2. GOVEY, A.L., 1975 : Progress Report on Activities - Southern Part of E.L. 18/74, Pieman River, Tasmania to 1st June, 1975. July, 1975, Pacminex Report, PMR 40/75.
3. HAIGH, J.E., 1975 : Report on the Helicopter-borne Combined Electromagnetic and Magnetic Survey in the Zeehan Area of Western Tasmania for Pacminex Pty. Limited. Vol. I and II, Geoex Pty. Limited. Pacminex Report PMR 137/75.
4. MACNAMARA, P.M., 1974 : Progress Report of Exploration and Drilling to May, 1974 on E.L. 53/70, Tasmania, Pacminex Report PMR 60/74.
5. NEWNHAM, L.A., 1975 : A Lower Cambrian Marker Sequence in the Renison-Mount Lindsay Area, in West Coast Symposium, Geol. Soc. of Australia, Queenstown, September, 1975.
6. WATERHOUSE, L.L., 1914 : The Stanley River Tin Field, Geol. Survey Bull. 15, Tasmania.

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APPENDIX I

GEOCHEMICAL ANALYSES : E.M. ANOMALIES 3 TO 80

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	Zn	Pb	Bi	Ag	SAMPLE DESCRIPTION
							TRAVERSE FROM NE TO SW, ABOUT 214 ⁰ M, SAMPLES TAKEN AT ODD INTERVALS DUE TO DIFFICULT TERRAIN.
³ 600 003 678 S		2	2	12	4		in scrub, muddy soil deep root penetration
679 S		2	4	14	4		(35 m from 678(S)) light grey sandy soil with granitic quartz fragments
680 S		2	6	16	X		(40 m from 679(S)) grey soil in thick scrub, deep root penetration
681 S		4	4	18	6		(15 m from 680(S)) yellow soil and granitic sand, plus fragments of granite. Outcrops of banded (?gneissic) rock of granitic composition 12 m to SW
682 S		2	2	14	4		(25 m) grey soil with fragments of altered country rock (quartzite)
683 S		2	4	10	2		grey soil with granitic fragments and quartz
684 S		2	6	12	6		grey soil with siltstone and quartz fragments
685 S		2	X	12	6		grey-brown soil and meta-sediment fragments
686 S		2	2	10	4		grey muddy soil at top of small gully. Quartzite outcrop ? 20 m to SW
687 S		2	2	10	4		grey soil
688 S		2	2	12	4		grey soil with fragments of quartzite
600 003 702 S		X	2	8	4		light grey to brown soil above quartzite
703 M		X	X	4	4		mud in small stream
704 S		X	X	14	4		light grey soil in quartz scree above quartzite
705 S		X	4	10	4		grey soil 15 m SW = quartzite, Fe rich, outcrop
706 S		X	6	18	8		brown to orange soil above Fe rich quartzite
707 S		X	4	16	6		brown-orange soil above Fe rich quartzite, nearby outcrop, strike SE
708 S		X	2	6	4		brown-orange soil above Fe rich quartzite
709 S		2	6	10	4		brown-orange soil above Fe rich quartzite
710 M		2	6	12	4		mud in creek, some quartz fragments
711 S		X	2	6	2		grey soil with quartz fragments
712 S		2	34	10	2		black soil, deep root penetration
713 S		X	2	10	2		grey soil with quartzite fragments
714 M		X	4	8	4		mud sample on slope
715 S		2	4	14	2		grey-brown soil with quartzite fragments
716 M		X	4	10	2		mud sample in gully
717 S		X	6	14	6		fine brown soil with orange streaks, Fe stain

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	Zn	Pb	Bi	Ag	
600 003 718 M		2	6	10	4		black mud with small quartzite fragments in small stream
719 S	X	2	2	10	4		brown soil with quartzite fragments
720 S	X	2	2	10	2		light grey-brown soil in quartzite scree. Quartzite outcrops 1 m SW with strike = 225°M
721 S	X	4	4	12	6		grey-brown soil with quartzite fragments
722 S	X	4	4	12	2		grey-brown soil with quartzite fragments
⁴ 600 004 219 H		2	2	6	2		dark organic creek mud off Oonah Quartzite
220 S		2	2	8	2		Oonah O/C - limonitic stained siltstone
221 M	X	4	4	10	4		gully - light grey Oonah soil
222 S		2	4	10	2		Oonah soil
223 S		2	4	6	4		Oonah soil
224 M		2	4	10	2		gully drainage
225 S		2	4	8	6		centre of saddle - limonitic stained quartzite - old trenches
226 S		2	4	12	6		Oonah soil
227 S		2	4	10	6		Oonah - iron stained 090/80°N dip
228 M		2	4	10	2		mud
229 M		2	4	10	X		mud
230 S							Oonah, limonitic stained
231 S		2	6	10	4		limonitic stained Oonah
⁵ 600 005 878 M	X	2	14	10			mud sample on steep saddle slope
879 M	X	2	10	10			mud sample on steep saddle slope
880 M	X	2	10	10			mud sample on steep saddle slope in small gully - outcrop of quartzite nearby strike 210°M
							TRAVERSE GOING NORTH, BEARING 000°M, SAMPLES EVERY 25 M
⁶ 600 006 634 S		X	10	10	2		black soil on hill top
635 M		X	10	10	2		mud in small gully
636 S		X	4	10	2		black soil with quartz fragments
637 S		X	2	10	2		light grey to light brown soil above weathered quartzite It includes quartz and quartzite fragments
638 S		X	6	12	2?		light grey soil in quartz scree
639 S							light grey soil on hill slope
640 M		X	4	10	2		mud in creek
641 S		2	6	16	6		grey soil on quartzite bedrock. Adjacent is a quartzite outcrop, strike 090°M, dip 80°N

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Su</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 006 642 S		2	6	16	4		adjacent to small gully, light grey sandy soil with minor quartz
634 S		2	6	14	4		light grey to white soil immediately above quartzite with orange streaks (resembles anomaly 042 with orange ? Fe rich quartzite outcropping). Quartzite outcrop adjacent
644 S		X	4	10	2		grey-brown soil with quartz and quartzite fragments
645 M		X	6	12	2		mud from small creek
646 M		X	4	16	2		mud sample from small creek nearby (10 m to north)
647 M		X	2	10	2		mud sample in small gully
648 S		X	4	10	X		grey-brown soil in quartzite scree, outcrop of quartzite 5 m to north, strike 280°M
649 S		X	6	14	8		light grey-brown soil with quartz fragments above quartzite
650 S		X	4	14	8		light grey to brown soil with quartz fragments, quartzite outcrops 20 m to SE, another 15 m to north, strike 063°M, dip 90°
651 S		X	6	14	6		light grey-brown soil with quartz fragments
652 M		X	4	12	6		mud in small gully near saddle - root penetration deep
653 S		X	4	10	6		grey-brown soil on quartz scree on steep hill slope
654 S		X	4	12	6		light grey-white soil on siltstone and under quartz scree
655 S		X	6	10	4		light grey-brown soil in quartzite scree
656 S		X	4	8	4		muddy black soil on hill slope
657 S		X	4	10	6		light grey-brown soil with quartz fragments above siltstone, on a saddle
658 S		2	4	12	6		light grey-brown soil with quartz fragments above siltstone, quartzite outcrop 18 m to north on side of steep slope, flat lying (soil creep ?)
659 S		X	6	10	4		light grey soil on steep (±60%) slope
660 S		2	4	10	4		dark humus soil on quartzite boulders on steep slope to creek, quartzite in creek has strike 320°M, dip 30°SW
661 R	X	22	35	16	6	0.8	sample of black shale in creek 20 m upstream from intersection with traverse. Black shale ± 3 m wide
662 R	X	2	2	7	8	0.2	black shale outcrop west of traverse. Black and white shale has strike 285°M, dip 90°
663 M		2	4	12	2		from creek 12 m south of 662(R). Black shale adjacent to creek is associated with orange stained quartzite in a region of tight folding
10 600 010 822 M	X	2	10	10			mud sample in minor creek
823 M	X	2	8	10			mud sample in small gully

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 010 825 M	X	2	8	10			mud sample in minor creek, quartzite scree on adjacent hill
826 M	X	2	8	8			mud in gully
827 M	X	2	8	8			mud in gully
<u>11</u> 600 011 881 M	X	2	10	10			mud sample on hill slope
882 M	X	2	10	16			mud sample in small gully
883 M	X	2	10	18			mud sample in gully - quartz scree
<u>12</u> 600 012 816 M	X	2	12	20			mud sample in small gully
817 M	X	2	10	20			mud sample in small gully - quartzite outcrop nearby
<u>13</u> 600 013 809 M	X	2	8	8			mud sample in small gully
810 M	X	2	10	6			mud sample in small gully
811 M	X	2	10	10			mud sample in braided creek
812 M	X	2	8	8			mud sample in braided creek, - quartzite outcrop nearby, orange stained in places, much quartz scree
813 M	X	2	8	4			mud sample in major creek, near the bank
814 M	X	2	14	16			mud sample on creek bank
815 M	X	2	8	16			mud sample off 2nd order creek - quartzite outcrop nearby
<u>14</u> 600 014 794 M	X	4	12	10			mud sample in small gully
795 M	X	4	10	10			mud sample in small gully
796 M	X	2	8	10			mud sample in small gully
797 M	X	4	20	8			mud sample in small gully - quartzite outcrop nearby
<u>15</u> 600 015 798 M	X	2	10	10			mud sample on bank of 3rd order creek
799 M	X	2	10	8			mud sample of 3rd order creek
800 M	X	2	12	16			mud sample of 3rd order creek
801 M	X	2	8	4			mud sample of 2nd order creek - quartzite outcrop nearby
806 M	X	2	14	14			mud sample in 2nd order creek
807 M	X	2	10	10			mud sample in small gully
808 R	X	26	140	34			sample of thin bedded black shale in creek. strike 355°, unit approximately 6 metres wide.
<u>16</u> 600 016 818 M	X	6	22	18			mud sample in 3rd order creek
819 M							NOT RECEIVED
820 M	X	2	10	10			mud sample in small gully
821 M	X	2	12	12			mud sample in small depression on hill slope

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
<u>17</u>							
600 017 802 M	X	2	8	10			mud sample on bank of 2nd order creek
803 M	X	2	8	10			mud sample in 2nd order creek
804 M	X	2	8	12			mud sample in 2nd order creek
805 M	X	2	10	16			mud sample in 2nd order creek - quartzite outcrop nearby, orange stained ? Fe ?
<u>18</u>							
600 018 952 S	X	2	2	5		0.2	dark grey soil - quartzite fragments N.B. dense bours and ti-tree (Mount Livingstone)
953 S	X	4	7	7		X	dark brown soil - quartz fragments
954 S	I.S	7	15	20		X	dark brown soil - high root penetration
955 R	X	17	27	14	4	0.6	limonite "nodules" in quartzite
956 S	X	2	10	5		X	thin cover grey soil over quartzite
<u>19</u>							
600 019 199 S	20	2	2	3		0.2	slope wash soil - right bank - black soil, Oonah Quartzite O/C
200 M	X	1	2	4		X	large creek - Oonah outcrop nearby
201 S	20	2	4	4		X	left bank - large creek
202 M	X	5	7	6		0.2	black mud from creek - Oonah on banks - no gravel seen
203 S	X	2	3	5		X	Oonah scree- black organic soil
204 S	X	1	1	4		X	LHS of bank - black organic soil
205 S	X	1	2	2		X	100 metres from last sample - below ridge top
206 M	20	4	4	6		0.2	black organic mud - O/C of Oonah nearby
207 S	X	4	2	5		X	Oonah soil - RHS bank
208 S	X	1	2	4		X	Oonah soil - LHS bank
209 M	X	2	2	2		X	mud - creek
210 S	X	2	4	5		0.2	LHS bank
211 S	X	1	2	4		0.2	RHS bank - Oonah in creek - loose on ridge
212 M	X	2	4	5		0.2	black gully mud
213 S	20	2	10	12		X	Oonah soil
214 S	X	2	3	5		0.2	Oonah soil
215 M	X	3	3	5		0.2	black mud - dark brown-grey
216 M	X	2	10	9		0.2	grey-brown silty soil - no granite detritus or quartz tourmaline
217 R	X	36	5	14	10	0.6	pyritic - pinholed limonitic siltstone - shale, green (?) copper stains 045°/80° E dip at head of tin drainage anomaly
218 M	X	1	2	5		0.2	gully

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	Zn	Pb	Bi	Ag	SAMPLE DESCRIPTION
							TRAVERSE NE TO SW; SAMPLES EVERY 25 M
600 019 689 S	20	2	4	4		0.2	black soil on siltstone (? boulder) on ridge slope
690 S							black soil, much root penetration, outcrop ? quartzite trend SW at 19 m to SW of 690(S)
691 S							grey-brown soil on quartzite. Outcrop of quartzite strike SW, dip 80°SE. Quartzite is limonite rich in part
692 S							Flat bedded quartzite, grey soil with quartzite fragments above quartzite (Fe rich ?) 16 m to SW is an outcrop of thin bedded quartzite, tightly folded so that strike is SE, dip 80° NE
693 S	X	1	2	3		0.2	black soil on Fe rich quartzite
694 S	X	2	2	5		0.2	light brown soil in quartzite scree. Nearby ? outcrop strike SW, 13 m to SW is an outcrop of thinly bedded quartzite, strike SW, dip 80° to SE on steep slope to steep gully
695 S	X	1	1	4		X	light grey soil in quartzite scree, 13 m to SW is quartzite with strike 230°M
696 S	X	2	2	4		0.2	light grey soil
697 S							light grey soil in quartzite scree
698 S	X	1	1	4		X	light grey soil in quartzite scree; to SW, outcrop of quartzite, strike = 630°, dip 90°
699 S	X	1	2	4		X	grey soil in quartzite scree. Nearby thinly bedded quartzite outcrop, strike SW, dip 80° to SE
700 S	X	1	2	5		X	brown soil in quartzite scree (limonite rich)
701 S	X	1	2	4		X	grey soil in quartzite scree (limonite rich)
20 600 020 664 M		2	6	16	4		SAMPLES 25 M APART, TRAVERSE SW TO NE grey creek alluvium
665 S		2	6	14	6		grey-brown soil with quartz fragments above quartzite (Oonah)
666 M		2	4	14	4		dark grey soil in small gully
667 S		2	4	14	4		brown soil in quartz scree
668 S		2	4	14	4		fine grey soil
669 S		2	6	12	6		red-orange soil above ?, limonitic sandstones ? outcrop strike 085° Minor shear zone in quartzite
670 S		2	4	14	6		red-orange soil above ?, limonitic sandstones ? minor shale bands to NE, strike 080°M shale and siltstone
671 S		2	4	14	6		grey soil with quartz fragments
672 S		2	4	14	2		grey soil in quartz and quartzite scree
673 S		2	10	14	4		grey soil above thinly bedded quartzite. Outcrop 1100M strike
674 S		2	6	12	X		brown soil in quartz and quartzite scree

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 020 675 S		4	10	24	6		brown to orange soil with quartz fragments
676 S		2	4	10	2		dark grey soil in small dip
677 S		2	2	10	2		thin cover of grey soil above quartzite
<u>21</u>							
600 021 828 M	X	2	14	12			mud in 2nd order creek
829 M	X	2	10	4			mud in small gully
830 M	X	2	8	12			mud in small gully
831 M	X	2	12	10			mud in small gully - quartzite outcrop nearby
832 M	X	4	8	12			mud in gully
833 M	X	2	8	12			mud in 2nd order creek
<u>23</u>							
600 023 884 M	X	2	14	10			mud in gully
885 M	X	2	12	10			mud sample in gully
886 M	X	4	60	18			mud sample in gully
<u>28</u>							
600 028 871 M	X	2	14	16			mud sample in large gully
872 M	X	2	10	12			mud sample in small gully
873 M		NOT RECEIVED BY LABORATORY					mud sample on hill slope - quartzite scree
<u>29-31</u>							
600 030 585 S		X	X	10	X		TRAVERSE BEARING 034° FROM SW TO NE grey soil with angular quartz fragments
586 M		2	X	10	2		sample in gully of mud, some quartz on surface.
587 S		2	4	10	2		dark grey soil with quartz fragments at edge of gully mud sediment. Outcrop weathered quartzite. Strike 020°N, dip 70°
588 S		2	6	10	2		brown "B" horizon soil in quartz scree
589 S		2	6	14	4		brown "B" horizon soil in quartz scree
590 S		2	2	10	2		brown soil in quartz scree on crest of hill
591 S		2	X	12	4		brown soil in quartz scree and some fragments of weathered quartzite
592 S		2	X	8	2		grey soil in quartz scree
593 S		2	4	6	X		black muddy soil with quartz fragments
594 S		2	6	8	X		black muddy soil with quartz fragments
595 S		X	4	8	2		dark grey soil with quartz fragments, with traces of white weathered quartzite
596 S		X	4	10	2		grey soil in quartz scree
597 S		2	X	8	2		just below "A" horizon, dark grey to black muddy soil in quartz fragments

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	An	Pb	Bi	Ag	SAMPLE DESCRIPTION
600 030 598 S		2	4	12	6		light grey to brown soil with quartz and siltstone fragments
599 M		X	4	12	2		muddy soil in small steep gully, downstream 1 m from quartzite outcrop
600 S		2	6	8	6		grey to white soil in quartz scree on weathered siltstone 19 m NE = outcrop of siltstone - strike 030°M
601 S		X	4	8	4		grey soil on steep incline to a creek
602 S		X	4	8	2		black muddy soil in quartz fragments
603 M		2	X	12	4		alluvial grey silty soil, black shale O/C 5 m NE, approximately 10 m wide and varies from grey-black to light grey. Many quartz filled fractures and some folding. Trend is 040°, dip 75°NW.
604 S		2	4	16	4		grey silty soil with clay immediately above quartzite ? bedrock. Fragments of quartzite
605 S		2	4	12	2		light grey soil in quartz scree just above quartzite ? bedrock. Quartzite outcrops 3 m to the north. Strike = 038, dip 090°
606 S		2	6	14	4		light grey soil in quartz scree
607 S		X	X	10	2		grey soil on quartzite bedrock
608 S		2	4	12	4		fine dark grey soil on steep slope, outcrop on creek bend 23 m to the NE is quartzite with strike 080°M, dip 45°N. Creek cuts through apex of small anticline
609 M		2	8	12	2		sample of mud adjacent to creek
610 S		X	12	10	4		sample of dark grey soil above quartz rock. Quartzite 7 m NE
611 S		2	X	8	X		light grey soil above quartzite bedrock
612 M		2	X	10	4		mud sample in small creek alluvium
613 S		2	4	12	X		grey soil with quartzite fragments on Quartzite ? Bedrock ?
614 S		2	4	10	4		black soil with quartz fragments
615 S		2	2	14	4		Light grey soil with quartz and quartzite fragments, quartzite outcrop - strike 360°M
616 M		2	4	10	2		mud sample in small steep gully
³⁵ 600 035 874 M	X	2	10	18			mud sample in small gully
875 M	X	2	12	14			mud sample in small gully
876 M	X	2	8	12			mud sample on steep gully off saddle
877 M	X	2	10	12			mud sample in small gully - outcrop orange stained quartzite nearby strike 045°

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	Zn	Pb	Bi	Ag	SAMPLE DESCRIPTION
<u>36</u> 600 036 834 M	X	2	8	10			mud sample in large gully
835 M	X	2	8	6			mud sample in depression on hill slope
836 M	X	2	14	12			mud sample on hill slope
837 R		NOT RECEIVED BY LABORATORY					sample of limonite rich siltstone strike 245°M
<u>41</u> 600 041 065 S		2	4	10	4		TRAVERSE SW TO NE (BEARING 214°) 0M : grey-brown soil with quartz fragments
066 S		2	X	10	2		25M : light grey-brown soil - siltstone fragments
067 S		2	4	14	4		50M : light grey soil, Onah Quartzite outcrops strike 120°M, dip 60-80°
068 S		2	4	10	2		75M : dark chocolate soil, high root penetration
069 S		2	2	10	X		100M : grey-brown soil
070 S		2	12	10	2		125M : grey-brown soil
071 S		2	4	10	2		150M : grey-brown soil with quartz fragments
072 M		2	16	6	2		160M : drainage mud from gully - dark brown
073 S		2	X	10	2		175M : dark grey-brown soil
074 S		2	2	6	2		200M : light grey soil with quartz fragments
075 S		4	8	10	2		225M : grey soil quartz fragments - gully sample
076 S		2	8	10	2		250M : sparse soil, pale grey soil - quartzite fragments
077 S		2	2	10	4		275M : light greybrown soil - quartz fragments
078 S		2	6	10	2		287M : drainage sample - light grey - sandy texture
079 S		2	6	10	4		300M : dark black soil
080 S		2	4	12	4		325M : thin cover light grey soil - rock fragments
081 S		2	4	12	4		350M : grey-brown soil with quartz fragments
082 S		2	4	10	2		375M : grey-brown soil with quartz fragments
083 S	X	6	10	2			400M : grey-brown soil with quartz fragments
084 S	X	8	10	4			425M : grey-brown soil with quartz fragments
085 S	X	6	8	4			450M : light grey-brown and quartz fragments
086 S	X	4	10	6			475M : dark brown soil
087 S	X	8	10	4			500M : dark brown soil
088 S		2	2	10	4		TRAVERSE 2 SW TO NE 0M : dark brown - deep root penetration
089 S	X	6	10	4			25M : dark grey soil - deep root penetration
090 S	X	4	12	6			50M : dark grey-brown soil - small quartz fragments
091 S		2	4	10	4		75M : dark grey-brown soil - small quartz fragments
092 S		2	4	10	4		100M : thin light brown soil - quartz fragments

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 041 093 S		2	4	10	4		125M : grey-brown - quartz fragments
094 S		2	6	10	4		150M : dark grey-brown some quartz fragments
095 S		2	6	12	2		175M : light grey soil - quartz fragments
096 S		2	4	8	22		200M : light grey soil - quartz fragments
097 M		2	10	8	2		225M : drainage mud - dark chocolate
098 S		2	X	8	2		250M : light grey soil - quartz fragments
099 S		2	6	10	4		275M : light grey soil - quartz fragments
100 S		2	18	10	2		300M : pale brown soil plus quartz fragments
101 S		2	4	8	4		325M : light grey soil - quartz fragments
<u>42</u> 600 042 617 s							TRAVERSE FROM NE TO SW; SAMPLES EVERY 25M grey soil with quartz fragments at top of gully
618 S		2	4	12	2		brown soil in quartz scree
619 S		2	6	12	4		grey silty soil with quartz fragments in gully
620 S		2	6	12	4		grey soil above siltstone 16 m SW=sandstone; strike 020°M, dip 50°E
621 S		2	2	10	4		grey soil on orange weathered rock - limonitic sandstone ?
622 S		2	2	10	2		grey soil on orange weathered rock - limonitic sandstone ?
623 S		2	4	12	4		grey and red soil - quartz fragments
624 S		2	4	12	6		brown and light grey soil in quartz fragments
625 M		2	4	10	2		mud in creek
626 S		2	4	10	4		light grey soil in quartz fragments on side of hill
627 S		4	4	16	12		light brown soil on whitish clay - both in quartz scree
628 S		4	2	12	2		grey soil in quartz scree
629 S		4	6	16	4		whitish soil with slate? fragments
630 M		2	4	12	4		mud and quartz fragments in small gully
631 S		2	4	12	4		grey to white fine soil and quartz fragments
632 M		2	4	12	4		dark brown mud in gully
<u>43, 37</u>							
600 037 723 S	X	2	2	2		X	light grey soil - siltstone
724 S	20	2	2	5		X	light grey soil - siltstone
725 S	X	2	2	2		X	light grey clayey soil
726 R	X	14	4	8	6	0.2	black shale 25 m from 725(S)
727 M	X	3	3	3		X	mud - light grey-brown
728 S	X	22	4	3		X	dark brown soil

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	Zn	Pb	Bi	Ag	SAMPLE DESCRIPTION
600 037 729 S	X	2	2	5		X	light grey soil - quartz fragments
730 S	20	2	2	4		X	light grey soil - quartz fragments
731 S	X	1	1	2		X	light grey soil - quartz fragments
732 S	X	3	7	4		0.2	light grey soil - quartz fragments and shale outcrop
733 S	X	2	1	1		X	light grey soil - quartz fragments
734 S	X	2	1	4		X	light grey-brown soil, Oonah Quartzite fragments
735 S	X	1	12	5		0.2	light brown soil - Oonah fragments
736 S	X	1	1	2		X	grey soil - abundant quartz
737 S	20	1	1	3		X	grey soil - abundant quartz
738 S	20	2	2	3		X	grey soil - abundant quartz
739 S	X	1	1	5		X	grey brown soil - little quartz fragments
740 S	X	1	1	3		X	light grey soil - quartz fragments
741 S	20	1	1	4		X	dark brown soil, small Oonah fragments
742 S	20	3	11	5		X	light grey soil
743 S	20	1	1	6		X	light brown soil - Oonah fragments
744 S	X	2	3	6		X	light brown soil - Oonah fragments
745 S	X	1	1	4		X	light brown soil - Oonah fragments
746 S	X	4	1	5		X	light brown soil - Oonah fragments
747 S	X	1	1	4		X	grey clayey soil
748 S	X	2	3	5		X	grey-brown soil - Oonah fragments
749 S	X	1	X	3		X	grey-brown soil - Oonah fragments
750 S	X	1	2	3		X	grey-brown soil - Oonah fragments
47 600 047 887 M	X	2	12	10			mud sample on slope
888 M	X	2	12	14			mud sample on slope
889 M	X	2	12	12			mud sample on slope - outcrop of orange stained quartzite nearby strike 060°
53							TRAVERSE 1 SW TO NE
600 053 001 S		2	4	8	4		0M ; grey siltstone soil bedding 060°M (Oonah Formation)
002 M		2	4	10	6		12M ; creek mud
003 S		2	4	18	8		25M ; grey siltstone soil bedding 060°M (Oonah Formation)
004 S		2	4	20	4		50M ; grey siltstone soil bedding 060°M (Oonah Formation)
005 S		2	4	20	6		75M ; Oonah siltstone 055/60° dip
006 S		2	4	24			100M ; Oonah siltstone 055/60° dip

E.M. ANOMALY/ SAMPLE NUMBER	Sn	Cu	Zn	Pb	Bi	Ag	SAMPLE DESCRIPTION
600 053 007 S		2	8	26	8		125M : Oonah siltstone 055/60° dip
008 S		2	4	12	4		150M : Oonah siltstone 055/60° dip
009 S		2	12	14	6		175M : tan coloured clayey soil on weathered grey Oonah siltstone
010 S		2	2	10	2		200M : chocolate soil, quartz pebbles
011 S		2	22	14	2		225M : grey-brown soil
012 S		2	4	10	4		250M : grey-brown soil
013 S		2	4	12	2		275M : grey-brown soil
014 S		2	6	14	4		300M : grey-brown soil
015 S		2	10	16	6		325M : tan clayey soil on quartzite
016 S		2	8	10	6		350M : limonite stained
017 S		2	4	12	2		375M : chocolate soil - quartz pebbles
018 M		X	X	10	2		400M : dark brown mud - gully
019 S		2	4	10	2		425M : grey sandy soil - quartz pebbles
020 S		2	4	14	8		450M : grey sandy soil - quartz pebbles
021 S		2	6	10	2		475M : thin cover grey sandy soil
022 S		X	6	10	2		500M : grey-brown soil with quartz pebbles
023 S		6	4	10	4		525M : grey-brown soil with quartz pebbles
024 M		2	4	10	X		550M : grey mud - drainage gully
025 S		X	X	10	2		575M : grey-brown soil - quartz pebbles END OF TRAVERSE 1
500 S		X	4	12	2		TRAVERSE 2 SW TO NE OM : grey-white soil - quartz scree - siltstone bedrock
501 S		2	6	14	2		25M : grey soil - quartz scree - siltstone bedrock at 30 cm
502 S		2	4	18	2		50M : grey soil - near grey quartzite outcrop
503 S		2	6	20	4		75M : sparse grey clay in quartz-quartzite scree
504 S		2	4	44	6		100M : grey-brown soil
505 M		X	4	32	2		125M : dark grey mud - drainage gully
506 S		2	8	14	6		150M : grey-brown soil - fragments of quartz scree
507 S		2	6	16	6		175M : light grey soil - quartz fragments
508 R		8	7	13	6		200M : dark grey-brown soil - quartz fragments
509 S		2	4	14	2		225M : light grey to brown soil, quartz fragments. Black shale-slate outcrop 1 m to NE - shale dark - location coincides with peak in E.M. anomaly strike N, dip 90° (approximately) 5 m wide (at 200m past 508)

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 053 510 S		2	4	14	2		250M : light grey soil - quartz scree
511 S		4	6	12	4		275M : grey brown soil - quartz-quartzite scree
512 S		2	4	12	2		300M : brown soil - quartz fragments
513 S		2	4	10	2		325M : grey-brown soil - quartz fragments
514 S		2	6	10	2		350M : grey-brown soil - quartz fragments
515 S		2	4	12	2		375M : grey-black soil - quartz scree - on gully edge
516 S		2	6	12	2		400M : grey soil - minor quartz fragments
517 S		2	6	14	2		425M : brown soil - quartz fragments, no bedrock
518 M		2	4	10	2		450M : dark mud in gully
519 S		2	6	10	2		475M : grey-brown soil - quartz fragments
520 S		2	8	16	8		500M : minor soil cover - quartz scree - clay at hole bottom
521 S		2	2	12	4		525M : light grey-brown soil - quartz-quartzite scree
522 S		2	6	12	4		550M : brown soil - quartz scree
523 S		2	2	12	6		575M : black-brown soil - quartz-quartzite scree
524 S		2	6	12	2		600M : grey-brown soil - quartz - bedrock
525 S		2	4	10	4		625M : grey-brown soil - quartz fragments - outcrop of unweathered quartzite
600 053 573 M		4	2	8	4		Oonah Quartzite, strike 245°M - mud
574 M		4	6	14	4		Oonah Quartzite, strike 020/80°E - creek mud
575 R	20	70	8	12	4	0.6	limonitic scree pebbles - weathered shale in Oonah? - rock chip
576 M		2	4	12	4		O/C Oonah Quartzite in creek - creek mud
577 M		2	6	12	2		O/C Oonah Quartzite in creek - creek mud
578 M		2	8	10	2		main creek - mud
<u>54</u>							
600 054 838 M	X	2	12	10			sample of mud from small gully
839 M	X	2	14	14			mud sample on hill slope
840 M	X	2	12	16			mud sample on hill slope
<u>55, 57</u>							
600 055 890 M	X	2	12	10			mud sample in gully
891 M	X	2	10	12			mud sample in large gully
892 M	X	2	12	16			mud sample in small gully
893 M	X	2	8	12			mud sample in small gully
894 M	X	2	10	12			mud sample in small gully
895 M	X	2	10	10			mud sample in gully
600 055 896 M	X	2	10	12			mud sample in gully - outcrop of orange stained quartzite nearby strike 015°

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
<u>61</u> 600 061 897 M	X	2	12	10			mud sample on slope
898 M	X	2	10	10			mud sample in small gully - quartz scree
<u>62, 63</u> 600 063 026 S		2	X	10	2		TRAVERSE SW TO NE 0M : sandy soil - quartz fragments
027 S		4	12	14	4		25M : pale grey colour - quartz fragments
028 S		2	2	14	6		50M : pale grey colour - quartz fragments
029 S		2	2	12	4		75M : Oonah Quartzite and quartz fragments in light grey-brown soil
030 S		2	X	10	2		100M : light brown - quartz fragments
031 S		2	4	12	6		125M : light brown - quartz fragments
032 M		X	18	10	2		150M : chocolate mud in gully - high root penetration
033 S		2	4	14	4		175M : light grey soil - quartz fragments
034 M		X	28	12	2		200M : drainage gully - mud sample -light-dark grey
035 S		2	6	16	2		225M : thin cover grey-brown soil over quartz
036 S		2	4	20	2		300M : predominantly quartz - small amount light grey (S)
037 S		2	4	34	4		325M : small quartz fragments in light brown soil
038 S		2	4	22	6		350M : small quartz fragments in light brown soil
039 S		2	4	20	4		375M : thin cover soil over massive quartzite TRAVERSE NOW CHANGES FROM COMPASS BEARING 045° TO 034°
040 S		X	4	12	4		400M : thin cover soil over massive quartzite
041 S		4	8	16	2		425M : thin cover soil over massive quartzite
042 S		2	6	28	12		450M : light yellow-brown clay with quartz fragments
043 S		X	4	10	2		475M : light grey soil - quartz fragments, coarse texture
044 M		X	20	10	2		500M : drainage sample - brown mud
045 S		2	4	14	6		525M : yellow-gray clay - some quartz - weathered siltstone
046 S		2	6	22	4		550M : light brown soil with quartz fragments
047 S		2	X	10	2		575M : light chocolate-brown soil - quartz fragments
048 S		2	4	14	X		600M : light grey soil - quartz fragments
049 S		2	4	16	6		625M : light grey soil - quartz fragments
050 S		2	6	16	2		650M : light grey soil - quartz fragments
051 S		X	2	10	2		675M : chocolate soil - quartz fragments
052 M		2	4	14	2		700M : drainage gully - dark brown mud
053 S		4	10	24	6		725M : light grey soil - predominantly quartz
054 S		2	6	20	2		750M : light grey soil - predominantly quartz

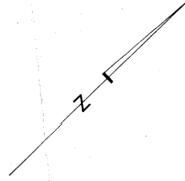
<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 063 055 S		2	6	24	4		775M : light grey soil - predominantly quartz
056 M		X	2	14	2		800M : dark brown mud - shale outcrops nearby - gully
057 M		2	20	16	2		825M : gully mud - light grey colour
057aS		2	6	14	2		850M : light brown-grey soil - large percent quartz
058 S		2	4	10	2		875M : light grey-brown soil - large percent quartz
059 S		X	8	10	2		900M : grey weathered siltstone in dark brown soil
060 M		2	4	10	2		925M : chocolate mud - quartz fragments and siltstone drainage gully
061 S		2	20	16	8		950M : yellow-grey clay - quartz pebbles
062 S		2	4	10	2		975M : light grey soil with abundant quartz
063 S		X	4	14	2		1000M : light grey soil with abundant quartz
064 S		2	6	16	2		1025M : light grey soil with abundant quartz
600 063 526 S		2	4	12	X		TRVERSE SW TO NE OM : grey soil above bedrock on gully edge
527 M		2	4	14	X		25M : grey mud in creek drainage
528 S		2	4	10	4		50M : grey-brown soil in quartz scree
529 S		2	4	14	6		75M : brown-grey clay soil - weathered siltstone
530 S		2	6	14	8		100M : shallow grey soil - weathered sandstone
531 S		2	4	12	4		125M : dark grey-brown - quartz fragments
532 S		2	8	10	X		150M : black muddy soil
533 S		2	4	16	4		175M : dark grey-brown soil with quartz fragments
534 S		2	6	24	6		200M : thin grey-brown soil - quartz scree
535 S		6	200	16	4		225M : brown soil, quartz and weathered S/stone fragments
536 S		2	4	10	4		250M : brown soil with quartz fragments
537 S		2	4	10	4		275M : brown soil with quartz scree
538 S		2	6	10	4		300M : grey-brown soil above quartzite bedrock
539 S		2	4	16	4		325M : grey soil with minor quartz fragments
540 S		2	4	10	2		350M : brown soil - quartz scree fragments
541 S		2	4	10	4		375M : brown soil - quartz fragments - 10 metres NE of hole is outcrop of quartzite strike 285° dip 55° to NE
542 S		2	8	10	4		400M : light brown soil - quartzite bedrock
543 S		2	X	12	4		425M : grey-brown soil - quartzite fragments
544 S							450M : NO SAMPLE TAKEN
545 S		2	2	8	2		475M : dark soil (grey) above weathered siltstone
546 S							500M : SAMPLE NOT TAKEN DUE TO THICK VEGETATION

E.M. ANOMALY/ SAMPLE NUMBER	Sr	Cu	Zn	Pb	Bi	Ag	SAMPLE DESCRIPTION
600 063 547 S		2	6	12	2		525M : grey soil - quartz and quartzite fragments
548 S		X	8	10	2		550M : dark brown soil
549 S		2	2	14	2		575M : light grey silty soil - quartz fragments
550 S		2	20	14	2		600M : brown soil - quartz fragments
551 S		2	6	14	2		625M : brown soil - quartz fragments
552 S		2	44	14	2		650M : brown soil - quartz fragments
553 S		2	4	8	2		675M : shallow grey soil - quartz fragments
554 S		2	2	8	2		700M : dark grey soil with quartz fragments
555 S		2	8	12	4		725M : light grey-brown soil - quartz fragments
556 S		2	14	10	4		750M : thin grey brown soil - quartz fragments
557 S		2	6	10	4		775M : brown soil in quartz scree
558 S		2	10	14	6		800M : black soil - on incline near creek
559 S		2	6	10	2		825M : black muddy soil
560 S		2	6	12	4		850M : black muddy soil with angular quartz fragments
561 S		2	8	14	4		875M : muddy dark soil (also silt) and quartz fragments
562 S		2	2	12	X		900M : muddy dark soil (also silt) and quartz fragments on gully slope
563 S		4	6	12	2		925M : muddy dark soil (also silt) and quartz fragments
564 S		14	4	30	6		950M : red-orange clay (Fe rich) - on side of gully
565 S		2	6	16	4		975M : light brown soil - quartz fragments
566 S		4	4	14	2		1000M : light brown soil in quartz fragments
567 S		2	4	12	4		1025M : light brown soil in quartz fragments
568 S		2	6	10	4		1050M : light brown soil in quartz fragments
569 S		2	4	10	4		1075M : brown soil above siltstone bedrock
570 S		2	4	12	2		1100M : brown soil above siltstone bedrock
571 S		2	4	14	4		1125M : brown soil above siltstone bedrock
572 S		2	2	10	2		1150M : clay mud - soil over weathered S/stone
579 M		2	2	10	4		drainage 30°
580 M		2	2	10	2		mud
581 M		2	2	10	2		mud drainage - black shale outcrop
582 M		4	4	12	2		O/C Oonah Quartzite
583 M		4	4	12	2		

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
<u>68</u> 600 068 841	X	2	12	10			mud sample in gully
842 M	X	2	12	14			mud sample at base of hill
843 M	X	2	10	10			mud sample in small gully
844 M	X	44	30	14			mud sample in small gully
<u>70</u> 600 070 899 M		X	6	10	4		mud sample in gully
900 M		X	4	10	2		mud sample in gully
901 M		6	4	10	2		mud sample in small depression on hill slope - quartzite scree
<u>71</u> 600 071 182 S	X	1	2	2		X	TRAVERSE 3 grey-brown soil
183 S	20	1	1	3		X	grey-brown soil with quartz
184 S	20	1	1	3		X	light grey-brown soil with quartz fragments
185 S	X	2	1	2		X	light grey-brown soil with quartz fragments
186 S	X	1	1	3		X	light brown-grey soil with quartz fragments
187 S	X	2	2	5		X	light grey-brown soil with quartz fragments
188 S	X	1	2	3		X	light grey-brown soil with quartz fragments
189 S	X	2	4	5		X	light grey-brown soil with quartz fragments
190 S	X	1	1	4		X	light grey-brown soil with quartz fragments
191 S	X	1	1	5		X	light grey-brown soil with quartz fragments
192 S	X	2	2	7		0.2	light grey-brown soil with quartz fragments
193 S	X	1	1	4		X	gully grey clayey soil
194 S	X	4	4	9		0.2	light grey-brown soil with quartz fragments
195 S	X	2	3	7		0.2	light grey - with quartz fragments
196 S	X	2	3	5		X	light grey - with quartz fragments
197 S	X	1	2	4		X	grey gully soil - Onah Quartzite fragments
102 S	20	1	2	5		X	OM : grey brown clay soil - old drainage gully
103 S	X	4	4	7		X	25M : light creamy grey soil - quartz fragments
104 S	X	1	1	7		X	50M : light grey soil - quartz and siltstone fragments
105 S	X	1	1	5		0.2	75M : light brown soil, quartz fragments
106 S	20	2	1	9		0.2	100M : light brown clay soil - quartz and siltstone fragments
107 S	X	1	1	8		X	125M : light brown clay soil - quartz and siltstone fragments
108 S	X	2	3	4		X	150M : brown-grey soil - abundant quartz
109 S	X	1	4	7		X	175M : brown-grey soil - abundant quartz
110 S	X	1	2	7		X	200M : brown-grey soil - quartz fragments

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 071 111 S	X	1	1	5		X	225M : brown-grey soil - quartz fragments
112 S	X	1	1	2		X	250M : dark brown soil - quartz fragments
<u>76</u> 600 076 113 S		2	6	16	2		TRAVERSE SW TO NE OM : light grey sandy soil - quartzite fragments
114 S		2	6	10	4		25M : grey sandy soil - quartzite fragments
115 S		2	10	12	6		50M : dark grey sandy soil - quartz and Oonah Quartzite fragments
116 S		2	10	8	4		75M : grey sandy soil with quartzite fragments
117 S		2	4	10	4		100M : dark grey sandy soil - quartzite fragments
118 M		2	2	6	2		110M : mud - dark brown
119 S							100M : black shale - carbonaceous - foliated
120 S		2	8	12	4		125M : light grey, clayey sand - Oonah fragments
121 S		2	8	12	2		150M : light grey, clayey sand - Oonah fragments
122 S		2	4	12	2		175M : light grey, clayey sand - Oonah fragments
123 S		2	24	12	4		200M : black clayey soil - organic
124 M		2	14	14	6		200M : gully mud
125 S		2	8	10	4		225M : grey-brown sandy soil - 50% quartzite
126 S		2	4	12	4		250M : grey-brown sandy soil - 50% quartzite
127 S		2	14	12	6		275M : grey-brown sandy soil - 50% quartzite
128 S		2	6	18	6		300M : grey-brown sandy soil - more quartz
129 S		2	2	14	2		325M : grey-brown sandy soil - 50% quartzite
130 S		2	4	12	2		350M : grey-brown sandy soil - 50% quartzite
131 M		2	8	18	6		375M : gully mud - dark brown - small quartz fragments
132 S		2	6	14	4		400M : gully brown sandy soil - quartz fragments
133 S		2	6	20	6		425M : grey-brown silty soil - quartz fragments
134 S		2	8	20	4		450M : grey-brown silty soil - quartz fragments
135 S		2	6	14	2		475M : grey-brown silty soil - quartz fragments
136 S		2	4	14	4		500M : grey-brown sandy soil - quartzite fragments
137 S		2	14	12	2		525M : dark brown soil - some organic matter
138 S		2	4	18	6		550M : dark grey sandy soil - quartz/Oonah Quartzite fragments
139 S		2	6	10	4		575M : dark grey sandy soil - quartz/Oonah Quartzite fragments
140 S		2	6	16	4		600M : dark grey sandy soil - quartz/Oonah Quartzite fragments
141 S		2	8	14	4		625M : grey-brown sandy soil with quartzite
142 S		2	4	20	8		650M : grey-brown sandy soil with quartzite

<u>E.M. ANOMALY/ SAMPLE NUMBER</u>	<u>Sn</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Bi</u>	<u>Ag</u>	<u>SAMPLE DESCRIPTION</u>
600 076 143 S		4	12	18	6		675M : grey-brown sandy soil with quartzite
144 S		4	6	16	6		700M : grey sandy soil with quartz fragments
145 S		4	8	12	6		725M : grey sandy soil, +50% quartz fragments
146 S		4	4	10	8		750M : grey sandy soil - weathered shale fragments
147 S		2	4	12	4		775M : grey-brown sandy soil >50% quartzite
148 S		2	6	12	2		800M : grey-brown sandy soil >50% quartzite
149 R							In creek at end of traverse: dark carbonaceous shale interbedded with Oonah Quartzite sequence, strike 045/dip 60°
<u>77</u>							
600 077 780 M		X	4	8	2		TRAVERSE 780 TO 791 dark grey mud from top of small gully
781 S							brown soil in quartz scree
782 M		X	4	10	2		dark gully mud
783 S		2	6	12	4		light brown soil in quartz scree
784 S		X	4	20	14		light brown soil - Oonah fragments
785 S							light brown soil - Oonah fragments (POSSIBLY NO SAMPLE TAKEN)
786 S		4	6	12	2		light brown soil - Oonah fragments (POSSIBLY NO SAMPLE TAKEN)
787 S		4	8	14	2		light brown soil - Oonah fragments
788 S		X	6	12	6		light brown soil - Oonah fragments
789 M		2	4	16	6		dark grey mud in creek - quartz fragments
790 S		X	4	16	6		light grey-brown soil in quartzite
791 M		2	2	10	2		mud - creek - quartz fragments
792 M		2	6	10	4		grey mud - small creek - 100m SE of traverse
793 M		2	4	10	2		light grey mud - gully 40 m NE of 792(M)
<u>78</u>							
600 078 856 M	X	2	14	14			mud sample in gully
857 M	X	2	12	12			mud sample on hill slope in quartz scree
<u>80</u>							
600 080 489 M	X	2	10	10			mud sample in gully
850 M	X	2	10	20			mud sample in small gully
851 M	X	4	14	20			mud sample in small gully
852 M	X	4	10	14			mud sample in gully - outcrop of flat lying quartzite, some Fe stains



REFERENCE

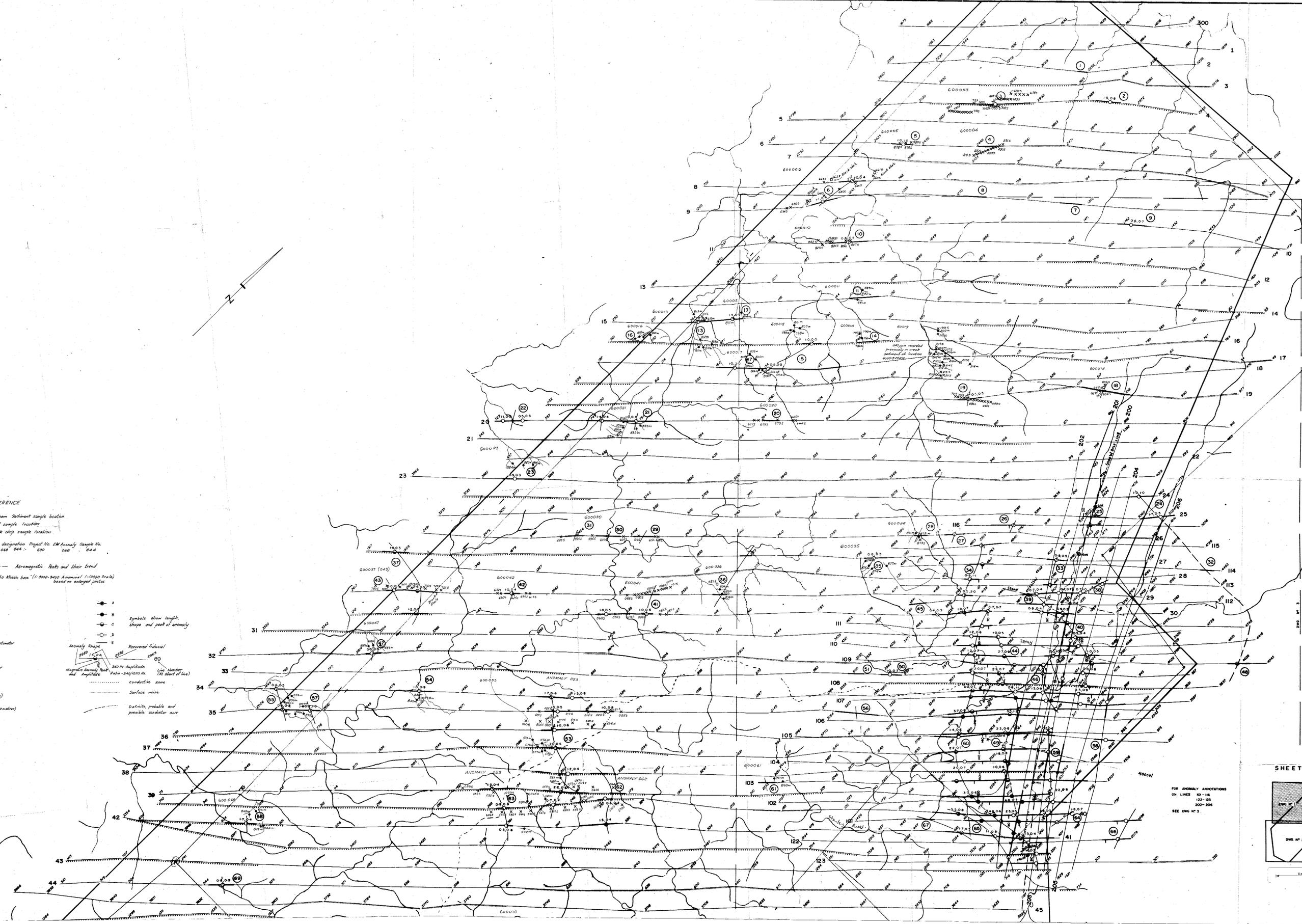
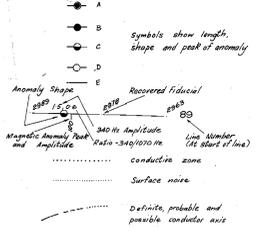
Stream Sediment sample location
 Soil sample location
 Rock chip sample location

Sample designation Project No. EM Anomaly Sample No.
 600 046 844 - 600 046 844

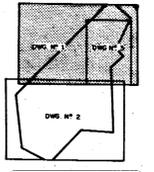
M Aeromagnetic Tracks and Line Trend
 Air Photo Mosaic Lens (1:300-8400 Anamorphic 1:10000 Scale)
 based on enlarged photos

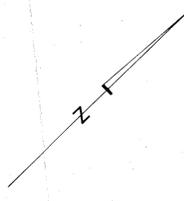
SURVEY SPECIFICATIONS

HELICOPTER Bell Helicopter 206B 16 - 16L
 EM SYSTEM Nuclear 8400 dual Frequency sequential Discrimination 340Hz and 1070Hz.
 MAGNETOMETER Geometrics 6000 pulse induction (Resolving Minimum 1 gamma)
 DIURNAL RECORDER Geometrics 6000 pulse induction magnetometer with Resistor recorder and digital rate
 SEXTANT Bausch and Lomb
 AUXILIARY EQUIPMENT Cassin magnetometer Century 444 envelope light beam recorder Oboe The Digital recorder Victor 8 mm ground tracking camera
 READING INTERVAL 1.023 seconds
 NOMINAL AIRCRAFT SPEED 90 knots (Mean reading spacing 41 meters)
 NOMINAL AIRCRAFT SURVEY ALTITUDE 140 meters (EM bird 20 meters, Mag bird 80 meters)



SHEET INDEX

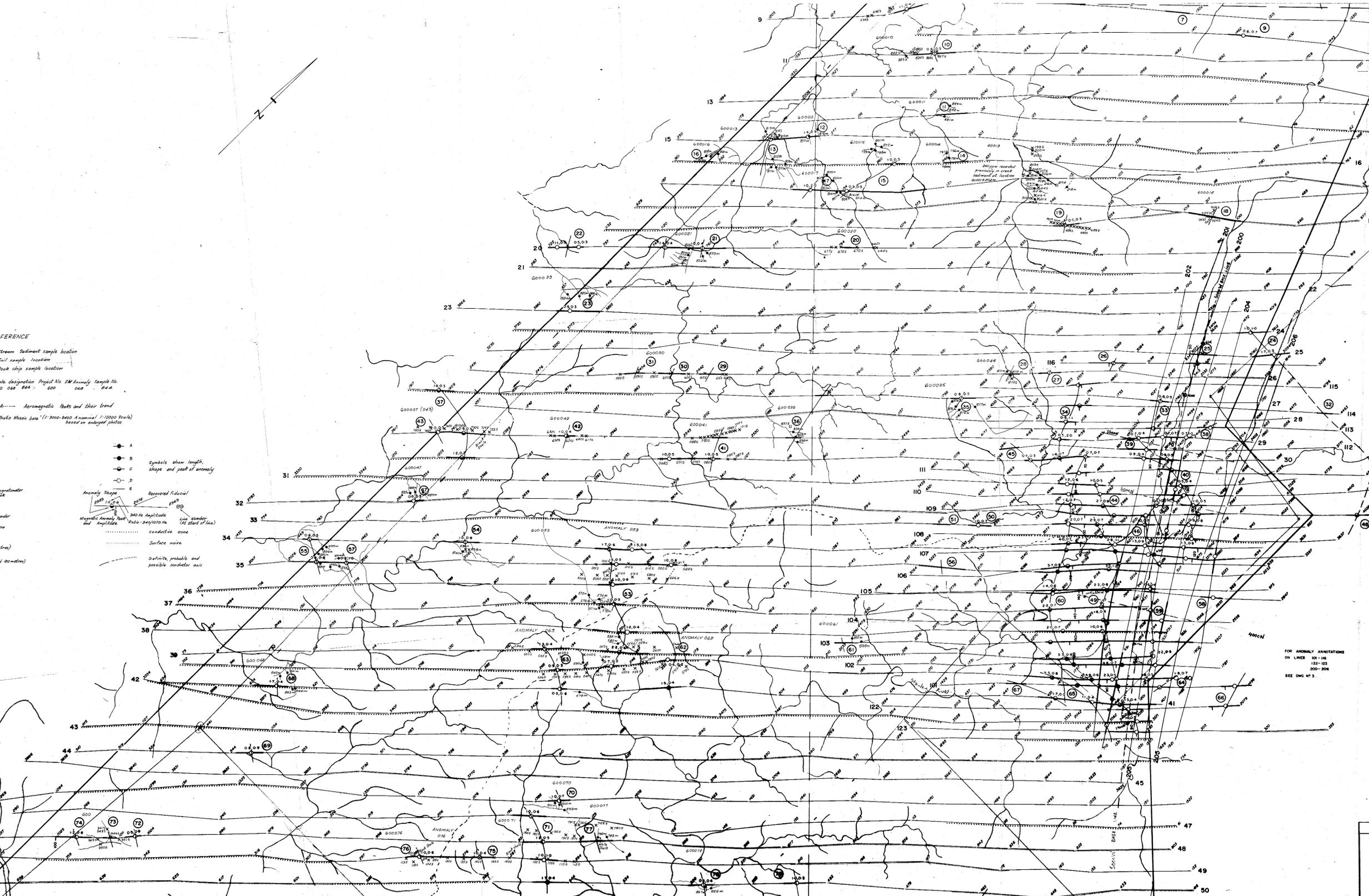
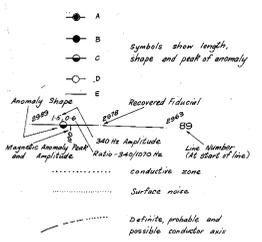




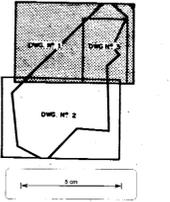
REFERENCE

Stream Sediment sample location
 Soil sample location
 Rock chip sample location
 Sample designation Project No. EM Anomaly Sample No.
 600 088 844 . 600 068 844
 —M— Aeromagnetic Profile and their trend
 Air Photo Mosaic base (1:3000-8400 Anomaly 1:10000 Scale)
 based on enlarged photos

SURVEY SPECIFICATIONS
 HELICOPTER Bell 430G
 EM SYSTEM Helicor 4000 dual frequency regional transmission 340Hz and 1070Hz
 MANTLEMETER Geometrics 4000 induction coil (reading accuracy ± 1 gamma)
 DIURNAL RECORDER Geometrics 8206 or 8206A precision magnetometer with Resistor recorder and crystal rate
 ALTIMETER Barometric
 AUXILIARY EQUIPMENT Geomac 4000 analog light beam recorder
 Geomac 4000 digital recorder
 Geomac 4000 ground leveling camera
 RECORDING INTERVAL 1.023 seconds
 NOMINAL AIRCRAFT SPEED 90 knots (Mean reading spacing 47 metres)
 NOMINAL AIRCRAFT ALTITUDE 140 metres (44 feet 50 metres May lead 80 metres)



SHEET INDEX



FOR ANOMALY ANNOTATIONS
 ON LINES 101-116
 122-123
 200-204
 SEE DWG NO 3

1634

338045

Stringer & Associates Pty. Ltd.
PACMINEX PTY. LIMITED
 74-75B
 E.I. 53/70 STANLEY RIVER W. TAS.
GEOCHEMICAL TRAVERSES OF AIRBORNE ELECTROMAGNETIC ANOMALIES
 SCALE 1:10000 1634
 SCALE 0 100 200 300 400 500 METRES
 Surveyed 4/70; 1/71; 1/72; 1/73; 1/74; 1/75; 1/76; 1/77; 1/78; 1/79; 1/80; 1/81; 1/82; 1/83; 1/84; 1/85; 1/86; 1/87; 1/88; 1/89; 1/90; 1/91; 1/92; 1/93; 1/94; 1/95; 1/96; 1/97; 1/98; 1/99; 1/00
 Drawn by: J.B. 7/8 Date: 20/10/78
K553-2

Ora	Alluvium
Dg	Gravels
Qrs	Older alluvium marsh deposits, downwash etc.
Ol	Limonic bodies
Tg	Gravels
Pt	ZEEHAN GLACIAL FORMATION Pebbly mudstone
B	Bell Shale
DF	Florence Quartzite
Sac	Austral Creek Silstone
SF	Keel Quartzite
SA	Amber Silt
SC	Croftly Quartzite
Og	Gordon Limestone
Om	Mona Sandstone
Ec	CRIMSON CREEK FORMATION
Ec	Siltstone
EcL	Limestone
EcC	Chert
EcU	Upper chert
EcLc	Lower chert
Euo	Oonah Quartzite & Slate
IGNEOUS ROCKS	
Jdl	Dolerite
Dg	Heemskirk and Meredith Granites
Dj	diorite
Dap	quartz porphyry
cb	Basic and ultrabasic rocks (gabro, serpentine, dolerite etc.)
v	Volcanics (Proterozoic and Cambrian)

NOTE: General notation: g = quartzite, s = siltstone, sh = shale, m = mudstone, c = chert, l = limestone, v = volcanics, t = tuff

~	Geological boundary approx. inferred
~	Angular unconformity
~	Strike and dip of beds
+	Vertical beds
+	Bedding (photo interpreted)
+	Joints
+	Cleavage
+	Strike and dip of shearing
+	Fold axis plunge
+	Drag fold
+	Minor anticline
+	Minor syncline
+	Fault, inferred fault
+	Prospect (approx position)
+	Plunging anticline
+	Plunging syncline
+	Limonic bodies (gossans etc.)

~	Watercourse
~	Road, track
~	Swamp
~	E. L. Boundary
~	Bullock grass
~	Alluvium flats
~	Exped Lease boundary

~	MAGNETIC TRENDS
~	Magnetic peaks on flight lines, and their trend
~	Magnetic lows on flight lines, and their trend
~	Magnetic trends
~	Possible magnetic trends

Note: In the Oonah Quartzite and slates (Euo), approximate boundary between smooth magnetic to the east and more regular and increasing readings westwards, possibly indicates the presence of dolerite beneath the Euo to the west

NOTE: Mapping based on field observations, 1:63360 Zeehan Tasmania Dept. of Mines Geological Map, Bulletin 15, and Mines Dept. open file data



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& AEROMAGNETIC TRENDS E.L.18/74 &
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WEST TASMANIA 1633

Scale 1:20,000
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 Date August 1976 / November 1976
 Revised

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