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	DEPT. OF MINES			
	6659/84			

GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LIMITED

E.L. 1/77 ROCKY CAPE

TEMMA AREA
PROGRESS REPORT

1st AUGUST 1982 to 31st JULY 1983

MICROFILMED

R.J. PERRING
DEVONPORT
AUGUST, 1983

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1.

INTRODUCTION

Temma lies on the western boundary of E.L. 1/77 - Rocky Cape which is held by CRA Exploration in joint venture with Geopeko (see figure 1). The area covered by this report falls within a three kilometre radius of A.M.G. 5430000N 310000E, 3 kilometres to the southeast of the coastal shack settlement of Temma.

Previous work by CRAE, (T.M. Porter, 1977) indicated anomalous levels of tin and tungsten in panned concentrates from streams draining magnetically anomalous zones in the Temma - Nelson Bay area.

Detailed investigation involving gridding, geological mapping, soil/rock geochemistry and geophysical surveys was undertaken by Geopeko (W. Herrmann, J. Sumpton, 1982) over the large magnetic anomalies at Nelson River, Possum Creek, and the Strickland Mine area (see figure 2). Several occurrences of quartz-sulphide vein mineralization containing significantly anomalous copper, lead, silver, and traces of gold were examined. These showed a spatial and structural relationship to the magnetite lodes. Neither the magnetite bearing lodes or the associated quartz-sulphide veins or the superficial (dunes) sands were found to contain significantly anomalous tin or tungsten.

A short drill program was completed during October 1982 on the Little Eel and Possum Creek prospects to test the magnetite lodes for base metal and gold mineralization (Weber, 1983).

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A program of regional mapping and soil geochemistry was undertaken to investigate the potential for sulphide lodes occurring along strike or adjacent to the Strickland and Possum Creek magnetite lodes. Six northeast-southwest (055°M) trending lines approximately one kilometre apart were established in the area between the Grace and Strickland aeromagnetic anomalies (see figure 2). This report details the results of this investigation undertaken by Geopeko in November 1982, and July, 1983.

005

5. 405006

30 000000 E

35 000000 E

5 45 00000 N

5 40 00000 N

REINSON'S BELL

ZEEB

ROBBINS ISLAND

SANTON

WARRAH

WEST PT

BLUFF HILL PK

E.L. 1777

BALFOUR

E.L. 1777

SANDY LAKE

E.L. 1777

CAMPAL ROCK PT

E.L. 1777

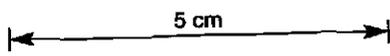
AREA OF STUDY



CRA - GEOPEKO JOINT VENTURE

TENURE

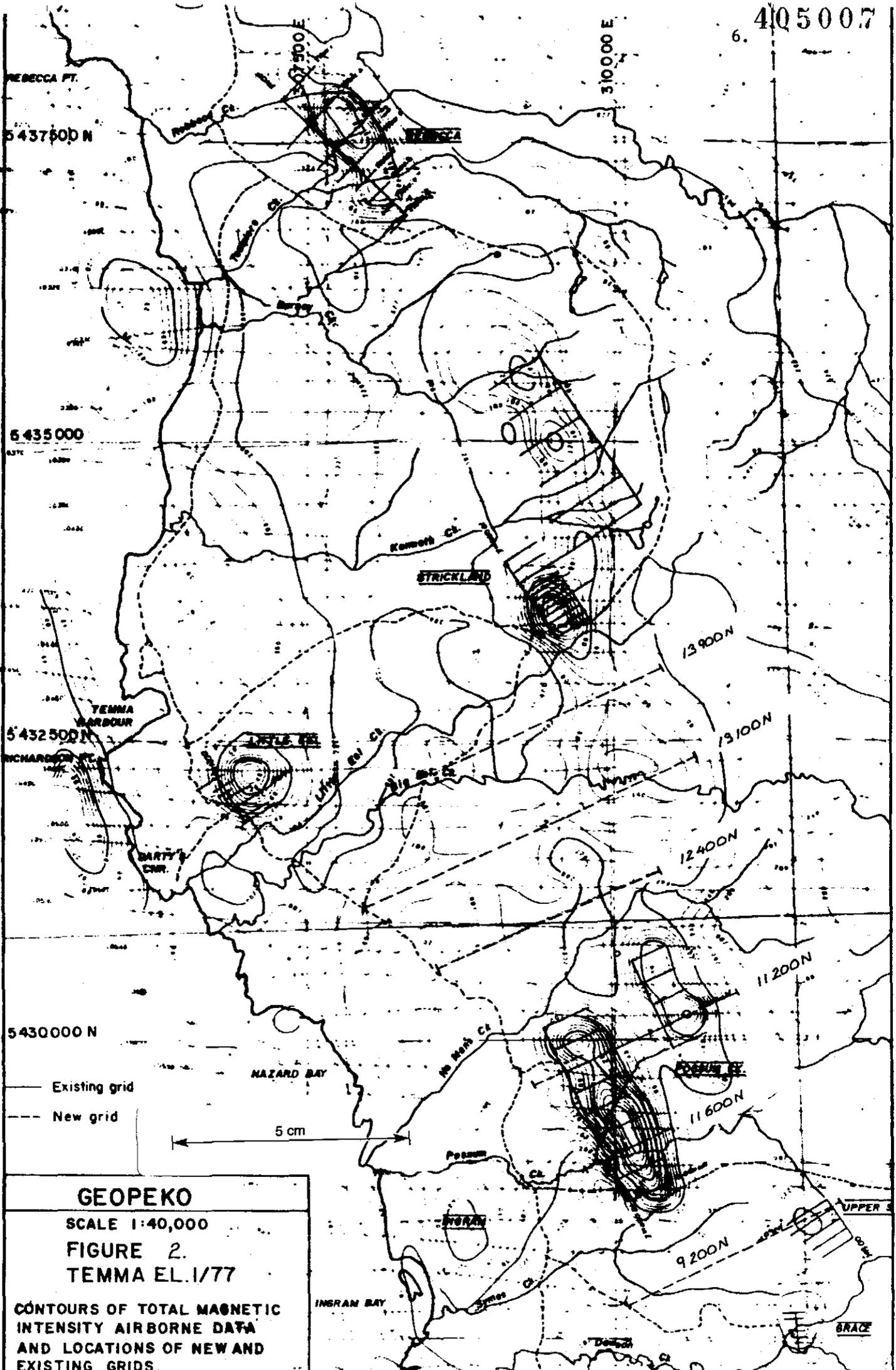
FIG 1.



SCALE 1:500 000

006

405007
6.



GEOPEKO

SCALE 1:40,000

FIGURE 2.

TEMMA EL.1/77

CONTOURS OF TOTAL MAGNETIC INTENSITY AIRBORNE DATA AND LOCATIONS OF NEW AND EXISTING GRIDS.

2. SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Temma lies on the western boundary of E.L. 1/77 - Rocky Cape which is held by CRA Exploration in joint venture with Geopeko.

This report details the procedures and results from a regional mapping, soil geochemical and magnetic surveys undertaken to investigate the potential for sulphide lodes occurring along strike or adjacent to the Strickland and Possum Creek magnetite lodes.

A Precambrian sequence comprised of siltstones, shales, quartzites and sandstones outcrops throughout the area.

Six regional lines were surveyed for total magnetic intensity. All magnetic anomalies could be attributed to known magnetite lodes.

Five regional lines were sampled at 25 metre intervals for C horizon soil geochemistry. Strongest base metal soil geochemistry coincided with known magnetite hematite ironstones, which down grades the potential for the weaker soil geochemistry pointing to base metal sulphide mineralization in the area. There are nine tungsten anomalies on the grid. Two of these anomalies are worthy of further investigation to explain the source of the tungsten.

3. GEOLOGY

The Precambrian sequence outcropping in the area between the Grace and Strickland prospects is comprised of siltstones, shales, quartzites, and sandstones (see plan 1).

Three types of siltstone have been mapped.

- a) a relatively uncommon massive pelitic siltstone.
- b) finely laminated sometimes crosslaminated psammo-pelitic siltstones (see figure 3), commonly found south of the Possum Creek prospect.
- c) interbedded psammitic and pelitic siltstones with ripple marks in the psammitic quartzose beds. This lithology is common to most of the grid area.

The sandstones are fine to medium grained, and range from clean, well sorted, commonly crossbedded white quartzites to grey silty micaceous sandstones, also commonly crossbedded. The most prominent exposures of both lithologies occur in the western half of the gridded area between lines 12400N and 13900N.

A finely laminated brown shale outcrops near the eastern end of line 13100N on the banks of Big Eel Creek. This shale is relatively well cleaved which contrasts with the poorly cleaved sandstones and quartzites. A broad spaced fracture cleavage (one per centimetre) was recorded in a few outcrops of quartzite. The alignment of (metamorphic) mica in the silty sandstones oblique to bedding also defines cleavage. The few cleavage directions recorded strike from between 160°M and 170°M and dip vertically.

009

Bedding dips to the east and the west from between 20° and 80°, and sometimes to the south at 10° or less when in the hinge zone of folds.

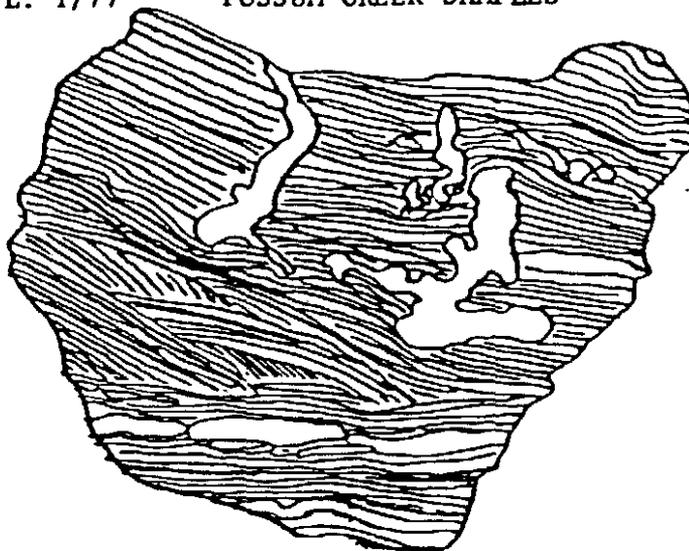
There are at least two scales of folding.

- a) Mesoscale non planar non cylindrical folds observed in the psammo-pelitic sequence 50 metres west of the Possum Creek ironstone, and in the shales along Big Eel Creek (see plan 1 for illustration). These folds plunge at between 30° and 90° to 145°M (at Possum Creek). The irregularity of these folds points to soft sediment slumping.
- b) There is also a more regional scale of folding with fold wavelengths of between 800 and 1000 metres, and judging on the evidence from a couple of outcrops probably plunge shallowly to the north-northwest. *(what about dips in hinge zones? (see map of page))*

Herrmann, 1982 concluded the intense magnetic anomalies in the area related to narrow, crosscutting dyke or vein like bodies composed of varying assemblages of magnetite, carbonate, iron rich amphibole, chlorite, and quartz. Rock chip samples of the Possum ironstone assayed up to 1850ppm Cu and 1500ppm As (see table 1).

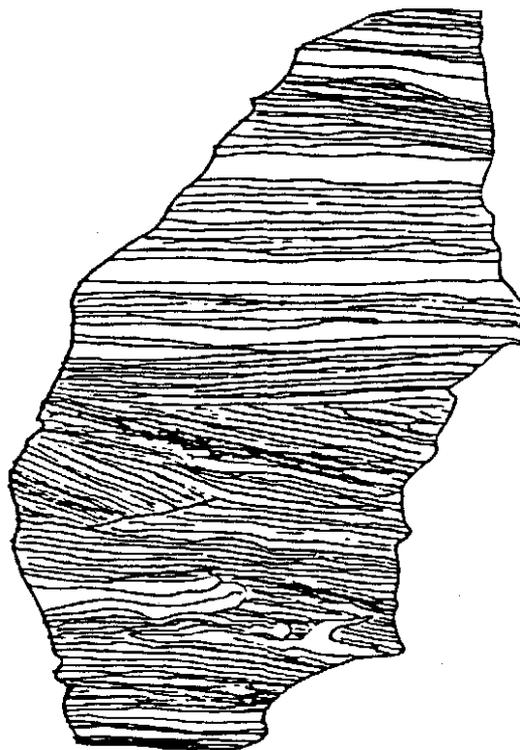
010

405011



Finely laminated and cross bedded psammo-pelitic siltstone, crosscut by clastic dykes resulting from dewatering of sedimentary pile.

Possum Creek 9200N 10200E



Finely laminated psammo-pelitic siltstone, with truncated cross bedding

Possum Creek 9200N 10200E

Scale 1:1

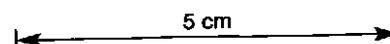


TABLE 1

TEMMA - ROCK - P ANALYSES

011

Sample Number	Rock Type	AMG Co ordinates	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Fe %	Ba ppm	As ppm	Sn ppm	W ppm	Au ppb
12659	massive coarse grained magnetite	5429000N 310100E	350	5	7	X	35.0	X	650	X	X	X
12660	massive coarse grained magnetite	5429000N 310100E	1850	10	55	2.0	30.0	X	1500	X	X	X
12661	massive coarse grained magnetite	5431300N 310600E	140	10	55	X	31.5	10	30	10	X	X
12662	hematite-sulphide boxworks	5431300N 310600E	230	5	245	0.5	30.5	5	35	X	20	8
12663	qtz veining-sulphide boxworks	5431300N 310600E	105	15	65	1.0	20.0	10	37	4	X	X
12664	laterite	5432500N 309600E	15	5	50	0.5	33.0	30	16	X	X	X
12665	spotted white quartzite	5432650N 309000E	5	15	25	X	0.585	5	3	4	X	X
12666	limonitic ironstone	5430400N 310600E	10	5	35	X	27.5	1400	2	4	X	X
12667	chloritic siltstone	542800N 310650E	5	15	65	0.5	3.25	240	1	6	X	X

SAMPLES FROM OUTSIDE GRID AREA

12657	black chert	5445600N 307800E	10	10	10	X	0.755	10	3	7	X	X
12658	black chert	5445600N 307800E	10	10	10	X	0.605	10	3	8	X	X
	DETECTION LIMITS		5	5	5	0.5	0.005	5	1	3	10	8

71004

.11

012

4. REGIONAL GROUND MAGNETICS

The six regional lines were surveyed for total magnetic intensity using a Geometrics G816 magnetometer. Line profiles of the data are plotted on plan 2.

The 100 metre wide, 500nT anomaly centred on 13900N 11225E is attributable to the magnetite lode on the Temma prospect.

The narrow, 1700nT anomaly centred on 12400N 10775E defines the northern extent of the most eastern Possum Creek magnetite lode. This anomaly coincides with outcrop of a magnetite-hematite ironstone. The 'spiky' nature of the data for 200 metres either side of this anomaly is attributable to outcropping Tertiary Basalt.

The two narrow, relatively strong anomalies on line 11200N and one on line 11400N relate to the Possum Creek magnetite lodes.

013

5. SOIL GEOCHEMISTRY

The five lines 9200N, 10600N, 11200N, 12400N, and 13900N were sampled at 25 metre intervals for C horizon soil geochemistry using a Jacro mounted on a Bombardier and power hand auger. The -80 mesh fraction of samples were analysed for Cu, Pb, Zn, Ag, and Fe by A.A.S., As by vapour hydride generation - A.A.S. and Sn, W by X.R.F. All assays are given in appendix 1. Line profiles for the elements Cu, Pb, Zn, As, Sn and W have been plotted (see plans 4 to 9). A summary of anomalous soil geochemistry is given on plan 10, and listed below.

<u>CENTRED ON</u>	<u>ANOMALY</u>	<u>HIGHEST VALUES</u>	<u>REMARKS</u>
9200N 9675E	W	244ppm W	one spot value, possibly tungsten in quartz vein
9200N 10125E	Cu-Zn	70ppm Cu, 155ppm Zn	200 metres wide
9200N 10700E	Cu-Zn	195ppm Cu, 140ppm Zn	one spot value
9200N 10900E	Cu-Zn	130ppm Cu, 100ppm Zn	100 metres wide
10600N 9950E	Zn	200ppm Zn	200 metres wide
10600N 10025E	W	45ppm Sn	one spot value
10600N 10250E	Cu-Zn-W-Mag	390ppm Cu, 70ppm Zn 40ppm W	geochemistry of ironstone and sulphide veins
10600N 10700E	Cu-Zn	90ppm Cu, 110ppm Zn	150 metres wide
11200N 9800E	Zn	90ppm Zn	150 metres wide
11200N 10100E	W	70ppm W	150 metres wide
11200N 11125E	Cu-Pb-Zn-Mag	85ppm Cu, 385ppm Pb, 180ppm Zn	geochemistry of ironstone and sulphide veins
11200N 11300E	W	30ppm W	200 metres wide

<u>CENTRED ON</u>	<u>ANOMALY</u>	<u>HIGHEST VALUE</u>	<u>REMARKS</u>
11200N 11425E	Sn-W	35ppm Sn, 120ppm W	200 metres wide
12400N 9350E	Cu-Zn-W	95ppm Cu, 170ppm Zn 133ppm W	eratic Cu-Zn and W values
12400N 9750E	W	100ppm W	700 metre wide zone
12400N 10550E	Zn	140ppm Zn	400 metre wide zone, Zn from basalt
12400N 10750E	Cu-Zn-Mag	130ppm Cu, 170ppm Zn	copper from ironstone, zinc from basalt
12400N 10875E	Zn	120ppm Zn	zinc from basalt
13900N 9825E	W	153ppm W	one spot value
13900N 10325E	W	96ppm W	two values 25 metres apart
13900N 10650E	W	47ppm W	100 metres wide
13900N 10875E	W	113ppm W	200 metres of eratic values
13900N 11550E	Cu	135ppm Cu	one spot value

The following conclusions can be made.

- a) There are a number of copper, lead and zinc anomalies along strike and adjacent to the known magnetite hematite ironstones, however the strongest base metal geochemistry occurs over these ironstones, which downgrades the potential for the weaker soil geochemistry pointing to base metal sulphide in the area.
- b) There are nine tungsten anomalies on the grid. Two of these anomalies are worthy of further investigations.
 - i) the coincident tin-tungsten anomaly on the eastern end of line 11200N
 - ii) the broad tungsten anomaly on the western half of line 12400N

A sample of soil and rock chips from each of these anomalous areas has been despatched to C.M.S. to attempt to isolate the tungsten mineral present.

As a comparison of soil-weathered rock chip geochemistry, the tungsten values for a line of samples taken over the wolframite-quartz vein system on Specimen Hill Balfour, is given below. (See Heithersay, 1981.)

Line 95N, 9700E to 10,100E on 25 metre centres.

Wppm 20-10-10-10-30-10-10-10-100-20-360-50-10-60-50-10-50

Values of 20ppm W and greater were considered anomalous by Paul Heithersay and could be meaningfully contoured. The wolframite in the quartz veins weathered and dispersed to give relatively weak, erratic tungsten geochemistry. The tungsten soil anomalies from Temma are comparable with those from Specimen Hill both in terms of order of magnitude and erratic nature.

016

6. REFERENCES

Heithersay, P., 1981:

Progress Report on E.L. 1/77
Balfour Tasmania.
Unpublished Geopeko Report.

Herrmann, W., Sumpton, J., 1982:

Progress Report E.L. 1/77.
Temma Area 1981.
Unpublished Geopeko Report.

Weber, G.B., 1983:

Rocky Cape E.L. 1/77 Progress Report
on the Temma Area January 1983
Unpublished CRA Exploration Report.

APPENDIX 1

SOIL SAMPLE LEDGER SHEETS

017

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name: Rocky Cape
 Area / Prospect: TEMPA
 Map / Photo reference: SANDY CAPE 1:100,000
 A 02143

Sample numbers: 21001 - 21024 Collected by: T. BUGG

Sheet: 1
 Date: NOVEMBER 1982
 DPO no: 30434

Analysed by: ANALABS - COOEE

Sample No.	Type	ss channel **						Metal content ppm or %								Grid	Geological Observations	
		ss ° oc f s	fl	wi	al	co	ca	pH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Fe %	As ppm	Sn ppm			W ppm
			o/c sample type ***															
			s sample type ****															
21001								5	X	50	0.5	2.20%	15	X	X	9400E		
21002								10	35	60	X	8350	X	X	17	9425E		
21003								5	5	25	X	6900	X	X	7	9450E		
21004								10	15	26	X	1.20%	X	X	10	9475E		
21005								5	10	15	X	4350	X	X	4	9500E		
21006								5	30	20	X	3400	X	X	X	9525E		
21007								5	5	17	0.5	5150	X	X	X	9550E		
21008								5	30	40	0.5	1.15%	X	X	8	9575E		
21009								10	45	30	X	4900	X	X	13	9600E		
21010								5	10	50	0.5	2.65%	9	X	8	9625E		
21011								5	5	30	0.5	5100	X	X	4	9650E		
21012								10	5	30	X	5500	X	X	4			
21013								30	5	60	0.5	2.00%	X	X	244	9675E		
21014								50	25	75	0.5	1.65%	X	X	23	9700E		
21015								10	X	16	0.5	1.45%	X	X	8	9725E		
21016								5	5	10	X	8200	X	X	X	9750E		
21017								15	25	70	0.5	1.45%	X	X	X	9775E		
21018								15	10	20	X	4.20%	22	X	9	9800E		
21019								10	10	25	X	3.10%	14	X	16	9825E		
21020								10	40	45	1.0	7450	X	X	X	9850E		
21021								10	15	30	X	6.50%	21	4	4	9875E		
21022								10	15	30	X	7550	X	X	8	9900E		
21023								15	15	55	0.5	6.50%	11	X	X	9925E		
21024								15	25	40	X	4.95%	15	X	31	9950E		

018

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample ic = rock chip (state interval & length) cs = channel sample (state length)
 Soil sample type auger hole or pit depth m A, B or C horizon

405019

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/1/ Rocky Cape
 Area / Prospect TEMMA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21025 - 21048

Collected by T. BUGG

Sheet 2
 Date NOVEMBER 1982
 DPO no. 30434

Analysed by ANALABS - COOEE

019

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Fe %	As ppm	Sn ppm	W ppm	LINE			
21025	oc							10	5	25	X	1.55%	5	X	8	9200N			
21026	f							10	5	25	X	1.45%	7	X	9	9975E			
21027	s							10	10	30	1	2.53	25	5	10	10000E			
21028								60	15	130	1	8.64	40	5	10	10025E			
21029								30	10	85	2	8.76	10	5	10	10050E			
21030								55	10	120	3	8.84	2	5	10	10075E			
21031								60	5	120	3	8.96	1	5	10	10100E			
21032								70	X	155	X	6.35%	X	X	23	10125E			
21033								65	5	135	X	6.25%	6	X	12	10150E			
21034								60	5	135	X	7.45%	6	X	8	10175E			
21035								15	5	80	X	2.65%	13	X	13	10200E			
21036								5	5	60	X	1.85%	9	X	18	10225E			
21037								5	5	55	X	1.70%	9	X	17	10225E			
21038								5	10	40	X	9700	X	X	23	10250E			
NO SAMPLE								-	-	-	-	-	-	-	-	10275E			
21039								20	10	50	X	2.80%	13	X	X	10300E			
21040								10	5	30	X	2.45%	12	X	10	10325E			
21041								10	25	40	0.5	3.50%	11	6	8	10350E			
21042								5	5	25	X	2.05%	9	X	8	10375E			
21043								10	10	20	X	4350	X	X	9	10400E			
21044								15	X	50	X	1.25%	X	X	5	10425E			
21045								5	5	15	X	3300	8	4	11	10450E			
21046								10	15	35	X	4750	X	X	X	10475E			
21047								15	5	25	X	7450	8	X	X	10500E			
21048								15	10	25	X	2.30%	6	X	7	10525E			

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

**** Sample description A B or C horizon

405020

Tenement name... Rocky Cape
 Area / Prospect... TEMMA
 Map / Photo reference... SANDY CAPE 1:100,000
 A 02143

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LEDGER

Sample numbers 21049 - 21073

Collected by T. BUGG

Sheet no. 3
 Date... DECEMBER 1982
 DPO no. 30434

Analysed by ANALABS - CODEE

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W				
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm				
		s sample type ****																	
21049																		10550E	
21050							10	5	20	X	3.85	13	X	X			10575E		
21051							10	5	20	X	4.30	16	X	X			10600E		
21052							10	5	25	X	4.85	15	X	X			10625E		
21053							15	5	15	0.5	2.85	11	4	X			10650E		
21054							10	5	15	X	2.75	10	X	5			10675E		
21055							15	5	25	0.5	2.00	10	X	X			10700E		
21056							25	10	30	X	5.35	9	X	4			10725E		
21057							195	35	140	X	2.05	12	X	5			10750E		
21058							15	5	50	X	1.25	8	X	5			10775E		
21059							10	5	15	0.5	3.65	13	4	7			10800E		
21060							30	15	45	X	3.90	9	X	X			10825E		
21061							10	5	30	X	3.55	16	X	7			10850E		
21062							5	X	10	X	3250	9	5	7			10875E		
21063							5	X	15	0.5	4200	8	X	X			10900E		
21064							30	X	25	X	1300	2	X	15			10925E		
21065							130	X	100	2.0	8350	X	X	15			10950E		
21066							70	X	60	0.5	1400	X	X	16			10975E		
21067							40	X	35	X	1200	2	X	10			11000E		
21068							20	10	60	X	3.50	11	X	X			11025E		
21069							20	15	30	X	2.85	12	X	11			11050E		
21070							20	10	25	X	2.90	12	X	X			11075E		
21071							20	5	35	X	2.95	X	X	11			11100E		
21072							30	5	30	X	9150	X	X	X					
21073							5	5	10	X	3.75	13	X	X					
21073							15	5	20	0.5	3.95	12	X	22					

020

405021

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 Soil sample type auger hole or pit depth m A, B or C horizon

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/1 Rocky Cape
 Area / Prospect TEMMA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21074 21081 Collected by T. BVGG

Sheet 4
 Date NOVEMBER 1982
 DPO no. 30434

Analysed by ANALABS - COOEE

Sample No.	Type ss* oc f s	ss channel **						Metal content ppm or %										Grid LINE 9200M	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W				
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm				
		s sample type ****																	
21074							15	5	30	X	3.40	8	4	10			1112SE		
21075							10	10	25	1.5	2.25	X	X	X			11150E		
21076							20	X	30	X	3500	X	X	4			11175E		
21077							35	10	30	1.0	4700	6	X	7			11200E		
21078							15	5	20	X	3350	6	X	7			11225E		
21079							15	10	35	1.0	3.75	12	X	X			11250E		
21080							10	5	20	X	4.35	14	X	X			11275E		
21081							60	X	50	0.5	4150	7	X	66			11300E		
END OF LINE																			

021

405022

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 with A B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/2 Rocky Cape
 Area / Prospect TEMPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21082 - 23117 Collected by T. BUGG / R. OUTRAM

Sheet 5
 Date NOVEMBER 1982
AUGUST 1983
 DPO no. 30434/

Analysed by A.L.S. - BRISBANE

022

Sample No.	Type	ss channel **						Metal content ppm or %								Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W		
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		
		s sample type ****						ppm	ppm	ppm	ppm	ppm	ppm	ppm			
21082							40	X	60	0.5	1.40	14	X	23	10600M		
21083															9825E		
21084							40	15	70	X	1.45	15	4	18	9850E		
21085							70	55	120	X	1.75	9	5	15	9875E		
21086							15	25	60	0.5	1.20	8	X	5	9900E		
21087							30	25	95	X	2.25	22	X	16	9925E		
21088							35	75	200	1.0	2.65	17	8	13	9950E		
21089							45	5	85	X	5.00	10	X	24	9975E		
23117							20	55	80	2	2.97	(20	(5	(10	10000E		
23116							20	25	40	2	1.60	(20	45	20	10025E		
23115							30	50	80	2	2.56	(20	5	10	10050E		
23114							35	70	60	2	3.05	(20	(5	(10	10075E		
23113							15	25	45	2	1.96	(20	10	10	10100E		
23112							30	20	60	3	4.03	(20	25	10	10125E		
23111							40	30	60	3	5.59	(20	10	(10	10150E		
23110							30	30	30	3	2.39	(20	(5	10	10175E		
23109							25	25	45	3	7.12	(20	(5	10	10200E		
23108							55	180	40	2	2.18	(20	(5	(10	10225E		
23107							35	35	50	2	3.41	(20	5	30	10250E		
23106							390	25	70	3	5.09	(20	5	10	10275E		
23105							5	25	25	2	1.07	(20	(5	40	10300E		
23104							10	20	60	2	3.53	(20	(5	(10	10325E		
23103							10	20	40	2	2.15	(20	20	(10	10350E		

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 f = float hole or pit depth m A B or C horizon

405023

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name: Rocky Cape
 Area / Prospect: TEMPA
 Map / Photo reference: SANDY CAPE 1:100,000
 A 02143

Sample numbers: 23090 - 23099
 23101 - 23102
 21090 - 21098

Collected by: T. BVGG / R. OUTRAM
 ANALABS - COOFE
 A.L.S. - BRISBANE

Sheet: 6
 Date: NOVEMBER 1982
 AUGUST 1983
 DPO no: 30434

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W	LINE			
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		ppm		
TS	ss oc f s																		
23102								10	20	60	2	3.53	(20	5	(10		10375E		
23101								10	25	65	2	3.13	(20	5	(10		10400E		
21090								10	5	15	X	4300	X	X	X		10425E		
21091								10	5	40	X	1600	X	7	X		10450E		
21092								15	5	25	X	1.30	5	X	4		10475E		
21093								15	5	20	X	3600	7	X	X		10500E		
21094								10	5	30	X	8150	X	X	X		10525E		
21095								15	5	25	X	7800	1	4	X		10525E		
21096								5	10	10	X	3500	X	X	X		10520E		
21097								35	15	90	X	5.95	33	7	9		10575E		
23099								15	15	65	2	3.56	(20	(5	(10		10575E		
21098								40	15	100	X	6.85	8	222	14		10600E		
23098								40	20	100	3	7.00	(20	(5	(10		10600E		
23097								15	20	55	2	3.52	(20	(5	(10		10625E		
23096								30	25	65	3	7.49	(20	5	(10		10650E		
23095								90	20	70	7	6.25	(20	10	(10		10675E		
23094								90	60	110	12	8.30	(20	10	10		10700E		
23093								55	25	90	4	6.70	(20	(5	(10		10725E		
23092								40	25	80	4	5.25	(20	(5	(10		10750E		
23091								60	30	95	5	7.82	(20	5	(10		10775E		
23090								70	30	90	3	10.6	(20	5	(10		10800E		
END OF LINE																			

023

405024

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 A B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/1 Rocky Cape
 Area / Prospect TEMPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21099 - 21106
23159 - 23166
12362 - 12364
12366; 12368 - 12370

Collected by T. Bugg / D. ROBERTSON
 ANALABS / CODEE
 A.L.S. - BRISBANE
 Sheet 7 SEPTEMBER 1981
 Date AUGUST 1983
 DPO no. 30134

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations						
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W	LINE									
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	11200N								
21099																30	15	90	0.5	1.05	16	4	17	9800E	
21100																15	25	85	X	2.20	10	10	13	9825E	
21101																25	30	65	X	1.70	10	X	11	9850E	
21102																30	10	65	X	1.75	15	4	X	9875E	
21103																85	10	95	0.5	5.00	11	X	4	9900E	
21104																								9925E	
21105																15	15	65	X	1.80	17	4	27	9950E	
21106																25	10	170	X	1.90	16	X	30	9975E	
23166																35	25	40	2	5.19	40	(5	20	10000E	
23165																45	30	35	2	1.21	(20	5	40	10025E	
23164																20	25	50	1	2.01	(20	(5	20	10050E	
23163																25	45	55	2	3.35	(20	(5	20	10075E	
23162																20	20	45	2	2.20	(20	5	70	10100E	
23161																20	20	45	2	1.57	(20	(5	30	10125E	
23160																25	20	40	2	1.93	(20	5	10	10150E	
12362																10	20	105	0.4	4.1	-	X	X	10175E	
12363																X	10	35	0.4	1.05	-	X	X	10200E	
12364																X	5	25	0.4	1.35	-	X	0.5	10225E	
12366																X	10	20	0.3	1.0	-	X	X	10250E	
12368																X	40	35	0.3	1.15	-	6	0.5	10275E	
12369																X	15	30	0.3	4.400	-	4	0.5	10300E	
12370																X	25	20	0.2	4.000	-	X	X	10325E	
23159																40	15	15	1	1.60	(20	(5	(10	10350E	

024

405025

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/17 Rocky Cape
 Area / Prospect TEMPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 23136 - 23158 Collected by D. ROBERTSON

Sheet 8
 Date AUGUST 1983
 DPO no.

Analysed by P.L.S. - BRISBANE

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W	LINE			
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		ppm		
TS	ss oc f s																		
23158								25	25	25	2	2.86	(20	5	(10		10375E		
23157								20	20	30	2	2.39	(20	(5	10		10400E		
23156								25	15	40	1	3.36	(20	(5	(10		10425E		
23155								15	20	50	2	5.04	(20	5	(10		10450E		
23154								25	20	60	2	4.98	(20	5	(10		10475E		
23153								30	20	65	2	3.62	(20	(5	10		10500E		
23152								25	40	45	3	1.80	(20	(5	10		10525E		
23151								10	25	20	1	1.01	(20	(5	30		10550E		
23150								10	25	15	1	0.48	(20	5	30		10575E		
23149								10	20	15	1	0.58	(20	(5	20		10600E		
23148								20	60	40	2	2.55	(20	(5	(10		10625E		
23147								15	35	25	2	3.64	(20	(5	10		10650E		
23146								15	25	35	2	3.31	(20	(5	(10		10675E		
23145								15	45	65	2	4.59	(20	(5	(10		10700E		
23144								10	20	15	1	1.25	(20	(5	20		10725E		
23143								15	20	25	2	3.78	(20	(5	10		10750E		
23142								25	20	60	2	3.41	(20	5	10		10775E		
23141								45	35	55	3	9.20	(20	(5	(10		10800E		
23140								50	30	55	3	9.02	(20	5	(10		10825E		
23139								35	30	35	3	6.68	(20	(5	(10		10850E		
23138								45	35	65	3	7.79	(20	(5	(10		10875E		
23137								20	30	45	2	2.98	(20	(5	(10		10900E		
23136								55	35	40	2	1.63	(20	25	20		10925E		

025

405026

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m³/sec wi = width m al = alluvial co = colluvial ca = catchment km²

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

soil sample type au = auger hole or pit depth m A, B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name... Rocky Cape
 Area / Prospect... TENMA
 Map / Photo reference... SANDY CAPE 1:100,000
 A 02143

Sample numbers... 23131 - 23134 Collected by... D. ROBERTSON

Sheet... 10
 Date... AUGUST 1983
 DPO no.....

Analysed by... A.L.S. - BRISBANE

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W	LINE			
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm				
		s sample type ****						ppm	ppm	ppm	ppm	ppm	ppm						
23131							10	20	20	1	0.54	(20	15	60	11525E				
23132							10	20	25	1	0.64	(20	20	60	11550E				
23133							10	25	15	1	0.49	(20	5	50	11575E				
23134							20	45	45	3	2.16	(20	15	10	11600E				
END OF LINE																			

027

405028

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 Soil sample type auger hole or pit depth m A B or C horizon

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LEDGER

Tenement name Rocky Cape
 Area / Prospect TEMPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21109 - 21114
21117 - 21118
23227 - 23235

Collected by T. BVGG / D. ROBERTSON
 ANALABS - CODEE
 Analysed by A.L.S. - BRISBANE

Sheet 11
 Date 11 NOVEMBER 1982
AUGUST 1983
 DPO no 30434/

Sample No.	Type	ss channel **						Metal content ppm or %								Grid	Geological Observations	
		ss ° oc f s	fl	wi	al	co	ca	pH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Fe %	As ppm	Sn ppm			W ppm
			o/c sample type ***															
			s sample type ****															
NO SAMPLE								-	-	-	-	-	-	-	-	9100E		
NO SAMPLE								-	-	-	-	-	-	-	-	9125E		
21109								15	15	55	0.5	1.75	19	X	133	9150E		
21110								30	15	280	X	2.35	12	X	40	9175E		
21111								5	10	35	0.5	8850	X	X	11	9200E		
21112								10	20	60	X	1.95	10	X	12	9225E		
21113								115	5	95	X	5.75	15	X	20	9250E		
21114								100	10	90	X	6.20	23	X	16	9250E		
NO SAMPLE								-	-	-	-	-	-	-	-	9275E		
NO SAMPLE								-	-	-	-	-	-	-	-	9300E		
21117								45	5	95	0.5	1.30	20	X	45	9325E		
21118								95	15	170	X	7.45	22	X	28	9350E		
NO SAMPLE								-	-	-	-	-	-	-	-	9375E		
23225 NO SAMPLE								15	15	20	1	1.31	20	5	70	9400E		
23226 NO SAMPLE								10	25	80	2	2.41	20	5	40	9425E		
23227								20	25	30	2	1.56	20	5	80	9450E		
23228								25	20	30	2	1.90	20	5	60	9475E		
23229								30	20	90	2	2.65	20	5	50	9500E		
23230								35	30	95	2	2.26	20	5	90	9525E		
23231								20	20	35	1	3.21	20	5	60	9550E		
23232								30	30	100	2	2.50	20	5	20	9575E		
23233								30	80	105	3	5.32	20	5	40	9600E		
23234								10	10	20	1	1.08	20	5	60	9625E		
23235								45	20	30	2	1.30	20	5	30	9650E		

028

405029

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = gravel (state interval & length) rc = rock chip (state interval & length) cs = channel (state length)
 Soil sample type auner hole or pit depth m A, B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/1 Rocky Cape
 Area / Prospect TEMMA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 23236 - 23253 Collected by D. ROBERTSON

Sheet 12
 Date AUGUST 1983
 DPO no.

Analysed by A.L.S. BRISBANE

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W	LINE			
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm				
		s sample type ****						ppm	ppm	ppm	ppm	ppm	ppm	ppm					
23236							10	20	20	2	1.02	(20	(5	80	9675E				
23237							15	30	20	2	1.02	(20	(5	30	9700E				
23238							20	30	25	2	1.17	(20	(5	10	9725E				
23239							15	25	40	2	1.46	(20	(5	30	9750E				
23240							60	20	45	2	3.06	(20	(5	40	9775E				
23241							20	20	45	4	1.65	(20	(5	60	9800E				
23242							10	25	45	2	1.37	(20	(5	(10	9825E				
23243							10	10	20	1	1.02	(20	(5	100	9850E				
23244							10	20	30	2	1.84	(20	(5	30	9875E				
23245							20	45	60	2	2.42	(20	(5	60	9900E				
23246							15	70	50	1	2.18	(20	(5	80	9925E				
23247							40	25	45	2	3.36	(20	(5	80	9950E				
23248							10	20	30	2	0.84	(20	(5	20	9975E				
23249							15	25	30	2	1.02	(20	(5	30	10000E				
NO SAMPLE							-	-	-	-	-	-	-	-	10025E				
23250							10	10	30	1	0.68	(20	(5	80	10050E				
NO SAMPLE							-	-	-	-	-	-	-	-	10075E				
23251							20	30	60	2	1.56	(20	(5	10	10100E				
NO SAMPLE							-	-	-	-	-	-	-	-	10125E				
23252							10	20	70	3	2.74	(20	(5	(10	10150E				
NO SAMPLE							-	-	-	-	-	-	-	-	10175E				
23253							25	20	75	2	1.68	(20	(5	10	10200E				
NO SAMPLE							-	-	-	-	-	-	-	-	10225E				

029

405030

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 Soil sample type su = surface hole or pit depth m A, B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/1/ Rocky Cape
 Area / Prospect TEMMA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 23254 - 23258
23212 - 23224

Collected by D. ROBERTSON
 Analysed by A.L.S. - BRISBANE

Sheet 13
 Date AUGUST 1983
 DPO no. _____

Sample No.	Type ss* oc f s	ss channel **						Metal content ppm or %								Grid LINE 12400M	Geological Observations 030
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W		
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		
23254							15	30	50	3	1.35	(20	(5	(10	10250E		
NO SAMPLE							-	-	-	-	-	-	-	-	10275E		
23255							30	40	60	3	1.91	(20	(5	10	10300E		
NO SAMPLE							-	-	-	-	-	-	-	-	10325E		
23256							35	20	60	2	2.79	(20	5	10	10350E		
NO SAMPLE							-	-	-	-	-	-	-	-	10375E		
23257							15	10	45	2	3.19	(20	(5	(10	10400E		
NO SAMPLE							-	-	-	-	-	-	-	-	10425E		
23258							50	25	125	3	8.49	(20	(5	(10	10450E		
NO SAMPLE							-	-	-	-	-	-	-	-	10475E		
23224							55	20	100	3	6.88	(20	(5	10	10500E		
23223							55	20	120	3	7.23	(20	(5	(10	10525E		
23222							50	25	140	3	7.38	(20	(5	(10	10550E		
23221							45	25	90	3	6.82	(20	(5	(10	10575E		
23220							50	30	120	3	7.72	(20	(5	(10	10600E		
23219							50	25	110	3	7.70	(20	(5	(10	10625E		
23218							60	30	105	3	8.48	(20	(5	(10	10650E		
23217							55	30	115	2	7.41	(20	(5	(10	10675E		
23216							50	30	100	3	7.87	(20	(5	(10	10700E		
23215							60	35	160	3	9.00	(20	(5	(10	10725E		
23214							55	25	170	3	8.42	(20	(5	(10	10750E		
23213							130	30	80	3	10.9	60	(5	(10	10775E		
23212							55	30	175	3	6.77	(20	(5	(10	10800E		

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = gravel sample rc = rock chip (state interval & length) cs = channel sample (state length)

405031

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name Rocky Cape
 Area / Prospect TENPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 23200 23211 Collected by D. ROBERTSON

Sheet 14
 Date AUGUST 1983
 DPO no.....

Analysed by A.L.S. - BRISBANE

Sample No.	Type ss* oc f s	ss channel **						Metal content ppm or %								Grid LINE 12400N	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W		
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		
		s sample type ****															
23211							50	30	110	3	7.42	20	5	10	10825E		
23210							55	30	110	3	8.29	60	5	10	10850E		
23209							45	35	120	3	9.10	40	5	10	10875E		
23208							40	25	105	3	7.60	20	5	10	10900E		
23207							25	35	45	3	8.35	20	5	10	10925E		
23206							40	35	75	4	5.48	20	5	40	10950E		
23205							10	25	10	1	1.10	20	5	40	10975E		
23204							15	30	15	2	2.65	20	5	10	11000E		
23203							20	45	15	2	2.79	20	5	10	11025E		
23202							15	30	20	1	1.14	20	5	10	11050E		
23201							15	35	20	2	1.37	20	5	10	11075E		
23200							10	35	30	2	1.38	20	5	10	11100E		
END OF LINE																	

031

405032

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 o/c (sample type) auger hole or pit depth m A, B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name Rocky Cape
 Area / Prospect TEMNA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21122 21144 Collected by T. BVGG

Sheet 15
 Date NOVEMBER 1982
 DPO no. 30434

Analysed by ANALABS - COOEE

Sample No.	Type	ss channel **						Metal content ppm or %								Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W		
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		
		s sample type ****						ppm	ppm	ppm	ppm	ppm	ppm	ppm			
21122							10	5	10	X	2100	X	X	27	9700E	032	
21123							5	5	10	X	2250	1	X	8	9725E		
21124							5	15	10	X	6350	7	X	9	9750E		
21125							10	50	25	0.5	6050	X	X	X	9775E		
21126							5	X	5	0.5	1700	X	X	13	9800E		
21127							15	20	25	0.5	1.55	7	X	153	9825E		
21128							5	10	25	X	8500	7	8	15	9850E		
21129							5	5	10	X	2300	2	X	6	9875E		
21130							5	10	35	X	1.95	10	X	8	9900E		
21131							10	10	30	X	2.70	12	6	X	9925E		
21132							5	15	40	0.5	8500	2	X	X	9950E		
21133							5	15	10	0.5	2800	X	X	X	9975E		
21134							25	10	55	X	1.25	6	5	17	10000E		
21135							10	10	25	X	3.65	32	4	X	10025E		
21136							10	5	40	X	1.00	8	X	6	10050E		
21137							5	50	20	X	2.70	10	X	X	10075E		
21138							5	5	20	X	1.80	8	X	X	10100E		
21139							5	40	30	X	2.55	12	X	7	10125E		
21140							5	15	25	X	8150	7	X	X	10150E		
21141							5	5	10	X	4050	6	X	5	10175E		
21142															10200E		
21143							5	20	20	X	4750	8	X	14	10225E		
21144							5	15	20	X	5900	X	X	X	10250E		

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

405033

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name 1/1/1 Rocky Cape
 Area / Prospect TEMPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21145 - 21166

Collected by T. BVGG

Sheet 16
 Date NOVEMBER 1982
 DPO no. 30434

Analysed by ANALABS - COOEE

Sample No.	Type	ss channel **						Metal content ppm or %								Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W		
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		
		s sample type ****						ppm	ppm	ppm	ppm	ppm	ppm	ppm			
21145							15	20	50	X	1.75	8	X	15	10275E	033	
21146							5	55	50	X	1.35	8	X	9	10300E		
21147							5	20	25	X	4650	7	X	96	10325E		
21148							5	25	15	0.5	2550	7	X	52	10350E		
21149															10375E		
21150							10	5	15	X	3950	X	X	17	10400E		
21151							70	45	60	X	5900	8	X	X	10425E		
21152							45	30	75	X	1.45	12	X	X	10450E		
21153							50	25	50	X	4250	10	X	17	10475E		
21154							20	15	35	X	1.05	8	X	15	10500E		
21155							25	10	35	0.5	1.10	6	X	X			
21156							15	15	30	X	9300	8	X	6	10525E		
NO SAMPLE							-	-	-	-	-	-	-	-	10550E		
NO SAMPLE							-	-	-	-	-	-	-	-	10575E		
21157							45	10	30	0.5	2300	X	X	33	10600E		
21158							5	10	10	X	1900	8	X	X	10625E		
21159							5	10	15	X	3.00	16	X	47	10650E		
21160							5	25	10	X	9600	7	X	30	10675E		
21161							5	5	10	X	2.10	7	X	9	10700E		
21162							20	30	30	X	4.70	8	X	X	10725E		
21163							20	20	60	X	6.15	10	X	X	10750E		
21164							5	45	15	X	6200	7	X	7	10775E		
21165							5	X	15	X	8800	6	X	13	10800E		
21166							10	45	35	X	1.70	12	X	6	10825E		

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

Soil sample type auger hole or pit depth m A, B or C horizon

405034

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name Rocky Cape
 Area / Prospect TEMPA
 Map / Photo reference SANDY CAPE 1:100,000
 A 02143

Sample numbers 21167 - 23179
 Collected by T. BUGG / D. ROBERTSON

Sheet 17
 Date 17 AUGUST 1982
 DPO no. 30434

Analysed by A.L.S. BRISBANE
 ANALABS - COOEE

Sample No.	Type	ss channel **							Metal content ppm or %								Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	Fe	As	Sn	W			
		o/c sample type ***							ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		
		s sample type ****							ppm	ppm	ppm	ppm	ppm	ppm	ppm			
21167								5	X	10	X	1950	7	5	14	10850 E		
21168								5	X	5	X	1700	1	X	113	10875 E		
21169																10900 E		
21170								5	40	10	X	1.95	6	X	9	10925 E		
21171								5	X	30	X	1.70	10	X	13	10950 E		
21172																10975 E		
21173								5	25	40	X	1950	X	X	64	11000 E		
21174								5	X	30	X	2.75	10	X	6	11025 E		
21175								10	X	35	X	3.10	10	X	29	11050 E		
21176								10	15	15	X	3100	10	X	X	11075 E		
21177								5	10	10	X	4000	1	X	X			
23167								15	20	30	3	4.60	20	5	10	11100 E		
23168								10	20	40	2	3.93	20	5	10	11125 E		
23169								15	20	30	3	4.91	20	5	10	11150 E		
23170								15	20	40	3	4.55	20	5	10	11175 E		
23171								40	25	30	1	1.34	20	5	10	11200 E		
23172								30	30	25	2	0.91	20	5	20	11225 E		
23173								20	25	65	2	1.83	20	5	20	11250 E		
23174								15	25	45	2	2.24	20	5	20	11275 E		
23175								30	35	85	3	8.15	20	5	10	11300 E		
23176								10	30	40	2	5.22	20	5	10	11325 E		
23177								20	35	25	3	4.72	20	5	10	11350 E		
23178								20	20	35	3	4.19	20	5	10	11375 E		
23179								30	15	15	2	3.35	20	5	10	11400 E		

034

405035

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)
 **** Sample type au = auger hole or pit depth m A, B or C horizon

C.R.A. EXPLORATION GEOCHEMICAL SAMPLE LEDGER

Tenement name Rocky Cape
 Area / Prospect TEPFA
 Map / Photo reference SANDY CAPE 1:100,000

Sample numbers 23180 23199 Collected by D. ROBERTSON

Sheet 18
 Date AUGUST 1983
 DPO no. _____

Analysed by A.L.S. - BRISBANE

Sample No.	Type	ss channel **						Metal content ppm or %										Grid	Geological Observations
		fl	wi	al	co	ca	pH	Cu	Pb	Zn	Ag	r'e	AS	Sn	W	LINE			
		o/c sample type ***						ppm	ppm	ppm	ppm	%	ppm	ppm	ppm		13900N		
		s sample type ****																	
23180							10	15	10	2	3.32	(20	5	(10	11425E				
23181							20	25	20	2	3.87	(20	(5	10	11450E				
23182							20	20	20	2	7.62	(20	(5	(10	11475E				
23183							10	30	15	1	0.66	(20	5	10	11500E				
23184							20	40	40	2	9.68	(20	(5	10	11525E				
23185							135	40	20	2	7.40	(20	(5	10	11550E				
23186							75	25	20	2	3.99	(20	5	(10	11575E				
23187							10	30	25	1	0.99	(20	(5	10	11600E				
23188							10	20	25	1	1.15	(20	(5	(10	11625E				
23189							10	25	20	2	2.89	(20	(5	20	11650E				
23190							20	25	60	3	7.62	(20	5	10	11675E				
23191							15	30	25	3	6.80	(20	5	10	11700E				
23192							10	20	20	2	3.78	(20	(5	10	11725E				
23193							25	25	65	3	9.03	(20	(5	10	11750E				
23194							25	30	55	3	7.99	(20	(5	(10	11775E				
23195							25	30	95	3	7.70	(20	(5	(10	11800E				
23196							55	20	110	3	8.77	(20	(5	(10	11825E				
23197							20	20	25	2	1.52	(20	(5	10	11850E				
23198							20	40	25	3	5.80	(20	(5	(10	11875E				
23199							15	20	10	1	0.48	(20	(5	30	11900E				

035

405036

* Sample type ss = stream sediment oc = outcrop f = float s = soil
 ** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2
 *** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel (state length)

036

Central Mineralogical Services



39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659

Dr. R.R. Large
Supervising Geologist
Geopeko
P.O. Box 598
DEVONPORT / TAS. 7310

7th September, 1983

REPORT CMS 83/8/29

YOUR REFERENCE:	D.P.O. No. 31861
DATE RECEIVED:	17th August, 1983
SAMPLE NOS.:	KR 23127, KR 23243
SUBMITTED BY:	R. Perring
WORK REQUESTED:	Petrology/Mineralogy

*Samples
from Temma*

*11200 N
W25 E
Refer TS 23127*

*12400 N
9850 E
Refer TS 23243*

H.W. Fander
H.W. Fander, M. Sc.

Copy & Invoice to:
Administration Officer
C.R.A. Exploration Pty. Ltd.
P.O. Box 138
ROSNY PARK / TAS. 7018

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

Job No. CMS 83/8/29 Date Received: 17.8.1983Reference DPO No. 31861Sample No. KR 23127, KR 23243Nature of Sample: Sand + Rock

DESCRIPTION SECTION No.

a. Hand Specimen:

b. Microscopic:

Both samples were washed and deslimed to remove humus and clays and to disaggregate friable/unconsolidated material. Humus and carbonaceous material was abundant, and the washed samples were pale and quartzose. Only one contained rock fragments (KR 23127) and a thin-section was prepared of one of the larger fragments, whose lithology seemed very similar (quartzites).

50 gm portions of the -18 mesh (850 μ) washed, dried samples were separated in TBE (S.G. = 2.95) to produce heavy fractions for examination. No artificial/metallic contaminants were detected.

23127 (T.S. 46942)

This is a metaquartzite, in the sense that clastic textures are poorly preserved and the quartz is now recrystallized; however, there are no metamorphic structures, and the grade of metamorphism was low. The original rock was an orthoquartzite or feldspathic sandstone (Pettijohn); it is suspected that the present porosity is due to the leaching of feldspar grains.

The present rock consists of interlocking small grains of quartz, with typical sutured boundaries; a vague banding is due to thin parallel lenses of coarser, more compact quartz. Occasional rounded, detrital zircon grains occur. Tourmaline occurs both as rough detrital grains as well as very small euhedral crystals (singly and in small groups); the crystals may be authigenic or may actually represent a weak phase of tourmalinisation. A few detrital muscovite flakes are seen, as well as isolated grains of unaltered feldspar.

IDENTIFICATION

KR 23127, KR 23243

038

TBE Heavy Fraction (0.4 % of sample, by weight)

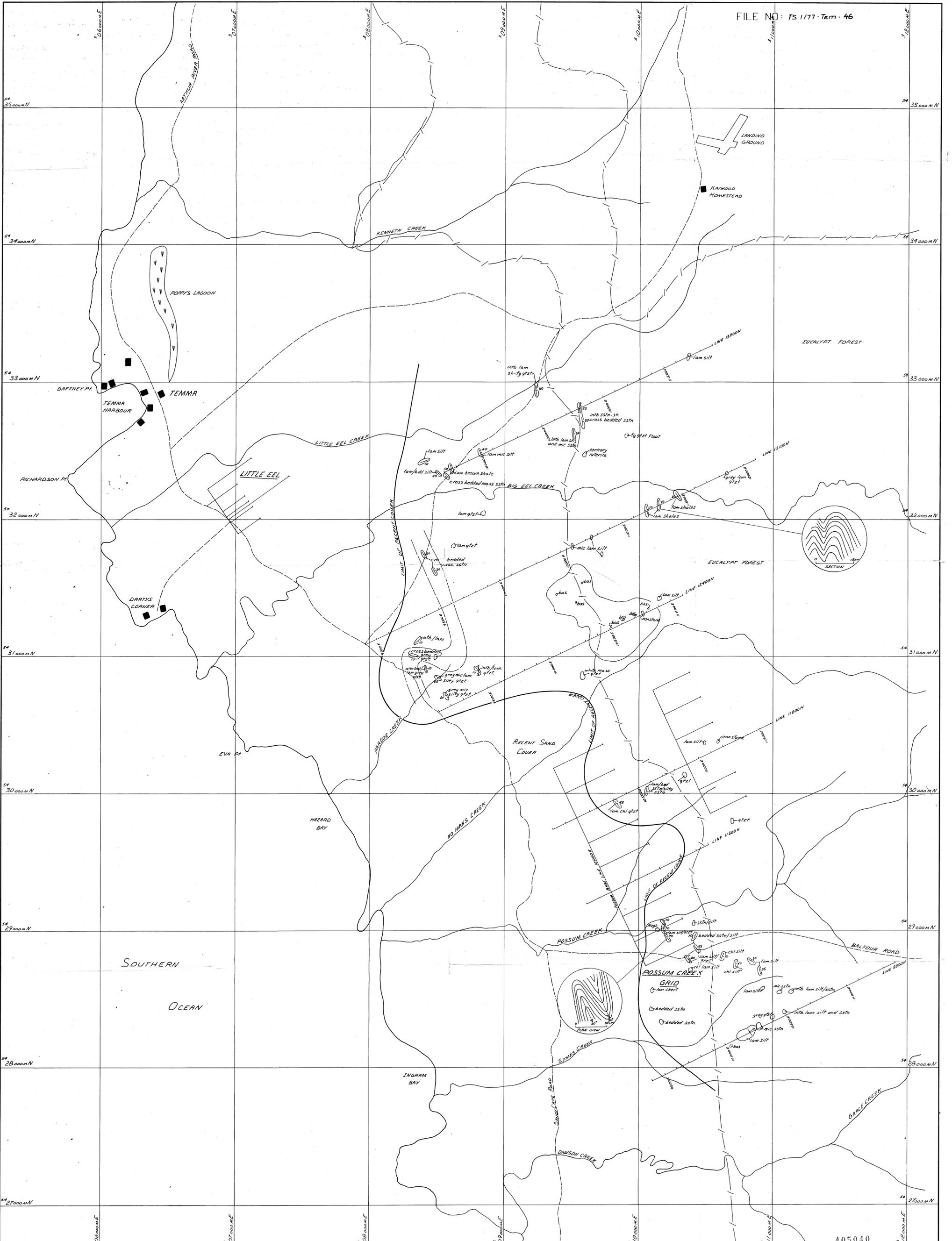
The major heavy minerals are ilmenite, zircon and tourmaline (green, brown, blue), with minor leucoxene and rutile; trace amounts of andalusite, sillimanite, topaz, hornblende, anatase, staurolite, monazite and possible cassiterite are present. The ?cassiterite is difficult to distinguish from some of the zoned brown/mauve zircon which is common. All the grains are subrounded to rounded. No W minerals were identified, though some of the black opaque "ilmenite" could be abraded wolframite. A UV check failed to detect scheelite. However, it is also possible that tungsten may occur in absorbed form in the humus/organic matter.

KR 23243 TBE Heavy Fraction (0.1 % of sample)

The major heavy minerals are ilmenite, leucoxene, authigenic pyrite, and tourmaline; minor components are zircon (colourless and mauve), pyroxenes and amphiboles, rutile and andalusite. Traces of staurolite, sillimanite, kyanite, garnet, topaz are also present. A single grain of possible scheelite was tentatively identified.

This mineral assemblage differs from that of KR 23127 in that zircon and rutile are far less common, pyroxenes and amphiboles are present, and the metamorphic suite is more extensive. It is very unlikely that either assemblage originated from the metaquartzite described above, for a number of reasons; thus, by inference, it seems equally unlikely that the metaquartzite was the source of the W anomalies. The heavy mineral assemblages suggest a granitic situation with pneumatolysis, contact-metamorphism of aluminous sediments, and a (separate?) source of basic igneous rocks, possibly unrelated to, and younger than, the igneous-metamorphic suite.

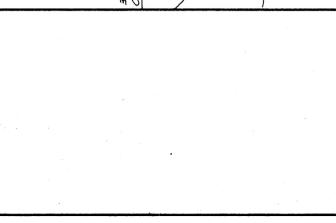
H.W. Fander, M. Sc.



REFERENCE

■ BUILDING	○ OUTCROP	bas basalt
— ROAD, TRACK	○ FLOAT	bdd bedded
— CREEK	— BEDDING	chl chloritic
— FOREST	— CLEARAGE	fg fine grained
		intb interbedded
		lam laminated
		qtzt quartzite
		silt siltstone
		ssm sandstone

RECENT	19-6	sand gravel
TERTIARY	19-11	basalt
PRECAMBRIAN	19-51	shales siltstones sandstones quartzites



DATE: Aug 83
 GEOL: R.J.P.
 DRAWN: Mvd.S.
 CHECKED:

405040

GEOPEKO
 A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT

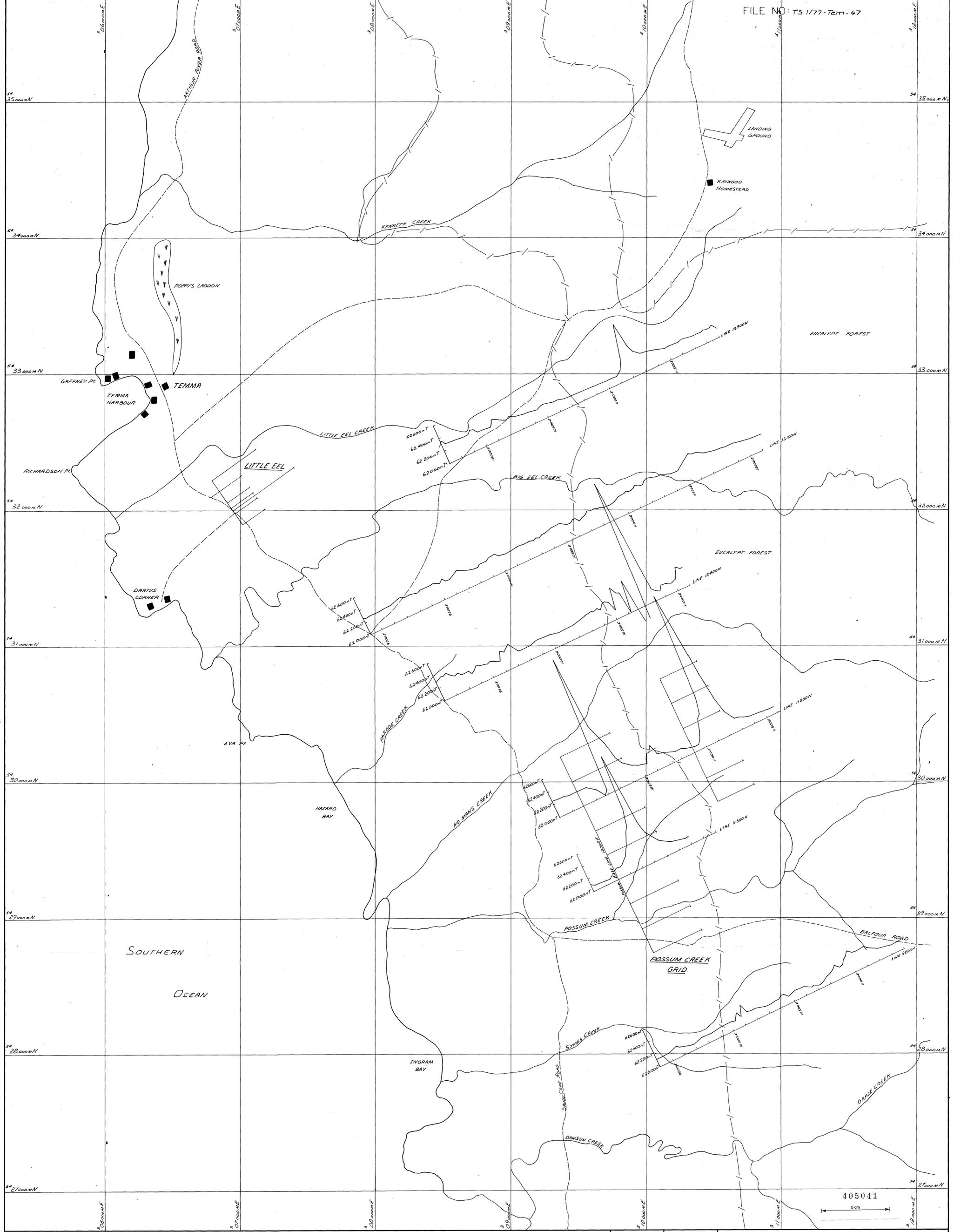
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E.L 1/77 ROCKY CAPE, TASMANIA

TEMMA

GEOLOGY

3235



REFERENCE

- BUILDING
- ROAD, TRACK
- ~ CREEK
- || FOREST

GRID CONVERGENCE
1.5"

DATE: AUG 83
GEOLOGIST: R.J.P.
DRAWN: M.H.S.
CHECKED:

GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT

84-2151

Scale: 1:10,000 No. 2 Term-47

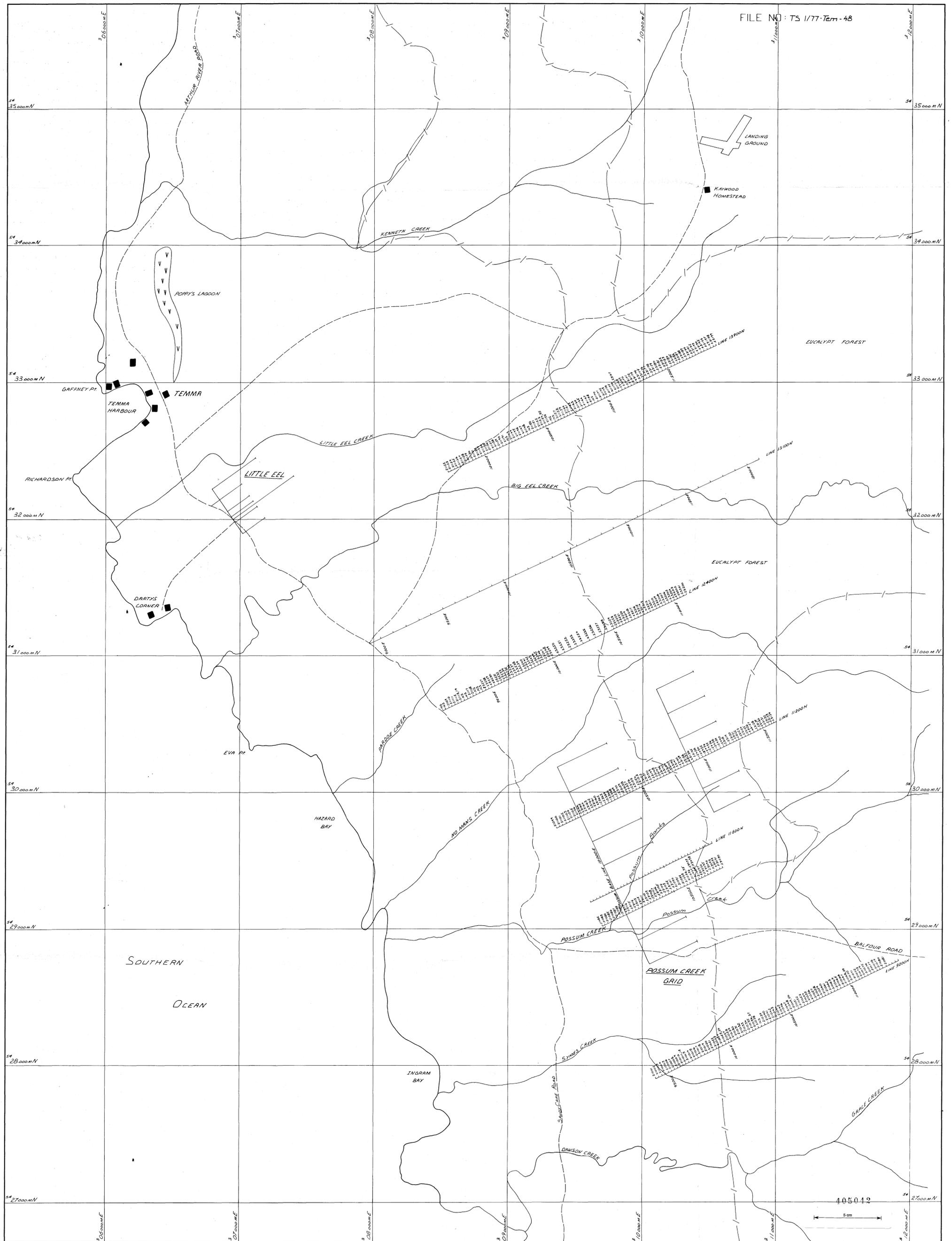
EL 1/77 ROCKY CAPE, TASMANIA

TEMMA

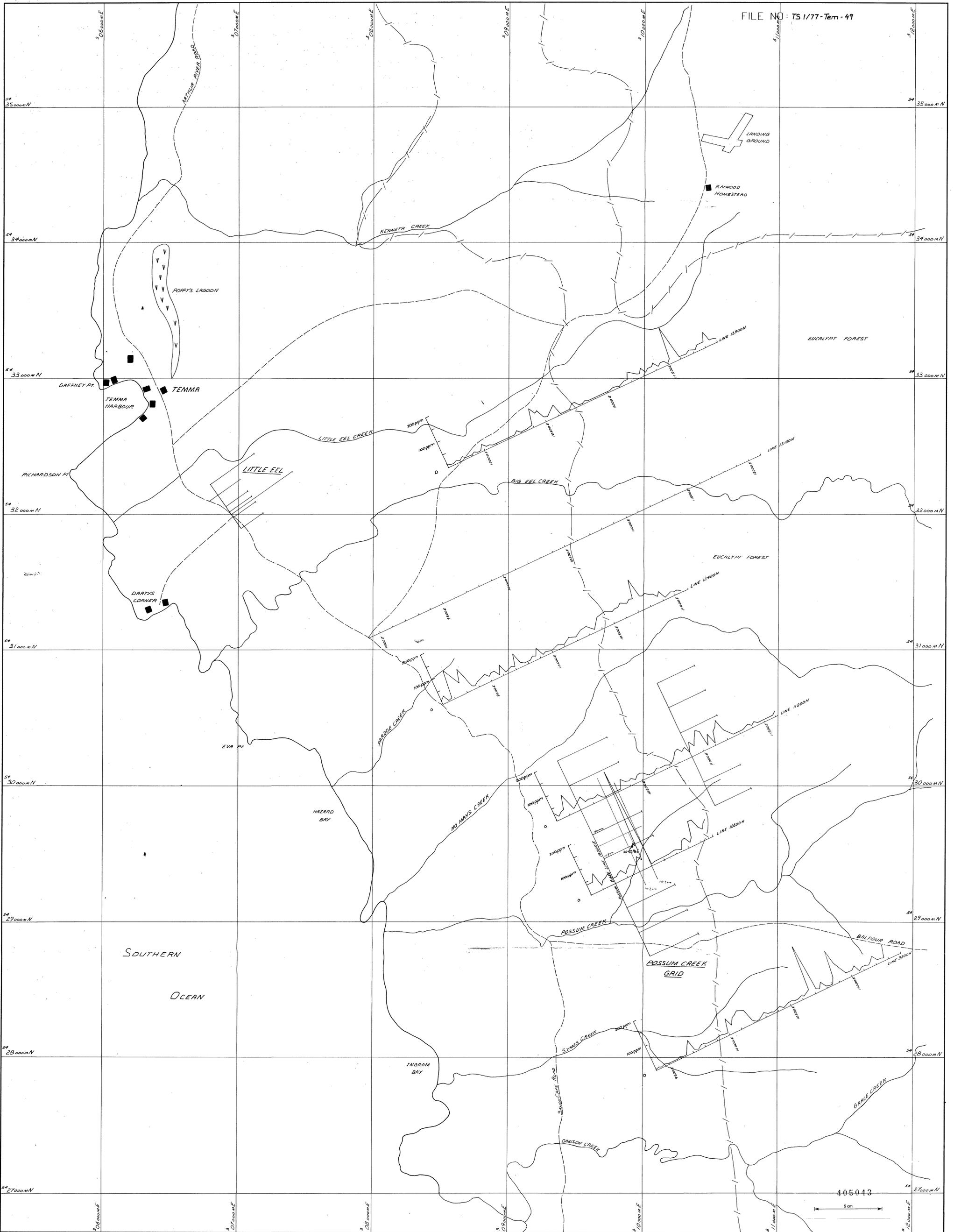
TOTAL MAGNETIC INTENSITY LINE PROFILES

3236

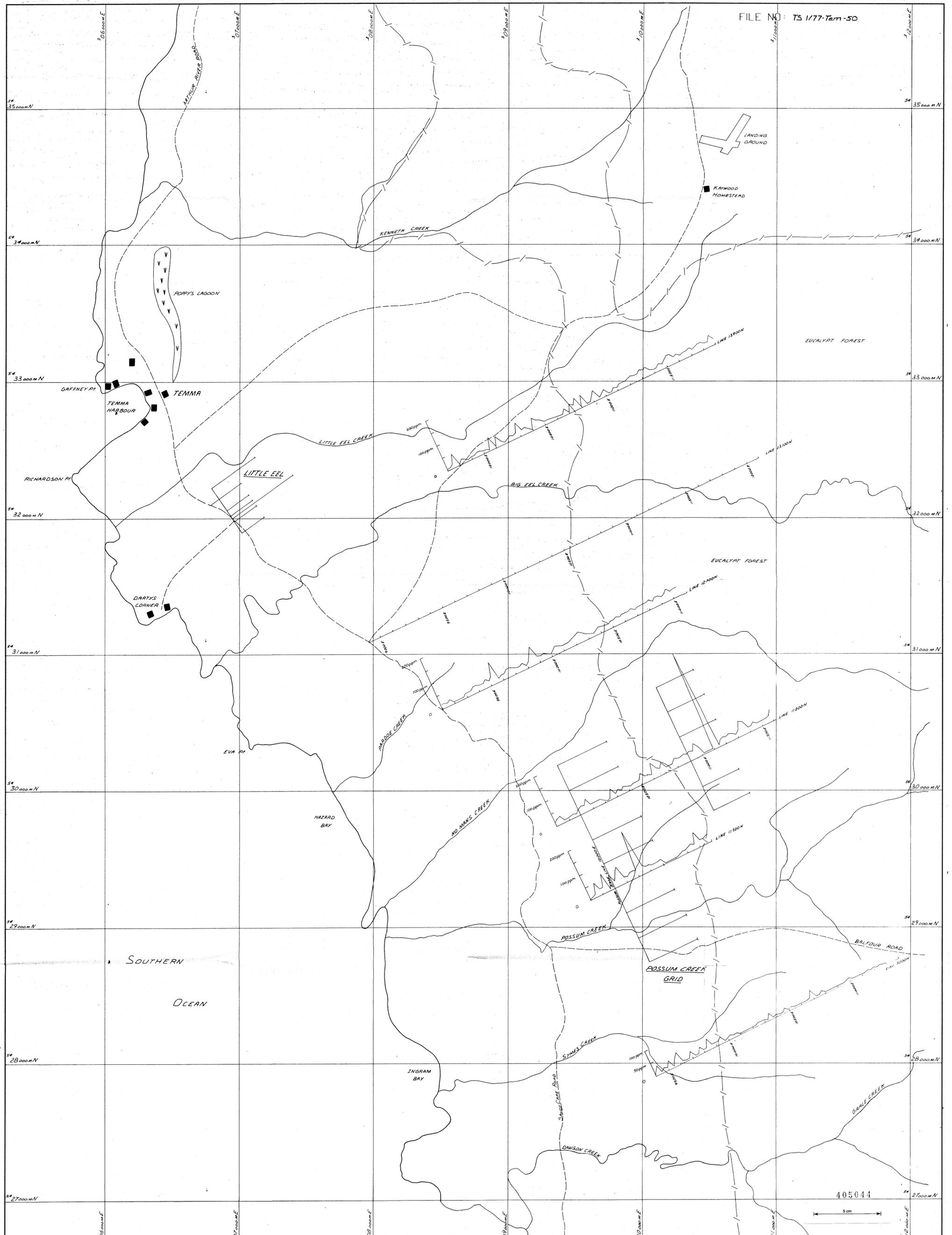
HORIZ. SCALE 1:10,000 VERT. SCALE 1cm:200nT



<p>REFERENCE</p> <ul style="list-style-type: none"> ■ BUILDING — ROAD, TRACK ~ CREEK FOREST 			<p>GAID CONVERGENCE 15"</p>		<p>DATE: Aug 83 GEO: R.J.P. DRAWN: M.V.D.S., R.Tag CHECKED:</p>	<p>GEOPEKO A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT</p>	<p>Scale: 1:10,000 No: 3</p>	<p>E.L 1/77 ROCKY CAPE, TASMANIA TEMMA Sample Location Plan 3237</p>
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<p>REFERENCE</p> <ul style="list-style-type: none"> ■ BUILDING — ROAD, TRACK ~ CREEK - - - FOREST 	<p>ON 7N MN 10°</p> <p>GRID CONVERGENCE 1.5"</p>	<p>DATE: Aug 83 GEOLOGIST: R.J.P. DRAWN: R.Tog CHECKED:</p>	<p>GEOPEKO A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT</p> <p>Scale: 1:10,000 No: 4</p> <p>E.L 1/77 ROCKY CAPE, TASMANIA TEMMA</p> <p>Cu ppm C-Horizon Soil Geochemistry Profiles</p> <p>3238</p>
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REFERENCE

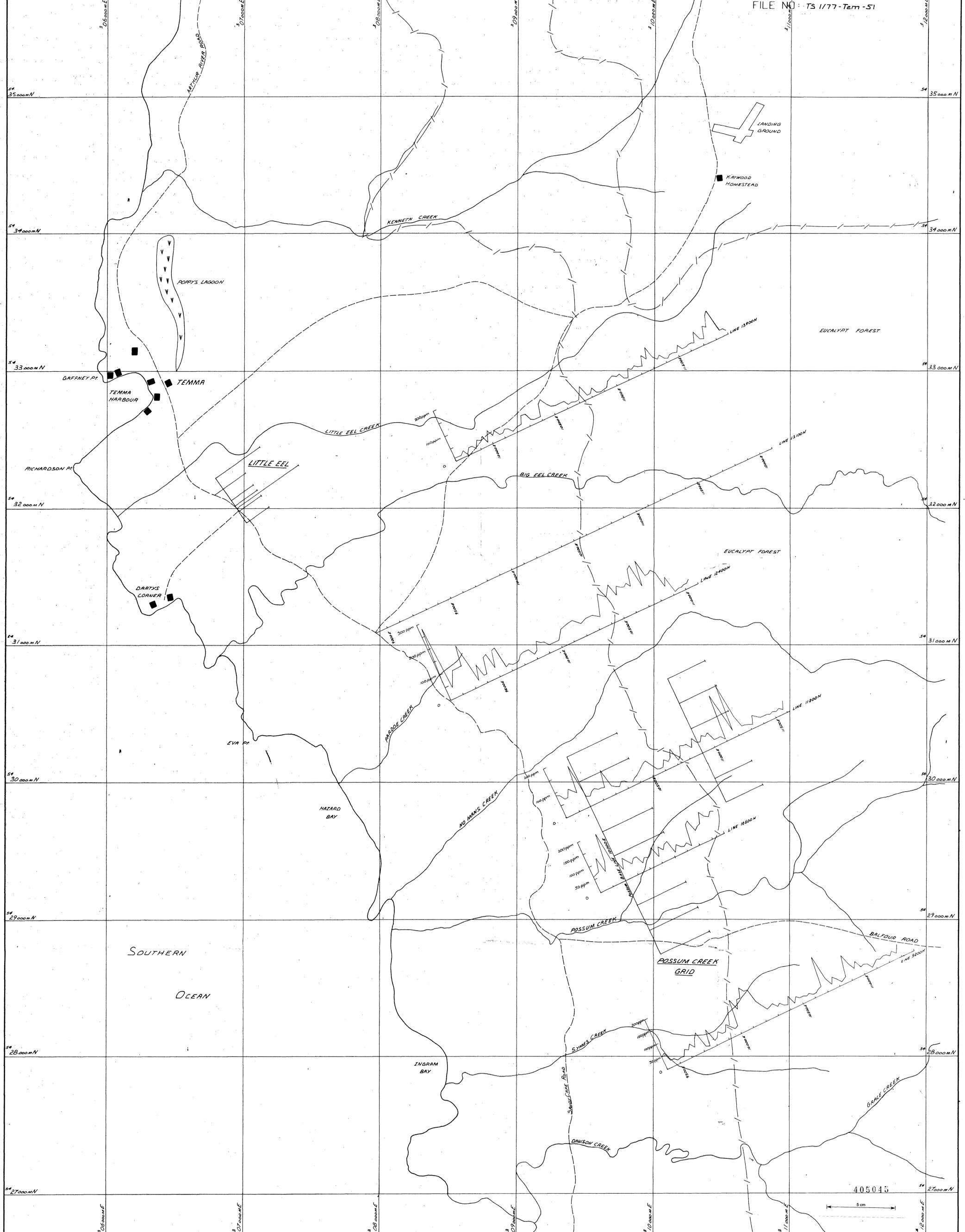
- BUILDING
- ROAD, TRACK
- ~ CREEK
- FOREST

DATE: AUG 83
 GEOL: R.J.P.
 DRAWN: R.759
 CHECKED:

GEOPEKO
 A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT

Scale: 1:10,000 No. 5

E.L 1/77 ROCKY CAPE, TASMANIA
TEMMA
 Pb ppm C-Horizon Soil Geochemistry Profiles 3239

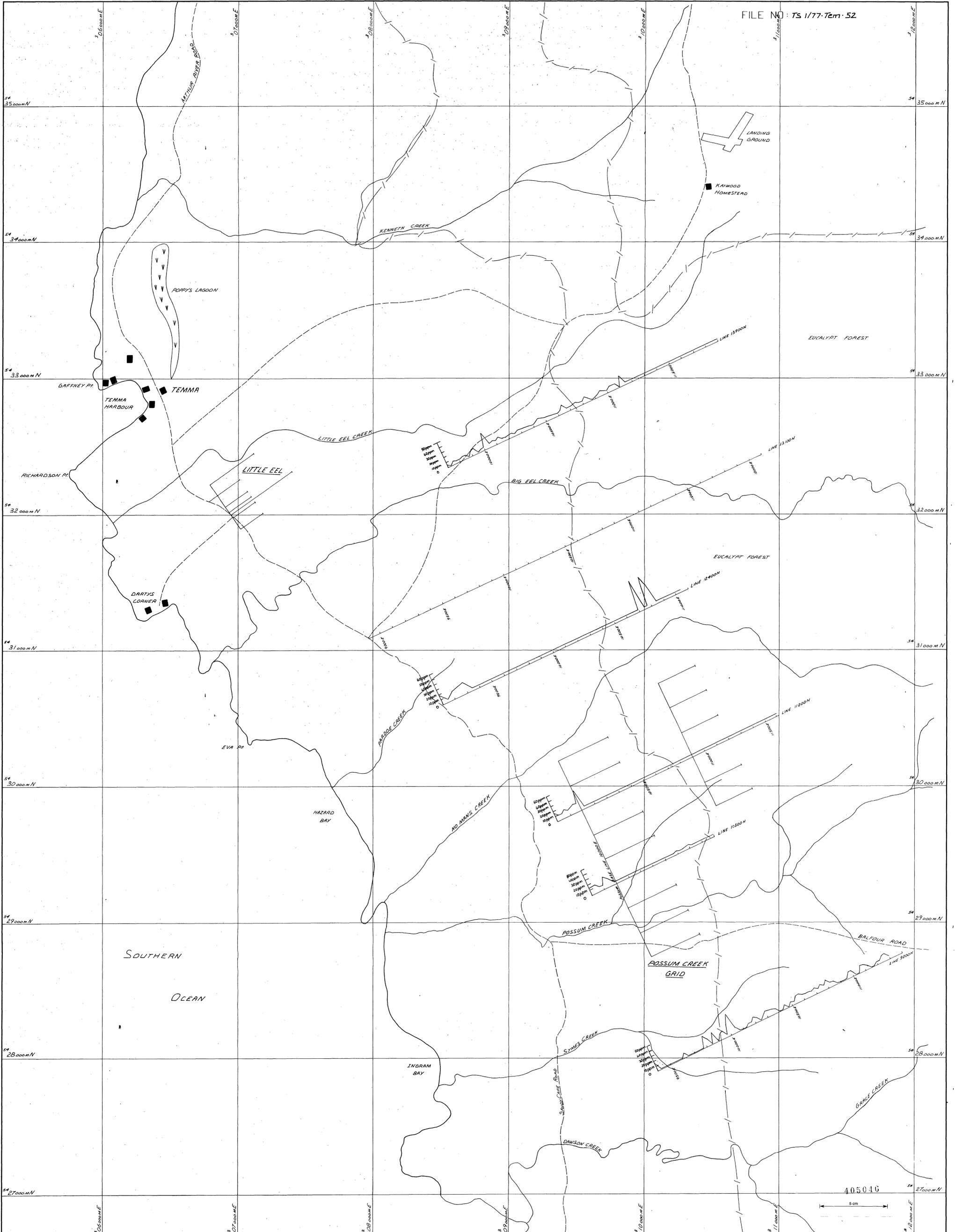


REFERENCE

■	BUILDING
—	ROAD, TRACK
~	CREEK
	FOREST

ON
 NW
 10°
 GRID CONVERGENCE
 1.5"

GEOPEKO
 A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT
 Scale: 1:10,000
 No: 6
EL 1/77 ROCKY CAPE, TASMANIA
TEMMA
 Zn ppm C-Horizon Soil Geochemistry Profiles
 3240
 84-2151
 Tem-51



REFERENCE

■	BUILDING
—	ROAD, TRACK
~	CREEK
- - -	FOREST

DATE: Aug 83
 GEOL: R.J.P.
 DRAWN: R.J.W.
 CHECKED:

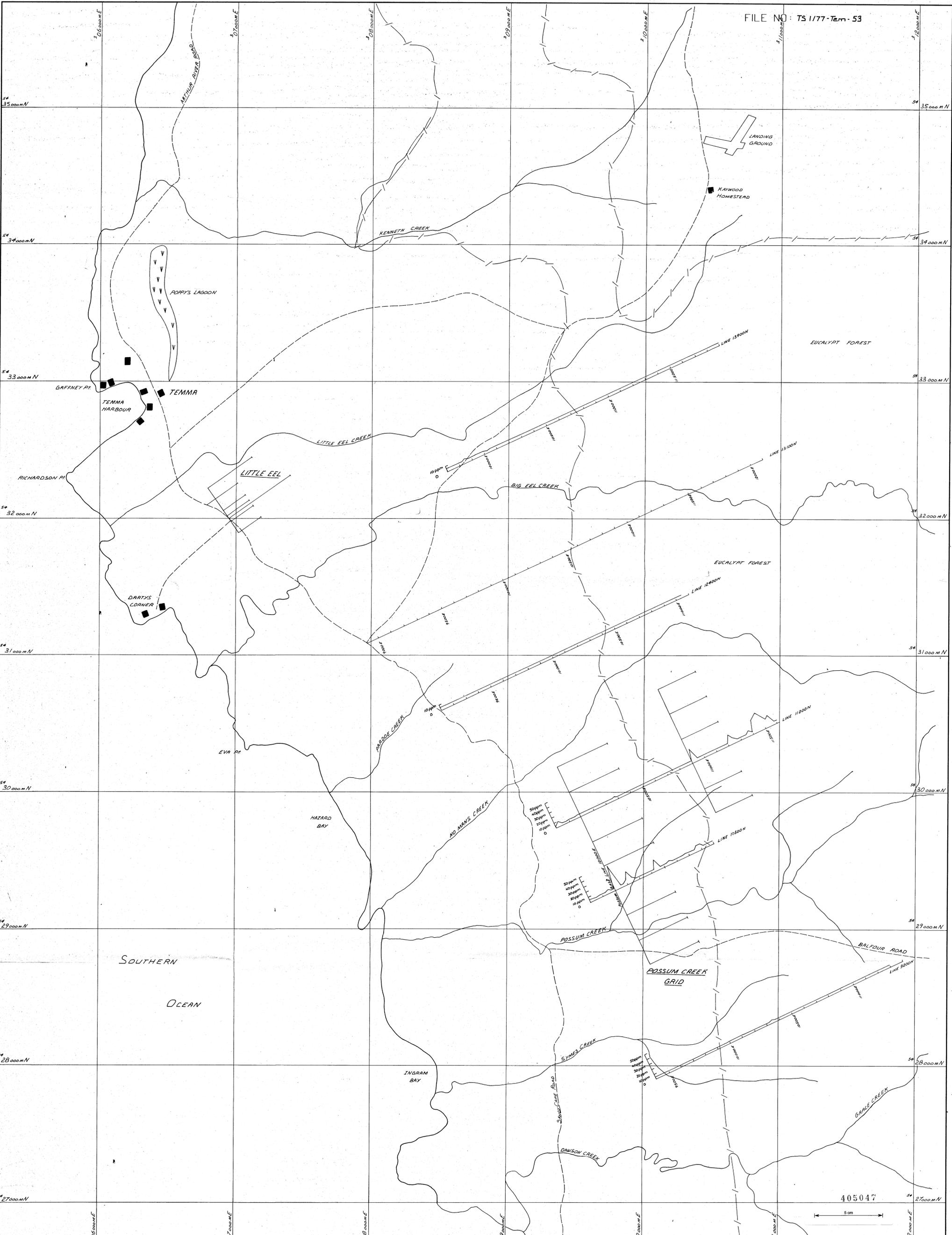
GEOPEKO
 A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT

Scale: 1:10,000 No. 7

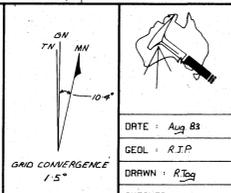
E.L. 1/77 ROCKY CAPE, TASMANIA
 TEMMA
 As ppm C-Horizon Soil Geochemistry

40504G
 5 cm

84-2151
 TEM-52
 3241



- REFERENCE
- BUILDING
 - ROAD, TRACK
 - ~ CREEK
 - - - FOREST



GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT

84-2151
No. **8**

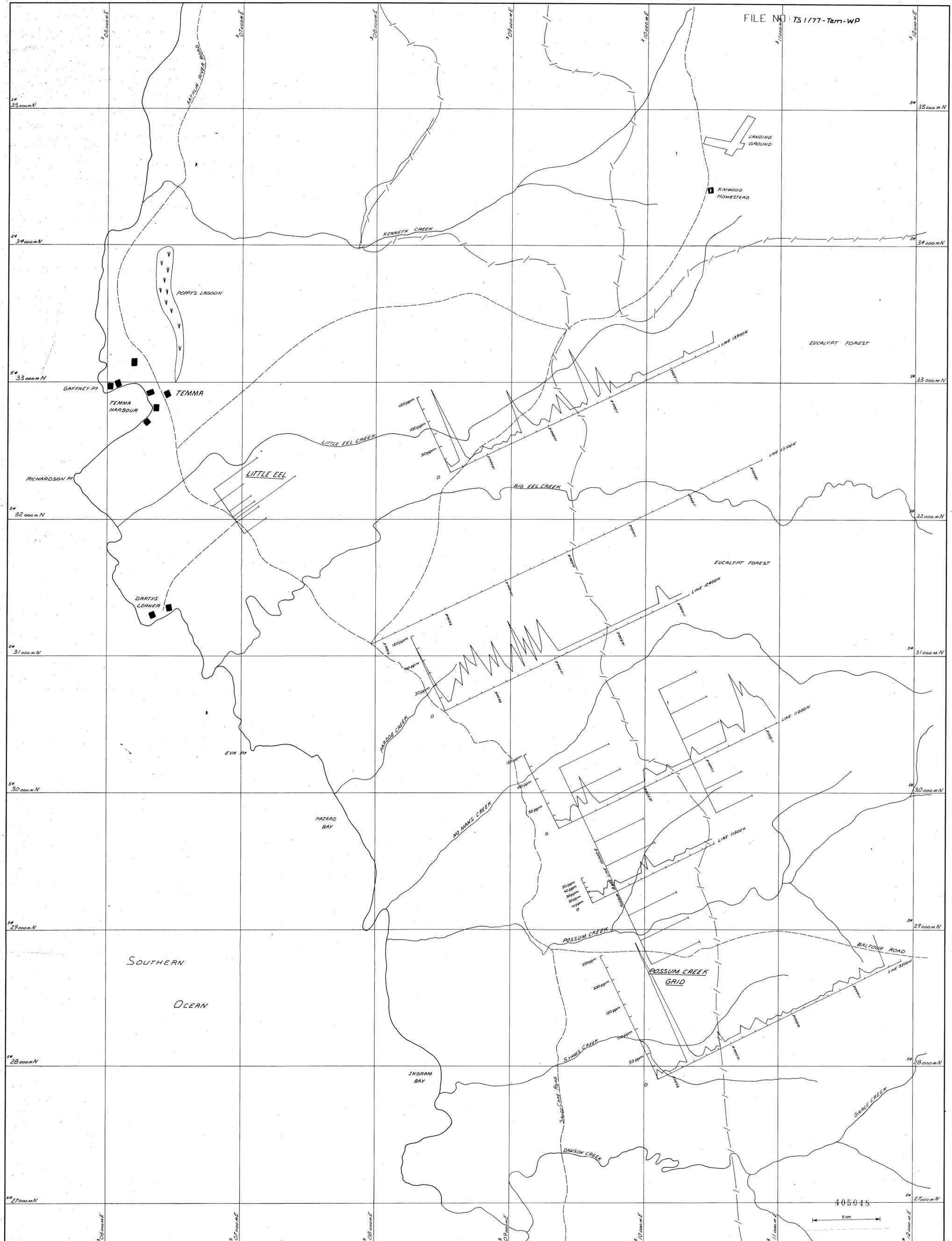
Scale 1:10,000

E.L 1/77 ROCKY CAPE, TASMANIA
TEMMA

Sn ppm C-Horizon Soil Geochemistry Profiles

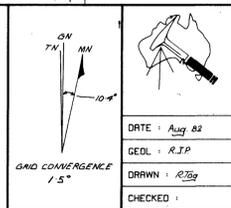
3242

DATE: Aug 82
GEO: R.I.P.
DRAWN: R.Sg
CHECKED:



REFERENCE

- BUILDING
- ROAD, TRACK
- ~ CREEK
- FOREST



GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD - DEVONPORT

84-2151
No. 9
74m-54

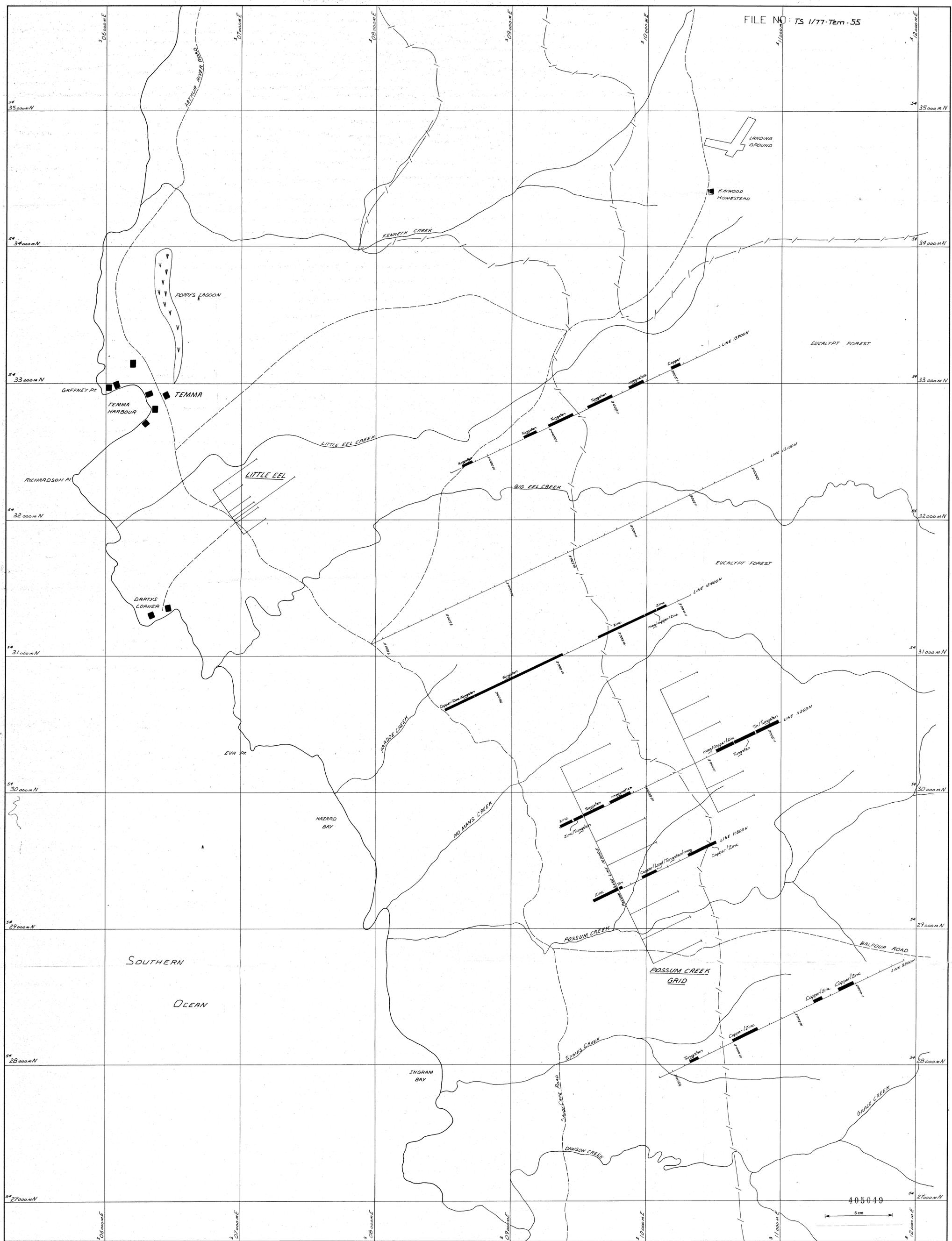
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E.I. 1/77, ROCKY CAPE, TASMANIA
TEMMA

3243

Wppm C-Horizon Soil Geochemistry Profiles

DATE: Aug 82
GEOLOGICAL: R.J.P.
DRAWN: R.B.G.
CHECKED:



REFERENCE

	BUILDING
	ROAD, TRACK
	CREEK
	FOREST
	Anomaly

GRID CONVERGENCE
1.5"

DATE: Aug 83
GEOLOGICAL: R.J.P.
DRAWN: R.P.
CHECKED:

GEOPEKO
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84-2151
No. 10.

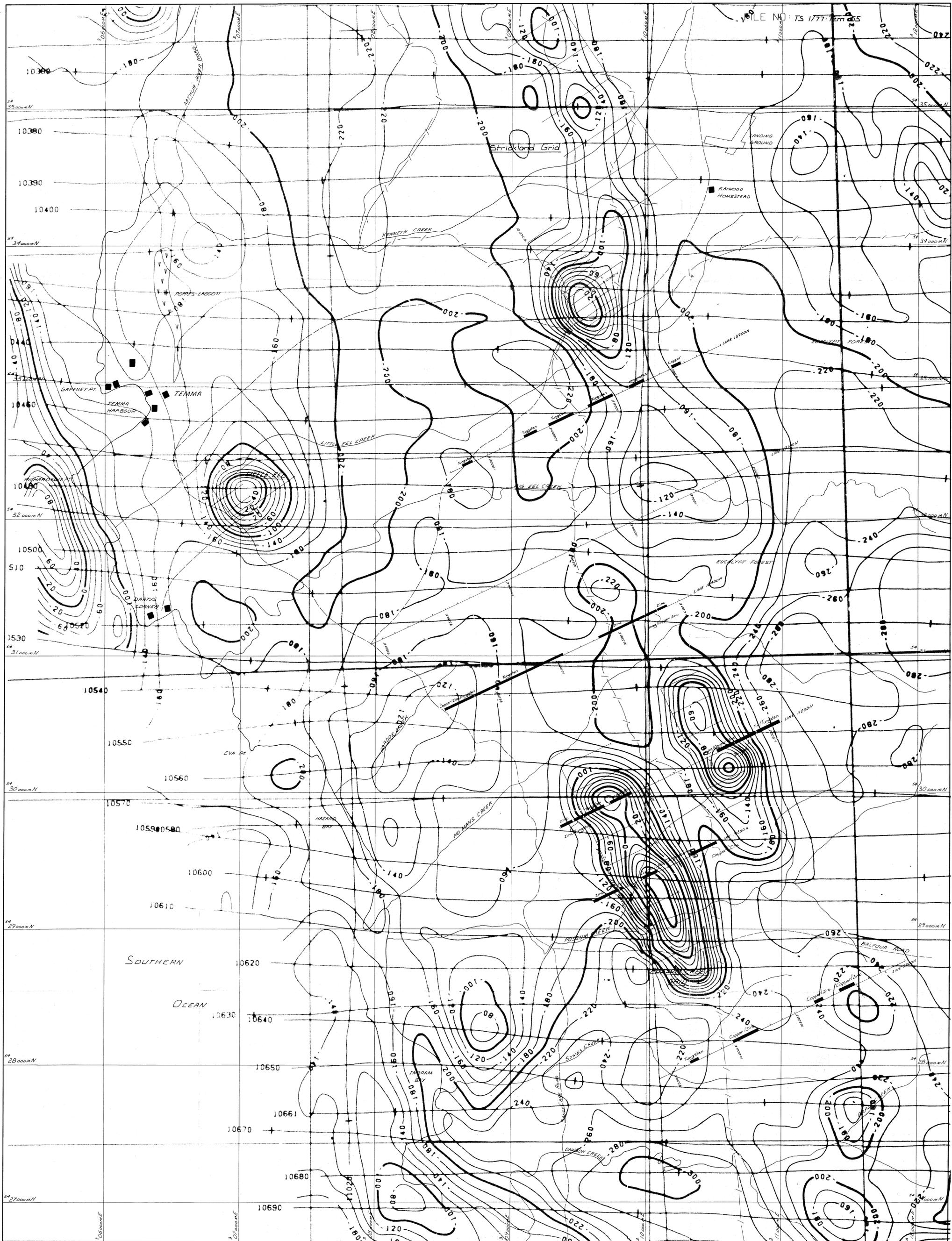
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E.L 1/77 ROCKY CAPE, TASMANIA

TEMMA

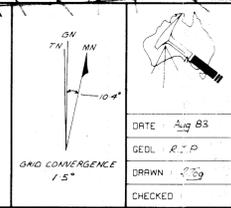
3244

Summary of Soil Geochemistry and Magnetism



REFERENCE

- BUILDING
- ROAD, TRACK
- ~ CREEK
- FOREST
- Anomaly



405050 **GEOPEKO**
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DATE: Aug 83
GEO: R.P.P.
DRAWN: [Signature]
CHECKED: [Signature]

Scale 1:10,000 No. 11.1
E.L 1/77 ROCKY CAPE, TASMANIA
TEMMA
Summary of Soil Geochemistry and Magnetism

84-2151
Tem 85
5 cm
3245