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532001

THE SHELL COMPANY OF AUSTRALIA LIMITED

METALS DIVISION

E.L. 2/78 - GRANITE TOR

Relinquishment Report

Vol 1 of 2

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1. Department of Mines
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SUMMARY

Alcoa of Australia and The Shell Company of Australia Limited have carried out work over four field seasons in the relinquished area. The main effort has been directed towards tin mineralization associated with the Granite Tor Batholith.

Three large areas have been gridded for this purpose. The Bluff Grid, Swallow Grid and High Tor Grid. None of these prospects were of sufficient interest for continued work.

The Shell Company directed most of its attention towards the possibilities of Cambrian volcanic hosted massive sulphides. To this end a Dighem EM survey was flown over prospective stratigraphy. Five anomalies were located within the relinquished area. Four were within the Precambrian and one on the Precambrian/Cambrian boundary. Minor Pb, Zn, As, Co, Bi anomalies ~~was~~ were associated with four of the anomalies. This was not thought to be of interest. Minor Sn/W anomalies were associated with one area, but is thought to be due to Pleistone fluvioglacials. The area of 249 sq km was relinquished in May, 1983.

1.0 INTRODUCTION

The Exploration Licence of 322 sq km was granted on 26th May, 1978 to Alcoa of Australia Limited. The Shell Company of Australia Limited became involved in a Joint Venture on the licence in January, 1981.

An area of 249 sq km was relinquished in May, 1983. This report refers to all investigations undertaken in the relinquished area by Alcoa of Australia and The Shell Company of Australia.

2.0 LOCATION & ACCESS

The relinquished area is located between Lake Mackintosh and the Cradle Mt. - Lake St. Clair National Park. (Refer Fig. 1).

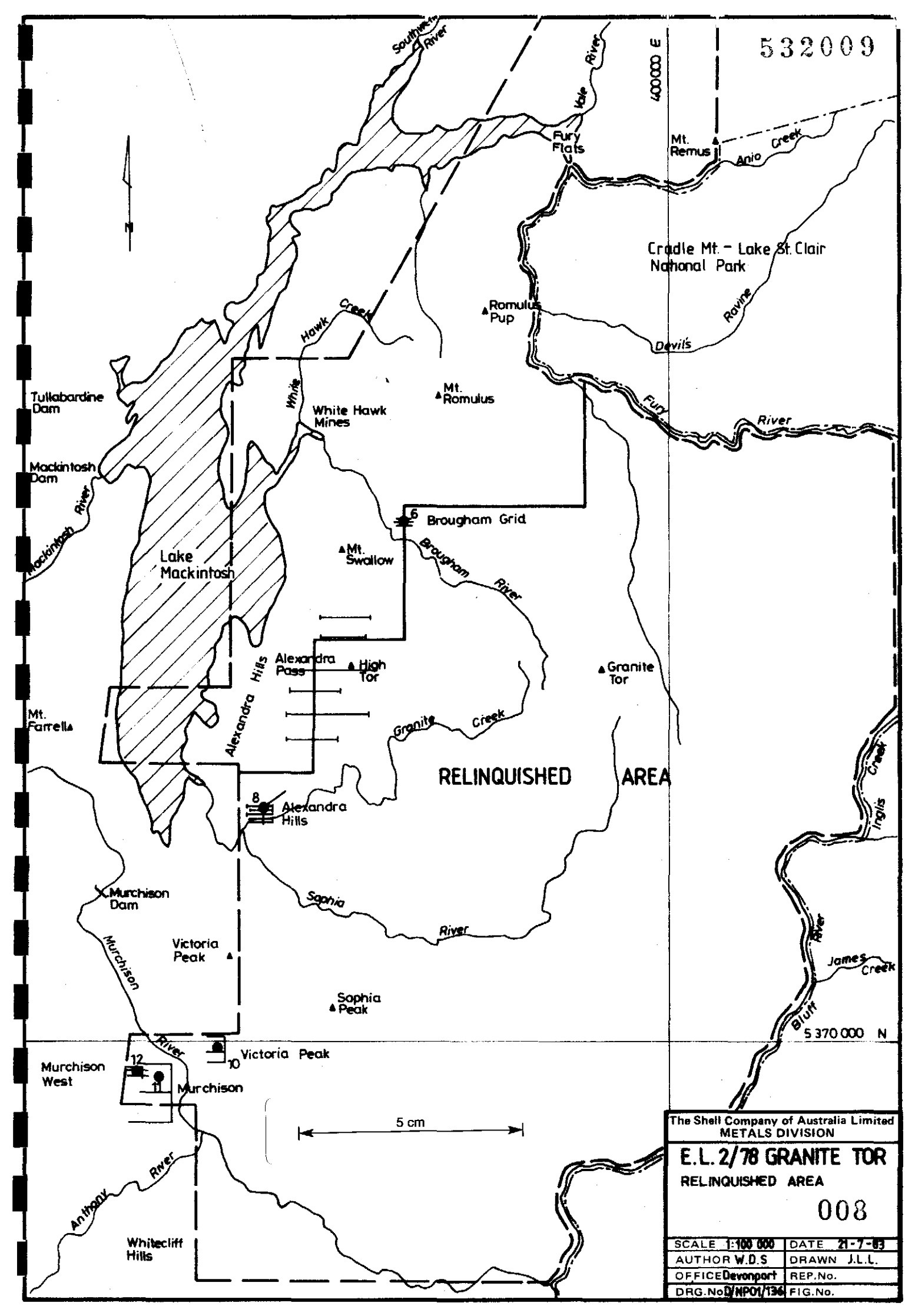
Access is by boat across the lake and along the various rivers or by helicopter.

3.0 EXPLORATION TARGETS

The initial target was tin/tungsten deposits associated with the Granite Tor Batholith. Most work has recently been directed towards the possibilities of Cambrian volcanic hosted massive basemetal sulphides.

4.0 REGIONAL GEOLOGY

The Granite Tor region lies on the boundary of the Burnie and Queenstown 1:250 000 geological sheets and is partially covered by the Mackintosh 1" to 1 mile geological map.


532009
400000 E
S 370 000 N
Southwest River
Hale River
Fury Flats
Mt. Remus
Anio Creek
Cradle Mt. - Lake St. Clair National Park
Romulus Pup
Devils Ravine
Hawk Creek
White Hawk Creek
Mt. Romulus
Fury River
Tullabardine Dam
White Hawk Mines
Mackintosh Dam
Mackintosh River
6 Brougham Grid
Mt. Swallow
Brougham River
Lake Mackintosh
Alexandra Pass
High Tor
Granite Tor
Alexandra Hills
Mt. Farrell
Granite Creek
RELINQUISHED AREA
8 Alexandra Hills
Inglis Creek
Murchison Dam
Sophia River
Murchison River
Victoria Peak
James Creek
Bluff River
Sophia Peak
12
10 Victoria Peak
Murchison West
1 Murchison
5 cm
Anthony River
Whitecliff Hills
The Shell Company of Australia Limited
METALS DIVISION
E.L. 2/78 GRANITE TOR
RELINQUISHED AREA
008
SCALE 1:100 000
DATE 21-7-83
AUTHOR W.D.S
DRAWN J.L.L.
OFFICE Devonport
REP.No.
DRG.No D/NP01/136
FIG.No.

Exploration Licence 2/78 covers an area of deformed Precambrian metasediments known structurally as the Tyennan Geanticline. This is intruded by a substantial Lower Carboniferous or Devonian granitic body known as the Granite Tor Batholith. In the west and north the Precambrian is unconformably overlain by Palaeozoic sediments and volcanics in structural units known as the Dundas Trough and Sophia Synclinorium. (Fig. 2).

The Precambrian rocks are composed of alternating massive quartzite and metapelitic units. Rare carbonate horizons occur in the southeast of the E.L. and black graphitic phyllites along the western margin. The metamorphic grade is generally upper greenschist facies except close to the contacts of the granite where hornfelsing may occur. The regional strike is east-northeast except on the western margin where it is north-northeast.

The Granite Tor Batholith is in fact more truly an adamellite with granitic and micro-adamellitic phases. Tin-bearing greisen occurs near Bluff River and is associated with some nearby hybrid phases including a garnet-bearing granite. Granitic dykes and quartz veins with greisenized margins are known near Mt. Swallow and an aplitic vein has been reported from the same area.

The Cambrian sequence which abuts the Precambrian in the west consists of quartzose sediments interbedded with acid to intermediate tuffs and porphyries. Cambrian intrusive granites are also known near Mt. Murchison and possibly near Mt. Romulus. The Cambrian is overlain by Ordovician rocks consisting of the Owen Conglomerate followed by the Gordon Limestone. These two formations are the major units in the northern panhandle portion of E.L. 2/78. Some Silurian quartzties overlie the Ordovician west of Mt. Romulus.

A sheet of Tertiary basalt overlies many of the Palaeozoic rocks in the area.

Undeformed Permian sediments occur near Mt. Inglis obscuring the eastern contact of the granite.

Pleistocene glacial and fluvioglacial debris litters the area. This has three main forms; large erratics perched in almost any topographic position, compact gravels up to a few metres thick which have accumulated in stream valleys and veneers of glacial cobbles which occur mainly on hill tops and on more moderate slopes. Occassionally varved silts are found with the thicker glacial veneers.

Mineralization is known in a number of places at Granite Tor. The batholith itself is known to be tin-bearing and tin and tungsten are known from a greisen deposit near Bluff River. This has been worked in the past by sluicing. Wolfram and bismuth occur sporadically with quartz veins outcropping in the Brougham River close to the granite contact.

A small adit near the conjunction of Granite Creek and Sophia River was driven on bismuth-bearing arsenopyrite-pyrite-quartz veins hosted by a graphitic phyllite. Iron sulphides in graphitic phyllites are known from several places in the western Precambrian unit.

At the conjunction of White Hawk Creek and Brougham River several workings were once established on galena/sphalerite veins following joint planes in the Gordon Limestone. Some 5 kms north of this place galena has been found in an Ordovician (?) quartzite.

At Mt. Remus, molybdenite associated with small amounts of cobalt and vanadium has been recorded as occurring in pyritic quartz bodies within Precambrian schists.

532012

LEGEND

- Pleistocene Fluvioglacials
- Tertiary Basalts
- Permian Sediments
- Siluro-Devonian Sediments
- Gordon Limestone
- Owen Conglomerate — Ordovician
- Cambrian Mt. Read Volcanics
- Western Series Metasediments (Precambrian ?)
- Precambrian Metasediments
- Devonian Granitic Intrusion
- Cambrian Murchison Granite

1 0 1 2 3 4Km

N

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
OUTLINE OF REGIONAL GEOLOGY

011

SCALE	1: 100 000	DATE	11-8-82
AUTHOR	D. SPEIJERS	DRAWN	H.L.S.
OFFICE	DEVONPORT	REP.No.	
DRG.No.	D/NP01/079	FIG.No.	

5.0 RELINQUISHED AREA

The area relinquished consists of the southern part of the original Exploration Licence. This covers a total area of 249 sq km mainly of Precambrian quartzites and schists and the major granite intrusion. Possible Cambrian rocks are reported from the southwest corner of the relinquished ground. Pleistocene glacial and fluvioglacial debris is common throughout the area.

6.0 INVESTIGATIONS COMPLETED

The area was originally taken up by Alcoa as a grass roots tin exploration project. The prospective nature of Cambrian rocks in the west was recognized as an additional asset.

Early work was directed towards a search for Renison-type mineralization. An airborne magnetic/radiometric survey and colour aerial photography were flown and followed up with geophysical and photogeological interpretation. During the summer of 1978-9 an extensive program of stream sediment sampling, rock sampling and stream water sampling was undertaken. In the following 1979-80 field season specific areas near Bluff River and Mt. Swallow were examined in more detail. This work however was not completed due to problems with the weather.

The Shell Company of Australia became a Joint Venture partner in 1981 because of interest in the Cambrian volcanics within the licence area. Since then exploration has been directed towards investigation of the Cambrian Mt. Read Volcanics and adjacent parts of the Precambrian and Ordovician sequences. To this end a Dighem EM survey was flown in 1981 and several anomalies followed up on the ground in the 1981-82 field season. Further work was done on Dighem EM anomalies in the 1982-83 field season and also some work on the granite area.

6.1 Exploration by Alcoa of Australia

The reader is referred to four reports by Alcoa:-

Speijers, D.C., Oct. 1978 "Report on E.L. 2/78 Granite Tor Area, Tasmania". 78-1308

Speijers, D.C., Apr. 1979 "Report on Exploration of E.L. 2/78 Granite Tor, Tasmania during 1978-79 Field Season". 79-1349

Speijers, D.C., Oct. 1979. "Report on Exploration of E.L. 2/78 during Winter 1979". 79-1400

Speijers, D.C., Oct. 1980 "Report on Exploration of E.L. 2/78 during 1980". 80-1490

A aeromagnetic/radiometric survey and a stream sediment survey led to the establishment of two major grids.

The Bluff grid was established because of known tin mineralization in greisen veins, significant stream tin anomalies and the location of skarns following the aeromagnetic survey.

The Swallow grid was located because of anomalous Sn, W in streams, an aeromagnetic anomaly close to the granite contact, a zone of possible K alteration, the granite contact dips shallowly and sulphide rich hornfelsed sediments located.

The Shell Company of Australia thought these two areas had little potential left unexplored and did not do any more work on these areas after entering into a Joint Venture agreement with Alcoa.

6.2 Exploration by The Shell Company of Australia

A Dighem EM survey was carried out in the first season of operations. This was initially followed up by limited helicopter reconnaissance. Four groups of anomalies were chosen for follow up within the relinquished area.

A grid was established on the western margin of the granite to test the greisen possibilities of the area.

6.2.1 Brougham River Dighem Anomaly

6.2.1.1 Anomaly Description

This is a single point anomaly showing an inverted inphase response probably due to magnetite. It was observed at line 61/900.4. There is a slightly offset magnetic anomaly of 80 nT at line 6200/1884.0 and of somewhat lower magnitude at line 61/900.3. It trends approximately 070°.

The photogeological plan indicates Precambrian quartzites occur in this area with fluvio-glacial deposits in the Brougham River valley. Devonian granite is shown 800m to the south.

6.2.1.2 Location

The Dighem anomaly is located at AMG 5,381,540N 394,120E and the magnetic anomaly maximum some 200m west. The position of the grid which is known as Brougham River is shown on Fig. 1. Ground data profiles for the grid-lines are on drawings 040, 041, 042 and 054.

6.2.1.3 Access & Terrain

Access can only be gained by helicopter, a good landing site being available at an old campsite alongside the Brougham River. Inne's track, which was partially cleared in early 1980, passes 50 m east of the campsite.

Alcoa's Mt. Swallow gridlines also provide local access. The anomaly is located on the opposite side of the river from the campsite and is inaccessible in times of flood. The terrain is undulating and vegetation varies from open buttongrass to heavy ti-tree to thick horizontal scrub. The range in altitude over the grid is from 423 - 505 metres above sea level.

6.2.1.4 Gridding

Some 1.6 km of grid lines were cut and flagged. This included a short baseline (300E) bearing 328° magnetic and five crosslines as follows:

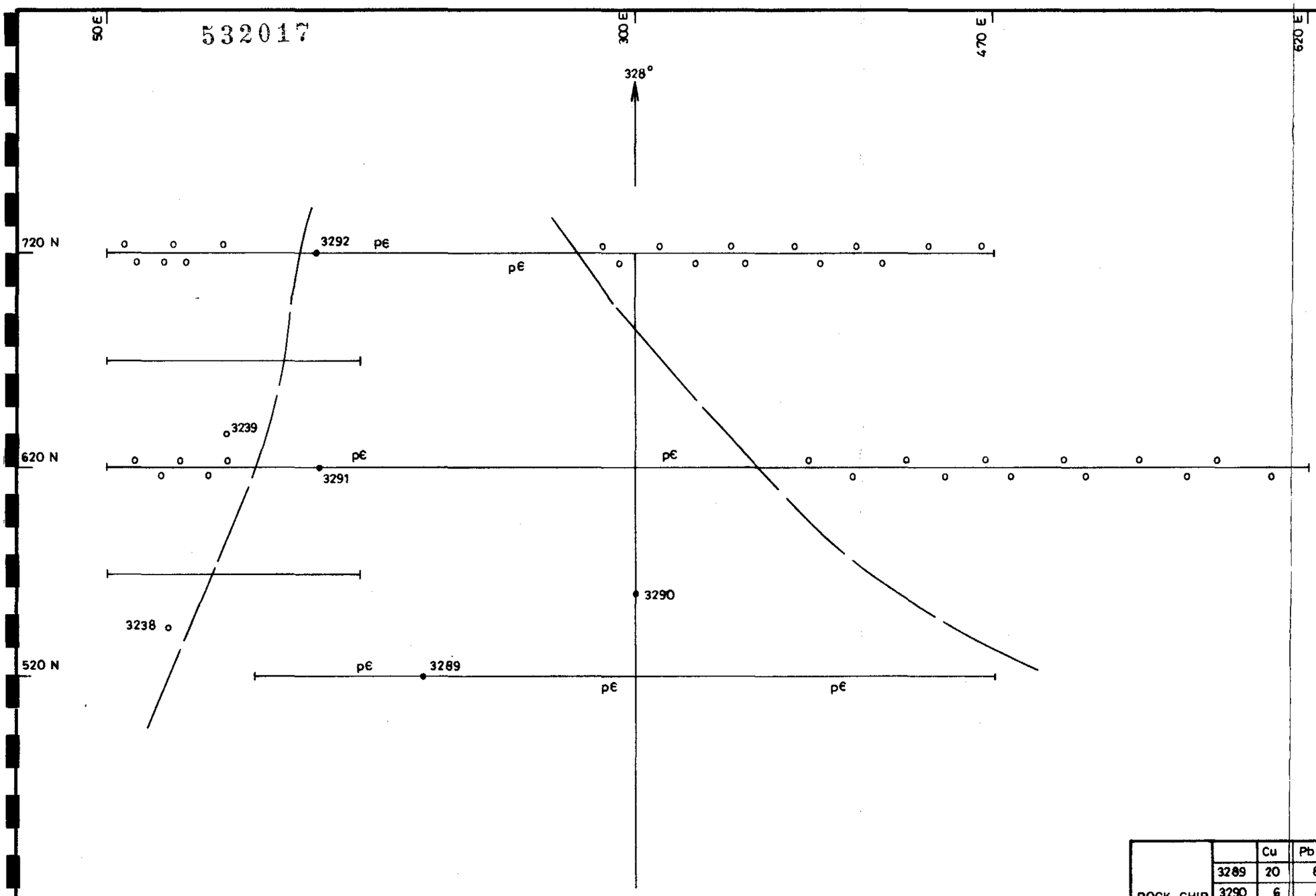
300E	520N	-	720N
520N	120N	-	470E
620N	50E	-	500E
720N	120E	-	470E
570N	50E	-	170E
670N	50E	-	170E

The latter two lines were added to check a soil geochemical anomaly.

6.2.1.5 Geology & Mineralization

Outcrop in the gridded area is poor but bedrock is usually within 0.5 m of surface. Precambrian grey-black phyllites occur throughout with little lithological variation. Possible hornfelsing occurs at 720N 150E. Fluvio-glacial deposits lap onto the western edge of the grid and form a veneer to the east. Mapping on the nearby Swallow Grid has shown that the Devonian granite to the south dips

532017



The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR BROUGHAM GRID GEOLOGY, ROCK CHIP AND STREAM SEDIMENT SAMPLING

016

SCALE	1:2000	DATE	25-7-83
AUTHOR	W.D.S.	DRAWN	J.L.L.
OFFICE	DEVONPORT	REP.No.	
DRG.No.	D/NP01/140	FIG.No	

0 50 100m

5 cm

LEGEND

- Fluvio glacials
- pε — Precambrian black phyllite

		Cu	Pb	Zn	Ni	Co	Fe	Mn	As	W	Sn	Ba	Mo
ROCK CHIP SAMPLES	3289	20	8	140	32	16			26	10	8	320	
	3290	6	4	70	20	6			20	15	4	240	
	3291	12	4	24	16	4			14	10	6	250	
	3292	12	4	48	8	6			32	10	8	220	
STREAM SED SAMPLES	3238	12	18	16	4	4	0·80	200	10	10	28	90	4
	3239	12	20	32	4	4	0·80	240	12	15	36	75	4

shallowly beneath the metasediments with attendant hornfelsing and some chloritization. Small granitic dykes and sparsely mineralized quartz veins cut the country rock. Some of the former appear to be associated with localized magnetic anomalies. In addition, some of the hornfelsed sediments are strongly pyritic.

6.2.1.6 Geophysics

VLF measurements were carried out on line 620N only. No significant anomaly was recorded although a vague dip angle crossover occurred where fluvioglacials lapped onto the phyllites, i.e. at about 350E.

Lines 300E, 520N, 620N and 720N were traversed by magnetometer. The results show a regional gradient rising to the northeast (grid). The airborne magnetic anomaly was not apparent on the ground.

6.2.1.7 Geochemistry

A total of 134 soil samples were taken. Initial sampling showed a minor single point Cu/Pb/Zn/As anomaly at 620N 120E. Additional sampling at five metre intervals showed only a very slight arsenic anomaly at this location but a narrow Zn/As anomaly on line 670N. (Refer Plan 054).

Four samples were taken of the metasediments. analysis showed them to have low levels of basemetals.

Two small streams draining the grid were sampled. Analyses showed then to have low levels of basemetals and slightly elevated tin contents. The latter is probably due to granitic glacial debris which was observed in the streams.

6.2.1.8 Conclusions & Recommendations

The Dighem anomaly was not located by the VLF EM system nor was the magnetic anomaly. It is probable that the magnetic anomaly is the same one investigated by Alcoa to the south-east during the 1979-80 season in which case the Dighem flight recovery is in error by some 500 metres. The minor soil geochemical anomalies have no real extent and in addition are not easily repeatable. They are probably related to small sulphide-bearing quartz veins or to glacial deposits.

6.2.2 Alexandra Hills Dighem Anomaly

6.2.2.1 Anomaly Description

This Dighem anomaly has a north-south strike length of greater than 400 metres and is open to the south where it is strongest. It shows on four lines, viz. line 110/2121.4 and line 111/2113.3 where it is a moderate and thick conductor and line 108/1522.4 and line 109/1514.3 where it is a poor conductor. It would appear to be at shallow depth or outcropping and it has an associated magnetic anomaly of 20 nT. Also included in the grid area is a minor single point anomaly at line 111/2113.1.

On the photogeological plan the anomaly overlies a deposit of fluvioglacials which is underlain by Precambrian metapelites and probably some quartzite. Devonian granite outcrops some 800 metres to the east and a major north-south shear zone may lie immediately to the west of the anomaly.

6.2.2.2 Location

The strongest part of the anomaly is located at AMG 5,375,100N 390,360E. The position of the grid which is known as Alexandra Hills is shown on Fig. 1. Ground data profiles for the gridlines are on drawings 030 to 035, 131.

6.2.2.3 Access & Terrain

Access is best gained by helicopter, landing sites being available within the gridded area. Alternatively foot access is available in dry weather from Lake Mackintosh by walking some two km along Sophia River and Granite Creek. The terrain over the gridded area is flat and swampy with buttongrass and ti-tree predominant. The altitude is approximately 250 metres above sea level.

6.2.2.4 Gridding

Some 2.8 km of grid lines were cut and flagged at 20 m intervals. This included a baseline (260W) bearing 348^{o} magnetic and five cross-lines as follows:

260W	200S	-	200N
200S	600W	-	260W
100S	500W	-	00W
00N	500W	-	00W
100N	400W	-	00W
200N	500W	-	00W

No slope corrections were required. The southern most line crosses Granite Creek several times.

6.2.2.5 Geology & Mineralization

Quaternary gravels and sands almost completely obscure outcrop within the grid area. These gravels are well exposed in the bank of Granite Creek at 200S 350W where they are greater than four metres thick. The gravels are most likely underlain by Precambrian phyllites, schists and minor quartzites, the closest outcrop to the Dighem anomaly being a grey phyllite at 00N 440W. Despite the paucity of outcrop, early prospectors have located pyrite-arsenopyrite (-bismuth ?) mineralization associated with quartz veining in black phyllites at 180S 590W. This has been tested by an adit driven at 167° for 28 metres. This lies southwest of the main Dighem anomaly but correlates well with the single point anomaly. Although a sample of the adit ore contained 1700 ppm bismuth, no bismuth minerals have been detected in polished section (see Appendix VII, sample 3297).

532022

600 W | 500 W | 260 W

3235
3247

3234
3246

348°

200 N

100 N

00 N

100 S

LEGEND

- o o — FLUVIOGLACIALS
- pЄ — PRECAMBRIAN PHYLLITES / SCHIST
- pЄq — PRECAMBRIAN QUARTZITES

5 cm

3230
3242

3231
3243

3232
3244

3285
3286
3297
3298
3299

21212

pЄ | pЄq

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
ALEXANDRA HILLS
GEOLOGY, ROCK CHIP AND STREAM SEDIMENT SAMPLING

021

SCALE 1:2000	DATE 22-7-83
~~AUTHOR W.D.S.~~	DRAWN J.L.L.
OFFICE DEVONPORT	REP.No.
DRG.No. D/NP01/139	FIG.No.

W 60 | W 8

0 50 100m

			Au	Cu	Pb	Zn	Ni	Co	Fe %	Mn	As	W	Sn	Ba	Mo	Ag
ROCK CHIP SAMPLES		3285		24	170	42	36	8			95	20	55	320		
		3286		70	180	4	90	750			16·4 %	<10	12	40		
		3297	0·03	75	270	2	95	700	13·0	<4	20·5%	30	4	<10	<4	8
		3298	<0·05	75	60	65	46	12	3·5	1400	420	15	22	25	16	<1
		3299	<0·05	75	410	44	80	<4	0·4	80	170	<10	34	115	12	<1
STREAM SED. SAMPLES	-80#	3230		30	8	8	<4	<4	0·25	90	<2	15	12	50	<4	
		3231		16	8	<2	<4	<4	0·20	24	2	<10	12	50	4	
		3232		8	6	<2	<4	<4	0·50	165	3	10	14	65	<4	
		3234		6	6	<2	<4	<4	0·30	135	3	10	16	45	<4	
		3235		8	<4	<2	<4	<4	0·20	48	2	<10	<4	60	<4	
	PANNED CONC.	3242		12	20	48	8	<4	1·35	1450	<2	105	360	70	<4	
		3243		36	14	22	4	<4	0·80	480	<2	70	650	20	6	
		3244		36	18	28	4	4	1·35	810	3	35	510	175	4	
		3246		10	20	42	4	<4	1·40	1150	4	40	110	80	<4	
		3247		18	<4	20	8	<4	0·65	410	3	20	12	55	<4	
		21212														

6.2.2.6 Geophysics

VLF measurements were carried out on all crosslines. Dip angle readings were quite noisy and there are no outstanding anomalies. A slight dip angle and field intensity anomaly at 100S 450W may correlate with a similar anomaly at 200S 590W passing close to the mineralized adit. A further isolated dip angle/field intensity anomaly occurs at 100N 120W.

All lines were traversed by magnetometer. A broad (approximately 200 metre north-south and east-west) low amplitude (70 nT) magnetic anomaly is centred on about 00N 240W. A calculation of depth to the top of the causative body gave 70 metres below surface. There are no real clues to its nature.

Max-min EM was done on lines 300N, 200N and 100N. A conductor was detected on the eastern ends of lines 100N and 200N. The eastern edge of the anomaly was not surveyed, therefore no information on the attitude of the body is available, but a shallow broad conductor would probably be reasonable, and would fit the VLF and Dighem results.

Assuming a dip of 30°, the anomaly yields a conductivity-thickness of 2-4, but possibly decreasing at low frequency (?). This suggests a reasonable to good conductor, but possibly just a surficial one (which would fit the button grass swamp covering the area).

A depth of 30 metres at 200N and 415 metres at 100N was obtained.

One line of gravity was done on line 100N. This gave a 0.2 mgal anomaly at 100N 120W (directly over the max-min conductor). This anomaly lies within a 0.6 mgal low, suggesting that a change in overburden thickness is cancelling a larger gravity anomaly.

The anomaly is quite narrow, consistent with the shallow interpretted depth of the conductor. However a 0.2 mgal anomaly is near the limits of detection and may be spurious.

6.2.2.7 Geochemistry

Since most of the grid area is underlain by compact fluvioglacial gravels, sampling was limited to some residual soils at the western end of line 200S (see drawing 034). Anomalous arsenic or bismuth values (not coincident) occur between 560W and 600W reflecting the mineralization in the adit.

Sample 3286 was from quartz-rich ore dumped at the adit entrance. It assayed 16.4% As, 1700 ppm Bi, 750 ppm Co and 180 ppm Pb, but had background levels of Cu, Zn and Sn. Also of interest is the 55 ppm Sn in sample 3285, a contorted graphitic schist with minor pyritic stringers which is the host rock to the mineralization. Other rock samples yielded no values of interest.

Eight stream sediment samples and corresponding pan concentrates were collected. The latter commonly contained fine black and coarser (1 mm) red translucent grains and most showed anomalous levels of tin and/or tungsten.

6.2.2.8 Conclusions & Recommendations

The Dighem anomaly was located by the ground EM. It appears to be a shallow flat lying feature with a poorly defined gravity anomaly associated. These features may be attributed to the fluvioglacials. The minor Bi/As mineralization is relatively common within the Precambrian phyllites in this area, and may be due to either Cambrian or Devonian igneous activity.

No further work is recommended on this grid.

6.2.3 Anomaly 11 : Murchison

6.2.3.1 Anomaly Description

This is a long linear north-northeast trending conductive zone with a strike length of greater than 2.3 km. It is open to both north and south. It exhibits conductances of up to 46 mhos (line 202/1102/6). Some fourteen flight lines cross the anomaly and these are numbered between lines 201 and 219. There is an associated magnetic anomaly of 300 nT on line 201, however, its intensity decreases along strike to the south. There is no strict

correlation between magnetics and the conductor over the southern half of the strike length.

The photogeological plan shows the anomaly to lie over interbedded Precambrian quartzites and metapelites close to their contact with a peripheral sedimentary unit of the Cambrian Mt. Read Volcanics.

6.2.3.2 Location

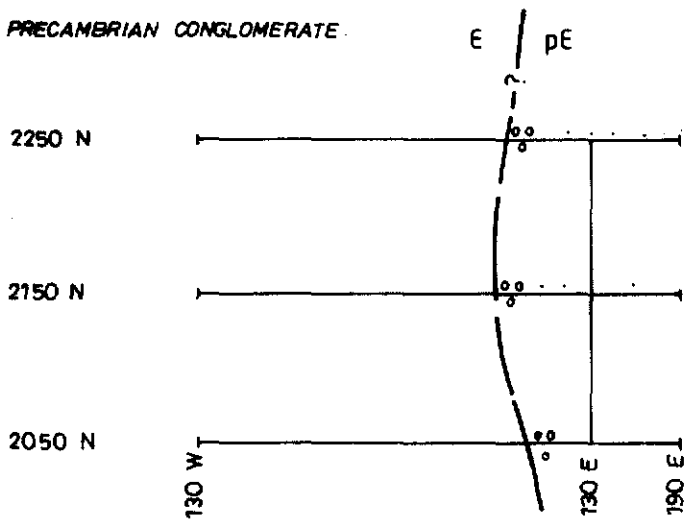
The strongest point on the anomaly is located at AMG 5,369,470N 389, 890E. The position of the grid which is known as Murchison is shown on Fig. 1. Ground data profiles of the grid-lines are on drawings 002, 003, 004 and 053.

6.2.3.3 Access & Terrain

Acces is best gained by helicopter with good landing sites available on the high quartzite ridge to the east of the anomaly. An excellent landing pad has recently been cleared by the HEC close to where the Dighem anomaly crosses the Murchison River. This river forms a major obstacle to examining the northernmost part of the anomaly as a boat is required for the crossing and no helicopter landing sites are available on the north side of the river. The terrain is very steep as the anomaly runs along a deeply cut creek. Vegetation ranges from ti-tree and bauera to horizontal scrub with some patches of more open rainforest. The ridges to the east and west of the anomaly are capped with buttongrass and ti-tree. The altitude range on the grid is from about 241 - 473 m above sea level.

LEGEND

- CAMBRIAN INTERMEDIATE INTRUSIVE.
- CAMBRIAN VOLCANICS.
- CAMBRIAN QUARTZITES.
- PRECAMBRIAN QUARTZITE.
- PRECAMBRIAN SCHISTS, PHYLLITES, SHALE.
- PRECAMBRIAN CONGLOMERATE.



SAMPLE No.		Cu	Pb	Zn	Ni	Co	As	W	Ba	Sn
ROCK CHIP SAMPLE	2501	18	4	18	8	6	14	< 10	560	6
	2502	30	4	26	8	< 4	10	< 10	600	< 4
	2503	16	8	24	18	4	10	10	570	8
	2504	12	4	32	10	< 4	6	< 10	580	12
	2505	20	12	22	< 4	< 4	36	< 10	550	6
	2506	24	4	38	6	4	26	10	480	4
	2507	12	24	50	< 4	< 4	18	10	620	6
	2508	12	12	36	< 4	6	20	10	490	4
	2509	10	16	24	< 4	< 4	14	10	540	6
	2510	24	16	38	8	< 4	16	10	310	6
	2511	10	12	32	< 4	< 4	18	< 10	530	6
	2512	12	8	34	< 4	< 4	14	10	430	6
	2513	20	4	50	20	< 4	16	10	670	8
	2514	4	60	340	< 4	6	2	< 10	1200	4
	2515	4	4	6	< 4	< 4	4	< 10	65	4
	2516	4	< 4	4	< 4	< 4	2	< 10	150	4
	2517	6	< 4	< 2	< 4	< 4	2	< 10	90	< 4
	2518	6	< 4	28	< 4	< 4	20	15	540	4
	2519	4	< 4	< 2	< 4	< 4	3	< 10	155	6
	2520	14	12	50	< 4	< 4	5	10	730	10
	2521	16	65	420	< 4	8	3	< 10	1050	< 4
STREAM SEDIMENT -80#	2573	12	< 4	12	< 4	< 4	2	10	100	4
	2574	4	< 4	6	< 4	< 4	2	10	40	4
	2575	16	4	16	8	< 4	2	10	185	4
	2576	14	< 4	70	4	< 4	2	15	55	4
	2577	16	< 4	12	12	< 4	4	< 10	105	6
	2578	14	18	16	4	< 4	12	10	195	4
	2579	8	< 4	6	6	< 4	< 2	10	75	4
	2580	16	8	12	8	< 4	4	< 10	160	4
	2581	6	6	4	< 4	< 4	6	< 10	155	8
	2582	12	6	16	< 4	< 4	7	< 10	300	6
	2583	8	6	8	4	< 4	8	< 10	150	6
	2584	6	4	4	< 4	< 4	2	< 10	80	< 4

532027

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR MURCHISON AND MURCHISON WEST ANOMALY GEOLOGY, ROCK CHIP AND STREAM SEDIMENT GEOCHEMISTRY

026

SCALE 1:5000	DATE 21 - 7 - 83
AUTHOR W.D.S.	DRAWN
OFFICE DEVONPORT	REP. No.
DRG. No. D/NP01/137	FIG. No

6.2.3.4 Gridding

Some 4.2 km of grid lines have been cut and flagged. This included a baseline (1000E) bearing 010° magnetic and five crosslines as follows:

1000E	1000N	-	2330N
1000N	60E	-	1000E
1640N	300E	-	1000E
2280N	600E	-	800E
2330N	300E	-	1000E
2380N	600E	-	800E

All crosslines cross a creek in a deeply cut ravine.

6.2.3.5 Geology & Mineralization

Most of the grid appears to lie on Precambrian quartzites, schists and phyllites, either as separate units or closely interbedded. Some quartz-pebble conglomerates occur but generally the more siliceous rocks are massive with no recognizable bedding. The schists and phyllites are generally grey or dark grey with occasional carbonaceous horizons. Quartz veining is common along the cleavage in the schists and occasionally minor iron sulphides are found in the veins. Some of the carbonaceous phyllites are themselves pyritic. In the southern bank of the Murchison River a zone of spongey iron-oxide approximately two metres wide occurs in carbonaceous phyllites. It appears to be due to seepage or weathering of disseminated sulphides rather than a massive sulphide gossan.

Cambrian Mt. Read Volcanics which unconformably overlie the Precambrian occur at the western end of line 1000N. They consist in the main of sheared acid porphyry cut by an intrusive dyke (?) of more intermediate material. The exact position of the unconformity is open to debate, however, it is likely that some quartzitic sediments occur in the Cambrian. Due to a paucity of outcrop much of the mapping has been inferred from examination of soil samples. On steep slopes scree probably obscures some of the geological boundaries.

6.2.3.6 Geophysics

The three major crosslines (i.e. 1000N, 1640N, 2330N) were covered by VLF measurements but the results are somewhat inconclusive. There appear to be weak anomalies at approximately 1000N 800E, 1640N 720E, 2330N 720E and possibly 1640N 420E. A correlation can possibly be made among the first three of these, although there appears to be little similarity in the geological context. An anomaly was expected over the carbonaceous rocks, however, none was observed.

A test traverse over part of line 2330N was made with the Scintrex SE-88 Genie system. This showed a very large anomaly between 610E and 750E with smaller sharper anomalies at 425E and 535E (positions to be confirmed). The large anomaly undoubtedly corresponds to the Dighem feature.

All lines were traversed by magnetometer. An anomaly of some 1300 nT was observed first on line 2330N and later on lines 2280N and 2380N. It would appear to be caused by two distinct west-dipping lenses with maximum widths of less than 15 metres. The iron-oxide zone in the banks of Murchison River is approximately along strike.

At 2330N 430E and 560E there are low broad anomalies which are probably due to slightly magnetic metasedimentary formations. At the western end of line 1000N as one crosses the probable position of the Cambrian boundary the magnetic field begins to decrease to the west which is probably the negative component of a large anomaly seen on the airborne magnetics.

6.2.3.7 Geochemistry

A total of 238 soil samples were collected. Two minor anomalies were detected initially on line 2330N and these were followed up by sampling at five metre intervals.

The following significant anomalies were noted on lines 2330N, 2280N and 2380N:

2280N/605-615E - moderate Fe/Cu(?) anomaly
2380N/610E - single point Fe/As/Cu/Pb(?) anomaly
2330N/425-435E - moderate basemetals with high Fe and peripheral gold values.
/665E - strong Fe anomaly with minor gold 15 metres west.
/720E - single point Cu/Zn/Ni/Fe/Mn anomaly.

The anomalies on line 233ON are all associated with magnetic anomalies, the correspondence being precise except for a 20 metre offset in the case of the feature at 720E. This anomaly however, coincides with a VLF EM anomaly.

On the other two lines the only feature noted were a minor lead anomaly at 1640N 930E and elevated Pb, Zn and Ba values associated with the intermediate intrusive in the Cambrian on line 1000N. No explanation can be offered for the former feature and the latter is not considered unusually high.

21 rock samples were taken including a series of chip samples of carbonaceous phyllite outcrops along the main creek. The only high values encountered were Pb, Zn and Ba in samples 2514 and 2521 which were both from the probable intermediate intrusive in the Cambrian.

12 stream sediment samples were taken. Sample 2576 which drained an area south of the grid carried anomalous zinc and sample 2578 carried very low level Pb/As which must have a source within the grid area.

6.2.3.8 Conclusions & Recommendations

The Dighem anomaly has been recovered by the Genie EM system and less convincingly by the VLF system. It is probably caused by carbonaceous phyllites. Two lenses of strongly magnetic material lie within the conductive zone and are associated with slightly anomalous

basemetals over a very restricted area. This can be considered only moderately prospective since the soils in this area are well developed and residual. The lenses are possibly iron-rich facies of the original sediments or they may be introduced magnetite-rich veins.

The magnetic/EM soil geochemistry anomaly at 2330N 430E may well have a similar source to the features above the peripheral gold values make it more prospective.

No further work is recommended on this anomaly.

6.2.4 Anomaly 12 : Murchison West Dighem Anomaly

6.2.4.1 Anomaly Description

This anomaly is an isolated single point coaxial inphase feature to the west of the main Murchison anomaly. No associated magnetic feature was observed.

The photogeological plan shows that the anomaly lies in the Cambrian about 200 metres west of the Cambrian-Precambrian unconformity. It is near the contact between a "Darwin-type" rhyolite and a peripheral sedimentary unit.

6.2.4.2 Location

The anomaly is located at AMG 5,369,460N 389,340E. The position of the grid which is known as Murchison is shown on Fig. 1. Ground data profiles of the gridlines are on Drawings 025, 026 and 027.

6.2.4.3 Access & Terrain

The only access to this area is by helicopter to a rough pad on the grid baseline or to an excellent pad to the east near the river. From the latter place a considerable amount of uphill bushbashing is required. The gridlines traverse a steep cliff and the grid covers an altitude range from 287 to 440 metres above sea level. Vegetation on the high ground is mainly thick ti-tree changing to bauera on the steep slopes and horizontal scrub in the lower areas.

6.2.4.4 Gridding

Some 1160 metres of gridlines have been cut and flagged. This included a baseline (130E) bearing 020° magnetic and three crosslines as follows:

130E	2050N	-	2250N
2050N	130W	-	190E
2150N	130W	-	190E
2250N	130W	-	190E

The lower part of line 2150N is best reached via line 2050N.

6.2.4.5 Geology & Mineralization

The eastern part of the grid appears to be in Precambrian massive quartzites. As one moves west to the cliff-line, well silicified quartzites and siliceous conglomerates are encountered. On the cliff face itself there

is evidence of shearing, fine NNE-trending quartz veining and slight brecciation. There is no outcrop west of the cliff as there is a thick overburden of quartzite scree. No mineralization was observed. The cliff may represent a faulted boundary between Cambrian and Precambrian.

6.2.4.6 Geophysics

VLF measurements were taken on the three crosslines but no anomalies were detected. The readings were in fact remarkably uniform.

The three crosslines were traversed by magnetometer. Two features were observed on all three lines. Firstly, a large anomaly was beginning to appear at the far western edge of the grid. This would be in excess of 500 nT and probably represents one of the Cambrian volcanic units. Secondly a small anomaly averaging 25 nT appears at around 70E. This gives the impression of being a contact rather than a specific magnetic formation. It possibly represents the buried Cambrian-Precambrian boundary.

6.2.4.7 Geochemistry

A total of 49 soil samples were taken, but no significant anomalies were detected.

No rock samples were taken.

No stream sediment samples were taken.

6.2.4.8 Conclusions & Recommendations

The Dighem anomaly has not been recovered on the ground and there is nothing to indicate any possibility of mineralization.

No further work is recommended on this grid.

6.2.5 Anomaly 10 : Victoria Peak Dighem Anomaly

6.2.5.1 Anomaly Description

This single point Dighem anomaly is a moderate conductor with conductance about 5 mhos. Its source appears to have an easterly dip and lies at a depth of about 20 metres. It is located at line 201/1089.0. There is an associated 60 nT magnetic anomaly.

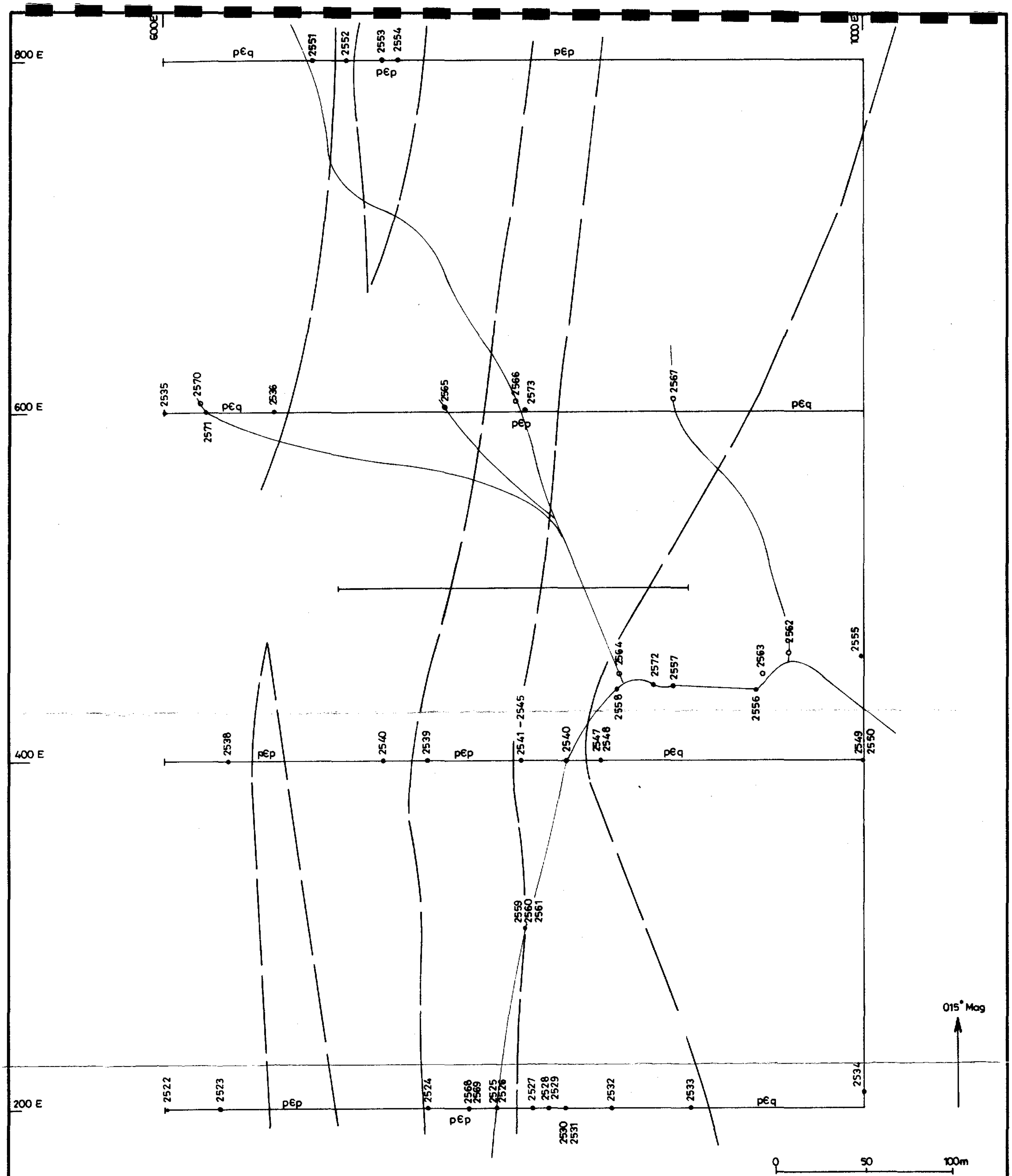
The photogeological plan shows the anomaly to lie at the boundary between Precambrian quartzite and pelite units about 1 km east of the Cambrian/ Precambrian unconformity.

6.2.5.2 Location

The anomaly is located at AMG 5,369,760N 391,000E. The position of the grid which is known as Victoria Peak is shown on Fig. 1. Ground data profiles of the gridlines are on drawings 005, 006, 008, 051 and 052.

6.2.5.3 Access & Terrain

The only access to this area is by helicopter to a pad sited near the grid baseline. The two southern grid lines cross a deep ravine and a climbing rope



LEGEND

pЄp *Precambrian Phyllite*

pЄq *Precambrian Quartzite*

532036

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR 035
VICTORIA PEAK : DIGHEM ANOMALY
GEOLOGY, ROCK CHIP AND
STREAM SEDIMENT SAMPLING

SCALE	1: 2000	DATE	25-7-83
AUTHOR	W.D.S.	DRAWN	J.L.L.
OFFICE	DEVONPORT	REP.No.	
DRG.No.	D/NP01/138	FIG.No.	

is needed to traverse line 200N. Most of the grid is inaccessible after heavy rain. Vegetation consists of buttongrass, ti-tree and bauera over the quartzites on the eastern side of the grid changing quickly to horizontal scrub and rainforest as one moves west. The altitude range on the grid is from 294 - 445 metres above sea level.

6.2.5.4 Gridding

Some 2.5 km of grid lines have been cut and flagged. This included a baseline (1000E) bearing 015° magnetic and five crosslines as follows:

1000E	200N	-	800N
200N	600E	-	1000E
400N	600E	-	1000E
500N	700E	-	900E
600N	600E	-	1000E
800N	600E	-	1000E

Line 200N and 400N cross a major creek in a deep ravine and line 1000E crosses the same creek further upstream.

6.2.5.5 Geology & Mineralization

The lithologies encountered here are similar to those on the Murchison grid, although the two areas are not on strike and are part of separate metapelite belts. On the airphoto there appears to be a major fracture trending north-northeast along the ravine described above.

Massive quartzites and quartz-sericite schists outcrop in the south-eastern corner of the grid but across the creek to the north the rocks are

covered by a veneer of glacial debris. To the west of these quartzites is a sequence of pelitic schists typically carrying some carbonaceous material. They include carbonaceous phyllite, dark grey schists, carbonaceous quartzite and laminated schists. The lithologies gradually become more siliceous as one moves west with quartzites and quartz-sericite schists on the western edge of the grid. Iron staining and pyrite mineralization were observed at several locations in the carbonaceous phyllites and dark grey schists. Several seepage zones heavily stained by iron-oxide occur in the areas of pelitic rocks.

6.2.5.6 Geophysics

VLF measurements were taken on all lines. A dip angle anomaly was encountered on all crosslines except 800N where is appears to have closed off. It is also weakening on line 200N. The maximum is at 600N 750E where a field intensity anomaly was also observed.

All lines were traversed by magnetometer. Two parallel trending magnetic anomalies were observed. The smaller is located at 200N 790E and 400N 820E and reaches a maximum 200 nT. The larger is at 400N 770E, 500N 770E and 600N 790E and reaches a maximum 750 nT. This would appear to be due to a near vertical body somewhat less than 10 metres wide. The magnetic anomalies are closely though not exactly associated with the VLF features mentioned above.

6.2.5.7 Geochemistry

A total of 248 soil samples have been collected on this grid. Initial sampling was at 20 metre intervals with follow-up work at five metre intervals. Many small basemetal anomalies show up in the close-spaced sampling and these may simply reflect the observed rapid changes in lithology amongst the pelitic rocks. The combination Cu/Zn/Fe/Ni occurs repeatedly and almost certainly represents a specific lithology. There are three anomalies which show some promise in terms of mineralization: These are at 200N 795E, a Cu/Pb/Zn/As/Fe/Mn/Ba/Au? anomaly which is also coincident with magnetic and VLF anomalies, at 400N 720E, a Cu/Pb/Zn/As/Fe/Mn/Ni anomaly close to a VLF anomaly and at 400N 830E, a Cu/Pb/Zn/Fe/Ni anomaly associated with what is probably the same magnetic feature as at 200N 795E.

A total of 36 rock samples were taken in the area (see Table 1, samples 2522 to 2567). In addition four iron-rich clayey sludge samples were taken from seepages (samples 2568, 2569, 2571, 2572). Samples 2568 and 2569 contained anomalous lead and arsenic, while sample 2571 contained anomalous arsenic only. Sample 2568 came from 200N 785E. None of the rock samples had high basemetal levels.

Seven stream sediment samples were taken in the area (see Table 1, samples 2562 to 2570). There were no obvious geochemical anomalies amongst these.

[redacted] 039

TABLE 1

532040

Area Grid	Sample No.	AMG Co-ords	Cu	Pb	Zn	Ni	Co	Bi	Fe	Mn	As	W	Ba	Sn
[redacted]	2522	69750 89620	4	4	4	< 4	< 4	< 4			< 2	<10	80	4
VP	2523	69740 89650	10	16	18	< 4	< 4	< 4			7	<10	550	< 4
[redacted]	2524	69690 89760	32	12	8	< 4	< 4	6			44	<10	270	10
VP	2525	69670 89790	6	20	65	18	8	< 4			20	10	85	< 4
[redacted]														
VP	2526	69670 89790	8	4	18	< 4	< 4	< 4			30	<10	35	4
[redacted]	2527	69670 89800	8	8	8	< 4	< 4	< 4			2	<10	120	< 4
[redacted]	2528	69660 89820	30	28	20	4	< 4	< 4			24	<10	460	6
[redacted]	2529	69660 89820	6	4	4	< 4	< 4	< 4			3	10	250	4
[redacted]	2530	69650 89820	4	< 4	2	< 4	< 4	< 4			2	10	470	8
VP	2531	69650 89820	6	< 4	4	< 4	< 4	< 4			2	10	610	4
[redacted]	2532	69640 89850	6	4	2	< 4	< 4	< 4			< 2	<10	105	< 4
[redacted]	2533	69620 89890	6	< 4	< 2	< 4	< 4	< 4			2	<10	35	< 4
VP	2534	69590 89990	6	4	< 2	< 4	< 4	< 4			2	<10	15	< 4
[redacted]	2535	70110 89800	6	4	2	< 4	< 4	< 4			2	10	250	< 4
[redacted]	2536	70090 89850	6	< 4	2	< 4	< 4	< 4			< 2	<10	135	4
[redacted]	2537	70020 89980	6	< 4	< 2	< 4	< 4	< 4			2	10	10	< 4
[redacted]	2538	69920 89750	6	< 4	2	< 4	< 4	< 4			< 2	<10	260	< 4
VP	2539	69870 89840	8	4	4	< 4	< 4	< 4			20	<10	320	< 4
[redacted]	2540	69880 89830	16	20	20	10	< 4	< 4			42	10	510	8
VP	2541	69840 89890	6	4	6	< 4	< 4	< 4			4	<10	320	6
[redacted]	2542	69840 89890	8	12	6	< 4	4	< 4			14	<10	25	8
VP	2543	69840 89890	8	4	8	< 4	< 4	< 4			4	<10	50	< 4
[redacted]	2544	69840 89890	12	4	12	< 4	< 4	< 4			5	<10	90	< 4
VP	2545	69840 89890	22	8	48	< 4	4	< 4			50	10	500	10
[redacted]	2546	69830 89910	8	< 4	14	< 4	< 4	< 4			3	10	65	4
[redacted]	2547	69820 89930	6	< 4	4	< 4	< 4	< 4			< 2	<10	280	6
VP	2548	69820 89930	4	< 4	< 2	< 4	< 4	< 4			< 2	<10	15	< 4
[redacted]	2549	69760 90070	6	< 4	14	< 4	< 4	< 4			7	<10	520	8
VP	2550	69760 90070	6	4	10	< 4	< 4	< 4			9	<10	220	< 4
[redacted]	2551	70260 89970	8	< 4	< 2	< 4	< 4	< 4			< 2	<10	85	< 4
VP	2552	70250 89980	6	< 4	22	< 4	< 4	< 4			10	10	770	< 4
[redacted]	2553	70250 90000	4	< 4	14	< 4	< 4	< 4			10	15	860	6
VP	2554	70240 90010	4	< 4	14	4	< 4	< 4			5	<10	570	6
[redacted]	2555	69810 90100	4	4	< 2	< 4	< 4	< 4			< 2	<10	20	4
[redacted]	2556	69820 90030	10	8	22	< 4	< 4	< 4			6	<10	200	< 4
[redacted]	2557	69840 89990	8	< 4	14	< 4	< 4	< 4			6	<10	180	< 4

040

TABLE 1

532041

Area or Grid	Sample No.	AMG Co-ords	Cu	Pb	Zn	Ni	Co	Bi	Fe	Mn	As	W	Ba	Sn
VP	2558	69850 89950	12	16	10	<4	<4	<4			22	<10	420	<4
VP	2559	69760 89830	24	4	4	<4	<4	<4			12	<10	310	6
VP	2560	69760 89830	6	4	6	<4	<4	<4			4	<10	125	4
VP	2561	69760 89830	32	4	18	<4	6	<4			14	<10	165	<4
VP	2568	69680 89770	22	90	30	<4	8	<4			380	<10	190	
VP	2569	69680 89770	24	85	32	<4	16	<4			280	<10	145	
VP	2571	70100 89820	16	8	50	<4	36	<4			195	<10	95	
VP	2572	69850 89970	14	8	42	<4	8	<4			36	<10	370	
			Cu	Pb	Zn	Ni	Co	Mo	Fe	Mn	As	W	Ba	Sn
Stream Sediment -80#	2562		2	<4	<4	4	<4	6	0.18	24	3	<10	25	<4
	2563		6	<4	6	<4	<4	6	0.14	16	3	<10	15	6
	2564		4	<4	4	<4	<4	8	0.11	30	4	10	55	4
	2565		8	<4	6	<4	<4	8	0.18	18	2	<10	45	<4
	2566		6	<4	6	<4	<4	10	0.55	75	9	10	130	4
	2567		4	<4	6	<4	<4	10	0.18	60	2	10	30	6
	2570		6	<4	8	4	<4	6	0.49	12	6	10	135	6

6.2.5.8 Conclusions & Recommendations

The Dighem anomaly has been recovered on the ground using VLF measurements. Its source would seem to be one of two possibilities, i.e. either graphitic horizons in the more pelitic rocks or an accumulation of magnetic minerals along a fault or fracture. The airborne magnetic anomaly has also been recovered on the ground and has been resolved into two narrow parallel anomalies of limited strike extent whose source is also unknown. There are iron-rich seepages close to the magnetic/VLF anomaly which contain interesting values of lead and arsenic. Three moderate soil sample anomalies also lie along this zone. Despite this, the levels of basemetals are generally of a low order and erratic, and the area cannot be considered highly prospective.

No further work is recommended on this anomaly.

6.2.6 High Tor

6.2.6.1 Location

The area is located on the western side of the major Granite Tor Batholith. (Refer Plan D/NP 01/011).

6.2.6.2 Access & Terrain

Access is by helicopter to the High Tor camp near the baseline or by walking from Lake Mackintosh. Altitude on the grid ranges from approximately 300 m to approximately 800 m.

6.2.6.3 Gridding

Some 11,735 m of grid line has been cut and flagged. This includes a base line 00E (irregular 4.2 km) and six crosslines as follows:

4200N	300E	-	1500E
3650N	200E	-	1200E
3050N	300W	-	1500E
2550N	535W	-	600E
2050N	600W	-	1300E
1550N	600W	-	600E

6.2.6.4 Geology & Mineralization

The grid covers approximately 3 km of the granite/sediment contact on the western margin of Granite Tor Batholith. The grid was located to cover a possible sheared margin with a radiometric and vegetation anomaly. Alcoa stream sediment sampling had located a number of anomalous stream sediment anomalies in the area.

Porphyritic granite was located on the grid and a shallow dip to the west inferred. Some minor quartz-muscovite veining with minor tourmaline has been located. The granite is intruded into Precambrian quartzites and phyllites. (Refer Plan D/NP 02/11).

6.2.6.5 Geochemistry

Soil sampling was undertaken over all the grid at 50 m spacings. Results are generally low. The highest value for Sn is 46 ppm at 3050N 1350E in granite. One anomalous value of 110 ppm W was located at 00E 2100N and a value of 440 ppm Pb

TABLE 2

Results in ppm

SAMPLE	Sn	V	Mo	Ba	As
8801	<4	<10	4	520	10
8802	18	<10	10	40	<2
8803	10	10	6	650	8
8804	<4	<10	12	570	2
8805	16	10	16	70	<2
8806	20	10	6	670	3
8807	4	<10	<4	650	42
8808	<4	<10	20	15	<2
8809	10	10	10	470	4
8810	18	10	8	25	2
8811	8	10	10	130	2
8812	14	<10	18	80	<2
8813	20	10	14	45	<2
8814	28	15	8	55	4
8815	10	<10	16	30	<2
8816	8	<10	4	470	5
8817	12	30	8	60	<2
8818	16	30	6	70	<2
8819	10	<10	6	510	2
8820	18	30	20	15	<2
8821	14	10	12	20	<2
8822	38	20	8	10	<2
8823	28	220	16	<10	<2
8824	14	<10	4	610	<2
8825	6	10	8	530	<2

Results in ppm

SAMPLE	Sn	V	Mo	Ba	As
8826	22	20	10	<10	<2
8827	18	15	18	20	<2
8828	12	10	6	610	10
8829	8	10	10	590	7
8830	26	15	8	25	<2
8831	20	25	14	35	<2
8832	16	15	16	25	<2
8833	10	<10	12	<10	<2
8834	8	<10	18	30	<2

Method of Analysis : Sn V Mo Ba As : XRF1

Results in ppm

SAMPLE	Cu	Pb	Zn	Bi
8801	14	6	20	<4
8802	26	<4	4	10
8803	12	<4	18	<4
8804	8	6	24	8
8805	8	<4	4	20
8806	8	44	10	<4
8807	12	<4	44	<4
8808	6	<4	<2	<4
8809	10	<4	38	<4
8810	12	6	8	14
8811	8	<4	14	6
8812	10	<4	12	<4
8813	8	<4	8	<4
8814	36	90	10	6
8815	6	6	14	<4
8816	4	10	22	<4
8817	14	<4	8	4
8818	10	6	8	<4
8819	16	22	28	4
8820	8	<4	28	34
8821	12	<4	28	44
8822	8	<4	2	20
8823	10	<4	2	150
8824	20	<4	32	<4
8825	12	<4	50	<4

046

532047

Results in ppm

SAMPLE	Cu	Pb	Zn	Bi
8826	10	<4	8	4
8827	8	<4	6	8
8828	14	1400	70	<4
8829	10	<4	30	<4
8830	6	<4	6	<4
8831	8	<4	10	<4
8832	4	<4	<2	<4
8833	4	<4	<2	<4
8834	6	<4	6	<4

Method of Analysis : Cu Pb Zn Bi : AAS1

was located at 3650N 750E. (Refer Profiles D/NP 02/01-10.

Rock chip sampling located one anomalous tungsten value of 220 ppm at 4280N 900E in granite and one anomalous Pb value (1400 ppm Pb) in sediments at 3650N 1015E. (Refer Plan D/NP 02/12). (Table 2)

Stream sediment sampling (-80#) located two anomalous values of 55 ppm Sn and 60 ppm Sn at 2050N 1275E and 4200N 800E respectively. (Refer Plan D/NP 02/12).

6.2.6.6 Geophysics

Ground magnetics was done on lines 3650N and 1550N. The profiles (Refer Plan D/NP 02/09, 03) are flat.

6.2.6.7 Conclusions & Recommendations

No widespread zones of greisenization or alteration were noted. No major geochemically anomalous zones were located. A greisen target would be expected to give quite a wide spread geochemical halo, with noticeable alteration of the granite. No such anomalies were found.

It is recommended that no further work be done on the grid.

7.0 CONCLUSIONS & RECOMMENDATIONS

7.1 Alcoa Exploration

Refer to previous reports listed in 6.1.

7.2 Dighem Anomalies

Five anomalies were investigated within the area relinquished. Three of the anomalies were located on the ground by the methods used however two were not. These two were surveyed using a VLF-EM system which has limited depth penetration.

All anomalies are located within the Precambrian (possibly excepting Murchison West) and probably associated with black carbonaceous/pyritic shales/phyllites.

Minor Pb, Zn, As, Bi, Co mineralization or anomalism occurs on four of these anomalies. This appears to be common throughout the Precambrian phyllites from the Murchison anomaly upto Mt. Remus.

The Sn/W stream sediment anomalies are assumed to be due to fluvioglacials from Granite Tor.

No further work is recommended on these anomalies.

7.3 High Tor

This reconnaissance grid was to check for possible greisen mineralization. None was reported and all values from the soil sampling are very low.

No further work is recommended in this area.

532050

GRID LINE PROFILES

D/NP 01/040 · Brougham River - Line 720N
D/NP 01/041 · Brougham River - Line 620N
D/NP 01/042 · Brougham River - Line 520N
D/NP 01/054 · Brougham River - Lines 570N, 670N, 620N
D/NP 01/030 · Alexandra Hills - Line 200N
D/NP 01/032 · Alexandra Hills - Line 000N
D/NP 01/033 · Alexandra Hills - Line 100S
D/NP 01/034 · Alexandra Hills - Line 200S
D/NP 01/035 · Alexandra Hills - Baseline 260W
D/NP 01/131 · Alexandra Hills - Line 100N, 400W - 00
D/NP 01/002A Murchison - Line 2330N A - Anomaly I. B Anomaly II.
D/NP 01/003 · Murchison - Line 1000N
D/NP 01/004 · Murchison - Line 1640N
D/NP 01/053 · Murchison - Lines 2280N, 2380N
D/NP 01/025 · Murchison West - Line 2250N
D/NP 01/026 · Murchison West - Line 2150N
D/NP 01/027 · Murchison West - Line 2050N
D/NP 01/005 · Victoria Peak - Lines 200N, 400N
D/NP 01/006 · Victoria Peak - Lines 600N, 800N
D/NP 01/008 · Victoria Peak - Baseline 1000E
D/NP 01/051 · Victoria Peak - Line 500N
D/NP 01/052 · Victoria Peak - Lines 200N, 400N, 600N
D/NP 02/01 · High Tor - Baseline (700N - 1900N) Soil sample results
D/NP 02/02 · High Tor - Baseline (1900N - 3000N) Soil sample results
D/NP 02/03 · High Tor - Line 1550N (600W - 600E) Soil sample results
D/NP 02/04 · High Tor - Line 2050N (600W - 600E) Soil sample results
D/NP 02/05 · High Tor - Line 2050N (600E - 1300E) Soil sample results
D/NP 02/06 · High Tor - Line 2550N (600W - 600E) Soil sample results
D/NP 02/07 · High Tor - Line 3050N (300W - 700E) Soil sample results
D/NP 02/08 · High Tor - Line 2050N (700E - 1500E) Soil sample results
D/NP 02/09 · High Tor - Line 3650N (200E - 1200E) Soil sample results
D/NP 02/10 · High Tor - Line 4200N (300E - 1500E) Soil sample results

D/NP 02/11 ·
D/NP 02/12 ·

	120 E	220 E	320 E	420 E	470 E

62 500 nT

Total Magnetic Intensity

N.B
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack

62 000 nT

V.L.F.

RELATIVE FIELD INTENSITY

N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

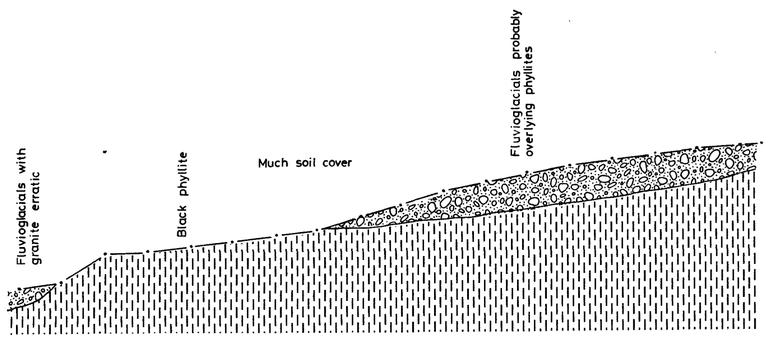
DIP ANGLE

Topography & Geology

(Metres A.S.L.)

500
480
460
440
420
400

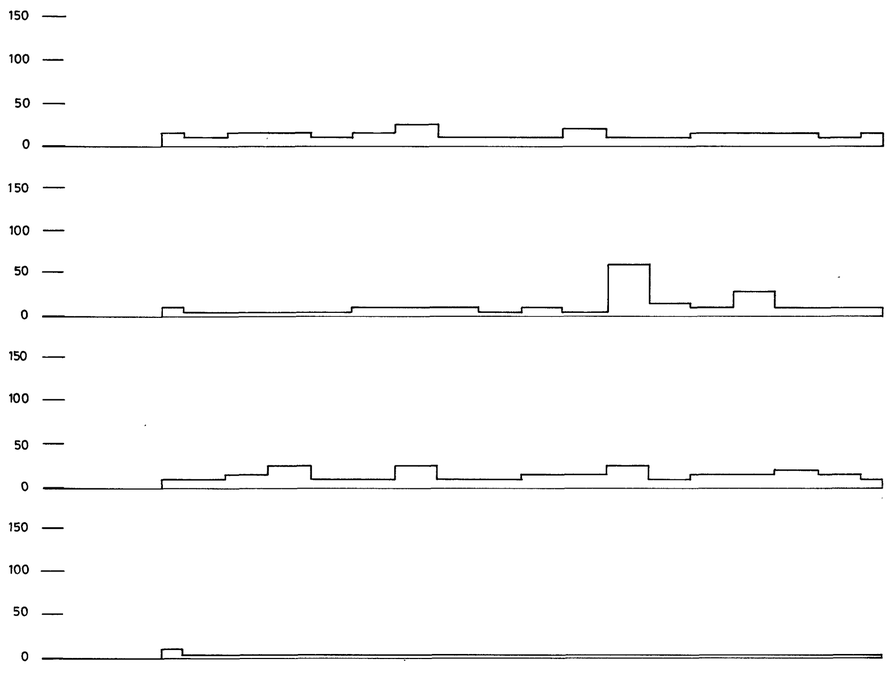
N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples
3) Outcrop (ok) and subcrop (sc) indicated where present.



Soil Sample No's & Depths (m)

3434	3435	3436 (0.3)	3437	3438 (0.3)	3439	3440	3441	3442	3443	3444	3445	3446	3447	3448	3449	3450	3451

Soil Sampling Results



BARIUM (ppm)	75	270	85	240	280	175	145	240	220	270	200	240	260	160	340	260	210	95
TUNGSTEN (ppm)	10	10	10	10	<10	15	<10	10	10	<10	15	10	<10	15	15	10	10	15
NICKEL (ppm)	12	14	4	4	6	6	10	4	<4	12	4	10	14	6	12	8	6	10
COBALT (ppm)	4	<4	6	6	4	4	4	4	<4	4	4	4	<4	<4	4	6	6	6
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

The Shell Company of Australia Limited METALS DIVISION	
E.L. 2/78 GRANITE TOR BROUGHAM RIVER: ANOMALY 6 LINE 720N 120E–470E	1539
Scale 1 2000 Horizontal	
FIG. No.	REPORT No
ENCL. No.	DRG. No. D/NP01/040
DATE 18–1–82	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT.

40 30 20 10 0 10 50 100M

5 cm

532051

83-2026

1539

The Shell Company of Australia Limited	
METALS DIVISION	
E.L. 2/78 GRANITE TOR	
BROUGHAM RIVER: ANOMALY 6	
LINE 620 N	
50E— 500E	1540
Scale 1 2000 Horizontal	
FIG. No	REPORT No.
ENCL No	DRG No D/NP01/041
DATE 19-1-82	AUTHOR D SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT

532052

83-2020

50 E 150 E 250 E 350 E 450 E 500 E

100M 50 0 10 20 30 40 50

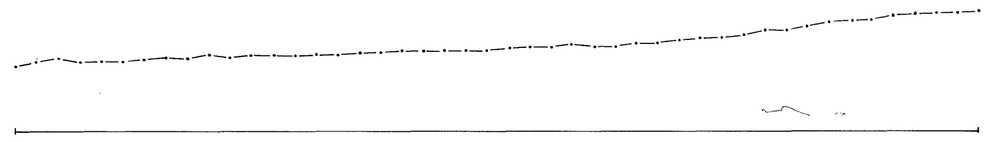
5 cm

Total Magnetic Intensity

N.B
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack

62500 nT

62000 nT

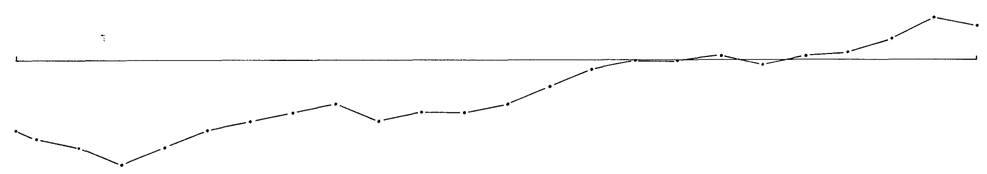


V.L.F.

RELATIVE FIELD INTENSITY

250 %
200 %
150 %
100 %

N.B
READINGS TAKEN USING N.W CAPE TRANSMITTER.



V.L.F.

DIP ANGLE

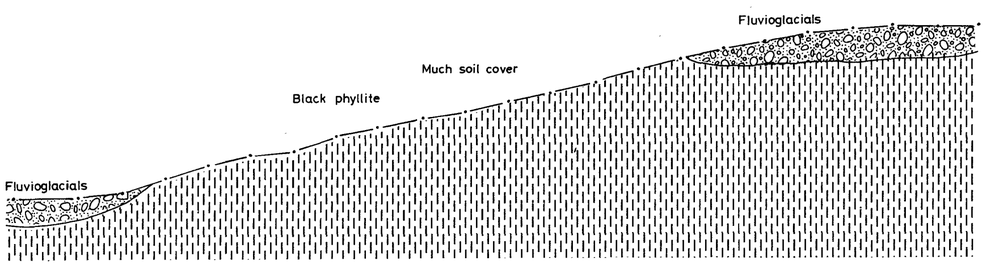
+5°
0
-5°
-10°

Topography & Geology

(Metres A.S.L.)

500
480
460
440
420
400

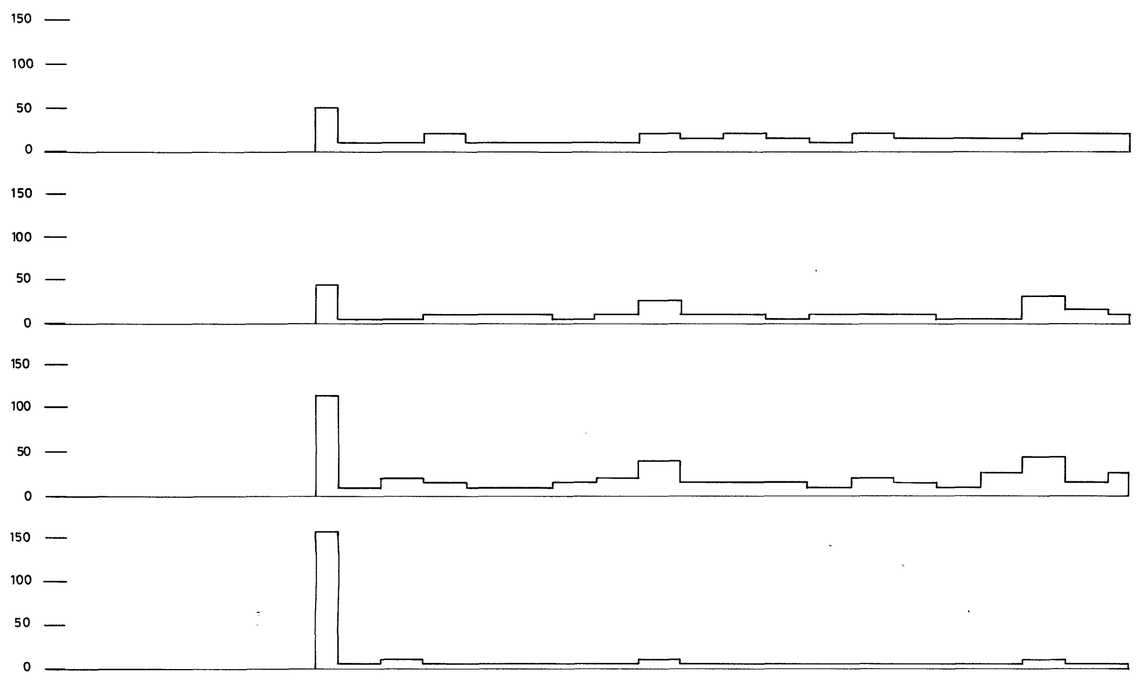
N.B
1) Topography by Topolite and clinometer
2) Geology from outcrop and examination of soil samples.
3) Outcrop (oc) and subcrop (sc) indicated where present.



Soil Sample No's & Depths (m)

3452	3453 (0.4)	3454 (0.4)	3455 (0.2)	3456 (0.3)	3457 (0.3)	3458 (0.5)	3459 (0.3)	3460 (0.6)	3461 (0.3)	3462 (0.3)	3463 (0.2)	3464	3465 (0.6)	3466 (0.3)	3467 (0.3)	3468 (0.6)	3469 (1.0)	3470 (0.5)	3471 (0.6)

Soil Sampling Results



BARIUM (ppm)	260	280	170	220	210	210	175	210	320	300	380	310	195	180	320	60	370	420	210	300
TUNGSTEN (ppm)	15	15	<10	<10	15	20	10	<10	<10	10	15	10	10	10	10	10	<10	10	10	<10
NICKEL (ppm)	28	14	12	10	8	14	6	10	8	14	16	10	8	18	20	14	18	12	16	20
COBALT (ppm)	8	4	4	<4	<4	4	4	<4	<4	6	4	4	6	4	<4	<4	4	<4	4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

120 E | 220 E | 320 E | 420 E | 470 E

520 N | 620 N | 720 N

100M 50 0 10 20 30 40 50

LINE 520 N

LINE 300 E

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
BROUGHAM RIVER : ANOMALY 6
LINE 520 N : 120E – 470E
LINE 300 E : 520N – 720N 1541

Scale 1 2000 Horizontal

FIG. No.	REPORT No.
ENCL No.	DRG. No. D/NP01/042
DATE 19-1-82	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT.

532053

5 cm

83-2020

Total Magnetic Intensity

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

62500 nT

62000 nT

V.L.F.

RELATIVE FIELD INTENSITY

N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

DIP ANGLE

Topography & Geology

(Metres A.S.L.) 500 480 460 440 420

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples
3) Outcrop (otc) and subcrop (s'c) indicated where present.

Much soil cover

Grey – Black phyllite

phyllites
soil covered

Soil Sample No's & Depths (m)

3416 (0.3) | 3417 | 3418 | 3419 | 3420 (0.2) | 3421 (0.3) | 3422 (0.3) | 3423 | 3424 (0.3) | 3425 (0.3) | 3426 (0.8) | 3427 (0.3) | 3428 (0.3) | 3429 (0.7) | 3430 (0.5) | 3431 (0.5) | 3432 (0.6) | 3433

3401 (1.0) | 3402 | 3403 | 3404 | 3405 (0.5) | 3406 (0.2) | 3407 (0.2) | 3408 (0.2)

Soil Sampling Results

COPPER (ppm) — 150 100 50 0

LEAD (ppm) — 150 100 50 0

ZINC (ppm) — 150 100 50 0

ARSENIC (ppm) — 150 100 50 0

BARIUM (ppm)	230	240	200	210	350	180	400	350	330	370	350	100	165	170	260	270	250	300
TUNGSTEN (ppm)	10	10	10	10	10	10	<10	10	<10	<10	10	<10	10	10	<10	10	15	15
NICKEL (ppm)	12	8	6	6	12	<4	6	8	8	10	10	8	<4	12	12	10	22	14
COBALT (ppm)	4	<4	4	<4	6	4	4	6	4	6	6	6	<4	4	<4	6	6	4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

BARIUM (ppm)	420	300	210	240	260	310	270	135
TUNGSTEN (ppm)	10	10	10	15	15	15	10	<10
NICKEL (ppm)	22	14	55	10	12	10	10	16
COBALT (ppm)	8	4	10	4	6	<4	4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4

50 E 100 E 170E

50 E 100E 170E

100M 0 10 20 30 40 50

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
BROUGHAM RIVER ANOMALY 6
LINES 570, 670 & 620 N
50E — 170E

1542

Scale : 1: 2000 Horizontal

FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/054
DATE 21-4-82	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT

532054

5 cm

83-2020

LINE 570 N

LINE 670 N

Topography & Geology

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (o/c) and subcrop (s/c) indicated where present.

(Metres A.S.L.)
460 —
440 —
420 —

Not mapped see line 620 N

Not mapped see line 620 N

Soil Sample No's & Depths (m)

4626 (0.5) 4627 (0.3) 4628 (0.5) 4629 (0.2) 4630 (0.2) 4631 (0.2) 4632 (0.4) 4633 (0.4) 4634 (0.3) 4635 (0.4) 4636 (0.3) 4637 (0.5) 4638 (0.3) 4639 (0.6) 4640 (0.4) 4641 (0.5) 4642 (0.3) 4643 (0.3) 4644 (0.2) 4645 (0.3) 4646 (0.5) 4647 (0.5) 4648 (0.3) 4649 (0.3) 4650 (0.7)

4651 (0.4) 4652 (0.5) 4653 (0.5) 4654 (0.3) 4655 (0.3) 4656 (0.5) 4657 (0.2) 4658 (0.2) 4659 (0.3) 4660 (0.3) 4661 (0.3) 4662 (0.4) 4663 (0.2) 4664 (0.5) 4665 (0.4) 4666 (0.4) 4667 (0.2) 4668 (0.4) 4669 (0.7) 4670 (0.5) 4671 (0.4) 4672 (0.4) 4673 (0.4) 4674 (0.4) 4675 (0.4)

Soil Sampling Results

COPPER (ppm) — 150, 100, 50, 0

LEAD (ppm) — 150, 100, 50, 0

ZINC (ppm) — 150, 100, 50, 0

ARSENIC (ppm) — 150, 100, 50, 0

2000

LINE 620 N

V.L.F.

RELATIVE FIELD INTENSITY: 250 %, 200 %, 150 %, 100 %

N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER

DIP ANGLE: + 5°, 0, - 5°, -10°

Topography & Geology

460 —
440 —
420 —

Black phyllite
Fluvioglacials

Soil Sample No's & Depths (m)

4676 (0.9) 4677 (0.9) 4678 (0.9) 4679 (0.8) 4680 (0.5) 4681 (0.5) 4682 (0.5) 4683 (0.6) 4684 (0.5) 4685 (0.4) 4686 (0.2) 4687 (0.3) 4688 (0.5) 4689 (0.5) 4690 (0.4) 4691 (0.4) 4692 (0.5) 4693 (0.5) 4694 (0.5) 4695 (0.3) 4696 (0.4) 4697 (0.3) 4698 (0.3) 4699 (0.2) 4700 (0.8)

Soil Sampling Results

COPPER (ppm) — 150, 100, 50, 0

LEAD (ppm) — 150, 100, 50, 0

ZINC (ppm) — 150, 100, 50, 0

ARSENIC (ppm) — 150, 100, 50, 0

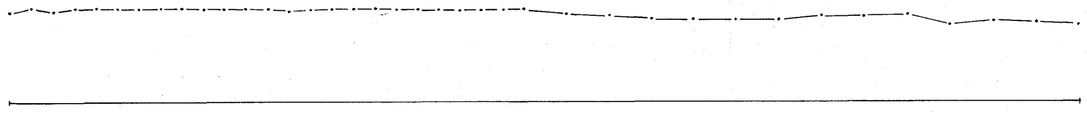
500 W | 400 W | 300 W | 200 W | 100 W | 00

Total Magnetic Intensity

63 000 nT —

62 500 nT —

62 000 nT —



N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

o——o Japan transmitter

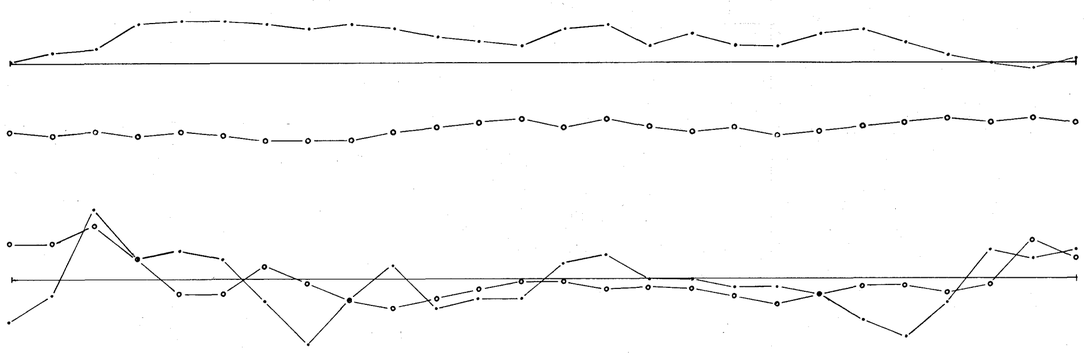
•——• N.W. Cape transmitter

150 % —

100 % —

50 % —

0 % —



N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

DIP ANGLE

+5° —

0 —

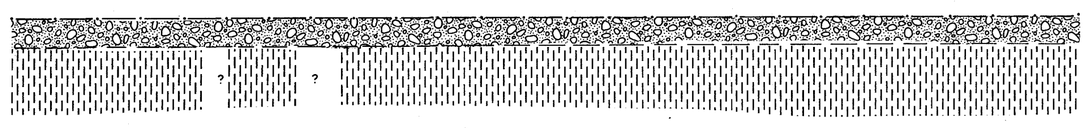
−5° —

Topography & Geology

(Metres A.S.L)

260 —

240 —



N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (oc) and subcrop (sc) indicated where present.

N.B. No slope measurements taken

Soil Sample No's & Depths (m)

The Shell Company of Australia Limited METALS DIVISION		
E.L. 2/78 GRANITE TOR ALEXANDRA HILLS: ANOMALY 8 LINE 200 N 500W–00	1543	
Scale : 1 2000 Horizontal		
FIG. No.	REPORT No.	
ENCL. No.	DRG. No.	D/NP01/030
DATE 15-1-82	AUTHOR	D SPEIJERS
DRAWN H.L.H.	OFFICE	DEVONPORT.

532055

5 cm

83-2020

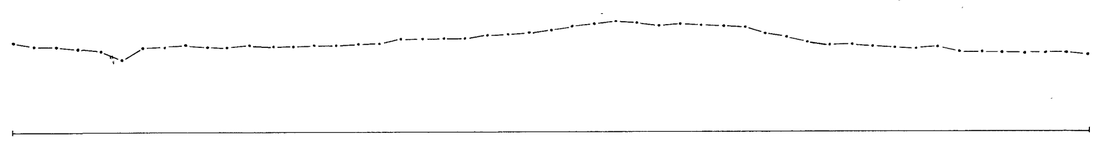
1543

500 W | 400 W | 300 W | 200 W | 100 W | 00

Total Magnetic Intensity

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

62 500 nT



62 000 nT

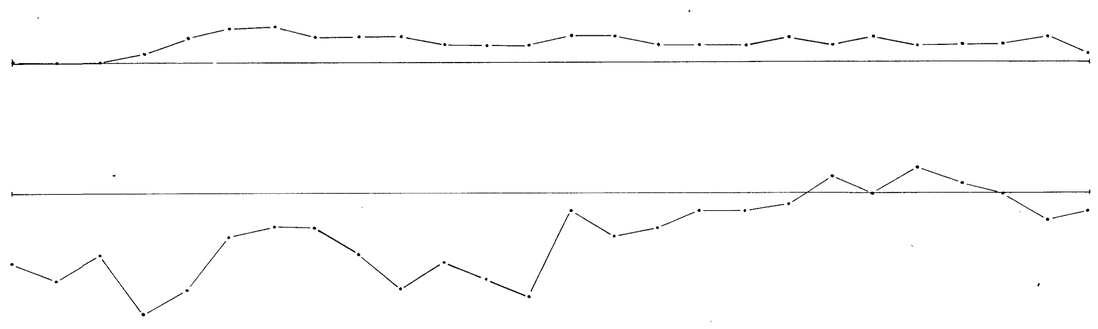
V. L. F.

RELATIVE FIELD INTENSITY

250 %

200 %

N B
READINGS TAKEN USING N.W CAPE TRANSMITTER.



V. L. F.

DIP ANGLE

+5°

0

-5°

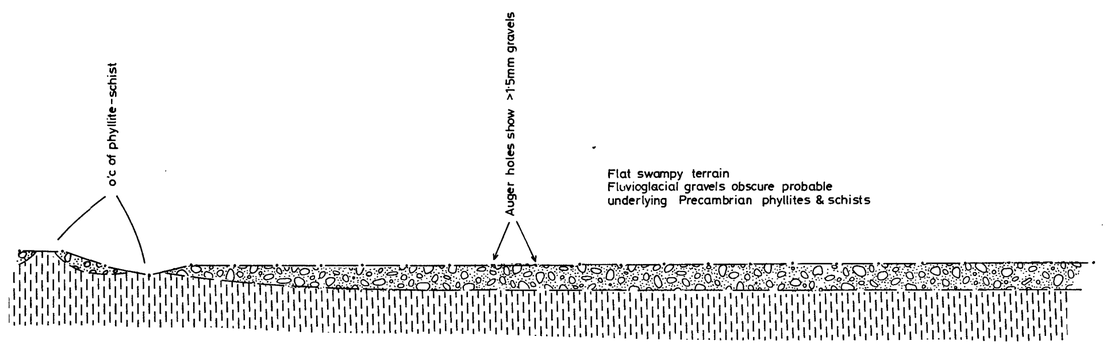
Topography & Geology

(Metres A S L)

260

240

N.B
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples
3) Outcrop (oc) and subcrop (sc) indicated where present



N.B. No slope measurements taken

N.B. No slope measurements taken

Soil Sample No's & Depths (m)

100M | 50 | 0 | 10 | 20 | 30 | 40 | 50

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
ALEXANDRA HILLS: ANOMALY 8
LINE 00 N
500W – 00

1544

Scale 1 2000 Horizontal

FIG. No.	REPORT No.
ENCL. No.	DRG No. D/NP01/032
DATE 15-1-82	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT.

532056

5 cm

83-2020

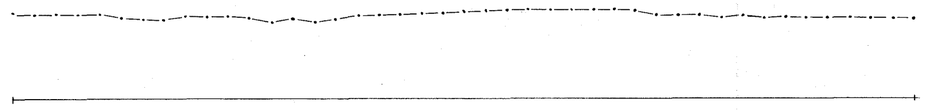
1544

500 W | 400 W | 300 W | 200 W | 100 W | 00

Total Magnetic Intensity

62 500 nT

62 000 nT



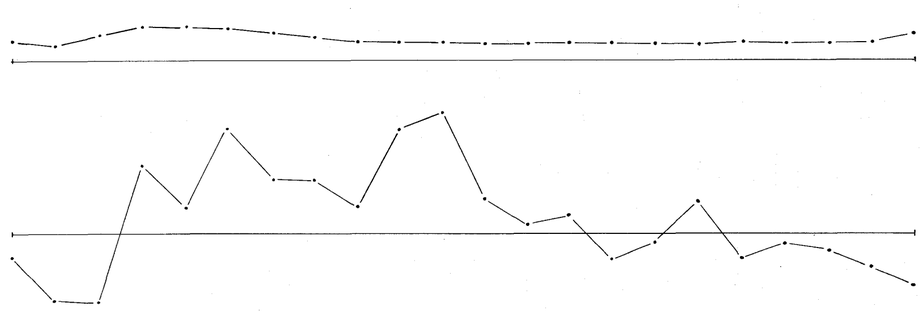
N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

100 %

50 %



N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

DIP ANGLE

+10°

+5°

0

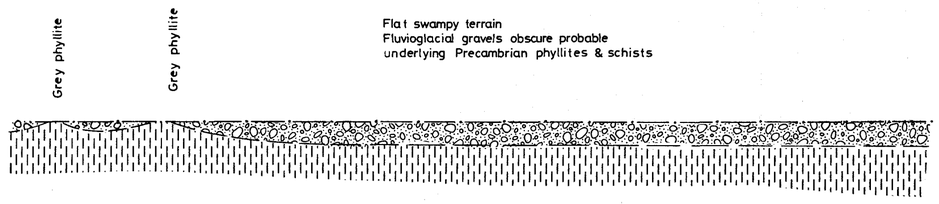
- 5°

Topography & Geology

(Metres A.S.L.)

260

240



N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (oc) and subcrop (sc) indicated where present.

N.B. No slope measurements taken

Soil Sample No's & Depths (m)

The Shell Company of Australia Limited	
METALS DIVISION	
E.L. 2/78 GRANITE TOR	
ALEXANDRA HILLS: ANOMALY 8	
LINE 100 S	
500W–80W	1545
Scale : 1 2000 Horizontal	
FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/033
DATE 15-1-82	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT.

100M 50 0 10 30 20 40 50

5 cm

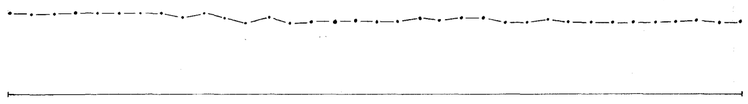
532057

83-2020

600 W | 500 W | 400 W | 300 W | 260W

Total Magnetic Intensity

62 500 nT



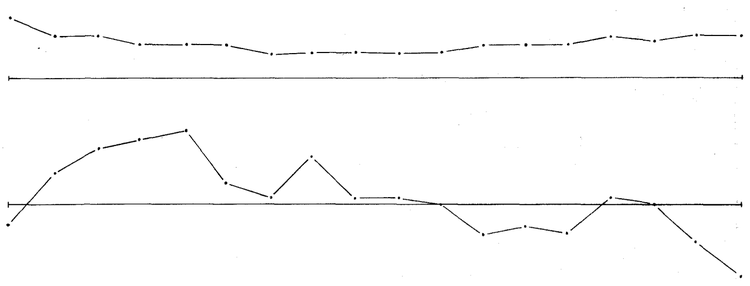
62 000 nT

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

200 %
150 %



N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

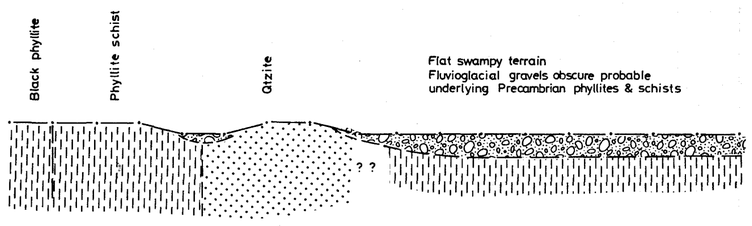
DIP ANGLE

+5°
0
-5°

Topography & Geology

(Metres A.S.L.)

260
240



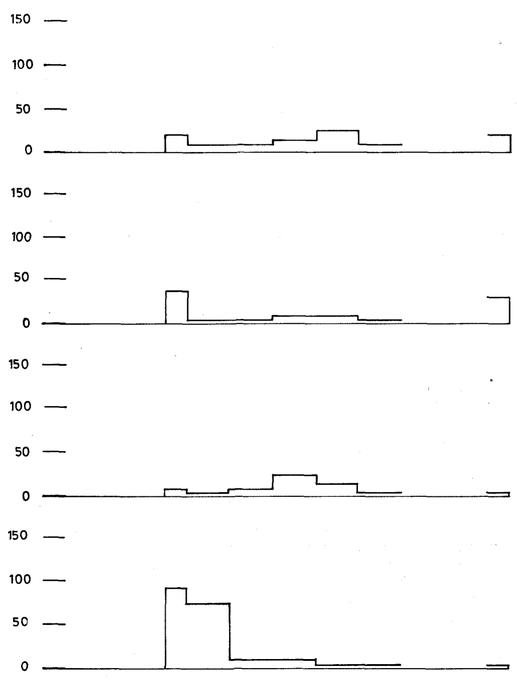
N.B. No slope measurements taken

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (oc) and subcrop (s'c) indicated where present.

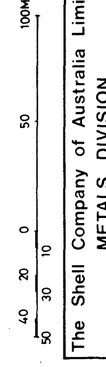
Soil Sample No's & Depths (m)

3258 | 3257 | 3256 | 3255 | 3254 | 3253 | 3252 | 3251 | 3250

Soil Sampling Results



BARIUM (ppm)	220	150	340	450	470	120	125
TUNGSTEN (ppm)	<10	15	10	10	10	15	10
NICKEL (ppm)	8	<4	4	8	8	4	8
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	4	4	12	8	8	8	4



The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
ALEXANDRA HILLS
ANOMALY H
LINE 200S: 600W–260W
1546

Scale : 1 2000 Horizontal

FIG. No.	
REPORT No.	
ENCL. No.	
DRG. No.	D/NP01/034
DATE	18-1-82
AUTHOR	D. SPEIJERS
DRAWN	H.L.H.
OFFICE	DEVONPORT.

532058

5 cm

83-2020

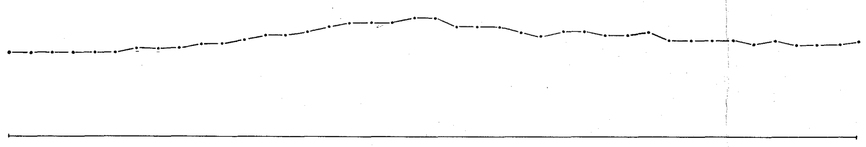
1546

200 S | 100 S | 00 | 100 N | 200 N

Total Magnetic Intensity

62 500 nT

62 000 nT



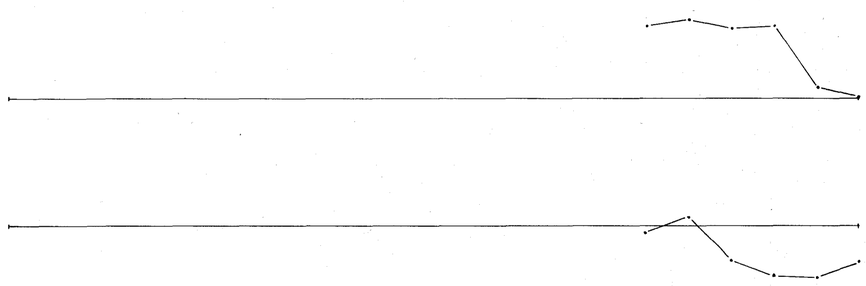
N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

150 %

100 %



N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

DIP ANGLE

+5°

0

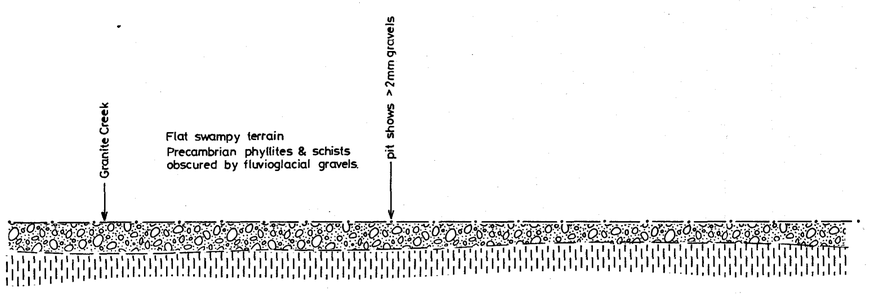
-5°

Topography & Geology

260

240

(Metres A.S.L.)



N.B. No slope measurements taken.

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (oc) and subcrop (sc) indicated where present.

Soil Sample No's & Depths (m)

The Shell Company of Australia Limited	
METALS DIVISION	
E.L. 2/78 GRANITE TOR	
ALEXANDRA HILLS	
ANOMALY 8	
LINE 260W : 200S–200N	1547
Scale 1 2000 Horizontal	
FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/035
DATE 18-1-82	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT.

100M 50 0 10 20 30 40 50

532059

5 cm

83-2020

1547


The Shell Company of Australia Limited
METALS DIVISION
E.L. 2/78 GRANITE TOR
ALEXANDRA HILLS
LINE 100 N
400 W – 00
1548
SCALE 1:2000
AUTHOR J.J.L.
OFFICE DEVONPORT
ENCL. No.
DATE 13-5-83
DRAWN J.L.L.
REP. No.
DRG. No. D/NP01/131
532060
83-2020
5 cm
400 W
300 W
200 W
100 W
00
Total Magnetic Intensity
N.B.
1. Uncorrected for diurnal variations.
2. Geometrics 816 with sensor in back-pack
62 000 nT
Bouguer Gravity
Density = 2·70
Reading Scale = MAGL (1cm 0·20 MAGL)
Terrain corrected to circle D
1·0
0·0
V.L.F.
N.B. READINGS TAKEN USING
N.W. CAPE TRANSMITTER
RELATIVE FIELD INTENSITY
250 %
200 %
DIP ANGLE
+ 5°
0
- 5°
Max – Min
Coil Separation = 150 m
In phase
Out phase
222 Hz
+ 20 %
- 20 %
444 Hz
σT ~ 2·3
Depth < 0·5
888 Hz
σT ~ 2·5
Depth < 15
1777 Hz
+ 40 %
- 40 %
Assume 30° dip ⇒ σT ~ 3·8
Depth < 15
N.B. I.P is normalized to 222 Hz
Topography & Geology
N.B.
1. Topography by Topolite and clinometer
2. Geology from outcrop and examination of soil samples
3. Outcrop (o'c) and subcrop (s'c) indicated where present
260
240
Auger hole shows thick gravels.
Flat swampy terrain
Fluvioglacial gravels obscure probable underlying Precambrian phyllites & schists.
N.B. No slope measurements taken.
Soil Sample No's & Depths (m)
Soil Sampling Results
Analyses in p.p.m.
COPPER
LEAD
ZINC
ARSENIC
BARIUM
TUNGSTEN
NICKLE
COBALT
BISMUTH

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY I
LINE 2330 N

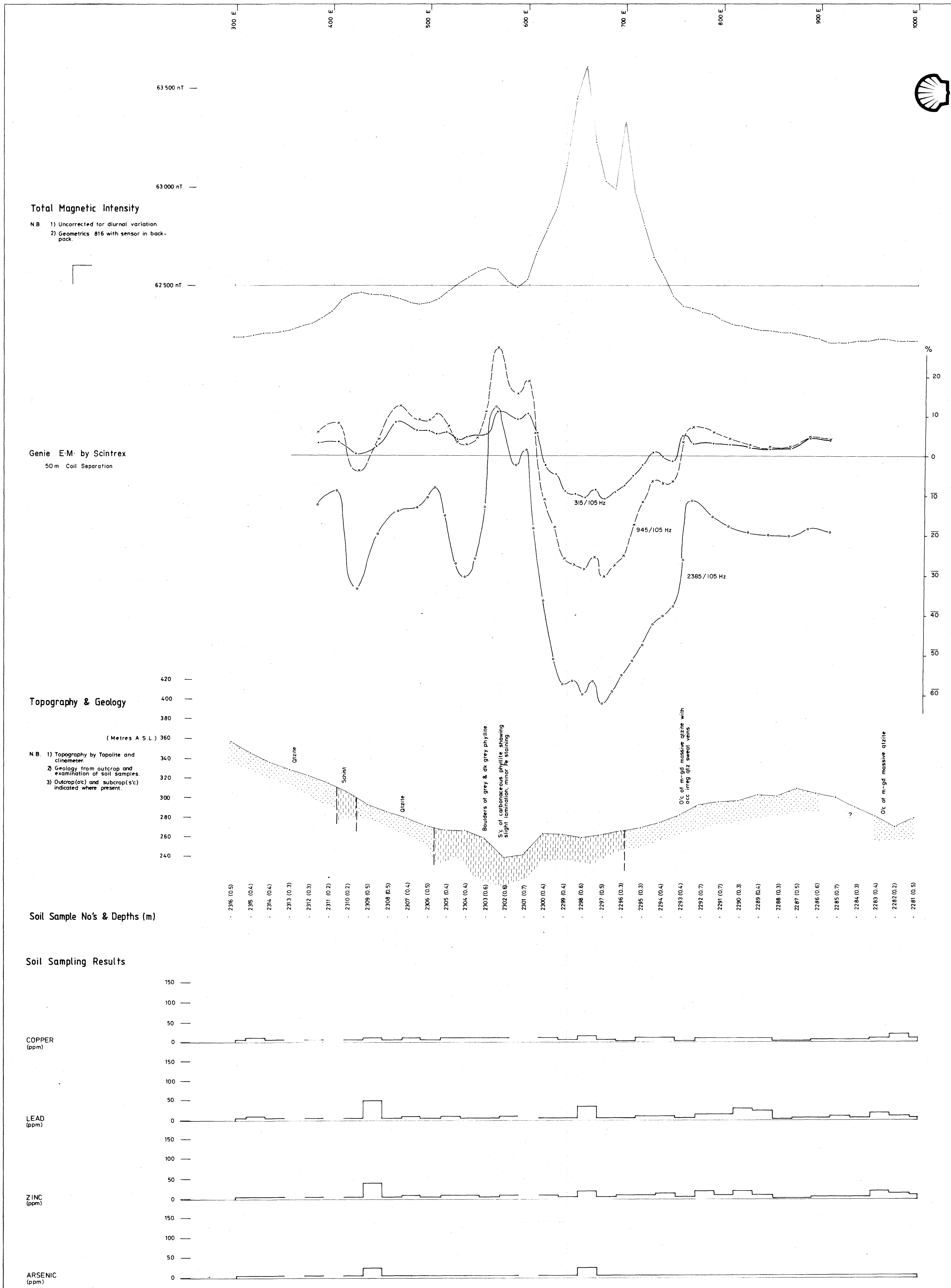
1549

Scale : 1:2000 Horizontal

FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/002 A
DATE 19-11-81	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT

532061

83-2020



Sample	BARIUM (ppm)	TUNGSTEN (ppm)	NICKEL (ppm)	COBALT (ppm)	BISMUTH (ppm)
2316	15	<10	10	<4	<4
2315	15	15	12	<4	<4
2314	95	<10	8	<4	<4
2313	20	<10			
2312	10	<10	6	<4	<4
2311	30	<10			
2310	165	10	6	<4	<4
2309	270	<10	16	<4	<4
2308	115	<10	8	<4	<4
2307	80	10	12	<4	<4
2306	400	<10	4	<4	<4
2305	80	10	14	<4	<4
2304	35	<10	6	<4	<4
2303	80	10	6	<4	<4
2302	300	15	10	<4	<4
2301	220	15			
2300	260	<10	<4	<4	<4
2299	135	10	4	<4	<4
2298	410	10	10	<4	<4
2297	390	10	6	<4	<4
2296	270	<10	<4	<4	<4
2295	25	<10	10	<4	<4
2294	20	<10	8	<4	<4
2293	25	<10	<4	<4	<4
2292	15	<10	6	<4	<4
2291	20	<10	4	<4	<4
2290	15	<10	<4	<4	<4
2289	15	<10	6	<4	<4
2288	15	<10	<4	<4	<4
2287	200	10	<4	<4	<4
2286	10	<10	6	<4	<4
2285	10	<10	<4	<4	<4
2284	10	<10	4	<4	<4
2283	15	<10	6	<4	<4
2282	20	<10	14	<4	<4
2281	15	10	4	<4	<4

300 E 400 E 500 E 600 E 700 E 800 E 900 E 1000 E

1549

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY 11
LINE 2330 N
300E — 1000E

1550

Scale : 1:2000 Horizontal

0 10 20 30 40 50 100M

FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/002 B
DATE 19-11-81	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT

532062

5 cm

83-2020

60 E | 100 E | 200 E | 300 E | 400 E | 500 E | 600 E | 700 E | 800 E | 900 E | 1000 E

5 cm

100M 50 0 10 20 30 40 50

532063

The Shell Company of Australia Limited METALS DIVISION		
E.L. 2/78 GRANITE TOR MURCHISON: ANOMALY 11 LINE 1000 N 60E – 1000 E	1551	
Scale : 1: 2000 Horizontal		
FIG. No.	REPORT No.	
ENCL. No.	DRG. No.	D/NP01/003
DATE 30-11-81	AUTHOR	D. SPEIJERS.
DRAWN H. L. H.	OFFICE	DEVONPORT

83-2020

Total Magnetic Intensity

63000 nT —

62500 nT —

62000 nT —

N.B
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

250 % —
200 % —
150 % —
100 % —
50 % —
0 —

• N.W. Cape
o Japan

NOTE: V.L.F. DATA NOT RELIABLE RESURVEY REQUIRED

V.L.F.

DIP ANGLE

15° —
10° —
5° —
0° —

• N.W. Cape (N)
o Japan (E)

Topography & Geology

480 —
460 —
440 —
420 —
400 —
380 —
(Metres A.S.L.) 360 —
340 —
320 —
300 —

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (o'c) and subcrop (s'c) indicated where present.

Sheared acid porphyry float
o'c intermediate (?) intrusive
Sheared acid porphyry float
s/y sheared silic qtz-pebble congl qtzite & pelitic pebbles
possible €/pC unconformity
m^d qtzite, qtz-pebble congl. & qtz grit, qtz sweat veins common
qtzite float.
no o'c
qtzite float
o'c f-g^d qtzite
o'c grey schist
Probable interbedded qtzite & schist
Qtz pebble conglomerate with qtz sweat vens
Qtzite, qtz-sericite schist & minor grey schist
Grey schist with minor qtzite bands
Probable qtzite
s'c qtzite
Grey schist

Soil Sample No's & Depths (m)

	2244	2243	2242	2241	2240	2239	2238	2237	2236	2235	2234	2233	2232	2231	2230	2229	2228	2227	2226	2225	2224	2223	2222	2221	2220	2219	2218	2217	2216	2215	2214	2213	2212	2211	2210	2209	2208	2207	2206	2205	2204	2203	2202	2201
	(0.4)	(0.4)	(0.6)	(1.0)	(1.0)	(0.5)	(0.3)	(0.3)	(0.4)	(0.4)	(0.5)	(0.4)	(0.3)	(0.3)	(0.5)	(0.3)	(0.5)	(0.7)	(0.5)	(0.8)	(0.6)	(0.8)	(0.4)	(0.5)	(0.3)	(0.9)	(0.4)	(0.8)	(0.6)	(0.8)	(0.8)	(0.4)	(1.0)	(0.4)	(0.2)	(0.4)	(0.3)	(0.4)	(0.2)	(0.4)	(0.4)	(0.4)	(0.8)	(1.0)

Soil Sampling Results

COPPER (ppm) — 150 — 100 — 50 — 0 —

LEAD (ppm) — 150 — 100 — 50 — 0 —

200 220

ZINC (ppm) — 150 — 100 — 50 — 0 —

ARSENIC (ppm) — 150 — 100 — 50 — 0 —

BARIUM (ppm)	910	1100	1000	1000	690	330	360	35	10	15	15	45	20	20	10	25	320	15	70	420	40	20	10	45	240	35	530	280	460	290	280	510	20	20	40	20	15	15	10	15	240	390	160
TUNGSTEN (ppm)	10	10	10	10	10	10	<10	<10	<10	10	<10	10	10	<10	15	10	<10	<10	10	10	<10	<10	<10	10	10	<10	<10	<10	<10	<10	10	10	<10	<10	<10	<10	10	<10	<10	<10	<10	10	10
NICKEL (ppm)	<4	<4	<4	<4	<4	<4	4	12	<4	14	6	12	6	6	<4	<4	4	12	<4	<4	4	<4	6	<4	6	<4	4	<4	14	<4	6	<4	14	<4	10	4	6	<4	<4	8	4	<4	6
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

300 E | 400 E | 500 E | 600 E | 700 E | 800 E | 900 E | 1000 E

100M 50 0 10 20 30 40 50

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY 11
LINE 1640N
300E — 1000E

1552

Scale : 1: 2000 Horizontal

FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/004
DATE 26-11-81	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT

83-2020

532064

5 cm

Total Magnetic Intensity

63000 nT
63500 nT
62000 nT

N.B. 1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

350 %
300 %
250 %
200 %
150 %

N.B. Readings taken using N.W. Cape transmitter.

V.L.F.

DIP ANGLE

+15°
+10°
+5°
0°
-5°

Topography & Geology

480
460
440
420
400
380
(Metres A.S.L.) 360
340
320
300
280
260
240

N.B. 1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (o'c) and subcrop (s'c) indicated where present.

o'c qtzite
o'c Qtz pebble conglomerate with siliceous matrix.
Qtzite scree
Qtz-sericite schist
Grey schist with some qtzite bands
s'c carbonaceous phyllite
o'c dk grey phyllite
Qtzite & qtz-sericite schist
Dk grey schist
Qtz-sericite schist
o'c dk grey schist with qtz stringers & some Fe staining
Qtz-sericite schist & qtzite
Qtzite

Soil Sample No's & Depths (m)

2280	2279	2278	2277	2276	2275	2274	2273	2272	2271	2270	2269	2268	2267	2266	2265	2264	2263	2262	2261	2260	2259	2258	2257	2256	2255	2254	2253	2252	2251	2250	2249	2248	2247	2246	2245
(0.4)	(0.6)	(0.2)	(0.2)	(0.1)	(0.1)	(0.4)	(0.6)	(0.3)	(0.5)	(0.2)	(0.4)	(0.5)	(0.5)	(0.3)	(0.9)	(0.5)	(0.5)	(0.1)	(0.5)	(0.3)	(0.6)	(0.6)	(0.5)	(0.7)	(0.8)	(0.4)	(0.4)	(0.3)	(0.2)	(0.4)	(0.2)	(0.2)	(0.3)	(0.7)	(1.0)

Soil Sampling Results

COPPER (ppm) — 150, 100, 50, 0
LEAD (ppm) — 150, 100, 50, 0
ZINC (ppm) — 150, 100, 50, 0
ARSENIC (ppm) — 150, 100, 50, 0

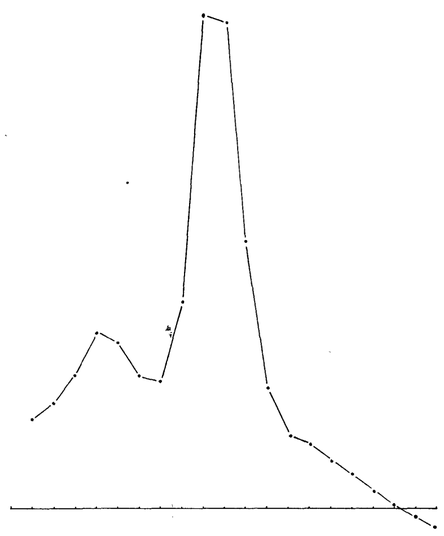
BARIUM (ppm)	15	60	40	15	10	20	15	85	20	15	15	85	95	50	440	330	165	510	65	35	25	80	290	100	540	530	45	10	15	15	15	15	10	10	10	20
TUNGSTEN (ppm)	<10	10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	10	<10	<10	10	10	<10	<10	10	15	15	10	10	<10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10
NICKEL (ppm)	<4	16	6	6	<4	<4	<4	<4	<4	4	<4	<4	<4	<4	<4	<4	6	8	<4	4	<4	<4	<4	<4	<4	<4	10	14	6	4	6	<4	<4	12	<4	<4
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

Total Magnetic Intensity

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

64 000 nT
63 500 nT
63 000 nT
62 500 nT

600 E 700 E 800 E



LINE 2280 N

LINE 2380 N

V. L. F.

RELATIVE FIELD INTENSITY

N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V. L. F.

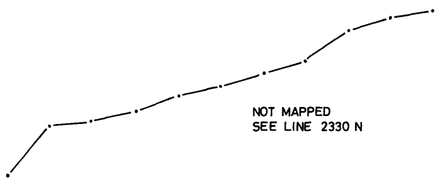
DIP ANGLE

Topography & Geology

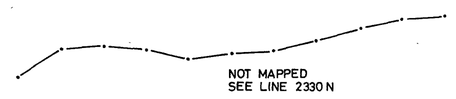
(Metres A.S.L.)

320
300
280
260
240

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (otc) and subcrop (s/c) indicated where present.

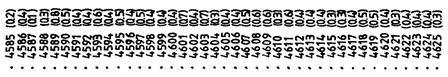


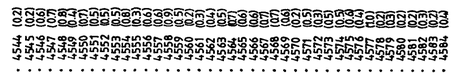
NOT MAPPED
SEE LINE 2330 N



NOT MAPPED
SEE LINE 2330 N

Soil. Sample No's & Depths (m)

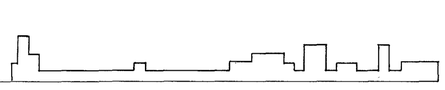


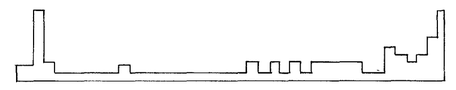


Soil Sampling Results

COPPER (ppm)

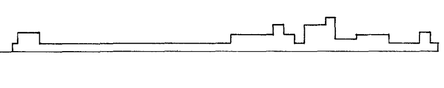
150
100
50
0





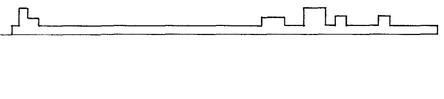
LEAD (ppm)

150
100
50
0



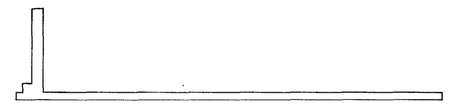
ZINC (ppm)

150
100
50
0



ARSENIC (ppm)

100
50
0



The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY 11
LINES 2280 & 2380 N
600E – 800E

1553

Scale : 1 2000 Horizontal

FIG. No.	
ENCL. No.	
DATE	21-4-82
DRAWN	H.L.H.
REPORT No.	
DRG. No.	D/NPO1/053
AUTHOR	D. SPEIJERS
OFFICE	DEVONPORT.

532065

5 cm

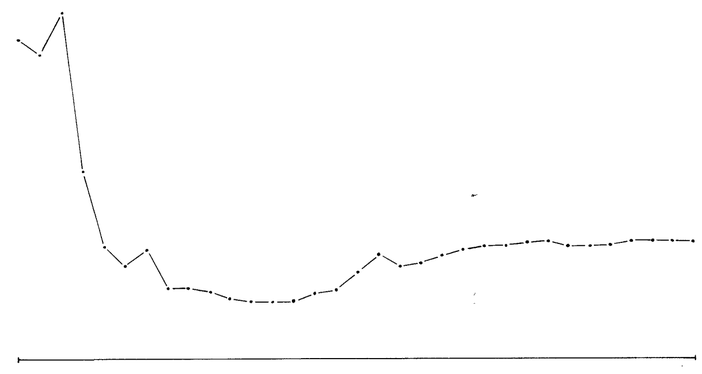
83-2020

1553

130 W | 30 W | 00 | 70 E | 170 E | 190 E

Total Magnetic Intensity

63 000 nT
62 500 nT
62 000 nT

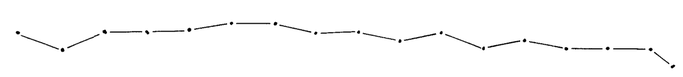


N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V. L. F.

RELATIVE FIELD INTENSITY

450 %
400 %
350 %
300 %

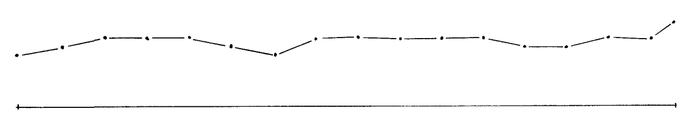


N.B
READINGS TAKEN USING N.W CAPE TRANSMITTER.

V. L. F.

DIP ANGLE

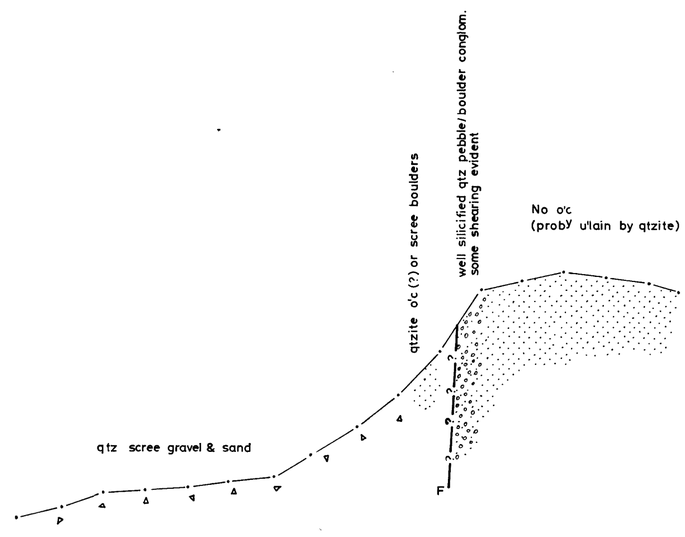
+10°
+5°
0



Topography & Geology

(Metres A S L)

400
380
360
340
320
300
280

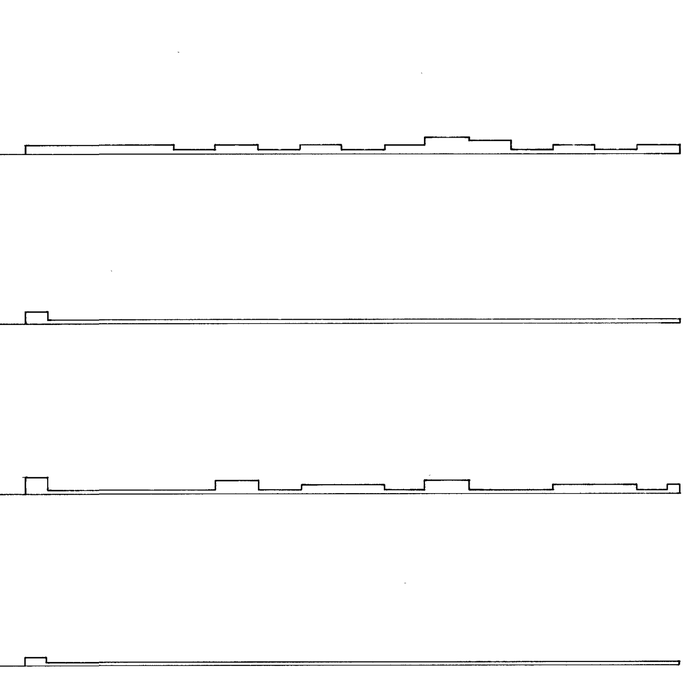


N.B
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples
3) Outcrop (o/c) and subcrop (s/c) indicated where present

Soil Sample No's & Depths (m)

	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228
	(0.3)		(0.5)	(0.5)	(0.8)		(0.3)	(0.4)	(0.2)	(0.1)	(0.3)	(0.5)	(0.7)	(0.3)	(0.8)	(0.8)	(0.5)

Soil Sampling Results



BARIUM (ppm)	95	10	110	25	15	15	45	20	65	20	20	20	160	15	15	15	15
TUNGSTEN (ppm)	10	10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	15	10	<10
NICKEL (ppm)	4	30	8	<4	<4	<4	<4	18	4	10	22	<4	8	6	8	6	<4
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY 12
LINE 2250N
130W – 190E

1554

Scale 1 2000 Horizontal

FIG No
REPORT No
ENCL No.
DRG. No. D/NP01/025
DATE 14-1-82
AUTHOR D SPEIJERS
DRAWN H.L.H.
OFFICE DEVONPORT

100M 50 0 10 20 30 40 50

5 cm

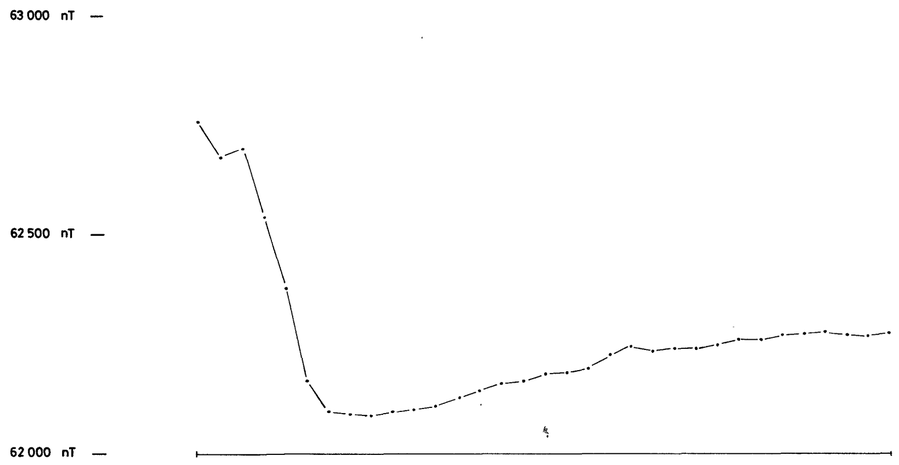
5320066

83-2020

1555

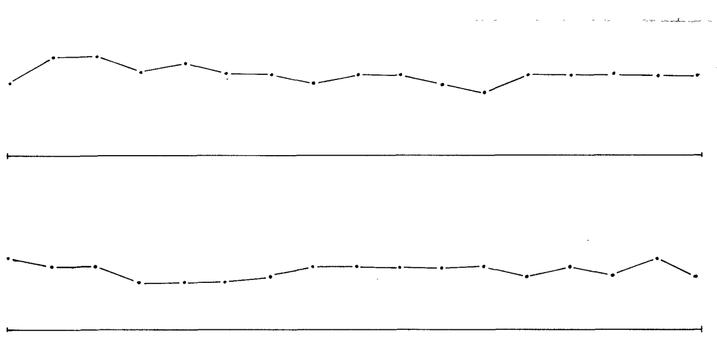
130 W | 30 W | 70 E | 170 E | 190 E

Total Magnetic Intensity



N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

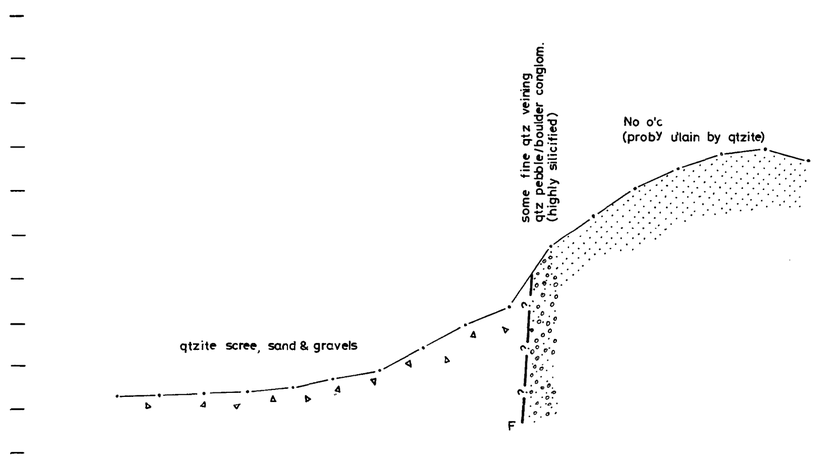


N.B
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

Topography & Geology

(Metres A.S.L.)

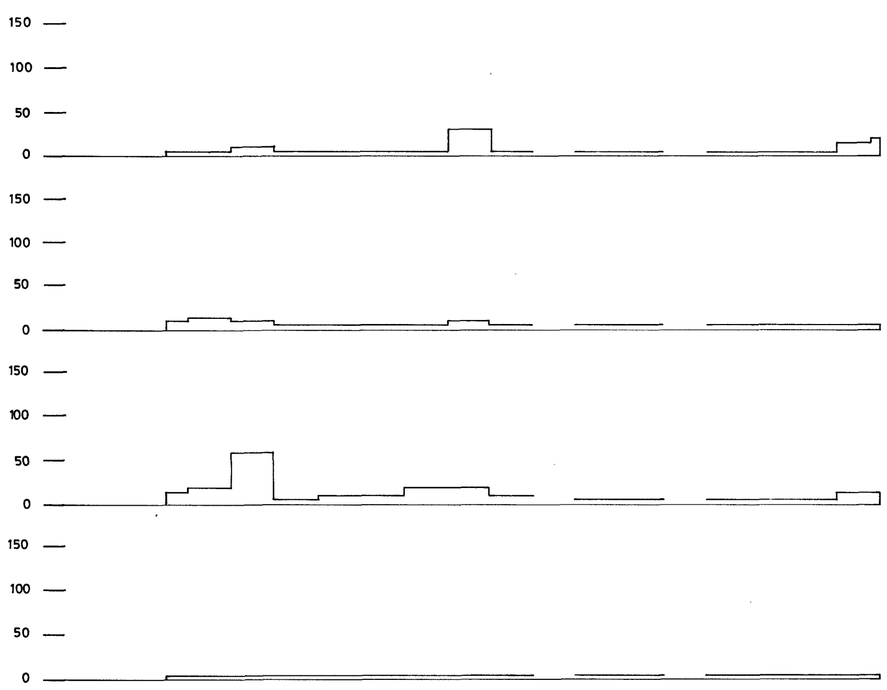


N.B
1) Topography by Topolite and clinometer
2) Geology from outcrop and examination of soil samples
3) Outcrop (oc) and subcrop (s'c) indicated where present.

Soil Sample No's & Depths (m)

3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211
(?)	(0.7)	(0.4)	(0.7)	(0.6)	(0.4)	(0.5)	(0.6)	(0.6)	(0.7)	(0.5)	(0.6)	(?)	(0.8)	(1.0)	(1.0)	(1.0)

Soil Sampling Results



BARIUM (ppm)	125	90	45	45	70	110	155	45	40	20	25	20	30		15	15		
TUNGSTEN (ppm)	<10	10	<10	<10	<10	<10	10	<10	10	<10	<10	10	<10		10	<10		
NICKEL (ppm)	4	12	6	<4	<4	<4	<4	14	<4	12	<4	6	6	<4	10	6		
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		

100M 50 0 10 20 30 40 50

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY 12'
LINE 2150 N
130W–190E

1555

Scale 1 2000 Horizontal

FIG No.	REPORT No.
ENCL. No.	DRG. No. D/NP01/026
DATE 15-1-82	AUTHOR D. SPELJERS
DRAWN H.L.H.	OFFICE DEVONPORT.

532067

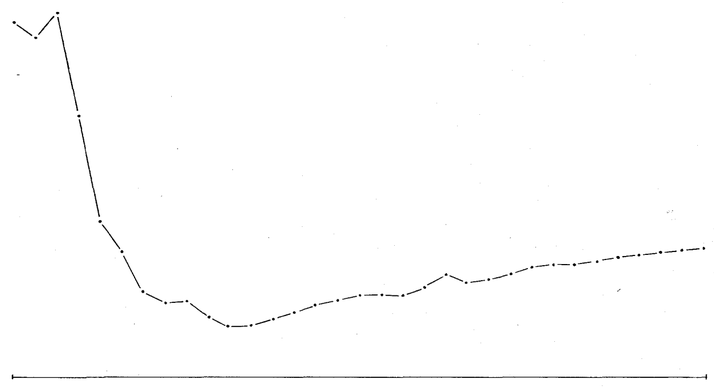
5 cm

83-2020

130 W | 30 W | 00 | 70 E | 170 E | 190 E

Total Magnetic Intensity

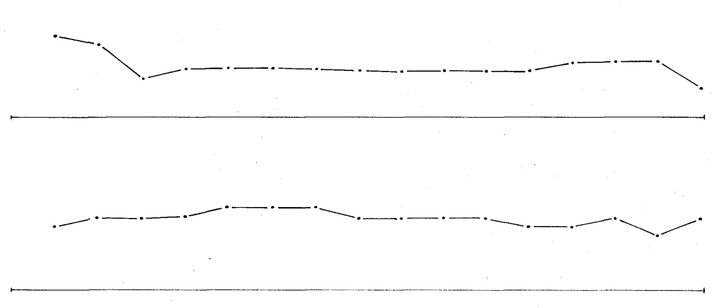
63 000 nT
62 500 nT
62 000 nT



N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY
450 %
400 %
350 %
300 %



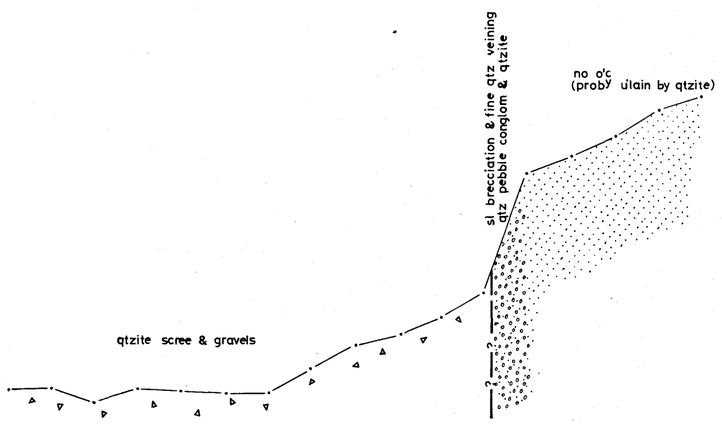
N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER.

V.L.F.

DIP ANGLE
+10°
+5°
0

Topography & Geology

(Metres A.S.L.)
440
420
400
380
360
340
320
300



N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (o/c) and subcrop (s/c) indicated where present.

Soil Sample No's & Depths (m)

3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194
(?)	(?)	(0.3)	(0.1)	(0.1)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.0)	(0.3)	(0.5)	(?)	(?)	(0.4)	(0.3)

Soil Sampling Results

COPPER (ppm): 150, 100, 50, 0

LEAD (ppm): 150, 100, 50, 0

ZINC (ppm): 150, 100, 50, 0

ARSENIC (ppm): 100, 50, 0

BARIUM (ppm)	230	75	30	60	20	60	35	120	15	10	25	15	15	20	20	10	15
TUNGSTEN (ppm)	<10	<10	10	<10	10	<10	<10	<10	<10	10	<10	30	<10	10	10	25	15
NICKEL (ppm)	<4	<4	<4	<4	<4	4	4	16	8	<4	<4	<4	32	10	6	22	12
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

100M 50 0 10 20 30 40 50

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
MURCHISON: ANOMALY 12
LINE 2050 N
130W – 190E

1556

Scale : 1 2000 Horizontal

FIG. No.	
REPORT No.	
ENCL. No.	
DRG. No.	D/NP01/027
DATE	15-1-82
AUTHOR	D. SPEIJERS
DRAWN	H.L.H.
OFFICE	DEVONPORT

532068

5 cm

83-2020

1556

The Shell Company of Australia Limited METALS DIVISION	
E.L. 2/178 GRANITE TOR VICTORIA PEAK: ANOMALY 10 LINES 200 & 400 N 1557 600E — 1000E	
Scale : 1: 2000 Horizontal	
FIG. No.	
REPORT No.	
ENCL. No.	DRG. No. D/NP01/005
DATE 30-11-81	AUTHOR D. SPEIJERS
DRAWN H.L.H.	OFFICE DEVONPORT

532069

83-2020

Total Magnetic Intensity

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

63 000nT
62 500nT
62 000 nT

LINE 200 N

LINE 400 N

5 cm

V.L.F.

RELATIVE FIELD INTENSITY

250 %
200 %
150 %
100 %
50 %
0

N.B. Readings taken using N.W. Cape transmitter.

V.L.F.

DIP ANGLE

+15°
+ 10°
+ 5°
0°
- 5°
- 10°
- 15°
- 20°

Topography & Geology

(Metres A.S.L.)

420
400
380
360
340
320
300
280
260
240

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop(o/c) and subcrop(s/c) indicated where present.

o/c of massive qtzite
o/c kink banded qtz-sericite schist.
o/c of massive qtzite with local contorted sericitic bands
o/c of massive qtzite
o/c of black carbonaceous phyllite
o/c of massive qtzite, occasional sericitic patches
Dk grey schist
o/c of red-brown/pink qtz-sericite schist, part carbonaceous; qtz tension gash veins with c-gd py
o/c of carbonaceous phyllite
Qtz-sericite schist
Qtzite
Grey schist
Qtzite & grey schists
o/c of carbonaceous phyllite with some Fe staining
o/c of f-gd massive qtzite

Grey schist
Qtzite
o/c of massive qtzite
Qtz-sericite schist & grey schist
o/c of massive qtzite
o/c of qtz-sericite schist, minor carbonaceous phyllite some pyrite
Grey schist
s/c of carbonaceous phyllite
Qtzite & qtz-sericite schist
Grey schist
o/c of massive qtzite
Qtz-sericite schist

Soil Sample No's & Depths (m)

	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2402	2328	2401	2329	2330	2331	2568 & 69	2332	2333	2334	2335	2336	2337
	(0.7)	(0.5)	(0.9)	(0.5)	(0.3)	(0.5)	(0.7)	(0.3)	(0.5)	(0.6)	(0.7)	(0.5)	(0.2)	(0.6)	(0.5)	(0.4)	(0.3)		(0.5)	(0.8)	(0.4)	(1.0)	(0.8)	(?)

	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358
	(0.6)	(0.5)	(0.6)	(0.5)	(0.6)	(0.7)	(0.3)	(0.3)	(0.4)	(0.3)	(0.3)	(0.3)	(0.2)	(0.4)	(0.4)	(0.2)	(0.5)	(0.5)	(c.t)	(0.4)	(0.4)

Soil Sampling Results

COPPER (ppm)

150
100
50
0

LEAD (ppm)

150
100
50
0

ZINC (ppm)

150
100
50
0

ARSENIC (ppm)

150
100
50
0

380

BARIUM (ppm)	390	90	80	80	<10	20	10	35	80	95	160	320	110	80	380	400	330	90	300	470	480	210	380	430
TUNGSTEN (ppm)	15	<10	<10	15	<10	<10	<10	<10	<10	<10	<10	10	10	10	<10	<10	10	<10	10	10	15	10	10	<10
NICKEL (ppm)	6	8	6	8	4	8	8	6	<4	8	12	8	14	4	<4	6	6	<4	8	<4	<4	<4	<4	8
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	8	<4	<4	<4	<4	<4	<4	8	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

BARIUM (ppm)	220	20	10	<10	15	10	10	<10	155	85	105	190	45	145	55	50	35	210	400	480	250			
TUNGSTEN (ppm)	15	15	<10	<10	<10	10	<10	<10	10	<10	10	<10	10	<10	<10	<10	10	10	<10	15	10			
NICKEL (ppm)	<4	<4	8	<4	10	<4		8	12			10	14	14	10	6	6	6	6	8	10			
COBALT (ppm)	<4	<4	<4	<4	<4	<4		<4	<4			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4			
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4		<4	<4			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4			

The Shell Company of Australia Limited METALS DIVISION	
E.L. 2/78 GRANITE TOR VICTORIA PEAK: ANOMALY 10 LINES 600 & 800 N 600E — 1000E	1558
Scale : 1: 2000 Horizontal	
FIG. No.	REPORT No.
ENCL. No.	DRG. No. D/NPO1/006
DATE 1 – 12 – 81	AUTHOR D. SPELLERS
DRAWN H.L.H.	OFFICE DEVONPORT

532070

83-2020

Total Magnetic Intensity

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

63 000 nT
62 500 nT
62 000 nT

LINE 600 N

LINE 800 N

5 cm

V.L.F.

RELATIVE FIELD INTENSITY

250 %
200 %
150 %
100 %
50 %
0

N.B. Readings taken using N.W. Cape transmitter.

V.L.F.

DIP ANGLE

+ 15°
+ 10°
+ 5°
0°
- 5°
- 10°
- 15°
- 20°

Topography & Geology

(Metres A.S.L.)

420
400
380
360
340
320
300
280
260
240

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (o'c) and subcrop (s'c) indicated where present.

Probably qtzite and qtz-sericite schist
Grey schist (some qtzite float)
Qtz-sericite schist
Qtzite & qtz-sericite schist
s'c massive qtzite
Qtzite with only minor sericite

Probably qtzite & qtz-sericite schist
Dk grey schist
Qtzite & qtz-sericite schist
Laminated & banded schists o'c of well banded carbonaceous qtzite & sandy carbonaceous shale
Qtzite with minor sericite

Soil Sample Numbers & Depths (m)

	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379
	(0.6)	(0.9)	(0.7)	(0.6)	(0.6)	(0.7)	(0.4)	(0.4)	(0.5)	(0.7)	(0.5)	(0.5)	(0.3)	(0.3)	(0.5)	(0.5)	(0.5)	(0.2)	(0.6)	(0.7)	(0.2)

	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400
	(0.5)	(0.7)	(0.9)	(0.6)	(0.5)	(0.9)	(?)	(0.7)	(0.5)	(0.6)	(0.6)	(0.6)	(0.7)	(0.2)	(0.2)	(0.5)	(0.4)	(0.5)	(0.4)	(0.3)	(0.2)

Soil Sampling Results

150
100
50
0

COPPER (ppm)

LEAD (ppm)

ZINC (ppm)

ARSENIC (ppm)

	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379
BARIUM (ppm)	130	25	120	15	<10	20	25	80	150	320	115	60	65	40	135	165	420	80	200	320	90
TUNGSTEN (ppm)	<10	<10	<10	<10	10	15	<10	<10	<10	10	10	<10	15	<10	10	10	<10	15	<10	<10	<10
NICKEL (ppm)	6	14	8	10	8	10	4	6	8	6	80	4	8	10	<4	8	4	12	6	4	<4
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	28	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400
BARIUM (ppm)	150	35	50	55	20	110	110	90	510	520	115	120	150	195	250	70	95	20	195	25	10
TUNGSTEN (ppm)	<10	<10	<10	<10	10	<10	<10	<10	10	<10	10	<10	<10	10	10	10	<10	<10	<10	<10	<10
NICKEL (ppm)	10	6	4	<4	8	8	10	8	12	4	8	6	8	4	6	6	6	<4	<4	<4	6
COBALT (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
BISMUTH (ppm)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

200 N | 300 N | 400 N | 500 N | 600 N | 700 N | 800 N

100M 50 0 10 20 30 40 50

The Shell Company of Australia Limited METALS DIVISION		
E.L. 2/78 GRANITE TOR VICTORIA PEAK: ANOMALY 10 BASELINE 1000 E 200N – 800 N	1559	
Scale : 1: 2000 Horizontal		
FIG. No.	REPORT No.	
ENCL. No.	DRG. No.	D/NP01/006
DATE 2 – 12 – 81	AUTHOR	D. SPEIJERS
DRAWN H. L. H.	OFFICE	DEVONPORT

532071

5 cm

83-2020

Total Magnetic Intensity

N.B.
1) Uncorrected for diurnal variation.
2) Geometrics 816 with sensor in back-pack.

62 500 nT

62 000 nT

V.L.F.

RELATIVE FIELD INTENSITY

250 %
200 %
150 %
100 %
50 %
0

N.B.
READINGS TAKEN USING N.W. CAPE TRANSMITTER

V.L.F.

DIP ANGLE

0
−5°
−10°
−15°

Topography & Geology

(Metres A.S.L.)

480
460
440
420
400
380
360
340
320
300
280
260
240

N.B.
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples.
3) Outcrop (o/c) and subcrop (s/c) indicated where present.

o/c^{g} massive qtzites

Qtzite & some qtz-sericite schist

Scattered outcrops of qtzite & qtz-sericite schist some glacial overburden

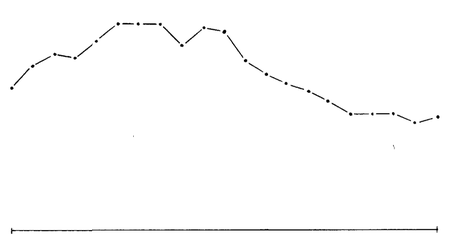
F? (Possible fault)

1559

700 E | 800 E | 900 E

Total Magnetic Intensity

62 500 nT
62 000 nT

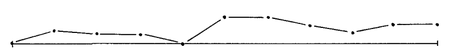


N.B.
1) Uncorrected for diurnal variation
2) Geometrics 816 with sensor in back-pack.

V.L.F.

RELATIVE FIELD INTENSITY

200 %
150 %
100 %

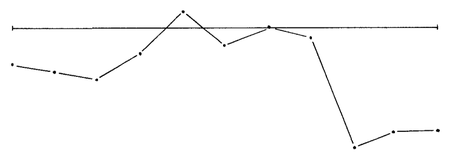


N B
READINGS TAKEN USING
N.W. CAPE TRANSMITTER.

V.L.F.

DIP ANGLE

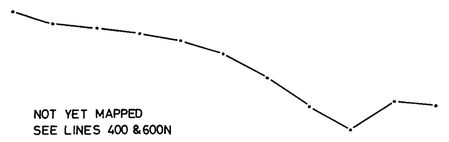
+ 5°
0
- 5°
- 10°



Topography & Geology

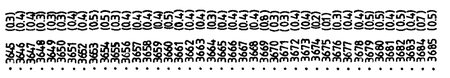
(Metres A.S.L.)

420
400
380
360
340



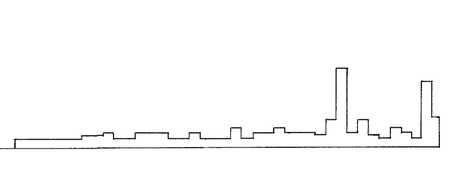
N B
1) Topography by Topolite and clinometer.
2) Geology from outcrop and examination of soil samples
3) Outcrop (oc) and subcrop (sc) indicated where present

Soil Sample No's & Depths (m)

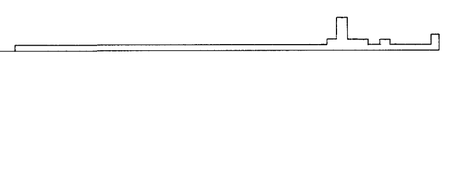


Soil Sampling Results

COPPER (ppm)
150
100
50
0



LEAD (ppm)
150
100
50
0



ZINC (ppm)
150
100
50
0

ARSENIC (ppm)
150
100
50
0

100M 50 0 10 20 30 40 50

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
VICTORIA PEAK : ANOMALY 10
LINE 500 N
700E – 900E

1560

Scale 1 2000 Horizontal

FIG No	
REPORT No	
ENCL No.	
DRG No	D/NP01/051
DATE	16-4-82
AUTHOR	D. SPEIJERS
DRAWN	H.L.H.
OFFICE	DEVONPORT

532072

5 cm

83-2020

1560

1000 E | 900 E | 800 E | 700 E | 600 E | 1000 E | 900 E | 800 E | 700 E

40 30 20 10 0 50 100M

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
VICTORIA PEAK : ANOMALY 10
LINES 200,400, & 600 N
RESAMPLING AT 5M. INTERVALS

Scale : 1:2000

1561

FIG. No.	
REPORT No.	
ENCL. No.	
DRG. No.	D/NP01/052
DATE	19-4-82
AUTHOR	D. SPEUERS
DRAWN	H.L.H.
OFFICE	DEVONPORT

532073

5 cm

83-2020

LINE 200N

Soil Sample Nos & Depths (m)

3562 (0.4) · 3561 (0.4) · 3560 (0.4) · 3559 (0.8) · 3558 (0.8) · 3557 (0.3) · 3556 (0.4) · 3555 (0.4) · 3554 (0.3) · 3553 (0.3) · 3542 (0.4) · 3541 (0.4) · 3540 (0.4) · 3539 (0.5) · 3538 (0.5) · 3537 (0.5) · 3536 (0.4) · 3535 (0.3) · 3534 · 3533 · 3532 · 3531 (0.3) · 3529 (0.2) · 3528 (0.2) · 3552 (0.3) · 3551 (0.4) · 3550 (0.3) · 3549 (0.4) · 3548 (0.3) · 3547 (0.4) · 3546 (0.3) · 3545 (0.3) · 3544 (0.5) · 3543 (0.5)

LINE 400 N

3604 (0.9) · 3605 (0.9) · 3603 (0.5) · 3602 (0.5) · 3601 (0.5) · 3600 (0.5) · 3599 (0.5) · 3598 (0.4) · 3597 (0.3) · 3596 (0.3) · 3595 (0.5) · 3594 (0.4) · 3593 (0.4) · 3591 (0.1) · 3590 (0.2) · 3589 (0.4) · 3588 (0.3) · 3587 (0.4) · 3586 (0.5) · 3585 (0.3) · 3584 (0.5) · 3583 (0.3) · 3582 (0.5) · 3581 (0.5) · 3580 (0.4) · 3579 (0.3) · 3578 (0.4) · 3577 (0.3) · 3576 (0.2) · 3575 (0.5) · 3574 (0.5) · 3573 (0.3) · 3572 (0.3) · 3571 (0.3) · 3570 (0.3) · 3569 (0.4) · 3568 (0.3) · 3567 (0.5) · 3566 (0.3) · 3565 (0.3) · 3564 (0.4) · 3563 (0.3)

Soil Sampling Results

COPPER (ppm) — LEAD (ppm) — ZINC (ppm) — ARSENIC (ppm)

150 / 100 / 50 / 0

LINE 600 N

Soil Sample No's & Depths (m)

3644 (0.3) · 3643 (0.4) · 3642 (0.4) · 3641 (0.4) · 3640 (0.4) · 3639 (0.3) · 3638 (0.3) · 3637 (0.2) · 3636 (0.4) · 3635 (0.3) · 3634 (0.3) · 3633 (0.3) · 3632 (0.4) · 3631 (0.3) · 3630 (0.3) · 3629 (0.7) · 3627 (0.8) · 3626 (0.4) · 3625 (0.15) · 3624 (0.5) · 3623 (0.5) · 3622 (0.4) · 3621 (0.6) · 3620 (0.3) · 3619 (0.3) · 3618 (0.2) · 3617 (0.4) · 3616 (0.5) · 3615 (0.4) · 3614 (0.2) · 3613 (0.6) · 3612 (0.3) · 3611 (0.4) · 3610 (0.4) · 3609 (0.3) · 3608 (0.3) · 3607 (0.3) · 3606 (0.3)

Soil Sampling Results

COPPER (ppm) — LEAD (ppm) — ZINC (ppm) — ARSENIC (ppm)

150 / 100 / 50 / 0

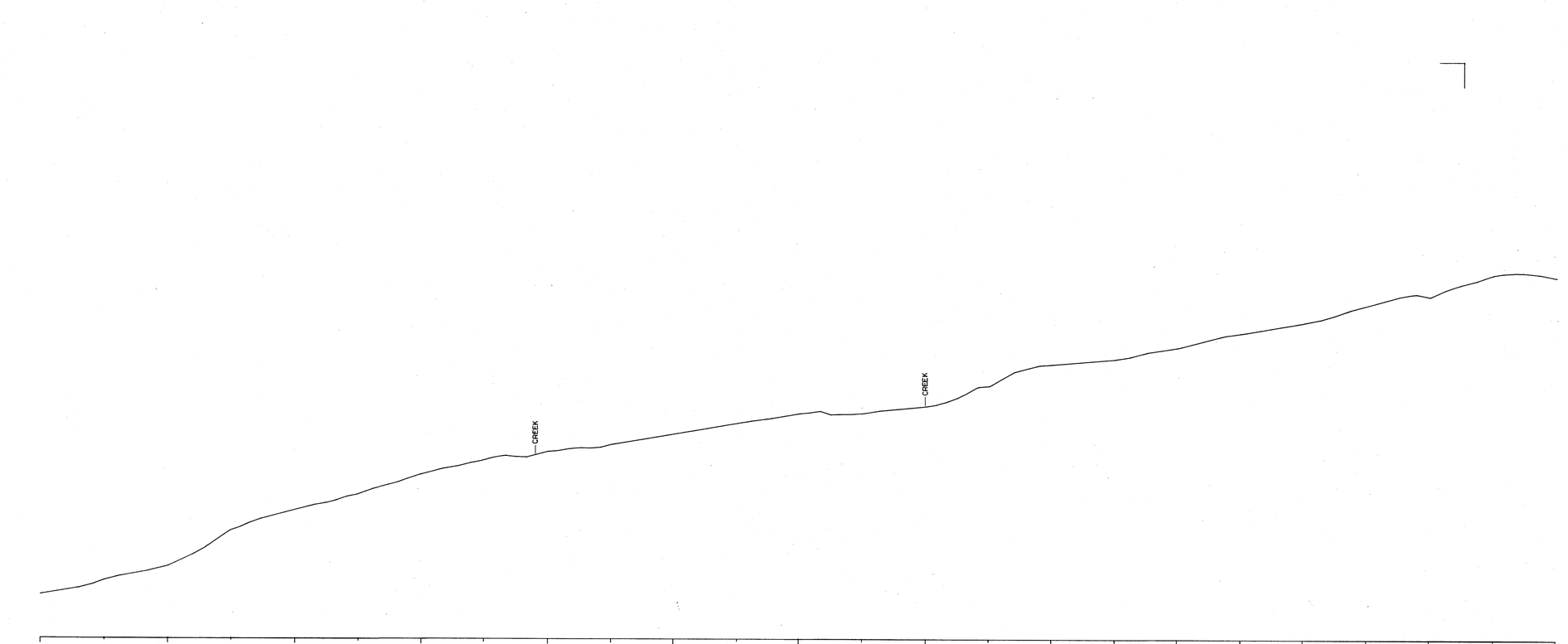
Total Magnetic Intensity

63000 nT
62500 nT
62000 nT

Geology & Topography

(METRES A.S.L.)

650
600
550
500
450
400



700 N 750 N 800 N 850 N 900 N 950 N 1000 N 1050 N 1100 N 1150 N 1200 N 1250 N 1300 N 1350 N 1400 N 1450 N 1500 N 1550 N 1600 N 1650 N 1700 N 1750 N 1800 N 1850 N 1900 N

Soil Sample Nos & Depths (m.)

8622 (0·7) 8623 (0·7) 8624 (0·7) 8625 (0·4) 8626 (0·7) 8627 (0·6) 8628 (0·7) 8629 (1·0) 8630 (0·6) 8631 (0·7) 8632 (0·6) 8633 (0·4) 8634 (0·6) 8635 (0·6) 8636 (0·7) 8637 (0·4) 8638 (0·3) 8639 (0·2) 8664 (0·8) 8665 (0·6) 8666 (0·3) 8667 (0·4) 8668 (0·5) 8669 (0·3) 8670 (0·4)

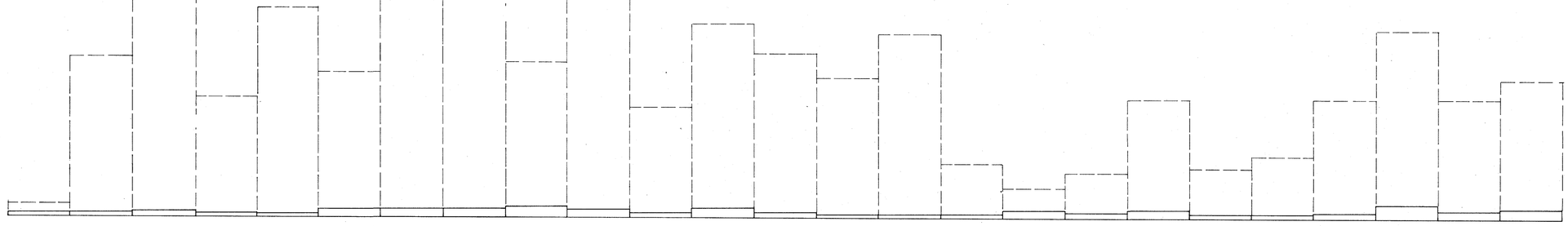
Soil Sampling Results

Ba Sn

400 200
300 150
200 100
100 50
0 0

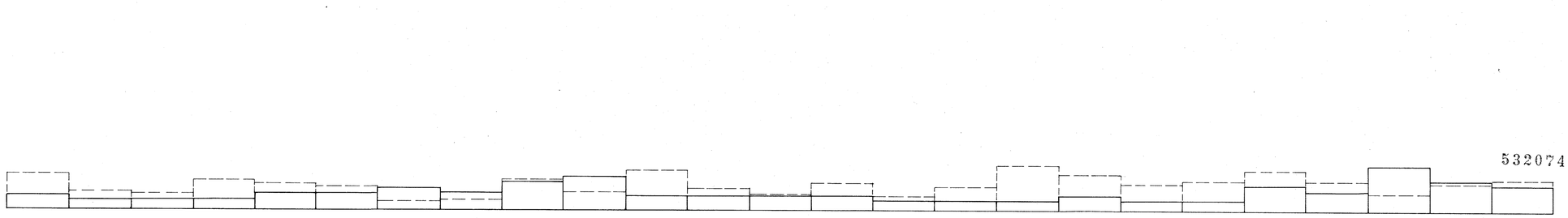
500 660 460 460

TIN (p.p.m.)
BARIUM (p.p.m.) - - - - -



200
150
100
50
0

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) - - - - -



532074

0 50 100

COPPER (p.p.m.)	10	6	8	6	6	6	22	6	6	6	2	<2	18	8	18	2	6	8	6	6	4	6	6	4	6
LEAD (p.p.m.)	<4	<4	4	<4	<4	<4	16	4	4	4	4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
ZINC (p.p.m.)	<2	<2	<2	<2	<2	<2	42	8	2	16	<2	<2	<2	2	16	<2	<2	<2	2	8	2	4	<4	2	4
ARSENIC (p.p.m.)	4	3	5	7	5	7	12	4	4	5	<2	<2	4	3	3	<2	2	4	<2	3	<2	2	3	<2	3
BISMUTH (p.p.m.)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
BASELINE (700 N – 1900 N)
SOIL SAMPLING RESULTS

1562

SCALE 1:2000	DATE 27-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP. No.
ENCL No.	DRG No. D/NP02/01

83-2020

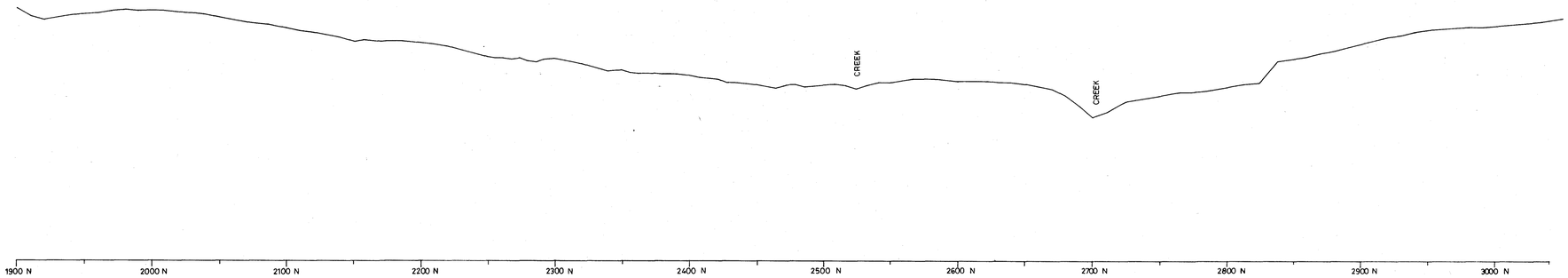
Total Magnetic Intensity

63000 nT
62500 nT
62000 nT

Geology & Topography

(METRES A.S.L.)

750
700
650
600
550
500



1900 N 2000 N 2100 N 2200 N 2300 N 2400 N 2500 N 2600 N 2700 N 2800 N 2900 N 3000 N

Soil Sample Nos & Depths (m.)

8670 (0.4)	8671 (0.7)	8672 (0.3)	8673 (0.4)	8698 (0.7)	8699 (0.5)	8670 (0.4)	8701 (0.4)	8702 (0.7)	8703 (0.7)	8704 (0.5)	8705 (0.8)	8706 (0.6)	8707 (0.4)	8731 (0.4)	8732 (0.3)	8733 (0.3)	8734 (0.3)	8735 (0.3)	8736 (0.4)	8737 (0.6)	8738 (0.4)	8739 (0.7)

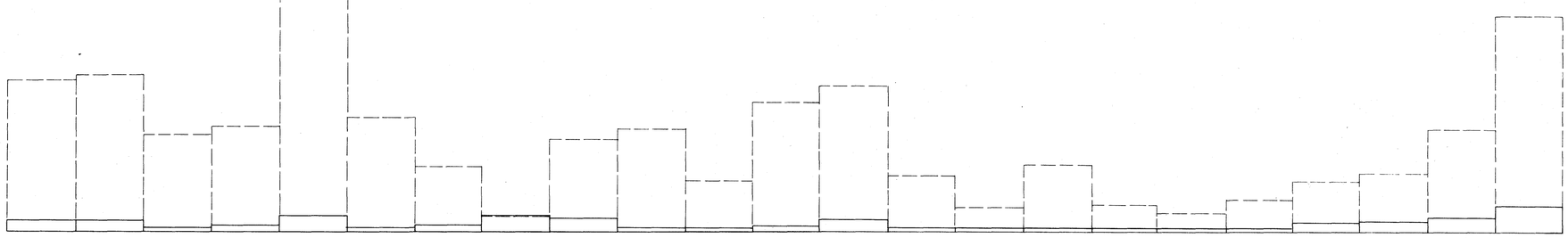
Soil Sampling Results

Ba Sn

400 200
300 150
200 100
100 50
0 0

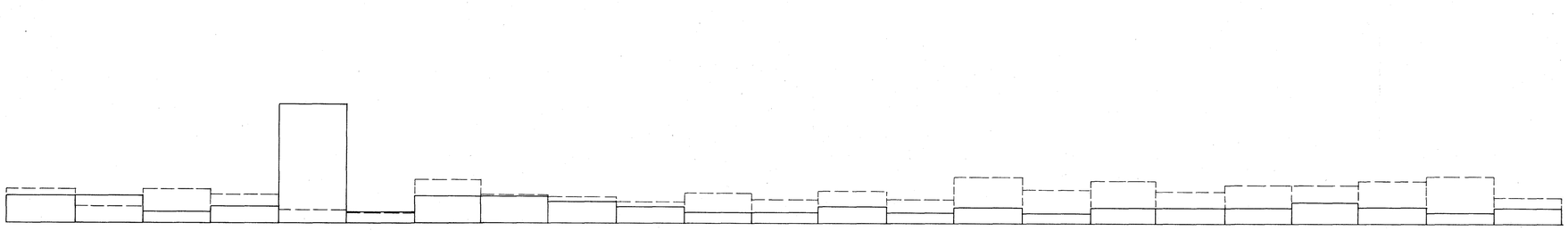
470

TIN (p.p.m.)
BARIUM (p.p.m.) - - - - -



200
150
100
50
0

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) - - - - -



COPPER (p.p.m.)	6	24	6	8	6	6	4	2	2	4	2	<2	4	2	<2	<2	<2	2	<2	2	<2	<2	<2
LEAD (p.p.m.)	<4	16	<4	<4	6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
ZINC (p.p.m.)	4	40	<2	4	<4	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ARSENIC (p.p.m.)	3	20	2	3	3	3	<2	<2	2	2	2	2	3	<2	<2	<2	3	2	2	6	<2	2	3
BISMUTH (p.p.m.)	<4	10	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

5 cm

532075

0 50 100

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
BASELINE (1900 N - 3000 N)
SOIL SAMPLING RESULTS

1563

SCALE 1:2000	DATE 28-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP.No.
ENCL No.	DRG No. D/NP02/02

83-2020

Total Magnetic Intensity

62500 nT
62000 nT
61500 nT

Geology & Topography

(METRES A.S.L.)

650
600
550
500
450
400

600 W 500 W 400 W 300 W 200 W 100 W 00 100 E 200 E 300 E 400 E 500 E 600 E

Soil Sample No's & Depths (m.)

8651	8650	8649	8648	8647	8646	8645	8644	8643	8642	8641	8640	8652	8653	8654	8655	8656	8657	8658	8659	8660	8661	8662	8663
(0.7)	(0.1)	(0.2)	(0.6)	(0.6)	(0.3)	(0.6)	(0.7)	(0.9)	(0.4)	(0.3)	(0.5)	(0.4)	(0.5)	(0.5)	(0.4)	(0.6)	(0.5)	(0.6)	(0.5)	(0.4)	(0.6)	(0.4)	(0.4)

Soil Sampling Results

Ba Sn

400 200
300 150
200 100
100 50
0 0

480 520

TIN (p.p.m.)
BARIUM (p.p.m.) - - - - -

200
150
100
50
0

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) - - - - -

COPPER (p.p.m.)	24	14	12	16	6	14	16	22	20	6	4	14	12	6	4	6	6	2	6	6	4	12	6	6
LEAD (p.p.m.)	28	30	40	32	12	16	14	34	20	<4	<4	8	4	6	<4	<4	<4	<4	10	<4	<4	<4	<4	<4
ZINC (p.p.m.)	20	8	8	18	12	42	24	46	130	<2	<2	<2	10	4	<2	<2	<2	<2	10	6	<2	2	<2	<2
ARSENIC (p.p.m.)	114	7	7	16	7	<2	7	18	5	2	2	3	6	6	<2	<2	<2	<2	7	2	2	5	<2	<2
BISMITH (p.p.m.)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

532076

0 50 100

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 1550 N (600 W - 600 E)
SOIL SAMPLING RESULTS

1564

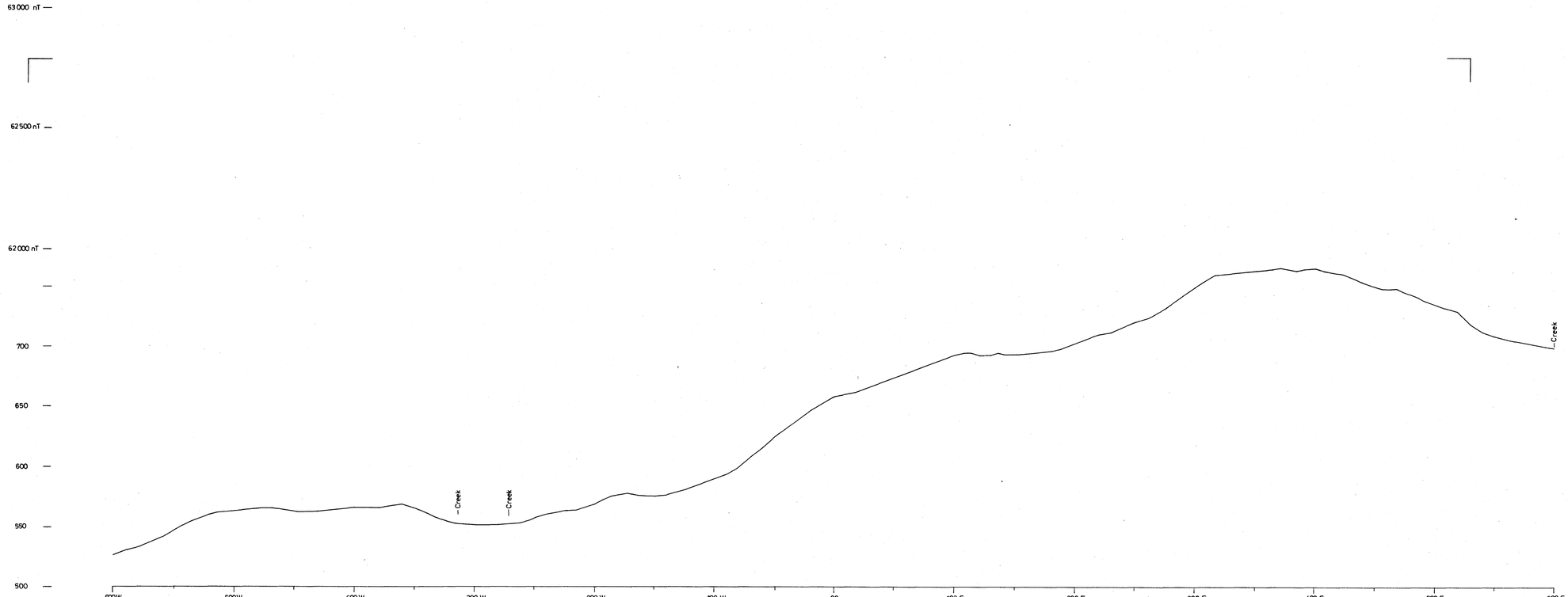
SCALE 1:2000	DATE 25-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP.No.
ENCL No	DRG No D/NPO2/03

83-2020

Total Magnetic Intensity

Geology & Topography

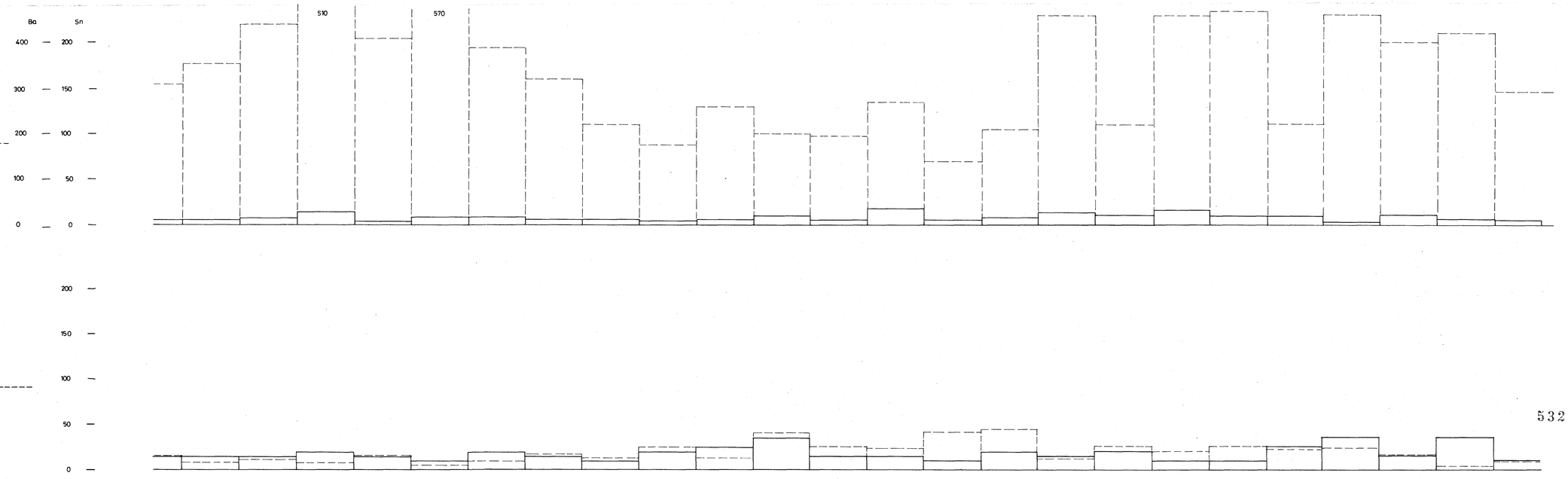
(METRES A.S.L.)



Soil Sample No's & Depths (m)

8674 (1.5)	8675 (0.6)	8676 (0.9)	8677 (0.7)	8678 (0.4)	8679 (1.0)	8680 (0.4)	8681 (0.6)	8682 (0.7)	8683 (0.9)	8684 (0.6)	8685 (0.4)	8673 (0.4)	8686 (0.6)	8687 (0.3)	8688 (0.9)	8689 (0.9)	8690 (0.4)	8691 (0.3)	8692 (0.7)	8693 (0.4)	8694 (0.8)	8695 (0.6)	8696 (1.5)	8697 (0.6)

Soil Sampling Results



COPPER (p.p.m.)	20	14	10	6	4	12	4	2	<2	2	4	4	8	4	6	18	10	6	6	26	18	12	8	40	44
LEAD (p.p.m.)	55	8	55	8	10	28	<4	<4	<4	<4	<4	<4	<4	<4	<4	18	20	10	8	12	16	10	10	12	48
ZINC (p.p.m.)	60	18	12	8	6	44	6	2	2	<2	4	<2	4	<2	4	12	30	2	4	30	10	16	26	24	38
ARSENIC (p.p.m.)	14	16	8	4	5	20	2	<2	<2	3	8	2	3	4	5	2	8	4	4	16	<2	3	16	4	80
BISMUTH (p.p.m.)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	10	<4

532077

0 50 100

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 2050 N (600W – 600E)
SOIL SAMPLING RESULTS

1565

SCALE 1:2000	DATE 19-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP.No.
ENCL No.	DRG No. D/NP02/04

83-2020

Total Magnetic Intensity

63000 nT
62500 nT
62000 nT

Geology & Topography

(METRES A.S.L.)

700
650
600
550
500
450

Creek
Creek
Creek
Creek
Creek

600 E
700 E
800 E
900 E
1000 E
1100 E
1200 E
1300 E

Soil Sample No's & Depths (m.)

8697 (0.8)
8788 (0.4)
8787 (0.3)
8786 (0.4)
8785 (0.6)
8784 (0.7)
8783 (0.6)
8782 (0.5)
8781 (0.5)
8780 (0.4)
8779 (1.0)
8778 (1.6)
8777 (0.7)
8776 (0.6)
8775 (0.5)

Soil Sampling Results

Ba
400
300
200
100
0

Sn
200
150
100
50
0

TIN (p.p.m.)
BARIUM (p.p.m.) - - - - -

200
150
100
50
0

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) - - - - -

COPPER (p.p.m.)	44	4	2	2	2	<2	2	2	8	4	8	2	4	4	2
LEAD (p.p.m.)	48	<4	<4	<4	<4	8	8	8	12	12	46	32	<4	26	<4
ZINC (p.p.m.)	38	<2	<2	<2	<2	4	<2	<2	8	4	34	44	<2	12	<2
ARSENIC (p.p.m.)	80	14	2	<2	<4	4	2	2	<2	2	10	<2	<2	3	3
BISMUTH (p.p.m.)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

532078

0 50 100 M

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 2050 N (600 E - 1300 E)
SOIL SAMPLING RESULTS

1566

SCALE 1:2000	DATE 18 - 1 - 83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP No.
ENCL No	DRG No D/NP02/05

83-2020

Total Magnetic Intensity

63000 nT
62500 nT
700
500
600
550
500
460
400
350

Geology & Topography

(METRES A.S.L.)

CREEK
CREEK
CREEK

600 W 500 W 400 W 300 W 200 W 100 W 00 100 E 200 E 300 E 400 E 500 E 600 E

Soil Sample No's & Depths (m.)

• 8708 (0.6)	• 8709 (0.6)	• 8710 (0.6)	• 8711 (1.0)	• 8712 (0.4)	• 8713 (0.3)	• 8714 (0.4)	• 8715 (0.8)	• 8716 (0.7)	• 8717 (0.4)	• 8718 (0.5)	• 8719 (0.5)	• 8720 (0.5)	• 8721 (0.6)	• 8722 (0.4)	• 8723 (0.4)	• 8724 (0.9)	• 8725 (0.5)	• 8726 (0.6)	• 8727 (1.0)	• 8728 (0.3)	• 8729 (0.7)	• 8730 (0.4)

Soil Sampling Results

Ba Sn

400 200
300 150
200 100
100 50
0 0

600 470 540

TIN (p.p.m.)
BARIUM (p.p.m.) - - - - -

200
150
100
50
0

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) - - - - -

532079

0 50 100

COPPER (p.p.m.)	4	4	12	42	< 2	2	<2	2	<2	2	< 2	2	2	2	4	<2	8	8	16	12	4	28	6
LEAD (p.p.m.)	8	<4	30	80	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	8	10	10	8	8	<4	<4
ZINC (p.p.m.)	<2	<2	40	100	< 2	<2	<2	<2	<2	<2	< 2	< 2	< 2	6	<2	<2	<2	10	24	20	12	18	8
ARSENIC (p.p.m.)	3	2	7	26	< 2	2	2	9	14	2	4	3	<2	<2	2	2	<2	3	14	10	14	12	20
BISMUTH (p.p.m.)	<4	<4	14	12	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 2550 N (600 W - 600 E)
SOIL SAMPLING RESULTS

1567

SCALE 1: 2000	DATE 24-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP. No.
ENCL No.	DRG No. D/NP02/06

83-2020

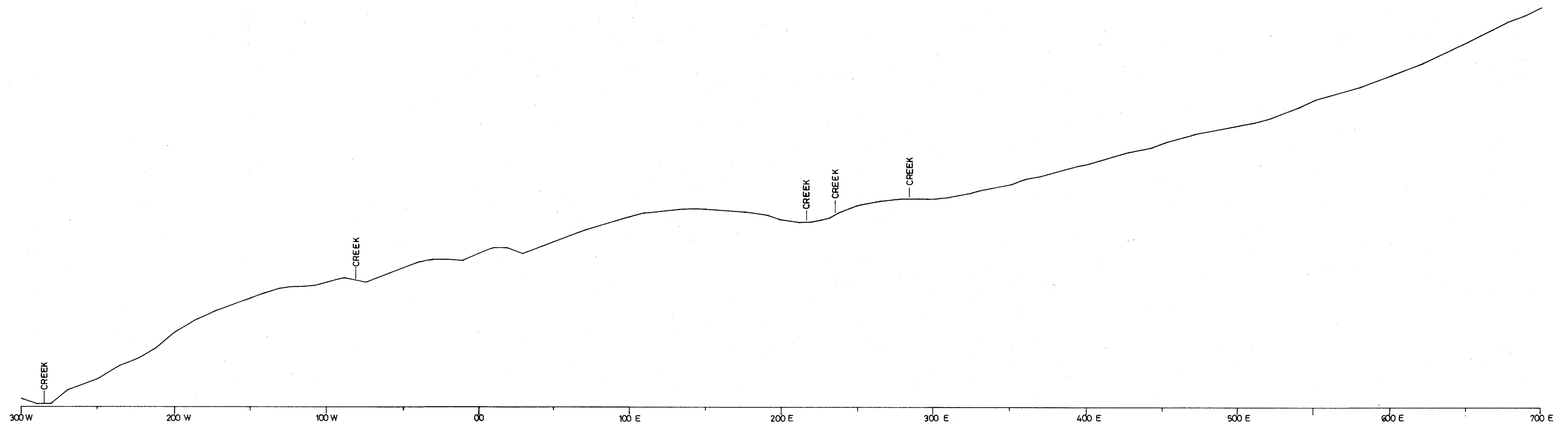
Total Magnetic Intensity

63000 nT
62500 nT
62000 nT

Geology & Topography

(METRES A.S.L.)

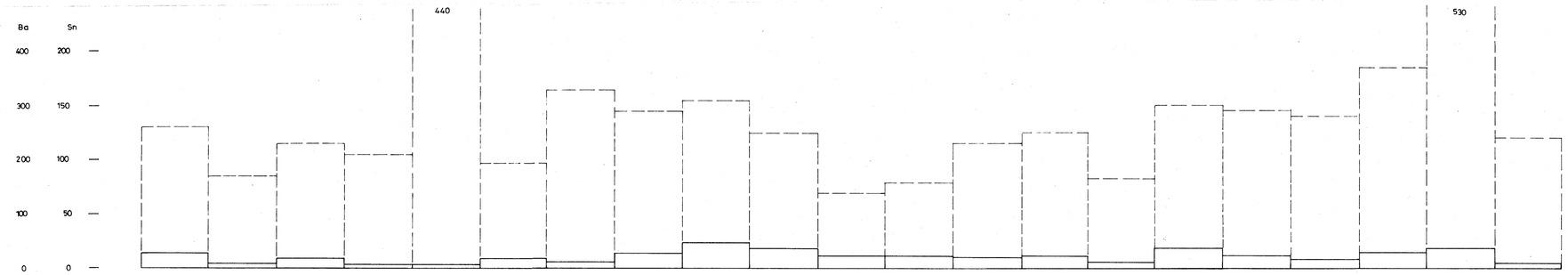
700
650
600
550
500

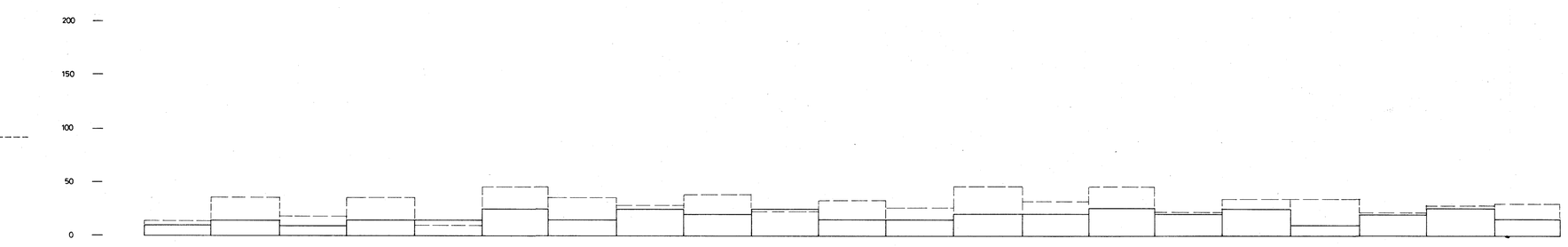


Soil Sample No's & Depths (m.)

8601 (0·7)	8602 (0·5)	8603 (0·7)	8604 (0·3)	8605 (0·6)	8606 (0·5)	8607 (0·6)	8608 (0·6)	8609 (0·6)	8610 (0·7)	8611 (0·6)	8612 (0·6)	8613 (0·4)	8614 (0·6)	8615 (0·5)	8616 (0·7)	8617 (0·6)	8618 (0·6)	8619 (1·1)	8620 (0·4)	8621 (0·7)

Soil Sampling Results





COPPER (p.p.m.)	10	8	6	4	2	2	4	8	4	6	32	6	6	8	6	36	6	10	14	18	14
LEAD (p.p.m.)	12	<4	<4	<4	<4	<4	<4	<4	<4	6	10	<4	<4	<4	<4	<4	6	8	12	<4	<4
ZINC (p.p.m.)	12	2	6	2	10	<2	<2	<2	4	2	4	2	<2	<2	<2	<2	<2	<2	20	8	2
ARSENIC (p.p.m.)	4	2	<2	4	12	3	2	5	<2	3	3	<2	7	6	5	10	40	16	40	16	4
BISMUTH (p.p.m.)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	4	<4	<4	<4	<4	<4	<4	<4	<4	<4

532080

0 50 100

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 3050N (300W - 700E)
SOIL SAMPLING RESULTS

1568

SCALE 1:2000	DATE 21-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE	REP.No.
ENCL No.	DRG No. D/NP02/07

83-2020

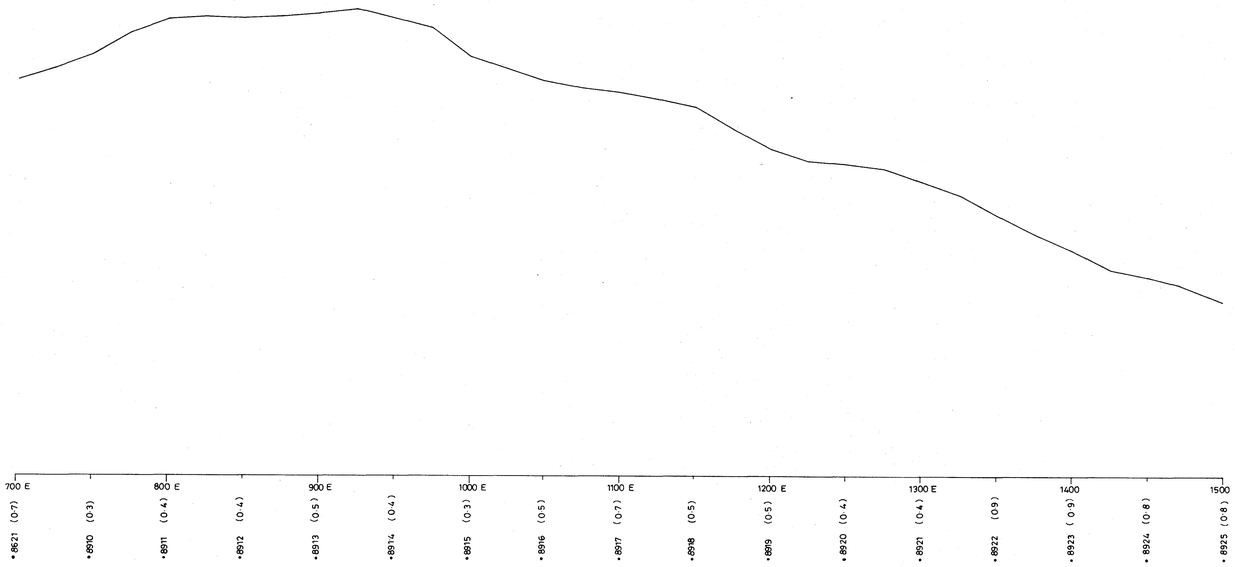
Total Magnetic Intensity

63000 nT
62500 nT

Geology & Topography

(METRES A.S.L.)

800
750
700
650
600
550
500



Soil Sample No's & Depths (m.)

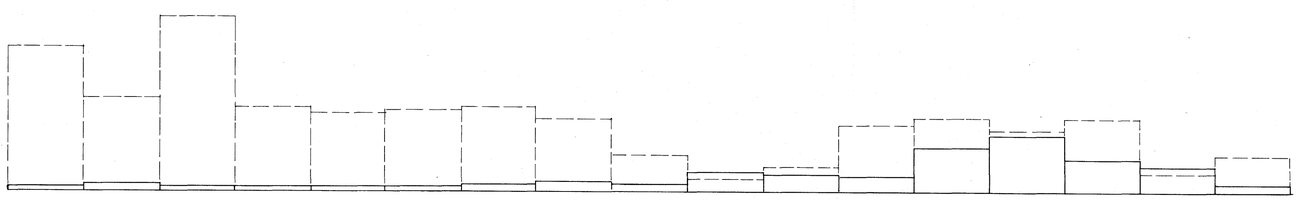
8621 (0.7)	8910 (0.3)	8911 (0.4)	8912 (0.4)	8913 (0.5)	8914 (0.4)	8915 (0.3)	8916 (0.5)	8917 (0.7)	8918 (0.5)	8919 (0.5)	8920 (0.4)	8921 (0.4)	8922 (0.9)	8923 (0.9)	8924 (0.8)	8925 (0.8)

Soil Sampling Results

Ba Sn

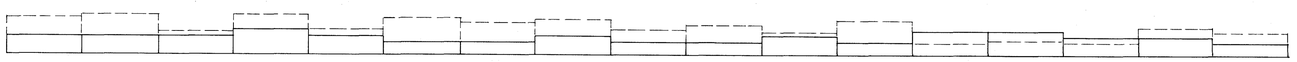
400 200
300 150
200 100
100 50
0 0

TIN (p.p.m.)
BARIUM (p.p.m.) - - - - -



200
150
100
50
0

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) - - - - -



COPPER (p.p.m.)	14	4	6	2	4	4	6	2	<2	4	<2	6	4	4	2	<2	2
LEAD (p.p.m.)	<4	4	10	<4	<4	<4	6	<4	<4	<4	<4	8	28	32	10	<4	6
ZINC (p.p.m.)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	10	6	<2	<2
ARSENIC (p.p.m.)	4	2	2	<2	3	3	2	<2	<2	<2	2	<2	<2	2	2	<2	2
BISMUTH (p.p.m.)	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4

532081

5 cm

0 50 100

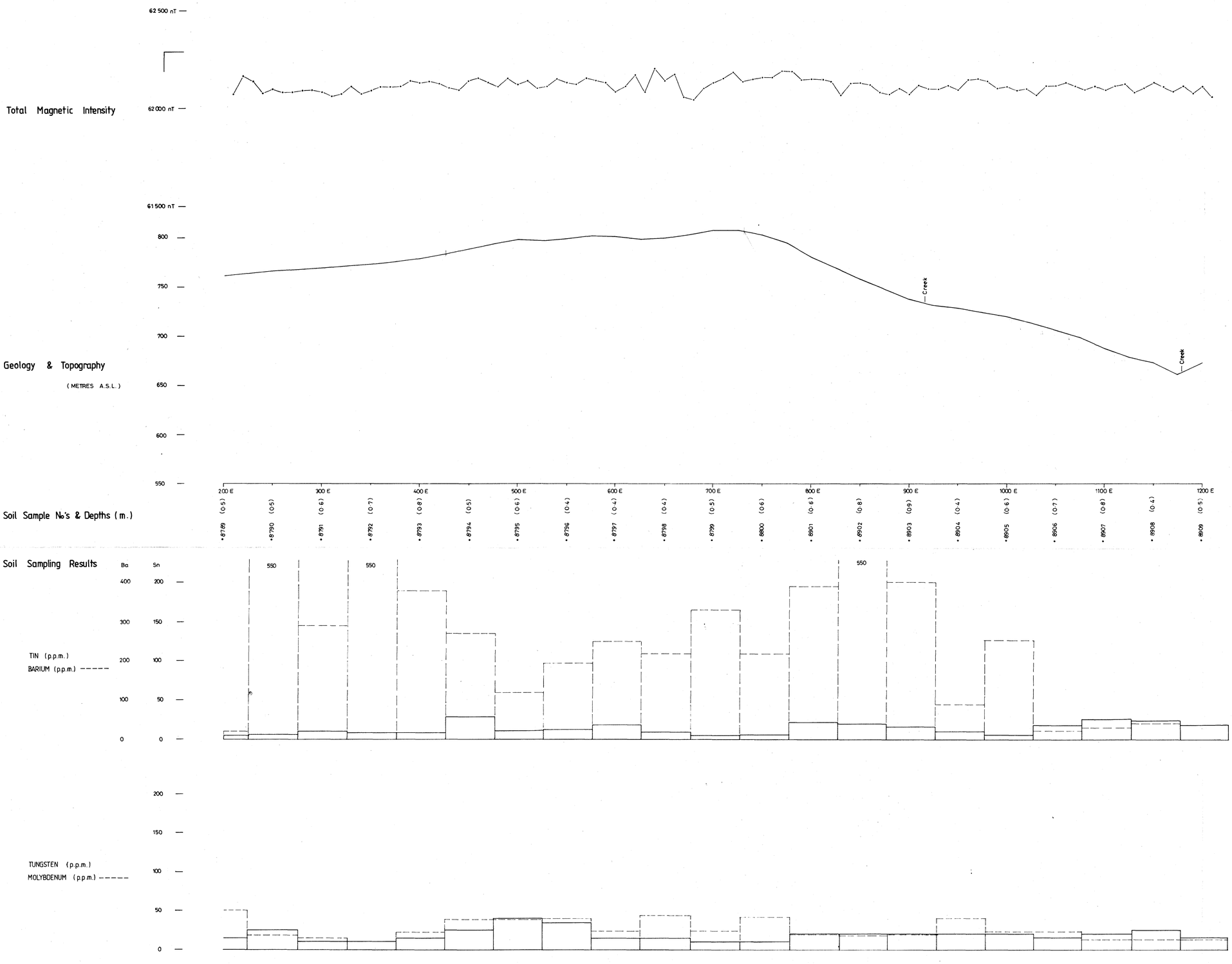
The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 3050 N (700 E - 1500 E)
SOIL SAMPLING RESULTS

1569

SCALE 1:2000	DATE 20-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP.No.
ENCL No.	DRG No. D/NP02/08

83-2020



COPPER (p.p.m.)	16	6	2	18	4	< 2	4	< 2	< 2	4	< 2	4	10	8	10	< 2	< 2	4	< 2	< 2	2
LEAD (p.p.m.)	10	8	12	20	8	< 4	8	< 4	< 4	< 4	< 4	440	150	80	130	14	110	< 4	< 4	8	10
ZINC (p.p.m.)	38	10	18	46	12	6	6	< 2	< 2	< 2	6	16	32	28	28	< 2	2	< 2	< 2	< 2	2
ARSENIC (p.p.m.)	< 2	12	6	30	4	< 2	3	2	< 2	3	7	< 2	12	9	16	3	3	< 2	< 2	< 2	2
BISMUTH (p.p.m.)	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4

532082

0 50 100

5 cm

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 3650 N (200E - 1200 E)
SOIL SAMPLING RESULTS

1570

SCALE 1: 2000	DATE 17-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP. No.
ENCL No.	DRG No D/NPO2/09

83-2020

Total Magnetic Intensity

63000 nT
62500 nT
62000 nT

Geology & Topography

(METRES A.S.L.)

750
700
650
600
550
540

300 E 400 E 500 E 600 E 700 E 800 E 900 E 1000 E 1100 E 1200 1300 E 1400 E 1500 E

Creek Creek Creek Creek Creek Creek Creek

Soil Sample Nos & Depths (m.)

8764 (0.7)	8763 (0.6)	8762 (0.5)	8761 (0.9)	8760 (1.0)	8759 (0.4)	8758 (0.3)	8757 (0.3)	8756 (0.6)	8765 (0.5)	8755 (0.5)	8766 (0.5)	8754 (0.4)	8767 (0.7)	8753 (0.3)	8768 (0.4)	8752 (0.5)	8769 (0.4)	8751 (0.7)	8770 (0.4)	8750 (0.5)	8751 (0.3)	8749 (0.4)	8772 (0.5)	8748 (0.5)	8773 (0.6)	8747 (0.4)	8774 (0.3)	8746 (0.8)	8745 (0.3)	8744 (0.4)	8743 (0.9)	8742 (0.7)	8741 (1.2)	8740 (1.7)

Soil Sampling Results

Ba Sn

400 200
300 150
200 100
100 50
0 0

720 510 480

TIN (p.p.m.)
BARIUM (p.p.m.) ------

200
150
100
50
0

240

TUNGSTEN (p.p.m.)
MOLYBDENUM (p.p.m.) ------

COPPER (p.p.m.)	2	< 2	2	34	12	< 2	4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2	< 2	< 2	4	< 2	2	< 2	4	< 4	< 2	2	< 2	< 2	< 2	< 2	70	80
LEAD (p.p.m.)	< 4	8	8	32	22	24	6	< 4	10	< 4	10	< 4	< 4	< 4	< 4	< 4	8	< 4	12	6	10	10	< 4	6	12	20	< 4	6	26	12	12	42	< 4	40	170
ZINC (p.p.m.)	< 2	2	14	90	48	4	< 2	< 2	2	2	6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	10	< 2	< 2	4	< 2	6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	28	< 2	14	135
ARSENIC (p.p.m.)	< 2	4	6	32	18	3	2	< 2	4	7	6	3	2	< 2	3	< 2	2	3	4	4	4	< 2	< 2	8	2	5	< 2	2	2	< 2	4	5	< 3	50	460
BISMUTH (p.p.m.)	< 4	6	< 4	< 4	< 4	10	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	4	4	< 4	< 4	< 4

5 cm

532083

0 50 100

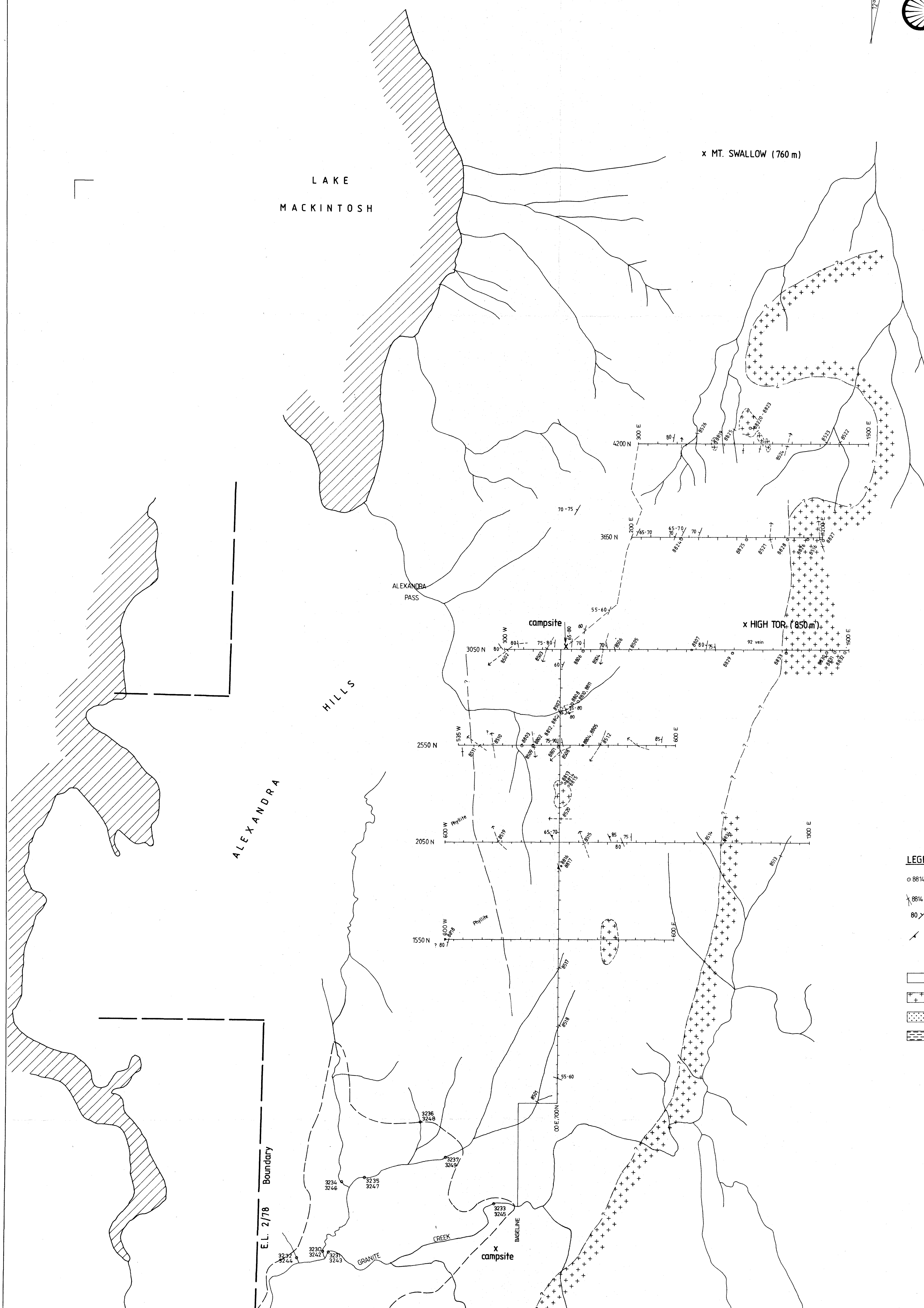
The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
HIGH TOR GRID
LINE 4200 N (300E - 1500 E)
SOIL SAMPLING RESULTS

1571

SCALE 1: 2000	DATE 19-1-83
AUTHOR J.J.L.	DRAWN J.L.L.
OFFICE DEVONPORT	REP. No.
ENCL No.	DRG No. D/NP02/10

83-2020



LEGEND

⊙ 8814	ROCK CHIP SAMPLE LOCATION
8814	STREAM SEDIMENT AND OR PANNED CONCENTRATE SAMPLE LOCATION
80	STRIKE AND DIP OF PRIMARY BONDING (BEDDING)
	STRIKE AND DIP OF JOINTING
	QUATERNARY ALLUVIUM
	DEVONIAN GRANITE / ADAMELLITE, PORPHYRITIC IN PART (UNDIFFERENTIATED)
	PRECAMBRIAN QUARTZITE PREDOMINANTLY HORNFELSED IN PART. POSSIBLE MINOR SHALE PHYLLITIC UNITS
	PRECAMBRIAN BLACK SHALES / PHYLLITE

TN MN

100 50 0 100 200 300 400 500 m

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
AREA B
HIGH TOR GRID
GEOLOGY

1572

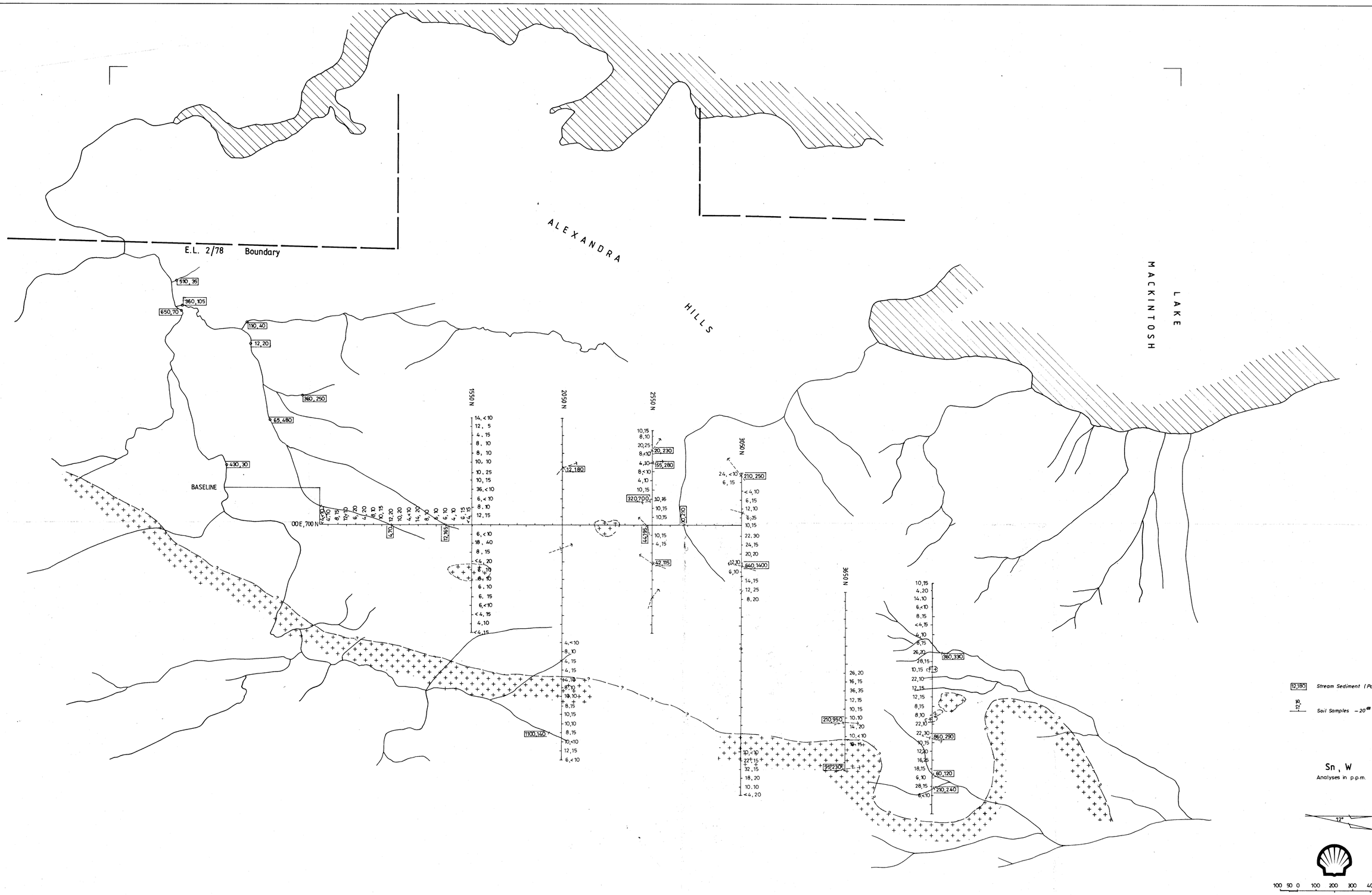
SCALE	1:10 000	DATE	24 - 3 - 83
AUTHOR	J.J.L.	DRAWN	J.L.L.
OFFICE	DEVONPORT	REP. No.	
ENCL. No.		DRG No.	D/NPO2/011

532084

83-2020

5 cm

1572



532085

The Shell Company of Australia Limited
METALS DIVISION

E.L. 2/78 GRANITE TOR
AREA B
HIGH TOR GRID
STREAM SEDIMENT AND SOIL SAMPLE RESULTS; Sn, W

1573

SCALE 1: 10 000	DATE 4 - 8 - 83
AUTHOR W.D.S.	DRAWN J.L.L.
OFFICE DEVONPORT	REP. No.
ENCL No.	DRG No. D/NP02/012

83-2020