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TITLE: EL 5/63 AREA 3
MT BLOCK
AN ASSESSMENT

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APPENDICES:

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AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

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COMSTAFF PROPRIETARY LIMITEDEL 5/63 AREA 3MT BLOCK
AN ASSESSMENT1. SUMMARY AND INTRODUCTION

The Mount Block tenement presently covers an area of approximately 47.5 km². The area straddles the entire east-west sequence of the Mount Read Volcanics. This review summarises the results of Comstaff's work in the area from 1969 to present in the context of the regional geological and mineralisation setting.

Mineralisation likely in Mount Block is of a volcanogenic nature including massive, disseminated and vein styles.

Although no former gridded areas can be reinterpreted as requiring further input of resources two targets for investigation have been defined; Debussey Creek where visible gold reported in stream sediments was inadequately explored and Thunderbox Creek. This latter target is based on extensive low grade barite occurrences reported in historical texts and some supporting geological and geochemical evidence accumulated by Comstaff.

It should be possible to assess these areas quickly to establish the source of gold at Debussey Creek and whether the barite is indicative of a volcanogenic target.

This report is formatted in such a way as to proceed from the early stream sediment work through the successive phases of follow-up, summarising the results which have led to the current targets. Only regional maps are supplied with this document (eg TAS/2/4139). Relevant detailed maps are identified in the text and may be obtained if required from Waratah. Geochemical statistics are appended to this document.

2. STREAM SEDIMENTS

2.1 In 1969, 1970 and 1971, 1188 stream sediment samples were collected from the present Mount Block tenement, and Mount Charter area during the Mackintosh regional project (T Chisholm 1971). Samples were collected at approximately 500' (150m) intervals from active streams. Two hundred and eighty five soil samples were collected from along access roads. The -80# fraction of both soil and stream sediment samples were analysed for Cu, Zn, Ag and Ni by AAS and Sn by colorimetry.

2.

Approximately one hundred heavy mineral concentrate samples were collected during the programme. The heavy mineral fraction was separated by tetra-bromoethane (SG 2.96) after weighing and sieving out the minus 350 mesh material. The HMF was checked under the microscope before being spectrographically scanned for Co, Ni, V, W, Mo, Mn, Ta, Nb, Cu, Pb, Zn, Sn, Cd, Bi, Ag, Au, Ga, Ge, As and Sb.

A heavy mineral concentrate sample in Debussey Creek, a small southern tributary of the Que River, indicated the presence of gold in a spectrographic scan with the following anomalous values (ppm)

Pb 10,000; Zn 1,000; Sn 200; Ag 100; Au 500.

Follow up heavy concentrates were collected at 100' (30m). One to two gold colours were recorded at the 200' (60m), 800' (240m), 1000' (300m) and 1100' (330m) intervals. The minus 60# fraction of the HC were scanned for a number of elements. Gold values reported below the level of detection (3 ppm) despite the visible gold.

Other heavy mineral concentrate samples gave anomalous values for Zn, Pb and Sn in the Bulgobac-Mount Charter-Animal Creek triangle in the centre of the tenement. Visible cassiterite was recognised by the laboratory in the HC with 10000 ppm Sn from Pink Creek in the SW section of the present Sock Creek grid (TAS/2/4138,4139).

(Refer to maps TAS/2/263 to 265 and the appended statistics for detailed results).

2.2 During 1969, 1970 and 1971 the Mount Charter/Que River, and Bulgobac/Que River programmes were conducted; they impinge on the Mount Block area.

In the Mount Charter programme 378 stream sediment samples were collected. The minus 80# fraction was analysed for Cu, Zn, Ni, Ag, Mo by AAS and Sn by colorimetry. Selected samples were analysed by AAS for Bi and Sb. Seventy samples showing high Zn and Ag values were subsequently analysed for Pb.

(Refer to TAS/2/92, 89, 91, 166, 167 and 168 for detailed results and the Appendix for geochemical statistics).

The Bulgobac programme extended onto the western section of Mount Block. Stream sediment samples and heavy mineral concentrates were collected. Eighteen maps variously depict the geochemical results and are available at Waratah.

2.3 In 1978 an assessment of geochemical results from the past was made for the elements Cu, Pb, Zn, Ni and Sn using a computer.

3.

Seven stream sediment geochemically "anomalous" areas were indicated in the Mount Block tenement (TAS/2/1637). The geochemical coverage in the southern part was considered inadequate and a further programme was recommended. In the present review Animal Creek and Farm Creek are considered anomalous in Pb-Ag. (TAS/2/1643 to TAS/2/1646 Waratah show the geochemical coverage).

2.4 In 1981-82 the southern section was resampled as recommended (1978). Two hundred and forty nine stream sediment samples were collected at 100m intervals, and sieved into 2 fractions -20 + 80#; -80#. Samples were assayed for Cu, Pb, Zn, Ni, Ba, Sn, Ag, Au and in some cases As and W.

Anomalies were detected as tabulated below but unfortunately most samples contained insufficient sample for gold analysis. Of the 28 analysed only one gold value above detection level was obtained. The -20 + 80# fraction at 400m in Bonnie Lass Creek gave 0.386 ppm Au (TAS/2/4138).

Other anomalies selected are:-

Sheet No	Creek	Position	-80# (Cu, Pb, Zn, Ni, Ba, Ag, Sn, As)	-20# (Cu, Pb, Zn, Ni, Ba, Ag, Sn, As)
TAS/2/2965	Thunderbox	200m	12, 48, 40, 14 1093, 0.1, x, -	4, 9, 23, 10 243, 0.2, 4, -
		300m	10, 48, 50, 15 442, 1.0, 3, -	4, 13, 30, 11 205, x, x, -
TAS/2/2962 Profile	Fork Creek	0m	60, 33, 93, 24 108, 0.2, 6, -	145, 14, 36, 23 97, 0.3, x, -
TAS/2/2974	Fork Creek	800m	195, 3, 20, 15 47, 0.7, 10, -	65, 4, 6, 8 56, 0.5, 9, -

x = BLD. (Refer to plans TAS/2/2958, 59, 62-65 and 70 for results and the Appendix for geochemical statistics).

3. SOIL GRIDS

Since initiation of geochemical work by stream sediment sampling in 1969 various follow-up grids have been cut. They are shown on plan TAS/2/4138 and are described here from north to south. A brief description of the Mount Charter grid which has actually never been in ground held by Comstaff is included for comparative purposes.

4.

a) Mount Charter Grid.

This grid was established in 1970-1971 to follow-up the Zn-Pb-Ag stream sediment anomaly in a southern tributary of the Que River. In hindsight the grid lies between the Hellyer prospect and Que River mine. Briefly the geochemical response over the grid was as follows:-

Pb. Peak 6900 ppm, 10 samples with + 1800 ppm. The +600 ppm contour defined a zone 350m x 60 to 140 m with a NE trend.

Zn. Peak 900 ppm. The + 200 ppm contour defined a zone 280 m long x 20 to 60 m wide.

Ag. Peaks at 26 ppm. The +2 ppm defines a narrow zone 430 m in length.

No Au was detected in the spectrographic scan.

It may not be valid to make comparisons between this highly anomalous geochemistry and the low responses elsewhere in Mount Block since many factors influence the absolute level of results - but they are worth bearing in mind.

Some IP and SP geophysics was done and a costean was excavated; no mineralisation was observed but interesting alteration features were noted.

(Results from the Mount Charter grid are preserved on TAS 2/220 - 224 and 512).

b) Debussey Creek

A small closed traverse was established over Debussey Creek late in 1972. One hundred and thirty seven A horizon soil samples were collected and analysed for Cu, Pb and Zn only. Values range up to 20 ppm for Cu, 360 ppm for Pb and 130 ppm for Zn. This is considered an inadequate approach to follow up gold.

Geologically the area is underlain by dark grey shales and argillites of the Que River beds. To the south near the headwaters of Debussey Creek the rocks are volcanic tuffs and agglomerates. Milky white quartz veining appears to be associated with the contact. Bedding and cleavage of the shales strikes ENE and dip SE. An acid porphyry dyke was reported at the 800' (243m) mark in Debussey Creek.

(Refer to plans TAS/2/553 and 554 for geochemical data).

5.

c) DAB Grid

In 1978 the Input EM anomaly CS30A, coincident with a stream sediment anomaly designated S3 from the 1978 geochemical review, was followed up with the DAB grid.

Three grid lines were cut and auger sampled at 20 metre intervals with assays for Cu, Pb, Zn and Ba ranging to 42 ppm, 108 ppm, 54 ppm and 530 ppm respectively. Geophysical surveys consisted of ground magnetics and Crone EM. The former provided no anomalous patterns. The Crone EM gave anomalies on each line but of contrasting type to the Input EM target. Geologically DAB grid lies in the Que River beds which consist of dark grey to black shales with volcanic interbeds. Some costeaning was done.

In conclusion it appears that the Crone EM and barium responses relate to a relatively substantial belt of slaty shales.

(Refer to TAS/2/1908,1637).

d) Sock Creek Grid and Extension

The Sock Creek prospect has been reviewed a number of times in the past including Hopwood 1977 and Hall 1979. This study has failed to demonstrate any new directions that work might take. It has however shown that the style of mineralisation is not inconsistent with that typical of the geological environment in which Sock Creek falls.

Fourteen diamond drillholes, with a total of 2326.46m were drilled at Sock Creek in a zone 700m (NS) x 150 to 200m across (TAS/2/819).

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SUMMARY OF DRILLING RESULTS
(from N to S)

Hole No	Principal Zones of greater than 1000 ppm Pb and/or Zn	Peak Values (if greater than 1%)
	m	% width
SK 9	76.25-89.3	-
SK 8	80.6-121	2.7% Zn 4.0% Pb 112-113.1m 119-120m
SK 6	47.0-51.0 91.4-108	- 1.55% Zn 105-106m
SK 5	77.16-92 121-131 139-164	1.1% Zn 3.2% Pb 6.0% Zn 7.5% Zn 77.16-78.16m 122 - 123m 124 - 125m 151.87-152.83
SK 1	51.2-93 112.2-119	10.1% Pb 15.0% Zn 8.0% Zn 56.2-56.76 69.28-70.28 115.14-115.85
SK 14	-	-
SK 11	25.5-90	3.55% Pb 12.5% Zn and 76.4-76.8m
SK 13	-	-
SK 2	28-103.68 116-143	13.5% Zn 2.7% Pb 1.3% Zn 93.49-94.49 95.49-96.49 132 - 133
SK 10	6 - 78.05 105.5-120.75	- 1.0% Zn 108 - 109
SK 3	34-64 81-106	- 8% Zn 92-93
SK 12	-	-
SK 4	31.39-49.09 71.56-82.10	- -
SK 7	30.5-59 75.8-89	- -

7.

It is clear from the summary of drilling results that the system is Zn dominated. Cu is only present in minor quantities in the central part of the drilled zone. Four holes were analysed for Au providing a peak value of only 0.1 ppm.

Geologically mineralisation is related to a zone of net vein fracturing associated with a porphyry sediment contact. The volume of metal in the veins declines away from the contact and characteristically Pb is higher in the porphyry. The net vein fracturing is preferentially controlled by the S1 cleavage and dips steeply east. This compares with regional geological patterns and drill hole interpretations indicating geological contacts dip west. Hopwood provides a comprehensive review of mineralisation and alteration styles which relate the net fracturing and mineralising events together. A number of geophysical surveys were done including ground magnetics and Crone EM. Crone EM provided only one anomaly which is underlain by black fissile shales. A number of responses were interpreted from an IP Survey by Trussell.

In conclusion a few points emerge from the restudy which may be relevant to Mount Block if not specifically to Sock Creek. Zn results in the soil are highly depressed in contrast to bedrock for example 100 ppm v 3000 ppm on line 10N. Secondly geochemical patterns suggest an east west influence may to some extent control the distribution of mineralisation on the north south oriented Sock Creek target. Refer to Waratah for plans (almost 100 on file).

e) Animal Creek Area

A three line grid of over 1 km line length is shown on TAS/2/4138. It is known that at least 1 line has been cut but no other work appears to have been done.

f) Grid DAC

The nine line grid established in 1978 has been described in detail by Hall 1979. All lines were A^o geochemically sampled and a number of lines were auger sampled at 20 metre intervals. A summary of A^o geochemical statistics are appended. Plotted results fail to provide interesting geochemical patterns. Although a narrow Cu- Ba zone occurs in the north-west part of the grid. Barium in contrast to the other elements reports as higher values in the auger samples than in the A^o samples.

The only geophysics conducted was a ground magnetic survey on three lines in which a magnetic low is recorded over a contact between volcanic units.

Geologically the important features noted by Hall are:-

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- 1) A western sequence (part of the central Mount Read Volcanics of Corbetts) consisting predominantly of rhyodacites with interbedded pyroclastic flows. A few andesitic and dacitic rock units were recognised in the sequence.
- 2) An eastern sequence of essentially epiclastic units with silicified sandstones with disseminated pyrite to 2%. This sedimentary sequence is considered to be the lateral equivalent to the Farrell Slates at Tullah.
- 3) The east and west sequence is in fault contact in the central part of the grid area. Cross faults are also recognised.
- 4) A rhyodacitic agglomerate has been mapped in the central grid area on the eastern margin of the western sequence.

In regional context the DAC grid tests the north strike extension of the Farrell group of mines. It is too far east to represent facies equivalents of the Que River Mine sequence.

g) Tullabadine Grid

Tullabadine grid was cut to follow-up an 8000ppm Zn stream sediment sample result from Tullabadine creek. The grid was soil sampled providing maximum values in A^o material of 40 ppm, 190 ppm, 1200 ppm and 1.6 ppm for Cu, Pb, Zn and Ag respectively. The originally anomalous silt sample was discovered to be in a swamp. The swamp was tested by drilling of eighteen Banka holes.

They gave a maximum Zn response of 300 ppm. Rock sampling during mapping provided a peak value of 1100 ppm Zn. The rock and soil anomaly lies on the steep eastern slope of Tullabadine Creek above the swamp. Lithotypes mapped include acid lavas, welded tuffs or cherts, volcanoclastics and shales.

It is concluded that the original anomalous sample represents hydromorphically dispersed and concentrated values.

h) Mullabadine Grid

The Mullabadine Grid was established over the old Mullabadine prospect. It now is flooded beneath Lake MacIntosh. All grid soil values were low as they sample fluvioglacial material. Chip samples from an old adit gave 0.2% Cu, 250 ppm Zn, 150 ppm Pb and 10 ppm Ag. The pyrite chalcopyrite mineralisation responsible for these values was largely confined to veins in quartz sericite schist. They are regarded as lateral equivalents of the Farrell Slates.

3. AIRBORNE GEOPHYSICS

Two airborne geophysical surveys are relevant to the Mount Block area, Input EM in 1975 and magnetics in 1981.

The Input EM survey provided anomalies in the north, and the north-west of the licence representing the shaley western sequence of the Mount Read volcanics (TAS/2/1637). Tertiary basalt is also mapped in this area. Two responses outside the licence relate to the Owen conglomerate. One Input anomaly (CS30A) was followed up by the DAB grid. The ground EM did not confirm the geophysical characteristics indicated by the Input response.

The magnetic survey was flown by Geoex Pty Ltd for the Tasmanian Department of Mines. The results have been incorporated into Mount Block work (TAS/2/4137).

4. GEOLOGY - Regional

An understanding of the regional geological context of the Mount Block area is imperative to a review of its prospectivity. The Mount Read Volcanics (MRV) occupy a meridional belt 10-15km wide extending some 160 km from Elliot Bay in the south to north of the Que River Mine. They occupy the eastern section of the Dundas Trough which is flanked on the east by the Tyennan region. The Mount Block tenement straddles the Mount Read Volcanics near its northern end.

Corbett 1981 subdivided the MRV into three units

- a) **Central Sequence.** This sequence consists mainly of rhyolite and dacite lavas and pyroclastic rocks with subordinate andesite and basalt. Sedimentary rocks form only a minor component. Lithologies include massive flow banded and autobrecciated feldspar porphyry lava, welded ignimbrites, breccia and non welded tuff and agglomerates. A characteristic of the sequence is scarcity of quartz phenocrysts.

An intrusion of adamellite and granite near Mount Murchison (south of the Mount Block area) has yielded a K-Ar date on hornblende of 524 + 15 Ma (McDougall and Leggo 1965).

- b) **Western Sequence.** This sequence is characterised by a higher proportion of sedimentary rocks. Quartz phyrlic tuffaceous units, including submarine mass flow deposits and finer vitric and crystal vitric tuffs are common, as are quartz-porphyry intrusives (flows or intrusive porphyries at Sock Creek?). Quartz phenocrysts are common in this sequence.

- c) **Eastern Sequence.** The Tyndall Group north of Queenstown is where this sequence is best developed. The Farrell slates to the north are included here in this sequence. The sequence consists of mixed volcanics and volcanoclastic conglomerates. A thin sedimentary unit rests unconformably on the Pre Cambrian metasediments.

Within the Mount Read Volcanics all presently mined ore deposits and most of the significant mineralisation lie within the central sequence with a distinct preference for its western flank. There are a number of features which may influence ore development in this stratigraphic location. These include the nature of the contact between the western and central sequence, inflections in that contact, the presence of andesites, quartz porphyries and agglomerates and transcurrent structural phenomena.

These features related to known mineralisation can be summarised as follows:-

1. **Rosebery** - Andesites, quartz porphyries, agglomerates.
2. **Que River** - Andesites, quartz porphyries, agglomerates, east striking fault offsets.
3. **Hellyer Prospect** - As per Que River plus a strike change from north east to east in the Que River beds.
4. **Hercules** - As per Rosebery with the addition of an invasion northwards by the central volcanics into the western sequence and a south-east offset fault.
5. **Mount Lyell** - Minor andesites, quartz feldspar porphyry, east-west and north-west fault offsets.
6. **Pinnacles** - Minor andesites, quartz porphyry common, northward invasion of volcanic facies into western sedimentary sequence, inflection in strike from north-south to north-east south-west.

In the Mount Block area Sock Creek mineralisation is classified as belonging to the western sequence however quartz porphyries are common and an east-west offset is apparent.

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5. MINERALISATION - Mount Block environs

In the Mount Block area a number of mineral occurrences are recorded. Some comments on these referring to their style and the follow-up which they have attracted from Comstaff are listed below (TAS/2/4139):-

Gold Hill. Henderson 1938 reported workings at Gold Hill for Ag, Au and barytes. A 6m shaft was sunk by T McDonald around 1920 intersecting pyritic volcanics. The prospect is 300-400m north of Que River Mine. Comstaff has indications of gold in Debussey Creek 3 km northwest of Gold Hill.

Mount Block. Blake (1928) described extensive deposits of "low grade" barite in the Mount Block area, but does not elaborate in terms of mass and quality. Comstaff has not found the deposits. From his descriptions and Barbara Anderson's stream sediment Ba results (Thunderbox Creek) the deposits are thought to be near the junction of Thunderbox Creek and the HEC powerline.

Samuel Smiths Lode. This is a NE striking lode, approximately 8 km in length extending up Boco Creek and along the railway to Boco siding. The lode is west dipping. The fissure lode consist mainly of limonite and/or pyrite; quartz, siderite and calcite. The lode contains minor silver and is contained in quartz-feldspar porphyry (McIntosh-Reid 1918).

Mullabadine. Several small cuts in the banks of Mullabadine Creek, a 2.1m deep winze in one of the cuts, a 6m shaft and two cross cut adits about 30m apart and driven 36.5m and 10.8m into the south and north banks of the creek respectively constitute the extent of old workings (Henderson 1943).

Mineralisation occurs as irregular, discontinuous quartz veins, 10-300mm thick, with ankerite, disseminated chalcopyrite, minor galena and secondary malachite and bornite. The strike of the veins varies from 005° - 040° and they dip steeply east and west. 1.64% Cu and 6.57 g/t Ag values were indicated in the past.

The veins are hosted by sediments equivalent to the Farrell slate and lie approximately 5 kms along strike from the Farrell Group of mines. Of these mineral occurrences in the Mount Block area only the Mount Block barite (henceforth to be known as Thunderbox Creek Prospect) and the Debussey Creek Prospect remain prospective. The other occurrences are fissure fill or vein styles of mineralisation and as is the case for Sock Creek they are down graded as targets or have attracted adequate attention in the past.

6. OVERVIEW OF WORK DONE

Some brief comments on techniques and procedures used in the Mount Block area follow, supplemented by geological points arising from the reinterpretation of the old data.

a) **Geochemistry**

Stream sediment sample coverage was sufficient though an inadequate number were analysed for Pb and Au.

b) **Soil Sampling**

Contrasting results were obtained from soil samples collected over the Mount Charter grid and the Sock Creek grid. In the former highly anomalous patterns were obtained but mineralisation was not exposed beneath them. At Sock Creek the principal element recovered in drilling, Zn, was depleted in the overlying soils. At DAC grid although A⁰ sampling was done sufficient auger sampling took place to confirm the absence of significant geochemical anomalies. As reported previously the highly anomalous Tullabadine stream sediment Zn anomaly is adequately explained by hydromorphic dispersion and concentration. The closed loop of soil samples analysed for Cu, Pb and Zn at Debussey Creek failed to test the Au gold anomalism adequately.

- c) Geophysics has been of little assistance in the evaluation of targets upon which it is being used.
- d) Geologically, few comments on alteration patterns are made in old reports with the exception of that associated with mineralisation at Sock Creek. This may reflect the lack of attention to alteration phenomena or its general absence from the area.

The tenement can be divided into two parts the northern part being classified as the western sequence of the Mount Read volcanics, north of Bulgobac Hill. Regionally there is little known mineralisation in these rocks apart from Devonian quartz tension veins.

Recorded occurrences include King River gold mine Queenstown, galena and sphalerite along the South Henty fault, galena, sphalerite, pyrite and chalcopyrite at Moores Pimple and at Silver Falls with, in Mount Block, Sock Creek fitting this classification. The largest geochemical anomaly is reflecting the Sock Creek system and that followed-up as the DAB grid is draining from outside the licence. Debussey Creek is thought to be the only loose end in this province.

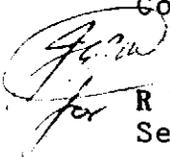
The bulk of the southern half of Mount Block is underlain by central sequence Mount Read volcanic rock types (south of Bulgobac Hill). The eastern and southern portions have been adequately tested with the Tullabadine, Mullabadine, DAC programmes. Anomalies generated in the 1981/82 programme focusing on 0.386 ppm Au in Bonnie Lass Creek and 1093 ppm Ba in Thunderbox Creek, reported silicification and weak Pb/Zn anomalism near the central and western sequence boundary have not been followed-up even though a grid was commenced.

7. CONCLUSIONS

Two targets require further attention in the Mount Block area (TAS/2/4136). Debussey Creek, although lying in the western sequence volcanics, and hence maybe of vein type, has a strong unexplained Au signature. Thunderbox Creek in the central sequence, but near its contact with the western sequence, has a number of indicators suggestive that volcanogenic mineralisation may be present. The principal clues are the historical reference to barite and the 1981/82 geochemistry supported by the presence of silicified volcanics and agglomerates.

The area to be followed-up has been tightly defined and the techniques to be employed will include stream sampling and ridge and spur soil sampling for Cu, Pb, Zn, Ba and Au and geological mapping with an emphasis on identifying alteration features.

Compiled from a report from D S Thynne


R W L SHAW
September 1984.

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GEOCHEMICAL STATISTICS1969 - 1971 Geochemical Statistics

Element	Range	Histogram threshold	Preferred threshold	No of possible Anomalous values
Sn	2-75	60	>60	1
Cu	2-150	125	>40	17
Zn	4-8000	300	>300	17
Ni	2-250	120	>120	10
Ag	0.2-13	4.5	>1.0	31

1969 - 1971 Mount Charter Geochemical Statistics

Element	Range	Histogram threshold	Preferred threshold	No of possible Anomalous Values
Zn	6-900	180	280	5
Ag	0.1-3.2	2.5	2.5	3
Cu	2-100	no break		
Pb	6-700	240	240	
Ni	2-76	70	70	4
Sn	0.2-50	24	30	10

Values for Mo, Sb and Bi were low.

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1978 - Computer Review Geochemical Statistics.

Element	Cu	Pb	Zn	Ni	Sn
High	150	440	8000	250	100
Low	BLD	BLD	2	BLD	BLD
Mean	9.72	62.81	66.92	20.06	6.24
SD	10.95	68.58	226.93	27.62	8.12
Samples	1342	390	1351	1226	1284
Pop 1	<17	<52	<22	<8	<6
Pop 2	17-41	52-99	22-189	8-21	6-22
Pop 3	>41	100-199	>190	22-89	>22
Pop 4		>199		>89	

1981 - 1982 Geochemical Statistics

Sample Screen Size	Background Values (80% of samples)	Enhanced Values	Highly Enhanced V	
-80#	Cu	<17 ppm	5% > 29 ppm	2% > 58 ppm
	Pb	<20 ppm	10% > 30 ppm	3% > 46 ppm
	Zn	<50 ppm	12% > 58 ppm	5% > 80 ppm
-20#	Cu	<8 ppm	10% > 9 ppm	1% > 100 ppm 4% > 58 ppm
	Pb	<12 ppm	5% > 20 ppm	4% > 25 ppm
	Zn	<30 ppm	5% > 46 ppm	3% > 70 ppm

Results are shown on the following 1:5 000 sheets:-

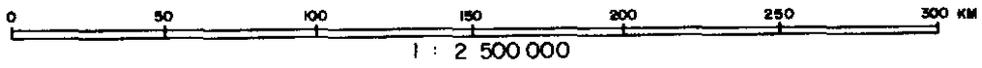
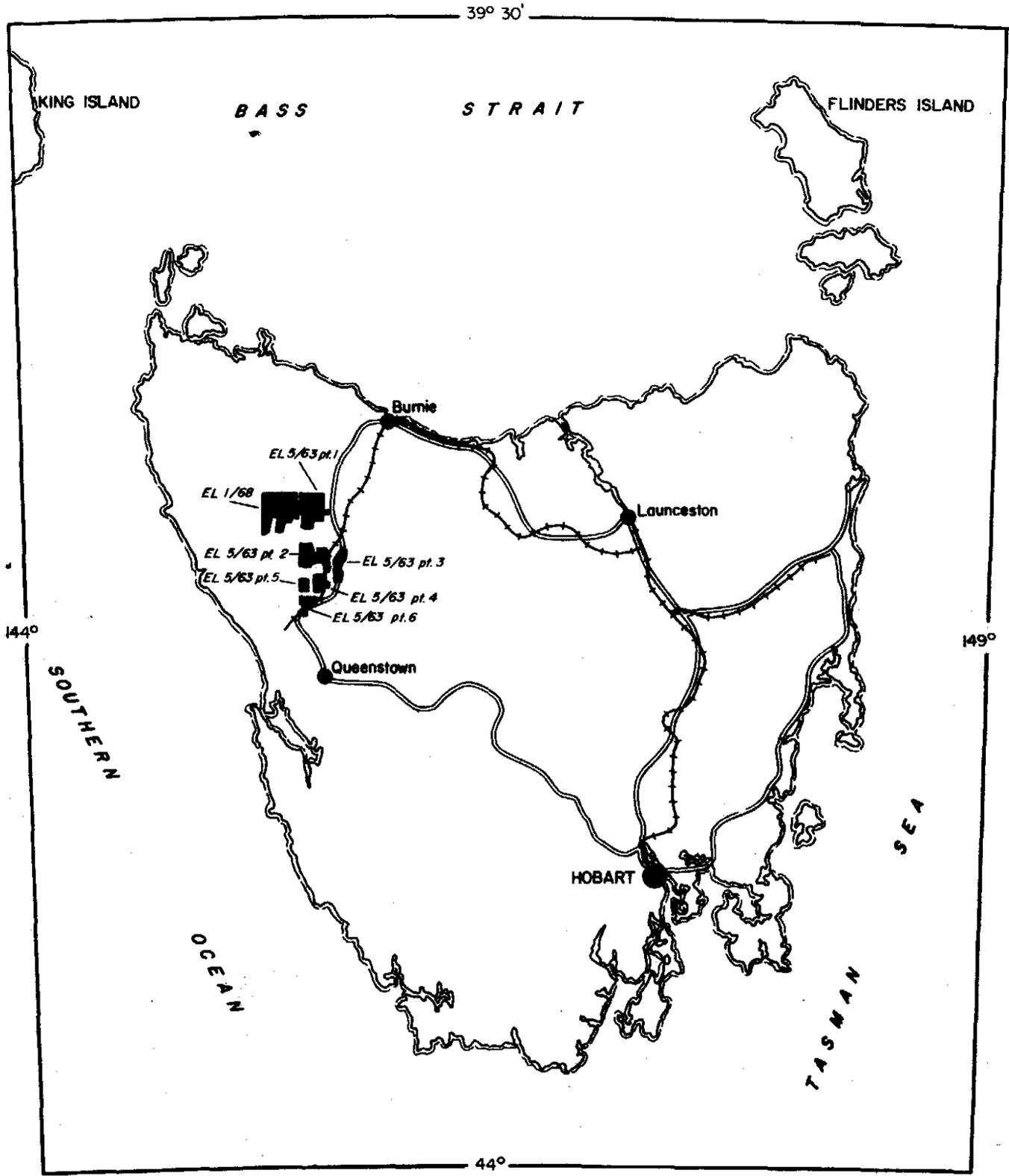
	No Analysed for Au	No of Samples
TAS/2/2958 380380B (part E Chest)	-	47
TAS/2/2959 380380C (East Chester)	-	49
TAS/2/2962 385380A	-	13
TAS/2/2963 385385C	6	6
TAS/2/2964 385385D	14	72
TAS/2/2965 385385A	-	54
TAS/2/2970 385380B	8	8
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	28	249
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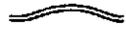
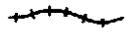
DAC Grid Soil Geochemistry Statistics

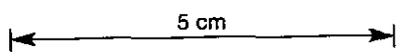
Element No	Low ppm	High ppm	Mean	Standard deviation
Cu 889	0	71	7.78	7.08
Pb 889	2	152	21.41	13.71
Zn 889	2	575	58.34	66.66
Ba 889	0	250	53.33	31.18
Mn 889	0	4400	133.53	332.72
Fe 101	125	9999	2524.81	2947.66
Ag 101	0	0.2	.01	0.4

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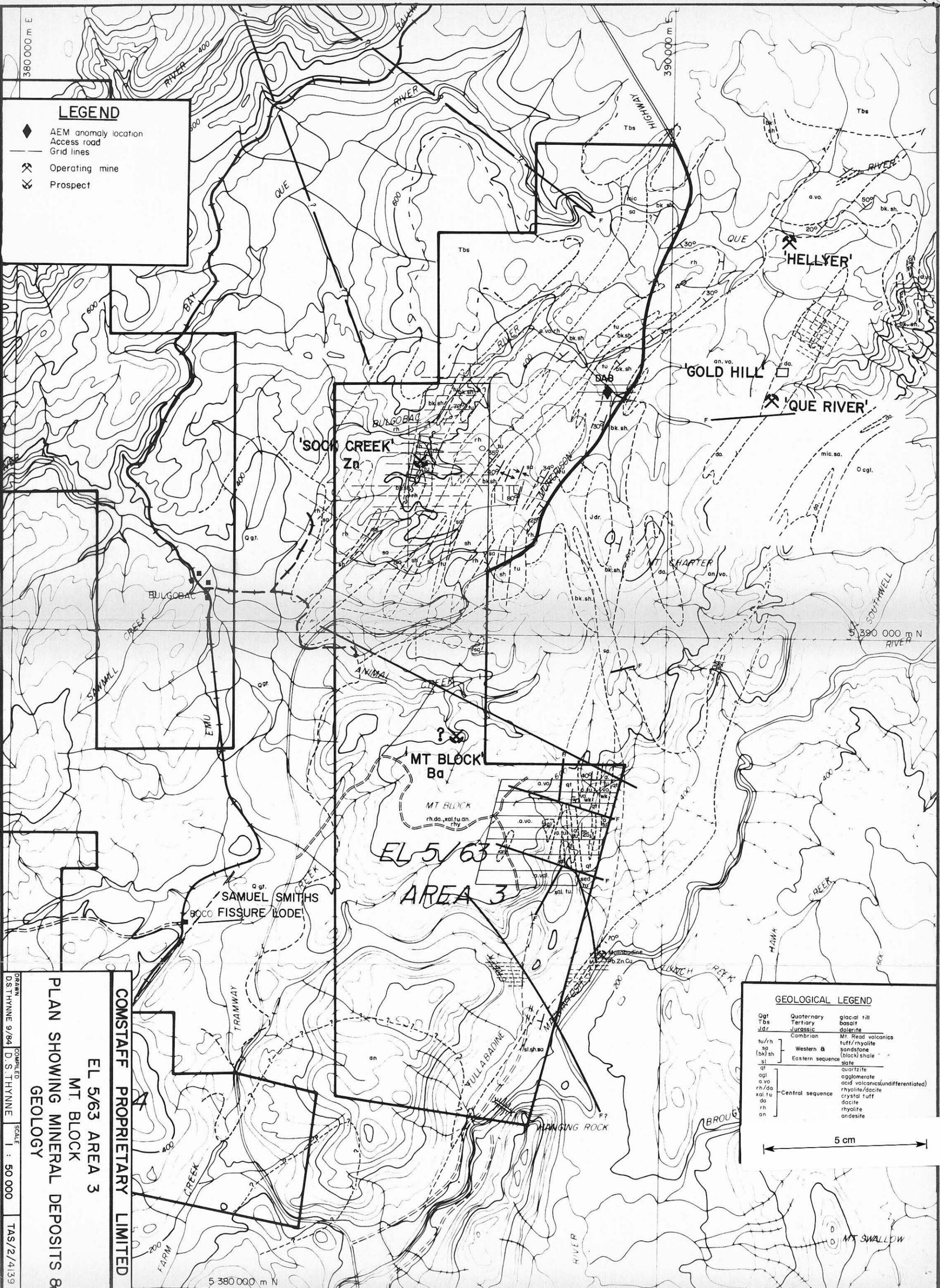
246019



-  Major roads
-  Major railways
-  Major towns
-  Comstaff lease areas



COMSTAFF PROPRIETARY LIMITED			
LOCATION OF COMSTAFF LEASES			
IN TASMANIA			
DRAWN GEODRAFT 7/78	COMPILED	SCALE 1 : 2 500 000	TAS/2/1586



LEGEND

- ◆ AEM anomaly location
- Access road
- Grid lines
- ⊗ Operating mine
- ⊗ Prospect

GEOLOGICAL LEGEND

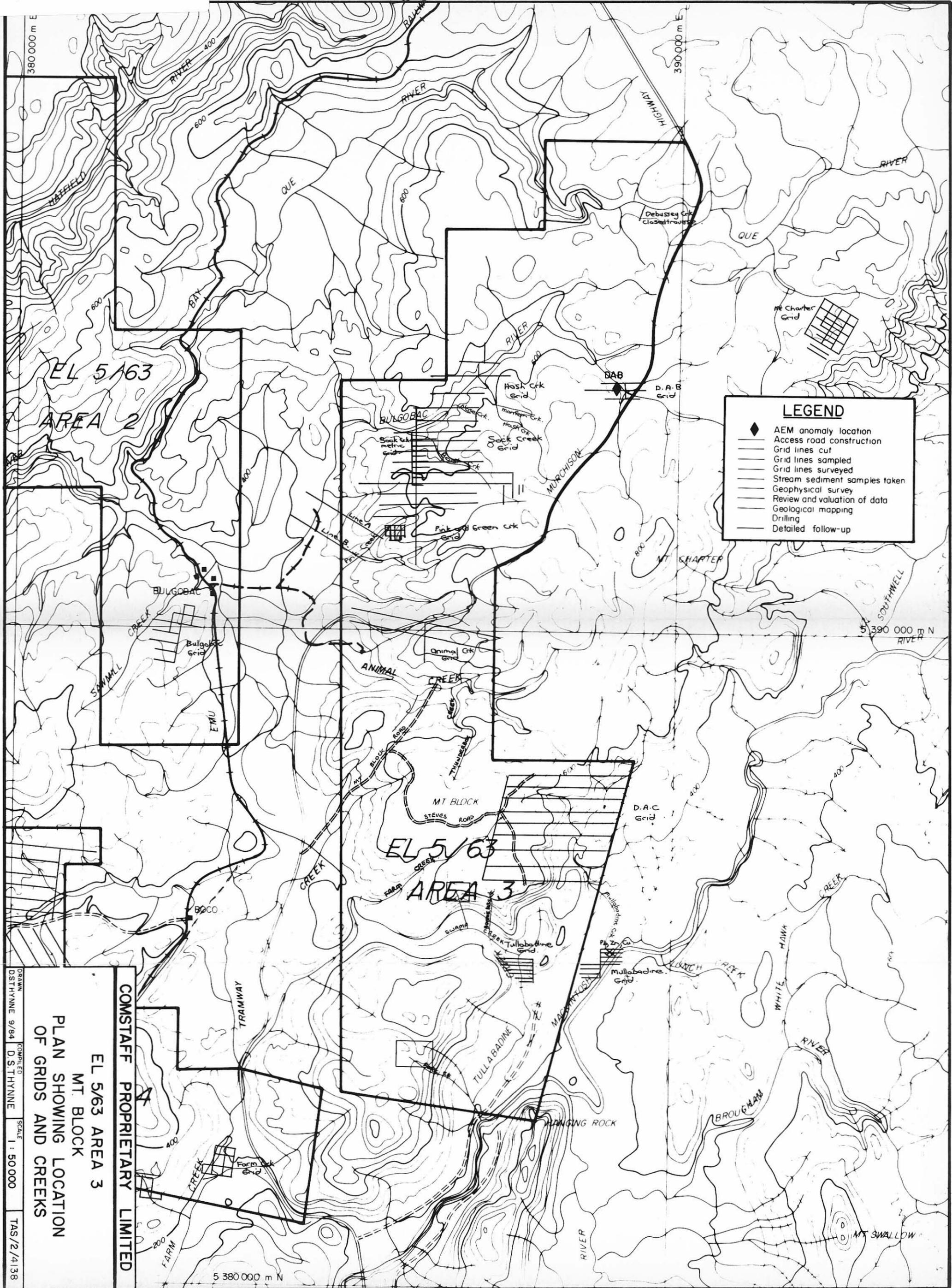
- | | | |
|---------|------------------|----------------------------------|
| Qgt | Quaternary | glacial till |
| Tbs | Tertiary | basalt |
| Jdr | Jurassic | dolerite |
| | Cambrian | Mt. Reed volcanics |
| tu/rh | | tuff/rhyolite |
| so | Western & | sandstone |
| (bk) sh | Eastern sequence | (black) shale |
| sl | | slate |
| qt | | quartzite |
| agl | | agglomerate |
| a vo | | acid volcanics(undifferentiated) |
| rh/da | Central sequence | rhyolite/dacite |
| xal tu | | crystal tuff |
| da | | dacite |
| rh | | rhyolite |
| an | | andesite |

5 cm

COMSTAFF PROPRIETARY LIMITED
 EL 5/63 AREA 3
 MT BLOCK
 PLAN SHOWING MINERAL DEPOSITS & GEOLOGY

DRAWN D.S. THYNNE 9/84
 COMPLETED D.S. THYNNE
 SCALE 1 : 50 000
 TAS/2/4139

5 cm



LEGEND

- ◆ AEM anomaly location
- - - Access road construction
- Grid lines cut
- Grid lines sampled
- Grid lines surveyed
- Stream sediment samples taken
- Geophysical survey
- Review and valuation of data
- Geological mapping
- Drilling
- Detailed follow-up

COMSTAFF PROPRIETARY LIMITED
 EL 5/63 AREA 3
 MT BLOCK
 PLAN SHOWING LOCATION
 OF GRIDS AND CREEKS

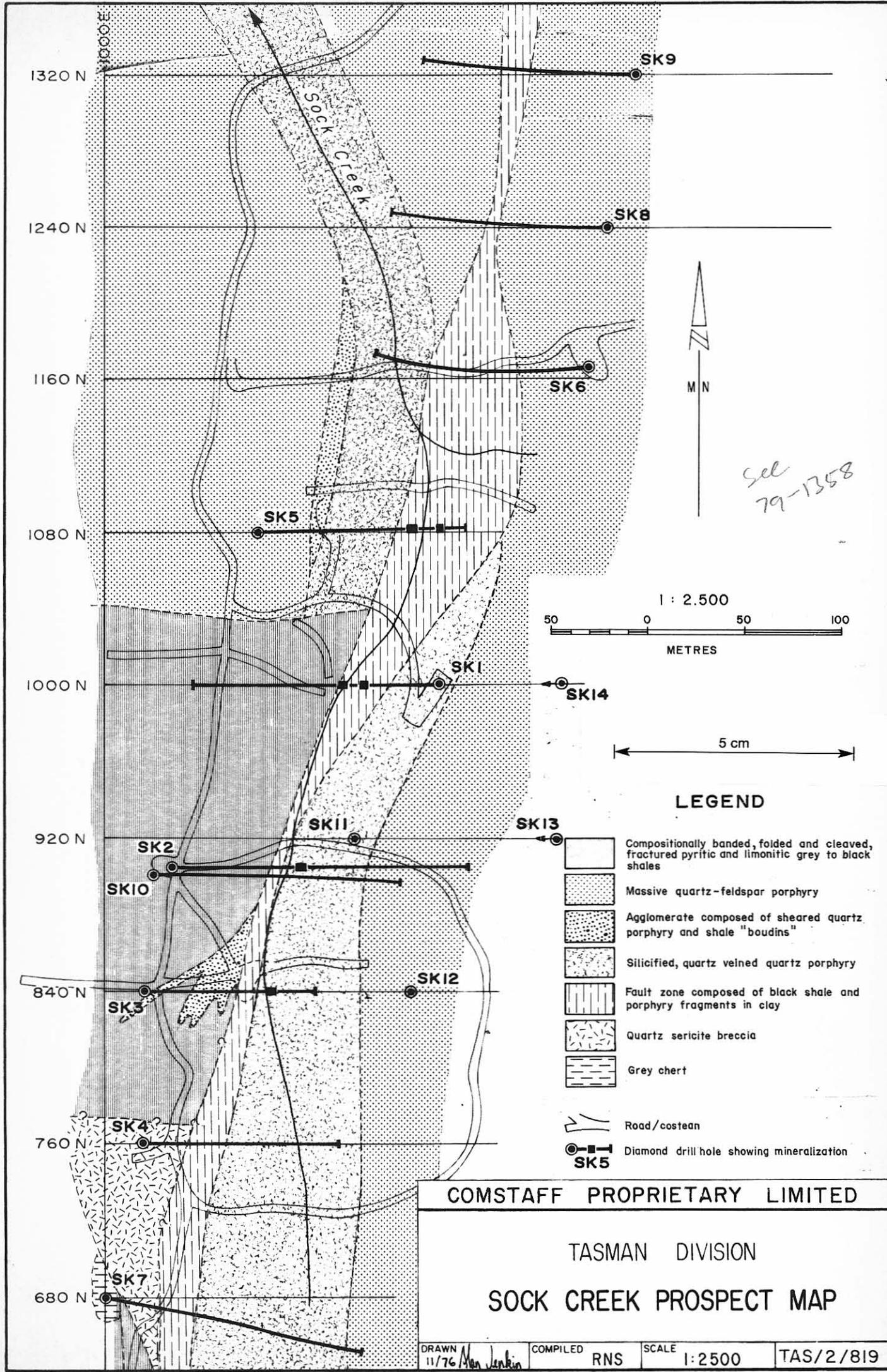
DRAWN
 DSTHYNNE 9/84
 COMPILED
 DSTHYNNE
 SCALE
 1 : 50 000
 TAS/2/4/38

5 380 000 m N

5 390 000 m N

021

246022

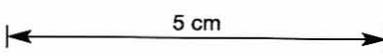


See 79-1358

1 : 2.500



METRES



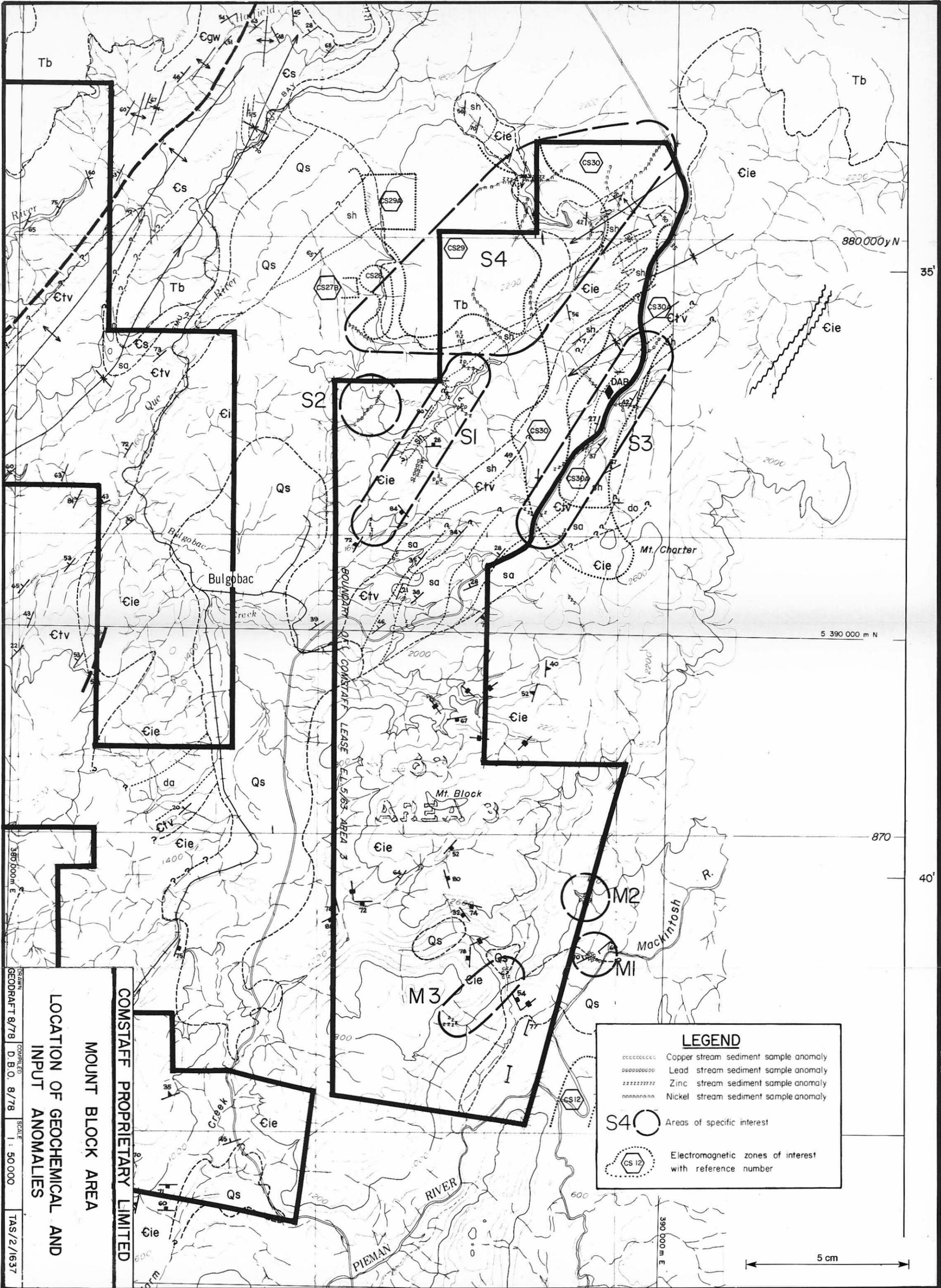
LEGEND

- Compositionally banded, folded and cleaved, fractured pyritic and limonitic grey to black shales
- Massive quartz-feldspar porphyry
- Agglomerate composed of sheared quartz porphyry and shale "boudins"
- Silicified, quartz veined quartz porphyry
- Fault zone composed of black shale and porphyry fragments in clay
- Quartz sericite breccia
- Grey chert
- Road/costean
- Diamond drill hole showing mineralization

COMSTAFF PROPRIETARY LIMITED

TASMAN DIVISION

SOCK CREEK PROSPECT MAP



MOUNT BLOCK AREA
 COMSTAFF PROPRIETARY LIMITED
 LOCATION OF GEOCHEMICAL AND
 INPUT ANOMALIES
 GEODRAFT 8/78
 D.B.O. 8/78
 SCALE 1 : 50 000
 TAS/2/1637

LEGEND

- Copper stream sediment sample anomaly
- Lead stream sediment sample anomaly
- Zinc stream sediment sample anomaly
- Nickel stream sediment sample anomaly
- S4 ○ Areas of specific interest
- CS 12 Electromagnetic zones of interest with reference number

5 cm

5 390 000 m N

880 000 y N

870

40'

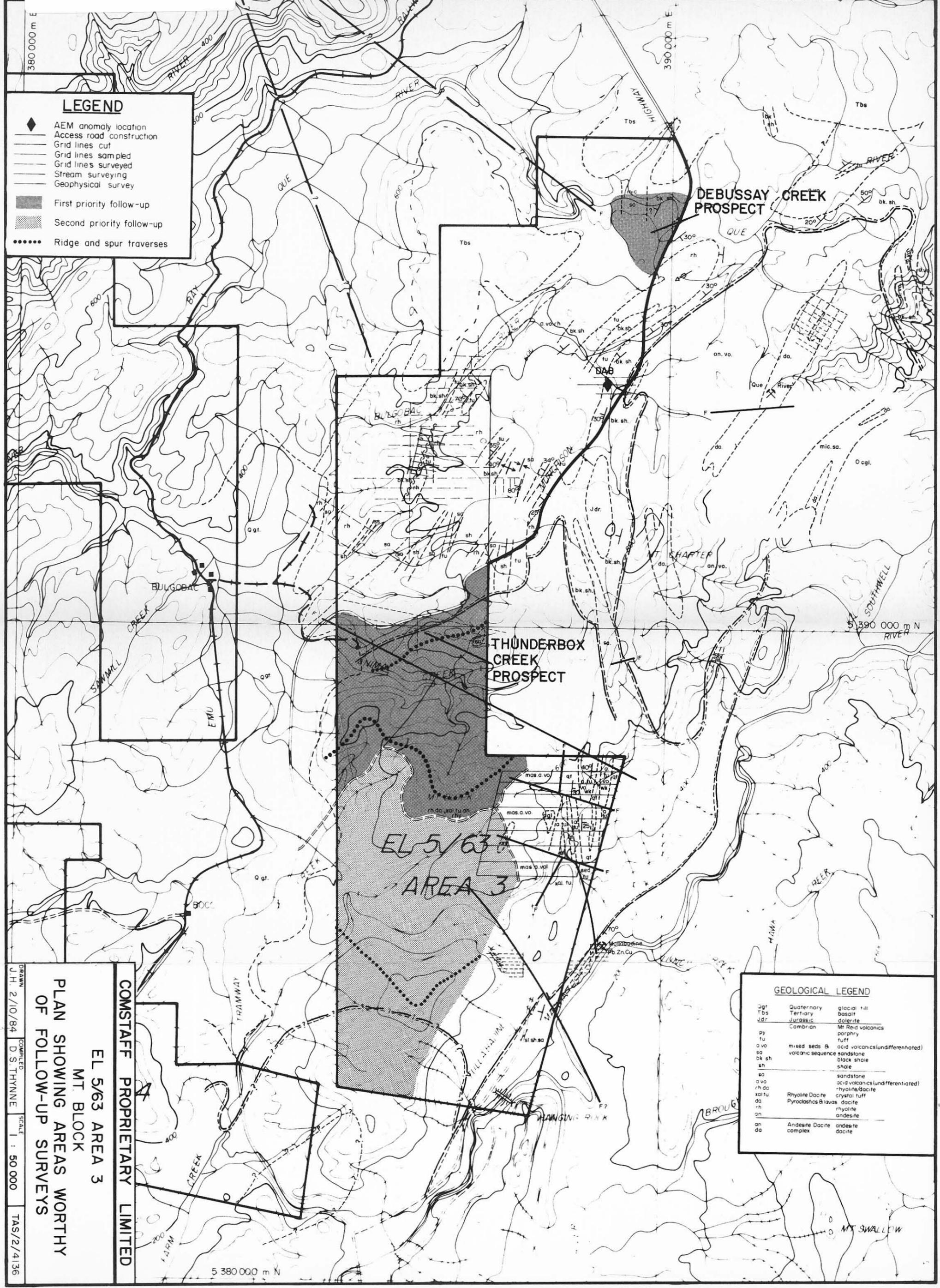
35'

BOUNDARY OF COMSTAFF LEASE OF EL 5/63 AREA 3

5 cm

LEGEND

- ◆ AEM anomaly location
- Access road construction
- Grid lines cut
- Grid lines sampled
- Grid lines surveyed
- Stream surveying
- Geophysical survey
- First priority follow-up
- ▨ Second priority follow-up
- Ridge and spur traverses



GEOLOGICAL LEGEND

qgr	Quaternary	glacial till
Tbs	Tertiary	basalt
Jdr	Jurassic	dolerite
	Cambric	Mt Reid volcanics
py		porphyry
tu		tuff
o vo	mixed seds	acid volcanics (undifferentiated)
sa	volcanic sequence	sandstone
bk sh		black shale
sh		shale
so		sandstone
o vo		acid volcanics (undifferentiated)
rh dc		rhyolite/dacite
xal tu	Rhyolite Dacite	crystal tuff
da	Pyroclastics & lavas	dacite
rh		rhyolite
an		andesite
an da	Andesite Dacite complex	andesite dacite

EL 5/63
AREA 3

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 3

MT. BLOCK

PLAN SHOWING AREAS WORTHY OF FOLLOW-UP SURVEYS

DRAWN J.H. 2/10/84 COMPLETED D.S. THYNNIE SCALE 1 : 50 000 TAS/2/4136