640001

PROJECT NAME: COMSTAFF PROPRIETARY LIMITED

TITLE: INTERIM REPORT ON EL 5/63 SECTION 3

MOUNT BLOCK

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES:

COMMODITY/IES: Cu, Pb, Zn

TEXT PAGES NO: 9

PLAN NOS: See List of Plans

TABLE NOS:

APPENDICES:

AUTHOR/S: B E Anderson

DATE: 17 August 1982

AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

C O N T E N T S

INTERIM REPORT ON EL 5/63 SECTION 3

MOUNT BLOCK

1. INTRODUCTION

This report relates to exploration carried out on the Mount Block area, in the southern part of Exploration Licence 5/63, Section 3, within the Mount Read Volcanic Belt. Excluded from the 1981-82 summer field programme was the DAC grid area, east of Mount Block proper, over which work had been completed in a 1979 exploration programme which concluded the area was unprospective economically. Animal Creek forms the northern boundary which excludes the Sock Creek area from recent work.

2. GEOGRAPHY

2.1 Location and Access

EL 5/63, Section 3, is situated approximately 40km south-south east of Waratah, and 5km north of Tullah with access via the Murchison Highway. A junction, 1km north of the Chester-Pinnacles Access Road, with an HEC transmission line track - Mount Block Road, provides access into the north and western areas, then east from MBR at 2050m the old DAC grid line track - Steve's Road provides 3.4km of vehicle access to the east.

The south east and western areas are less accessible, restricted to thickly vegetated stream channels. Completion of the Murchison Dam near Tullah and subsequent filling of Lake Sophia makes access particularly difficult into the Tullabadine drainage system. Field work was carried out with the use of a motor propelled dingy and a camp was set up for the duration. In the south west, access into Farm Creek was aided via EZ grid lines cut in an easterly direction at 300m intervals from the Murchison Highway.

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2.2 Topography

Topography is characterised by relatively steep ridges and deeply incised valleys, becoming particularly rugged in the eastern Tullabadine area. Most of the ground is very thickly vegetated, consisting predominantly of bauera, horizontal and titree scrub, while the central western boundary area has been substantially modified by glaciation producing a relatively flat area commonly associated with button grass and tussocky vegetation. Glaciation has affected the whole area to some degree with varying thickness of glacial till obscuring much of the outcrop in certain areas and large glacial erratics are common.

Drainage flows predominantly southward into Lake Sophia and the Mackintosh and Pieman Rivers. Farm Creek represents the major central drainage system for Mount Block.

3. OBJECTIVES

EL 5 '63, Section 3, was chosen for exploration since it is within the Mount Read Volcanics, which host the Rosebery, Hercules, Mount Lyell and Que River sulphide deposits and since it is on strike and in close proximity to the Que River Mine. A programme of reconnaissance geological mapping and stream sediment sampling was designed to test the prospectivity of the area. If no promising geochemical results were forthcoming and could be backed up by the geology, then the area would be considered for relinquishment.

4. PREVIOUS WORK

1. Part of the Mount Block area was included in a regional stream sediment sampling and geological mapping programme some years ago. Geological mapping indicated an essentially acid volcanic sequence of lavas and intrusives. Geochemistry was not promising, although anomalous Zn values in the order of 8 000ppm Zn were recorded in the Tullabadine area and a grid was started but never completed. Old flags found this grid situated on very swampy ground which would have enhanced results. No pb analysis is recorded.

Pb

2. DAC grid, east of Mount Block proper, included 21.2 line km of grid cut, geological mapping, geochemical and geophysical surveys. The area was found unprospective. Ref DAC Grid report on Mount Block, D B Hall, May 1979.

3. The Geological Survey Explanatory Report - Mackintosh Sheet 44, Zone 7, compiled by P Collins, 1981, included the Mount Block-Mount Charter area but no detailed work was undertaken.

5. RECENT EXPLORATION

An exploration reconnaissance field programme was carried out over the 1981-82 summer field season, November through January.

5.1 Work Completed

5.1.1 Geological Mapping

Geological mapping was restricted to track and stream traverses using tape and compass survey points for control. In total 7.6km of track and 16.943km of stream survey was completed, although this excludes streams in the Tullabadine catchment which at the time were not surveyed due to lack of topographic control. Glacial till obscures much of the geology in some areas. Field observations were recorded on 1:5 000 base plans. Brief descriptions of petrology are included on the geology base plans.

5.1.2 Geochemistry

Stream sediment samples were collected at 100m intervals on all major streams and tributaries; sieved to -20 +-80# and assayed for Cu, Pb, Zn, Ni, Ba, Sn, Ag, Au and in some cases As and W. Results were plotted together onto 1:5 000 base plans.

A statistical method using log value frequency was adopted for processing the geochemical data with results plotted onto cumulative frequency graphs. Initially the area was broken down into the three major drainage systems - Farm Creek, Animal Creek and Tullabadine, however it now appears the total area combined adequately conveys a meaningful result of the data.

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Cumulative frequency curves of log values was the method adopted to define populations, the break points representing the limits of each population. Results were transferred onto 1:5 000 geochemistry base plans using colour coding; but the lower limits of each element have not been included.

5.2 Results Achieved

5.2.1 Geology - Stratigraphy

Geology in the vicinity of Mount Block is almost exclusively volcanic in origin, forming a complex succession of predominantly fine grained acid volcanic pyroclastics, lavas and minor or shallow intrusives of predominantly rhyolitic composition with minor intermediate units.

The dominant rock type is a feldspar porphyry, mapped in the field as rhyodacite consisting of altered feldspar and scarce embayed quartz phenocrysts in a fine grained, commonly devitrified K-silicate quartz - feldspathic groundmass. Petrological analysis indicates a rhyolitic composition but ranging into dacites. Weathered samples exhibit a light cream, fawn and pink colouration while fresher samples are a darker grey, and both commonly contain small pervasive quartz filled microfractures and chloritic patches. Minor flow banding is often evident and the rock type commonly occurs as a subtly brecciated rhyolite obsidian, distinctive in the dark grey rock with pink patches associated with the albite. It tends to be very hard, massive, extensively and randomly jointed.

Interbedded with the porphyritic rhyolites or rhyodacites are pyroclastic units of variable thickness and texture. Included are very fine grained cherty crystal (ash?) tuffs to fine grained quartz feldspar crystal tuffs often with scarce disseminated pyrite. They are very hard, grey, often exhibiting fine devitrification and are readily distinguishable in the field. Coarser quartz feldspar crystal tuffs, crystal lithic lapilli tuffs and lapilli tuff breccias occur quite extensively, with the crystal tuffs consisting generally of 20-30% pink feldspar and rarer quartz phenocrysts in fine grained quartz and feldspar matrix.

Petrological analysis suggests composition is again predominantly rhyolite. The lapilli tuff breccias are distinguishable from the lapilli tuffs by their generally coarser appearance and are commonly silicified and associated with interstitial accessory quartz.

Very coarse pyroclastic breccia-agglomerates comprise a distinctive unit found as large rounded boulders (possibly glacial erratics) between 350-400 metres on Steve's Road, in Fork Creek in Tullabadine and as extensive float in Farm Creek. Angular clasts of distinctive pink rhyolite-dacite are set into a finer grey green matrix of rhyolitic composition. Although not seen in outcrop on Steve's Road the unit is very coarse with clasts up to 30cm, similarly in Fork Creek where it is associated with extensive quartz veining. In Farm Creek clasts are smaller, up to 10cm, suggesting an increasing size of fragments eastward toward a vent area. This would support the hypothesis made from work in the DAB grid area (D B Hall 1979).

Intermediate units of andesitic composition are not extensive, tending to occur as minor flows and dykes. They are generally distinctively khaki green to green brown in colour and often highly weathered with a fine, even grained texture, and most commonly are tuffaceous. The thickest sequence observed is on Steve's Road between 2680-3160 metres, and again between 1260-1340 metres, associated with rusty brown iron rich manganiferous weathering characteristics and iron enriched clayey soils, making the andesites readily distinguishable from the leached pale surfaces associated with the rhyolites and quartz feldspar tuffs. Numerous small dykes were mapped on Steve's Road, in Thunderbox Creek, plus an alternating sequence of weathered andesite with small quartz filled fractures, and weathered porphyry rhyolite-dacite occurs on Mount Block Road between 2652 and 2780 metres. Several dark fine grained intermediate rocks were described in this section as being trachytic in composition.

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A thin sedimentary lense of finely bedded carbonaceous pyritic shale was observed in Farm Creek at 5830-5850 metres where it appears to form a brecciated or interfingering relationship with a coarser crystal tuff. The presence of the pyritic shale appears to have no significant effect on geochemical values in the area.

At present no true stratigraphic sequence or geological interpretation has been included. No distinctive marker horizons were defined, instead the rock units appear as a complex and irregular succession, often highly weathered and altered. Petrological analysis emphasizes that chloritic and sericitic alteration of the originally very fine grained glassy rocks tends to obscure original textures and composition making identification and genesis difficult. As a result of this and since only surveyed streams and tracks were mapped leaving large gaps in the recorded geology, together with a lack of structual control in this type of geological environment, any geological interpretation put forward would be entirely hypothetical. As geological mapping in areas adjacent to Mount Block continues a clearer impression of the geology should emerge.

5.2.2 Geochemistry

Results indicate that Cu, Pb, Zn, and Ba are viable elements in the Mount Block area, while Ni, Ag, Au and certainly Sn, As and W are below limits for consideration and shall not be discussed.

Based on the cumulative frequency curves, sample percentage values have been used to differentiate normal local background against more enhanced values. As indicated on the table below, 80% of the sample is taken to represent general background, values in the 5-12% category may indicate enhanced values in relation to background and at -80# $>$ 58 ppm Cu, $>$46 ppm Pb, $>$100 ppm Zn and at -20#$>$ 117 ppm Cu, 25 ppm Pb and $>$ 90 ppm Zn may be considered highly enhanced.

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

With few exceptions geochemical values are low, certainly not encouraging for potential base metal sulphide mineralisation.

A Cu anomaly in the order of 195 ppm at -80# and 65 ppm at - 20# occurs on Fork Creek in the Tullabadine area at the last sampled point upstream, in what is a very steep narrow channel with numerous waterfalls, but which diverges into several small ill defined channels at 840 metres. 195 ppm Cu is clearly anomalous and there is nothing in the geology mapped to account for or discredit the result. Highly anomalous values at the lower end of Fork Creek may be attributed to the change in topography which was clearly shown when values were plotted onto a cumulative ppm graph indicating it is an area of accumulation. See plan TAS/2 2974 for stream profile, geology and geochemistry.

Bonny Lass Creek, a tributary into Swamp Creek, also in Tullabadine, records coincident enhanced Cu, Pb and Zn values in both -80 and -20# sizes. Values are not significantly high but are clearly enhanced compared to the local background recorded in Swamp and Pygmy Creeks. Results are recorded on graph TAS/2/2972. Although Cu values are not high, both Pb and Zn are enhanced in the -20# for Mount Block. Zn values had not peaked before the last sample was collected. The geology was not mapped in detail; a coarse densely crystal, slightly foliated and very altered tuff was sampled in the creek but there was nothing found to obviously account for enhanced geochemical values.

Of the remaining creek systems, enhanced values appear to show up more clearly in the -80# size and to be closely associated with certain rock types, particularly very fine grained cherty tuffs and rocks of more intermediate composition i.e. andesitic tuffs, both commonly associated with fine grained disseminated pyrite.

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Animal Creek at 900 metres and 1 100 metres upstream, and at 1 100 metres downstream, is such a case with finegrained cherty crystal tuffs present with associated enhanced Pb, Zn values, while Thunderbox Creek, a tributary, records enhanced values associated with intermediate andesitic dykes. Farm Creek follows a similar pattern with enhanced values in the -80# size losing distinctiveness at -20# which is the case generally. Enhanced values are associated with pyrite bearing very fine grained crystal ash tuffs and very fine grained cherty devitrified crystal tuffs while highly enhanced Cu at 5 700 metres appears related to a thin carbonaceous pyritic shale unit at 5 840 metres. In general, although values may be slightly enhanced compared to local background, they are not significant enough to be clearly anomalous. It follows therefore, that in both Animal and Farm Creeks certain geological units cause slight enhancement of geochemistry but there is nothing to suggest significant mineralisation is present.

Since the Que River Pb, Zn, Ag sulphide deposit is situated near Mount Block, on strike and within a similar geological setting, a comparison of results in its early reconnaissance programme is considered a viable method for analysis of the geochemical results on Mount Block.

Early exploration of the Que River area involved stream sediment sampling at a density approximately 3-5 samples per km^2. The samples were sieved to -20# with assay values in the order of 45 ppm Cu, 300 ppm Pb, 340 ppm Zn recorded in the vicinity of the later identified Que River prospect, which was anomalous in a regional sense. Local background was in the order of 15-20 ppm Cu, 20-80 ppm Pb and 50-100 ppm Zn. The broad spaced geochemistry demonstrated itself to be a valid exploration reconnaissance technique in the North West Tasmanian drainage environment.*

Based on the Que River experience, results obtained from Mount Block should be considered a valid indication of prospectivity in the area.

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Background values are significantly lower on Mount Block, while very few values exceed background levels of Que River and no Pb, Zn values come close to matching those considered anomalous.

Geochemical results show that apart from Bonny Lass Creek which may warrant further investigation the only area of any significance on Mount Block is around Fork Creek based on a single high Cu anomaly.

6. RECOMMENDATIONS AND FUTURE WORK

1. The Cu anomaly at the top of Fork Creek should be defined by further geochemical sampling above the last sampled point. Further geological investigation to try and define a source should also be undertaken. At present the anomaly is only recorded in the single sample point.

2. Although geochemical values are not particularly high in value, Bonny Lass Creek does contain enhanced values for the area, therefore a more detailed investigation of the geology and more intensive geochemical sampling is warranted. To date only a brief reconnaissance survey into the Tullabadine area has been carried out. Access is difficult as a result of the filling of Lake Sophia and the topography comprises very steep ridges with a flat valley surface, much of which is deep, thickly vegetated swamp. Drainage in summer months is not well defined since runoff would be very rapid and appears not to be confined to well defined drained channels and in some areas is subsurface. Since the topography and general physiography of the area is now known, further investigation into the area need only be brief.

3. Geochemical results from the recent work programme in the balance of the EL indicate no base metal sulphide mineralisation occurs and is backed up by the geology. It is therefore recommended that no further work is required on the remaining portion of EL 5/63, Section 3 - Mount Block. If results of follow up work in the Tullabadine area are less than encouraging, the area will be recommended for relinquishment.

for B E ANDERSON

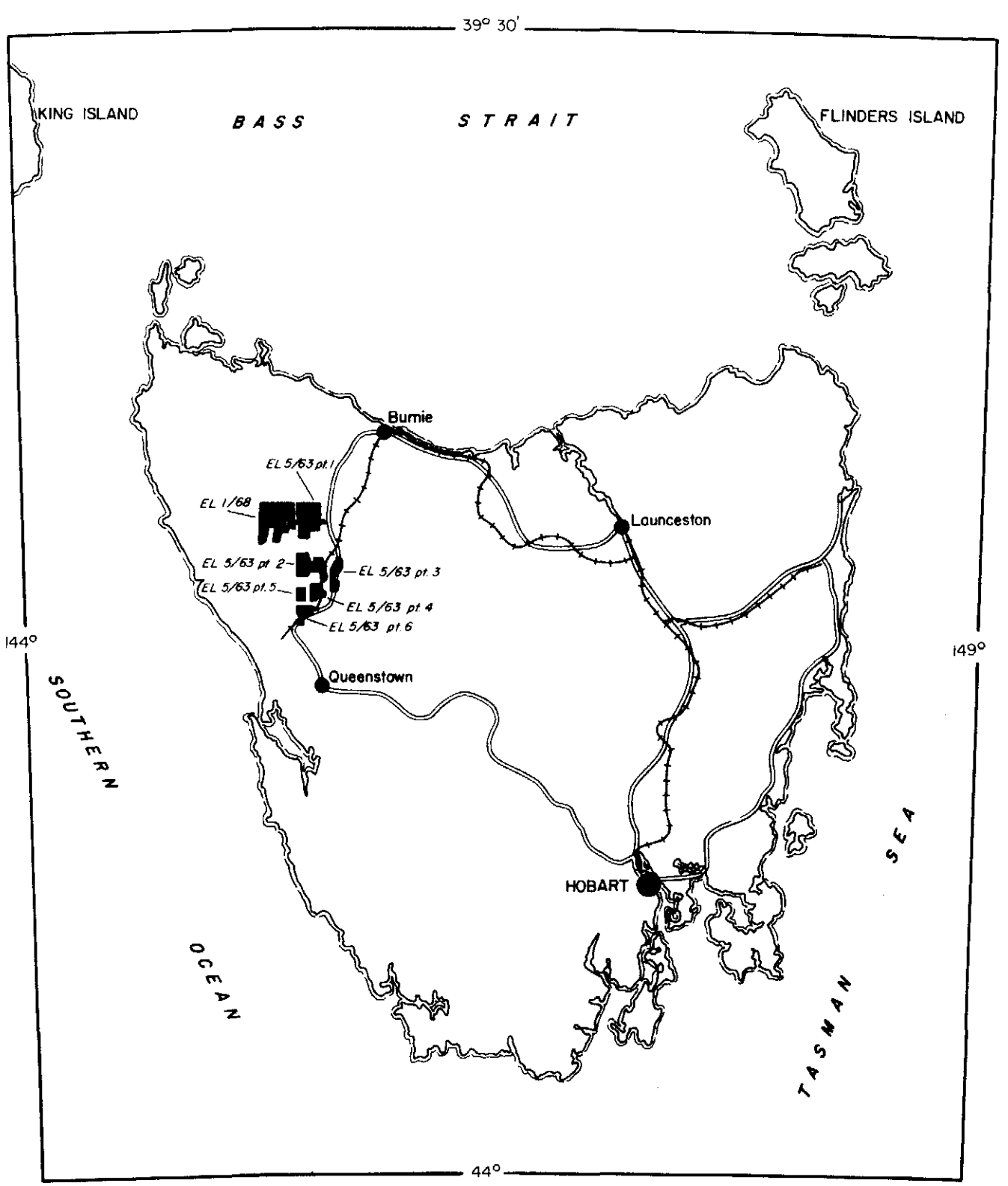
LIST OF PLANS

TAS/2/1586	Location of Comstaff leases in Tasmania	1·2 500 000
TAS/2/1800	EL 5/63 Area 3 Mount Block with track and stream traverses shown	
TAS/2/1130	Geology - Field geological plan	1:5 000
TAS/2/1134	" " " "	1:5 000
TAS/2/1136	" " " "	1:5 000
TAS/2/1137	" " " "	1:5 000
TAS/2 1091	" " " "	1:5 000
TAS/2 2958	Geochemistry	1:5 000
TAS/2 2962	"	1:5 000
TAS/2 2963	"	1:5 000
TAS/2/2964	"	1:5 000
TAS/2/2965	"	1:5 000
TAS/2 2970	"	1:5 000
TAS/2/2974	Stream profile, geology and geochemistry of Fork Creek	1:5 000
TAS/2/2972	Stream profile, geology and geochemistry of Farm Creek	1:10 000
TAS 2/2973	Geochemistry graph of Bonny Lass Creek	1:5 000

* Webster, S and Skey, E H 1978 "Geophysical and Geochemical Case Study of the Que River Deposit". Tas Aust Proc ASEG Meeting

D B Hall, 1979 - Report on Mount Block (Grid DAC) Comstaff P/L

640013



0 50 100 150 200 250 300 KM

1 : 2 500 000

Major roads

Major railways

● Burnie Major towns

Comstaff lease areas

5 cm

COMSTAFF PROPRIETARY LIMITED

LOCATION OF COMSTAFF LEASES IN TASMANIA

DRAWN	COMPILED	SCALE	
GEODRAFT 7/78		1 : 2 500 000	TAS/2/1586

640014

380 000 m E

390 000 m E

5 390 000 m N

5 380 000 m N

LEGEND

- AEM anomaly location
- Access road construction
- Grid lines cut
- Grid lines sampled
- Grid lines surveyed
- Stream sediment samples taken
- Geophysical survey
- Costeaning
- Geological mapping
- Drilling
- Detailed follow-up

EL 5/63 AREA 3

MT BLOCK

BULGOBAC

BOCO

HANGING ROCK

MT SWALLOW

MT CHARTER

TULLABADINE

MACINTOSH

BROUGHAM

MURCHISON

HIGHWAY

TRAMWAY

EMU

SAWMILL CREEK

ANIMAL CREEK

SWAMP CREEK

STEVES ROAD

MT BLOCK ROAD

SWAMP CREEK

BULGOBAC RIVER

QUE RIVER

SOUTHWELL RIVER

WHITE HAWK CREEK

LUNCH CREEK

RIVER

CREEK

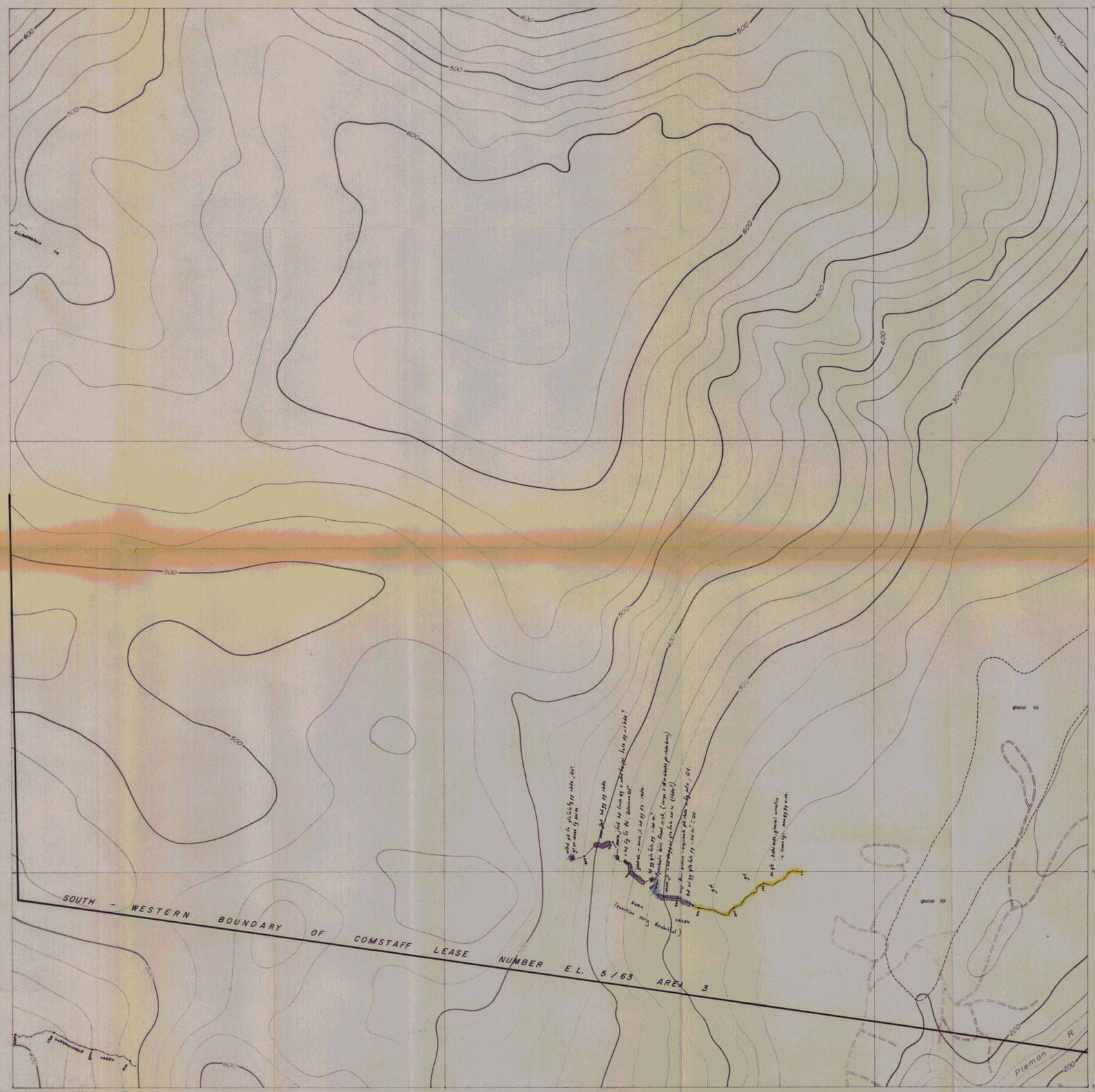
SWAMP

5 cm

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 3
MT. BLOCK
PLAN TO ACCOMPANY QUARTER REPORT
ENDING 30th SEPTEMBER 1982

DRAWN GEODRAFT | COMPILED B A A | SCALE 1 : 50 000 | TAS/2/1800



LEGEND FOR GEOLOGICAL SERIES

ar	Argillite	pyr	Rhyolitic porphyry & minor acid intrusives
sh	Shale	pyd	Dacitic porphyry & minor acid intrusives
md,sl	Mudstone, slate	an	Andesite
ss	Siltstone	bs	Basalt
ss,qt,ch	Sandstone, quartzite, chert	g	Granite
cg	Conglomerate	do	Dolerite
gw	Greywacke	gb	Gabbro
gw,cg	Greywacke conglomerate	px	Pyroxenite
dl	Dolomite	sp	Serpentinite
ls	Limestone	um	Undifferentiated ultramafics
ph	Phyllite	tu	Tuffs
sc	Schist	ag	Agglomerate
ge	Gneiss	gs	Gossan
ho,am	Hornfels, Amphibolite		

- Geological boundary
- Unconformity
- Anticline showing direction of plunge
- Syncline showing direction of plunge
- Plunge of minor anticline
- Plunge of minor syncline
- Overturned anticline
- Overturned syncline
- Fault, showing hade
- Shear zone
- Strike and dip of bedding
- Strike of vertical bedding
- Location of horizontal bedding
- Overturned bedding
- Generalised strike & dip undulating strata
- Strike and dip of jointing
- Strike of vertical jointing
- Location of horizontal jointing
- Strike and dip of foliation
- Strike of vertical foliation
- Location of horizontal foliation
- Strike and dip of cleavage
- Strike of vertical cleavage
- Location of horizontal cleavage
- Mineral occurrence - minor
- Major mineral occurrence with mine
- Mine shaft - operating, disused
- Mine tunnel portal
- Costean, pit or trench
- Trigonometrical station
- Road/track
- Railway - used/disused(or formation)
- Peg location
- Drillhole location
- Building
- Dam or lake
- Drainage
- Topographic contour line
- Fence
- Sample point
- Quarry/dump

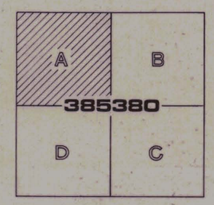
Mineralisation

Asb	Asbestos
Az	Azurite
By	Barytes
Cc	Chalcocite
Ch	Chalcopyrite
Fl	Fluorspar
G	Galena
Ml	Malachite
Mt	Magnetite
Py	Pyrite
Sp	Sphalerite
Sr	Sericite
St	Siderite

Mineral

Ag	Silver
As	Arsenic
Au	Gold
Ba	Barium
Cd	Cadmium
Cu	Copper
Hg	Mercury
Mn	Manganese
Mo	Molybdenum
Ni	Nickel
Os	Osmiridium
Pb	Lead
Sb	Antimony
Sn	Tin
W	Tungsten
Zn	Zinc

SHEET INDEX



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SCALE 1:5000

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COMSTAFF PROPRIETARY LIMITED

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GEOLOGY

83-1906

640015

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DATE	SEPTEMBER 1977
COMPILED	VARIOUS
SCALE	1:5000
	TAS/2/1130

LEGEND FOR GEOLOGICAL SERIES

ar	Argillite	pyr	Rhyolitic porphyry & minor acid intrusives
sh	Shale	pyd	Dacitic porphyry & minor acid intrusives
md,sl	Mudstone, slate	an	Andesite
ss	Siltstone	bs	Basalt
ss,cg ch	Sandstone, quartzite, chert	g	Granite
cg	Conglomerate	do	Dolerite
gw	Greywacke	gb	Gabbro
gw,cg	Greywacke conglomerate	px	Pyroxenite
dl	Dolomite	sp	Serpentinite
ls	Limestone	um	Undifferentiated ultramafics
ph	Phyllite	tu	Tuffs
sc	Schist	og	Agglomerate
ge	Gneiss	gs	Gossan
ho,am	Hornfels, Amphibolite		

Geological boundary
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Trigonometrical station
Road/track
Railway - used/disused(or formation)
Peg location
Drillhole location
Building
Dam or lake
Drainage
Topographic contour line
Fence
Sample point
Quarry/dump

Mineralisation

Asb	Asbestos	Mt	Magnetite
Az	Azurite	Py	Pyrite
By	Barytes	Sp	Sphalerite
Cc	Chalcocite	Sr	Sericite
Ch	Chalcopyrite	St	Siderite
Fl	Fluorspar		
G	Galena		
Ml	Malachite		

Mineral

Ag	Silver	Mn	Manganese
As	Arsenic	Mo	Molybdenum
Au	Gold	Ni	Nickel
Ba	Barium	Os	Osmiridium
Cd	Cadmium	Pb	Lead
Cu	Copper	Sb	Antimony
Hg	Mercury	Sn	Tin
		W	Tungsten
		Zn	Zinc

SHEET INDEX

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COMSTAFF PROPRIETARY LIMITED

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GEOLOGY

83-1906

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DATE	SEPTEMBER 1977
COMPILED	VARIOUS
SCALE	1 : 5000
	TAS/2/1134

LEGEND FOR GEOLOGICAL SERIES

ar	Argillite	pyr	Rhyolitic porphyry & minor acid intrusives
sh	Shale	pyd	Dacitic porphyry & minor acid intrusives
md,sl	Mudstone, slate	an	Andesite
ss	Siltstone	bs	Basalt
ss^{qz}_{ch}	Sandstone, quartzite, chert	g	Granite
cg	Conglomerate	do	Dolerite
gw	Greywacke	gb	Gabbro
gw,cg	Greywacke conglomerate	px	Pyroxenite
dl	Dolomite	sp	Serpentinite
ls	Limestone	um	Undifferentiated ultramafics
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sc	Schist	ag	Agglomerate
ge	Gneiss	gs	Gossan
ho,am	Hornfels, Amphibolite		

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- Sample point
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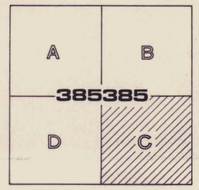
Mineralisation

Asb	Asbestos
Az	Azurite
By	Barytes
Cc	Chalcocite
Ch	Chalcopyrite
Fl	Fluorspar
G	Galena
Ml	Malachite
Mt	Magnetite
Py	Pyrite
Sp	Sphalerite
Sr	Sericite
St	Siderite

Mineral

Ag	Silver
As	Arsenic
Au	Gold
Ba	Barium
Cd	Cadmium
Cu	Copper
Hg	Mercury
Mn	Manganese
Mo	Molybdenum
Ni	Nickel
Os	Osmiridium
Pb	Lead
Sb	Antimony
Sn	Tin
W	Tungsten
Zn	Zinc

SHEET INDEX



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GEOLOGY

83-1906

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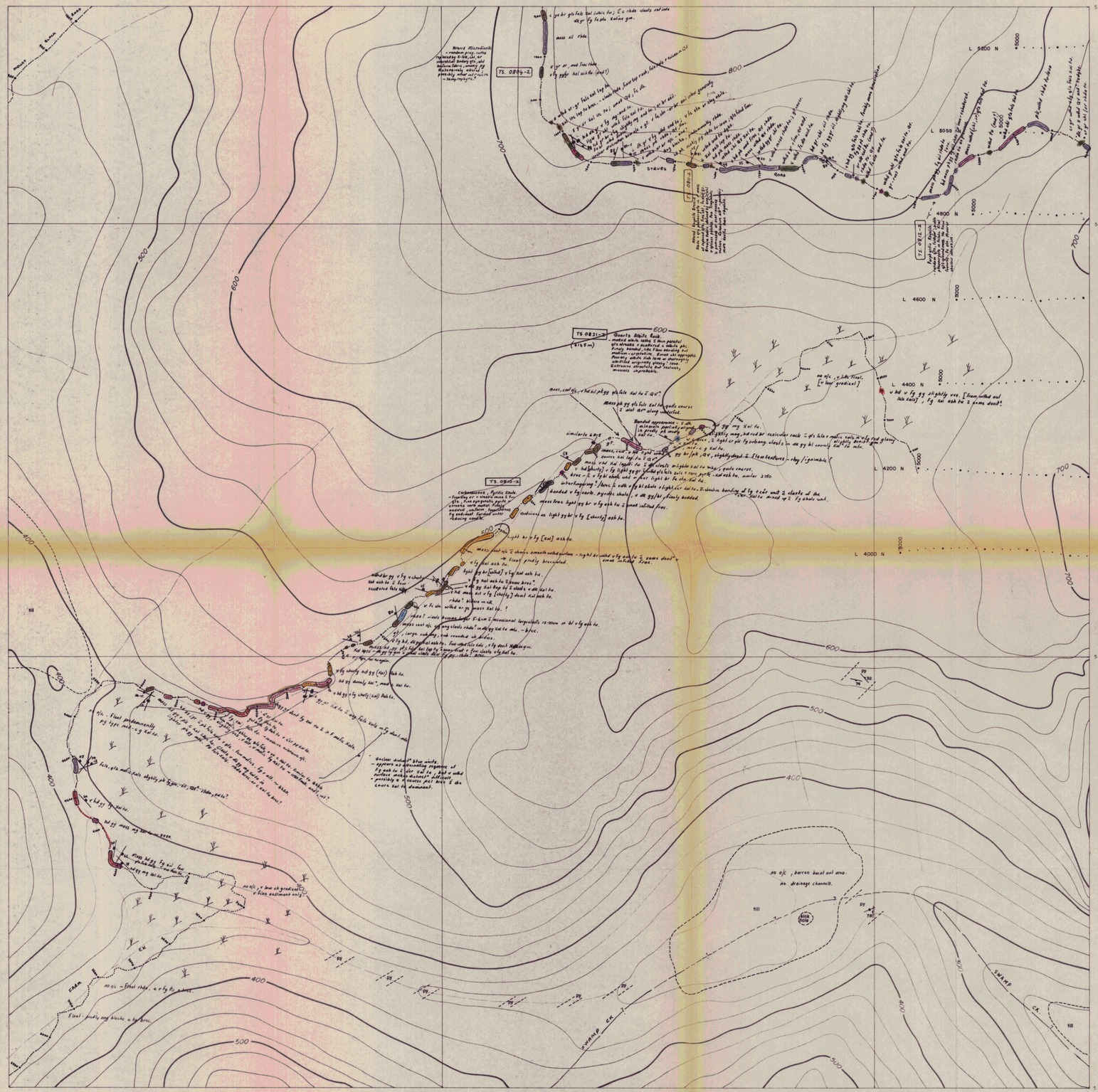
SCALE	1 : 5000

TAS/2/1136

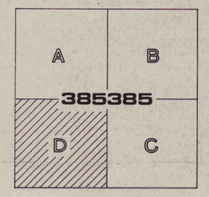


LEGEND FOR GEOLOGICAL SERIES

ar	Argillite	pyr	Rhyolitic porphyry & minor acid intrusives
sh	Shale	pyd	Dacitic porphyry & minor acid intrusives
md,sl	Mudstone, sjate	an	Andesite
ss	Siltstone	bs	Basalt
ss/cg/ch	Sandstone, quartzite, chert	g	Granite
cg	Conglomerate	do	Dolerite
gw	Greywacke	gb	Gabbro
gw,cg	Greywacke conglomerate	px	Pyroxenite
dl	Dolomite	sp	Serpentinite
ls	Limestone	um	Undifferentiated ultramafics
ph	Phyllite	tu	Tuffs
sc	Schist	ag	Agglomerate
ge	Gneiss	gs	Gossan
ho,am	Hornfels, Amphibolite		

	Geological boundary		Mineralisation
	Unconformity	Asb	Asbestos
	Anticline showing direction of plunge	Az	Azurite
	Syncline showing direction of plunge	By	Barytes
	Plunge of minor anticline	Cc	Chalcocite
	Plunge of minor syncline	Ch	Chalcopyrite
	Overturned anticline	Fl	Fluorspar
	Overturned syncline	G	Galena
	Fault, showing hade	Ml	Malachite
	Shear zone	Mt	Magnetite
	Strike and dip of bedding	Py	Pyrite
	Strike of vertical bedding	Sp	Sphalerite
	Location of horizontal bedding	Sr	Sericite
	Overturned bedding	St	Siderite
	Generalised strike & dip undulating strata		
	Strike and dip of jointing		Mineral
	Strike of vertical jointing	Ag	Silver
	Location of horizontal jointing	As	Arsenic
	Strike and dip of foliation	Au	Gold
	Strike of vertical foliation	Ba	Barium
	Location of horizontal foliation	Cd	Cadmium
	Strike and dip of cleavage	Cu	Copper
	Strike of vertical cleavage	Hg	Mercury
	Location of horizontal cleavage	Mn	Manganese
•Cu	Mineral - occurrence - minor	Mo	Molybdenum
Pb	Major mineral occurrence with mine	Ni	Nickel
	Mine shaft - operating, disused	Os	Osmiridium
	Mine tunnel portal	Pb	Lead
	Costean, pit or trench	Sb	Antimony
△Mt BISCHOFF	Trigonometrical station	Sn	Tin
	Road/track	W	Tungsten
	Railway - used/disused(or formation)	Zn	Zinc
+P32	Peg location		
○B25	Drillhole location		
	Building		
	Dam or lake		
	Drainage		
250	Topographic contour line		
	Fence		
•T 3806	Sample point		
	Quarry/dump		

SHEET INDEX



5 cm

SCALE 1 : 5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited.

COMSTAFF PROPRIETARY LIMITED

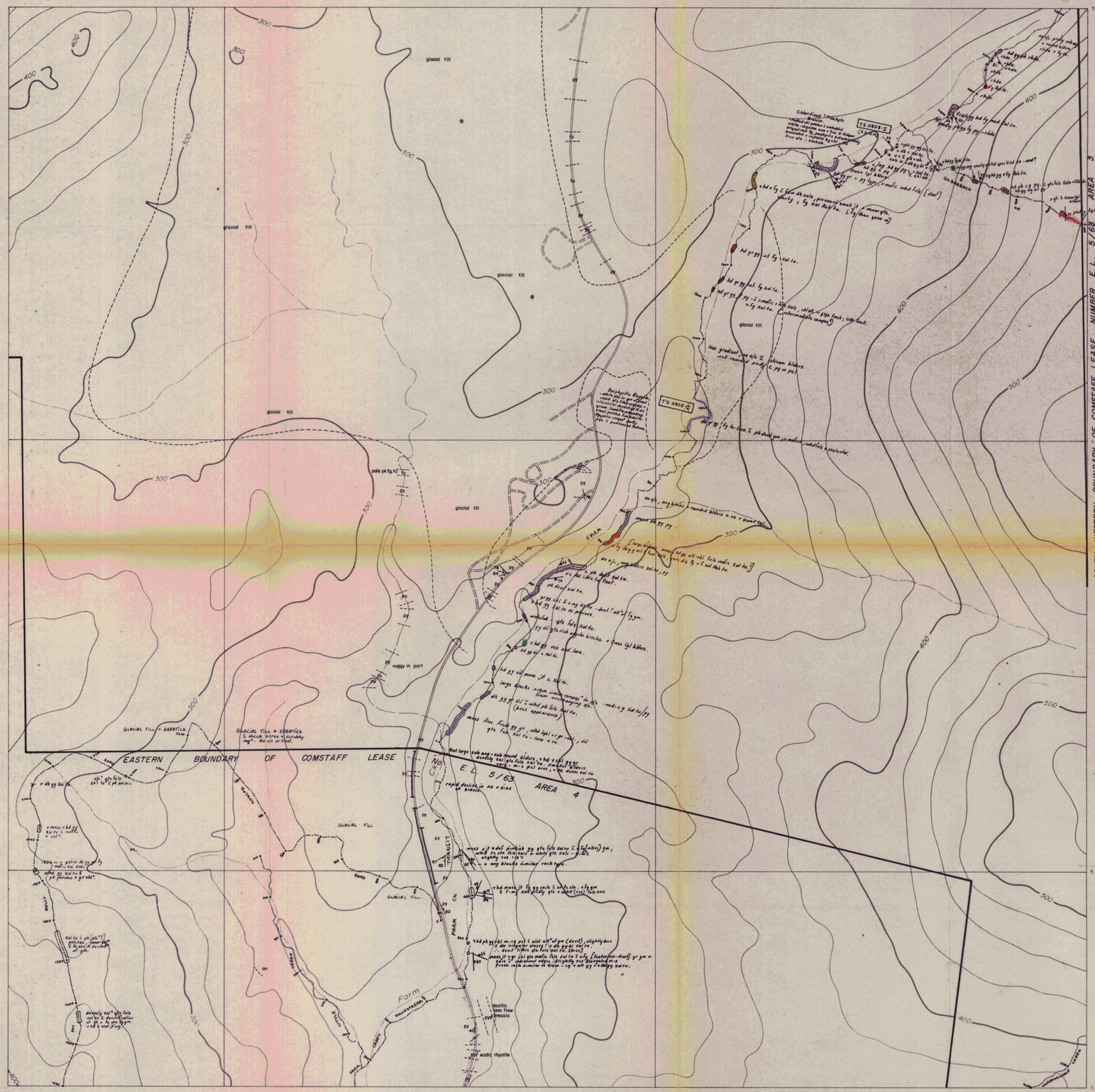
385385-D

GEOLOGY

640018

83-1986

DRAWN	GEODRAFT
DATE	SEPTEMBER 1977
COMPILED	VARIOUS
SCALE	1 : 5000
	TAS/2/1137



LEGEND FOR GEOLOGICAL SERIES

ar	Argillite	pyr	Rhyolitic porphyry & minor acid intrusives
sh	Shale	pyd	Dacitic porphyry & minor acid intrusives
md,sl	Mudstone, slate	an	Andesite
ss	Siltstone	bs	Basalt
ss, qch	Sandstone, quartzite, chert	g	Granite
cg	Conglomerate	do	Dolerite
gw	Greywacke	gb	Gabbro
gw,cg	Greywacke conglomerate	px	Pyroxenite
dl	Dolomite	sp	Serpentinite
ls	Limestone	um	Undifferentiated ultramafics
ph	Phyllite	tu	Tuffs
sc	Schist	ag	Agglomerate
ge	Gneiss	gs	Gossan
ho,am	Hornfels, Amphibolite		

Geological boundary
Unconformity
Anticline showing direction of plunge
Syncline showing direction of plunge
Plunge of minor anticline
Plunge of minor syncline
Overturned anticline
Overturned syncline
Fault, showing hade
Shear zone
Strike and dip of bedding
Strike of vertical bedding
Location of horizontal bedding
Overturned bedding
Generalised strike & dip undulating strata
Strike and dip of jointing
Strike of vertical jointing
Location of horizontal jointing
Strike and dip of foliation
Strike of vertical foliation
Location of horizontal foliation
Strike and dip of cleavage
Strike of vertical cleavage
Location of horizontal cleavage
Mineral occurrence - minor
Major mineral occurrence with mine
Mine shaft - operating, disused
Mine tunnel portal
Costean, pit or trench
Trigonometrical station
Road/track
Railway - used/disused(or formation)
Peg location
Drillhole location
Building
Dam or lake
Drainage
Topographic contour line
Fence
Sample point
Quarry/dump

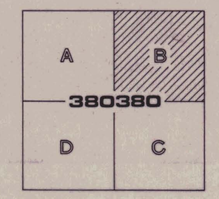
Mineralisation

Asb	Asbestos
Az	Azurite
By	Barytes
Cc	Chalcocite
Ch	Chalcopyrite
Fl	Fluorspar
G	Galena
Ml	Malachite
Mt	Magnetite
Py	Pyrite
Sp	Sphalerite
Sr	Sericite
St	Siderite

Mineral

Ag	Silver
As	Arsenic
Au	Gold
Ba	Barium
Cd	Cadmium
Cu	Copper
Hg	Mercury
Mn	Manganese
Mo	Molybdenum
Ni	Nickel
Os	Osmiridium
Pb	Lead
Sb	Antimony
Sn	Tin
W	Tungsten
Zn	Zinc

SHEET INDEX



5 cm

SCALE 1:5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited.

COMSTAFF PROPRIETARY LIMITED

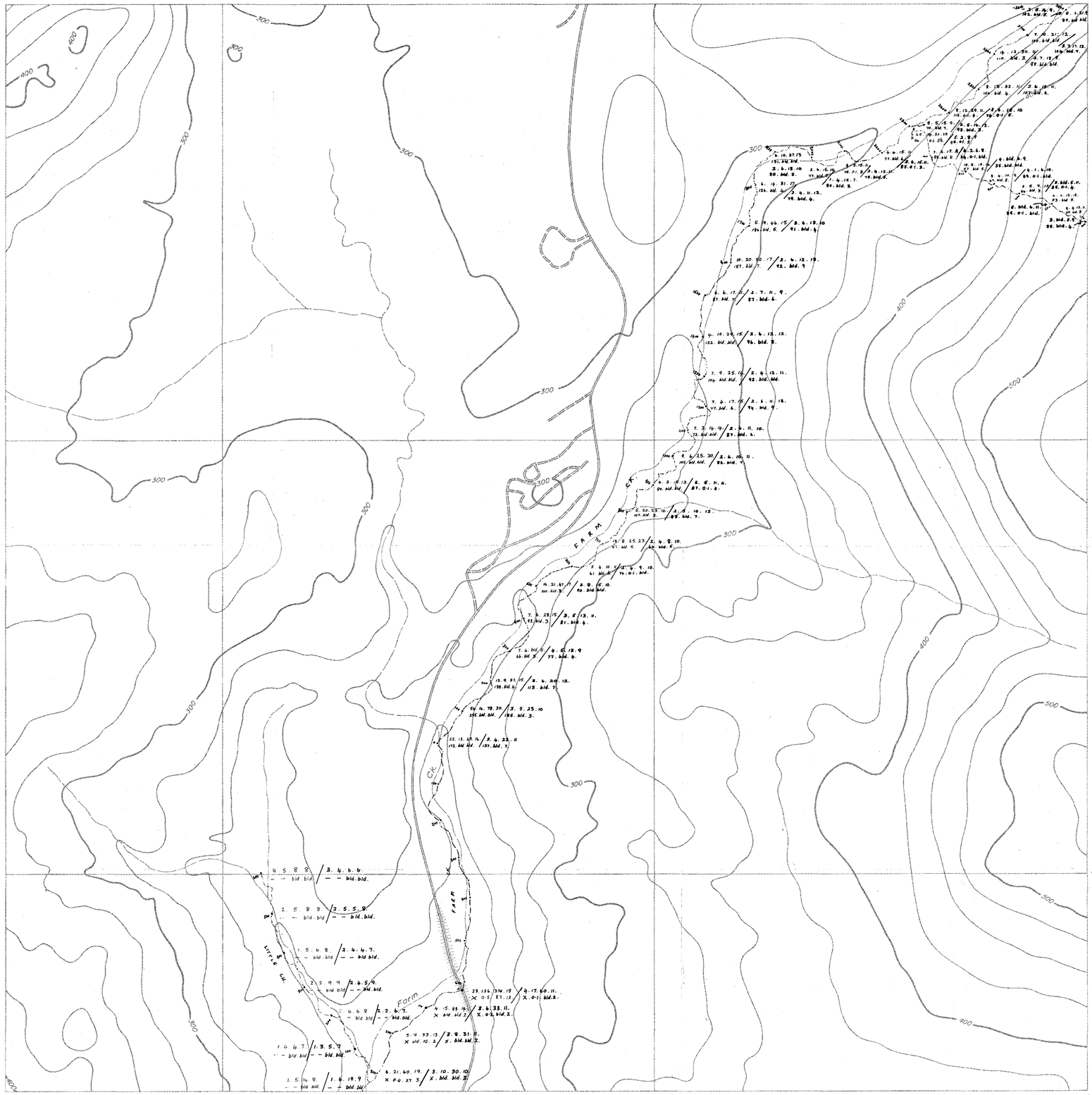
380380-B

GEOLOGY

83-1906

640019

DRAWN	GEODRAFT
DATE	SEPTEMBER 1977
COMPILED	VARIOUS
SCALE	1:5000
	TAS/2/1091



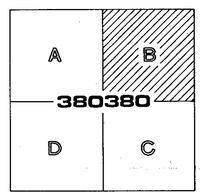
Sample Screen Size -80# -20#

Mount Block : Cu Pb Zn Ni Ba Ag Sn

East Chester : Cu Pb Zn Ni Ba Ag Sn As

x = no result.

SHEET INDEX



5 cm

SCALE 1:5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited.

640020

AUSTRALIAN ANGLO AMERICAN LIMITED

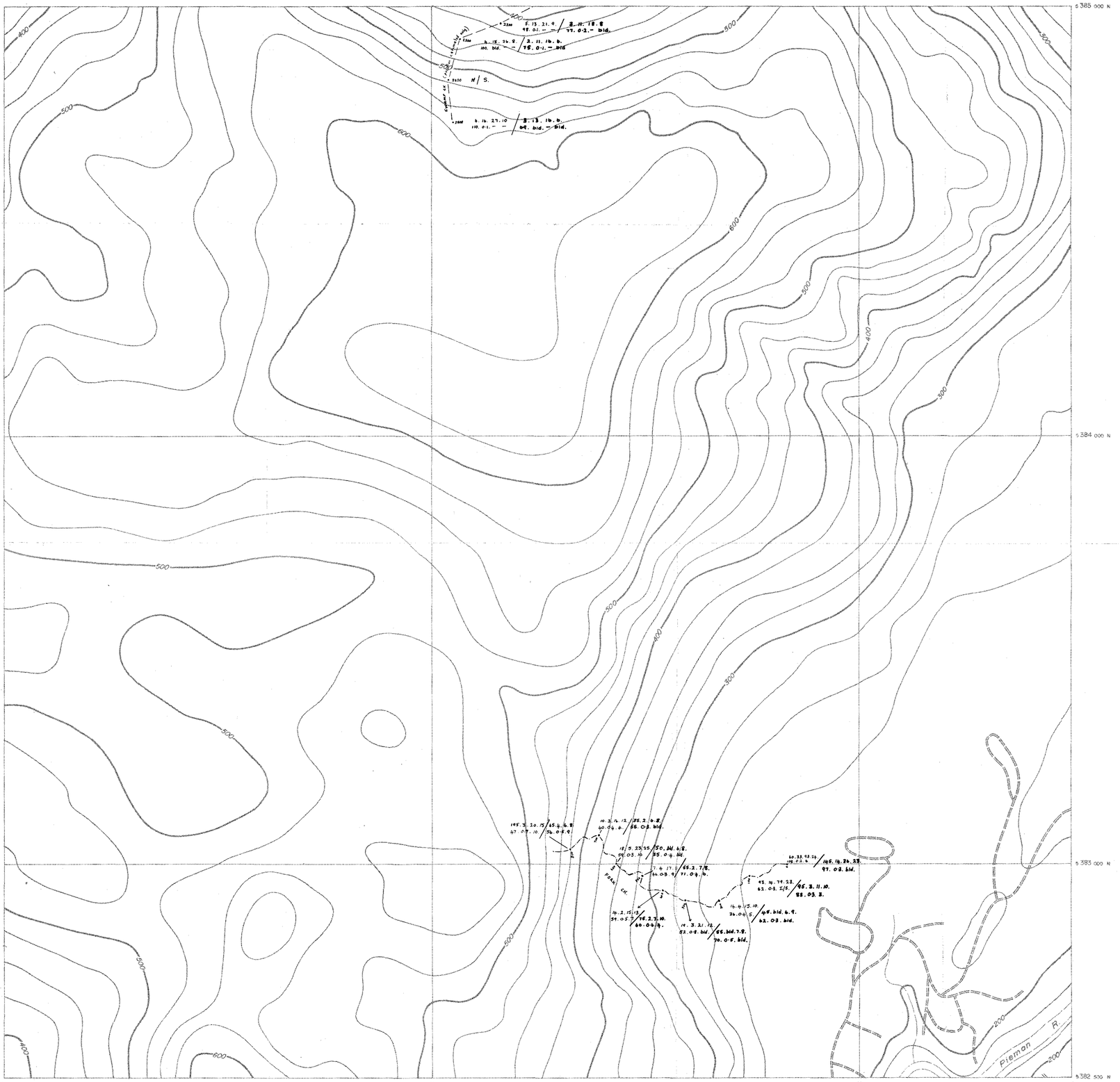
E.L. 5/63 AREA 3 - MT. BLOCK

380380-B 83-906

GEOCHEMICAL STREAM SAMPLING RESULTS

DRAWN	B.E.A.
DATE	7/82
COMPILED	B.E.A.
SCALE	1 : 5000

TAS/2/2958



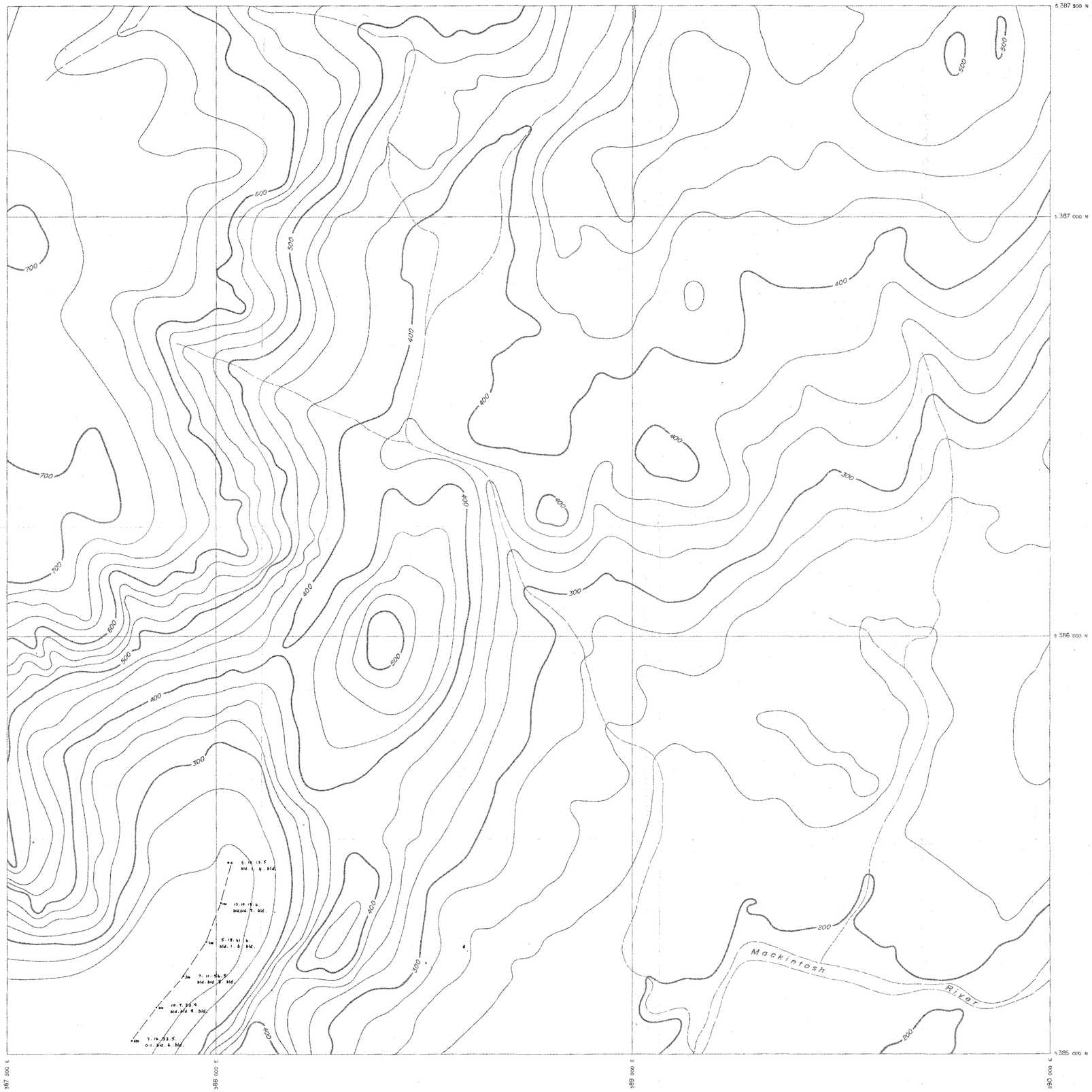
AUSTRALIAN ANGLO AMERICAN LIMITED

E.L. 5/63 AREA 3 - MT. BLOCK

385380 - A 83-1906

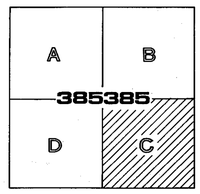
GEOCHEMICAL STREAM SAMPLING RESULTS

DRAWN	B.E.A.
DATE	7/82
COMPILED	B.E.A.
SCALE	1:5000
	TAS/2/2962



Soil samples : Cu. Pb. Zn. Ni;
Ag. As. Sn. W.

SHEET INDEX



5 cm

SCALE 1 : 5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

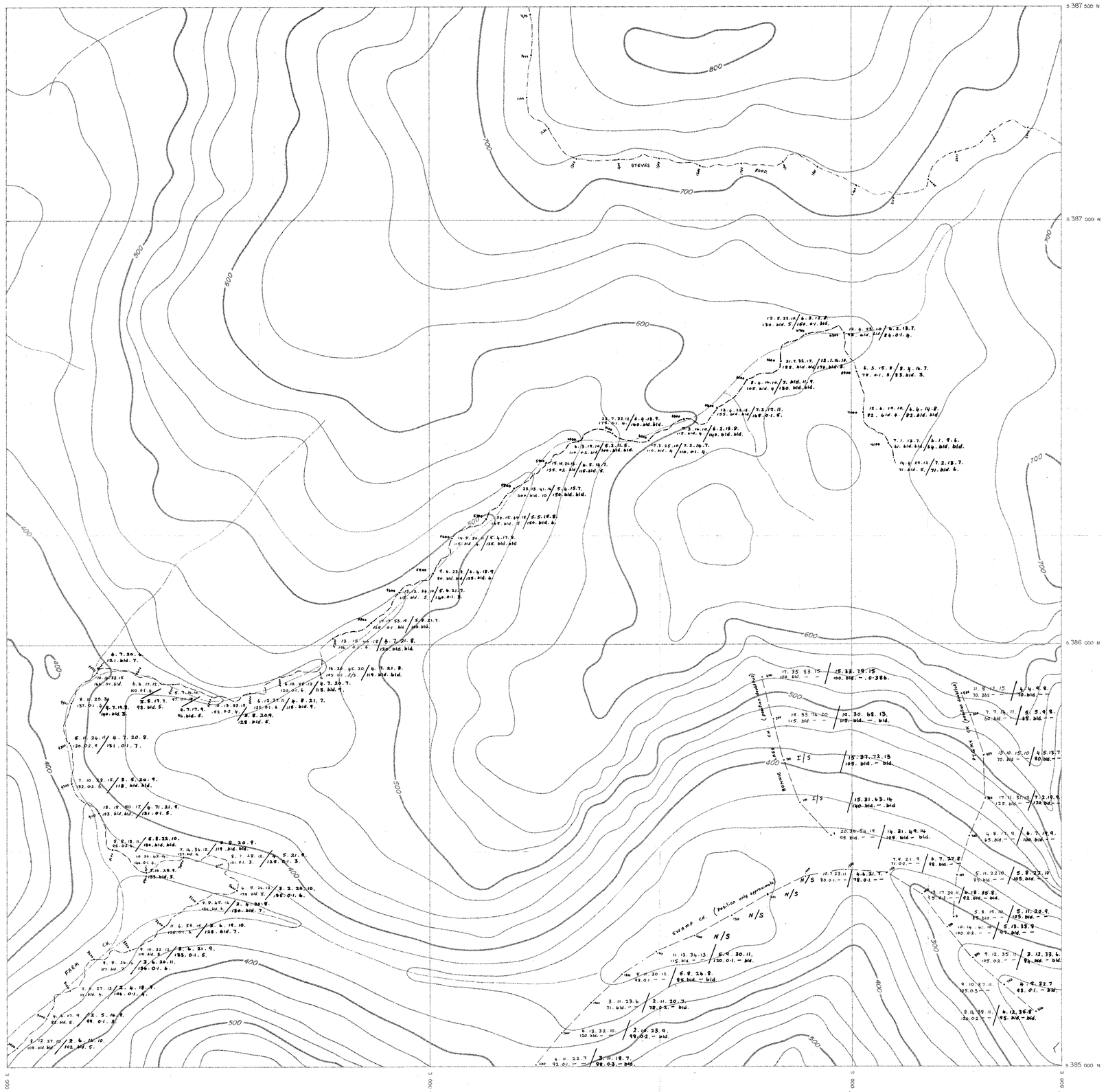
Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited.

640022

AUSTRALIAN ANGLO AMERICAN LIMITED

E.L. 5/63 AREA 3 – MT. BLOCK
385385-C, TULLABADINE 83-1906
GEOCHEMICAL SOIL SAMPLING RESULTS

DRAWN	B.E.A.
DATE	7/82
COMPILED	B.E.A.
SCALE	1 : 5000
	TAS/2/2963

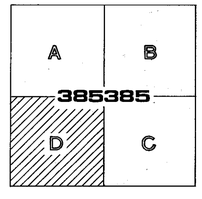


Sample Screen Size -80# -20#

Cu. Pb. Zn. Ni. I/S Insufficent sample.

Ba. Ag. Sn. Au. N/S : No Sample taken.

SHEET INDEX



5 cm

SCALE 1 : 5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited.

640023

AUSTRALIAN ANGLO AMERICAN LIMITED

E.L. 5/63 AREA 3 - MT. BLOCK

385385-D 83-1906

GEOCHEMICAL STREAM SAMPLING RESULTS

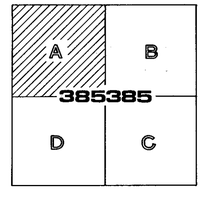
DRAWN	B.E.A.
DATE	7/82
COMPILED	B.E.A.
SCALE	1 : 5000
	TAS/2/2964

Cu Pb Zn Ni
Ba Ag Sn
-80
-20

Sample Screen Size -80# -20#

Cu. Pb. Zn. Ni.
Ba. Ag. Sn.
Min 0.1 3

SHEET INDEX



5 cm

SCALE 1 : 5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited.

640024

AUSTRALIAN ANGLO AMERICAN LIMITED

E.L. 5/63 AREA 3 - MT. BLOCK

385385 - A 63-1906

GEOCHEMICAL STREAM SAMPLING RESULTS

DRAWN	B.E.A.
DATE	7/82
COMPILED	B.E.A.
SCALE	1 : 5000

TAS/2/2965

385

382

5 385 000 N

5 384 000 N

5 383 000 N

5 382 500 N

387 500 E

388 000 E

389 000 E

390 000 E

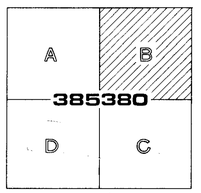
Mackinnosh River

Pieman River

STREAM SEDIMENT RESULTS : Cu. Pb. Zn. Ni −80# −20#
Ba. Ag. — Au.

SOIL SAMPLE RESULTS : Cu. Pb. Zn. Ni
Ba. Ag. Sn. As. W.

SHEET INDEX



5 cm

SCALE 1 : 5000

100 0 100 200 300 400 METRES

Contour Interval 25 Metres

Drawn by Kemp Drafting from material supplied by Australian Anglo American Limited

640025

AUSTRALIAN ANGLO AMERICAN LIMITED

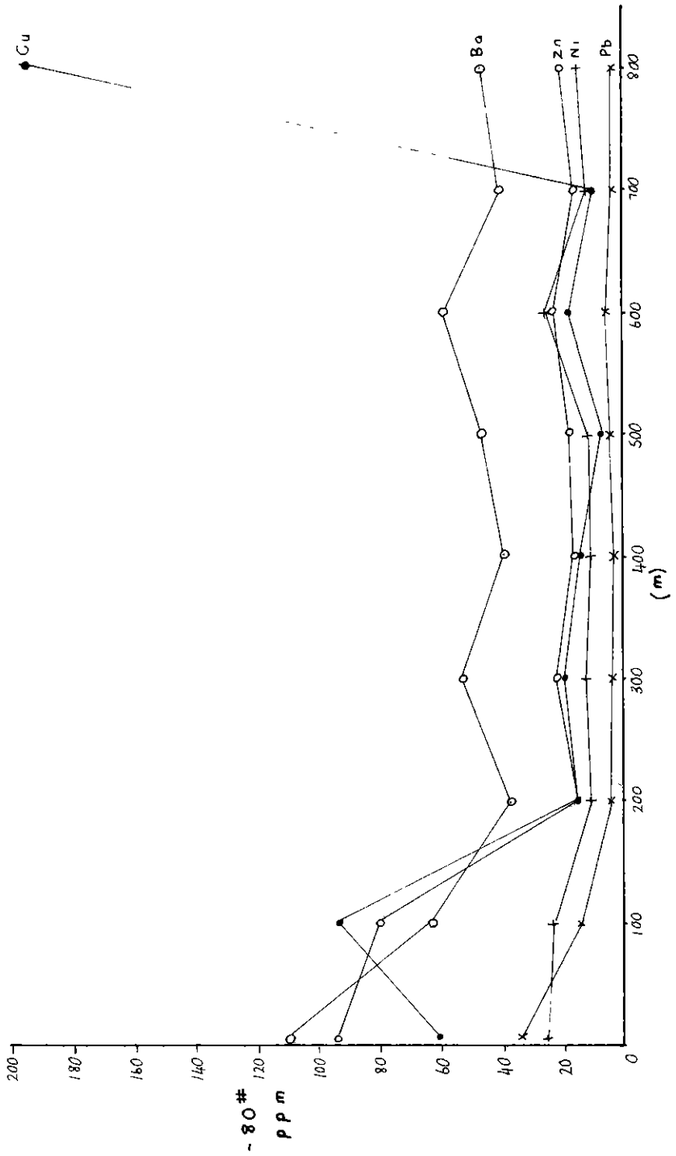
E.L. 5/63 AREA 3 - MT. BLOCK

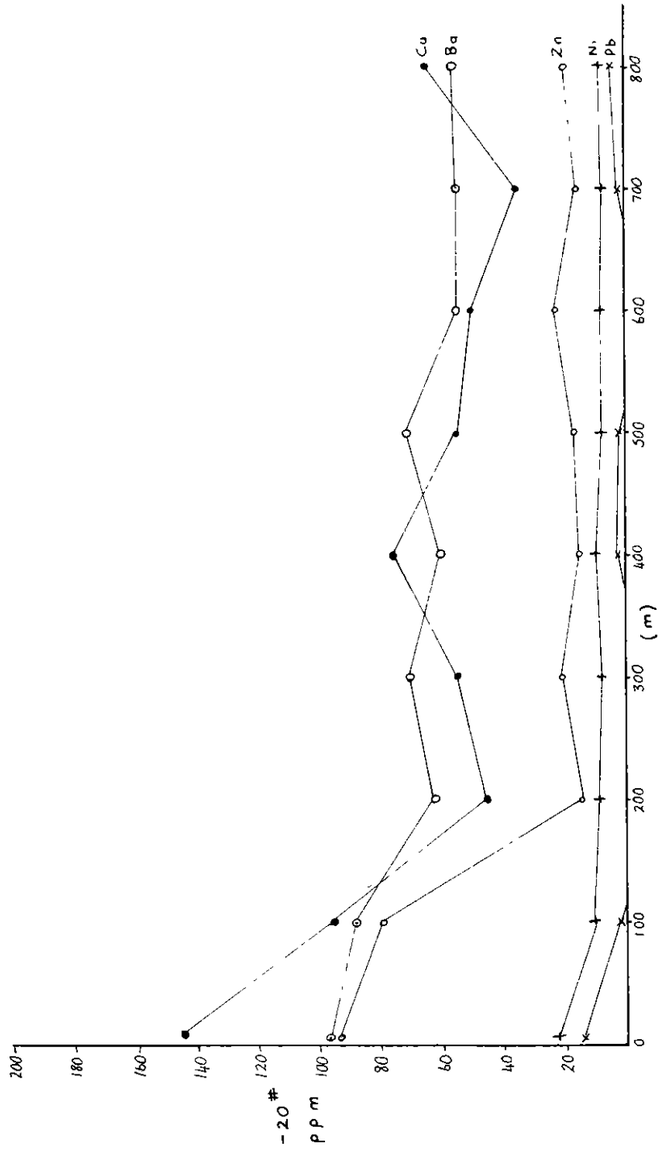
TULLABADINE, SWAMP CK. sediment sampling AND soil sampling RESULTS

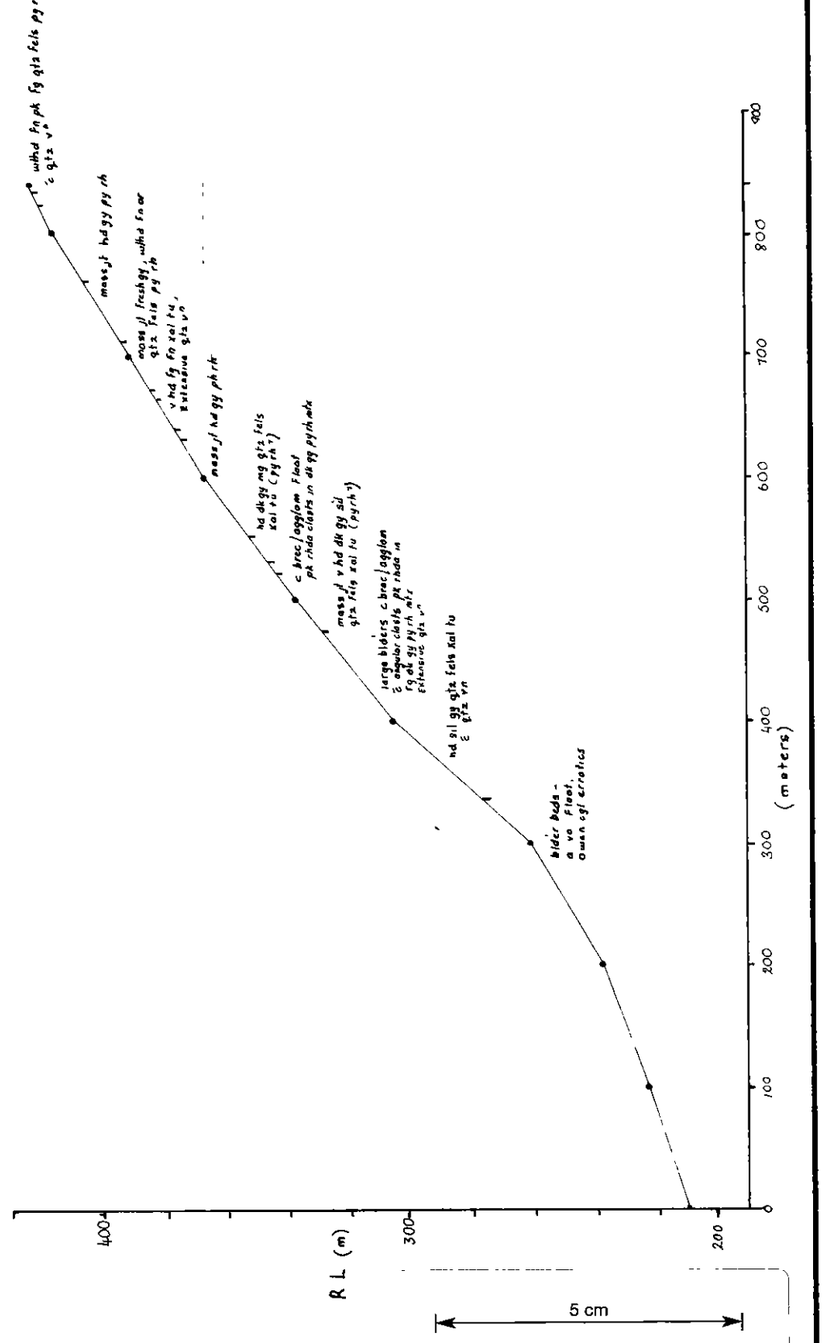
83-1906

DRAWN	B.E.A.
DATE	8/7/82
COMPILED	B.E.A.
SCALE	1 : 5000

TAS/2/2970





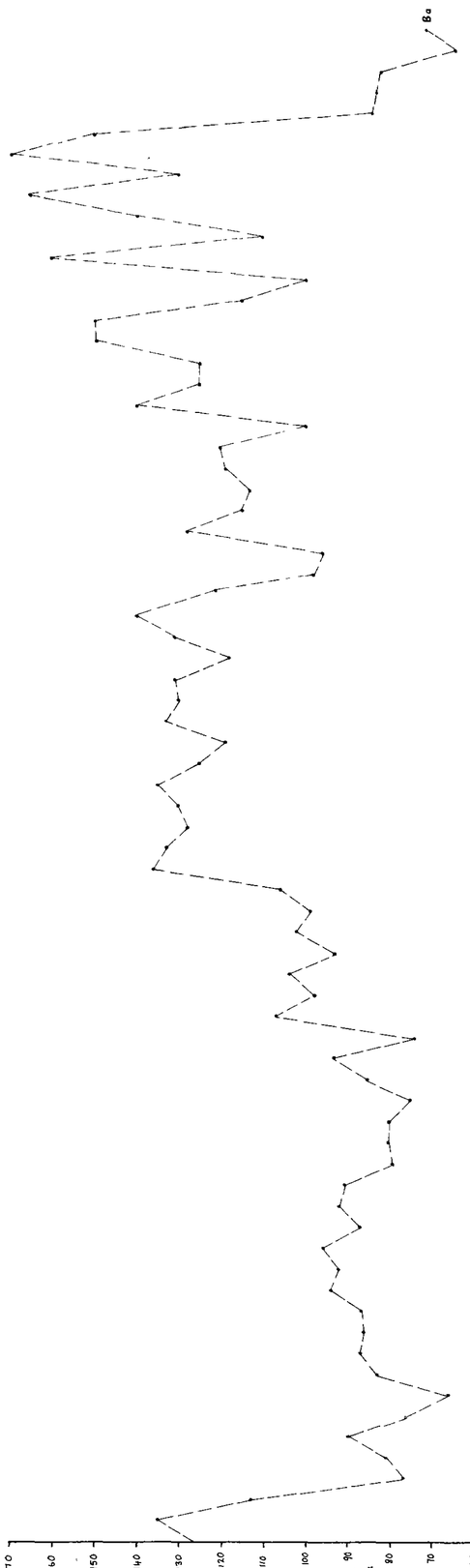


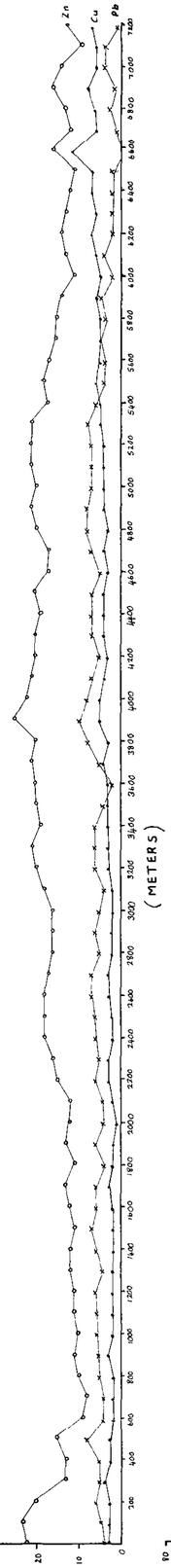
640026

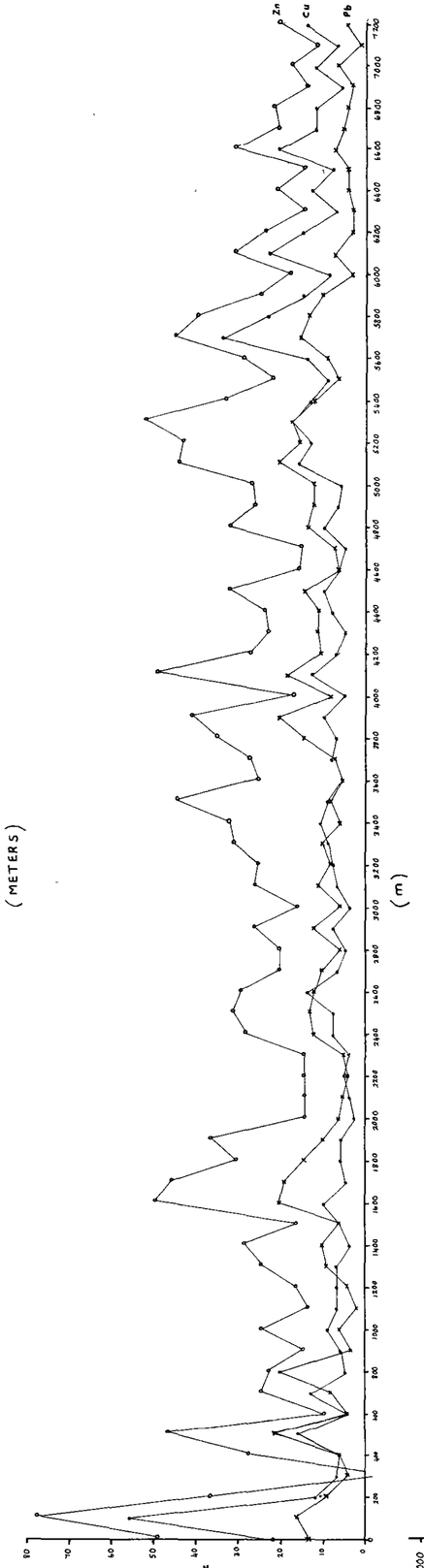
COMSTAFF PROPRIETARY LIMITED

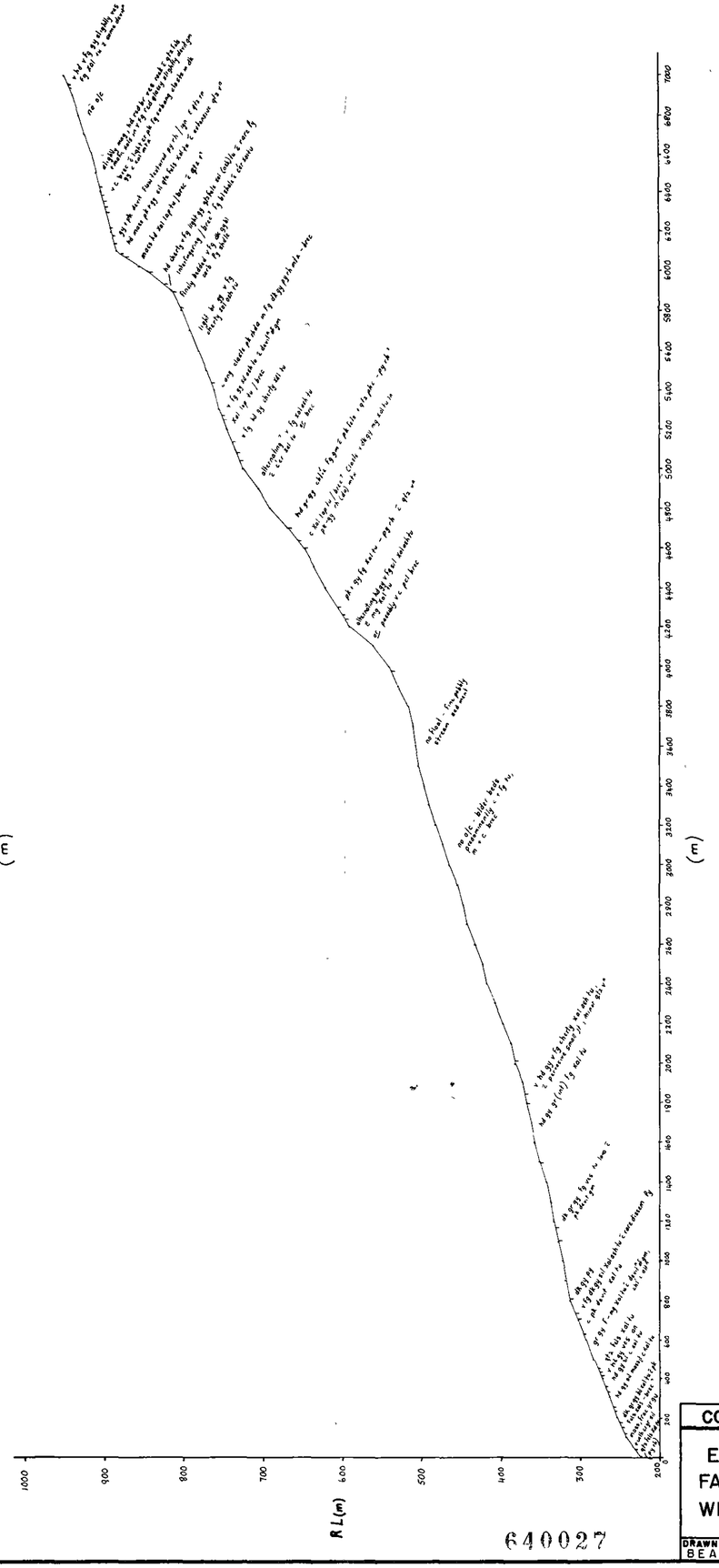
E.L. 5/63 AREA 3 – MT. BLOCK FORK CREEK DRAINAGE PROFILE WITH GEOLOGY AND GEOCHEMISTRY

DRAWN	COMPILED	SCALE	
BEA 7/82	BEA.	1 5000	TAS/2/2974









5 cm

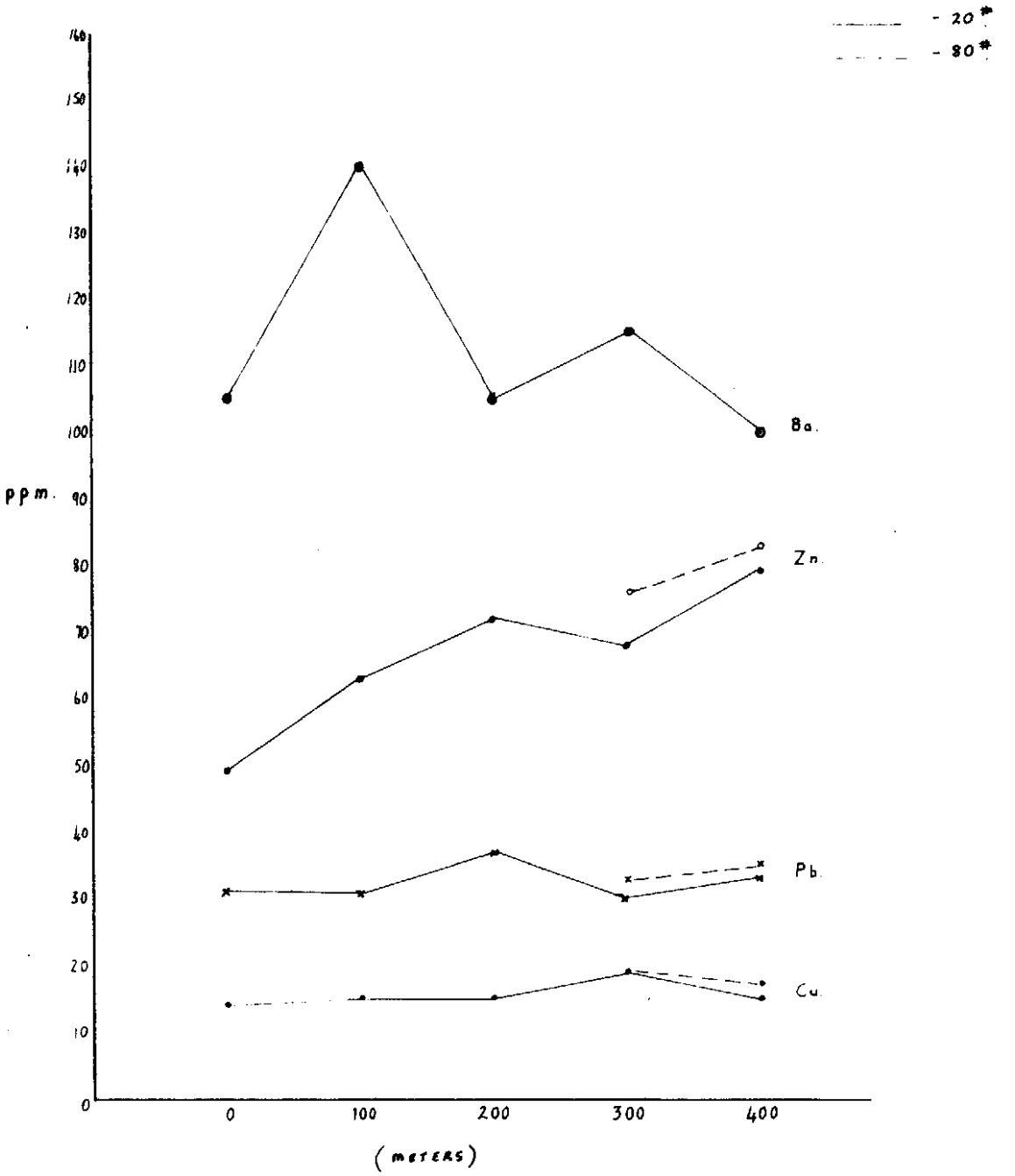
COMSTAFF PROPRIETARY LIMITED

E.L. 5/63 AREA 3 – MT. BLOCK
FARM CREEK DRAINAGE PROFILE
WITH GEOLOGY AND GEOCHEMISTRY

DRAWN	COMPILED	SCALE	
BEA 7/82	BEA	1	10 000

TAS/2/2972

640027



640028

5 cm

COMSTAFF PROPRIETARY LIMITED

E.L. 5/63 AREA 3 - MT. BLOCK
BONNIE LASS CREEK
STREAM SEDIMENT GEOCHEM RESULTS

DRAWN	COMPILED	SCALE	
BEA 7/82	BEA	1 : 5000	TAS/2/2973