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FORM	A.O.	C.G.	E.O.	REGISTERED
D. DIR.	MAY 1985			E & TL
DEPT. OF MINES				
REF. No. 5658/85				

PROJECT NAME: COMSTAFF PROPRIETARY LIMITED

TITLE: HATFIELD 'ZINC' ANOMALY, INTERIM REPORT

OPEN FILE

AREA NAME/S, STATE 1: 250,000 SHEET NO/S & COORDINATES: 1:250 sheets K55-03 (Burnie)
K55-05 (Queenstown)

COMMODITY/IES: Sn, Cu, Pb, Zn, Ag, Au

TEXT PAGES NO: 2

PLAN NOS: See List of Plans

TABLE NOS: -

APPENDICES: 1

AUTHOR/S: M P EVERETT

DATE: MARCH 1985

OPEN FILE

AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

CONTENTS

1. INTRODUCTION
2. PREVIOUS WORK
3. WORK ACHIEVED (1985)
4. CONCLUSIONS

LIST OF PLANS

Plan No	Description
TAS/2/3786	Location Plan
TAS/2/1059	Geology
TAS/2/3790	Stream Sediment Sample Locations
TAS/2/3791	" " " Results
TAS/2/3792	Heavy Concentrate Sample Results

APPENDICES

APPENDIX 1	Soil Sample Results - Olympic Road.
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HATFIELD 'ZINC' ANOMALY, INTERIM REPORT

APRIL 1985

1. INTRODUCTION

The first work in this part of EL 5/63 was carried out in the summer season of 1971/72 and was part of a regional reconnaissance programme covering the Coldstream, Hatfield and Que Rivers. Geochemical anomalies (Zn) were realised but have only recently been investigated further. Downgrading of the area is recommended.

2. PREVIOUS WORK

During the 1971/72 summer season regional stream sediment coverage produced four areas of anomalous geochemistry. These were assigned the labels of C1 to C4. The southern portion of C2, a tributary of the Hatfield River (see TAS/2/3786), is the anomaly that later was referred to as the 'Hatfield Zinc Anomaly'. These early stream sediment results gave an anomaly that was strongly zinc dominated. It should be noted that lead was not analysed and the precious metal content was inadequately determined (gold not at all and silver by an insensitive method). For details of this early work, refer to

"Coldstream-Hatfield-Que Regional Reconnaissance Project" M P Everett, Comstaff Summer Season Field Report, 1971/72.

Although close-spaced stream sediment sampling and gridding was recommended, admittedly on a low priority basis, the area was not worked further until 1983 when J A Levings noted that Anomaly C2 may be of significance on account of the relative mobility of zinc, that lead was not analysed previously and that zinc mineralisation was noted to occur within the Hatfield quartzites further north (see T Chisholm, Hatfield Regional, Comstaff Report, 1971). Levings re-interpreted statistically the original 100 samples from the Hatfield drainage. This confirmed the presence of a definite zinc anomaly. The background level was calculated at 128 ppm zinc with a coefficient of variation of 15%. Zinc values of greater than 190 ppm (1970/71, 299 ppm) were considered anomalous. Using this criteria, Levings found ten anomalous values present, all of which were located in either of two Hatfield tributaries. The main anomaly, and the subject of this report, consisted of seven values ranging from 210 ppm to 510 ppm Zn. Levings proposed gridding preceded by the construction of access from APPM's 'Huskisson Drive' and envisaged a sediment-hosted polymetallic massive sulphide target.

A bulldozed access track commenced in June 1984 but, for various reasons (bad weather and priorities elsewhere) was not completed until January 1985.

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2.

Prior to commencement of the access track ('Olympic Rd') the anomalous Hatfield tributary was again stream-sediment sampled to check the original results and to test for the presence of previously untested elements (eg lead). This work was carried out in December/January 1984 and the results are shown on plan TAS/2/3791. Apart from zinc there were apparent anomalies in, for example, gold, barium and arsenic. Heavy concentrates were also collected and these are shown on plan TAS/2/3792. [Sample numbers are shown on TAS/2/3790 but note that subsequent surveying has shown some of the sample locations to be inaccurate; the correct positions of re-located samples are shown on TAS/2/1059].

When J A Levings left Comstaff and the author took responsibility for this area, it was decided to shelve gridding (on the grounds of expense) until a geological field assessment had been completed and had confirmed or rejected the area as having economic potential.

3. WORK ACHIEVED IN 1985

Geological assessment took place in February and March of 1985 and the geochemically anomalous creeks were duly mapped. Olympic Road was also partly mapped and soil sampled (results in Appendix 1). A geological data map is presented as plan TAS/2/1059. Generally, the amount of exposure in the creeks was sufficient to provide enough information to permit a reasonable impression of the economic worth of the area. In summary, no rock types, mineralisation, alteration or other geological features were observed that would suggest that this area has any more economic potential than anywhere else in EL 5/63. It appears that the geochemical "anomalies" can be ascribed mainly to changes of background caused by changes in rock types and exposure levels. In other words, the eastern series of well exposed generally dark grey to black argillites may have higher stream geochemical "signatures" than the western series of less well exposed greywackes. More specifically, Zn and Ba anomalies at the mouth of Snake Creek (see TAS/2/1059) maybe associated with a black shale band situated within the eastern series of mudstones and subordinate sandstones. However the highly anomalous arsenic values in the upper reaches of Fish Creek East correspond to an "elbow" in the creek and the possibility of faulting has not been overlooked. Other "anomalies" in Ba, Zn, Au, and Ag are now thought to be more statistical than real. Be this as it may, the area has been downgraded on the basis of a lack of geological encouragement.

4. CONCLUSIONS

No further work is recommended and the area can be relinquished from EL 5/63.



for
M P EVERETT
April 1985

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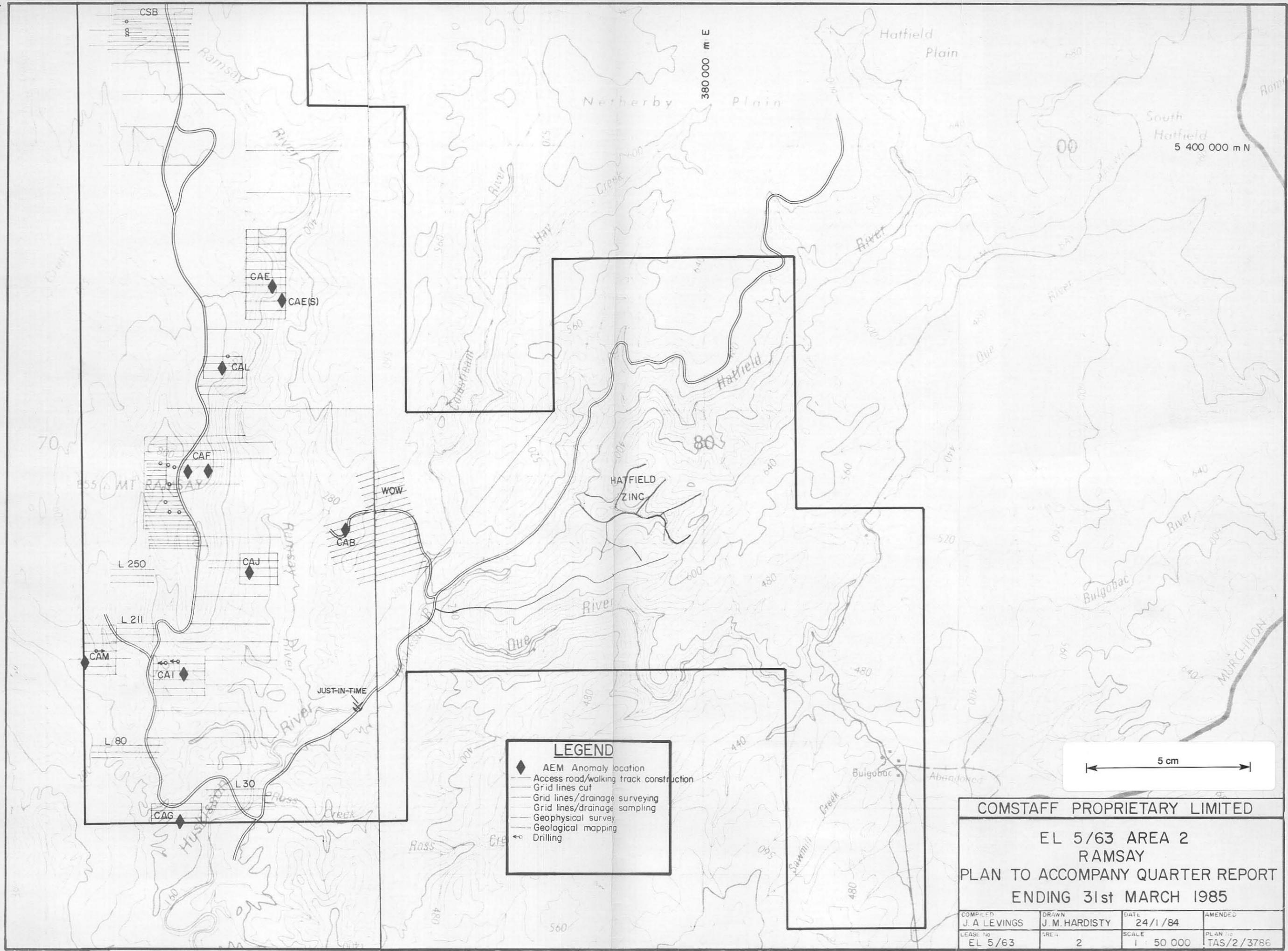
182007

SOIL SAMPLE RESULTS - OLYMPIC ROAD

	Cu	Pb	Zn	Ba	Ag (ppm)
Olympic Road 3200	2	9	7	70	x
3240	1	4	3	35	x
3280	1	9	5	80	x
3320	1	3	3	35	x
3360	1	2	6	25	x
3400	1	1	11	25	x
3440	2	4	6	30	x
3480	2	46	5	145	x
3520	2	5	5	45	x
3560	2	6	10	115	x
3600	1	5	6	60	x
3640	1	5	9	60	x
3680	1	1	4	20	x
3720	1	1	3	15	x
3760	1	4	5	30	x
3800	1	6	4	25	x
3840	1	3	4	15	x
3880	1	x	4	20	x
3920	1	3	4	30	x
3960	1	13	8	90	x
4000	1	1	9	20	x

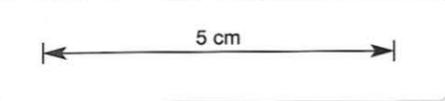
location
04
2/3790

182008 007



LEGEND

- ◆ AEM Anomaly location
- Access road/walking track construction
- Grid lines cut
- Grid lines/drainage surveying
- Grid lines/drainage sampling
- Geophysical survey
- Geological mapping
- ← Drilling



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EL 5/63 AREA 2
RAMSAY
PLAN TO ACCOMPANY QUARTER REPORT
ENDING 31st MARCH 1985

COMPILED J. A. LEVINGS	DRAWN J. M. HARDISTY	DATE 24/1/84	AMENDED
LEASE NO EL 5/63	AREA 2	SCALE 1 : 50 000	PLAN NO TAS/2/3786

95-2386

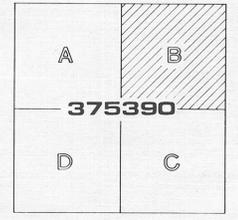


LEGEND FOR GEOLOGICAL SERIES

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
sa,qt,ch	Sandstone, quartzite, chert	g	Granite
cg	Conglomerate	do	Dolerite
gw	Greywacke	gb	Gabbro
gw,cg	Greywacke conglomerate	px	Pyroxenite
dl	Dolomite	sp	Serpentine
ls	Limestone	um	Undifferentiated ultramatics
ph	Phyllite	tu	Tuffs
sc	Schist	ag	Agglomerate
ge	Gneiss	gs	Gossan
ho,am	Hornfels, Amphibolite		

	Geological boundary		Asb Asbestos
	Unconformity		Az Azurite
	Anticline showing direction of plunge		By Barytes
	Syncline showing direction of plunge		Cc Chalcocite
	Plunge of minor anticline		Ch Chalcopyrite
	Plunge of minor syncline		Fl Fluorspar
	Overturned anticline		G Galena
	Overturned syncline		Ml Malachite
	Fault, showing hade		Mt Magnetite
	Shear zone		Py Pyrite
	Strike and dip of bedding		Sp Sphalerite
	Strike of vertical bedding		Sr Sericite
	Location of horizontal bedding		St Siderite
	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		

SHEET INDEX



182009

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

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375390-B

011

GEOLOGY

DRAWN	GEODRAFT
DATE	OCTOBER 1977
COMPILED	VARIOUS
SCALE	1:5000
	TAS/2/1059

35-2386

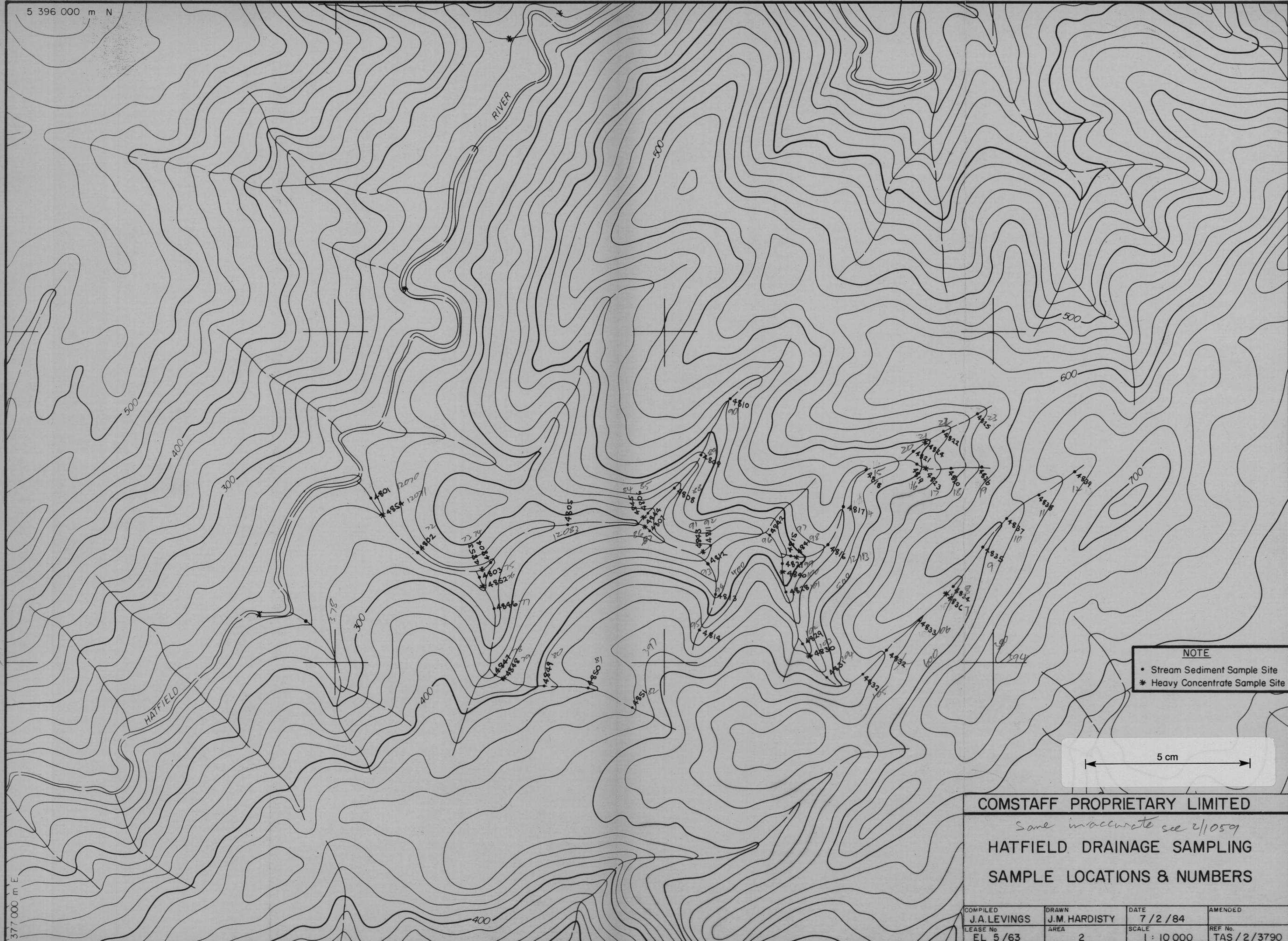
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182010

94

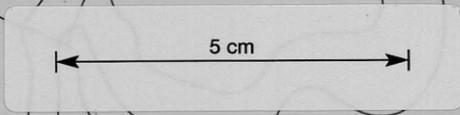
94

5 396 000 m N



NOTE

- Stream Sediment Sample Site
- * Heavy Concentrate Sample Site



COMSTAFF PROPRIETARY LIMITED			
<i>Some inaccurate see 2/1059</i>			
HATFIELD DRAINAGE SAMPLING			
SAMPLE LOCATIONS & NUMBERS			
COMPILED J.A. LEVINGS	DRAWN J.M. HARDISTY	DATE 7/2/84	AMENDED
LEASE No EL 5/63	AREA 2	SCALE 1:10 000	REF No TAS/2/3790

377 000 m E

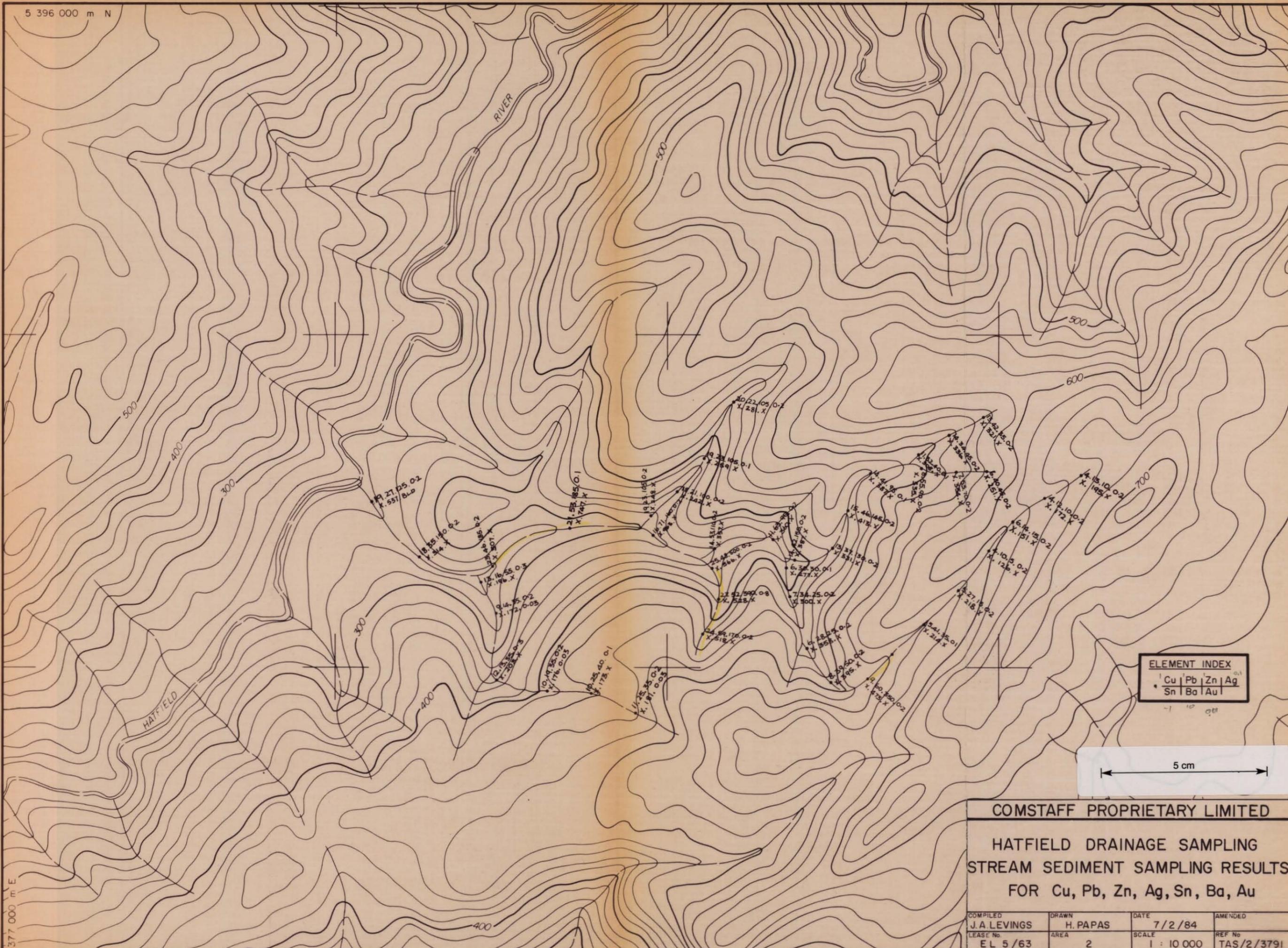
85-2384

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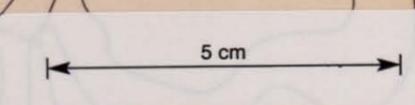
182011

5 396 000 m N

377 000 m E



ELEMENT INDEX						
Cu	Pb	Zn	Ag			
Sn	Ba	Au				

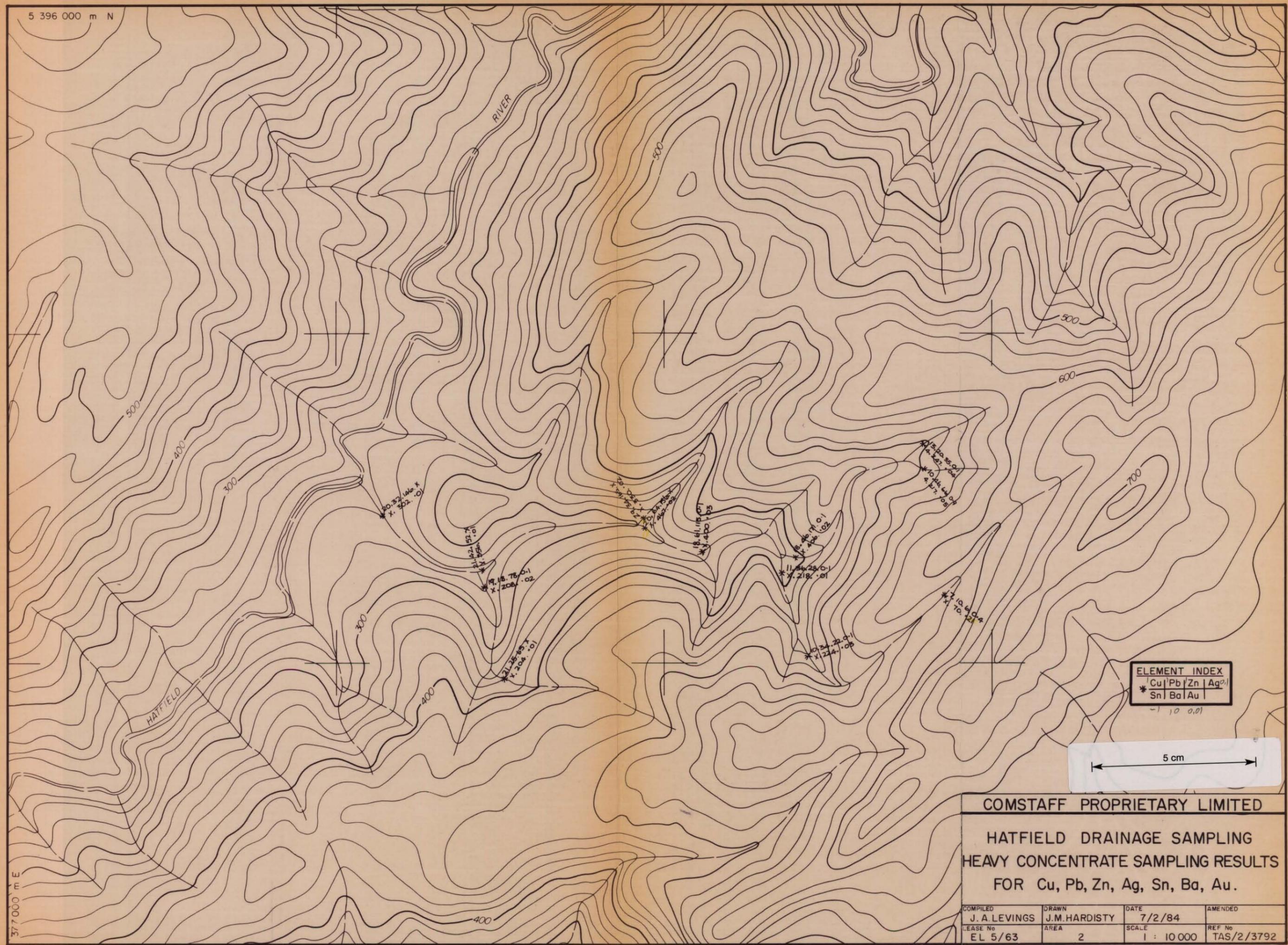


COMSTAFF PROPRIETARY LIMITED			
HATFIELD DRAINAGE SAMPLING STREAM SEDIMENT SAMPLING RESULTS FOR Cu, Pb, Zn, Ag, Sn, Ba, Au			
COMPILED J. A. LEVINGS	DRAWN H. PAPAS	DATE 7/2/84	AMENDED
LEASE No EL 5/63	AREA 2	SCALE 1 : 10 000	REF No TAS/2/3791

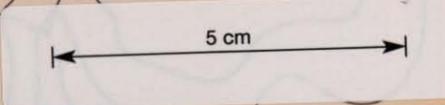
85-2384

010
182012

5 396 000 m N



ELEMENT INDEX			
*	Cu	Pb	Zn Ag ^{0.1}
	Sn	Ba	Au
-1 10 0.01			



COMSTAFF PROPRIETARY LIMITED			
HATFIELD DRAINAGE SAMPLING HEAVY CONCENTRATE SAMPLING RESULTS FOR Cu, Pb, Zn, Ag, Sn, Ba, Au.			
COMPILED J. A. LEVINGS	DRAWN J. M. HARDISTY	DATE 7/2/84	AMENDED
LEASE No EL 5/63	AREA 2	SCALE 1 : 10 000	REF No TAS/2/3792

85-2384

377 000 m E