Zn. Hg. Ag.

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GEOCHEMICAL SOIL SURVEY
OF THE
DILLARD & MABEL AREAS
BRITISH COLUMBIA

SPA - 92-H-16

BARRINGER RESEARCH LIMITED
TORONTO, CANADA

GEOCHEMICAL SOIL SURVEY
OF THE
DILLARD & MABEL AREAS
BRITISH COLUMBIA

PREPARED FOR:

CYPRUS EXPLORATION CORPORATION LIMITED

510 W. HASTINGS STREET

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304 CARLINGVIEW DRIVE

TORONTO, ONTARIO

OCTOBER 1969

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INTRODUCTION

A geochemical orientation was carried out in June of this year and following favourable results soil sampling was completed over the entire claim group on a regular 400' x 100' grid. Details of the orientation survey are included in an earlier report "Results of the Geochemical Orientation Survey at the Dillard and Mabel Areas, British Columbia, June 1969"

RESULTS

The contoured results are plotted on maps in the back pocket. On the basis of all the available data the following background, threshold and anomalous values were chosen.

	Zn Ppm	Hg Ppb	Ag Ppm
Background	0 - 400	0 - 80	0 - 0.3
Threshold	400	80	0.3
3rd Order Anomaly	401-800	81-160	0.4-0.6
2nd Order Anomaly	801-1200	161-240	0.7-0.9
1st Order Anomaly	>1200	>240	>0.9

Because of the much larger number of results available the zinc threshold was adjusted 100 ppm downwards from the threshold estimated from the orientation results. The mercury and silver thresholds remain the same.

The soil results have been contoured to outline the best defined geochemical anomalies, rather than on a purely rigorous approach that would result in a very irregular pattern. Isolated highs, even first order anomalies, if unsupported by other anomalous samples are considered to be of no significance and have been ignored during contouring. In other words, contouring has been used as an aid to interpretation. Consequently the contours are, to a limited extent, subjective and this should be kept in mind when examining the results in detail or when new evidence (e.g. from drilling)

is available.

THE MABEL AREA

Soil samples were collected over the entire cut grid and the samples analysed for total Zn. On the basis of these results lines 96N to 120N were extended by pace and compass from 270E to 294E in order to close off an extensive zinc anomaly.

Five anomalies were outlined by the zinc sampling (labelled A to E on accompanying maps). Anomaly A coincides when the adit and stripped area opposite the camp and indicates that this zone is limited and does not extend significantly beyond the area uncovered during trenching and stripping.

Anomalies C, D, & E form a more or less continuous zone 5000' to 6000' long and up to 3000' wide. These anomalies lie roughly on the strike of minor vein dimension mineralization at the western end of the area. In order to confirm the outline of the anomaly and to gain additional information as to the nature of the mineralization this block of samples was also analysed for mercury, and the western half of the block for silver. The mercury results show a strong positive correlation with anomaly D, a weak correlation with anomaly E and virtually no correlation with C. The silver results show a moderate correlation with anomaly D but are not nearly so extensive.

On the basis of these data anomaly D is well defined and extensive, and confirmed by both mercury and silver. Zinc anomaly C is not repeated by the mercury or silver and at anomaly E the mercury high is displaced approximately 400' from the zinc high. Unfortunately no topographic map was available at the time of writing this report, but then differences are thought to be largely as a result of the saline dispersion of zinc downslope. If a field examination of the topography shows this may be so, then follow-up should be based on the mercury results rather than the zinc.

DILLARD ZONE

Four principal zinc anomalies are outlined by the soil sampling of the zone (labelled F to I on the accompanying maps).

Anomaly F is small (approx. 600' x 1600') but intense. Mercury shows a similar but somewhat larger anomaly with the peak displaced approximately 400' to the west. As for the Mabel area, this feature is probably due to saline movement downslope.

Anomalies G, H, & I form a more or less continuous zone, indicating important extensions of the mineralization located by trenching. The mercury and zinc again show certain differences, although in general they both outline the same anomalous zone. The best area of correlation is at anomaly I and this area should be given priority during follow-up.

The 100 ppm contour, roughly coincident with border of maps sheets A & B probably represents a rock type change.

CONCLUSIONS AND RECOMMENDATIONS

Nine broad zinc anomalies have been outlined on both the Mabel and Dillard zones, five of which have been confirmed by the presence of roughly coincident mercury anomalies and require further follow-up to determine the extent, grade and nature of the material causing these anomalies. One of the anomalies (D) is further confirmed by silver analysis.

In detail the zinc and mercury anomalies are not always coincident. Zinc is a mobile element in the secondary environment and frequently shows saline dispersion downslope. Mercury also has a saline component but in general terms often shows less saline mobility than zinc. Before the location of drilling or trenching targets is chosen the topography should be examined and the possibility of seepage anomalies downslope taken into consideration. Preference should be given to the mercury highs where they lie upslope from the zinc high. Analysis of lead (a relatively immobile element) could prove useful in distinguishing between residual and transported anomalies if after a field examination the results are still ambiguous. The possibility of mechanical down-slope creep should be kept in mind for all elements particularly in areas of very steep topography.

On the basis of the present results preference should be given to following up anomalies D, I, and H. Should these results prove encouraging, consideration should be given to following up the other anomalies but should the results be of no economic interest careful consideration should be given before following up these remaining geochemical highs.

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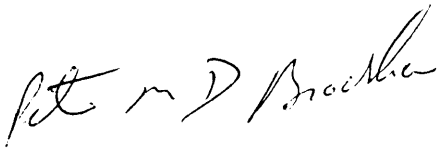
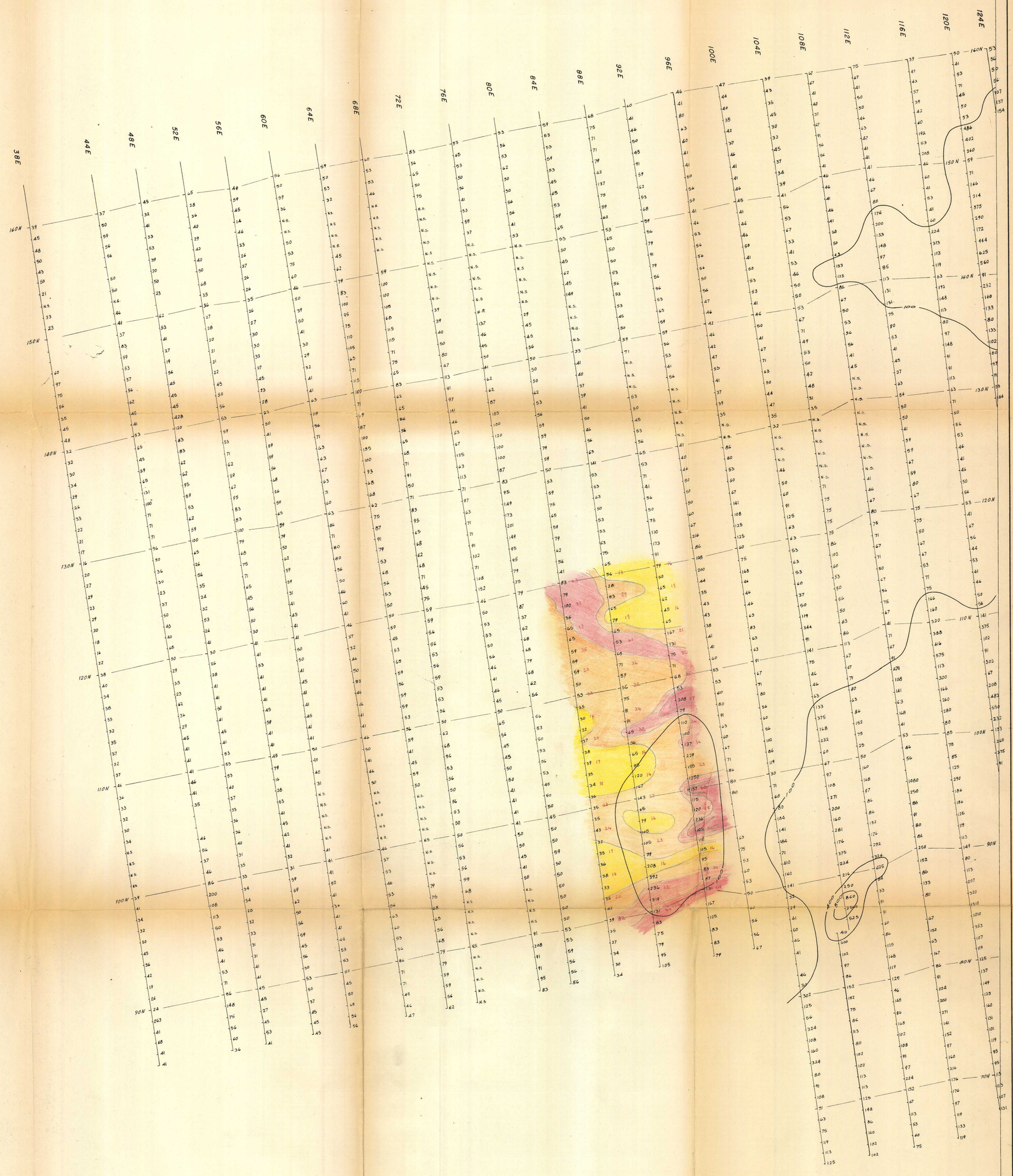


Peter M. D. Bradshaw
Chief Geochemist



N

A

LEGEND

Background	0 - 400 ppm
Threshold	401 - 800 ppm
2nd. order Anomalous	801 - 1200 ppm
1st. order Anomalous	+ 1200 ppm

Values in red are ppm Cu

INDEX

A | B | C

inches 0 1 2

0 1 2 3 4 5 centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

BRITISH COLUMBIA GEOLOGICAL SURVEY

Work undertaken by
BARRINGER RESEARCH LTD, Toronto, Canada

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SPA MINES GROUP

GEOCHEMICAL SOIL SURVEY
ZINC

OCT. 1969	Scale 1"=400'	DWG. 4-118-15A

Cu ppm
< 20
20-30
> 30

LEGEND

Background	0 - 400 ppm
Threshold	401 - 800 ppm
2nd. order Anomalous	801 - 1200 ppm
1st. order Anomalous	+ 1200 ppm

INDEX

A B C

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inches
centimetres
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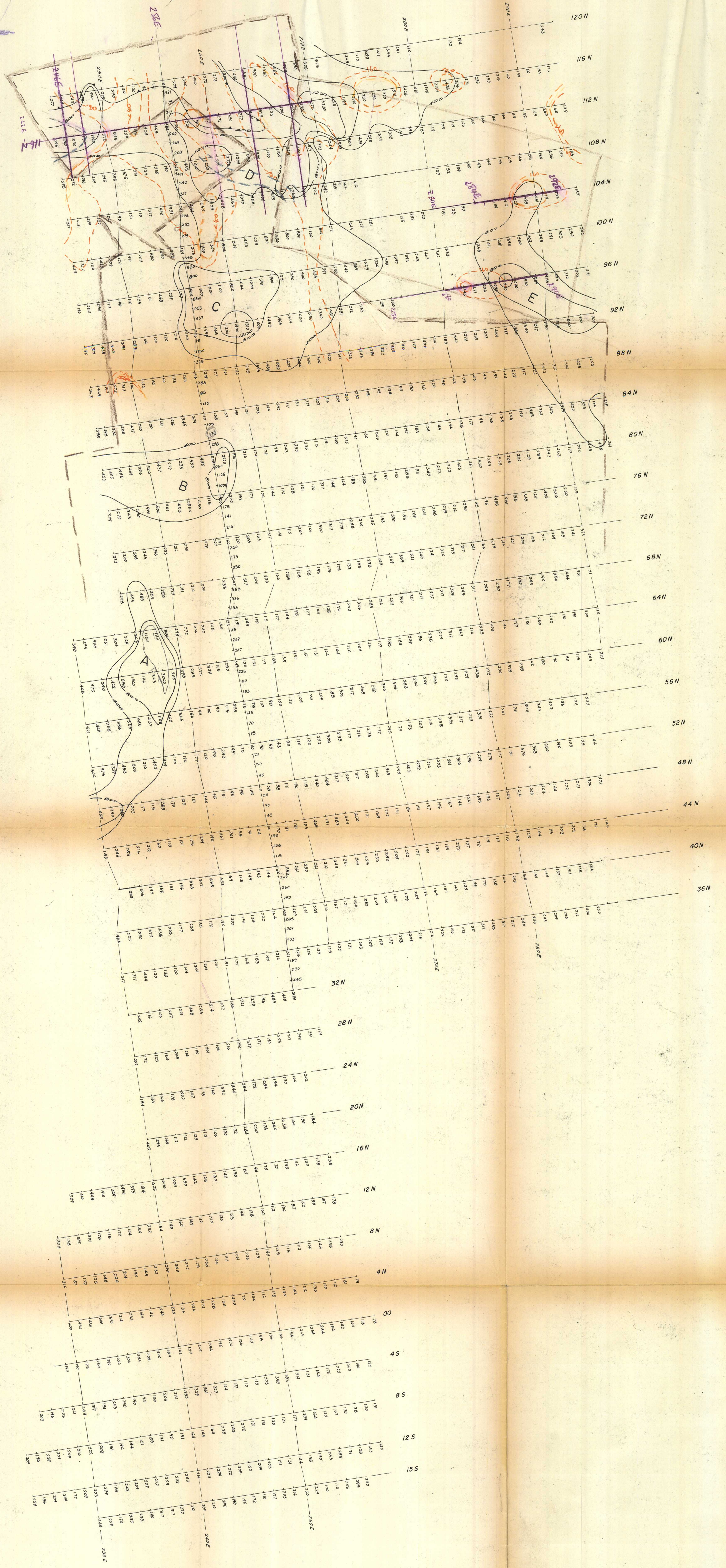
GEOCHEMICAL SOIL SURVEY
ZINC

OCT. 1969 | Scale 1"=400' | DWG. 4-118-15B



LEGEND

Background	0 - 400 ppm
Threshold	401 - 800 ppm
2nd. order Anomalous	801 - 1200 ppm
1st. order Anomalous	+ 1200 ppm

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A B C

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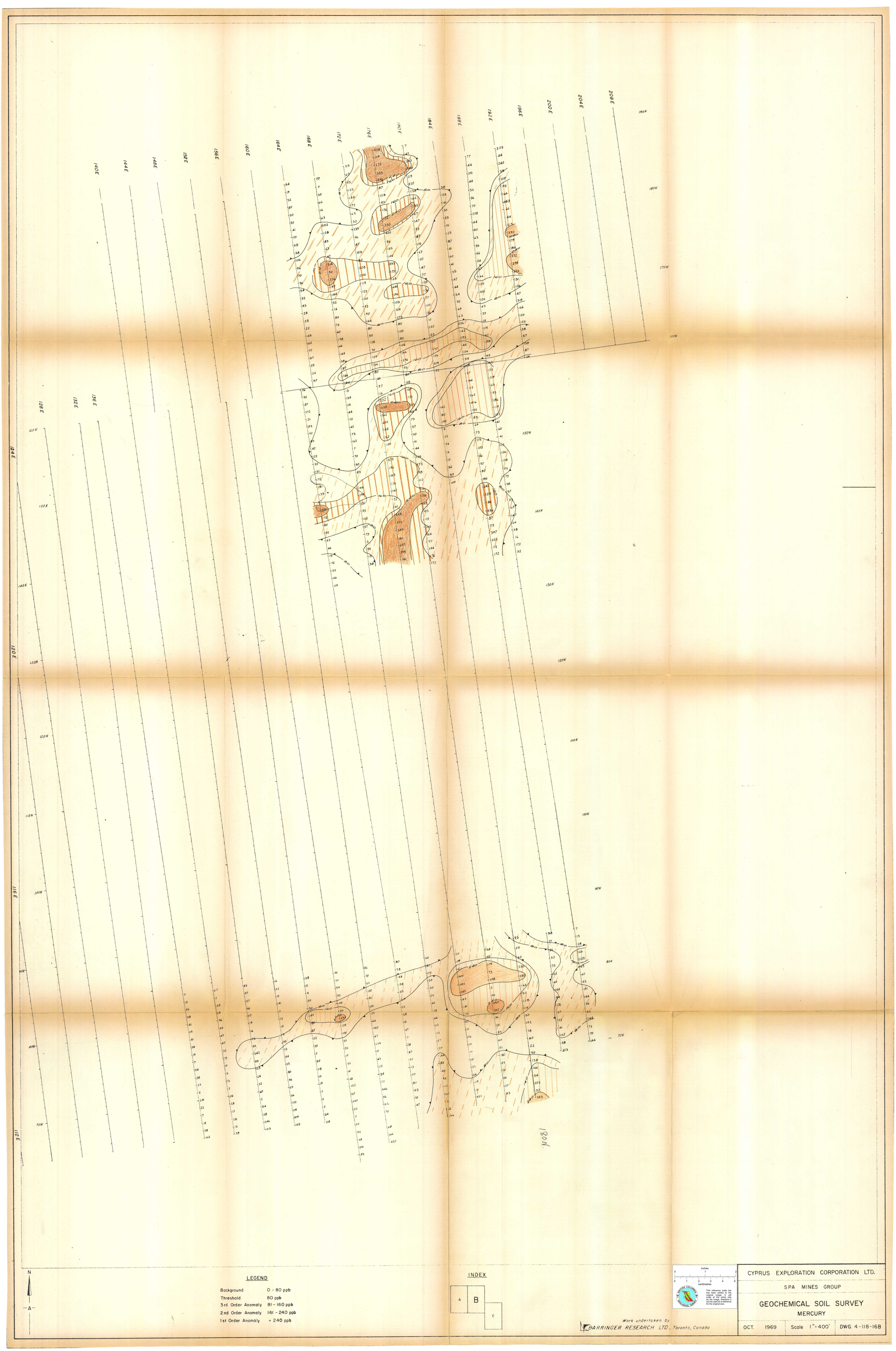
GEOCHEMICAL SOIL SURVEY
ZINC

OCT. 1969 | Scale 1" = 400' | DWG. 4-118-15C



LEGEND

Background	0 - 80 ppb
Threshold	80 ppb
3rd Order Anomaly	81 - 160 ppb
2nd Order Anomaly	161 - 240 ppb
1st Order Anomaly	+ 240 ppb

N

A

INDEX

A | B | C

inches 0 1 2 / 0 1 2 3 4 5 centimetres

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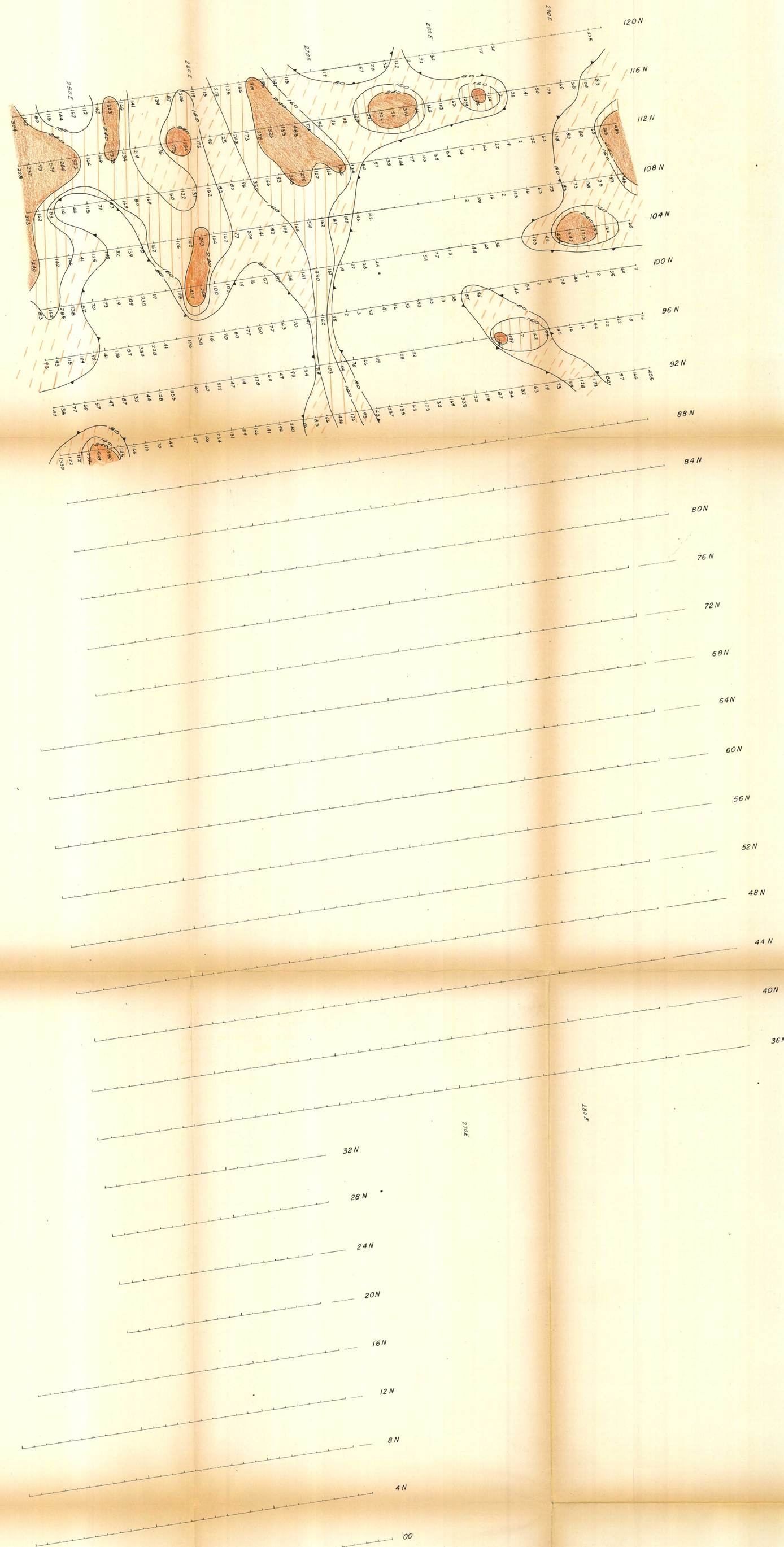
GEOCHEMICAL SOIL SURVEY
MERCURY

OCT. 1969	Scale 1"=400'	DWG. 4-118-16B



N

A

LEGEND

Background	0 - 80 ppb
Threshold	80 ppb
3rd Order Anomaly	81 - 160 ppb
2nd Order Anomaly	161 - 240 ppb
1st Order Anomaly	+ 240 ppb

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A B C

inches 0 1 2

0 1 2 3 4 5 centimetres

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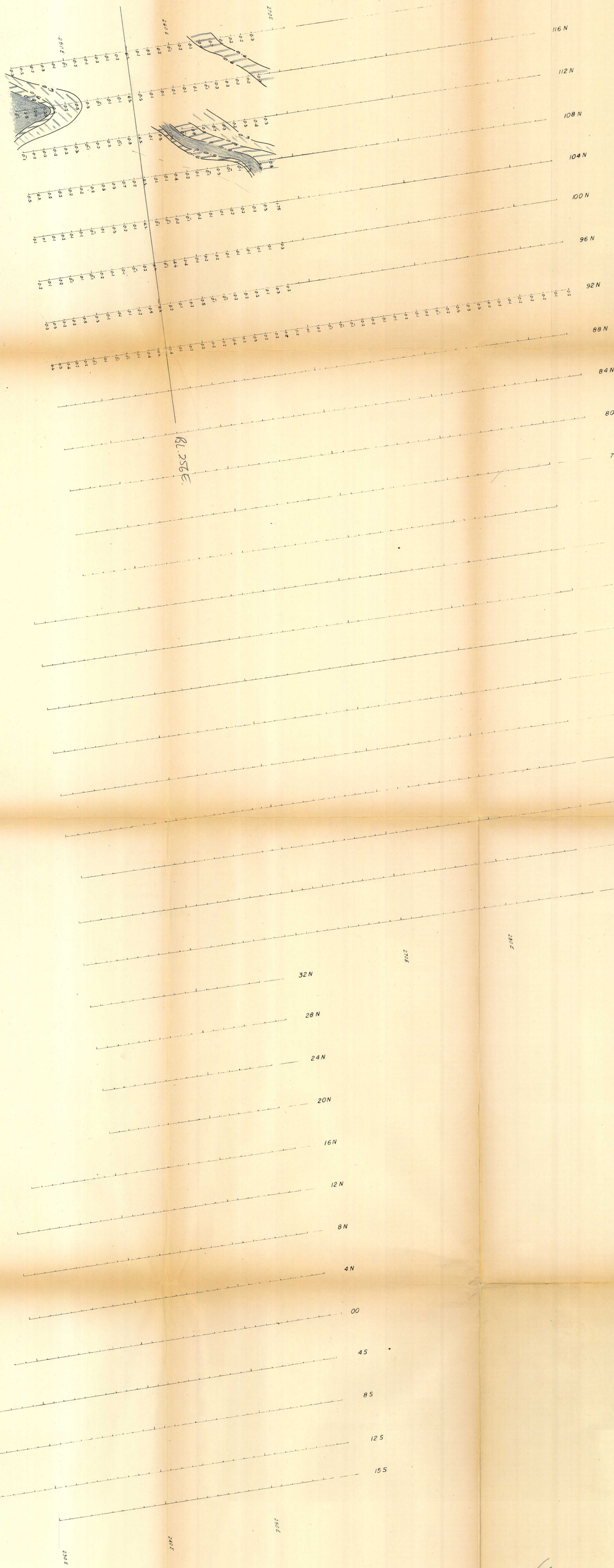
GEOCHEMICAL SOIL SURVEY
MERCURY

OCT. 1969 | Scale 1"=400' | DWG. 4-118-16C



N

A

LEGEND

Background	0 - 0·3 ppm
Threshold	0·3 ppm
3rd Order Anomaly	0·4 - 0·6 ppm
2nd Order Anomaly	0·6 - 0·9 ppm
1st Order Anomaly	+ 0·9 ppm

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A | B | C

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inches 0 1 2
centimetres 0 1 2 3 4 5

BRITISH COLUMBIA GEOLOGICAL SURVEY

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GEOCHEMICAL SOIL SURVEY
SILVER

OCT. 1969 | Scale 1"=400' | DWG. 4-118-17C