2647

REPORT ON

THE GEOCHEMICAL SURVEY

ON THE CREAM LAKE PROPERTY

OF

CREAM SILVER MINES LTD. (NPL)

October 9, 1970

Vancouver, B.C.

AGILIS EXPLORATION SERVICES LTD.
CONSULTING ENGINEERS & GEOLOGISTS
201 - 714 W. HASTINGS ST., VANCOUVER 1, B.C.

MAPS - 4

#1	Surface Plan	1" =	500 ft
#2	Geochemical survey, copper & zinc in soil	1" =	500 ft
#3	Copper contour	1" =	500 ft
#4	Zinc contour	1" =	500 ft

APPENDIX

List of Claims

Histogram Copper
Histogram Zinc

Arithmetic probability plot - Copper
Arithmetic probability plot - Zinc

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INTRODUCTION:

The Cream Silver Mines Ltd. (NPL) property consists of 146 contiguous mineral claims situated 2 miles south of Buttle Lake on central Vancouver Island, British Columbia.

During August 1969, reconnaissance geological and geochemical surveys have been conducted along Price Creek.

From June to September 1970, personnel of Cream Silver Mines Ltd. (NPL) extended the geochemical survey under the supervision of the writer.

LOCATION:

The claims lie between Thelwood and Price Creeks, from 3 to 6 miles south of Buttle Lake on central Vancouver Island.

Co-ordinates near the centre of the claim group are 125° 33' west longitude, 49° 30' north latitude.

Access is by road from Campbell River to the south end of Buttle Lake then by foot trail, a long and difficult trip. Preferably, access can be gained by helicopter from Campbell River, a distance of approximately 40 miles, to the centre of the claim group, or by fixed wing aircraft to Bedwell Lake, one mile west of the claims. From there they are reached by foot trail which climbs approximately 1000 feet to the centre of the claims.

The northeast corner, on which the recent program was completed, is accessible from the south end of Buttle Lake by an old logging road from approximately two miles and then by foot trail for a distance of one mile.

PHYSIOGRAPHY:

Topography in the area is rugged, with elevations varying from 1500 to 5000 feet above sea-level.

The high part of the claims consists of rock outcrops or rubble. The low part of the claims is covered by dense forest. In this section outcrops are limited to creeks or areas of sudden change in slope. Slide areas are common along the western tributaries of Price Creek, covering large sections of the main valley with boulders and rock rubble. These sections are nearly impassable due to the thick growth of alders and brush.

The work completed was done between Price Creek and approximately the 3800 foot elevation contour, in the heavily timbered part of the claims.

PROPERTY:

The Cream Silver Mines Ltd. (NPL) property consists of 146 claims situated in the Port Alberni Mining Division.

A list of claims with names and record numbers is appended.

GEOLOGY:

General:

Regional mapping by government sources shows the area occupied by the Cream Silver claims to be underlain mainly by volcanic and lesser sediments of Permian Age. Karmutsen volcanics of Triassic Age outcrop to the southeast and east of the claims, with a distinct limestone band of Permian age lying between the two volcanic series. Remnants of this limestone band and minor Karmutsen volcanics outcrop between Cream and Sugar Lakes.

To the west, the Permian volcanics are in contact with granitic intrusives belonging to the Coast Intrusions of Jurassic Age.

The stratigraphic sequence of the area is as follows:

Jurassic and (?) Cretaceous - Coast Intrusion:

Granodiorite, minor quartz diorite

Triassic and (?) Jurassic - Vancouver Group - Karmutsen volcanics:

Massive, partly amygdaloidal basalt, pillow basalt, pillow breccia, minor tuff, volcanic breccia.

Permian and (?) Earlier - Sicker Group

Limestone, in part with cherty nodules
Greywacke, argillites, conglomerates
Propylitic banded tuff and volcanic breccia, chlorite schist.

The structure within the area consists of block faulting, tilting and folding. The latter is best expressed within the Permian volcanics south and west of Buttle Lake. Here, a north westerly trending anticline is cut by block faulting.

Several directions of faulting are present within the area, the most prominent trending northwesterly. Other directions are east-west and north-south.

Mineralization found within the area consists of complex sulfides, silver-gold in veins associated with quartz and carbonates, and minor disseminated chalcopyrite with pyrite within the Vancouver Group.

The complex sulfide mineralization following northwesterly shears within the Permian rocks is the most important type (Western Mines approximately 4 miles northwest of the claim group).

ECONOMIC GEOLOGY:

Work up to date showed that several types of sulphide mineralization occurs on the property, but none of commercial value has been found to date:

Type 1: Silver-gold-lead-zinc with minor copper associated with quartz veins has been found along the top of the ridge between Price and Thelwood Creeks. Extensive trenching and sampling showed that the veins are narrow and erratic in extent and grade.

Type 2: Massive pyrrhotite-chalcopyrite occurs as float near the head of Price Creek. The mineralization shows definite banding parallel to the bedding and is replacement of argillites (?).

The stratigraphic position of this float is within the upper sedimentary section of the Permian sequence overlaying the limestone.

Type 3: Type 3 occurs along the same stratigraphic horizon as type 2, but consists of massive pyrrhotite and appears to be related to small scale faulting, where observed.

Type 4: A small quartz diorite (?) intrusion is exposed along the eastern part of Price Lake. At this location the intruded sequence is metamorphosed to an amyphybolite containing variable amounts of chalcopyrite.

Type 5: A highly siliceous, complex sulphide float has been found along the Drinkwater fault, just south of Turquois Lake. Recent prospecting by personnel of Cream Silver Mines Ltd., located a strong chlorite-sericite-schist zone above and to the west of the float location.

The mineralization is quite similar to Western Mines, to north.

Type 6: Several quartz-sericite schist floats have been found within and to the south of last years geochemical survey area. These float samples contain chalcopyrite and pyrite along fractures and planes of schistosity in minor quantities.

Type 3,5,and 6 appear to have the best potential to produce economic deposits, because of their similarity of occurrences to Western Mines known deposits.

GEOCHEMICAL SURVEY:

Control Grid:

A total of approximately fifteen miles of base lines and crosslines were established by using a Brunton compass. The lines were spaced at 400 foot intervals and stations marked by flagging at 200 foot intervals.

Field Procedures:

Soil samples were collected with an auger along the grid lines at 200 foot stations and care was taken to sample the residual soil directly underlying the organic soil horizon (B-horizon). Average sample depth was 6 - 12 inches. At each sample location information regarding soil type, slope, sample depth and vegetation was recorded and used to interpret the results.

A total of 363 samples were taken.

GEOCHEMICAL TESTING:

The samples were tested by Chemex Laboratories Ltd. All samples were tested for total copper and zinc content by atomic absorption analysis and values recorded in parts per million. Samples were packaged in kraft envelopes then sent to the lab where they were dried in an electric oven and screened to - 80 mesh.

INTERPRETATION OF RESULTS:

The background value for copper and zinc values were grouped at 20 parts per million (ppm) intervals, the percent frequency and accumulated percent frequency were calculated and plotted on arithmetic probability paper. From the plotted data the range of background, mixed zone, and anomalous zone was read.

COPPER:

Background:	less than 66 ppm copper
Mixed Zone:	60 ppm to 150 ppm copper
Anomalous Zone:	greater than 150 ppm copper

ZINC:

Background:	less than 60 ppm zinc
Mixed Zone:	60 ppm to 130 ppm zinc
Anomalous:	greater than 130 ppm zinc

All geochemical samples have been used to calculate the above range, which is drastically higher than indicated by last years work.

The difference can be explained by the presence of a larger percentage of samples containing in excess of 150 ppm copper and 130 ppm zinc compared to last year.

NORTHERN GRID:

a) Copper: No well distinct copper anomalies have been outlined in this area. Although a few isolated samples fall within the anomalous range, none of them is considered to be significant.

b) Zinc: A strong zinc anomaly has been outlined along the northeastern boundary of the grid. Maximum value obtained is 5,500 ppm (parts per million) zinc.

CENTRAL GRID:

The western part of this grid had been sampled during the 1969 field season. This years work consisted of extending the grid to the northeast and southeast.

a) Copper: The anomaly indicated along the southeastern boundary of last years sampling program has been found to trend across the extended grid for an indicated length of 7200 feet. It consists of a series of high anomalous sections in excess of 150 ppm copper within sections slightly lower than anomalous.

Previous geochemical work over similar geology showed that the high copper values are usually associated with schist zones.

Prospecting within the grid located a strong sericite-quartz-chlorite schist zone.

b) Zinc: The zinc values obtained over the eastern part produced anomalies which are nearly coincident with the copper anomalies.

CONCLUSIONS:

The zinc anomaly on the northern grid lies along the claim boundary in an area of deep overburden. The geochemical survey outlined a strong copper-zinc anomaly on the eastern part of the central grid. The anomaly is 7200 feet long and up to 800 feet wide.

Prospecting in the area located a strong schist zone, similar to those found at Western Mines, underlaying the anomalous area.

RECOMMENDATIONS:

1. Detail geological mapping at a scale of 1 inch = 500 feet.
2. Delineate anomalous area completely.
3. Turam Electromagnetic survey, if necessary combined with an induced polarization survey over anomalous area.
4. Trenching of anomalous area.
5. Diamond Drilling.

Respectfully Submitted

F. Holcapek

F. Holcapek, Geologist

Endorsed by: R.H.D. Philp, P. Eng.

October 9, 1970

APPENDIX

Claim	Record Number
Cream 1 - 2	11497 - 11498
Cream 3 - 12	9418 - 9427
Cream 13, 14	10394, 10395
Cream 15 - 18	11574 - 11577
Cream 1E - 2E	11499 - 11500
Cream 3E - 6E	11570 - 11573
Bear 1 - 30, 31 Fr. 33-36, 37 Fr. 38 Fr. 39 Fr. 40, 41 Fr. 42 Fr.	10352 - 10393
Elk 1 - 9	12326 - 12334
X 1 - 25	15577 - 15601
Price 1 - 4	15602 - 15605
F 1 - 16	15882 - 15897
F 17 - 28	16846 - 16857
D 1 - 18	16271 - 16288

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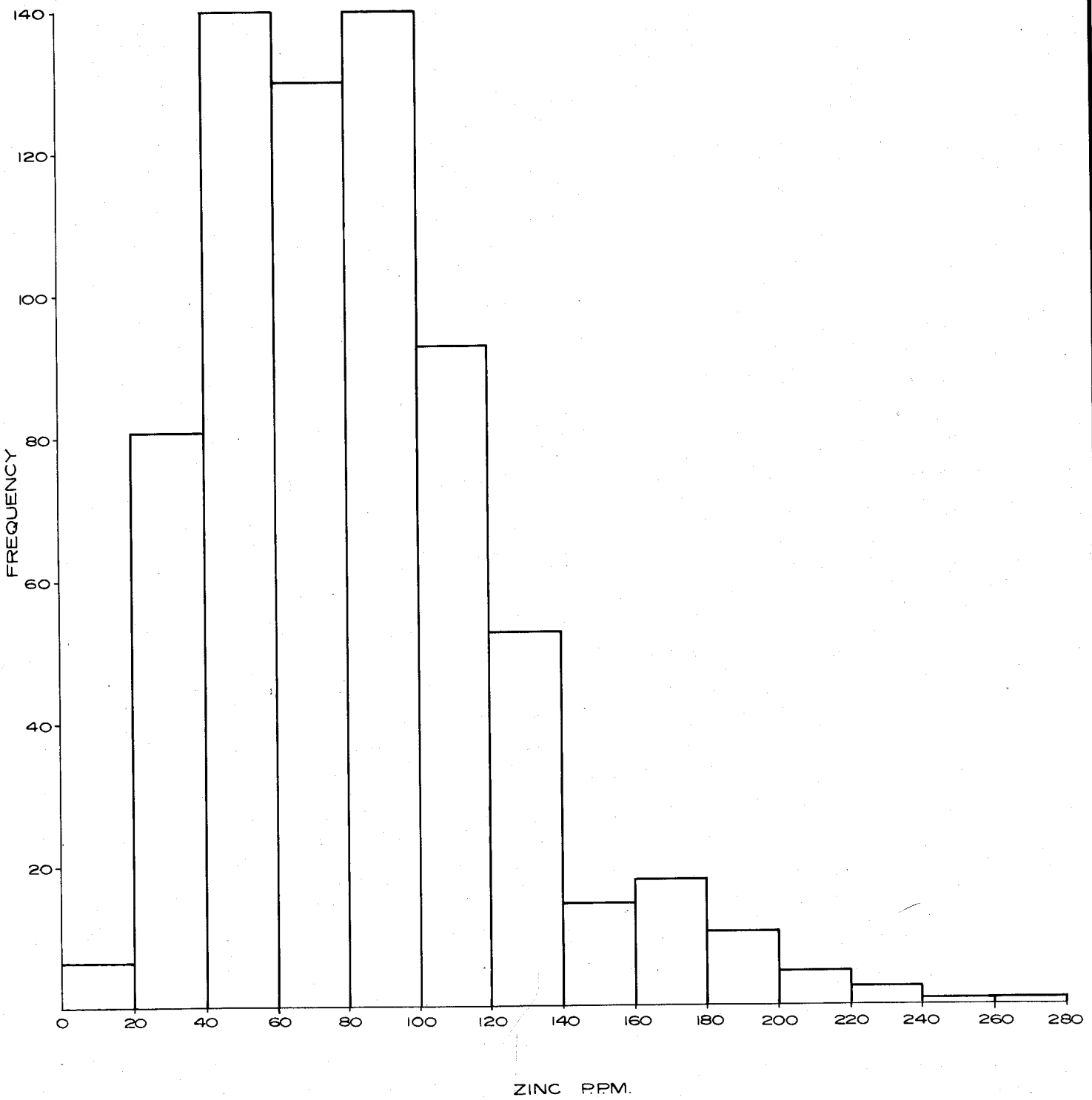
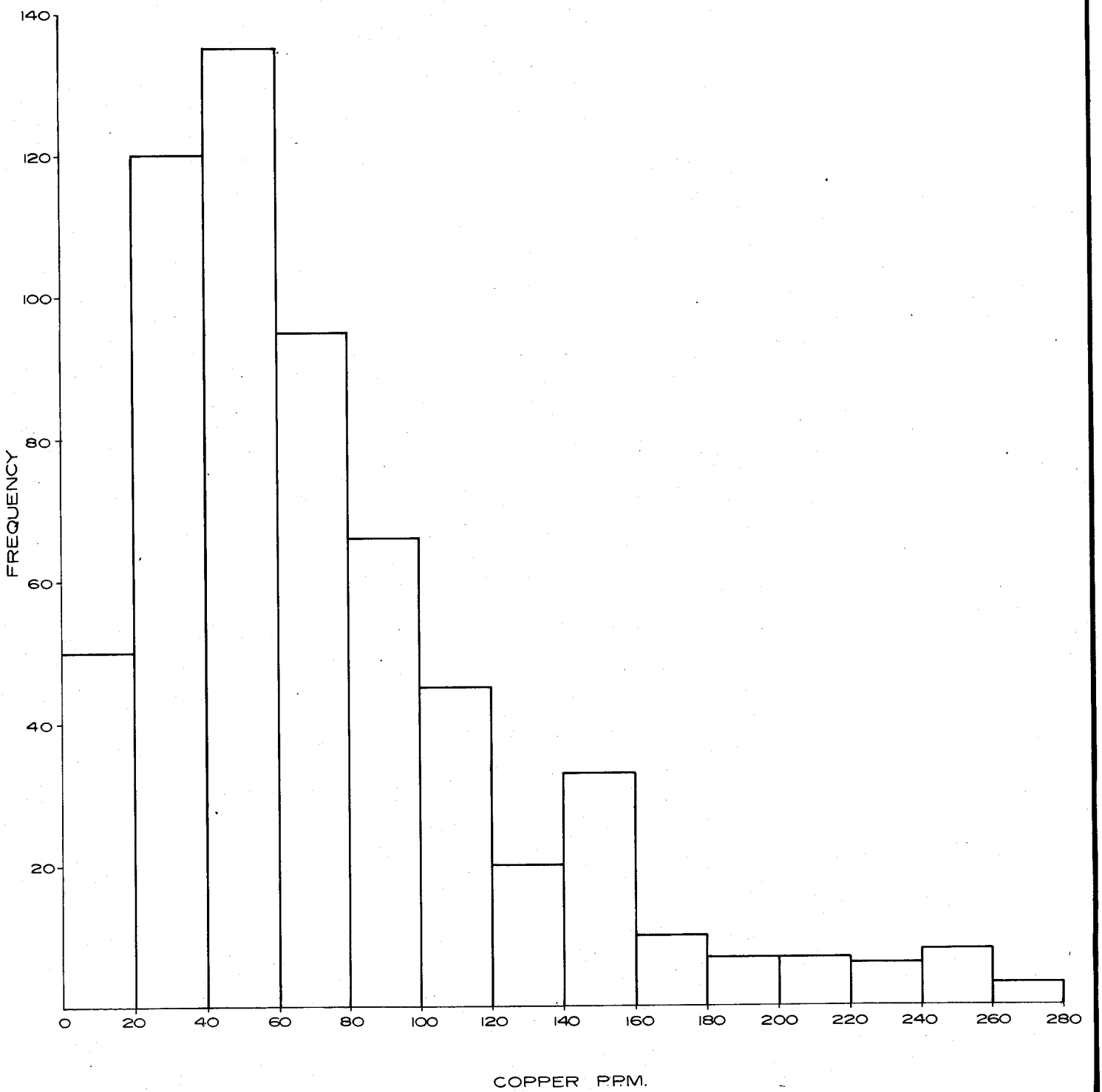
ZINC P.P.M.



CREAM SILVER MINES LTD. (N.P.L.)

COPPER P.P.M.



NO. 3127 ARITHMETIC PROBABILITY. DESIGNED BY HAZEN, WHIPPLE & FULLER. CODEX BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS. PRINTED IN U.S.A.

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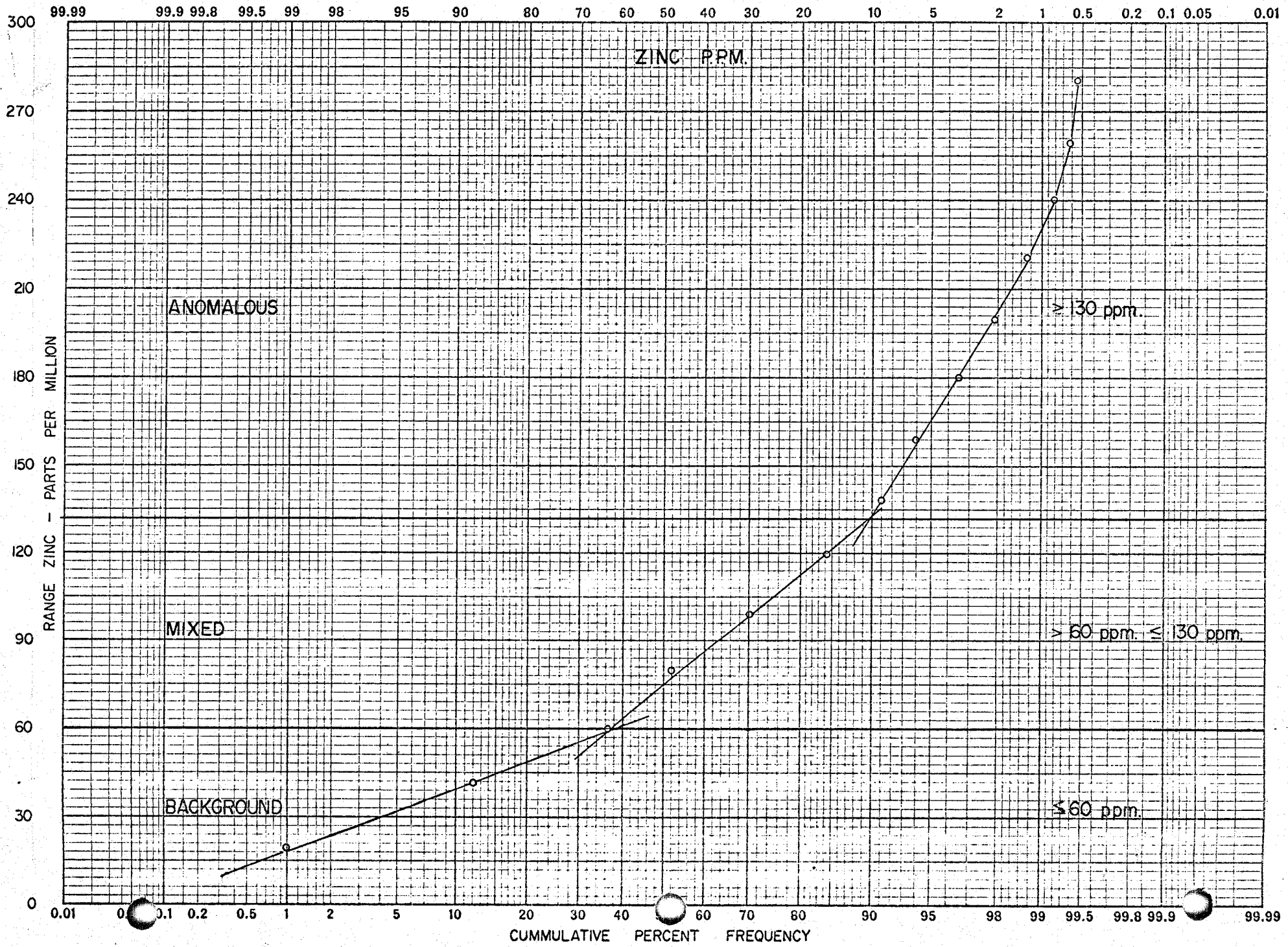

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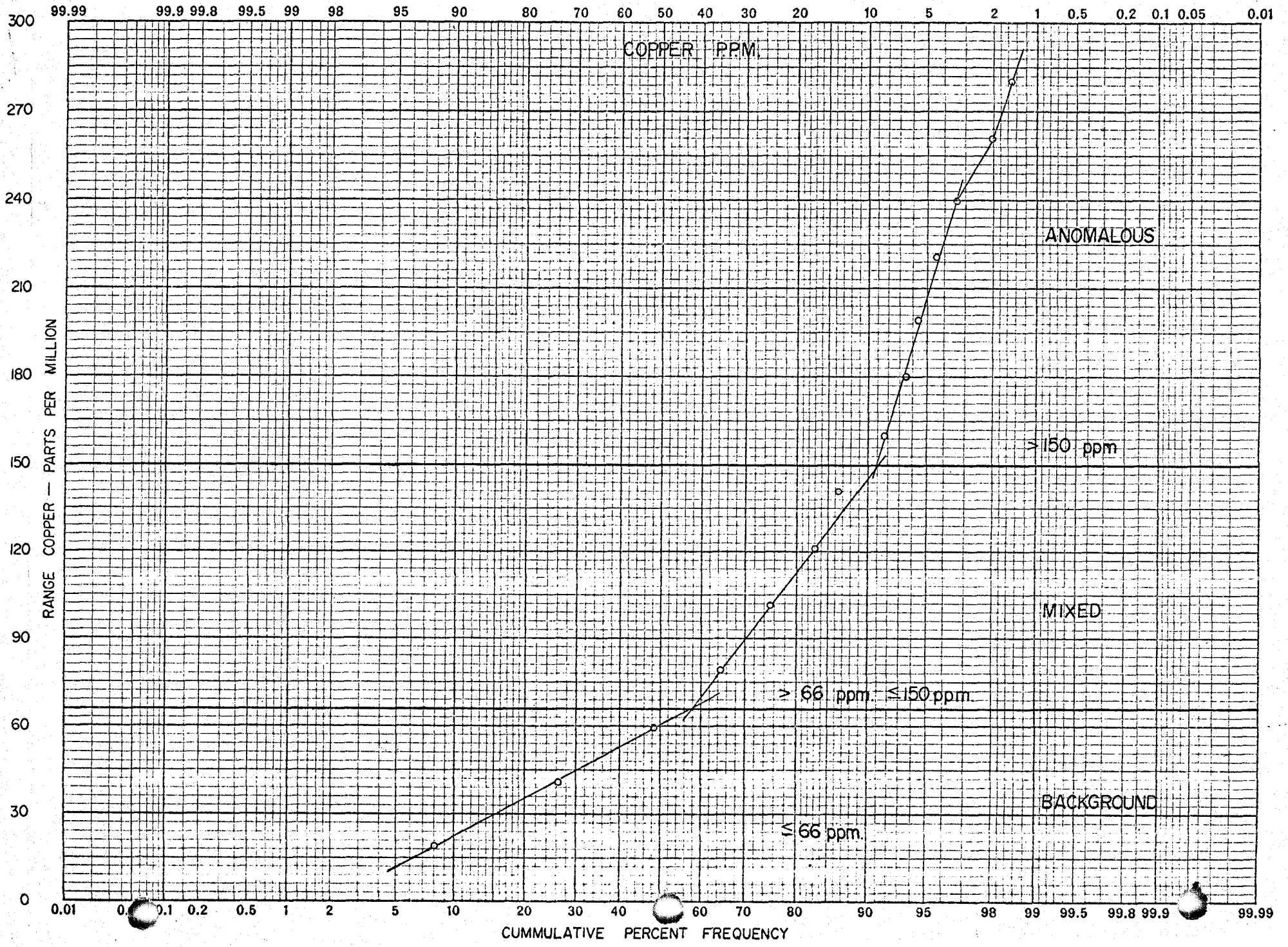

X-3 X-1 X-2 X-10 X-7 X-12 X-11 X-14 X-13 X-20 X-16 X-15 X-22 X-18 X-17 X-24 X-19 X-23

D-18 D-16 D-17 D-15 D-12 D-10 D-11 D-8 D-9 D-7 D-6 D-4 D-5 D-2 D-3 D-1

F-5 F-3 F-1 F-6 F-4 F-2 F-13 F-14 F-11 F-9 F-7 F-12 F-15 F-10 F-8 F-16 F-18 F-17 F-20 F-19

BEAR 31 BEAR 42 BEAR 41 BEAR 29 BEAR 40 BEAR 39 BEAR 27 BEAR 34 BEAR 36 BEAR 38 BEAR 35 BEAR 37 BEAR 33 BEAR 25

BASELINE

24+00 W. 20+00 W. 16+00 W. 12+00 W. 8+00 W. 4+00 W. 2+00 E. 6+00 E. 10+00 E. 14+00 E. 18+00 E. 22+00 E. 26+00 E. 30+00 E.

44+00 N.W. 40+00 N.W. 36+00 N.W. 32+00 N.W. 28+00 N.W. 24+00 N.W. 20+00 N.W. 16+00 N.W. 12+00 N.W. 8+00 N.W. 4+00 N.W. 0+00 2+00 S.W. 6+00 S.W. 10+00 S.W. 4+00 S.E. 8+00 S.E. 12+00 S.E. 16+00 S.E. 0+00 4+00 S.E. 8+00 S.E. 12+00 S.E. 16+00 S.E. 20+00 S.E. 24+00 S.E. 28+00 S.E. 32+00 S.E. 36+00 S.E. 40+00 S.E. 44+00 S.E. 0+00 4+00 S. 8+00 S. 12+00 S. 16+00 S.

PRICE CREEK THELWOOD SHAKER CREEK SHAKER LAKE

1500 2000 2500 3000 3500 4000 4500 5000

N

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
MAP

2647

AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (N.P.L.)

PRICE CREEK

CLAIMS MAP
SHOWING
LOCATION OF GRIDS

DRAWN:	K. K.	SCALE:	1" = 500 FEET
CHECKED:	F. H.	DATE:	SEPT. 20, 1970

PRICE CREEK

THELWOOD

SHAKER CREEK

SHAKER LAKE

BASELINE

24+00 W.
20+00 W.
16+00 W.
12+00 W.
8+00 W.
4+00 W.
2+00 E.
6+00 E.
10+00 E.
14+00 E.
18+00 E.
22+00 E.
26+00 E.
30+00 E.

32+00 N.W.
28+00 N.W.
24+00 N.W.
20+00 N.W.
16+00 N.W.
12+00 N.W.
8+00 N.W.
4+00 N.W.
0+00
4+00 S.E.
8+00 S.E.
12+00 S.E.
16+00 S.E.
20+00 S.E.
24+00 S.E.
28+00 S.E.
32+00 S.E.
36+00 S.E.
40+00 S.E.
44+00 S.E.

44+00 N.W.
40+00 N.W.
36+00 N.W.
32+00 N.W.
28+00 N.W.
24+00 N.W.
20+00 N.W.
16+00 N.W.
12+00 N.W.
8+00 N.W.
4+00 N.W.
0+00
2+00 S.W.
6+00 S.W.
10+00 S.W.
12+00 S.E.
16+00 S.E.
4+00 S.E.
8+00 S.E.

0+00
4+00 S.
8+00 S.
12+00 S.
16+00 S.

LEGEND

242 — COPPER VALUE IN P.P.M.
107 — ZINC VALUE IN P.P.M.

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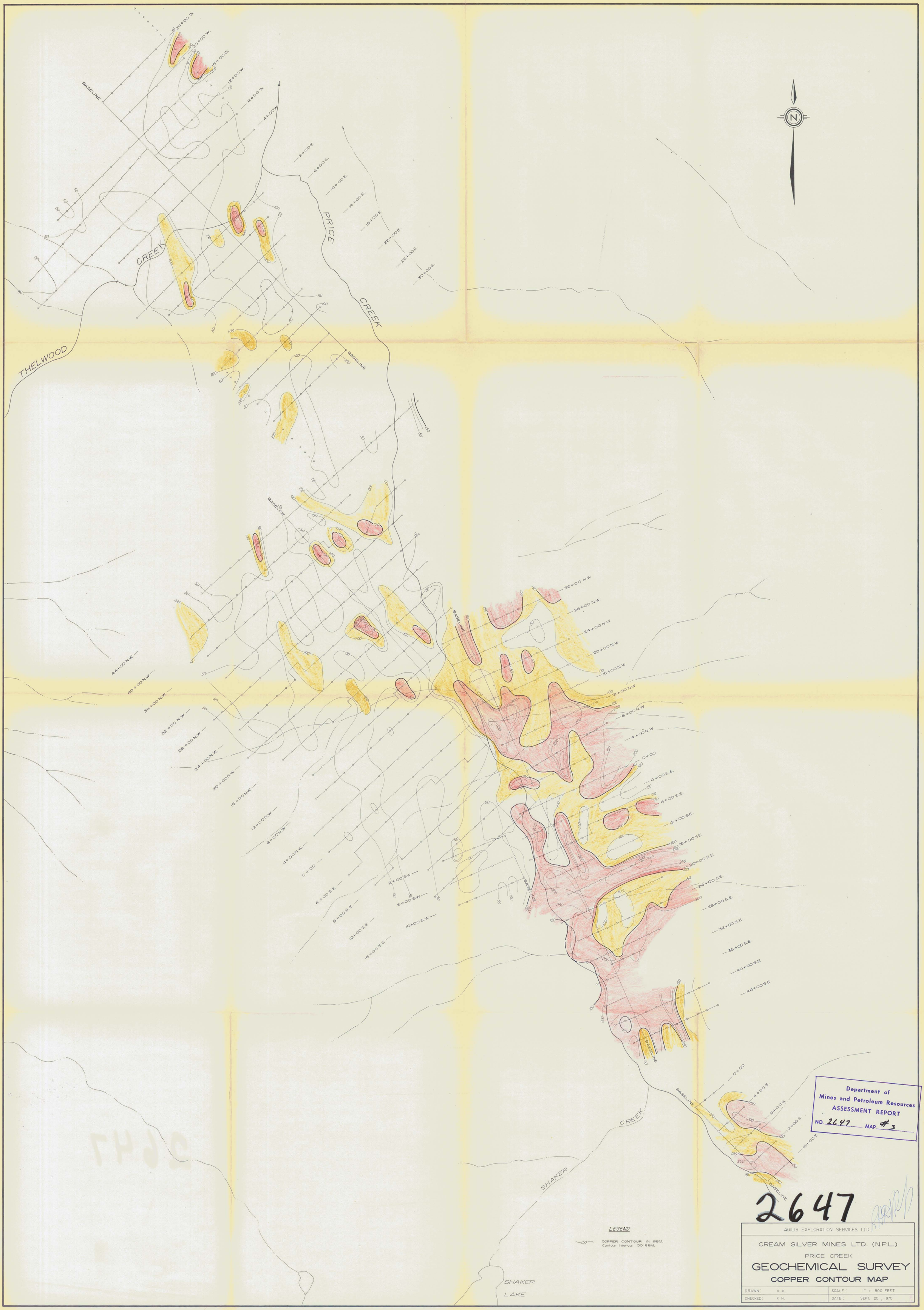
PRICE CREEK

GEOCHEMICAL SURVEY

COPPER & ZINC IN SOIL

DRAWN: K. K.	SCALE: 1" = 500 FEET
CHECKED: F. H.	DATE: SEPT. 20, 1970



LEGEND

150 — COPPER CONTOUR IN P.P.M. Contour interval 50 P.P.M.

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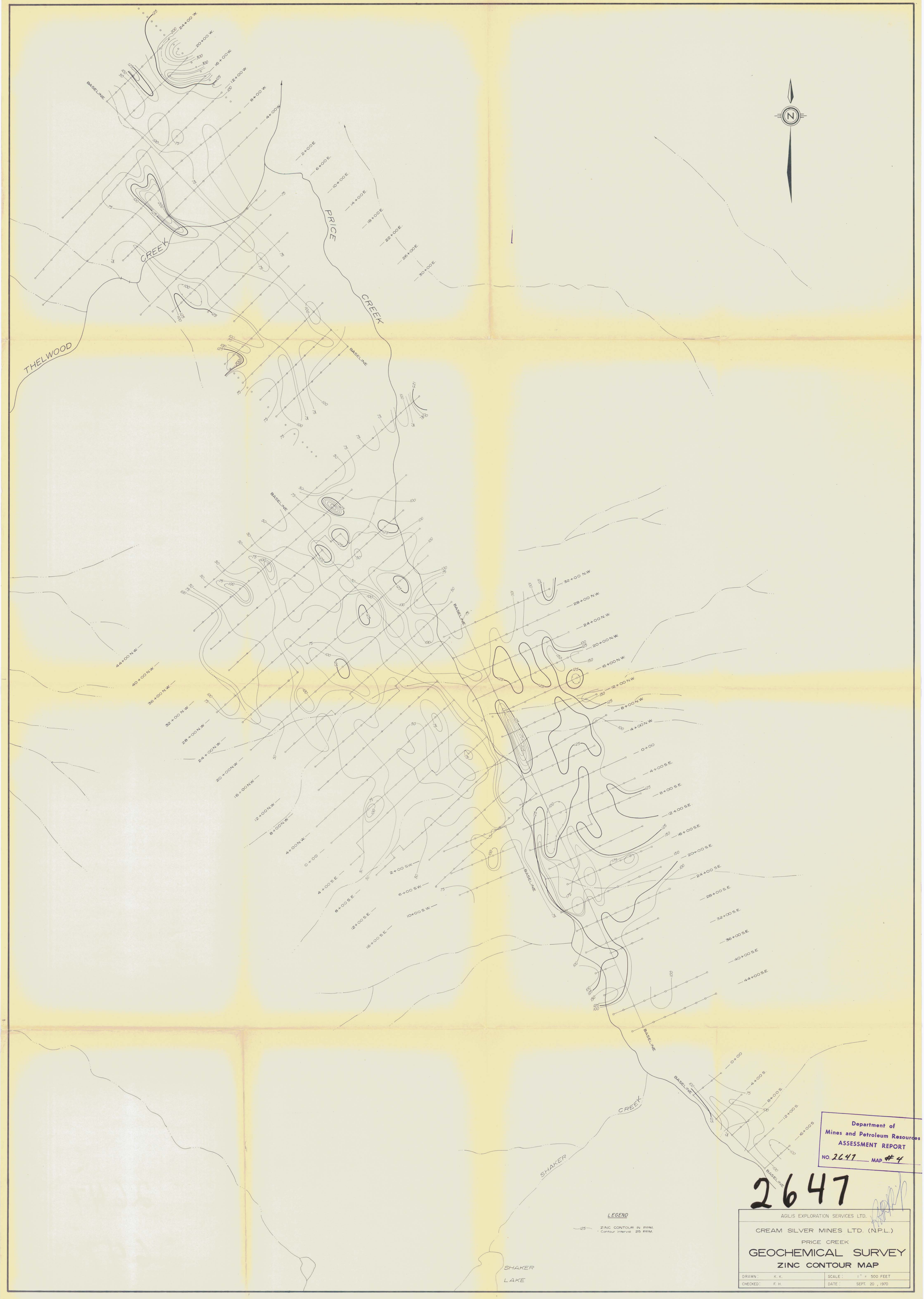
PRICE CREEK

GEOCHEMICAL SURVEY

COPPER CONTOUR MAP

DRAWN: K. K.	SCALE: 1" = 500 FEET
CHECKED: F. H.	DATE: SEPT. 20, 1970



LEGEND

125 — ZINC CONTOUR IN P.P.M. Contour interval 25 P.P.M.

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PRICE CREEK

GEOCHEMICAL SURVEY

ZINC CONTOUR MAP

DRAWN:	K. K.	SCALE:	1" = 500 FEET
CHECKED:	F. H.	DATE:	SEPT. 20, 1970