

Suite 200, 4299 Canada Way, Burnaby, B.C. V5G 1H4
Telephone (604) 437-9491

GEOCHEMICAL SOIL SURVEY FOR COPPER, ZINC, AND LEAD

TWIN G MINERAL CLAIM

Record Number 114

Victoria Mining Division

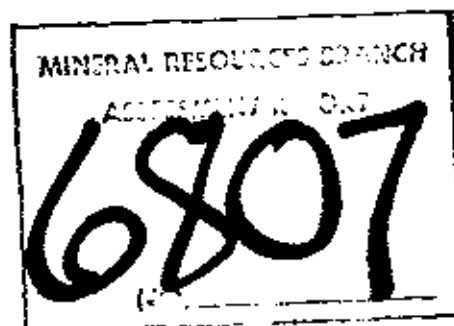
N.T.S. 92B/13W

Latitude $49^{\circ}53'$

Longitude $123^{\circ}47'$

by

A. Pauwels, B.Sc.



Owner and Operator: Union Miniere Explorations and
Mining Corporation Limited

Date: August 4, 1978

CONTENTS

	page
INTRODUCTION	1
GEOLOGY AND MINERALIZATION	1
GEOCHEMICAL SOIL SURVEY	1
Line Placement	1
Soil Sampling and Analytical Methods	1
Results	2
CONCLUSIONS AND RECOMMENDATIONS	2

Appendices

- APPENDIX I - STATEMENT OF EXPENDITURES
- APPENDIX II - AUTHOR'S QUALIFICATIONS

Figures

	following page
FIGURE 1 - Location of Twin G Claim, 1/50,000	1
FIGURE 2 - Cumulative Frequency versus Copper, Lead, Zinc.	1
FIGURE 3 - Zinc in B Soil Horizon, 1/10,000	in pocket
FIGURE 4 - Lead in B Soil Horizon, 1/10,000	in pocket
FIGURE 5 - Copper in B Soil Horizon, 1/10,000	in pocket

GEOCHEMICAL SOIL SURVEY FOR COPPER, ZINC, AND LEAD
TWIN G MINERAL CLAIM

INTRODUCTION

The claims are located 6.5 kilometers southwest of Chemainus along the Chemainus River. Several logging roads northwest of Duncan give easy access to the property. The centre of the claims is at latitude $49^{\circ}53'$ and longitude $123^{\circ}47'$ and the elevation ranges from 60 to 500 meters above sea level. The claims are within the Vancouver Island Ranges of the Insular Mountains physiographic subdivision.¹ Geochemical soil sampling for copper, lead, and zinc was done from July 25 to July 27, 1978 (156 samples). The work was planned and supervised by A. Pauwels, B.Sc., sampling and line tracing was done by Messrs. J. Reid, B.Sc., H. Holm, B.Sc., S. Stannus, and Ms M. Haugen.

The Twin G claim was recorded on August 2, 1977.

GEOLOGY AND MINERALIZATION

The claims are underlain by andesitic and rhyolitic meta volcanics of the Sicker Group.² No geological mapping or prospecting has been completed on the claims to date.

GEOCHEMICAL SOIL SURVEY

Line Placement

Lines were all traced by compass, marked with coloured flagging and distances were measured with a hip chain. Stations were marked every 50 meters. Distance on slopes were corrected to horizontal through frequent measurements of the slope with a visual dip angle meter. The lines ran north-south and they were spaced 200 meters apart.

Soil Sampling and Analytical Methods

At each sample site a hole was excavated with a shovel and 0.5 to 1 kg of

¹Holland, S.S., 1964, Land Forms of British Columbia, A physiographic outline, B.C. Department of Mines & Petroleum Resources Bulletin 48

²G.S.C. Open File 463, Geology of Vancouver Island, by J.E. Muller, 1977

RES. MIN. & PLACER
500' EITHER WIDE
9/17/51, 21 MAY 70
SUBJ. TO CONDITIONS
RELEASE REQUIRED

MT. HALL

Chemainus L.

Brenton Lakes

Holyoak L.

MT. BRENTON

123° 47'

OAK 4
172 (5)

BRENNA
85 (10)

OAK 3
171 (5)

OAK 2
170 (5)

OAK 1
169 (5)

001

116 (8)

FAITH
86 (5)

DEER
166 (5)

Pika

HOPE
87 (5)

BRENT I
163 (5)

TWIN 6
PATRICIA-JANE
83 (5)

49° 53'

L 78G
18152M

CHARITY
136 (2)

COPPER CANYON

MONS 4
63 (12)

ROCKY 4
158 (4)

ROCKY 3
157 (4)

SUMAC
153 (4)

RES. MIN. & PLACER
300' 17 AUG 72
NO STAKING



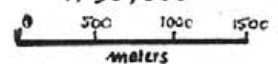
A. Pauls

FIGURE 1

LOCATION OF TWIN G CLAIM

92B/13W

1/50,000



MINERAL RES
% 3206, OCT.
RELEASE RE

RES. MIN. & PLACER
% 3546, 20.5 OCT. 72
NO STAKING

PROPOSED SAHTI AM - V.I.T. T/L

46 8040

K σ E PROBABILITY X 2 LOG CYCLES
NEUFEL & LYSER CO. 1957-58-59

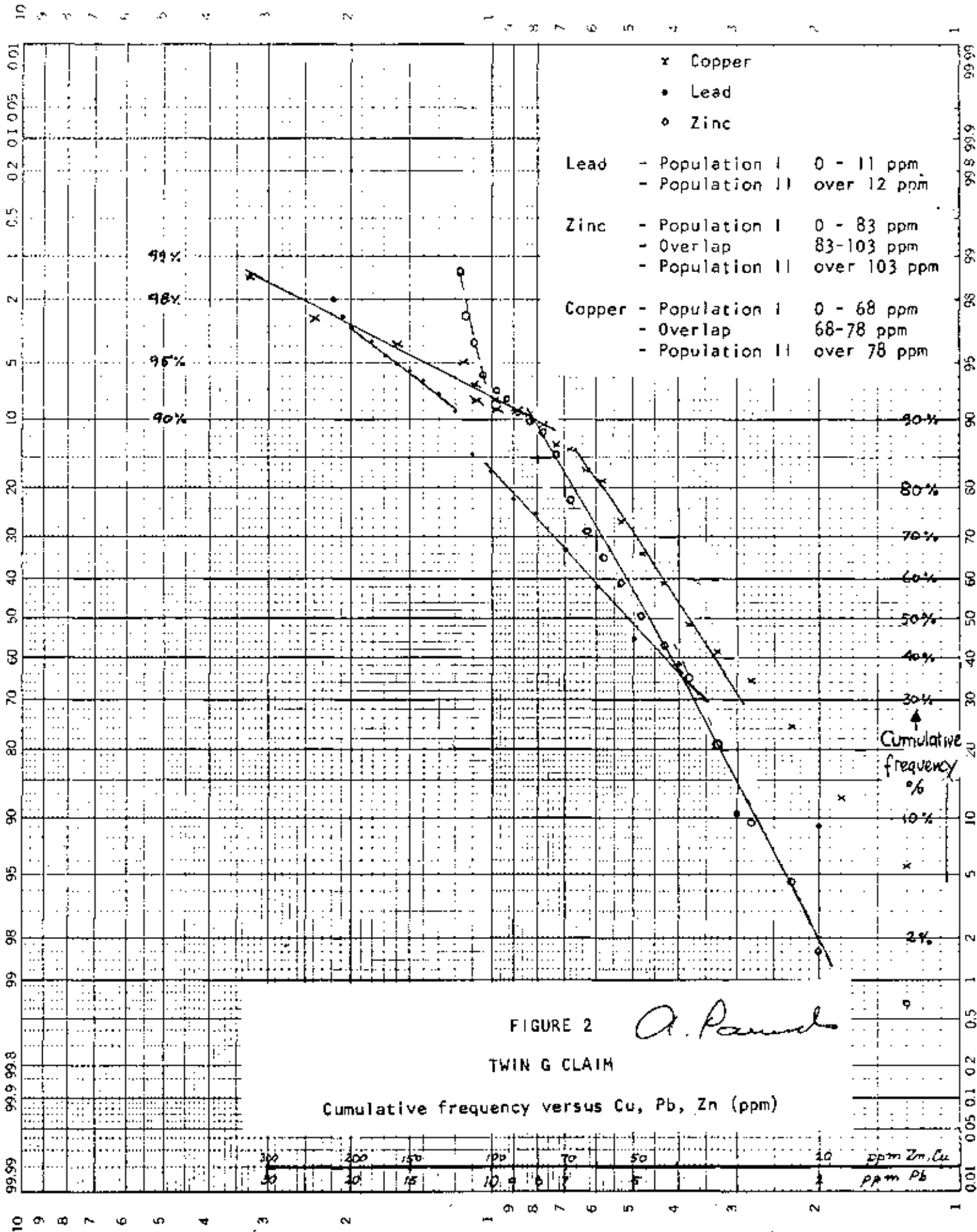


FIGURE 2 *A. Paudyal*

TWIN G CLAIM

Cumulative frequency versus Cu, Pb, Zn (ppm)

medium brown coloured B soil horizon was collected and placed in a kraft sample bag. The B soil horizon is well developed and the soil samples were taken from the top of the B horizon at a depth of 10 to 30 cm. Soil profiles and the respective soil horizons are well developed over the claims and overburden cover is thin.

The copper, lead, and zinc in the soil samples were analysed by Acme Analytical Laboratories Ltd., 6455 Laurel Street, Burnaby, B.C. Soil samples were dried at 75°C and sieved to -80 mesh. A 0.50 gram sample of this sieved soil was digested in dilute aqua regia in a boiling water bath for 1-2 hours, bulked with demineralized water, and analysed by atomic absorption. The sensitivity of the analytical method for the various metals is:

Cu, 1 ppm; Pb, 2 ppm; and Zn, 1 ppm.

Results

Cumulative frequency versus copper, lead, and zinc for B soil horizon samples collected is illustrated in Figure 2. The plots for the three metals show two distinct populations for each metal as tabled in Figure 2. The lowest population for all three metals is thought to represent a background concentration caused by the average metal content of bedrock. Values equal or in excess of 103, 12, and 78 ppm are considered anomalous for zinc, lead, and copper, respectively. The zones of overlap or possibly anomalous values for zinc, lead, and copper are 83 to 103, 11 ppm, and 68 to 78 ppm, respectively.

The values for zinc, lead, and copper are illustrated in Figures 3 to 5. Copper values are contoured at 68 and 300 ppm, lead values at 12 ppm and zinc values at 103 ppm. Distinct copper anomalies are present on lines 6, 4, and 2W and at 10W. Anomalous lead is partially coincident with the copper anomaly on lines 6, 4, and 2W. No distinct anomalous patterns for zinc were found; most anomalous values occur at isolated points.

CONCLUSIONS AND RECOMMENDATIONS

A geochemical survey for copper, lead, and zinc in soils was completed and showed anomalous values for copper, lead, and zinc. The main area of anomalous values, copper and lead, is situated in the northeastern part of the claim. Zinc only shows isolated highs.

The magnitude and spatial distribution of all metal anomalies is undoubtedly

related to their concentration in bedrock and soils, the degree of mechanical dispersion and their solubility and chemical mobility and dispersion.

Geological mapping and prospecting should be completed over the claims to explain the source of the higher metal values in the soils.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "A. Pauwels".

A. Pauwels

APPENDIX I

STATEMENT OF EXPENDITURES

Personnel (Field)

H. Holm,	July 25, 26, 27 - 3 days @ \$88.80/day	\$ 266.40
J. Reid,	July 25, 26, 27 - 3 days @ \$46.64/day	139.92
M. Haugen,	July 26, 27 - 2 days @ \$38.96/day	77.92
S. Stannus,	July 25, 26, 27 - 3 days @ \$38.96/day	116.88

Survey Supplies \$ 35.00

Analysis for Cu, Pb, Zn - 150 samples @ \$2.08/sample \$ 312.00

Truck - 3 days @ \$40/day \$ 120.00

Motel - 3 days @ \$38/day \$ 114.00
 - 2 days @ \$15/day 30.00

Meals - 12 days @ \$8.75/day \$ 105.00

Planning, supervision, interpretation, drafting
 A. Pauwels, July 25 and August 1 - 2 days \$ 265.52

Office supplies and typing \$ 100.00

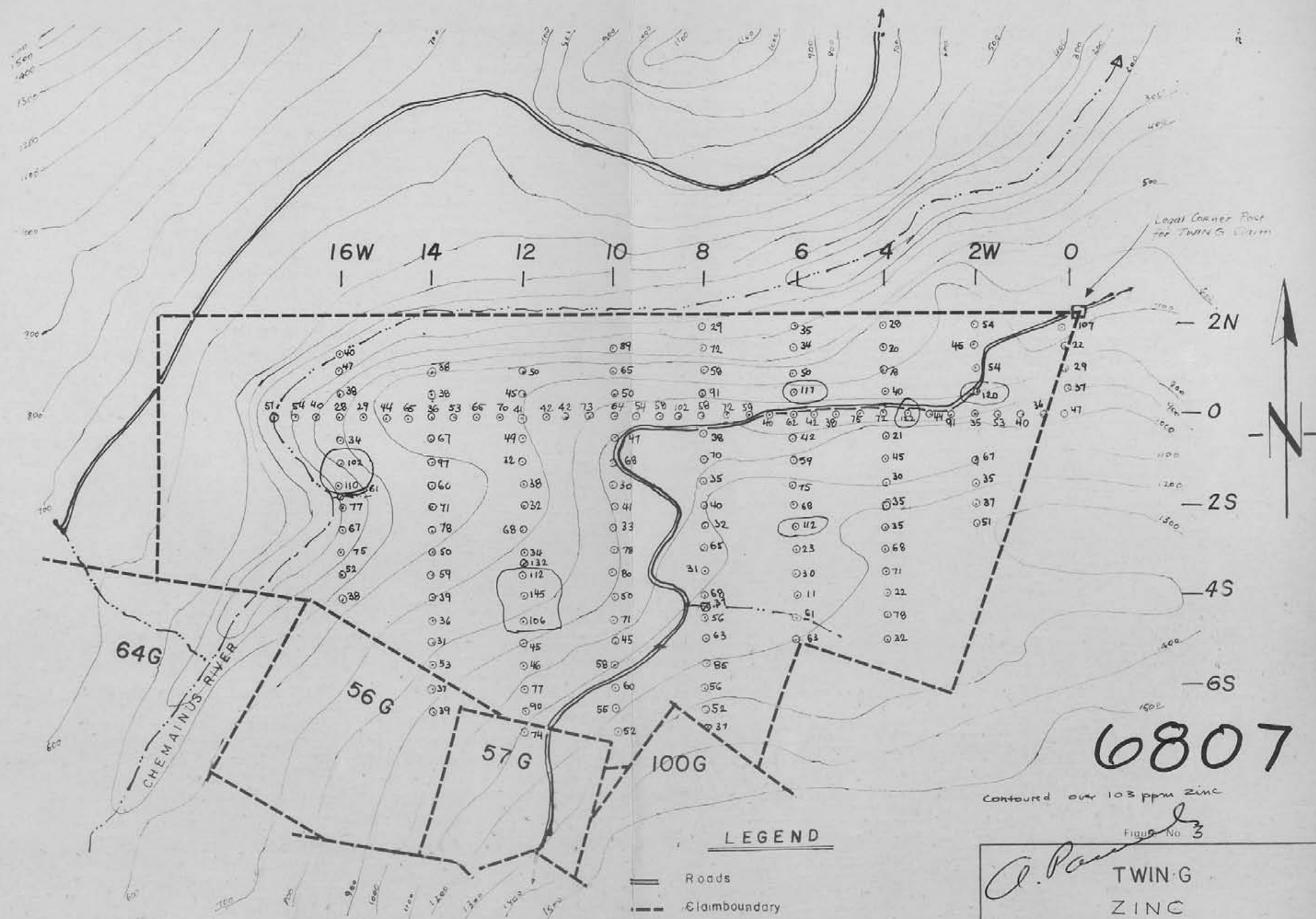
TOTAL \$1,682.64

APPENDIX II

AUTHOR'S QUALIFICATIONS

I, Andre M. Pauwels of 4900 Mariposa Court, Richmond, B.C., hereby certify that:

1. I am a graduate of the Rijksuniversiteit of Ghent, Belgium, B.Sc. Geology in 1970
2. I have practised my profession since 1970 with Union Miniere Explorations and Mining Corporation Limited (UMEX) in Ontario (1970-1972) and British Columbia (1972-1978).



6807

Contoured over 103 ppm Zinc

Figure No 3

LEGEND

- Roads
- Claim boundary
- Sample location, Metd value in ppm
- Legal Corner Post
- River
- Elevation contours (feet)
- stream sample

A. P...

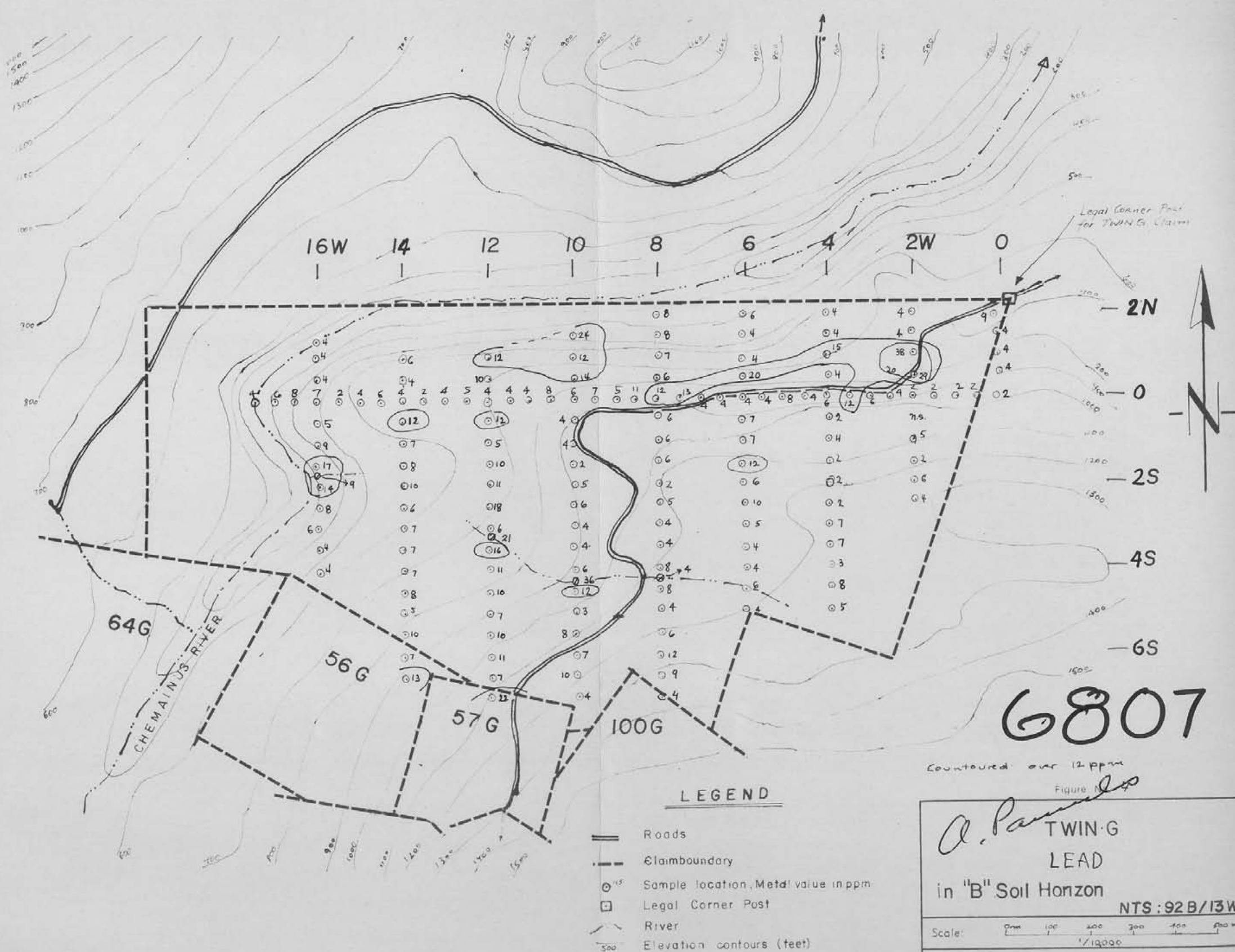
**TWIN G
ZINC**

in "B" Soil Horizon

NTS: 92B/13W

Scale: 1" = 1000'

UMEX CORPORATION LTD.



6807

Countoured over 12 ppm
Figure 1

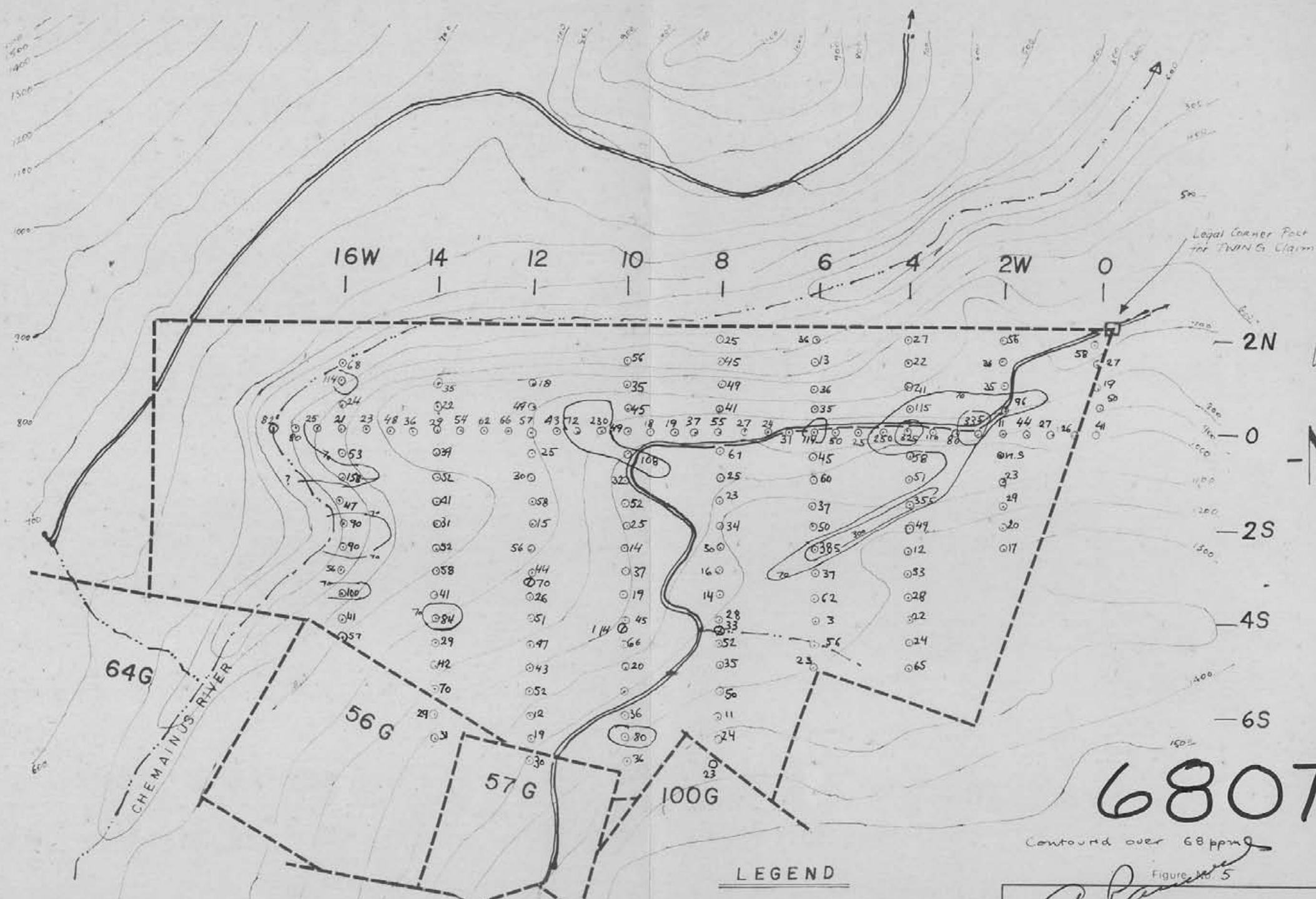
LEGEND

- Roads
- - - Claim boundary
- ¹⁵ Sample location, Metal value in ppm
- Legal Corner Post
- ~ River
- 500 Elevation contours (feet)

A. P...
TWIN-G
LEAD
in "B" Soil Horizon
NTS: 92 B/13 W

Scale: 0 100 200 300 400 500 m
1/10000

UMEX CORPORATION LTD.



Legal Corner Post for TWIN G Claim



Contoured over 68 ppm

Figure No. 5

LEGEND

- Roads
- Claimboundary
- Sample location, Metal value in ppm
- Legal Corner Post
- River
- Elevation contours (feet)
- Stream Sample

A. P.
**TWIN G
 COPPER**
 in "B" Soil Horizon
 NTS: 92B/13W
 Scale: 0m 100 200 300 400 500m
 1/10000
UMEX CORPORATION LTD.