

83-#247-#11165

6

GEOCHEMICAL & GEOPHYSICAL SURVEY

ON THE

AMERICAN BOY PROPERTY

(Cindy Lou, Janelle, AB#1-AB#12)

Omineca Mining Division

93M/5E

55°18' 127°34'

OWNER & OPERATOR: CAN-EX RESOURCES LTD.

AUTHOR: A.M. HOMENUKE, P.Eng. (Geol.)

SUBMITTED: July 5, 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,165

Tri-con Mining Ltd.

VANCOUVER, B.C. CANADA

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I. INTRODUCTORY NOTES

Location and Access

The American Boy Property is located a few kilometres north of New Hazelton, B.C. (Fig. 1). The claims cover the southwest slope of Nine Mile Mountain down to Four Mile Mountain and are bounded on the west by Two Mile Creek Valley.

Two historically active mining sites are present; the "American Boy" workings on the north part of the claims and the "Babine" workings on the southeast part of the claims.

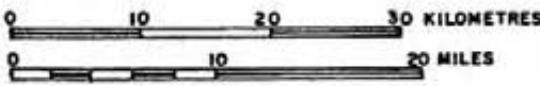
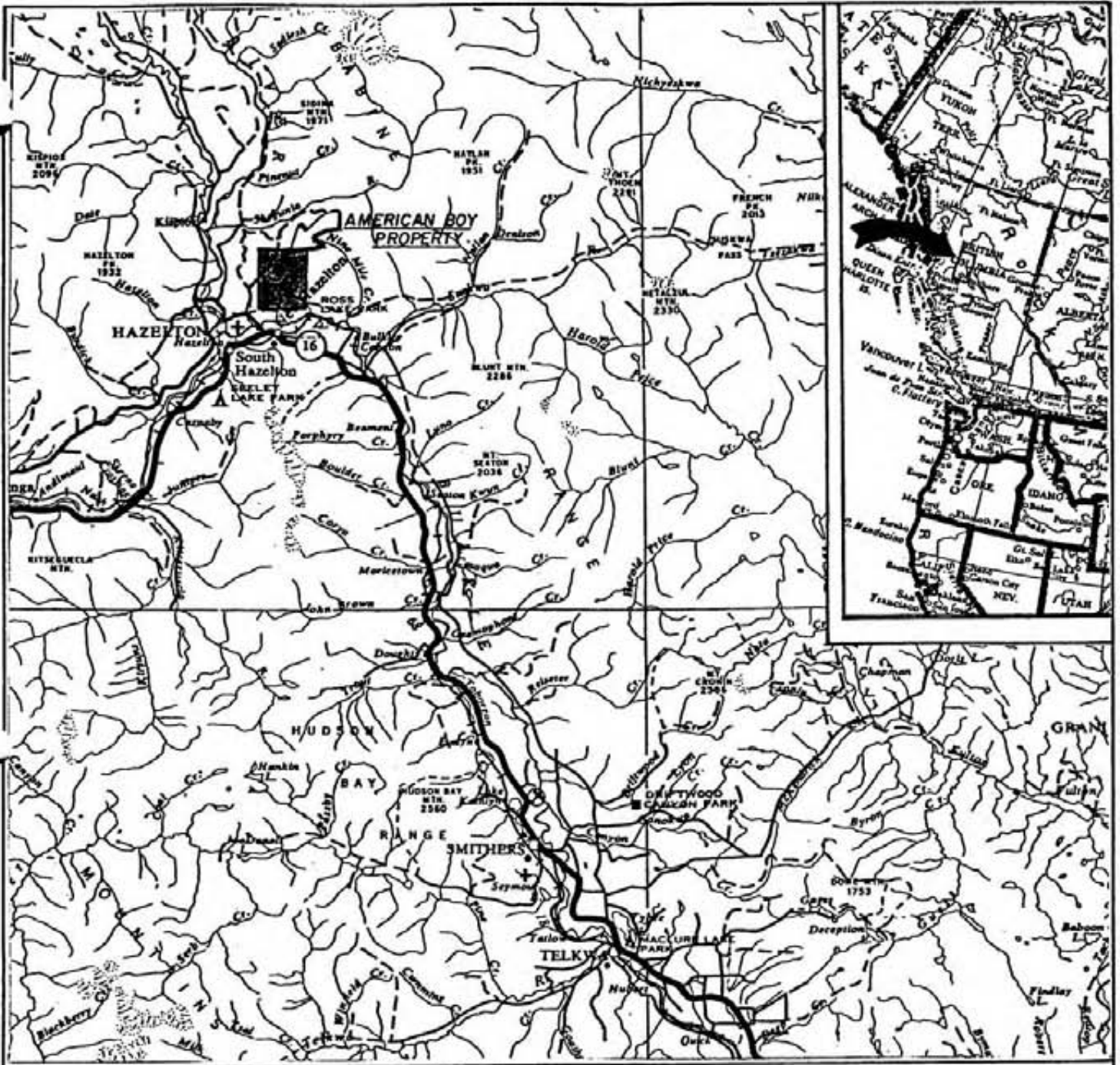
Access on the west and north is provided by the Nine Mile Mountain microwave road, maintained by B.C. Tel, and on the south by Four Mile Mountain road.

Locally, there are many old mining and logging trails, except in the central portion of the property where access is on foot or by helicopter.

Physical Features

The area of the claims is characterized by very steep southerly to westerly slopes, in many cases, to the point of forming escarpments. There is a broad, flatter area to the southwest. Three major creeks flow in a general southerly direction across the property, in part through steep-walled canyons.

The area is heavily forested, ranging from interior rain forest, through open spruce groves to subalpine vegetation. The type of vegetation is controlled by topography and elevation. There are a few open, grassy slopes with deciduous trees, and many swampy areas. Much of the timber is over mature and windfalls often impede progress on foot.



CAN-EX RESOURCES LTD.
AMERICAN BOY PROPERTY
 HAZELTON, BRITISH COLUMBIA

LOCATION MAP

FIGURE I.

History

The first miners came into the Hazelton area, with completion of the railway through that town. The American Boy Property was first staked by D.A. Harris in 1910. From 1911 to 1916, Harris Mines Limited carried out surface trenching and underground development of five veins. Small shipments of high-grade silver ore were made to the Trail Smelter.

In 1917, 254 tons of lower-grade development ore were hauled to the Silver Standard gravity mill on Two Mile Creek.

In 1927, further minor development work was done and G.S.C. Memoir 223 mentions "some work done during 1937", but no details were given.

American Standard Mines acquired the property in 1950 and did considerable stripping, diamond drilling and underground work. A new vein (No. 6) was discovered in the fall of 1951.

In 1952, Pioneer Gold Mines of B.C. Limited did some further surface stripping.

In 1955, J. Gallo shipped 21 tons of crude ore from a shoot on the No. 6 vein. Apparently, other operators did some work on the property in the late 1950's, but no records are available.

George Braun re-staked the property in 1967, and the North-western Midland Development Co. Ltd. shipped 10.35 tons of Wilfley Table concentrate, stockpiled by previous operators. Minor trenching was done in 1968 and 1971.

Tri-Con Mining Ltd. re-staked the property in 1976, and in 1978 and 1980, carried out backhoe trenching, sampling and limited electromagnetic surveying.

In 1981, the property was expanded. During staking and prospecting, one new vein was found, an old vein was "rediscovered",

and mineralized float from a probable third vein was found. In addition, reconnaissance soil sampling was done on many of the claim lines.

In 1982, the property was vended to Can-Ex Resources Ltd. and additional claims were staked covering the old "Babine" property. This area has workings on two veins, but little work has been done since 1913.

Property Description

The original 6 units, located in 1976, have been expanded to a total of 83 units. The following table lists the pertinent data from the claims.

TABLE I: MINERAL CLAIMS

<u>Claim Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Record Date</u>	<u>Year of Location</u>
Janelle	319	2	June 8	1976
Cindy Lou	320	4	June 8	1976
AB #1	3785	10	June 4	1981
AB #2	3786	4	June 4	1981
AB #3	3787	10	June 4	1981
AB #4	3788	12	June 4	1981
AB #5	4116	6	August 6	1981
AB #6	4117	10	August 6	1981
AB #7	4118	15	August 6	1981
AB #8	4119	6	August 6	1981
AB #9	4711	1	August 6	1982
AB #10	4712	1	August 6	1982
AB #11	4713	1	August 6	1982
AB #12	4714	1	August 6	1982

Can-Ex Resources Ltd. is owner and operator of the property. The claims are shown on Figure 2.

Economic Assessment

There are at least 10 silver-gold-base metal bearing veins on the property. A few small, but very high grade ore shoots were previously mined. The Silver Standard Mine, just to the west of the American Boy, produced over 7 million ounces of silver, and the Sunrise Silver Mine on Nine Mile Mountain also had some production.

Reconnaissance geochemistry has shown many more target areas, increasing the probability of putting together enough ore shoots to make a mine.

Present Work and Distribution

Exploration in 1982 consisted of expanding the 1981 geochemical reconnaissance with more detailed sampling on the "American Boy" (Cindy Lou and Janelle claims) and "Babine" (AB 9 - 12 claims) areas. A total of 800 soil samples were taken and analyzed for five elements. In addition, 6.6 km. of VLF-EM survey were run over the "American Boy" area.

The only claims not covered by the geochemical reconnaissance were AB5 and AB6.

Support work included preparation of a base map from available maps and airphotos. This was required as the 1:50,000 map of the area is an interpolation of the 1:250,000 map and is very poor for position control.

II. GEOCHEMICAL SURVEY

Procedure

800 soil samples were taken from the "B" horizon, at 100 metre intervals on a reconnaissance basis or at 50 metre intervals over more detailed areas.

They were placed into kraft envelopes and marked as to location. The samples were delivered to Acme Labs in Vancouver, B.C., where they were subjected to the following procedures:

1. Preparation - dried at 60°C and sieved to -80 mesh.
2. Digestion - 0.5 grams of sample digested with hot aqua regia for one hour, then diluted to 10 ml. with water.
3. Analysis - Solution aspirated and analyzed by inductively coupled argon plasma (ICP). This is a computer assisted, multi-element spectral analysis: 26 elements were available, but to save on costs only lead, zinc, silver, arsenic and copper were selected.

The results are shown on Figs. 3 to 7, together with the results from the initial reconnaissance in 1981 (Homenuke, 1982).

Discussion of Results

The geochemical survey (including the 1981 results) covered an area 4 km. by 6 km. ranging in elevation from 500 m. to 1500 m. It is assumed that, although the underlying formations are somewhat similar, there will be variations in effect on ion mobility related to such things as lime content. There will also be differences in chemical activity (weathering) related to elevation-controlled climatic differences, and degree and direction of slope. The effects of these parameters have yet to be assessed, however there are enough samples in the vicinity of known sulfide mineralization to give a fair idea of which metal values are obviously significant.

In the report on the 1981 survey statistical analyses were done on the data. It is felt now that there are several populations that should be treated separately, but that further investigations will be required to define them. It appears, for instance, that zinc has a higher background around Four Mile Mountain and that all metals are more mobile at higher elevations. Some of these questions will be answered by pH testing. A single value level for each metal has been selected to indicate areas for follow-up work. These are based on the author's experience in the area. The results from each metal are summarized below.

Arsenic (Fig. 3) - There are about 50 areas of arsenic values greater than 40 ppm. Many of these areas are interconnected, especially on the north side of Four Mile Mountain, where anomalous values in arsenic occur in a northwesterly trending zone 2 km. long and up to 1 km. wide. Only 8 of these areas are related to known veins. A portion of the value on broader areas may be related to hornfelsed zones around intrusives.

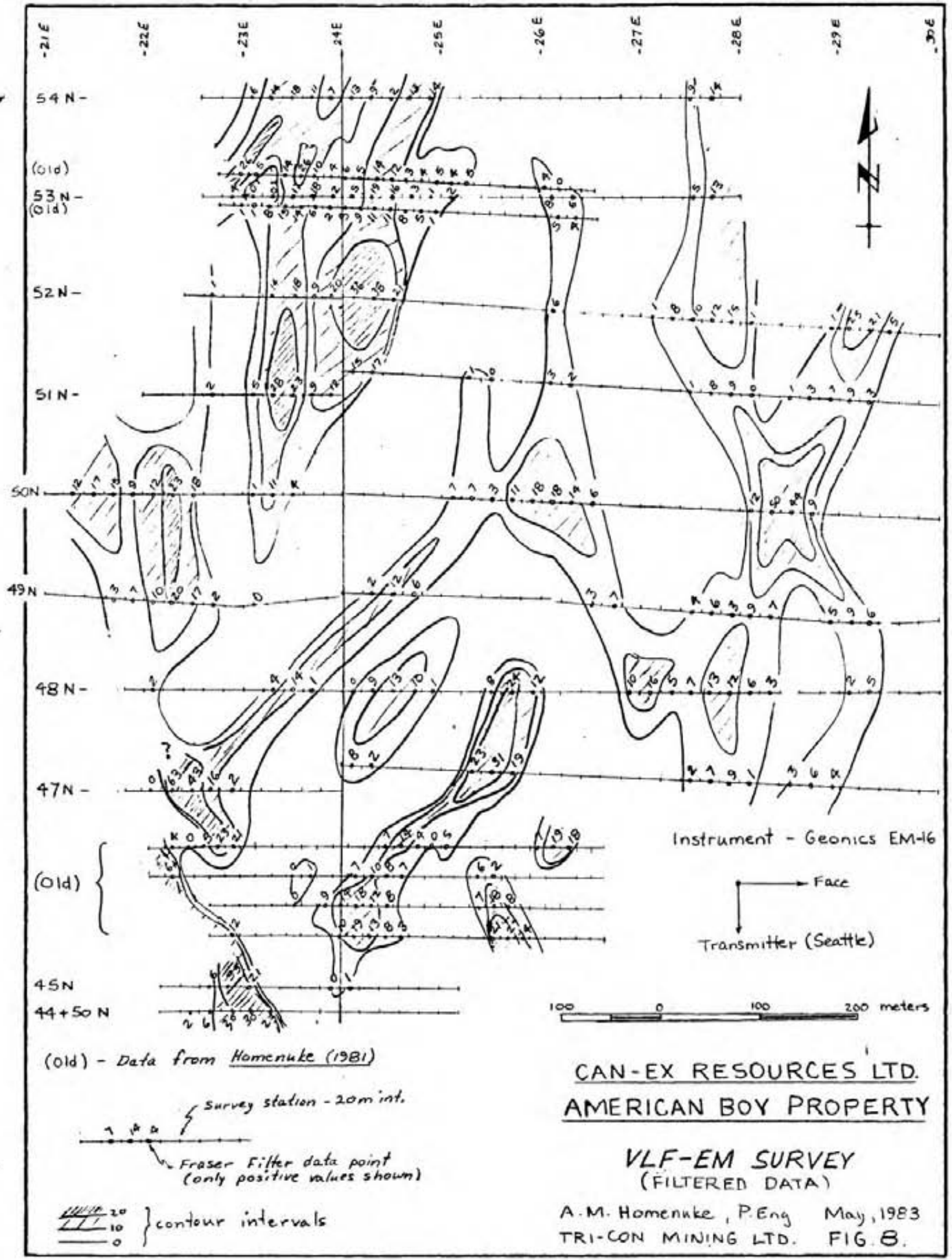
Copper (Fig. 4) - The 1981 program did not include copper results, so this map is slightly different from the others. The copper was contoured at 20 ppm, based on correlation with the American Boy veins. This level may be too low for other parts of the property. There are about 25 areas with values greater than 40 ppm. Only 3 of these are related to known mineralization.

Lead (Fig. 5) - There are 56 areas with lead values greater than 20 ppm. 6 of these areas are related to known veins and 25 are relatively low single sample areas, leaving about 25 for further investigation. Lead appears to be the best indicator of silver bearing veins.

Silver (Fig. 6) - A 1.0 ppm level has been chosen as significant for follow-up. There are 35 areas with 1.0 silver or more. 6 of these are related to known veins.

Zinc (Fig. 7) - Zinc rich areas have been delineated by a 125 ppm contour. On the north side of Four Mile Mountain zinc has a broad brush appearance similar to arsenic and may also be partly related to hornfelsed areas. There are about 50 zinc-rich areas of which 5 are related to known veins.

In general, known veins are represented by smaller multi-element anomalies with lead and silver best defining the structures. Arsenic is present but broader and possibly zonal along strike, indicating arsenopyrite-gold rather than galena-silver mineralization. Zinc and copper are present around the veins, but are also most inclined to occur in areas without other metals. These latter areas may indicate the presence of intrusives.



III. EM-16 SURVEY

Instrumentation and Procedure

The survey was conducted with a Geonics "Ronka EM-16", which is a VLF-EM receiver using submarine communications stations as transmitter source. The station for this survey was Seattle, Washington. Readings were taken facing east at 20 meter intervals along the grid lines. This allows the actual dipmeter angle to be recorded in the correct sign for reading the profile from left to right. The Fraser Filter Method was applied to allow contouring of the data.

Survey

6.6 km. of EM-16 were run over the veins of the "American Boy" workings. These lines as well as those from previous surveys are shown as a contoured plan on Fig. 8. The raw data profiles are shown at the same scale in the Appendix.

Discussion of Results

Only one vein showed a pattern which could be interpreted as being solely related to that structure. This is from 51 N to 53 N along 26 E which follows the No. 4 vein. All the other veins are within EM-16 conductors, but the conductors do not appear to be related only to the veins. Further work will be required to determine this relationship, however the present work will assist geological mapping.

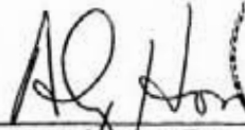
IV. CONCLUSIONS

The reconnaissance geochemical survey has shown about 15 - 25 areas for follow-up work. Some further interpretation and correlation of data are required to complete the analysis of this program.

All the known mineralization showed some geochemical response.

VLF-EM surveying was partially successful in defining veins. Again, more work and broader coverage as well as a closer line spacing will help in providing a better interpretation.

Respectfully submitted,
Tri-Con Mining Ltd.

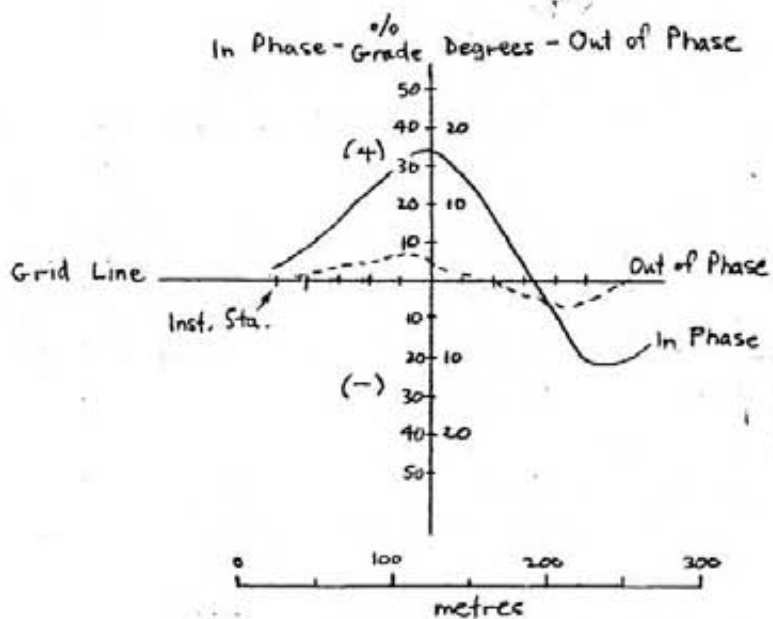


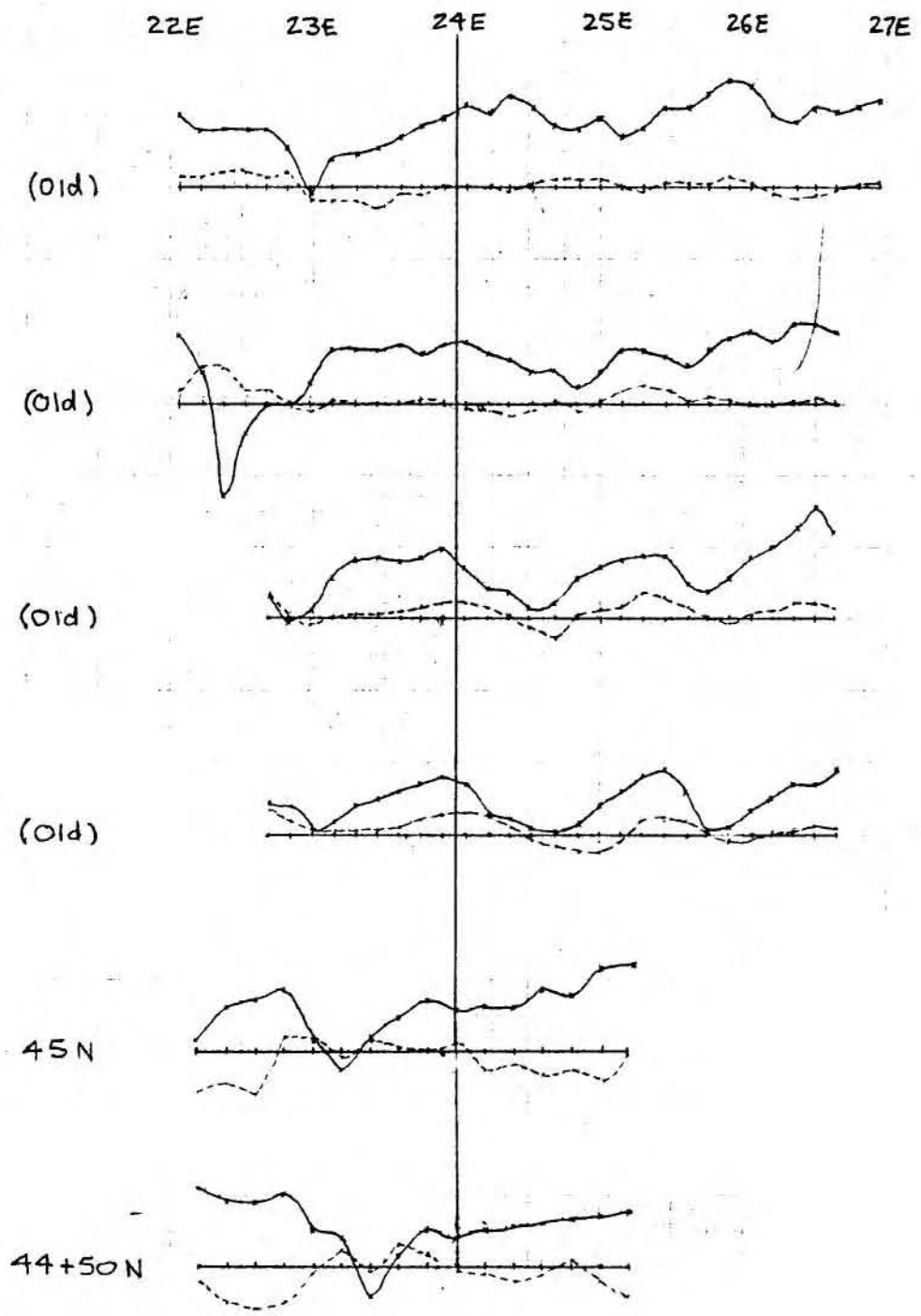
A.M. Homenuke, P.Eng.

APPENDIX

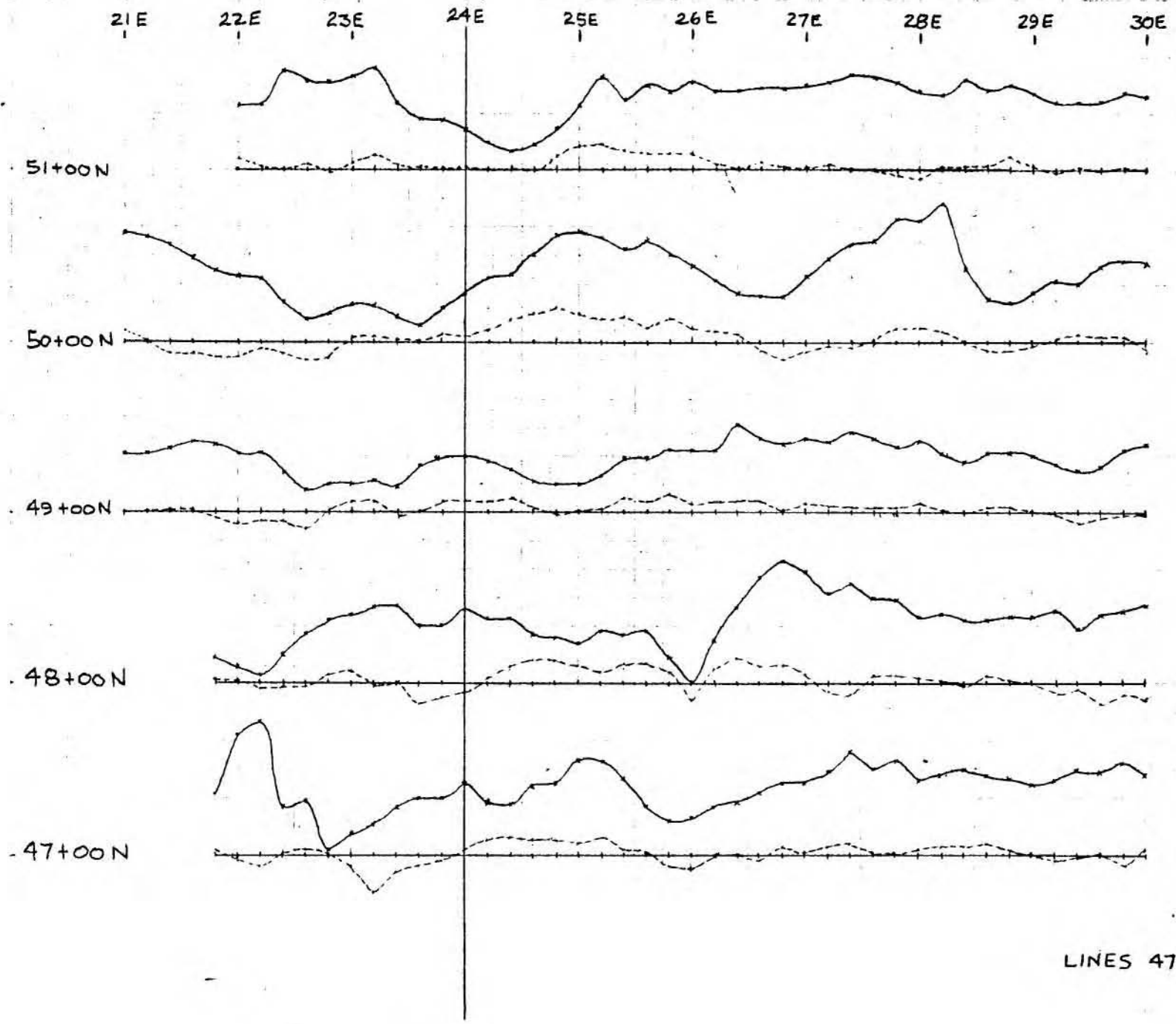
EM-16

RAW DATA PROFILES

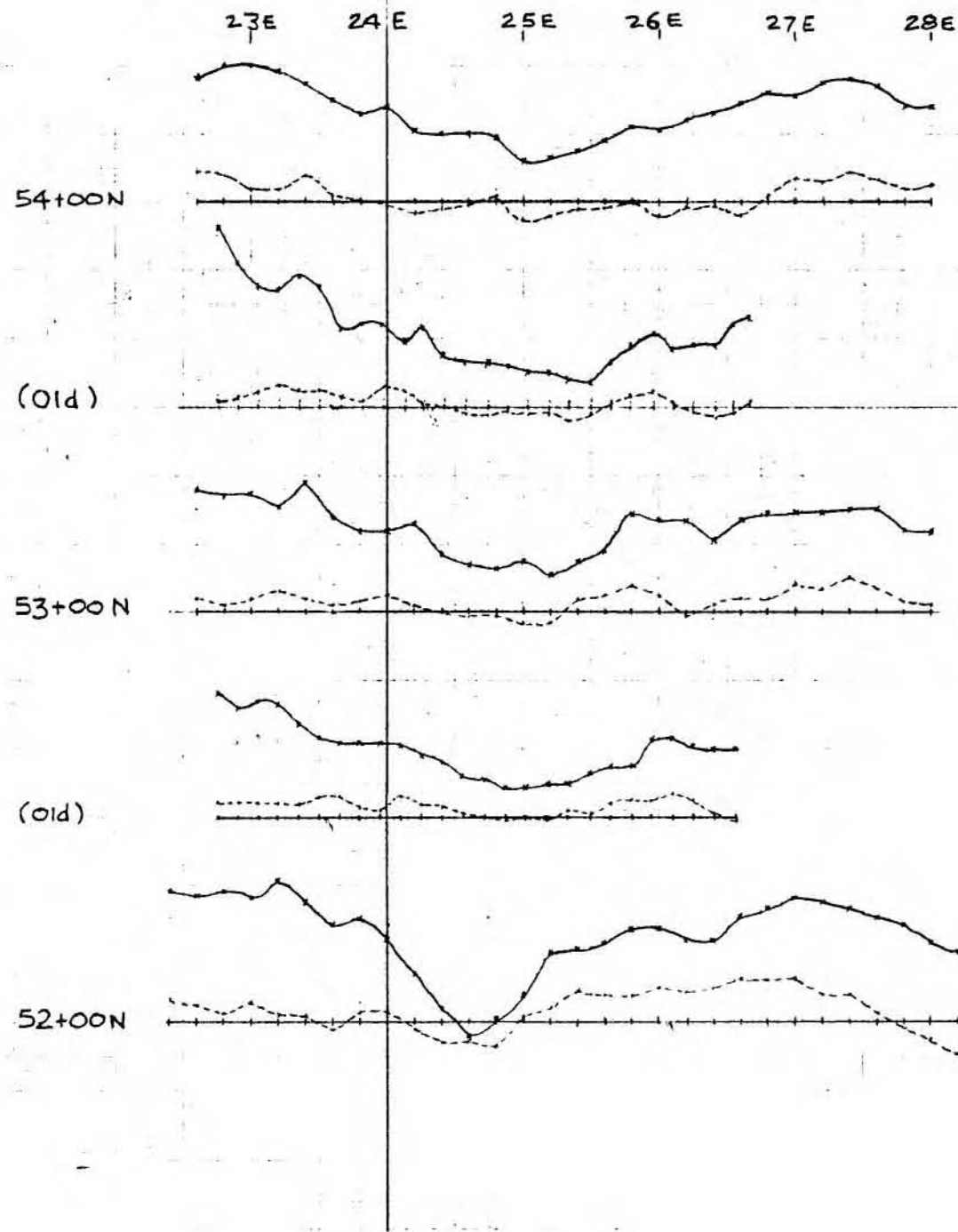




LINES 44+50N to 46N



LINES 47 N to 51 N



LINES 52N to 54N

R E F E R E N C E S

Homenuke, A.M., 1978, Trenching and Assay Report on the American Boy Group (Ass. Rept.).

Homenuke, A.M., 1981, EM-16 and trenching on the American Boy Group (Ass. Rept.).

Homenuke, A.M., 1982, Geochemical Survey and Prospecting on the American Boy Property (Ass. Rept.).

Kindle, E.D., 1954, Mineral Resources, Hazelton and Smithers Areas, Geol. Sur. of Can., Memoir 223.

Smith, Alexander, 1956, Silver Standard Mine, in Structural Geology of Canadian Ore Deposits, CIM Special Volume.

ITEMIZED COST STATEMENT

Oct. 14 - 26, 1982

A.M. Homenuke, P.Eng. - Geochemical Sampling EM-16 surveying and supervision - 13 days @ \$250/day	\$ 3,250.00
Geologist / sampler - 13 days @ \$200/day	2,600.00
Geotechnologist / sampler - 10 days \$150/day	1,500.00
3 helpers - total 22 man days @ \$125/day	2,750.00
800 samples by ICP for Ag, Pb, Zn, Cu, As @ \$5.00 ea.	4,000.00
Room & board - 36 man days @ \$40/day	1,440.00
Truck rental - 13 days @ \$40/day	520.00
Supplies	350.00
Interpretation, maps and report A.M. Homenuke, P.Eng. - 6 days @ \$250/day	<u>1,500.00</u>
TOTAL	<u><u>\$17,910.00</u></u>


NOTE: Cindy Lou, Janelle, and AB # 1 - 8 are in the American Boy Group. AB # 9 - 12 are not grouped, however at least \$100 work was done on each of these claims.

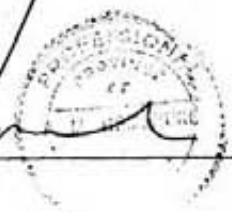
CERTIFICATE OF QUALIFICATION

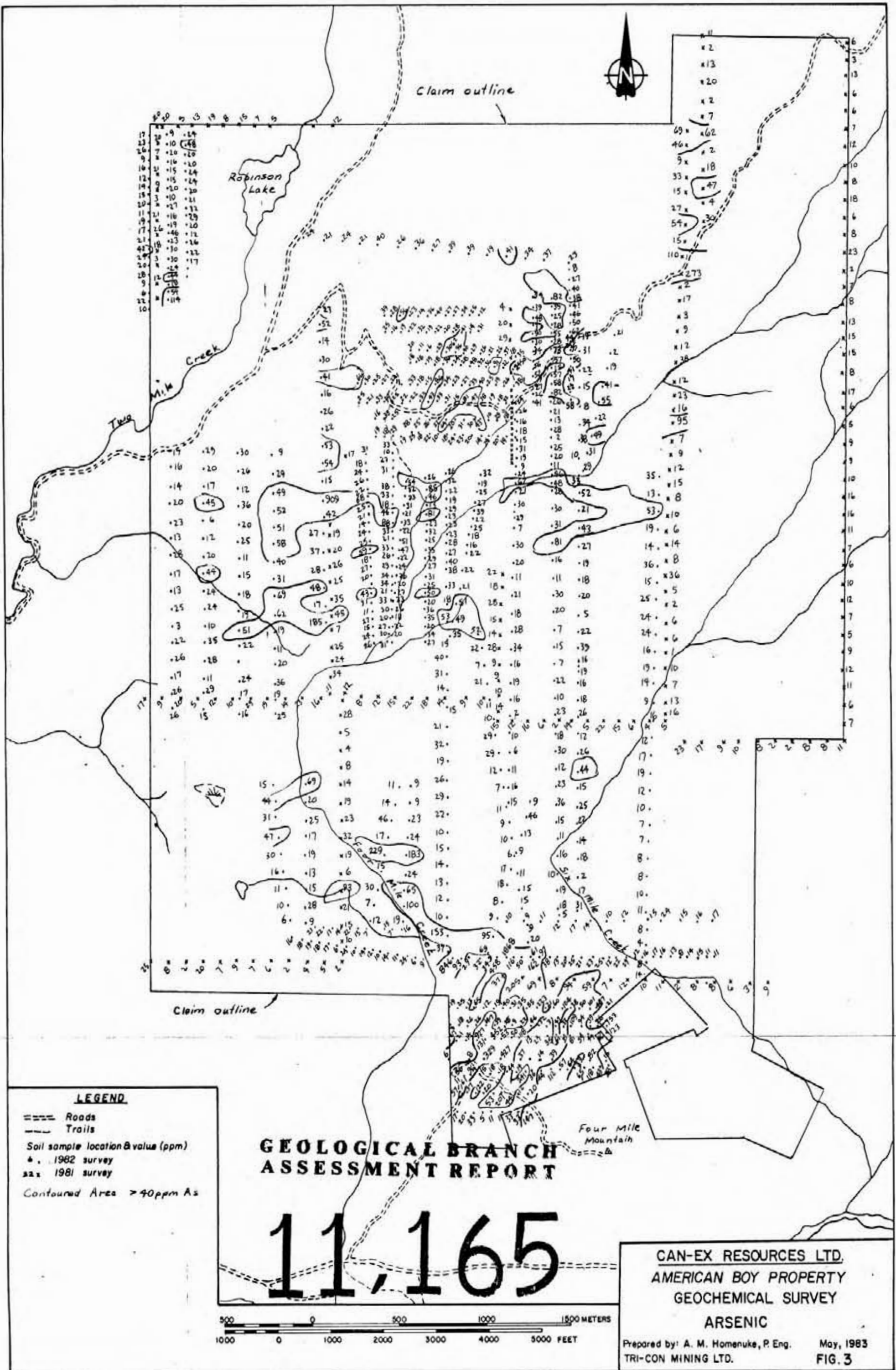
I, ALEXANDER M. HOMENUKE, DO HEREBY CERTIFY:

1. THAT I am a member in good standing of the Association of Professional Engineers of British Columbia.
2. THAT I received the Degree of Bachelor of Science in Geological Engineering from the Colorado School of Mines in 1974.
3. THAT I received a Diploma of Technology in Mining from the B.C. Institute of Technology in 1969.
4. THAT I have been employed in various aspects of mining exploration for 14 years and am presently employed by Tri-Con Mining Ltd., of #2580 - 1066 West Hastings Street, Vancouver, British Columbia.
5. THAT I presently reside at 29825 Harris Road, Mt. Lehman, British Columbia.
6. THAT this Report is based on work supervised or conducted by myself.

DATED at VANCOUVER, British Columbia, this 5th day of July, 1983.


A.M. HOMENUKE, P.Eng.
Geological Engineer





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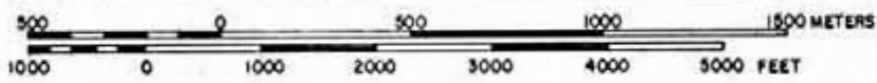
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LEGEND

- == Roads
- Trails
- Soil sample location & value (ppm)
- * . 1982 survey
- xx 1981 survey
- Contoured Area > 40ppm As

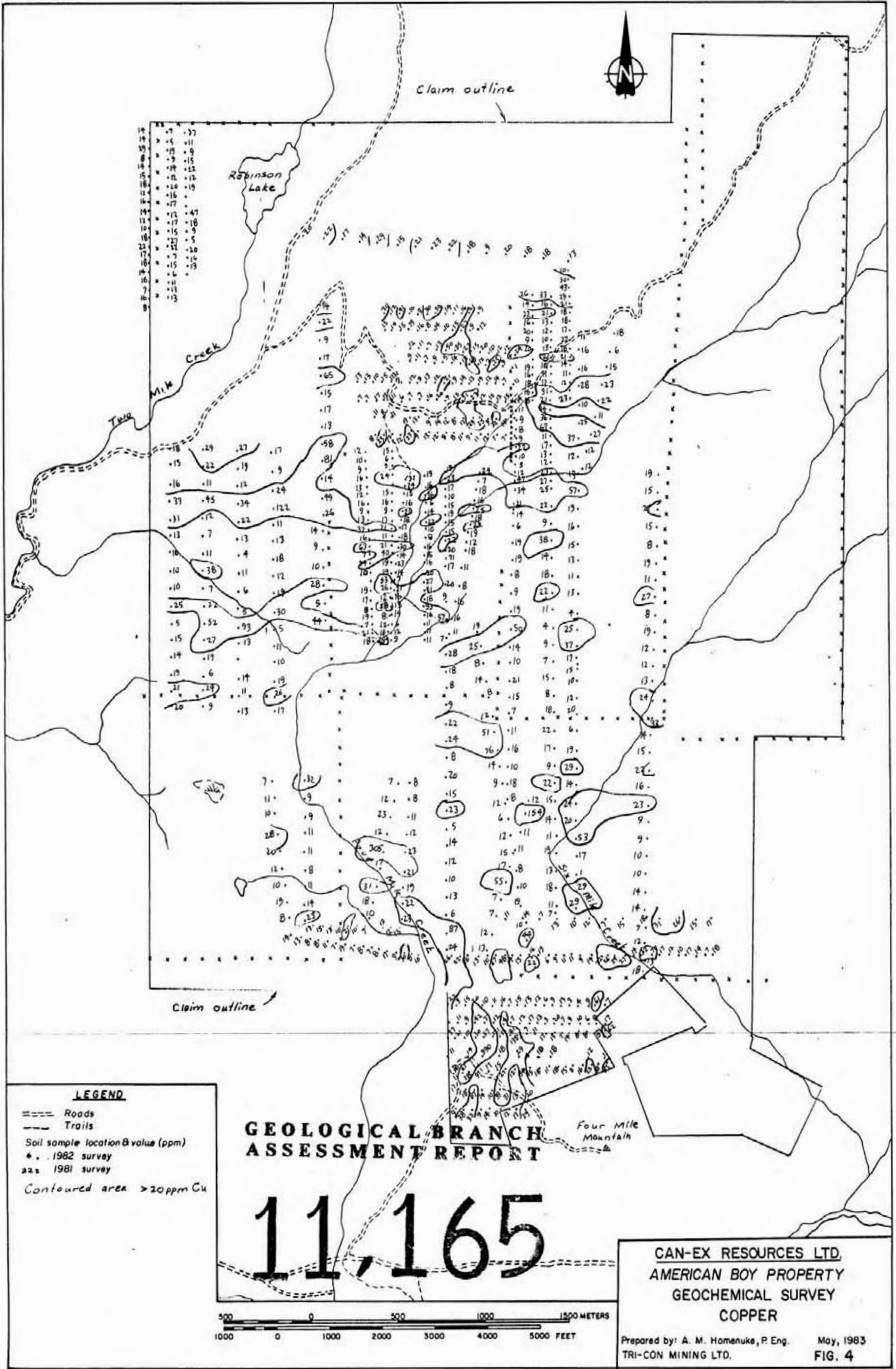
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**CAN-EX RESOURCES LTD.
AMERICAN BOY PROPERTY
GEOCHEMICAL SURVEY
ARSENIC**

Prepared by: A. M. Homenuke, P. Eng. May, 1983
TRI-CON MINING LTD. FIG. 3



Claim outline



Robinson Lake

Two Mile Creek

Four Mile Mountain

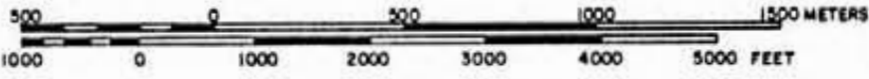
LEGEND

- == Roads
- Trails
- Soil sample location & value (ppm)
- 1982 survey
- 1981 survey
- Contoured area > 20ppm Cu

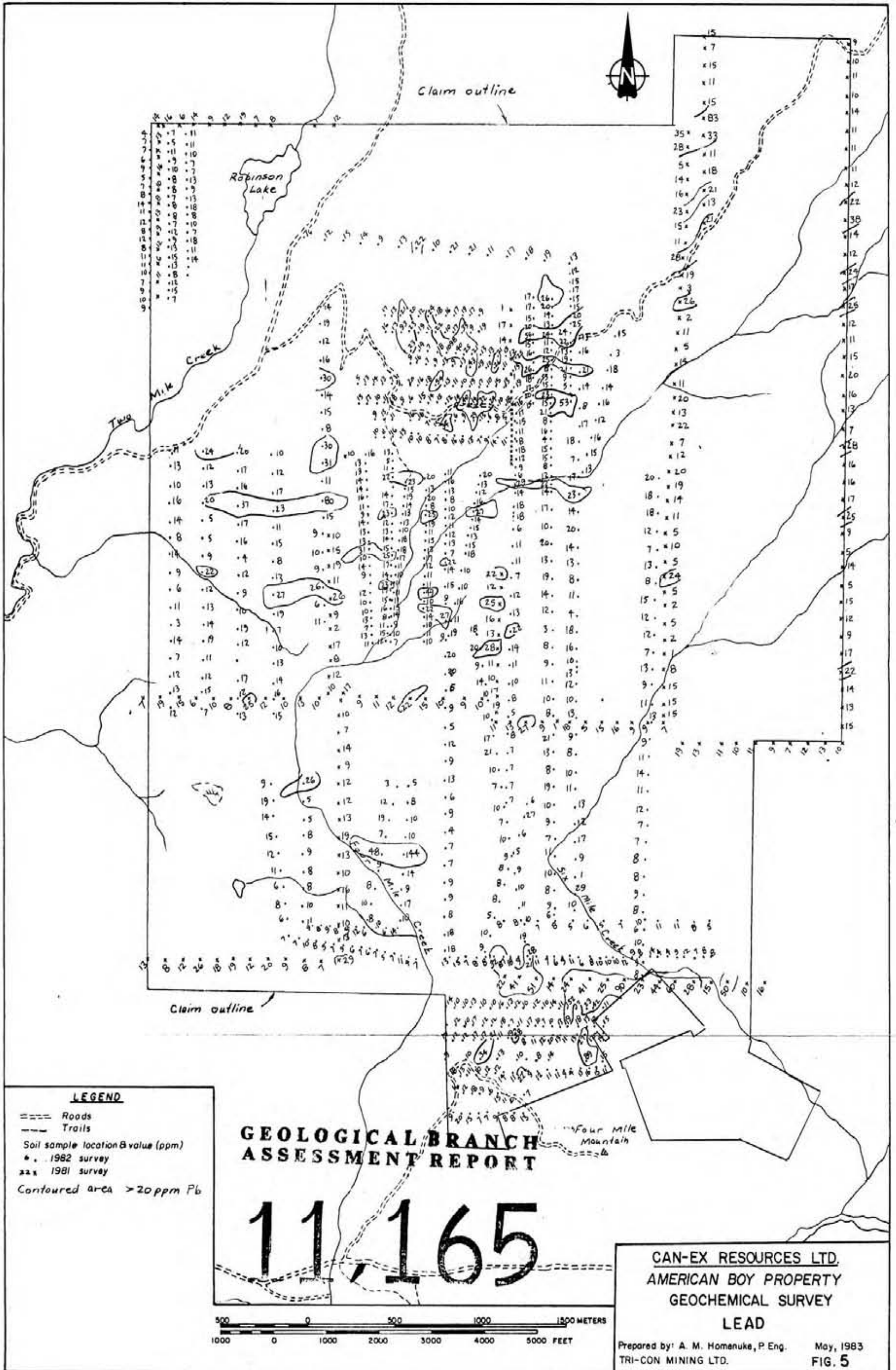
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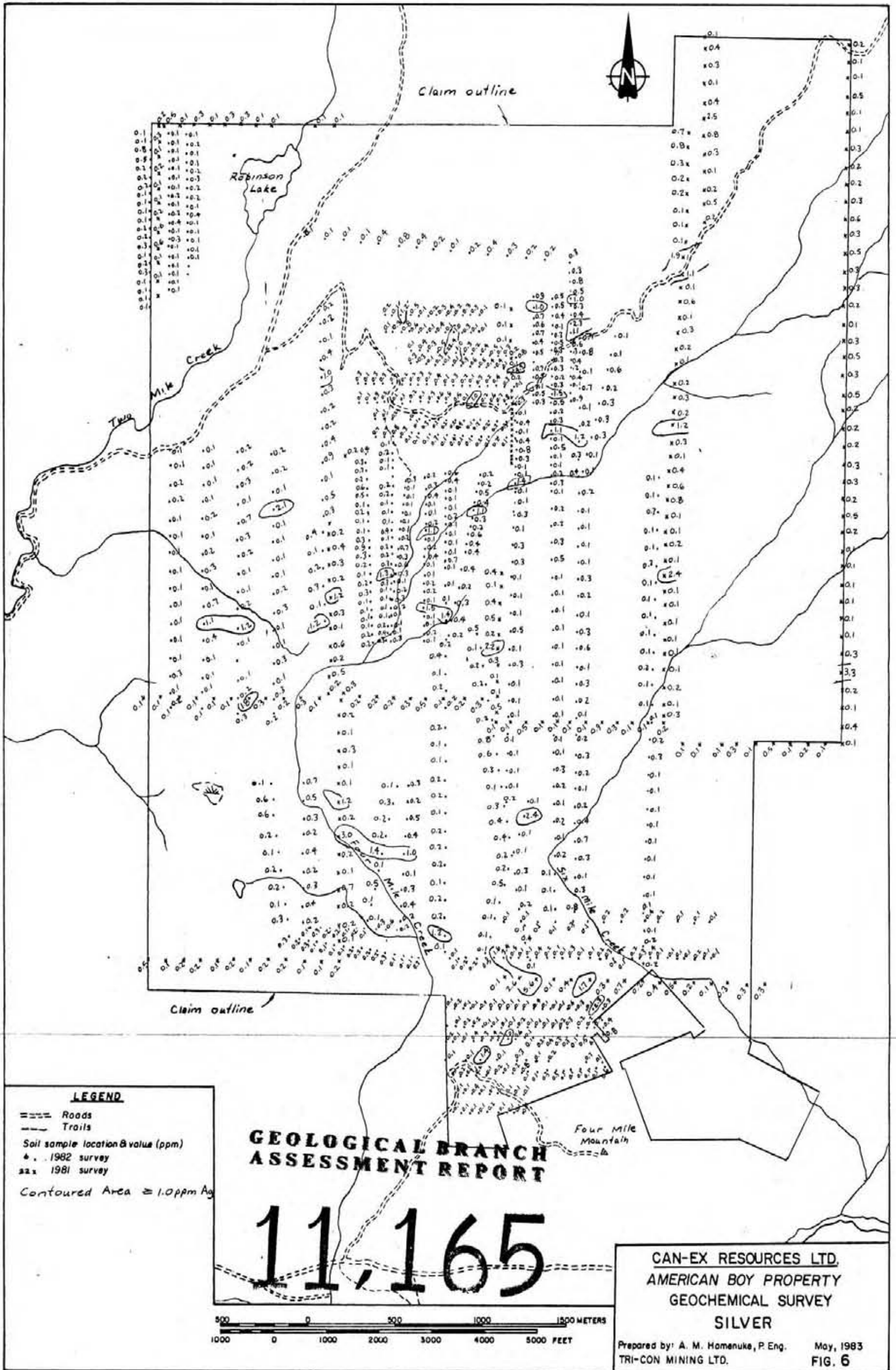
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**CAN-EX RESOURCES LTD.
AMERICAN BOY PROPERTY
GEOCHEMICAL SURVEY
COPPER**



Prepared by: A. M. Homenuke, P. Eng. May, 1983
TRI-CON MINING LTD. FIG. 4





Claim outline



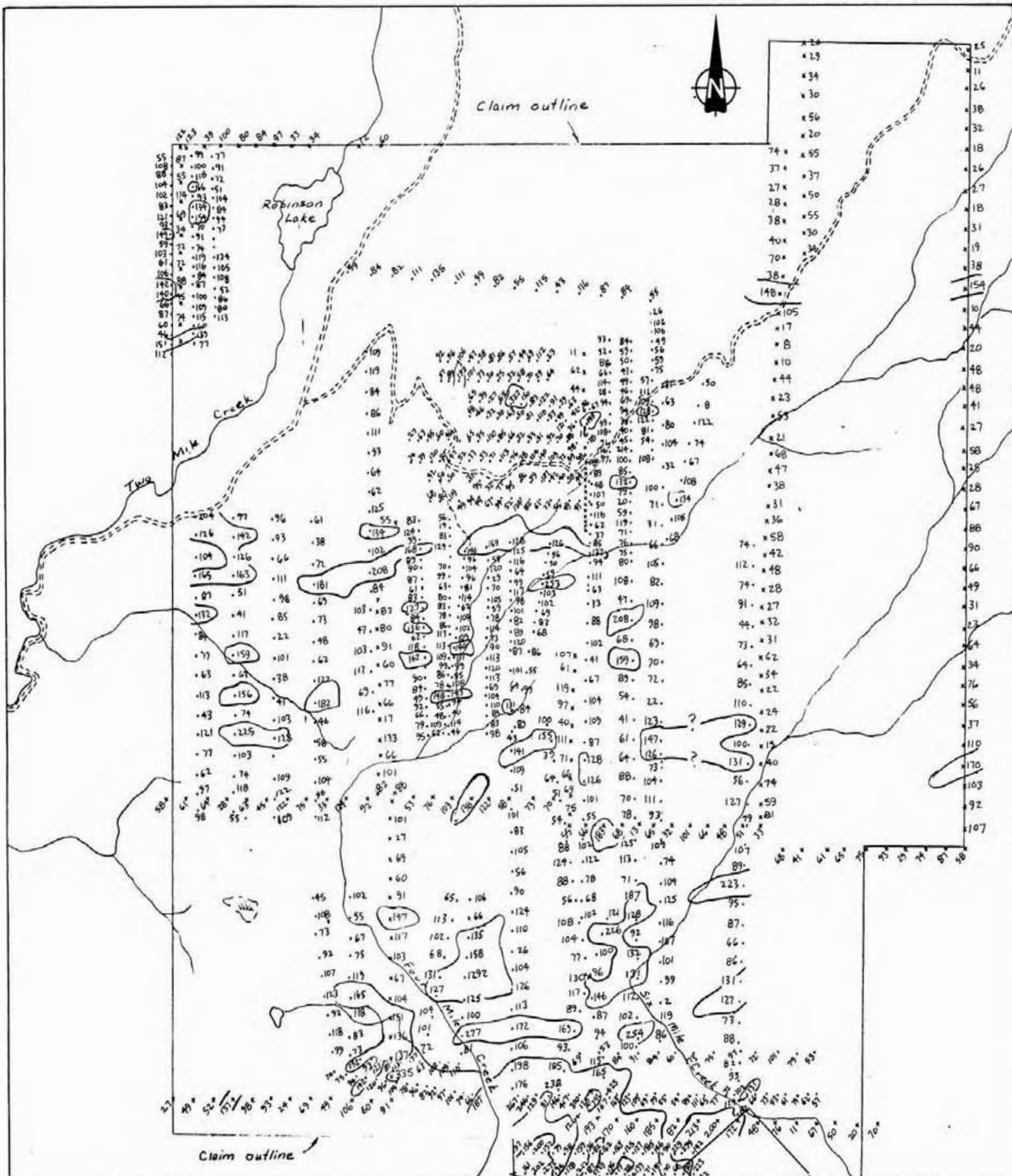
Robinson Lake

Milk Creek

Claim outline

CAN-EX RESOURCES LTD.
 AMERICAN BOY PROPERTY
 GEOCHEMICAL SURVEY
 SILVER

Prepared by: A. M. Homenuke, P. Eng. May, 1983
 TRI-CON MINING LTD. FIG. 6

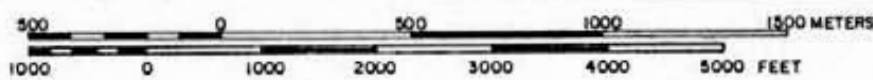


LEGEND

- ==== Roads
- Trails
- Soil sample location & value (ppm)
- * . 1982 survey
- xx 1981 survey
- Contoured Area > 125ppm Zn

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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**CAN-EX RESOURCES LTD.
AMERICAN BOY PROPERTY
GEOCHEMICAL SURVEY**

ZINC

Prepared by: A. M. Homenuke, P. Eng.
TRI-CON MINING LTD.

May, 1983
FIG. 7