

MAP No.

ASSESSMENT REPORT  
N. M. E. A. P.  
CONFIDENTIAL  
OPEN FILE



WATSON LAKE M.D.  
15.N 134642

TYPE OF  
WORK:

GEOLOGY; GEOPHYSICS;  
GEOCHEMISTRY

105 B 2

REPORT FILED UNDER	GEOR MINE AND OIL LTD.	DOCUMENT NO. 091746
DATE PERFORMED	1973 July 29 - Aug 9, 1973	DATE FILED: SEPT. 10, 1973
LOCATION - LAT.	60°03'N	AREA: RANCHERIA RIVER, Yukon
LONG.	130°44'W	
CLAIM NO.	TROY 1-20 Y54713-Y54732	
VALUE \$		
WORK DONE BY	E.D. CRUZ; G.E. WHITE	
WORK DONE FOR	GLEN E. WHITE GEOPHYSICAL CONSULTING LTD.	
REMARKS	Mineralization in the area consists of galena-sphalerite veins with associated silver mineralization. These veins occur in fractures near the batholith contact. No mineralization of this type was seen on these claims.	

#8 TROY

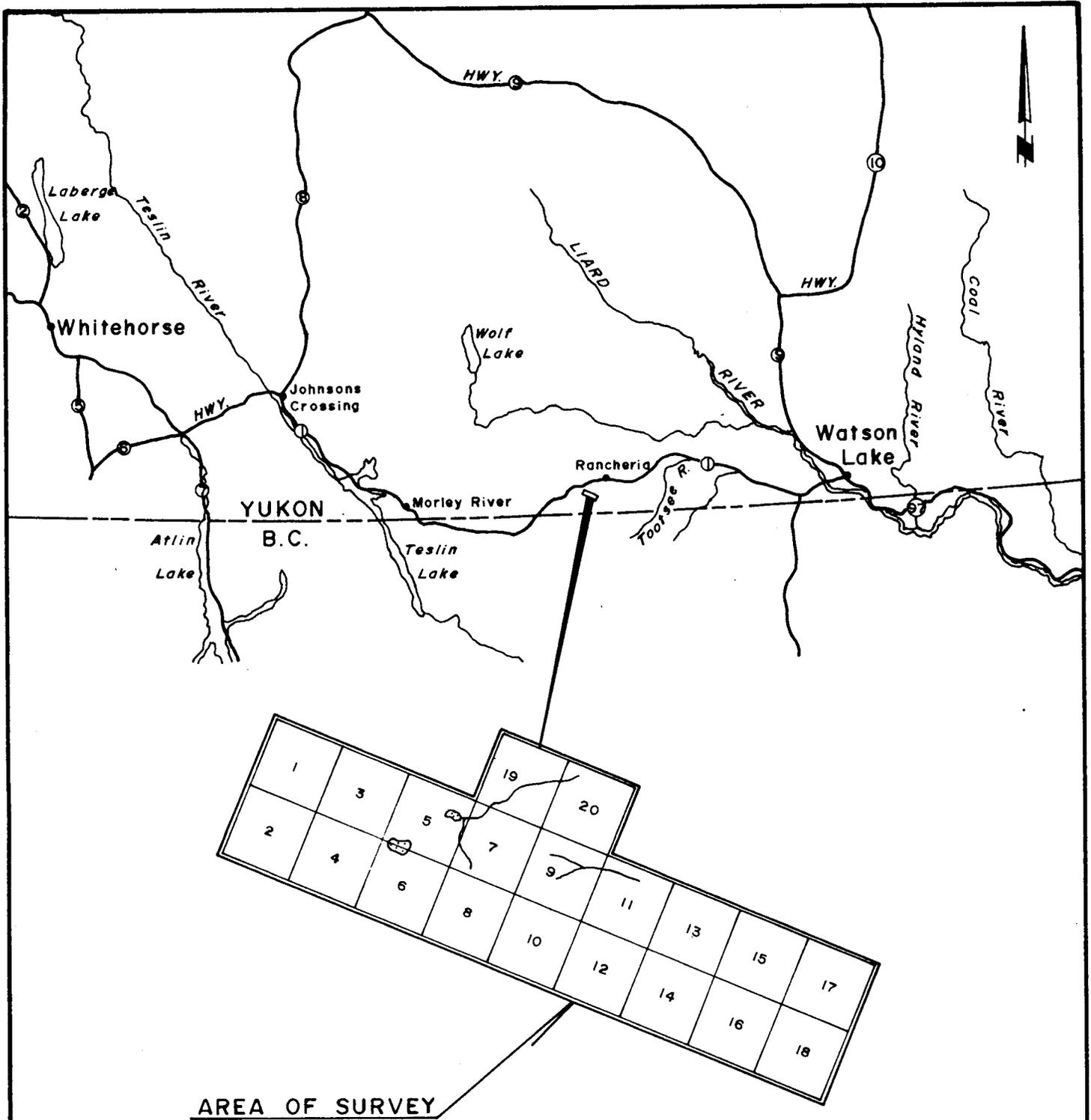
GEOCHEMICAL AND GEOPHYSICAL REPORT  
On Behalf Of  
GEOR MINE AND OIL LTD. (N.P.L.)

Troy mineral claims, Rancharia River area,  
Watson Mining Division, Yukon Territory.  
Lat.  $60^{\circ}03'N$  Long.  $130^{\circ}W$  N.T.S. 105 B/2

AUTHORS: E. D. Cruz, P. ENG and G. E. White, B.Sc.  
DATE OF WORK: July 29 - August 9, 1973  
DATE OF REPORT: September 10, 1973

091746

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GEOR MINE & OIL LTD.  
 TROY CLAIMS  
 LOCATION AND CLAIMS MAP

SCALE : LOCATION MAP : 1" = 40 MILES APPROX.

CLAIMS MAP : 1/2" = 1500 APPROX.

105-B-2

*Glen E. White*  
 geophysical consulting  
 &  
 services ltd.

SEPT. 7, 1973  
 FIG. 1

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- Figure 1 - Location and Claims Map
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            Filtered Dip Angle

## INTRODUCTION

Glen E. White Geophysical Consulting and Services Ltd. conducted a program of geochemical and geophysical surveying on the Troy mineral claims, Rancheria River area, Yukon Territory, on behalf of Geor Mine and Oil Ltd. Field work was started on July 29, 1973 and completed on August 9, 1973.

The purpose of the survey was to try and locate any mineralization of economic significance in a northwesterly trending rusty and fractured zone in the Cassiar batholith delimited by a significantly strong aeromagnetic anomaly.

## PROPERTY

The Troy mineral claim group consists of 20 contiguous claims, Troy 1-20, staked in January 1971 bearing record numbers Y54713 - Y54732.

## LOCATION AND ACCESS

The claims are situated in the Rancheria River area at the following geographic position:

130°44' west longitude  
60°03'30" north latitude  
N.T.S. 105 B/2

The claim group is about 1 mile south of the mouth of Moore Creek at mile 715.5 on the Alaska highway.

Present access to the claims from the highway at mile 715.5 is by rubber raft to cross the sixty feet wide and about six feet deep Rancheria River, thence by foot to the property, a total hike of about 2 hours. An alternative access is by helicopter from Watson Lake.

## PREVIOUS WORK

No previous work of record to the knowledge of the writer has been done on the property except a brief examination done by D. Parent, P. ENG, on August 22, 1971.

## PHYSIOGRAPHY

The mineral claim block lies on the northeastern portion of a northwesterly trending mountain range, bounded on the east by the upper reaches of the tributary of Allan Creek and on the north by the Rancheria River. Relief on the property ranges from about 4000 feet to 5200 feet above sea level.

The terrain in the area is generally rugged, characterized by rock talus and steep precipitous cliffs at higher elevations, and is drained by a tributary of Allan Creek on the south and by northeasterly flowing tributaries of Rancheria River on the north.

Vegetation, consisting of small spruce trees, is confined to the lower eastern slope and creek valleys.

## GENERAL GEOLOGY AND MINERALIZATION

The general area surrounding the claims is underlain by granodiorite and quartz monzonite belonging to the northwesterly trending Cassiar batholith. The batholith in this area is bounded on the west by upper Devonian metasediments and metavolcanics and on the east by Lower Cambrian limestone, slate and phyllite. Mineralization, consisting of silver-bearing galena and sphalerite is reported to occur as veins near the borders of the intrusive and within the intrusive as well.

The aeromagnetic anomaly appears to lie over an area of highly fractured and rusted granodiorite. No mineralization was seen in the area.

## SURVEY SPECIFICATIONS

### Survey Grid

The survey grid consists of an ENE - WSW directed baseline from which cross lines have been turned off at right angles every 400 feet. The lines were chained, flagged and numbered at 100 foot intervals. Some ten line miles of survey grid including the baseline was established.

### Geochemical Survey

The soil profile in the area is poorly developed due to active erosion and glaciation. The steep slopes are generally rocky and devoid of soil in most places while the lower ridges are largely covered with soil of sandy and clayey texture.

An effort was made to obtain samples of the "B" horizon whenever present, otherwise the buff colored sandy soil was obtained.

The samples were placed in soil sample envelopes provided by Chemex Labs Ltd. of North Vancouver. The samples were delivered to Chemex Labs Ltd. where -80 mesh sieving, digestion by perchloric acid and analysis by atomic absorption was carried out under the supervision of professional geochemists. Some 207 soil samples were obtained and analysed for copper and zinc.

### Electromagnetic Survey

This survey was conducted using a Ronka EM-16 V.L.F. electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by V.L.F. marine communication stations. These stations operate at a frequency between 15-25 KHZ, and have a vertical antenna current resulting in a horizontal primary field. Thus, this V.L.F. - EM measures the dip angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction of the geological strike should be selected, since the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station.

Readings were taken at 50 foot intervals and the data filtered in the field by the operator as described by D. C. Fraser, Geophysics Vol. 34, No. 6 (December, 1969). The advantage of this method is that it removes the DC and attenuates long spatial wave lengths to increase resolution of local anomalies, and phase shifts the dip angle data by 90° so that cross overs and inflections will be transformed into peaks to yield contourable quantities.

## DISCUSSION OF RESULTS

### Geochemical Survey

The soil samples were analysed for copper and zinc and the values for the two metals were plotted on two geochemical maps.

The copper geochemical data, Figure 2, showed six isolated highs of 20-36 p.p.m. copper over background values of less than 10 p.p.m.

The zinc geochemical data, Figure 3, showed a fairly weak geochemical anomaly with values ranging from 60-360 p.p.m. over background values of less than 60 p.p.m. The geochemical anomaly appears to follow a northeast trend on Troy 5, 7, and 19. Few isolated high zinc values are evident in the claimed area. Five samples with high zinc values were analysed for lead and silver. Values for both metals were too low to be considered significant.

### Electromagnetic Survey

The data from the electromagnetic survey is illustrated in Figure 4. The survey located an EW to NW trending conductive zone of 10 - 30° filtered dip angle readings. This conductive zone does not however coincide with the geochemically anomalous areas and may possibly reflect an unmineralized fault or shear zone.

## CONCLUSION AND RECOMMENDATIONS

Geochemical and electromagnetic surveying on the Troy mineral claims did not delimit significant anomalies that would warrant further work in the area.

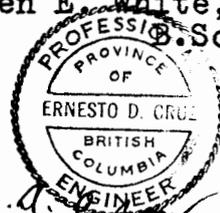
The zinc geochemical trend is realitively low to signify the presence of economic sulphide mineralization. The conductor delimited by the electromagnetic survey could be attributed to a causitive source other than massive sulphides.

On the basis of the enclosed results, no further work is recommended in this survey area.

Respectfully submitted,  
GLEN E. WHITE GEOPHYSICAL  
CONSULTING & SERVICES LTD.



Glen E. White, Geophysicist  
B.Sc.



*E. D. Cruz*  
E. D. Cruz, Geologist  
P. ENG

STATEMENT OF QUALIFICATIONS

Name: WHITE, Glen E.

Profession: Geophysicist

Education: B.Sc. Geophysics - Geology  
University of British Columbia

Professional Associations: Associate member of Society of Exploration Geophysicists.  
Active member B.C. Society of Mining Geophysicists.

Experience: Pre-Graduate experience in Geology - Geochemistry - Geophysics with Anaconda American Brass.

Two years Mining Geophysicist with Sulmac Explorations Ltd. and Airborne Geophysics with Spartan Air Services Ltd.

One year Mining Geophysicist and Technical Sales Manager in the Pacific north-west for W. P. McGill and Associates.

Two years Mining Geophysicist and supervisor Airborne and Ground Geophysical Divisions, with Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd.

Two years Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

C E R T I F I C A T E

I, Ernesto D. Cruz, DO HEREBY CERTIFY AS FOLLOWS:

- (1) That I am a Consulting Mining Engineer and reside at 8596 Terrace Dr., Delta, B.C.
- (2) That I am a Graduate of Mapua Institute of Technology Phillipines (B.A.Sc.) and University of Washington (M.A.Sc.) in the Faculty of Mining Engineering.
- (3) That I am a registered P. ENG in the Association of Professional Engineers in the province of British Columbia.
- (4) That I have practised geological engineering for ten (10) years.
- (5) That I have written a report dated September 10, 1973 based on work conducted by Glen E. White Geophysical Consulting and Services Ltd. under my supervision.
- (6) That this report consists of 8 typewritten pages and four maps.
- (7) That I have no interest directly or indirectly in the Troy mineral claims or the securities of Geor Mine and Oil Ltd. (N.P.L.) nor do I expect to acquire or receive any.

DATED at Vancouver, British Columbia, this 10th day of September, 1973.

ERNESTO D. CRUZ, P. ENG



Ernesto D. Cruz, P. ENG

A P P E N D I X

Instrument Specifications

ELECTROMAGNETOMETER

A. Instrument

- (a) Type - Geonics VLF - EM
- (b) Make - Ronka Em 16

B. Specifications

- Measurement
- (i) Utilizes primary fields generated by VLF marine communication stations, measures the vertical field components in terms of horizontal field present.
  - (ii) Frequency range 15-25 KHZ
  - (iii) Range of measurement - in phase = 150%  
or = 90°  
- quadrature = 40%
  - (iv) Method of reading - null detection by earphone, real and quadrature from mechanical dials.
  - (v) Accuracy - = 1% resolution

C. Survey Procedures

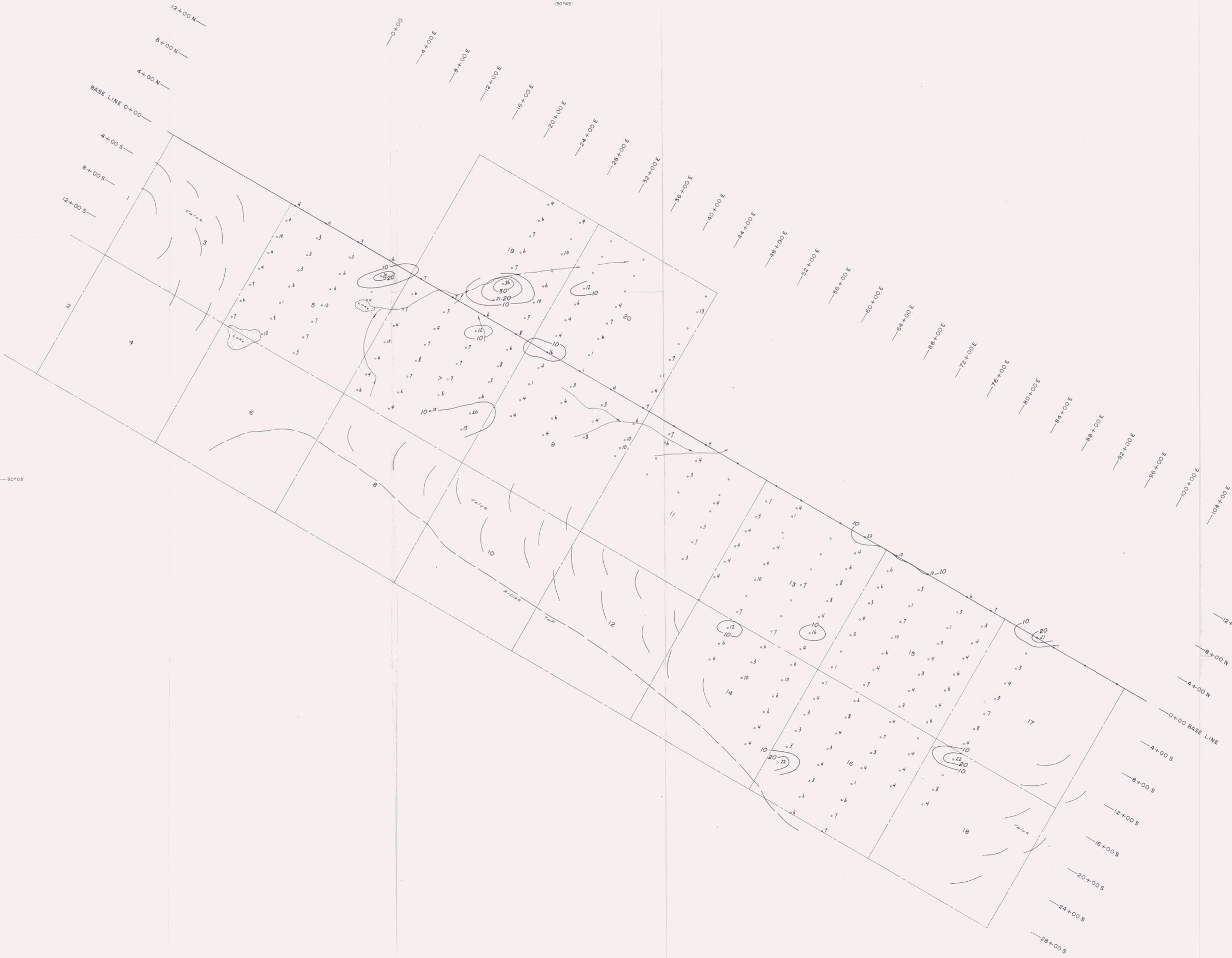
- Method
- (a) Select closest VLF station perpendicular to traverse lines.
  - (b) In-phase dial measures degree of tilt from vertical position.
  - (c) Quadrature dial calibrated in percent - null.
  - (d) Station plot - plot values read at station surveyed.
  - (e) Manually filter dip-angle data.

130°45'



LEGEND

- Contour Line, Contour Interval 10, 20, 30 P.P.M.
- Stations
- - - Outline of Claims
- Claim Posts
- == Unpaved Roads



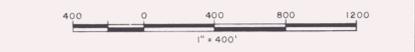
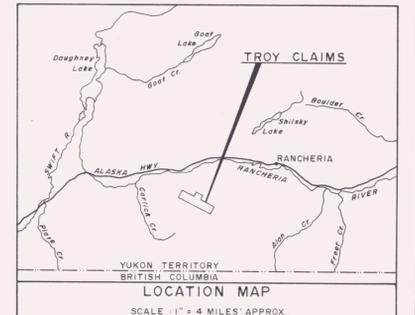
60°03'

130°45'

COPPER KEY



N.T.S. 105 B/2



<b>GEOR MINE &amp; OIL LTD.</b>	
TROY CLAIMS	
WATSON MINING DIVISION - YUKON TERRITORY	
GEOCHEMICAL MAP	
COPPER P.P.M.	
<i>Glen E. White</i> geophysical consulting services Ltd.	INTERPRETED BY: G.E.W. DRAWN BY: CHECKED BY: DATE: SEPT. 7, 1973 FIG No: 3

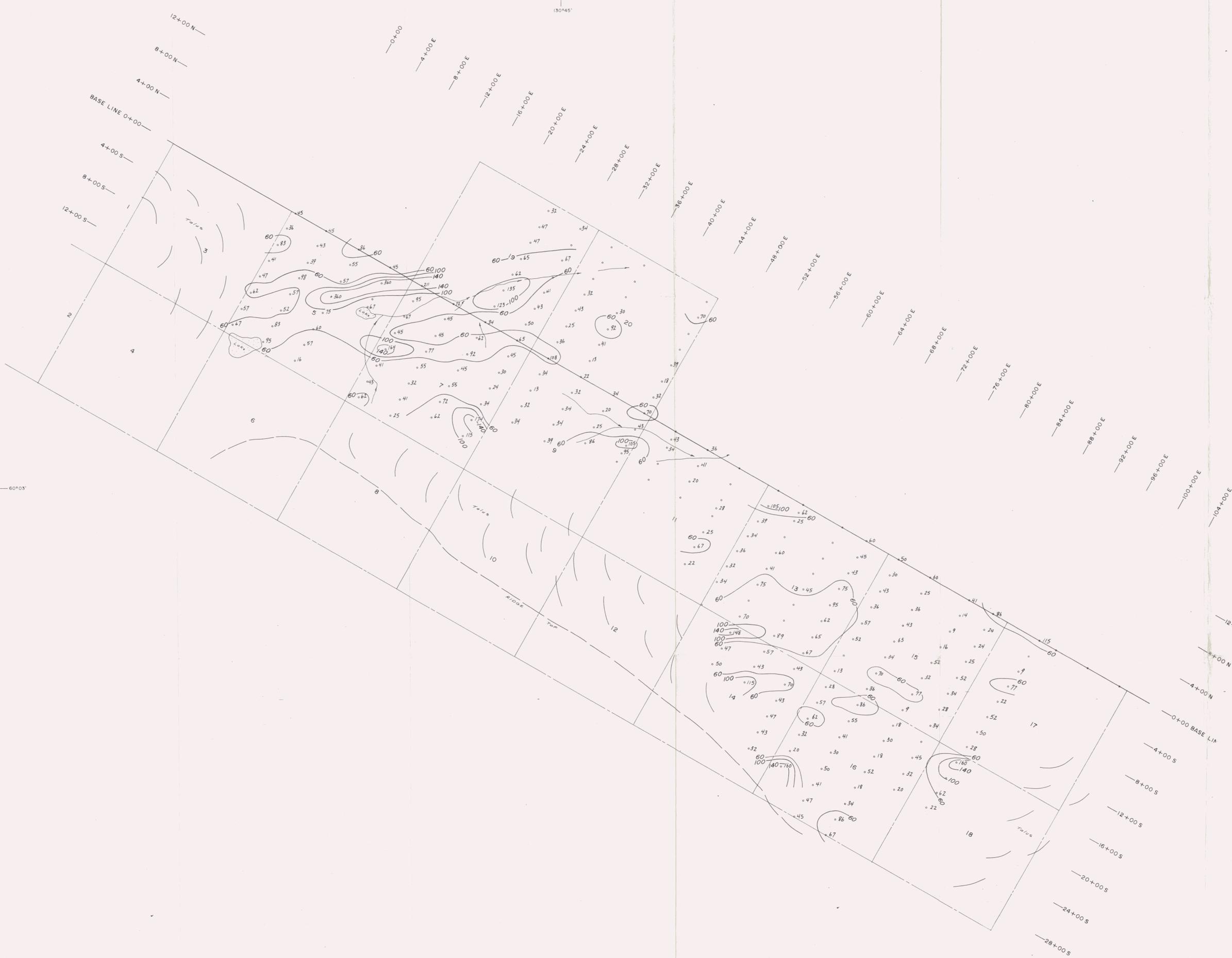
To accompany Geochemical Report on  
 THE TROY CLAIM GROUP  
 Date 4/12/73  
 By GLEN E. WHITE - B.Sc. *Glen E. White* CHEMIST



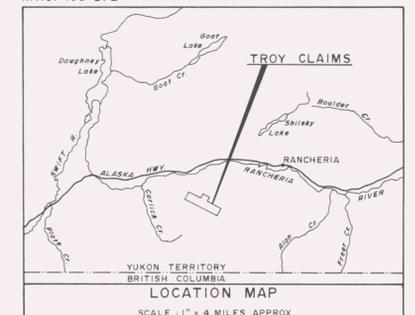
LEGEND

- Contour Line Contour Interval 60, 100, 140 P.P.M.
- Stations
- Outline of Claims
- Claim Posts
- Unpaved Roads

ZINC KEY



N.T.S. 105 B/2



**GEOR MINE & OIL LTD.**  
TROY CLAIMS  
WATSON MINING DIVISION - YUKON TERRITORY  
GEOCHEMICAL MAP  
ZINC P.P.M.

<i>Glen E. White</i> geophysical consulting services Ltd.	INTERPRETED BY: G.E.W. DRAWN BY: CHECKED BY: DATE: SEPT 7, 1973 FIG. No.: 4
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Accompany Geochemical Report on  
THE TROY CLAIM GROUP  
Date 3/1/73  
By GLEN E. WHITE - B.Sc. *G.E.W.* CHEMIST



**LEGEND**

- Contour Line. Contour Interval: 10, 20, 30, Percent
- Stations
- Outline of Claims
- Claim Posts
- Unpaved Roads

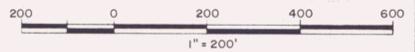


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**DIP ANGLE KEY**



INSTRUMENT: RONKA EM-16



**GEOR MINE & OIL LTD.**  
**TROY CLAIMS**  
 WATSON MINING DIVISION - YUKON TERRITORY  
 GEOPHYSICAL MAP  
 ELECTROMAGNETOMETER-FILTERED DIP ANGLE  
 (Percent)

Interpreted by: G.E.W.
Drawn by: <i>Glen E. White</i>
Checked by: <i>Glen E. White</i>
Date: SEPT. 7, 1973
FIG. No.: 2



To Accompany Geophysical Report  
 THE TROY CLAIM GROUP  
 Date: 7/10/73  
 By: GLEN E. WHITE, B.Sc., Geophysicist

DOMINION OF CANADA:

YUKON TERRITORY

To Wit:

In the Matter of Geochemical and  
Electromagnetometer Surveying - Troy  
Mineral Claims, Yukon.

I, Glen E. White

of Glen E. White Geophysical Consulting and Services Ltd.

in the Province of British Columbia, do solemnly declare that the costs for the above  
survey were as follows:

<u>PERSONNEL</u>	<u>DATE</u>	<u>WAGES</u>	<u>TOTAL</u>
E. Cruz, P. Eng	July 29-August 9/73.....	\$80/day.....	\$960.00
A. Smith.....	July 29-August 9/73.....	\$35/day.....	\$420.00
Meals and Accomodations.....			\$480.00
Instrument rental - Electromagnetometer.....			\$120.00
Vehicle lease - 4x4 including gas costs.....			\$300.00
Geochemical analysis.....			\$412.00
Airfare.....			\$308.00
Drafting, Interpretation and Reports.....			<u>\$500.00</u>
Total.....			\$3500.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of  
the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of B.C.  
Yukon Territory this 26  
day of September 1973, A.D.



Charles J. Brown  
A Commissioner for taking Affidavits for Yukon Territory  
A Notary Public in and for the Yukon Territory