

'80-H-495-B 8268

GEOPHYSICAL - GEOCHEMICAL REPORT
AMORE MINERALS INCORPORATED

Geo 1 and 2 mineral claims, Vernon Mining Division,
B.C. Lat. $49^{\circ}47'11''$ Long. $118^{\circ}30'W$ N.T.S. 82 E/15
53

AUTHOR: Glen E. White, B.Sc., P. Eng.

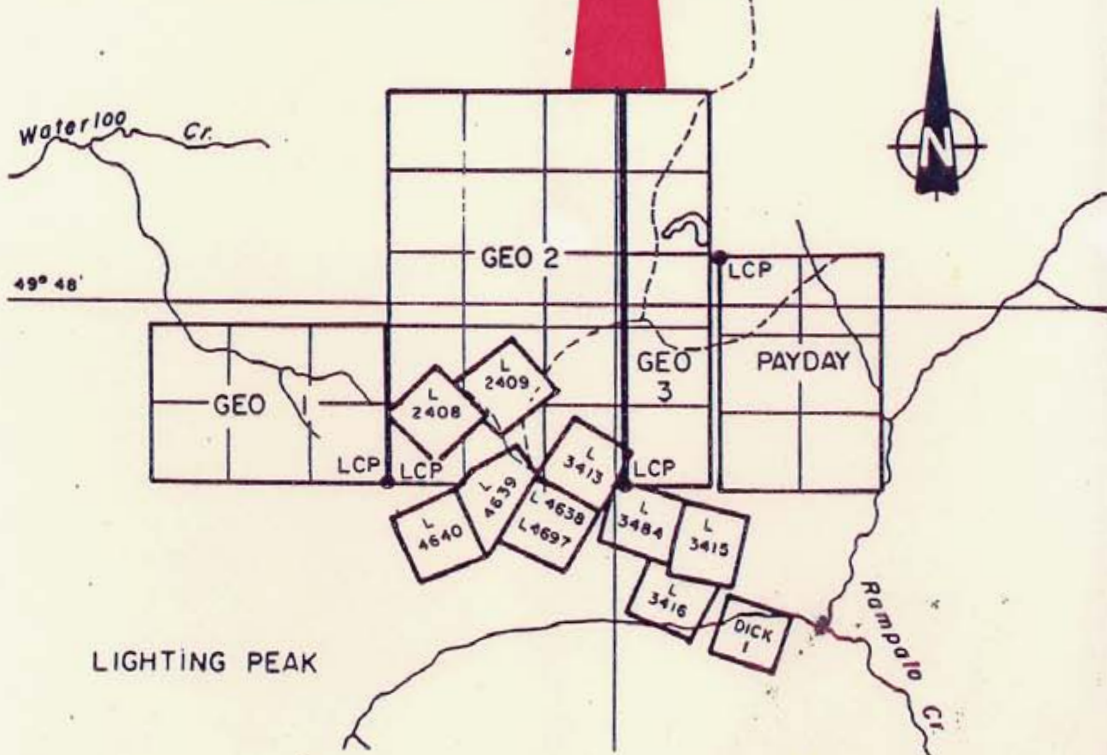
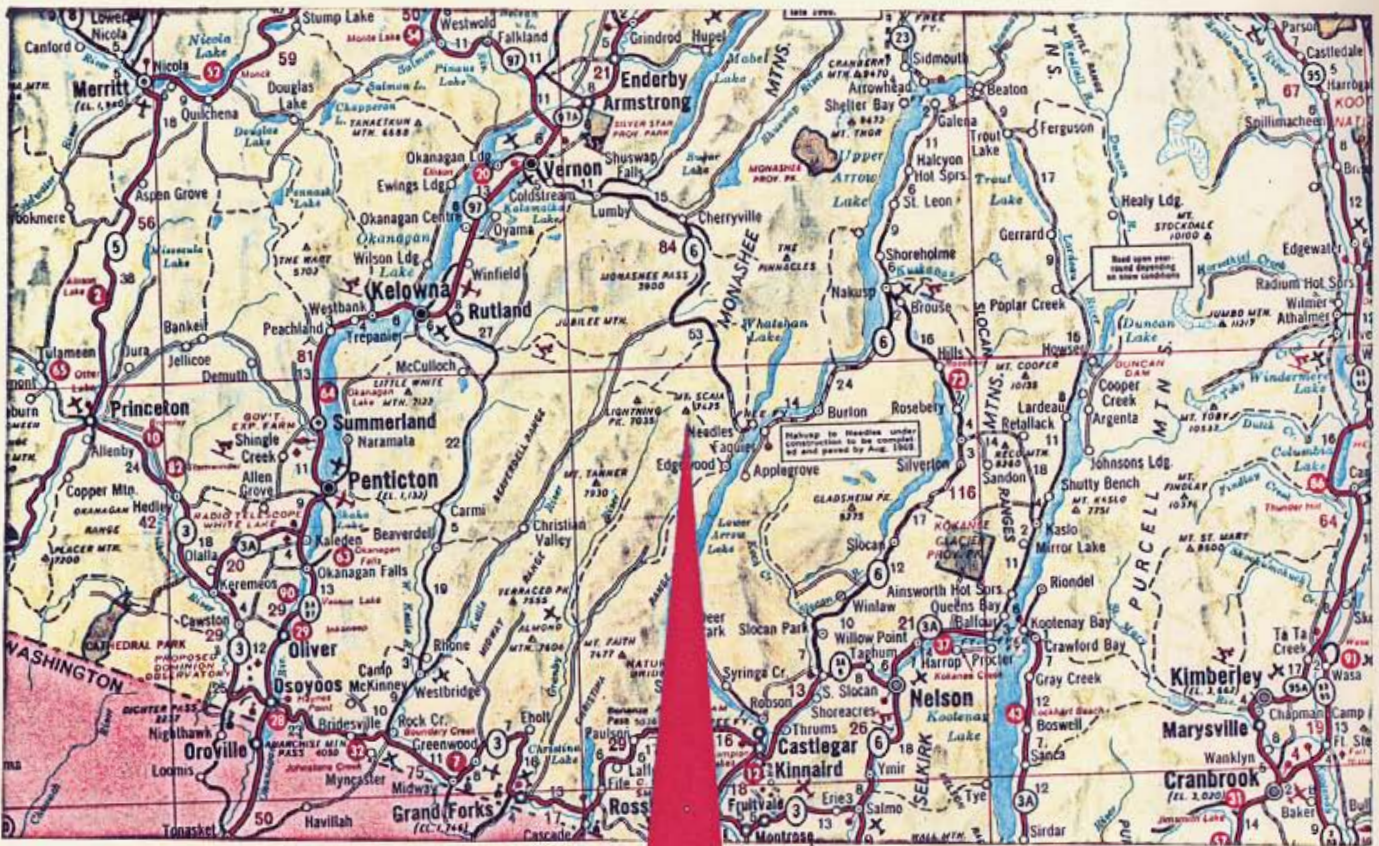
DATE OF WORK: July 11 - 20, 1980

DATE OF REPORT: August 18, 1980

MINERAL RESOURCES BRANCH

ASSESSMENT REPORT

8268



AMORE MINERALS INCORPORATED
LOCATION AND CLAIM MAP

Glen S. White
geophysical consulting
&
services ltd.

SCALE 1" = 40 MILES

NTS 82-E-15E & 82-E-16W

FIGURE 1

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INTRODUCTION

In the summer of 1978 a program of linecutting and soil sampling was conducted over a portion of the Geo 2 mineral claim as discussed in a report dated August 8, 1980 by Glen E. White, P. Eng. During the period July 11 - 20, 1980, the program of geochemical surveying was extended as well as covering all the grid area with magnetometer and VLF electromagnetometer surveys.

PROPERTY

The original property consists of the Geo 1 and 2 mineral claims comprising 21 contiguous units as illustrated on Figure 1. Geo 3 has been staked to the west of Geo 2 between it and the Pay Day Claim. Thus the new property area is 26 units.

LOCATION AND ACCESS

The mineral claims are located midway between Lightning Peak and Galloping Mountain some 15 miles due west of Needles on the Lower Arrow Lakes. Latitude $49^{\circ}56'N$, Longitude $118^{\circ}29'W$ N.T.S. 82 E/15, Vernon Mining Division, B. C.

Access to the property is by unimproved bush road from Highway #6 some 23 miles east of Cherriville, a gas station with the last telephone along the road over the Monashee Mountains.

GENERAL GEOLOGY

The area of the mineral claims is shown on Geology Map 6-1957, East Half, Kettle River, B. C., to be underlain by rocks of the Anarchist Group of probable Permian age which have been intruded by the Nelson and Valhalla plutonic rocks. The Anarchist Group consists variously of greenstone, greywacke, limestone and paragneiss. Both the Nelson and Valhalla intrusions are granitic in nature. Mineralization in the area of the Geo claims appears to be contact metasomatic or "skarn" type deposits containing magnetite, pyrite, pyrrhotite, sphalerite, chalcopyrite and argentiferous galena with a trace of gold.

SURVEY GRID

The 1978 survey grid was established on a reported area of interest northward from the old Crown Grant mineral claims. Survey lines were cut in an east-west direction every 120 m from a north-south baseline. Soil samples were obtained at 30 m intervals along the lines. The present grid extends the coverage to the south onto the old Crown Grants. Some 10 km of new survey grid was established. Some 25 km of survey grid was covered with the magnetometer and electromagnetometer surveys.

GEOCHEMICAL SURVEY

Soil samples of the upper "B" horizon were taken along the traverse lines at 30 m intervals. The soil samples were then placed in soil envelopes provided by Chemex Labs Ltd. of North Vancouver, B. C. The samples were delivered to the above lab where -80 mesh sieving, digestion by hot perchloric/nitric acid and analysis by atomic absorption were carried out under the supervision of professional geochemists. 316 samples were obtained and analysed for p.p.m. copper, lead, silver and zinc.

MAGNETOMETER SURVEY

The magnetometer survey was conducted using a Scintrex MF-2 Fluxgate magnetometer. This instrument measures the vertical component of the earth's magnetic field to an accuracy of 10 gammas. Corrections for diurnal variation were made by tying into previously established base stations at intervals not exceeding one and one half hours. Readings were taken at 30 m intervals along the traverse lines.

ELECTROMAGNETOMETER SURVEY

This survey was conducted using a Geonics EM-16 V.L.F. Electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by VLF 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 VLF-EM measures the dip-angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as 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 30 m intervals and the data filtered in the field by the operator as described by . 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 degrees so that crossovers and inflections will be transformed into peaks to yield contourable quantities.

DISCUSSION OF RESULTS

The geophysical results are illustrated on Figures 2 and 3 and the geochemical data on Figures 4 through 7. The 1978 geochemical data is shown only as contours rather than recopying all the data onto the new basemaps.

The filtered VLF electromagnetometer data, Figure 2, delineates a series of pronounced NE-SW trending conductors. These conductors show peak amplitudes in the mid 40's and 50's degree filtered dip angle. Anomalies of this amplitude are in the range of: good clay material, weak graphite, a conductive fault and/or poorly conductive sulphide mineralization. The conductor patterns would appear to be reflecting a series of fault or shear zones which may possibly control the argentiferous galena mineralization in the old workings. The old workings on line 1560S are on an anomalous trend which extends to a series of trenches on the Payday claim. Thus, these trends may reflect a series of mineralized parallel zones of structural weakness.

The magnetic intensity data indicates the country rocks are of relatively low magnetic susceptibility. Several small one to two line highs of 1000 - 1300 gammas were detected. Background is approximately 550 gammas. The electromagnetometer data shows no correlation with either high or low magnetic values.

The silver geochemical data shows a high of 8.8 p.p.m. which forms part of an anomalous pattern which stretches from line 720S to line 1200S, a distance of 480 meters. The 1978 survey detected a high of 2.4 p.p.m. silver 360 m directly north of this anomaly. The old Crown Grant works show only one small anomaly on line 1680S.

Figure 5 illustrates the copper data which shows only a general rise in background value from less than 40 p.p.m. to greater than 40 p.p.m. copper.

Figure 6 outlines the lead geochemical results. A strong anomaly relative to background was obtained between lines 840S and 1200S in the area of the anomalous silver values. Once again the old Crown Grant workings show little geochemical response.

The zinc data, Figure 7, is similar to the copper in that it shows higher background values in the south of the survey area. However, a specific anomaly of over 200 p.p.m. is located on line 840S at 210E coincident with the lead and silver anomalies.

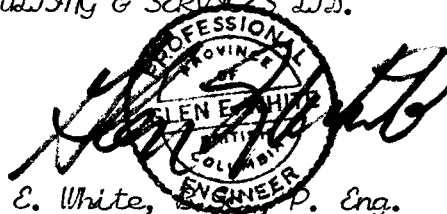
Correlation between the various data shows an interesting direct correlation between the VLF-EM and lead geochemical results, between lines 960S and 1080S. This is part of the area that contains the interesting silver, lead and moderate zinc responses. Line 840S at 210E contains a direct coincidence of all three elements. A possible interpretation is that the VLF electromagnetic conductor trends represent zones of structural weakness which have dilated giving lens-like zones of argentiiferous galens. It is also possible that the mineralization occurs on zones of weakness which form at an oblique angle to the main conductor trends due to structural movement along these features.

CONCLUSION AND RECOMMENDATIONS

During the month of July 1980 a geochemical - geophysical program was conducted over the Geo claim group in the Lightning Peak area of the Monashee Mountains, B. C.

The surveys delineated a good silver-lead geochemical anomaly which is coincident with a pattern of ME-SS// directed VLF electromagnetometer trends. The favourable responses would suggest a zone of argentiferous galena. It is therefore recommended that a limited amount of Horizontal Loop Max-Min 2 electromagnetometer surveying be conducted to try and define a specific diamond drill target.

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



Glen E. White, P. Eng.
 Consulting Geophysicist

A P P E N D I XInstrument SpecificationsMAGNETOMETERA. Instrument

- (a) Type - Fluxgate
- (b) Make - Scintrex MF-2

B. Specifications

- (a) Measurement - Vertical Magnetic Field
- (b) Range - \pm 100 K gammas in 5 ranges
- (c) Sensitivity - Maximum 20 gammas per scale division
- (d) Accuracy - \pm 10 gammas

C. Survey Procedures

- (a) Method - One and one half hour loops
- (b) Corrections - (i) Base
(ii) Diurnal
- (c) Station relationship - each station read for
intensity of vertical magnetic field.

A P P E N D I XInstrument SpecificationsELECTROMAGNETOMETERA. 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 $\pm 150\%$
or $\pm 90^\circ$
- quadrature
 $\pm 40\%$
 - (iv) Method of reading - null detection by earphone, real and quadrature from mechanical dials.
 - (v) Accuracy - $\pm 1\%$ 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.

STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P. Eng.

PROFESSION: Geophysicist

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

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia

Associate member of Society of Exploration Geophysicists.

Past President of B. C. Society of Mining Geophysicists.

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

Two years Mining Geophysicist with Sulmac Exploration 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.

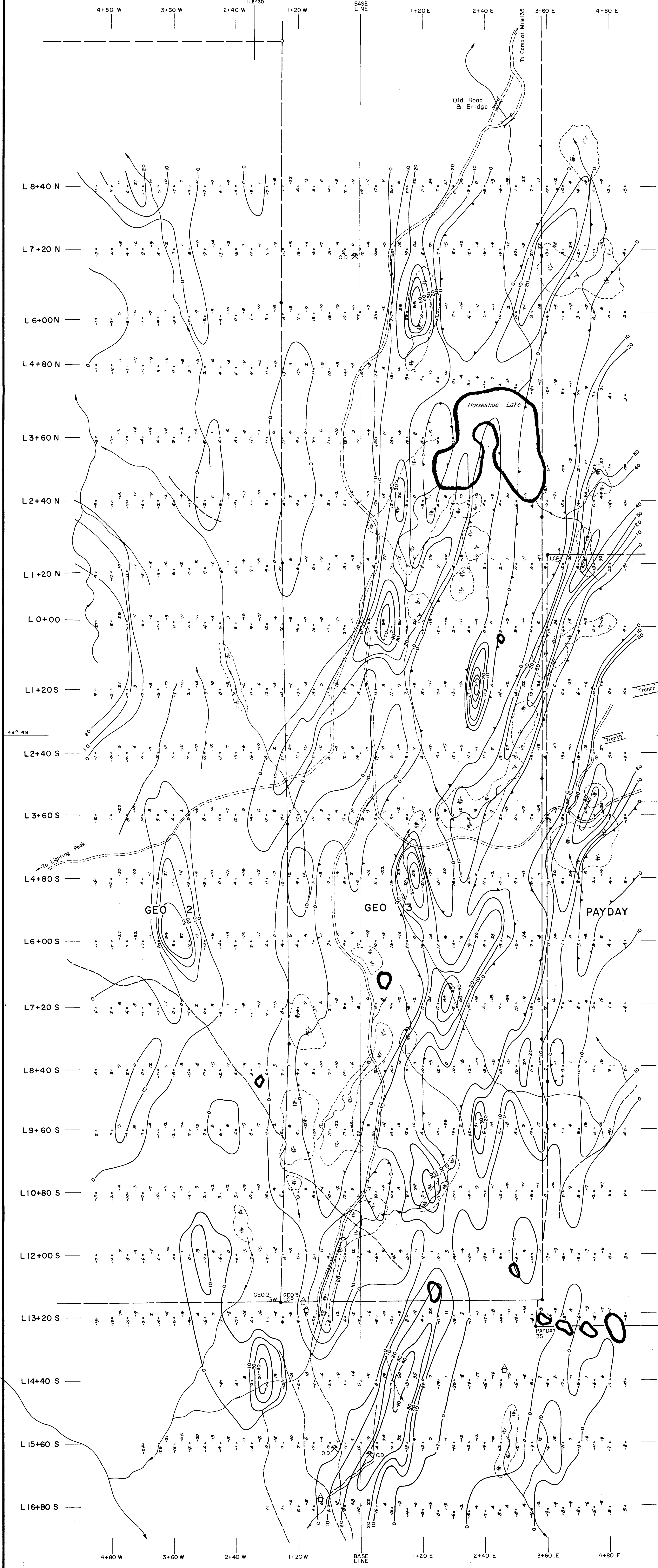
Nine years Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

COST BREAKDOWN

<u>Personnel</u>	<u>Date Worked</u>	<u>Wages</u>	<u>Total</u>
G. Ennis.....	July 11-20/80.....	\$210/day.....	\$2100.00
J. Clark.....	"....."	173/day.....	1780.00
Meals and Accomodations.....			700.00
Vehicle 4x4 @ \$48/day including gas and insurance and 25¢/km.....			750.00
Instrument lease: magnetometer and E11.....			600.00
Materials.....			75.00
Drafting.....			364.00
Interpretation and Reports.....			850.00
Geochemical Analysis.....			1343.00
Total.....			<u>\$8515.00</u>

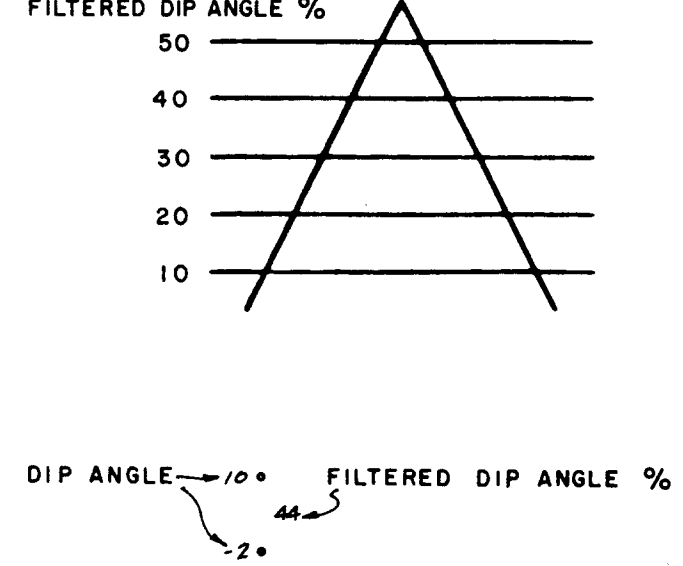
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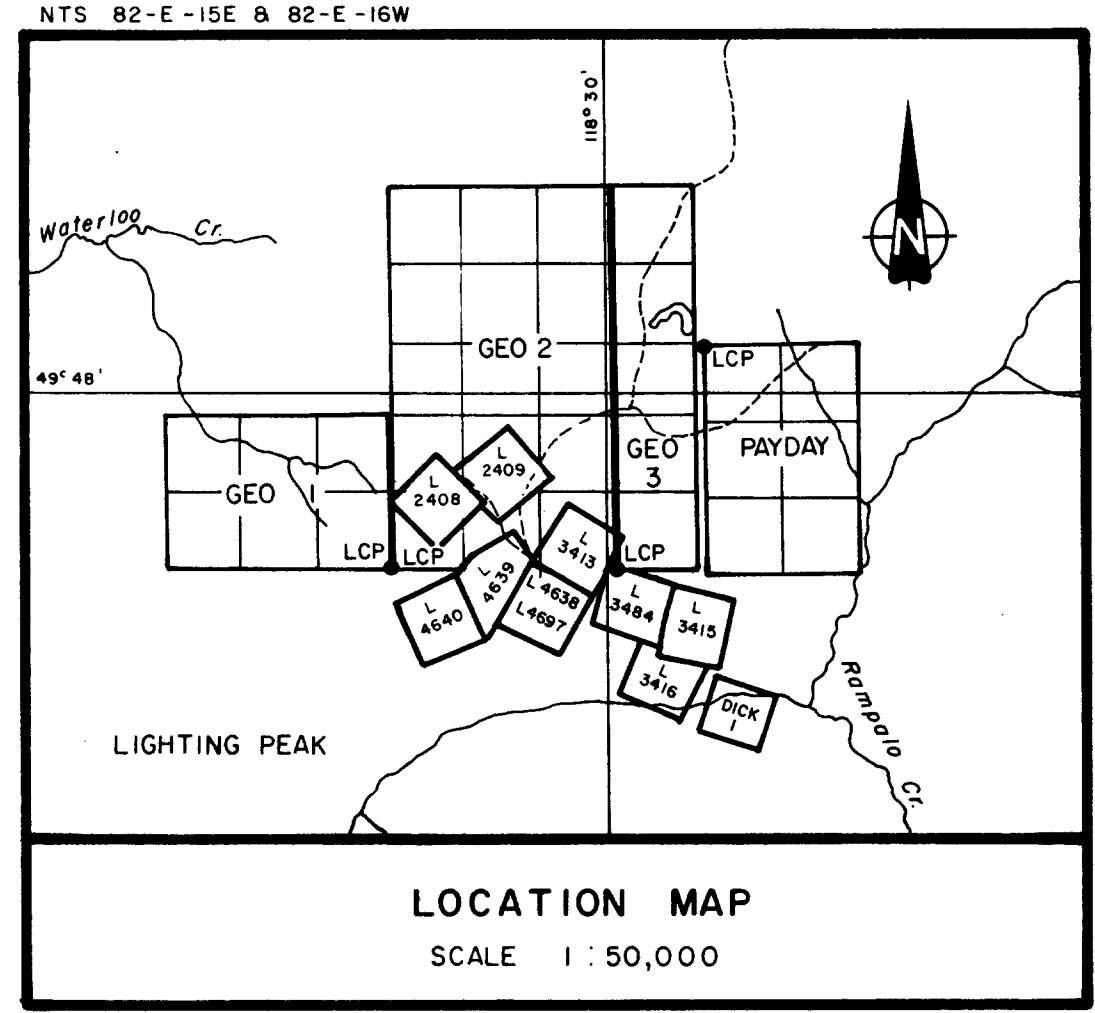
SYMBOLS

- Lake, pond
- Stream
- Swamp, (Wet ground & grass)
- Claim post
- Claim line
- 4WD road
- Trail
- Old diggings and/or Old mine site
- Old cabin site
- Stations

ELECTROMAGNETIC KEY



INSTRUMENT: Ronko EM-16 ELECTROMAGNETOMETER



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GEO CLAIMS
VERNON MINING DIVISION B.C.

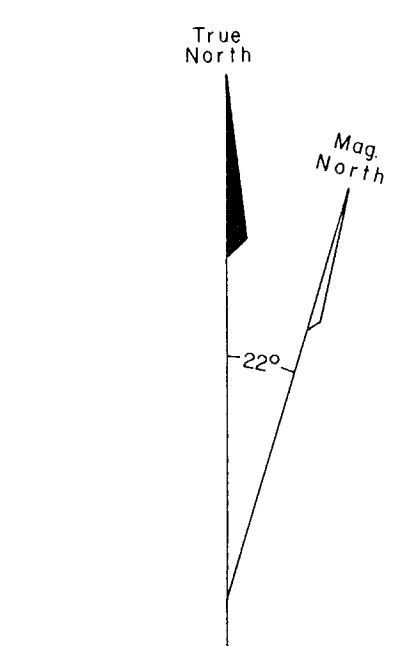
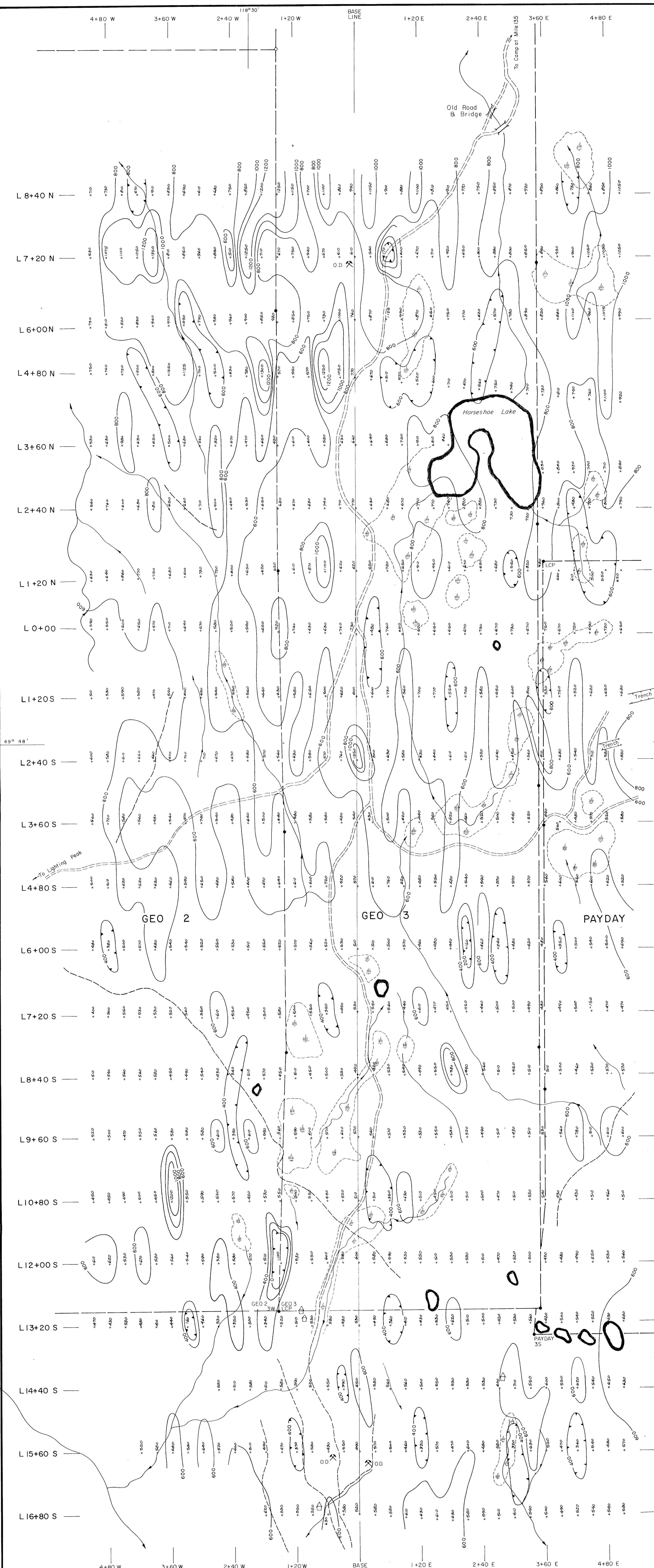
VLF ELECTROMAGNETOMETER SURVEY
FILTERED DIP ANGLE (%)

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INTERPRETED BY: G.E.W.
DRAWN BY: r.w.r.
CHECKED BY:
DATE: AUGUST 5, 1980
FIG No.: 2

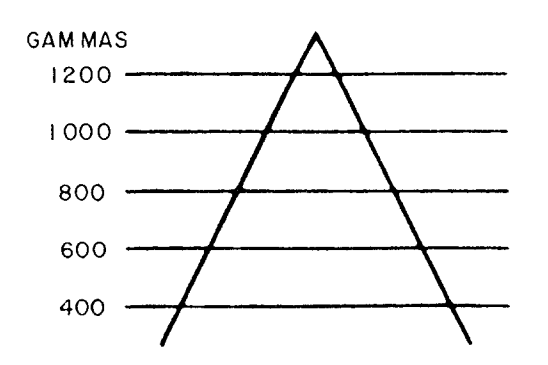
To Accompany Geophysical Report
THE GEO CLAIMS
Date: 1980
By GLEN E. White - B.Sc. Geophysicist

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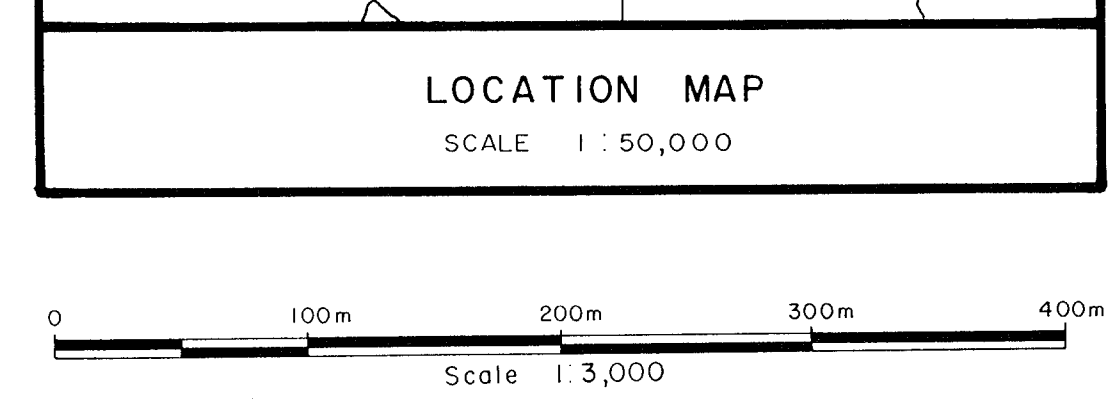
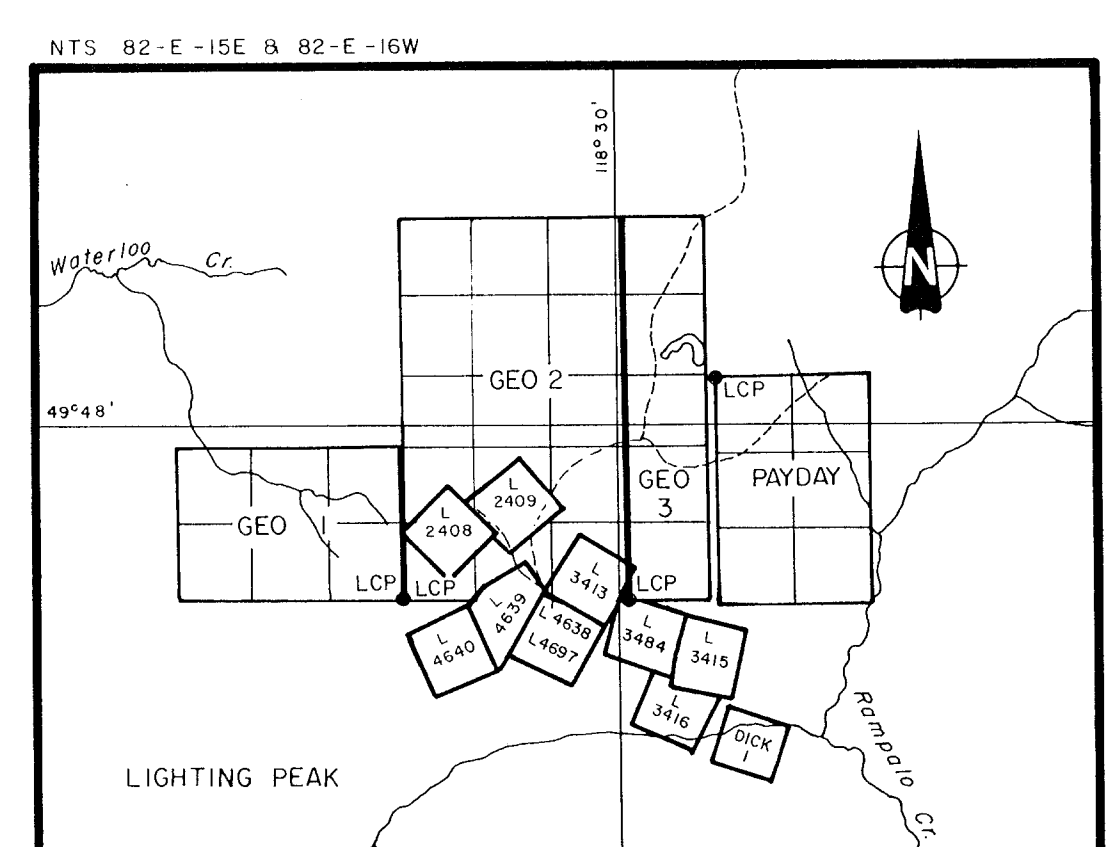


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MAGNETIC INTENSITY KEY



INSTRUMENT: Scintrex MF-2 Fluxgate Magnetometer

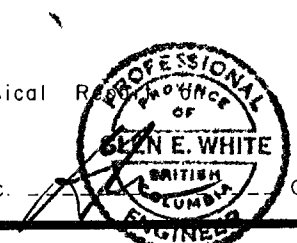


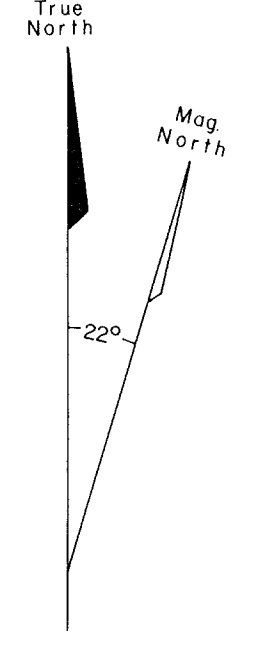
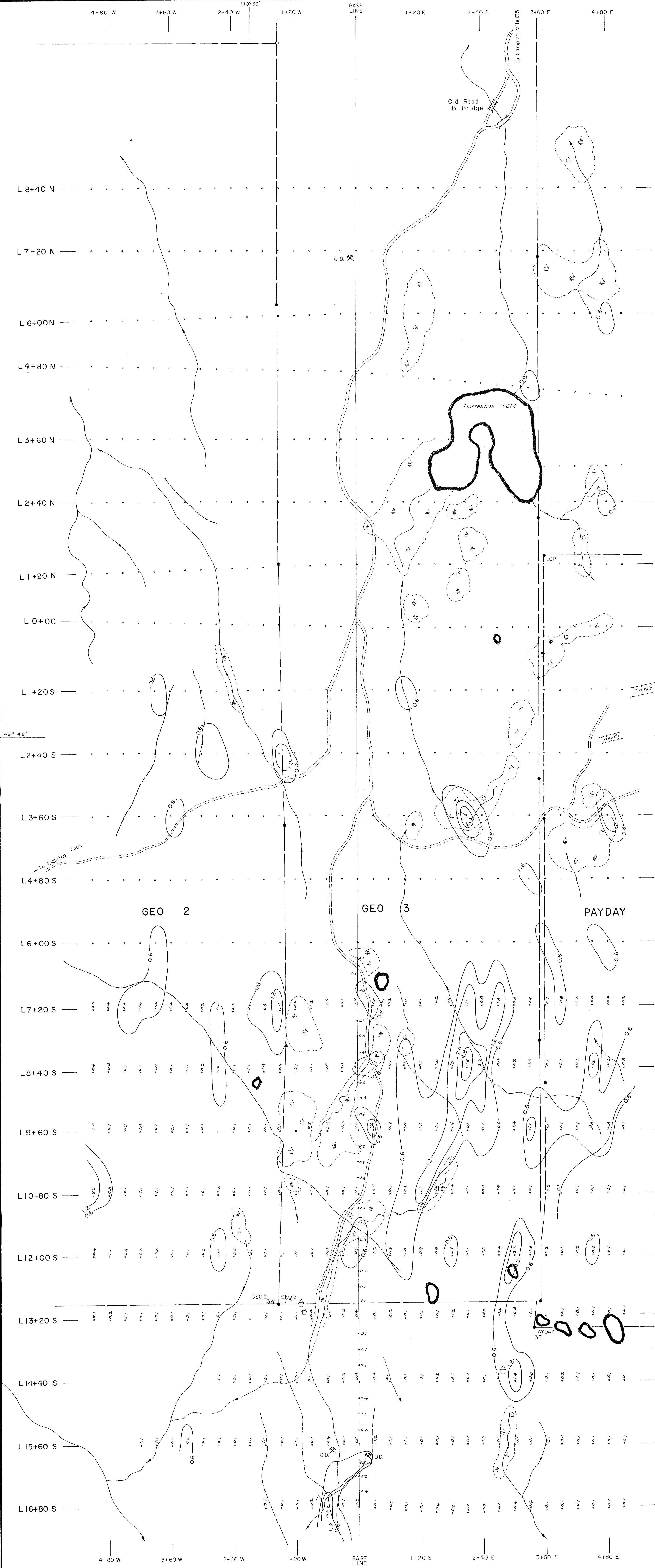
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VERTICAL MAGNETIC INTENSITY (GAMMAS)

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FIG. No: 3	

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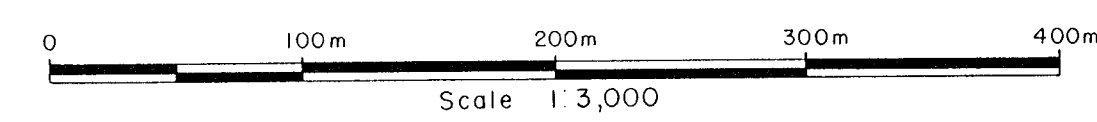
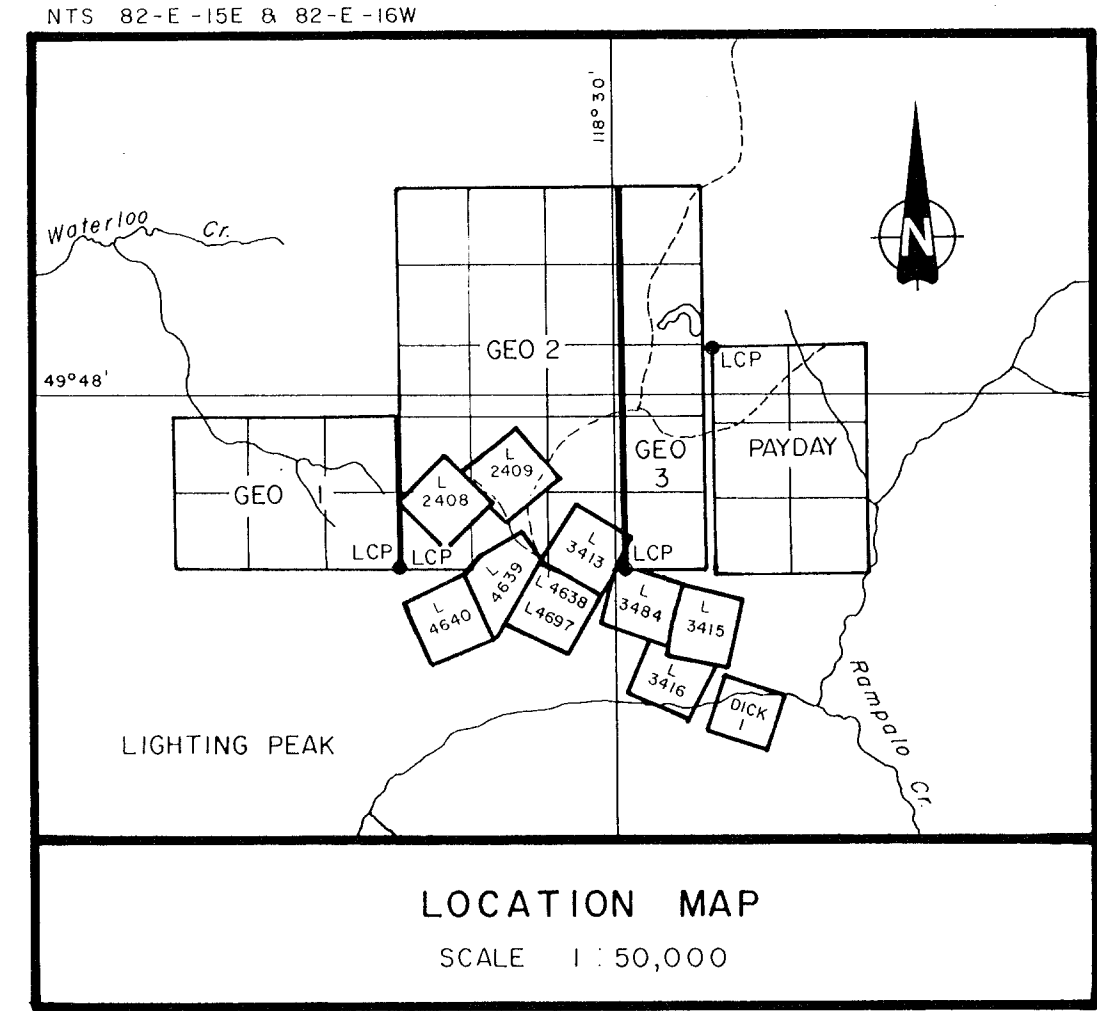
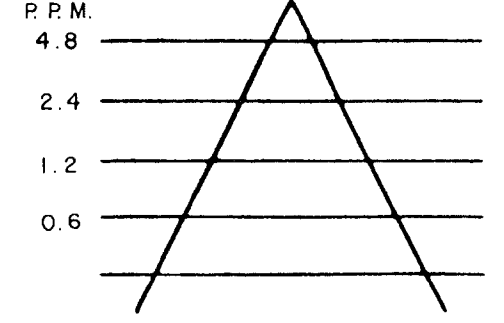




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SILVER KEY



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GEOCHEMICAL MAP
SILVER P.P.M.

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FIG No: 4

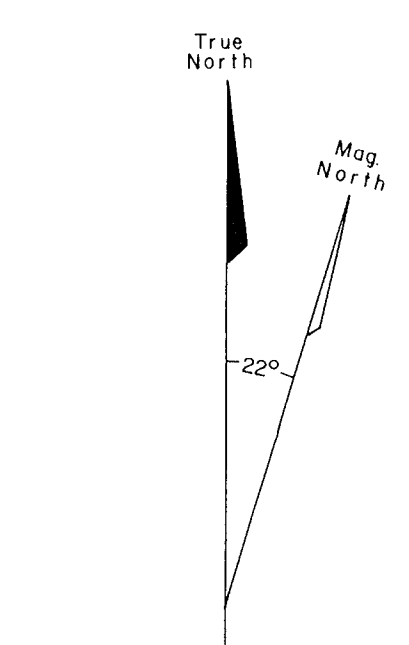
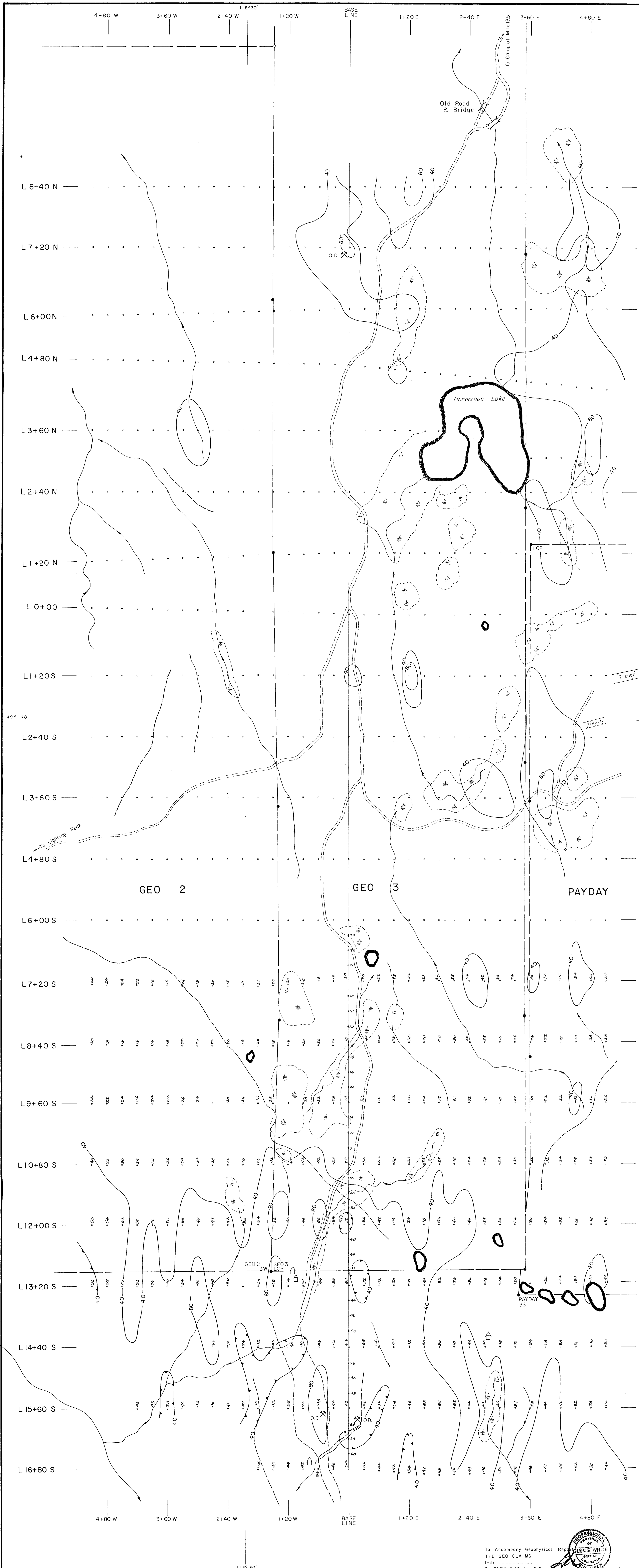
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49° 48'

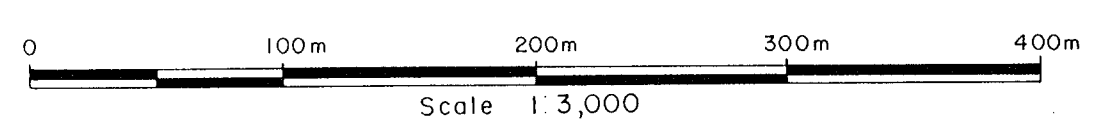
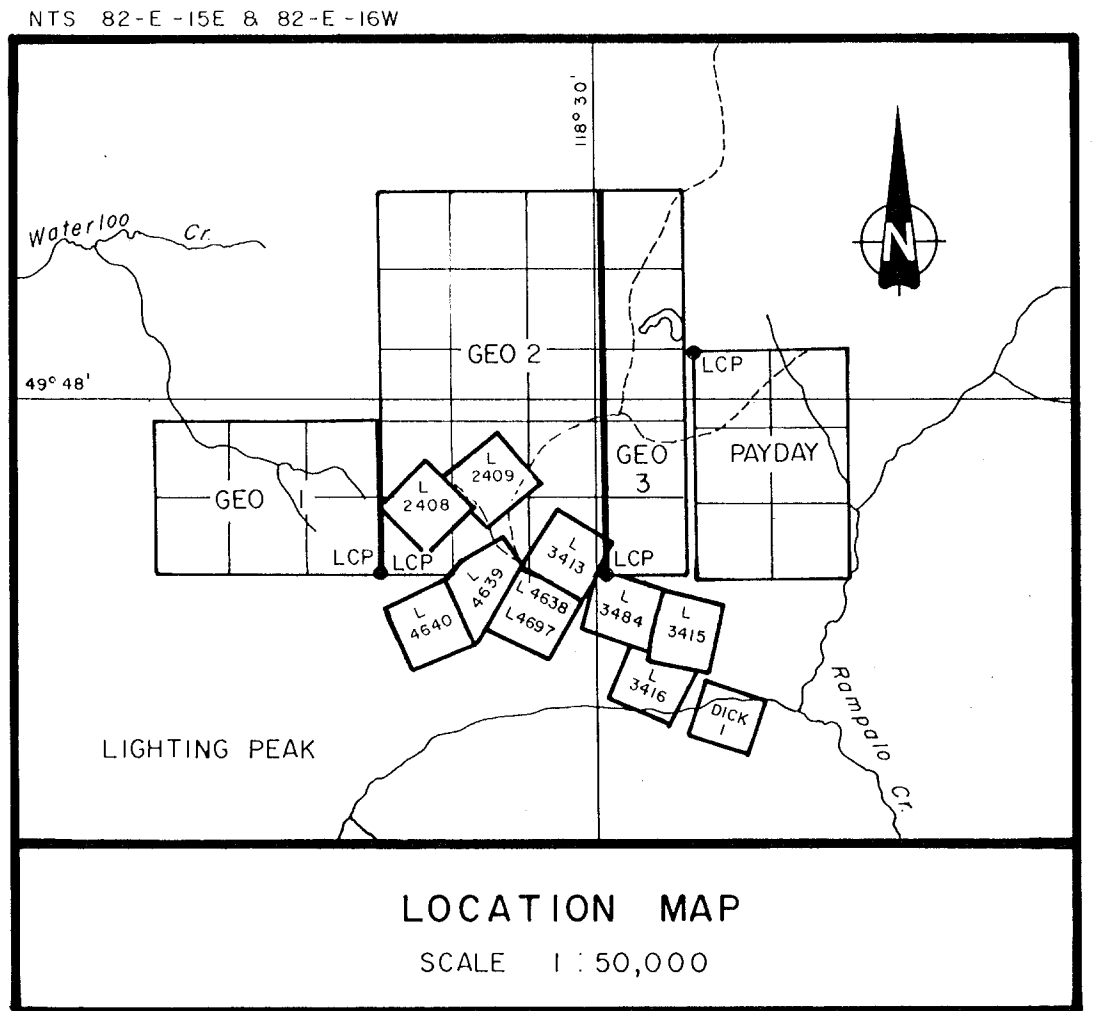
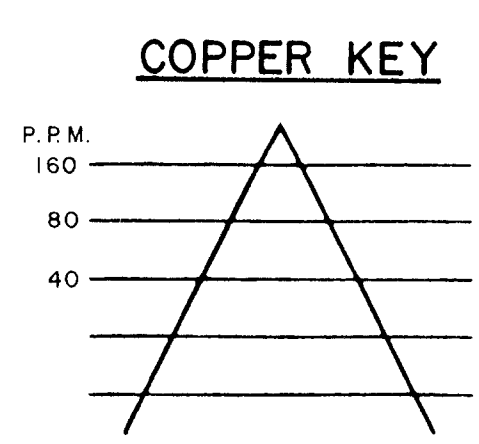
49° 48'

118° 30'

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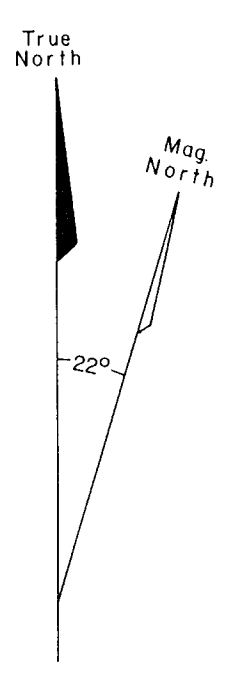
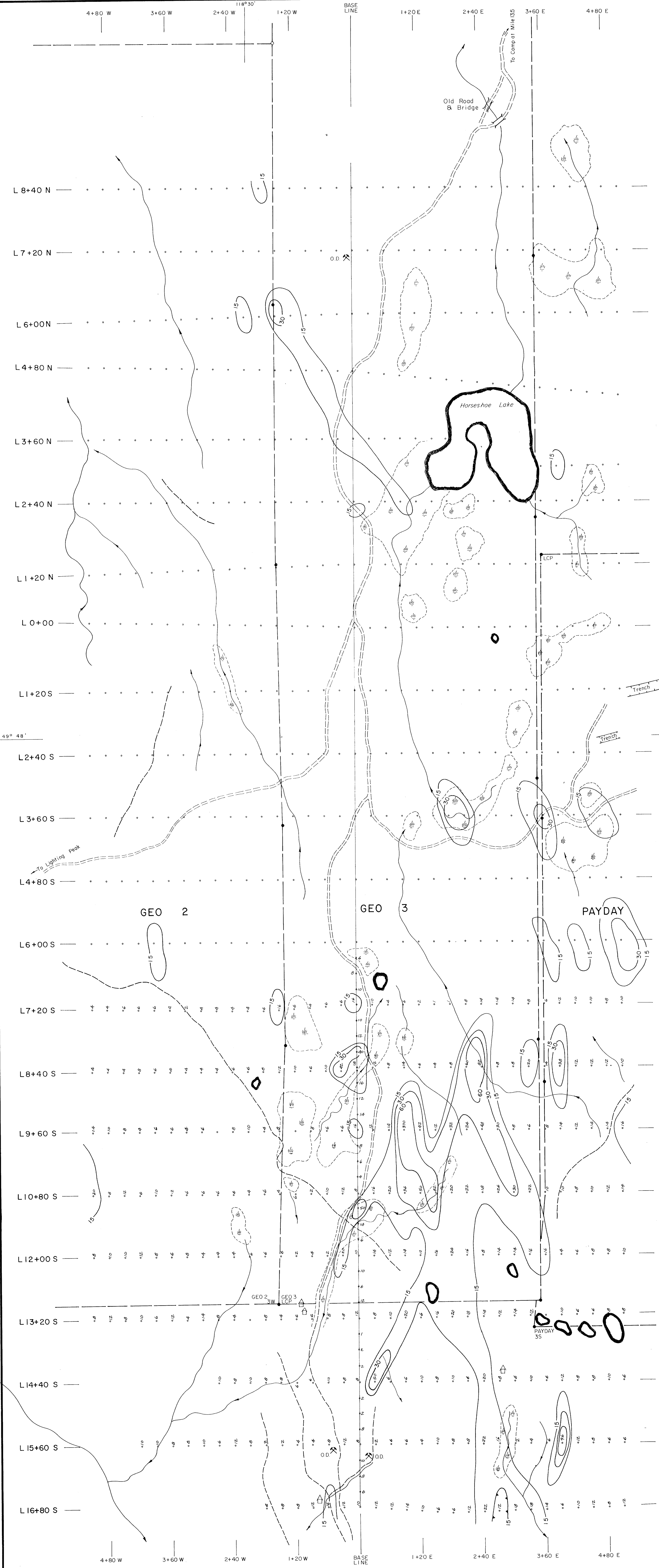
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GEO CLAIMS
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GEOCHEMICAL MAP
COPPER P.P.M.

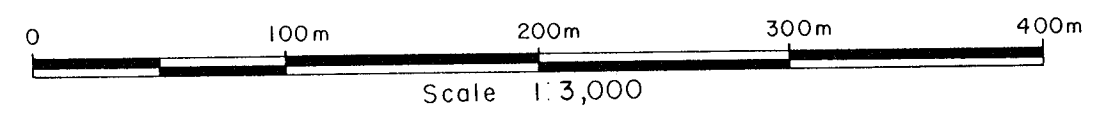
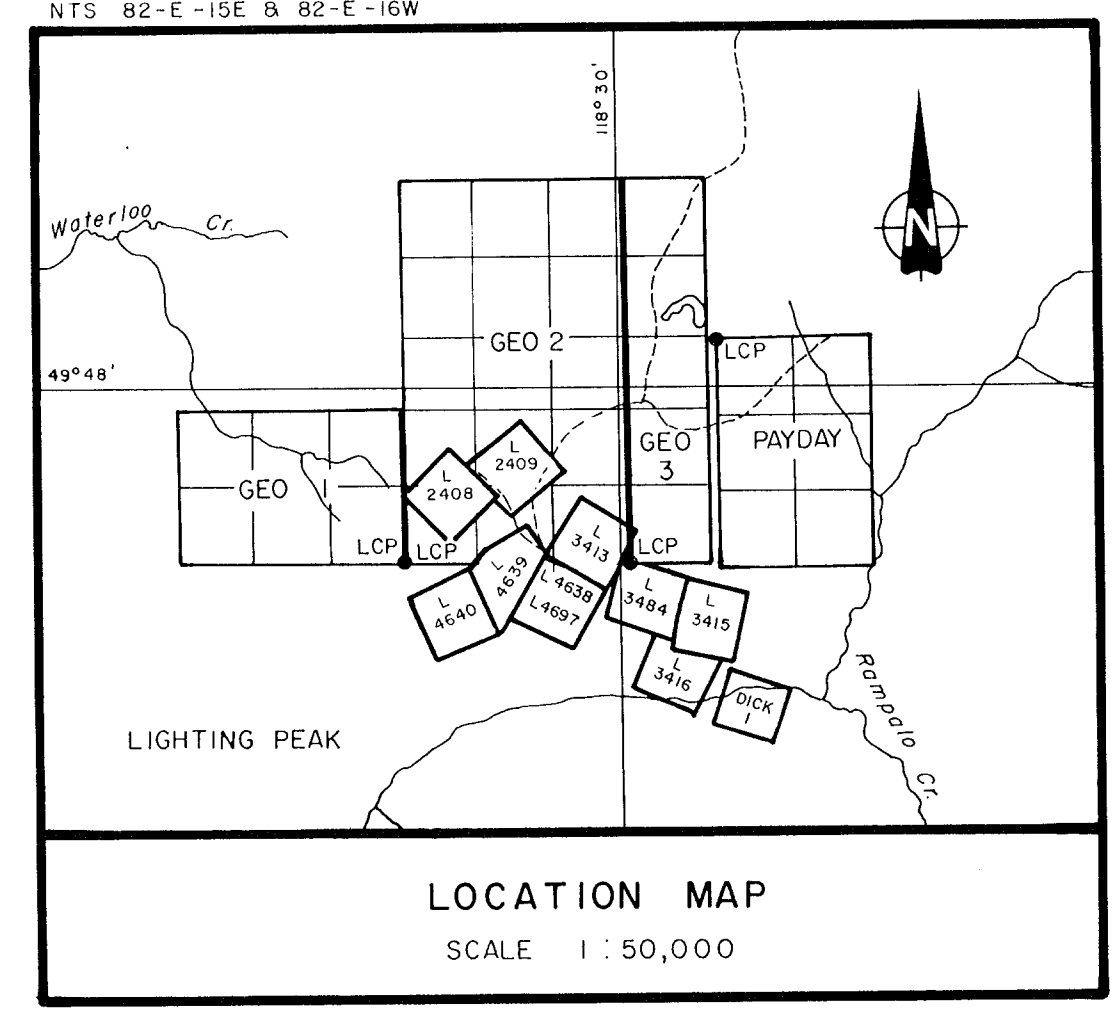
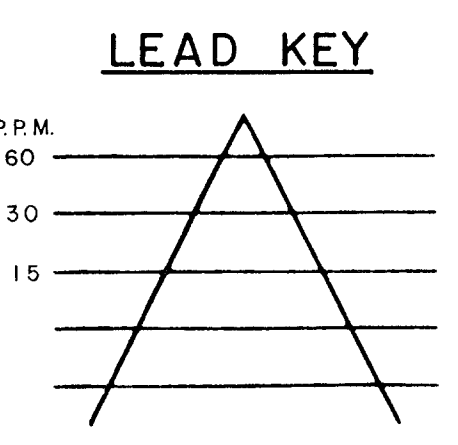
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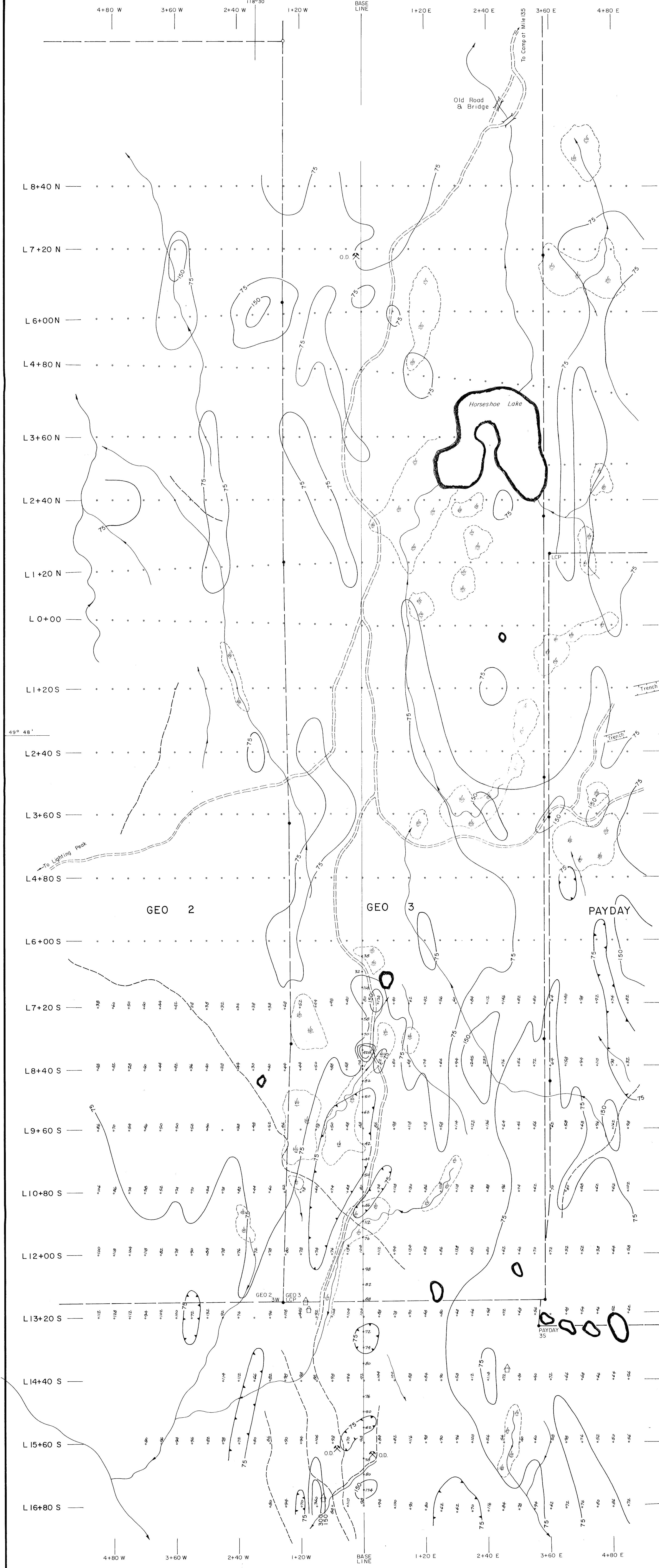
GEOCHEMICAL MAP
LEAD P.P.M.

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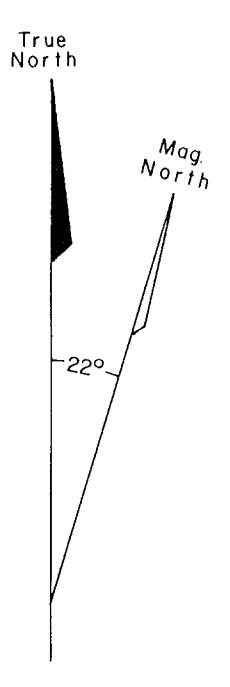
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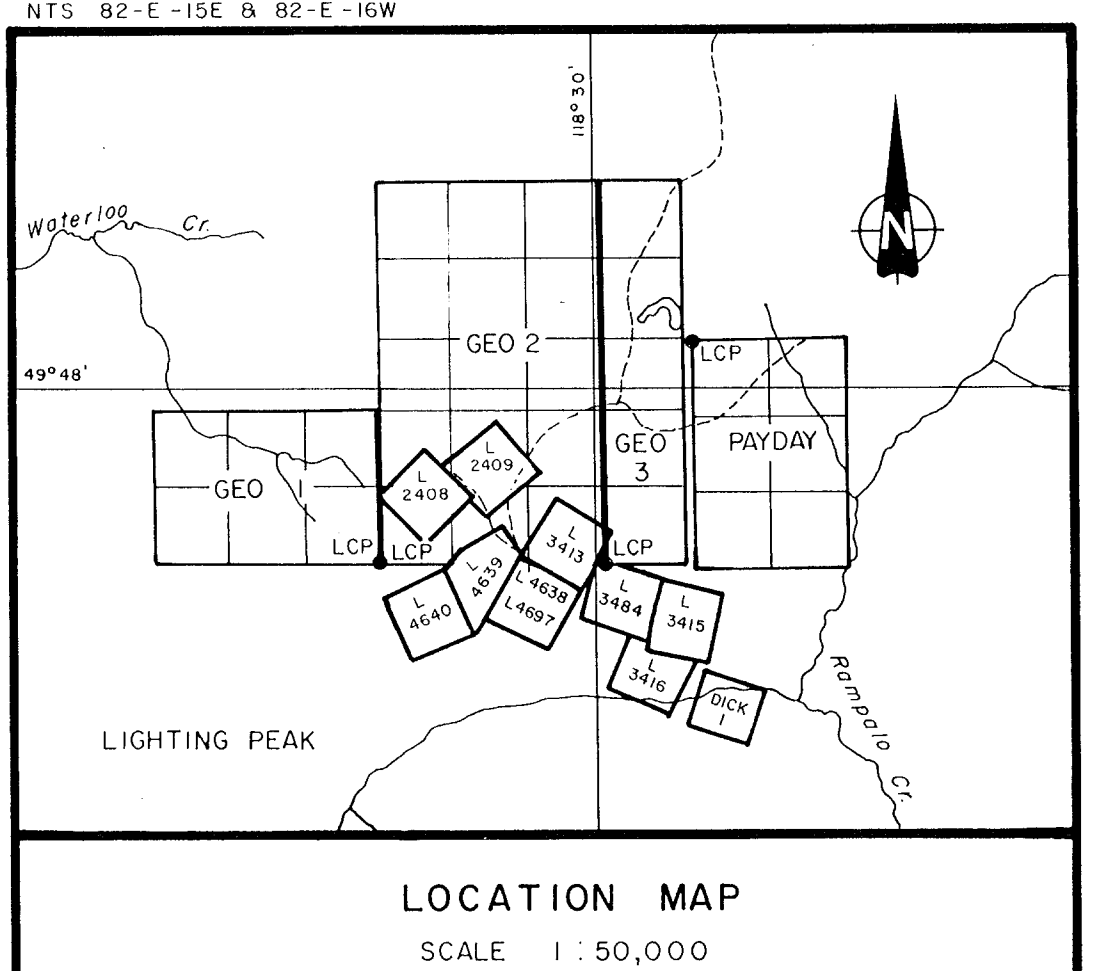
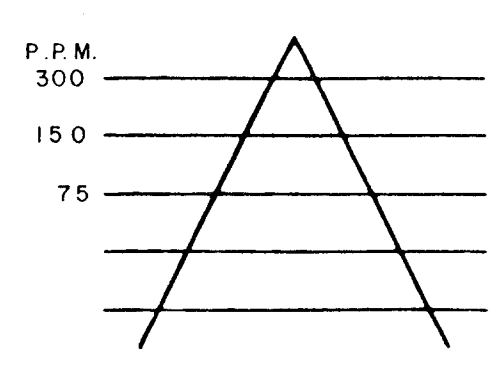


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ZINC KEY



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**GEOCHEMICAL MAP
ZINC P.P.M.**

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FIG. No.: 7	

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