

1192

REPORT ON
AEROMAGNETIC SURVEY
ON THE MAG 1-43 MINERAL CLAIMS
WHITESAIL LAKE AREA, BRITISH COLUMBIA
ON BEHALF OF
NIAGARA MINING AND DEVELOPMENT CORP. LTD.

~~93E/6H~~

93E/6E

by

Richard O. Crosby, B.Sc., P.Eng.

February 12, 1968

CLAIMS:	Record Numbers
MAG 1 - 43	B 47359 - 401

LOCATION:

Approximately 80 miles southwest of
Burns Lake, British Columbia
Omineca Mining Division
53°26'N - 127°09'W

DATE: January, 1968

RPT. 1192

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PLATE (in envelope)

Plate 1 - Magnetic Contour Map and Geophysical Interpretation # 1

SEIGEL ASSOCIATES LIMITED

GEOPHYSICAL CONTRACTORS AND CONSULTANTS

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INTRODUCTION

During January, 1968, an aeromagnetic survey was flown over MAG 1 - 43 mineral claims, Whitesail Lake area, British Columbia, on behalf of Niagara Mining and Development Corp. Ltd.

The survey area is centred approximately 53°26' North, 127°09' West, about 80 miles southwest of Burns Lake, British Columbia. It is approximately 3 miles in length northeast-southwest by 1.5 miles in width. Lines were flown at 1/8 mile intervals, oriented northwest-southeast at a mean terrain clearance of 500 feet. Because of the relief of the survey area, all lines were flown on a northwesterly heading.

A Sharpe NPM-1 total intensity nuclear precession magnetometer was employed on this survey. It was towed on a cable approximately 75 feet below the helicopter. A 16 mm. single frame camera was employed for positioning purposes and a radar altimeter recorded height above the ground. Flight path recovery was achieved through the use of the camera and photomosaics of the area. Photomosaic scale was approximately 1" = 1320'.

The purpose of the aeromagnetic survey was to obtain information relating to the distribution of intrusive bodies and structural information.

The aeromagnetic survey was under the direction of Mr. Richard O. Crosby, P.Eng., with assistance from Mr. Ronald Pollard.

PRESENTATION OF DATA

The isomagnetic contours of the earth's magnetic field are presented on a transparent overlay (Plate 1) on a scale of 1 inch equals 1320 feet (approximate). The planimetry on these sheets has been traced from a photomosaic employed for navigational purposes. Magnetic data are shown as total magnetic intensity contours with a contour interval of 100 gammas. Corrections have been made for diurnal variations and instrumental drift by means of tie lines flown normal to the flight lines. Base intensity is arbitrary and no corrections for regional variation have been made.

DISCUSSION OF RESULTS

The value of the earth's total magnetic field in the center of the survey area is approximately 57,200 gammas. The inclination of the total magnetic field vector is approximately -73° north.

The magnetic field of the survey area increases from 8000 gammas* in the southeast to over 9300 gammas in the center of the area and then decreases to about 8200 gammas in the northwest. Two large anomalies dominate the central part of the area. A maximum of 9380 gammas was recorded midway along flight line 8 and a peak of 9800 gammas was recorded on flight line 15. A peak of 9200 gammas was also recorded at the northwest end of line 1.

* Base level is arbitrary.

GEOPHYSICAL INTERPRETATION

The broad anomaly in the eastern half of the survey area and the complex anomaly in the southwest reflect increased concentrations of disseminated magnetite. A northwest-southeast trending fault is interpreted between flight lines 9 and 12 and a major fault is interpreted generally paralleling the coastline. Minor deflections in the magnetite gradients probably result in part from topographic effects, however, by flying all lines in the same direction such effects were minimized.

The anomalous zones apparently are caused by intrusive activity rather than surface geology.

CONCLUSIONS AND RECOMMENDATIONS

The aeromagnetic survey has revealed magnetic features which warrant further investigation.

It is recommended that geochemical surveying be performed over the anomalous areas indicated on the interpretation overlay. If increased concentrations of minerals are indicated, it is recommended that these areas be surveyed with the induced polarization method.

Respectfully submitted,

SEIGEL ASSOCIATES LIMITED



Richard O. Crosby, B.Sc., P.Eng.
Geophysicist

Vancouver, B.C.
February 12, 1968

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of a geophysical survey on behalf of
Niagra Mining and Development Corp. Ltd.

SUB-MINING RECORDS
RECEIVED
FEB 14 1968
M.R. # _____
VANCOUVER

I, Richard O. Crosby
of 115 - 744 West Hastings Street, Vancouver

in the Province of British Columbia, do solemnly declare that an aeromagnetic survey has been executed on mineral claims MAG 1 - 43 in the Whitesail Lake area, British Columbia in January, 1968. The following expenses were incurred:

In the Matter of

Notary Declaration

(1) Line Mile Charges 50 line miles @ \$45/line mile	\$2,250.00
(2) Helicopter Rental	1,046.00
(3) Mobilization & demobilization	70.00
(4) Subsistence & quarters	<u>216.00</u>
	<u>\$3,582.00</u>

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."

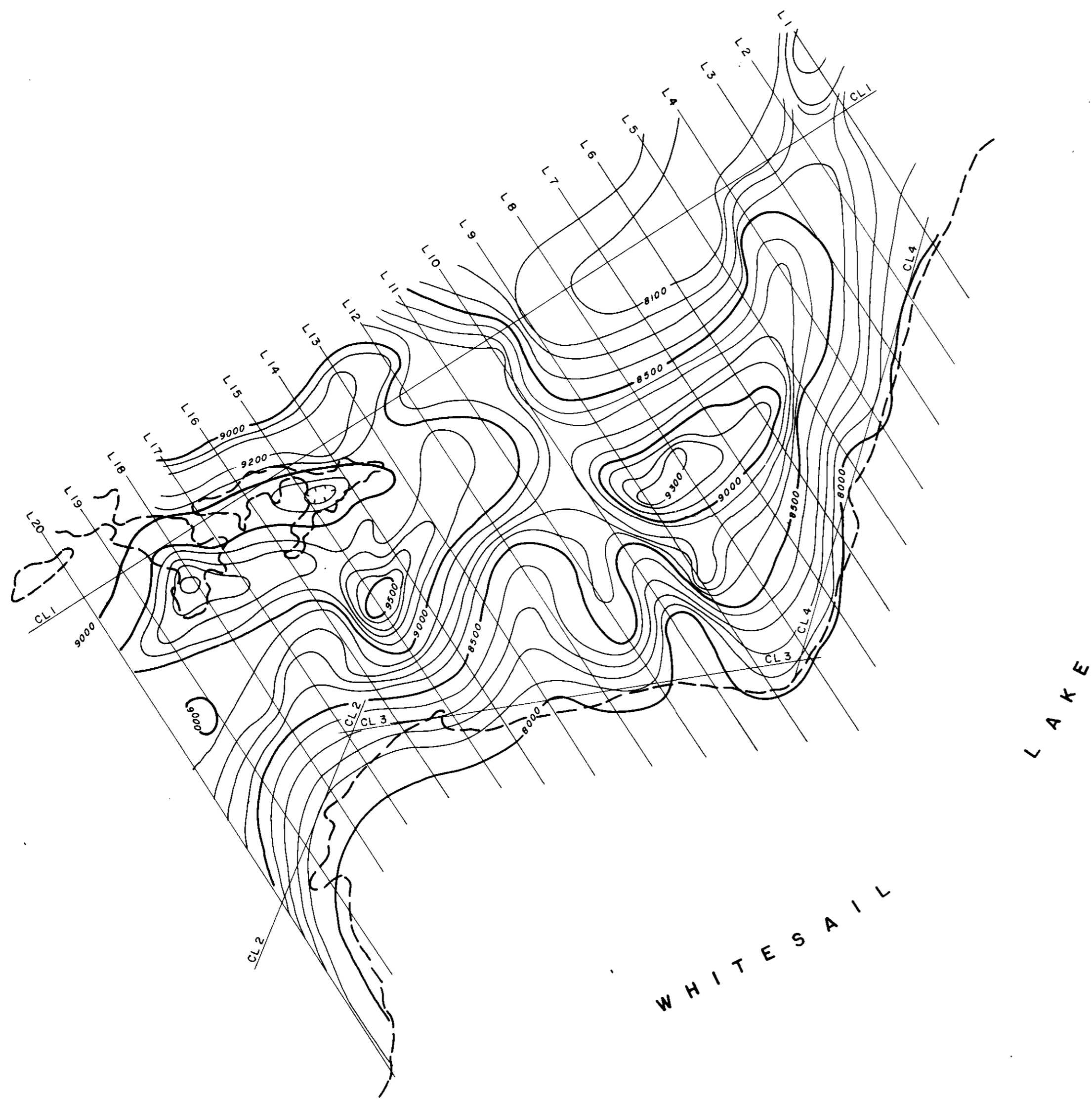
Declared before me at the city
of Vancouver, in the
Province of British Columbia, this 13th
day of February, 1968, A.D.

Richard O. Crosby

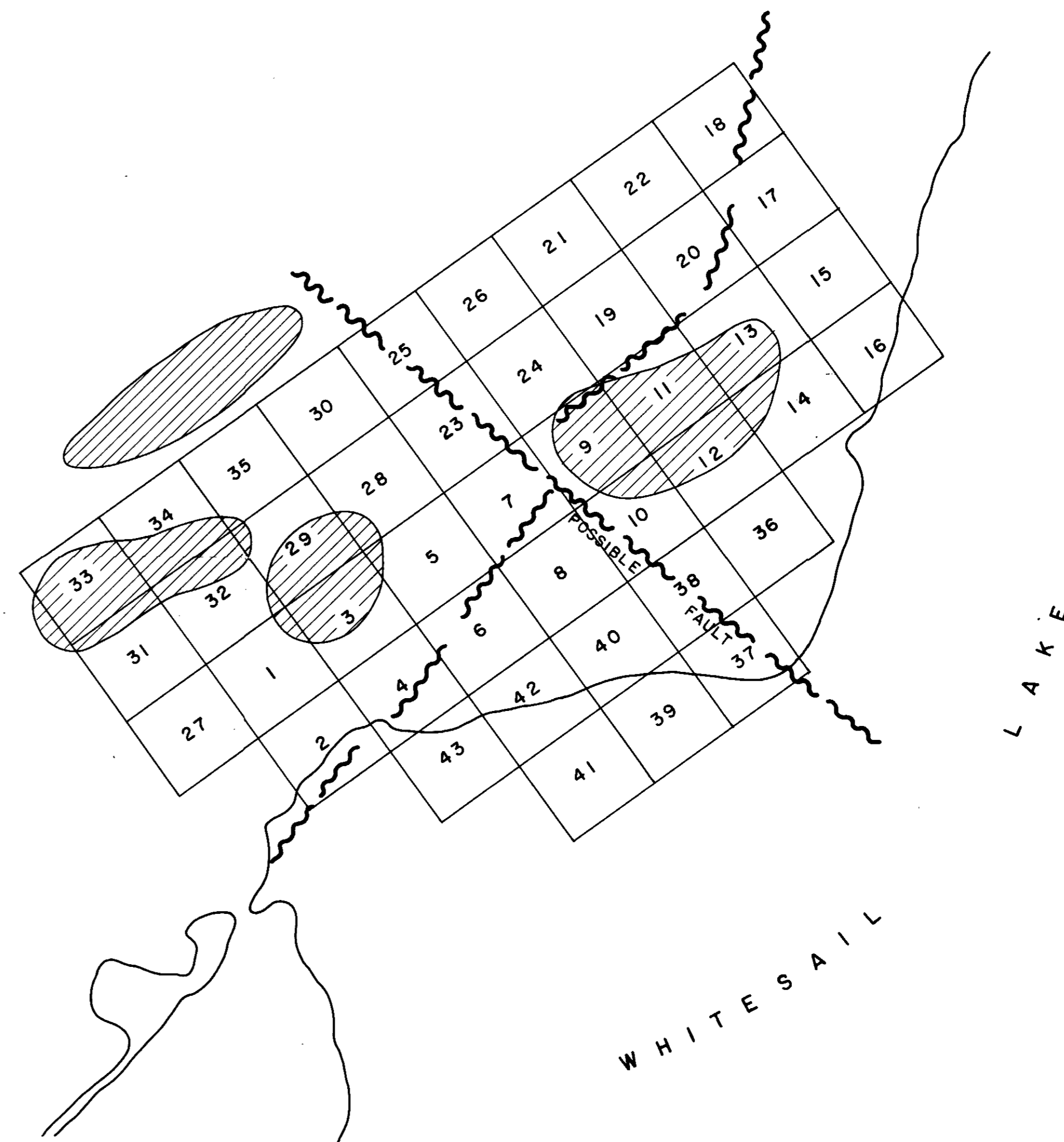
L. Strickler
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

★0

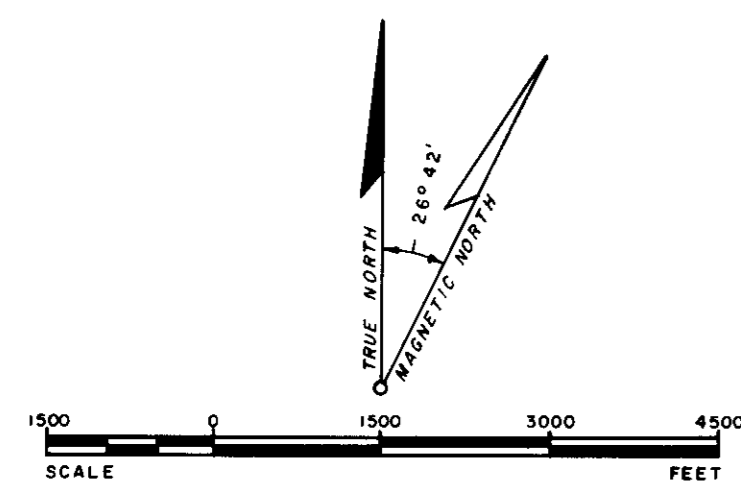
Sub-mining Recorder



ISOMAGNETIC MAP



**CLAIM LOCATIONS AND
GEOPHYSICAL INTERPRETATION**



LEGEND

- Magnetic Inclination -73° North
- Approximate Total Magnetic intensity 57,200 Gammas
- Flight Line Interval Approximately 1/8 Mile
- Isomagnetic Contours: 500 Gammas
- 100 Gammas
- Anomalous Area
- Possible Fault

TO ACCOMPANY A GEOPHYSICAL REPORT BY
RICHARD O. CROSBY DATED FEBRUARY 12, 1968

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1192 MAP 1

PLATE I

NIAGARA MINING AND DEVELOPMENT CORP. LTD. (N.P.L.)

WHITESAIL LAKE AREA, BRITISH COLUMBIA

MAG 1-43 CLAIMS

AIRBORNE MAGNETOMETER SURVEY

CONTOUR INTERVAL - 100 GAMMAS

FLOWN AND COMPILED BY
SEIGEL ASSOCIATES LIMITED
JANUARY 1968

1192