

# 3049

REPORT ON  
MAGNETOMETER SURVEY  
OF THE "BARB" CLAIMS  
McLEESE LAKE, B.C.

93 B / 8 E & W

WORK DONE ON BEHALF OF  
GRAMARA MINES LTD. [NPL]

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

BY

NO. 3049 MAP \_\_\_\_\_

W. MEYER, B.Sc.

SUPERVISED BY A.R. ALLEN, P.ENG.

Claims: Barb 13-24, 37-46  
Location: McLeese Lake  
Dates: March 23 - April 11, 1971

May 6, 1971

Vancouver, B. C.

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SUMMARY & CONCLUSIONS:

During April 1971 a programme of line cutting and a magnetometer survey aggregating 25 line miles was completed on the "Barb" Group of claims held by Gramara Mines Ltd. [NPL].

Two magnetic features of possible interest were outlined. A followup programme has been recommended to investigate the source of the anomalies.

INTRODUCTION:

The following report is based on field work carried out by Western Geological Services Ltd. on behalf of Gramara Mines Ltd. [N.P.L.] during March and April 1971. The work was completed on the "Barb" group consisting of 22 full-sized claims located two miles southeast of McLeese Lake.

The first part of the programme involved establishing a north-south baseline and cutting east-west cross lines at 400 foot intervals to the property boundaries. A total of 25.0 line miles was completed.

The second part of the programme consisted of a magnetometer survey over the grid. A few outcrops in the claim area were mapped to provide a guide to the interpretation of the magnetic data. The survey was carried out by personnel of Western Geological Services Ltd. initially under the field supervision of W. Raymond, operator and later by H. Naylor, geologist. Consulting services were supplied by Mr. A. R. Allen.

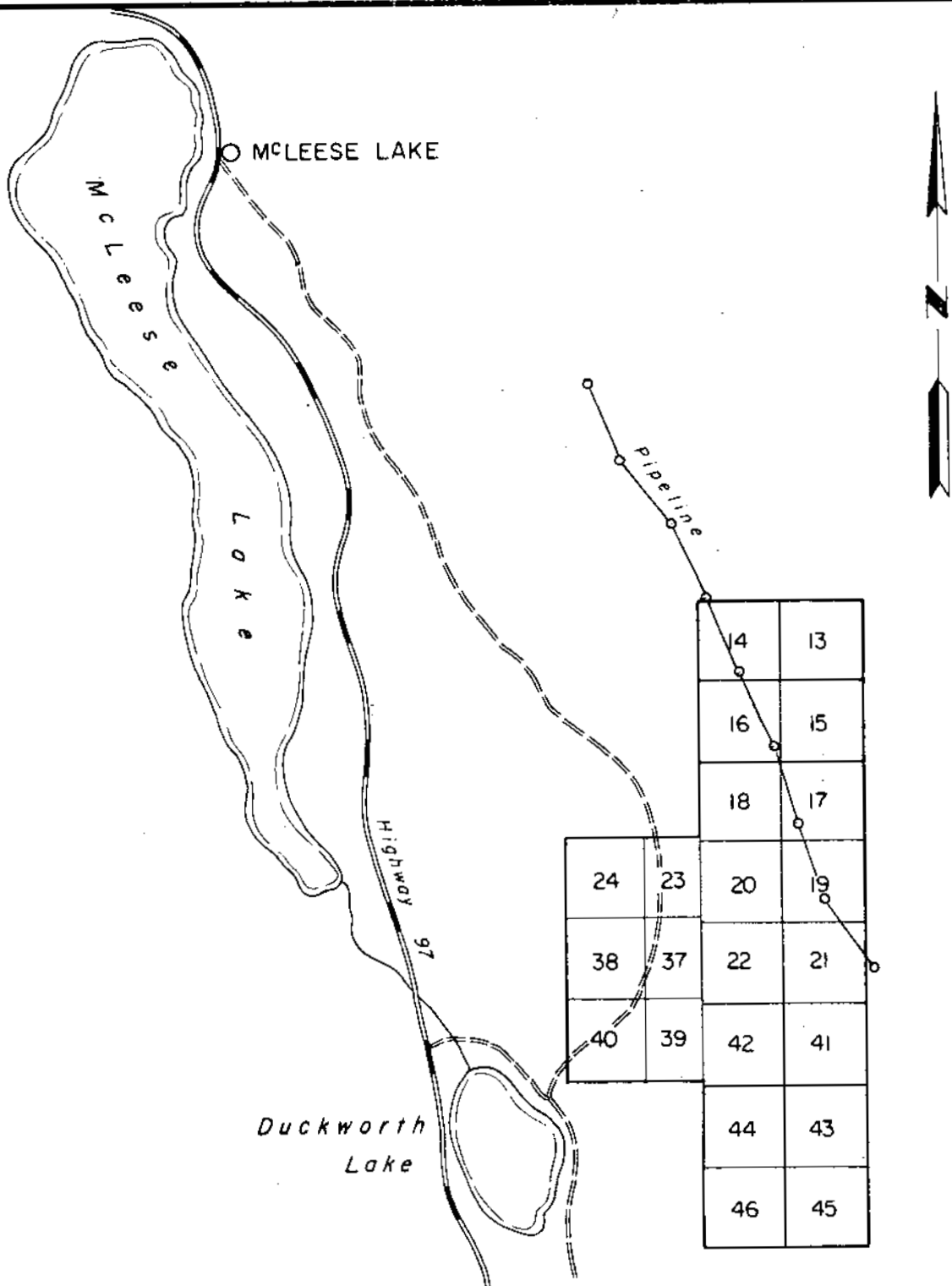
LOCATION & ACCESS:

The "Barb" group of claims covered in this survey are centered approximately two miles southeast of McLeese Lake P.O., near Highway 97 immediately to the east of Duckworth Lake. The claims are accessible by good secondary road from the settlement of McLeese Lake on Highway 97, [Fig. 1].

CLAIMS:

The 22 claims covered in this survey are tabulated below:

| <u>Claim</u>      | <u>Record No.</u> | <u>Expiry Date</u> | <u>Ownership</u> |
|-------------------|-------------------|--------------------|------------------|
| Barb 13-24 [incl] | 55922-55933       | Jan. 30/72         | Gramara          |
| Barb 37-46 [incl] | 55946-55955       | Jan. 30/72         | Gramara          |



Department of  
**Mines and Petroleum Resources**  
**ASSESSMENT REPORT**  
 NO. 81 MAP 3049

**LOCATION MAP**  
**"BARB" CLAIMS**

MCLEESE LAKE B.C., CARIBOO MINING DIVISION

SCALE: 1" = 3000'

W. G. S.

FIG. 1

### GENERAL GEOLOGY:

The claim group is located near the south end of the Granite Mountain batholith in the McLeese Lake-Gibraltar area. Much of the group is thought to be underlain by Cache Creek Group rocks of Permian and Triassic Age.

The Cache Creek rocks are intruded by dykes and/or small stocks of acid to basic composition which are represented by outcroppings along road cuts in the southwestern and northwestern areas of the grid. Due to the lack of regional mapping [or availability of data] the relationship of the dykes to the Granite Mountain Batholith is not clear but it is thought that the dykes of intermediate to acid composition may be related.

The G.S.C. [Map 12-1959] has mapped a regional northwest striking fault which passes through the centre of the group. Although this fault has no magnetic expression, a few exposures of lime-silicate skarn occur near the basic intrusive at Line 12+00N - 8+00W which is on the projection of the fault.

Minor mariposite was noted in one specimen of the skarn.

### MAGNETOMETER SURVEY:

#### General:

The line cutting and magnetometer survey was carried out by a Western Geological Services Ltd. field party consisting of H. Naylor, W. Raymond, G. Beyko, H. Buchholz and D. Amor under the direction of the writer. Times and duties are tabulated in Appendix 1.

Measurements of the variations in the vertical magnetic field were taken at intervals of 100 feet along lines spaced 400' apart using a McPhar Model M-700 flux-gate magnetometer. The standard method of "looping" or re-occupying base stations at approximately two hour intervals was used to make corrections for diurnal variations. All corrected readings are plotted on Figure 2 enclosed.

The purpose of the survey was to determine subsurface structures, the extent of the various rock units and possibly detect contact-metasomatic type mineral occurrences associated with magnetite.

#### Discussion of Results:

Figure 2 drawn on a scale of 1" = 400' shows a plot of corrected field data contoured at 100 gamma intervals. The available geology, claims and physical features are also shown.

Most of the surveyed area is characterized by a relatively low, uniform magnetic field. This central area is known to be underlain by sediments [shale, argillite and limestone] of the Cache Creek Formation. The north-south anomaly on claims "Barb" 43 and 45 lies within the Cache Creek Formation and may indicate a minor increase in magnetite which may be of hydrothermal origin.

Anomalous values near the west end of L28+00S and near Duckworth Lake are related to a small area of Tertiary basalt.

The most significant magnetic feature occurs on Barb #13 in the northeast corner of the group. Due to

snow cover at the time of the survey no outcrops were examined in this area. The anomaly, however, could be due to a small basic intrusive or a basic volcanic flow. The magnetic lows flanking this feature may indicate a zone of alteration peripheral to a basic intrusive. The area should be mapped and if no outcrop occurs in the area, short bulldozer trenches should be opened to expose bedrock.

Magnetic features not related to bedrock are the following:

- series of small anomalies along pipeline
- anomaly on transmission line [near steel tower]
- anomaly on 36+00S - 2+00W [near buildings]

RECOMMENDATIONS:

Geological mapping and prospecting should be carried out in the extreme south and north parts of the group to determine the cause of the north-south anomaly on claims 43 and 45 and the area inferred to be a basic intrusion on Claim #13. A small amount of bulldozer stripping may be required to expose bedrock in both areas.

Respectfully submitted,

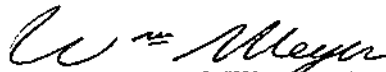
  
W. Meyer



C E R T I F I C A T E

I, William Meyer, do hereby certify that:

1. I am a geologist with residence at 555 Cochrane Avenue, Coquitlam, B. C.
2. I am a graduate of the University of British Columbia [B.Sc., Physics and Geology, 1962].
3. I have worked as an exploration geologist for nine years for the following companies: Phelps Dodge Corporation of Canada Ltd., [4 years], Gibraltar Mines Ltd., [1-1/2 years] and Associated Geological Services Ltd. [1/2 year]. From April, 1968 to the present, I have been a senior partner in Western Geological Services Ltd.
4. I have no interest, direct or indirect in the properties or securities of Gramera Mines Ltd. [N.P.L.] or any of its affiliates nor do I anticipate receiving any.



---

W. Meyer, B.Sc.

May 6, 1971

ALLEN GEOLOGICAL ENGINEERING LTD.

507 - 789 WEST PENDER STREET  
VANCOUVER 1, B.C.

June 2, 1971.

C E R T I F I C A T E

I, Alfred R. Allen, certify that:

I am a graduate of the University of British Columbia and hold the following degrees therefrom:

BASc Geological Engineering 1939

MASc Geological Engineering 1941

I am a member of the Association of Professional Engineers of the Province of British Columbia.

I have practised my profession for the past twenty-eight years.

I hold no interest in the properties or securities of Gramara Mines Ltd. (N.P.L.), or affiliates thereof, nor do I expect to receive any, directly or indirectly.

I acted as consultant on the magnetometer survey on the Barb Claims which was carried out by Western Geological Services Ltd., March 23rd. - April 11th. 1971.

I was on the Barb Group on April 5th. and 11th., 1971.

Alfred R. Allen P. Eng.

Alfred R. Allen

A P P E N D I X I

| <u>Name and Address</u>                                                     | <u>Position</u> | <u>Employed</u><br><u>From</u> <u>To</u> |
|-----------------------------------------------------------------------------|-----------------|------------------------------------------|
| W. Raymond, c/o 1015-470 Granville St.,<br>Vancouver 2, B. C.               | Party Chief     | Mar. 22-Apr. 4/71                        |
| H. Buchholz                      do.                                        | Helper          | Mar. 22-Apr. 4/71                        |
| G. Beyko                              do.                                   | Prospector      | Mar. 23-Apr. 4/71                        |
| H. Naylor                            do.                                    | Geologist       | Apr. 3-Apr.11/71                         |
| D. Amor                                do.                                  | Helper          | Apr. 7-Apr.11/71                         |
| W. Meyer                                do.                                 | Geologist       | May 3-May 6/71                           |
| A. R. Allen                      789 West Pender St.,<br>Vancouver 1, B. C. | Consultant      |                                          |

A P P E N D I X    I I

AFFIDAVIT RE: COST OF SURVEY

I, Peter W. Dunsford of 2564 Panorama Drive, in the District of North Vancouver, in the Province of British Columbia, DO SOLEMNLY DECLARE that the Magnetometer Survey of 22 located mineral claims, carried out by Western Geological Services Ltd. for Gramara Mines Ltd. [N.P.L.] was conducted during the field season of 1971, as described by this report and the field data was obtained at a total cost of \$3,645.00 [per contract of Western Geological Services Ltd.]

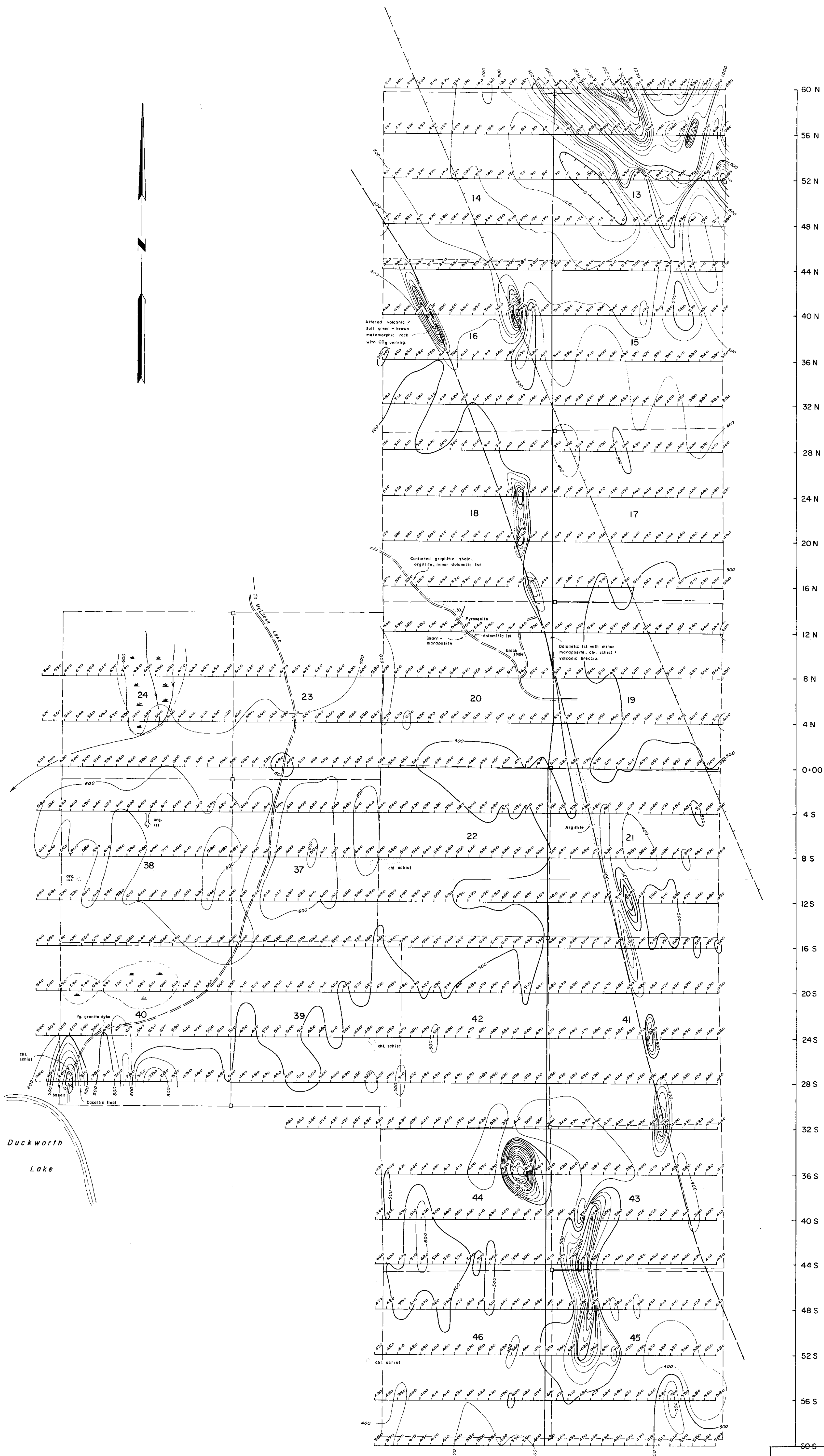
AND I MAKE THIS SOLEMN DECLARATION conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "CANADA EVIDENCE ACT".

DECLARED before me at the City of Vancouver, in the Province of British Columbia, this 27 day of May, A.D. 1971.

*H. Phillips*

Sub-mining Recorder

*Peter W. Dunsford*  
P. W. Dunsford



45W 44W 40W 36W 32W 28W 24W 20W 16W 12W 8W 4W 0°00 4E 8E 12E 15E

60 N  
56 N  
52 N  
48 N  
44 N  
40 N  
36 N  
32 N  
28 N  
24 N  
20 N  
16 N  
12 N  
8 N  
4 N  
0°00  
4 S  
8 S  
12 S  
16 S  
20 S  
24 S  
28 S  
32 S  
36 S  
40 S  
44 S  
48 S  
52 S  
56 S  
60 S

- LEGEND:
- VERTICAL MAGNETIC FIELD IN GAMMAS
  - CLAIMPOST
  - ROADS
  - POWER LINE
  - PIPE LINE
  - SWAMP
  - OUTCROP

**3049 M-2**

To accompany report on Magnetometer Survey of the Barb Claims by W. Meyer BSc Sponsored by A.R. Allen P.Eng

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **#2** MAP **3049**

Prepared for  
**GRAMARA MINES LTD. (N.P.L.)**  
Title

**MAGNETOMETER SURVEY**  
**BARB GROUP**

|                        |                          |          |                    |
|------------------------|--------------------------|----------|--------------------|
| Scale<br>1" = 400 Feet | Survey by<br>B.R. & H.N. | Drawn by | Date<br>APRIL 1971 |
|------------------------|--------------------------|----------|--------------------|

**WESTERN GEOLOGICAL SERVICES LTD.**  
SUITE 1015 470 GRANVILLE ST. VANCOUVER 2, B.C. PHONE 688-2505

*W. Meyer*