

# 4694

REPORT ON THE WORK CARRIED OUT ON

MISS CLAIMS

OF

M. M. MATHIEU

MERRITT, B. C.

Department of	
Mines and Technical Resources	
ASSESSMENT REPORT	
NO. 4694	MAP

Vancouver, B. C.,  
November 9, 1973.

W. G. Hainsworth, P. Eng.,  
Consulting Geologist

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
LOCATION AND ACCESS.....	1
PROPERTY.....	1
HISTORY.....	2
AREA GEOLOGY.....	2
MINERALIZATION.....	3
WORK DONE.....	3
MAGNETOMETER RESULTS.....	5
GEOCHEMICAL RESULTS.....	5

MAPS IN FOLDER:

#1 Properties Location Map	1" = 3,000'
#2 Base Plan	1" = 200'
#3 Magnetometer Survey	1" = 200'
#4 Geochemical Survey	1" = 200'

\* \* \* \* \*

## W. G. HAINSWORTH

CONSULTING GEOLOGIST

### INTRODUCTION

At the request of Mr. M. M. Mathieu of Scope Explorations Ltd., of Merritt, the writer has been commissioned to examine all data regarding the various surveys carried out over his Aspen Grove property and to comment on the results.

The writer has also been asked to draft the report for presentation as an assessment report. I have not been on the property.

### LOCATION AND ACCESS

The Miss claim group of M. M. Mathieu is located twenty-three miles directly north of Princeton in south-central British Columbia. The claims take in the northern half of Missezula Lake.

The property can be most easily reached by turning off at a point eight miles south of Aspen Grove on highway 5 onto a 6 mile gravel road which ends at the north end of Missezula Lake.

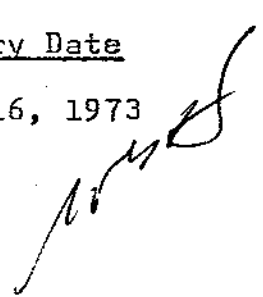
Co-ordinates of the claims are longitude  $120^{\circ}32'$  West and latitude  $49^{\circ}49'$  North. It lies within N.T.S. 92-H-15.

### PROPERTY

The Mathieu claim group consists of 70 located claims in one grouping, which forms a square roughly centred around the northern half of Missezula Lake. The claims are located in the Nicola Mining Division of British Columbia.

The claim group consists of:

<u>Claim Name</u>	<u>Record No.</u>	<u>Anniversary Date</u>
Miss 1 - 70	57623 - 57692	November 16, 1973



## HISTORY

The Mathieu group of claims lies within the well-known Princeton-Aspen Grove Copper Belt. This area is but the southern segment of the larger copper belt which extends north through the Highland Valley area to the Gibraltar-McLeese Lake section.

The mining history of the Aspen Grove-Princeton area was first recorded by the gold and platinum placer miners who, from 1860 to 1888 intermittently worked the Similkameen and Tulameen rivers. It is but an easy step from placer to lode mining but spatially the interval was long in this case. Despite the discovery of copper at Copper Mountain near Princeton in 1884, it was not until the turn of the century that prospectors began to spread out within the district in their search for the original source of the placer metals. Gradually the search extended northward. In 1900, the first showing of copper was staked near the present day village of Aspen Grove. In 1901 was recorded the first staking of claims on Iron Mountain.

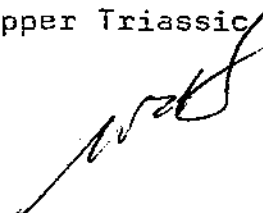
Sporadic prospecting has been carried on in the area since 1927. With each surge of interest or discovery in adjoining areas such as the Craigmont just outside Merritt, the Highland Valley further to the north and the Brenda area some 25 miles to the east, renewed interest has been shown in the Aspen Grove-Princeton section. However, nothing of commercial value has emerged to date despite the repeated efforts of major companies over the last decade.

The ground on which the Miss claims are located has been staked numerous times. However, there is no evidence of exploration work being carried out on the ground.

At the present time many large claim blocks are under investigation by senior mining companies.

## AREA GEOLOGY

The Mathieu claims are contained within a northerly trending band of Nicola Group rocks, of Upper Triassic age.



Intrusive into these formations is the Coast Range intrusions of Lower Cretaceous age. This intrusive is in contact with the Nicola volcanics both to the east and west of the Miss claims.

An occurrence of Tertiary basalt lies immediately north of the claim block.

### MINERALIZATION

Examination of the property by other geologists has shown the existence of copper mineralization. The sulphides are of the chalcopyrite, pyrite and minor bornite in veinlets and fine disseminations. One geologist reported a 44 foot sample running 0.25% copper.

### WORK DONE

During 1973, Mathieu did the following work in the stated time periods:

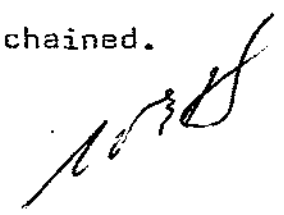
Line Cutting and chainage	-	June 4-8th, 1973; October 3rd - 6th, 1973
Magnetometer survey	-	October 8th - 13th, 1973
Geochemical survey	-	October 15th - 20th, 1973
Office Compilation	-	October 22nd - 27th, 1973

### LINE CUTTING

A base line 6,200 feet in length was cut and chained at 100 foot intervals. Along this base line, 22 picket lines were turned off at right angles every 400 feet. In areas of prime interest the interval between lines was cut to 200 feet.

Two men were involved in this operation with a total of fifteen man days being recorded.

7.48 miles of line were cut and chained.



### MAGNETOMETER SURVEY

The base line and all picket lines were traversed with readings being taken at 100 foot intervals. The results were entered on to a contoured map which accompanies this report.

Two men ran the survey for a total of eleven man days.

A Sharpe MF-2 Fluxgate instrument was used. 7.48 miles of line readings were recorded.

### GEOCHEMICAL SURVEY

Some 278 soil samples were collected from the "B" horizon across the property. The samples were collected in manila soil-sampling envelopes, allowed to dry, then shipped to Kamloops Research Assay Laboratory at Kamloops. Here they were sieved, subjected to a hot acid extraction and then analysed using the Atomic Absorption method for copper results. The results were plotted individually on a base map, then contoured. The completed map accompanies this report.

Two men were involved totalling twelve man days work.

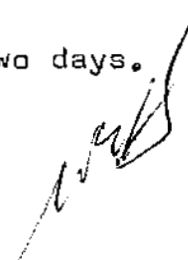
Some six miles of grid were covered in this survey.

### OFFICE COMPILATION

The results of the three survey prospects - line cutting, magnetometer and soil sampling - were plotted on individual maps and then contoured. These three maps plus a Properties Location Map are included with this report.

Compilation time was six days.

The compiling of this report involved two days.



A breakdown of the time, expenditure and people involved is included in this report.

Other than for this report the work was carried out by, and under the surveillance of, Scope Exploration Services Ltd. of Merritt. This company supplied the breakdown data.

### MAGNETOMETER RESULTS

The writer was supplied with only a contoured map of this survey. As a consequence all report figures must be rounded off and cannot be too precise.

The northern section of the surveyed area shows a broad negative plateau in the -1000 gamma to zero readings.

With a southward progress the magnetic gradient increases gradually to the +500 to +1000 category. As the mouth of Conglin Creek is approached small islands of high magnetics [+1000 gammas to better than +1500 gammas] are observed. However, following back up the creek strong magnetic lows outline the creek valley.


Progressing southward from the creek a low profile magnetic field is observed. Within this area magnetic buildups rise and fall over narrow widths but maintain a strong continuity in a NNW structural trend. The continuity of these highs is a striking feature of the southern portion of the survey area.

It would appear that in the area examined the magnetics are relatively stable with long inclines or declines. A narrow scarp of magnetic highs enter the area from the south and could seemingly pass into the lake.

Conglin Creek appears to break this north-north-west progression of high readings with its own northeast trend of low readings.

### GEOCHEMICAL RESULTS

In a similar style to the magnetometer results.



the north end of the surveyed area shows low copper readings. A build-up is noticed as the survey progresses further south. Strong, continuous lenses of well above background values become apparent in the central section of the area. These north-south trending anomalies usually contain cores of spot highs.

There is rough agreement between the anomalous soil areas and the known mineralized occurrences, but there appears to be poor conformity between the magnetics and the soils. Several of the known mineralized showings lie on the perimeters of the magnetic highs.

The arithmetic mean has been calculated for all assay values to be 55.93 ppm using the following formula:

$$\bar{x} = \frac{\Sigma \text{ ppm}}{n}$$

where  $\Sigma \text{ ppm}$  = sum of values  
 $n$  = total number of values

The standard deviation has been calculated to be 56.54 ppm using the following formula:

$$s = \left[ \left( n \Sigma \text{ ppm}^2 - (\Sigma \text{ ppm})^2 \right) / (n(n-1)) \right]^{\frac{1}{2}}$$

The statistics, mean and standard deviation, are useful in the definition of statistical anomalies which may or may not be relevant in the survey area. Experiment and field experience have indicated that, assuming a log-normal distribution of values, a value greater than  $\bar{x} + 1s$  is statistically "possibly anomalous" and a value greater than  $\bar{x} + 2s$  is "probably anomalous".

On the Miss group, statistics reveal:

<u>Element</u>	<u>n</u>	<u><math>\bar{x}</math></u>	<u>s</u>	<u><math>\bar{x} + 1s</math></u>	<u><math>\bar{x} + 2s</math></u>	<u><math>\bar{x} + 3s</math></u>
Cu	278	55.93	56.54	112.47	169.01	225.55



If we assume the above statistics to be in line then probable anomalies are:

- [1] the lens extending from 1000W on line 40 to 1250W on line 24 [9 samplings]
- [2] The lens starting at 500W on line 60 and extending up along the lakeshore to 1000W on L36 [12 samplings]

On the other hand both lenses flanking the former probable anomaly fall into the "possible" category.

It should be emphasized that more detailed sampling is required in order to be more exacting regarding the anomalous soil conditions.

#### ASSESSMENT DATA

The following figures have been supplied by M.M. Mathieu of Scope Exploration Service Ltd., Merritt, B. C.

#### Surveys on the MISS Group of Mining Claims:

- [1] 7.48 miles of line were cut, chained and marked at 100 foot intervals.

<u>Wages:</u>	Lorne McClelland	
	9 days @ \$42/day	\$ 378
	[June 4-8/73 & Oct. 3-6/73]	
	Maurice Mathieu	
	6 days @ \$50/day	300
	[June 4-8/73 & Oct. 6/73]	
<u>Misc.:</u>	4 wheel drive truck rental	
	9 days @ \$25/day	225
	Gas and oil for above	45
	Supplies: chain, flagging tape, pens, etc.	<u>54</u>
		<u>\$1,002</u>

## [2] Magnetometer Survey over 7.48 miles of line.

<u>Wages:</u>	Lorne McClelland	
	5 days @ \$42/day	\$ 210
	[Oct. 8-12/73]	
	Maurice Mathieu	
	6 days @ \$50/day	300
	[Oct. 8-13/73] includes	
	mapping and data processing	
<u>Misc.:</u>	Drafting supplies, map printing,	
	etc.	22
	Magnetometer rental	
	5 days @ \$10/day	50
	Truck Rental	
	5 days @ \$25/day	125
	Gas and oil, etc.	25
	Car rental	
	2 trips to Kamloops @ \$15 each	<u>30</u>
		\$ 762

## [3] Geochemical Survey over 6 miles of line

<u>Wages:</u>	Lorne McClelland	
	6 days @ \$42/day	\$ 252
	[Oct. 15-20/73]	
	Maurice Mathieu	
	6 days @ \$50/day	300
	[Oct. 15-20/73] sampling,	
	mapping and data processing	
<u>Misc.:</u>	Truck rental	
	6 days @ \$25/day	150
	Gas and oil, etc.	30
	Geochemical assaying	<u>278</u>
		\$ 1,010

## [4] Mapping and compiling data for report including completed maps, etc.

	Oct. 22-27/73 - 6 days @ \$50/day	\$ 300
	Two trips to Kamloops re printing, etc.	
	@ \$15/day car usage	<u>30</u>
		\$ 330

[5] Assessment report by W.G. Hainsworth, P. Eng.


2 days \$ 300

Typing and reproducing 25

\$ 325

Total of above 5 processes \$ 3,429

Vancouver, B.C.,  
November 9, 1973

  
W. G. Hainsworth, P. Eng.,  
Consulting Geologist

W. G. HAINSWORTH

CONSULTING GEOLOGIST

CERTIFICATE

I, WILLIAM G. HAINSWORTH, HEREBY CERTIFY:

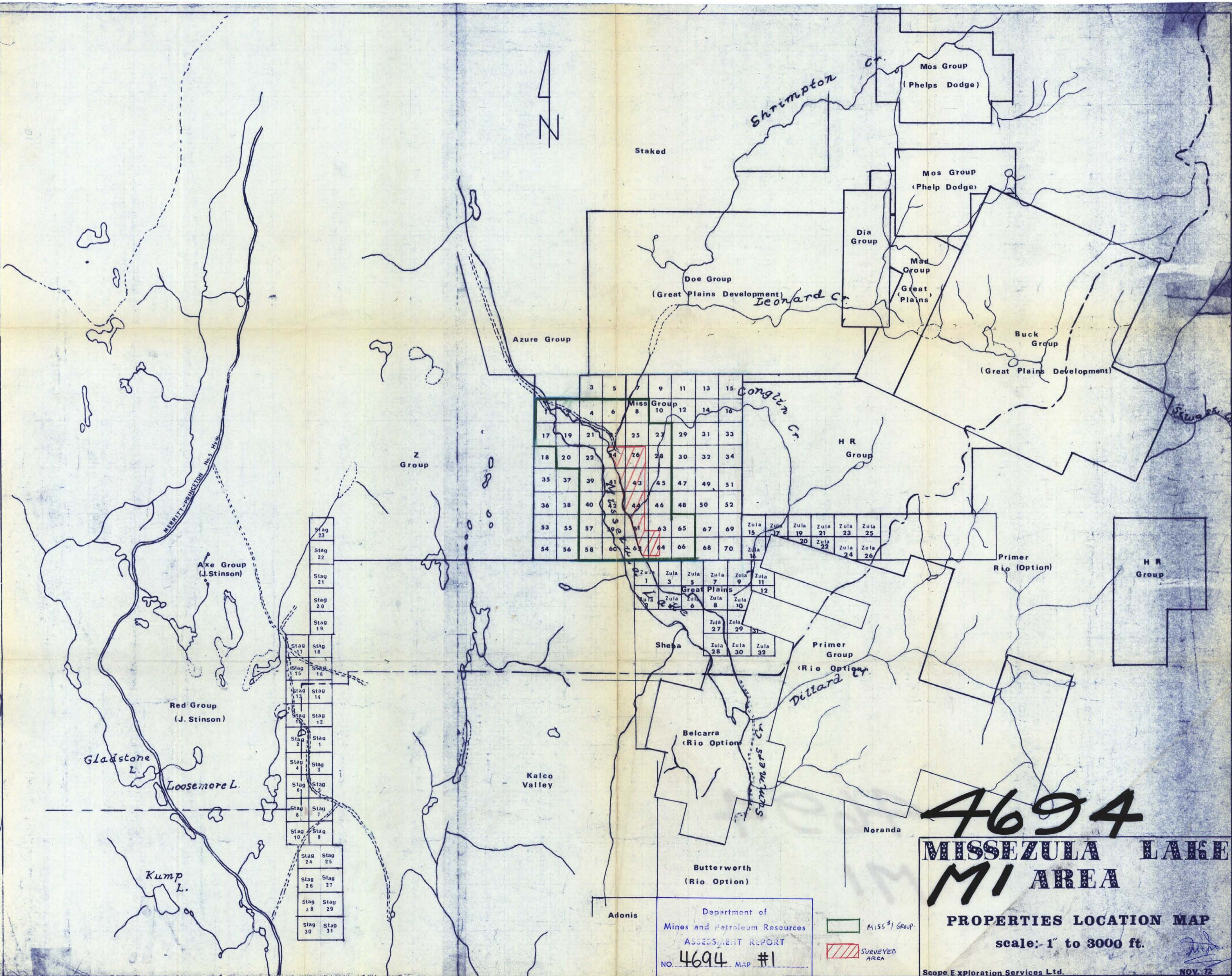
- 1] That I am a geologist residing at 3473 Capilano Road, North Vancouver, British Columbia.
- 2] That I am a graduate of the University of Western Ontario, London, Ontario with a B.Sc. degree and am a registered member of the Association of Professional Engineers of the Province of British Columbia.
- 3] That I have practiced my profession for twenty-three years.
- 4] That I have no financial interest, either direct or indirect, in the subject properties, in any dealings of any nature with M. M. Mathieu of Merritt, nor in that of any of his affiliates and that I do not expect to obtain such interest.
- 5] That the information contained in this report is based on evaluation of all data from various sources pertaining to the property.



Vancouver,  
British Columbia,  
November 9, 1973.

Wm. G. Hainsworth, P. Eng.  
Consulting Geologist





Stag 23	
Stag 22	
Stag 21	
Stag 20	
Stag 19	
Stag 17	Stag 18
Stag 15	Stag 16
Stag 13	Stag 14
Stag 11	Stag 12
Stag 9	Stag 10
Stag 7	Stag 8
Stag 5	Stag 6
Stag 3	Stag 4
Stag 1	Stag 2
Stag 24	Stag 25
Stag 26	Stag 27
Stag 28	Stag 29
Stag 30	Stag 31

3	5	7	9	11	13	15
4	6	8	10	12	14	16
17	19	21	23	25	27	29
18	20	22	24	26	28	30
35	37	39	41	43	45	47
36	38	40	42	44	46	48
53	55	57	59	61	63	65
54	56	58	60	62	64	66

Zula 1	Zula 3	Zula 5	Zula 7	Zula 9	Zula 11
Zula 2	Zula 4	Zula 6	Zula 8	Zula 10	Zula 12
Zula 15	Zula 17	Zula 19	Zula 21	Zula 23	Zula 25
Zula 16	Zula 18	Zula 20	Zula 22	Zula 24	Zula 26
Zula 27	Zula 29	Zula 31	Zula 32		
Zula 28	Zula 30	Zula 32			

# 4694 MISSEZULA LAKE MI AREA

PROPERTIES LOCATION MAP

scale: 1" to 3000 ft.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4694 MAP #1

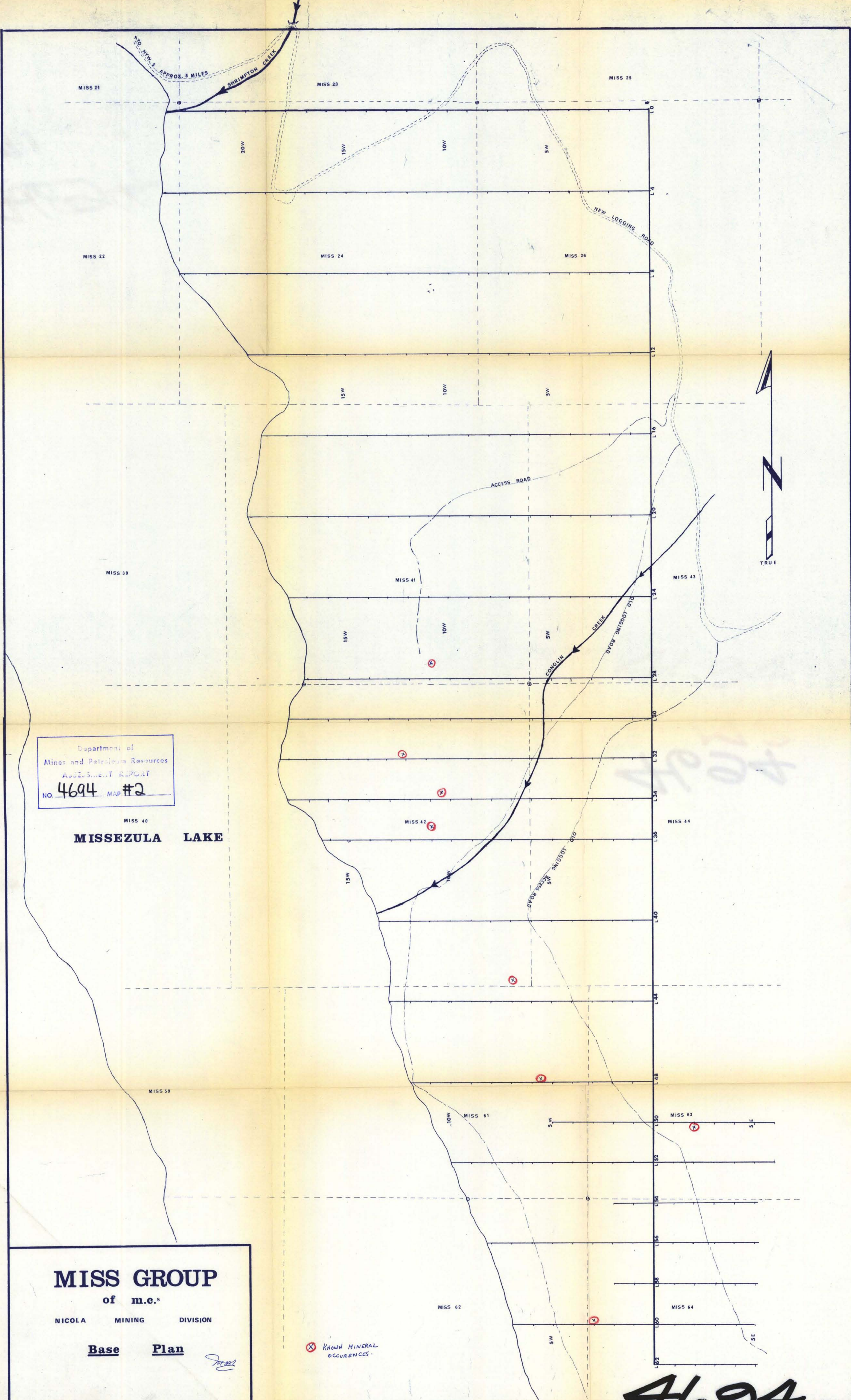
MISS #1 GROUP  
 SURVEYED AREA

Scope Exploration Services Ltd.

REVISED SEPT. 1973

NOV. 72





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 NO. 4694 MAP #2

MISS 40  
**MISSEZULA LAKE**

**MISS GROUP**  
 of m.c.s.  
 NICOLA MINING DIVISION  
**Base Plan**

SCALE: 1 inch to 200 feet  
 SEPT. - OCT. 1973  
 SCOPE EXPLORATION SERVICES LTD.

⊗ KNOWN MINERAL OCCURRENCES

4694  
 M2



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 4694 MAP #3

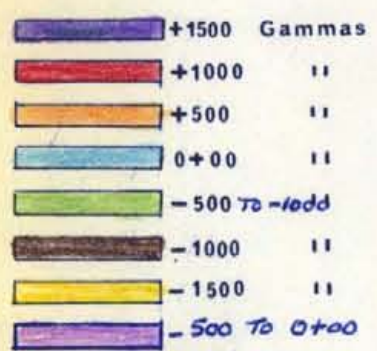
**MISSEZULA LAKE**

**MISS GROUP**  
 of m.c.s

NICOLA MINING DIVISION

**Magnetometer Survey**

instrument: SHARP'S MF-2 Fluxgate



4694  
 M3



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4694 MAP #4

**MISSEZULA LAKE**

**MISS GROUP**  
of m.c.s

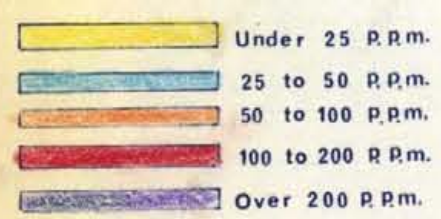
NICOLA MINING DIVISION

**Geochemical Survey**

Method: HOT ACID EXTRACTION  
ATOMIC ABSORPTION

*[Signature]*

**LEGEND**



SCALE: 1 inch to 200 feet

SEPT. - OCT. 1973

SCOPE EXPLORATION SERVICES LTD.

**4694-M4**

