

2841

REPORT ON THE NITHI MOUNTAIN PROPERTY
FOR
NITHI EXPLORATION AND DEVELOPMENT LTD. [N.P.L.]
FRASER LAKE, OMINACA M. D.

BY
A. F. ROBERTS, P. ENG.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2841 MAP _____
June 12, 1970

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SUMMARY

The 61 claim group of Nithi Exploration and Development Ltd. [N.P.L.] was examined by the writer between June 2nd and June 10th, 1970.

The rocks of the group consist of quartz monzonite which are highly altered and fractured.

Molybdenum sulphide occurs in small grains and rosettes both disseminated, and in the veins, with pyrite and hematite, in two sets of fractures.

The surface exposures are too weathered and altered to assess the extent and value of the mineralization.

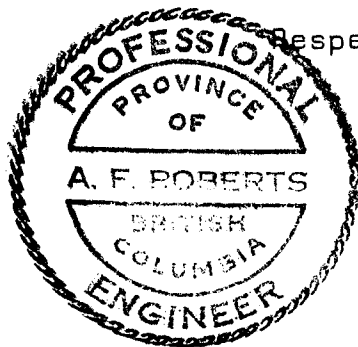
Therefore, as structure, and mineralization and alteration are similar to those of the Endako Mine, it is recommended -

- (1) That a program of soil sampling be done over the entire claim group to select anomalous areas.
- (2) That the anomalous areas be diamond drilled with a few short holes.
- (3) That if (2) is successful a major diamond drill program be carried out.

The cost of the Stage I program will approximate \$48,000.00.

A Stage II program will approximate \$185,000.00.

June 12, 1970.



Respectfully submitted,

A handwritten signature in cursive script that reads "A. F. Roberts".

A. F. Roberts, P. Eng.

REPORT ON THE NITHI MOUNTAIN PROPERTY
FOR
NITHI EXPLORATION AND DEVELOPMENT LTD. [N.P.L.]
FRASER LAKE, OMINECA M. D.

Long. $124^{\circ} 50' W$

Lat. $53^{\circ} 58' W$

A. F. Roberts, P. Eng.

June 12, 1970

INTRODUCTION:

The writer was asked to examine the property on Nithi Mountain, and make recommendations on its merit.

This examination was carried out between June 2nd, and June 10th, 1970.

A visit was made to the geology department of Endako Mines Ltd. for rock comparison purposes.

LOCATION, ACCESS, TOPOGRAPHY:

The property is five miles south of the community of Fraser Lake, on the north, east and south slopes of Nithi Mountain and is accessible by pickup in dry weather, and by four-wheel drive the rest of the time.

It is possible to work all year round in the area, as the summers are warm and reasonably dry, and the winters are not too cold, nor the snowfall too heavy to prevent any operations.

There are numerous old logging roads which need improvement, and a number of new roads built by the prospectors to give reasonable access to all parts of the property.

Timber cover varies from logged over areas to uncut timber, but it is all reasonably easy to walk in, as slopes average about 20°.

The main power supply to Endako Mines lies about four miles to the north of the property, and the Prince Rupert branch of the C.N. Railways runs through Fraser Lake. The area is well served by bus and truck lines.

Although there is no substantial water supply on the property, water is available from the numerous lakes in the area.

Elevations are approximately 2,500 to 3,500 feet.

CLAIM GROUP:

The claim group consists of the following 61 claims and fractions:

	<u>Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Pen	1 - 3 incl.	66611 - 66613 incl.	Feb. 24, 1971
Mint	1 - 3 incl.	33140 - 33412 incl.	Sep. 10, 1970
Mint	4 - 7 incl.	78763 - 78766 incl.	Aug. 19, 1970
Lode	1 - 6 incl.	58941 - 58946 incl.	Apr. 23, 1971
Lode	9 - 10 incl.	58947 - 58948 incl.	Apr. 23, 1971
MJM	1 - 2 incl.	83555 - 83556 incl.	Nov. 25, 1970
MJM	3 Fraction	83557	Nov. 25, 1970
MJM	4 - 5 incl.	83558 - 83559 incl.	Nov. 25, 1970
MJM	6 Fraction	83560	Nov. 25, 1970
MJM	7 Fraction	83561	Nov. 25, 1970
MJM	8 - 11 incl.	83562 - 83565 incl.	Nov. 25, 1970
Far	1 - 6 incl.	66922 - 66927	Mar. 5, 1971
Far	7 - 32 incl.	68989 - 69014 incl.	Mar. 5, 1971

As the boundaries have not been surveyed and there has been several stakings of the same ground, the actual area of the claims is uncertain.

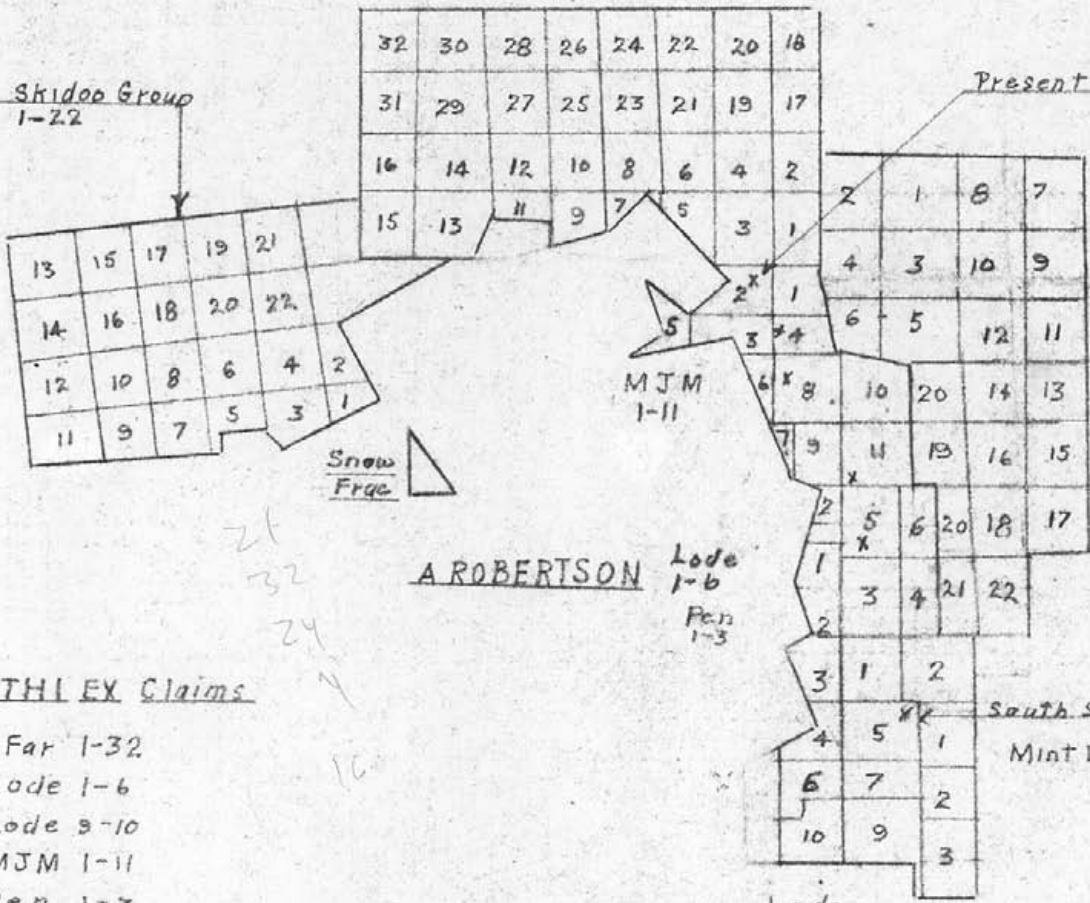


CoP RIDGE

Far Group
1-32

Skideo Group
1-22

Present stripping



Nithi
1-22

MJM
1-11

Snow
Frac

A ROBERTSON

Lode
1-6
Pen
1-3

CYPRUS
EX

NITHI EX Claims

- Far 1-32
- Lode 1-6
- Lode 9-10
- MJM 1-11
- Pen 1-3
- Mint 1-7

Total 61 Claims + Frac.

X MBS₂ showing

MERCURY EX

NITHI EXPLORATION LTD
ENDAKO, BC

CLAIM LOCATIONS,
Area Ownership
Known Showings

Date: June 9, 1970
Scale: 1" = 1 Mile
Drawn by: JH

Note: Source - Gov. Claim map
Locations only approximate

AMAK

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ASSESSMENT REPORT

NO. 2841 MAP 4/1

HISTORY:

All the claims have been acquired by staking between 1965 and 1969, by the vendors who, not being able to finance the property themselves, have formed a private company to do so.

GEOLOGY AND MINERALOGY:

The area of the claim group is covered by the Casey quartz monzonite. 1)

In its unaltered phase it appears fine-grained, with all minerals about 1 mm, and consists of 40% white to black quartz, 30% pink K-feldspar, 30% white plagioclase. No dark minerals are present, although a few specimens have shown less than 1% biotite.

Almost the whole area shows some degree of alteration.

The greatest alteration leaves a grey to white mud containing the free quartz crystals.

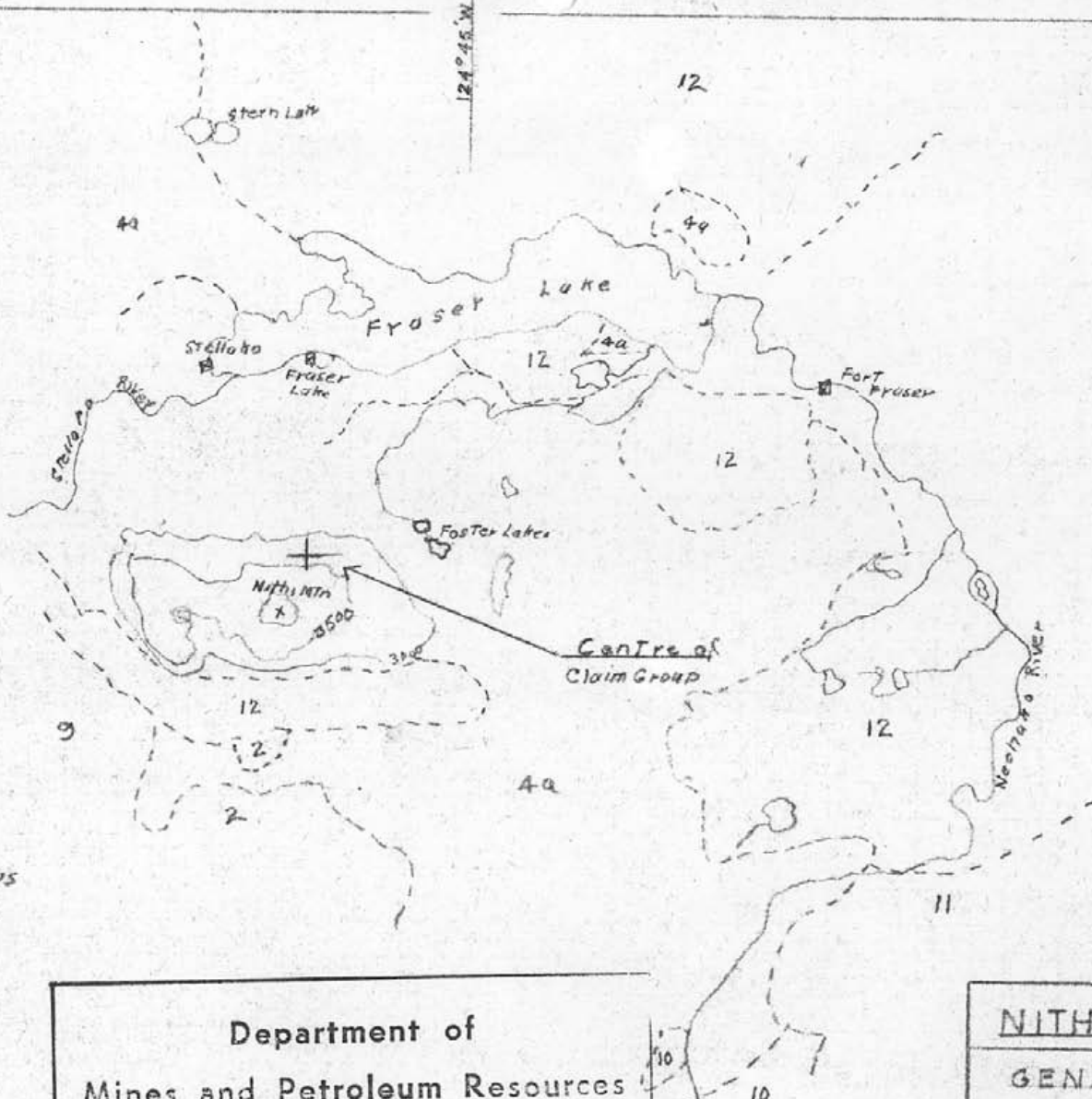
Moderately altered rock has the K-feldspar bleached to a pale pink, and the plagioclase assumes an apple green colour. Grain sizes are 1 mm to 5 mm with a few up to 5 mm.

Quartz veins, from hair line to 4" wide, are seen throughout the stripped area, and their frequency varies from

1) B. C. Department of Mines & Petroleum Resources,
Minister of Mines Reports 1964, 1965, Endako Area.

124°45'W

54°N



LEGEND

- 12 Till, Gravel, etc
 - 11 andesite, basalts
 - 10 Rhyolite, dacite, Tuff
 - 9 Basalt, andesite
 - 4a Granite, granodiorite
 - 2 Andesite, basaltic flows
- See GSC Map 1131A
Nethako River
and
Fort Fraser Map 630A

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NO. 2841 MAP #2

NITHI EXPLORATION LTD

GENERAL GEOLOGY and
CLAIM LOCATION

Date: June 11, 1970
Scale: 1" = 4 miles
Drawn by: *FR*
From GSC Maps 630A &
1131A

less than one inch apart to several feet. As the area was very muddy, vein counts could be higher.

There are two sets of fractures carrying mineralization:

- 1) 70° , Dip 40° - 50° S
- 2) 160° , Dip 40° - 50° S

These fractures are usually quartz filled.

Fractures also occur at the following angles:

- 3) 30° , Dip 85° - 90° S
- 4) 0° , Dip 85° W
- 5) 300° , Dip 80° W
- 6) 100° , Dip 75° S
- 7) 70° , Dip 20° N - This is the approximate slope of the hillside.

The two mineralized sets of fractures are usually quartz filled, and vary from hair line to 4" wide. The quartz can be either white or smoky black, often both occur together as bands. It is usually the black quartz that carries the molybdenite, together with a minor amount of specular hematite.

Mineralization occurs mostly as MoS_2 with pyrite in quartz, but a few fractures did not appear to have any quartz, and did contain MoS_2 and pyrite.

The MoS_2 can be seen as very fine specks in the quartz, and associated with pyrite as books up to $\frac{1}{4}$ " across.

MoS₂ occurs occasionally as disseminations in the wallrock on both sides of veins, or only on one side in small specks to $\frac{1}{4}$ " rosettes.

All fractures are iron stained with either or both limonite and hematite, which would conceal the staining by molybdcic oxide.

STRUCTURE:

Generally little can be seen on the property that indicates a major structure. There is one fault, 70° E, at the N. end of the North showings.

The aero-magnetic maps ²⁾ indicate a fault along the easterly boundary of the claim group at 124° 53' W running slightly east of north. This could be a major structural feature.

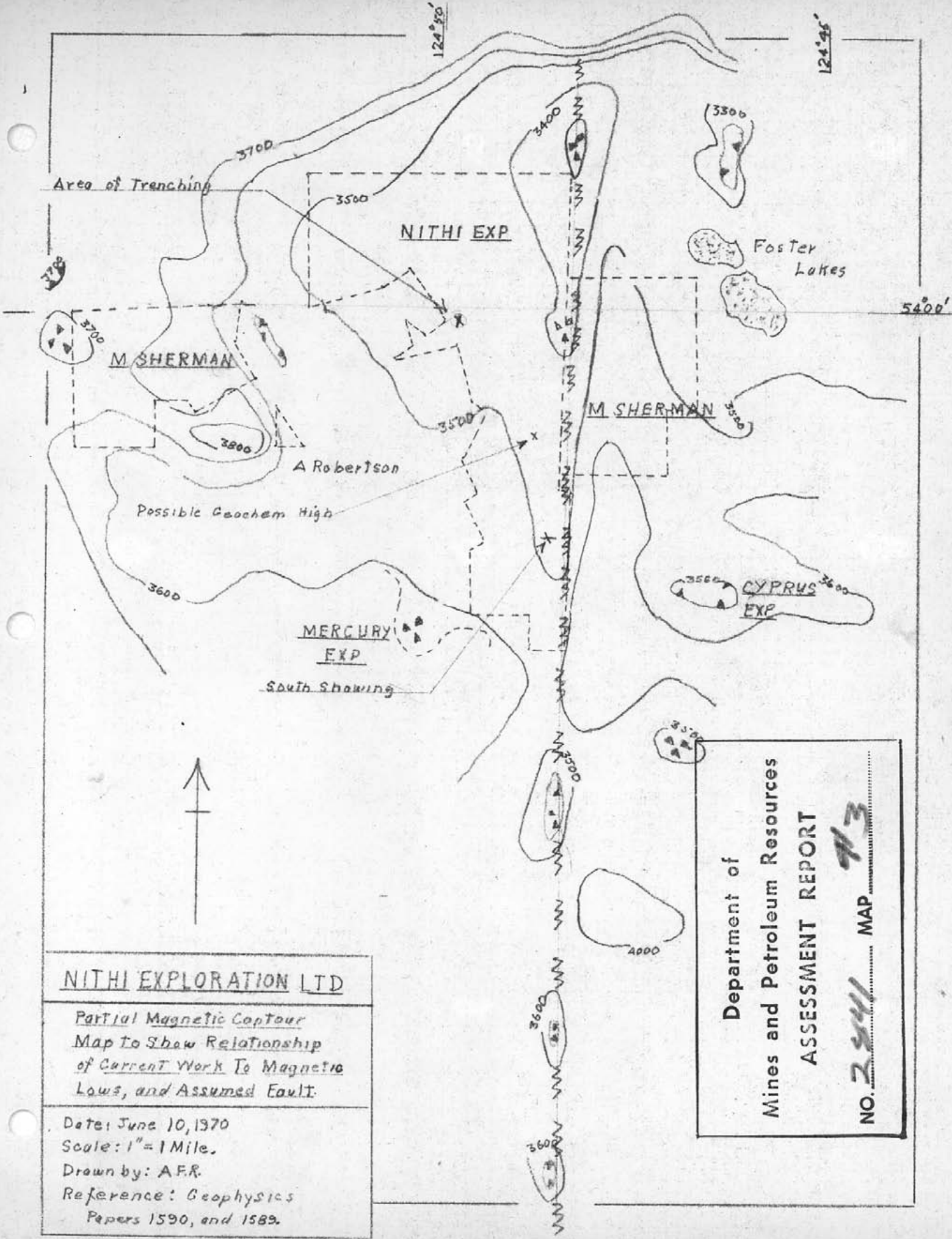
TRENCHING:

North Showing:

The enclosed map of the North Showing area is self-explanatory. There is a small amount of hand strip-ping, bulldozer clearing, and bulldozer trenching, and a few blasted pits.

Unfortunately, none are clean enough to ensure picking up all the mineralized areas, or to make an accurate count of the fracture system.

1) B. C. Department of Mines & Petroleum Resources, Aero-magnetic maps 1590G, 1589G.



NITHI EXPLORATION LTD

*Partial Magnetic Contour
Map to Show Relationship
of Current Work To Magnetic
Lows, and Assumed Fault.*

Date: June 10, 1970

Scale: 1" = 1 Mile.

Drawn by: A.F.R.

Reference: Geophysics
Papers 1590, and 1589.

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It must be noted that with a little effort, MoS_2 can be found at all locations, although the area has been heavily leached.

Alteration is moderate to heavy at all locations, and in zones of heavy alteration varies from a few inches to several feet.

Two samples taken in the highly altered trench ran 64, and 56 ppm MoS_2 .³⁾

South Showing:

In this area, three trenches have been bulldozed, and although partially caved, and very dirty, the rocks are the same as those in the North Showing, being light to moderately altered. Minor MoS_2 was reported, but not seen on this visit.

About 500 feet south, southeast of the trenches a showing on an old road has the same type of rocks, except that the K-feldspar has a banded appearance, and 1 - 2% biotite is present.

A 2" quartz vein carries a small amount of MoS_2 , and there is some dissemination of MoS_2 in the wall rock. No pyrite was noted, and there is only a light staining of the rocks by limonite. No pyrite was seen.

3) Sample sheets attached.

Fractures noted were:

70°, Dip 50° N (same as the 2" quartz vein)

20°, Dip 85° N

350°, Dip 70° W

Note: The 70° fracture has a north dip, opposite to those on the North Showing.

A specimen of the disseminated MoS₂ from this area ran 1.07% MoS₂.³⁾

Sampling was not done over all the trenching or showings because of the obviously heavy leaching, and the poor faces available.

CONCLUSIONS:

The area of the claim group is mostly covered with overburden, light to heavy forest, with comparatively few rock exposures.

Prospecting-trenching work has shown a considerable amount of alteration of the rocks, similar to that of the Endako Mines¹⁾ property.

Mineralization has been found every place where a little work has been done, both as disseminated, and vein-fracture filling.

3) Sample Sheets attached.

1) B. C. Department of Mines & Petroleum Resources, Minister of Mines Reports 1964, 1965, Endako Area.

Therefore, a more systematic approach must be made to find a commercial orebody.

RECOMMENDATIONS:

- (1) Have a map, 1,000 scale, 25 ft. contours and a photographic enlargement made up from air photos so that all work can be properly plotted.
- (2) Cut base lines through the property for tie-ins.
- (3) Take soil samples on 200 ft. centres over the whole property, marking all locations with flags.
- (4) Strip geochemical highs, if possible, to examine rocks.
- (5) Diamond drill geochemical highs, and if successful follow up with a major diamond drill program.
- (6) Geological mapping.

ESTIMATED COSTS:Stage I:

Air-photo map 1,000 scale [Lockwood Surveys]	\$	1,200.00
Cut 10 miles of base line @ \$125/mile and picket		1,250.00
Soil sampling, 4,000 samples 40 days @ \$100/day		4,000.00
Assaying, preparation, 4,000 @ \$1.75		7,000.00
Supervision and consultant, reports		2,000.00
4x4 pickup, rental and expenses		1,000.00
Board and room, 80 man days @ \$20/man day		1,600.00
DC-8 with rippers, 100 hrs. @ \$35/hour		3,500.00
Move in and out		500.00
Geological map using air-photo base		1,000.00
Travel expenses		1,000.00
Diamond drill, 1,000 ft. @ \$15/ft.		15,000.00
Assaying drill core, 200 @ \$5.00		1,000.00
		<u>40,050.00</u>
Overhead and contingencies - 20%		8,000.00
	Total	<u>\$ 48,050.00</u>

Stage II:

Diamond drilling - 10,000 ft. @ \$15/ft.	\$	150,000.00
Assaying - 1,000 @ \$ 5.00		5,000.00
		<u>155,000.00</u>
Overhead and contingencies - 20%		30,000.00
	Total	<u>\$185,000.00</u>

REFERENCES

- 1) B. C. Department of Mines & Petroleum Resources,
Reports of Minister of Mines 1964, 1965, Endako Area.
- 2) B. C. Department of Mines & Petroleum Resources,
Aero-magnetic maps 1590G Fraser Lake
1589G Hallett Lake
- 3) Assay Reports.

OTHER WORKS CONSULTED

Topographic Maps: Fraser Lake 93K/2 W and E
93F/15

Geological Maps: Fort Fraser 630A
Nechako River 1131A

Geology of Endako Molybdenum Deposit,
E. T. Kimura, H. D. Drummond, CIMM 1966.

C E R T I F I C A T E

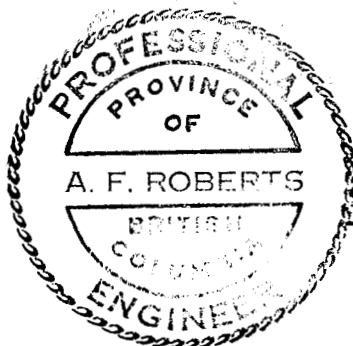
I, A. F. Roberts of 812 Fairbrook Crescent, Richmond, B. C., do hereby certify that:

- 1) I am a graduate of the University of British Columbia, (B.Ap.Sc.) in Mining Engineering, 1951.
- 2) I am registered as a Professional Engineer of the Province of British Columbia, and am a member of the Canadian Institute of Mining and Metallurgy.
- 3) I have practiced my profession since 1951 with Quatsino Copper Gold Mines Ltd., Giant Mascot Mines Ltd., Cochenour Willans Gold Mines Ltd., Mogul Mines Ltd., Kerr Addison Gold Mines Ltd., Atlantic Coast Copper Corp. Ltd., Wasamac Mines Ltd., Brenda Mines Ltd., and T.C. Explorations Ltd.

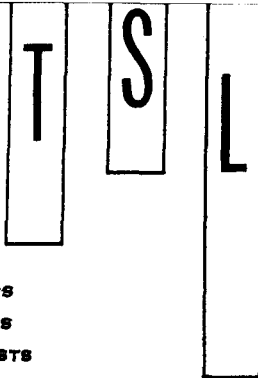
I am Vice-President, and a Director of Bathurst Inlet Mining Corporation Ltd., Vice-President of Bathurst Norsemines Ltd., and a Director of Central Arctic Copper Mines Ltd. Previous to University I had worked underground as a miner.

- 4) The accompanying report is based on a personal examination of the property between June 2nd and June 10th, 1970.
- 5) I have not, nor do I expect to receive, any interest, directly or indirectly in these properties, or any of their securities.
- 6) I consent to the use of this report in, or in connection with a prospectus, or a statement of material facts relating to the raising of funds for this project.

DATED at Vancouver, B. C., this twelfth day of June, 1970.



A. F. Roberts
A. F. Roberts, P. Eng.



Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 688-3504

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM **Nithi Explorations**

REPORT NO.
V-7766

SAMPLE(S) OF **ROCK**
cc/ **Mr. A.F. Roberts**

Sample No: **Molybdenite(MoS₂)%**

41860

1.07

Specimen, disseminated, s. showing

DATE June 11, 1970

SIGNED 

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

● DIVISION OF TECHNICAL SERVICE LABORATORIES

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Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 688-3504

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM **Nithi Explorations**

REPORT NO.

V-7452

SAMPLE(S) OF **Geochemical Rock Analysis**
cc/ **Mr. A.F.Roberts**

Results in p.p.m.

Sample No:	Molybdenite (MoS ₂)
41858	64 26' - Noolin, W wall
41859	56 50' - Noolin, W wall

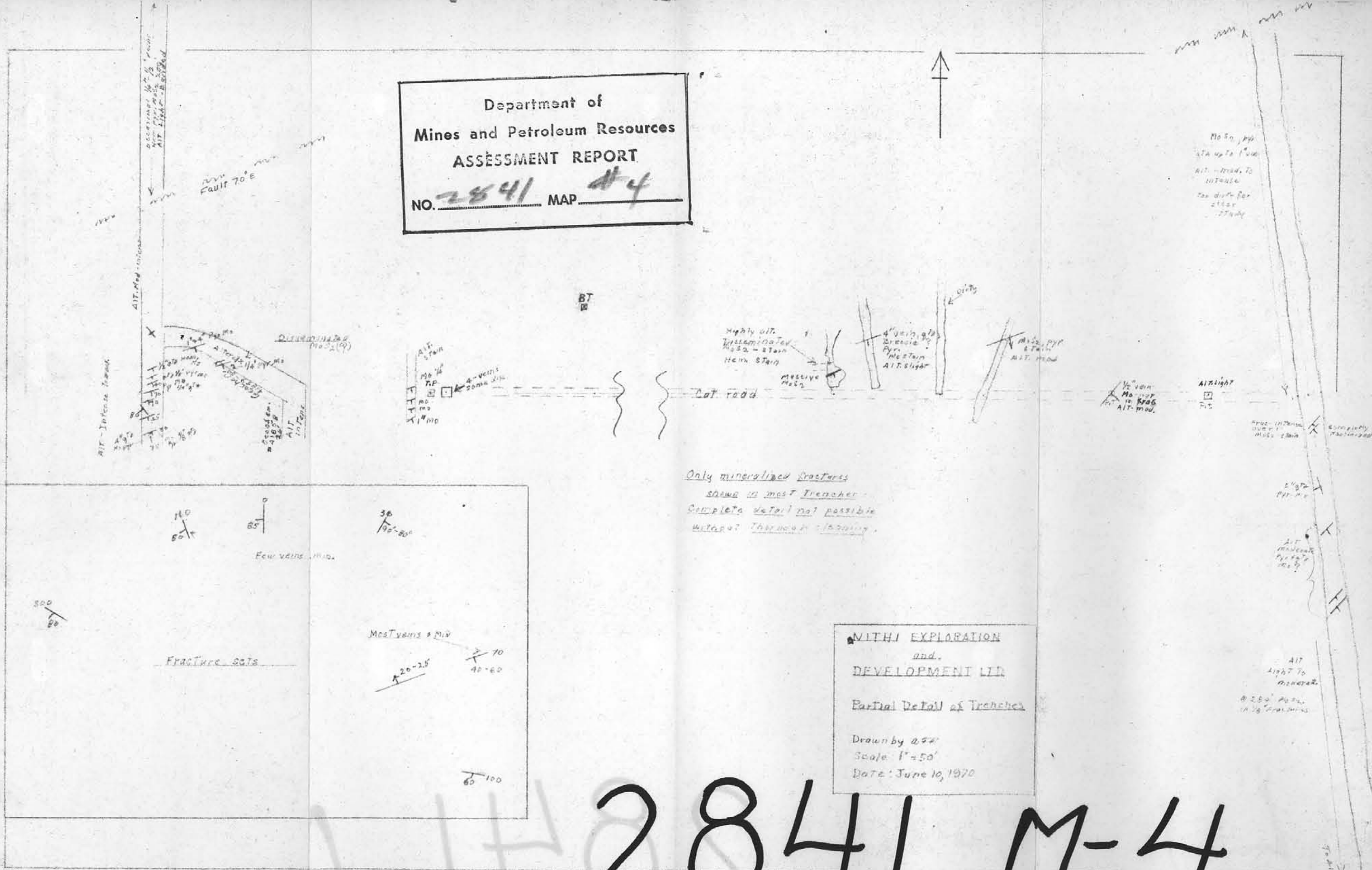
DATE June 11, 1970SIGNED 

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

● DIVISION OF TECHNICAL SERVICE LABORATORIES

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2841 MAP M-4



2841 M-4