

257

NORANDA EXPLORATION COMPANY LIMITED

GEOLOGICAL SURVEY

of the

TYNER LAKE PROPERTY

NINE MILES NORTH

of

LOWER NICOLA, B.C.

50° 120° East Southeast

Handwritten notes:
Xerox of file 1, 2, 3, 4, 5
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M.M. Menzies, P.Eng.

May - August, 1958.

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COST STATEMENT

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1 + 2 TWO GEOLOGICAL MAPS - - - - - Scale 1" = 400'
(North + South Sheet)

3 + 4 TWO CLAIM MAPS - - - - - Scale 1" = 400'
(North + South Sheet)

NORANDA EXPLORATION COMPANY LIMITED

COST OF GEOLOGICAL SURVEY

of the

TYNER LAKE PROPERTY

NINE MILES NORTH

of

LOWER NICOLA, B.C.

MAY - AUGUST, 1958

PROFESSIONAL:

SUPERVISORY - 15 days @ \$35.00/day	\$ 525.00
MAPPING - 30 days @ \$35.00/day	\$1050.00

TECHNICAL:

DRAUGHTING - 25 days @ \$20.00/day	\$ 500.00
SURVEYING - 75 days @ \$20.00/day	\$1500.00

LABOR:

LINE CUTTING - 150 man days @ \$15.00/day	\$2250.00
ASSISTANTS - 100 man days @ \$15.00/day	\$1500.00

TOTAL \$7325.00

COST DISTRIBUTION:

<u>CLAIM</u>	<u>NO. OF CLAIMS</u>	<u>DISTRIBUTION/CLAIM</u>	<u>TOTAL</u>
MATT No. 1	1	\$100.00	\$ 100.00
MATT No's 4-6 inclusive	3	\$100.00	\$ 300.00
DIP No's 1-9 inclusive	9	\$100.00	\$ 900.00
DIP No's 11 & 14	2	\$100.00	\$ 200.00
PAT No's 1-8 inclusive	8	\$100.00	\$ 800.00
PAT No's 10, 12 & 13	3	\$100.00	\$ 300.00
PAT No's 17-22 inclusive	6	\$100.00	\$ 600.00
RIP No's 2, 3 & 4	3	\$100.00	\$ 300.00
RIP No's 7-10 inclusive	4	\$100.00	\$ 400.00
RIP No's 19-30 inclusive	12	\$100.00	\$1200.00
CAT No's 1-14 inclusive	14	\$100.00	\$1400.00
CAT No's 16,17, 18 & 21	4	\$100.00	\$ 400.00
	<u>69 claims</u>		<u>\$6900.00</u>

M. M. King

NORANDA EXPLORATION COMPANY LIMITED

GEOLOGICAL SURVEY

of the

TYNER LAKE PROPERTY

INTRODUCTION:

Noranda Exploration Company Limited optioned 114 claims in the Tyner Lake Area from William Marchant Rand, 736 Granville Street, Vancouver, B.C. in April, 1958. A programme of extensive road building, camp construction, surveying, line cutting, geological mapping and geophysical work was started on the 14th of May and completed by the 9th of August.

DESCRIPTION:

The Tyner Lake property is located around Tyner Lake 9 miles north of Lower Nicola, B.C. A rough but serviceable road branches off the Aberdeen road about 8 miles north of Lower Nicola and continues westerly to Tyner and Farr lakes and thence southerly to the Gordon Creek property where junction is made with a system of old logging roads leading to Dot on the Merritt-Spences Bridge highway. Five miles of new construction was completed by Noranda Exploration Company Limited and extensive repairs made to poorer sections of earlier road work. In relation to local mines, Tyner Lake property is 6 miles north of Craigmont and 12 miles south of Highland Valley.

Tyner Lake is 5 miles west of Guichon Creek where property elevations range from 4200 to 4900 feet. The southern claims are in an area of low rock ridges and many swamps and these features show pronounced northerly and northwesterly strikes. The northern terrain is more level with less outcrop. Lakes and swamps cover about 15% of the property. Ridges are covered by lodgepole pine, and spruce and poplar grow abundantly near swamps. The area is drained in the north by Skuhun Creek flowing westerly to the

Nicola river and in the south by Tyner creek flowing easterly to Guichon creek. Climate is characteristic of the Interior dry belt with light rainfall in the summer and moderate snowfall in the winter.

BIBLIOGRAPHY:

- Cockfield, W.E. (1948): Geology and Mineral Deposits of Nicola Map-Area, British Columbia; Geol. Surv., Canada Memoir 249
- Duffell, S. and McTaggart, K.C. (1951): Ashcroft Map-Area. British Columbia; Geol. Surv., Canada Memoir 262
- Rice, H.M.A. (1947): Geology and Mineral Deposits of the Princeton Map-Area, British Columbia Geol. Surv., Canada Memoir 243
- White, W.R., Thompson, R.M., McTaggart, K.C. (1958): The Geology and Mineral Deposits of Highland Valley, B.C. C.I.M. Transactions Vol. LX. 1957, PP 273-289

GENERAL GEOLOGY:

The Tyner Lake property is near the eastern edge of the Guichon Creek batholith and 6 miles north of Craigmont mine which marks the southern extremity of the batholith. The Guichon Creek batholith is bounded on the east by the Guichon Creek valley, on the southwest by the Nicola river, and on the north and west by Thompson river. It is 40 miles in length and has a maximum width of 17 miles.

The predominant rock types are granodiorite and quartz diorite with some gabbro found along Guichon creek. Extensive areas of the batholith, mainly to the north of Highland valley, are overlain by late Tertiary volcanics of the Kamloops group.

Copper mineralization occurs in the Guichon creek batholith and along its contacts with Nicola Group rocks. The largest deposits found so far are on the Bethlehem Copper property where copper minerals occur in

fractured quartz diorite which intrudes the rocks of the batholith, and in a breccia probably derived in part from the Guichon Creek batholith. At other properties in Highland Valley copper minerals are found in altered and jointed quartz diorite, and in faults cutting quartz diorite. At the O.K. mine, 14 miles northwest of Tyner Lake, 10,000 tons of copper ore were mined and about 1,400 tons of concentrate shipped. At the Aberdeen mine, 3 miles east of Tyner Lake, 1,809 tons of ore averaging 10.82 percent copper were mined. This deposit is associated with an inclusion of greenstone in rocks of the Guichon Creek batholith. The Craigmont copper deposit occurs in Nicola Group rocks near the contact with the batholith.

REASONS FOR INVESTIGATION:

The Tyner Lake property lies 3 miles west of the Aberdeen mine where copper mineralization occurs in a Nicola greenstone inclusion in batholithic rocks. Vague reports of similar inclusions and strong magnetic anomalies appeared worthy of investigation.

The only geological data available on the Tyner Lake area is contained in the G.S.C. Memoir 249 and the accompanying 4-mile scale map. Because a large proportion of the area is covered by glacial till, river gravel, swamp, and lake it was thought remotely possible that a major Nicola-Batholith contact, with favorable conditions similar to those at the Craigmont mine, might exist on the Tyner Lake property.

Aerial photographs disclosed northerly and northwesterly lineaments which suggested major faults or shear zones. These structures are frequently mineralized in the Guichon Creek quartz diorite and warrant investigation.

The Tyner Lake property was suited to the efficient and economical geological and geophysical survey methods used by Noranda Exploration Company Limited.

SURVEY CONTROL:

Old north-south, east-west lines of the Railway Belt survey were recut and chained at 100 foot intervals and the corner markers located. Where necessary, additional lines were laid out thus forming a grid system over the Tyner Lake property with each square measuring approximately one half mile on the side. Geology was mapped on a scale of 1 inch to 400 feet by running east-west pace and compass traverses between two known points. The same method was employed to control the electromagnetic survey. Claim posts were tied in by a chain and compass survey.

GEOLOGY OF THE TYNER LAKE PROPERTY:

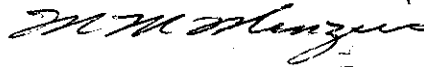
Except for a small outcrop of agglomerate, the only rock found on the Tyner Lake property is the massive quartz diorite or granodiorite of the Guichon Creek batholith. This rock is white in colour and contains quartz, plagioclase, orthoclase, biotite, hornblende, and minor accessory magnetite. The only copper mineralization found on the property was some sparse chalcopyrite disseminated in quartz diorite at No. 3 baseline and 1800' south on the Pat No. 7 claim. Very little outcrop occurs north of the No. 1 North baseline and none was found on the most northerly Pat claims. A small outcrop of agglomerate on the Cat No. 3 claim is probably Kamloops volcanics.

RESULTS AND CONCLUSIONS:

1. No important copper mineralization was found in areas of abundant outcrop.
2. No brecciation of batholithic rocks similar to that on the Bethlehem Copper property was noted.
3. No Nicola rocks were found and thus the possibility of a Craigmont-type deposit occurring on the property is remote.
4. Electromagnetic work did not disclose any conductors and the weak aeromagnetic anomalies were caused by hills and ridges underlain by granodiorite.

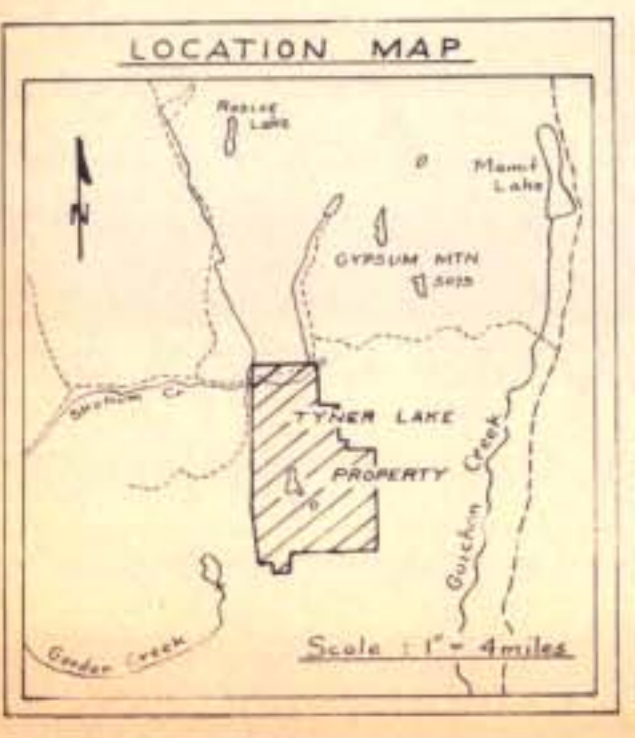
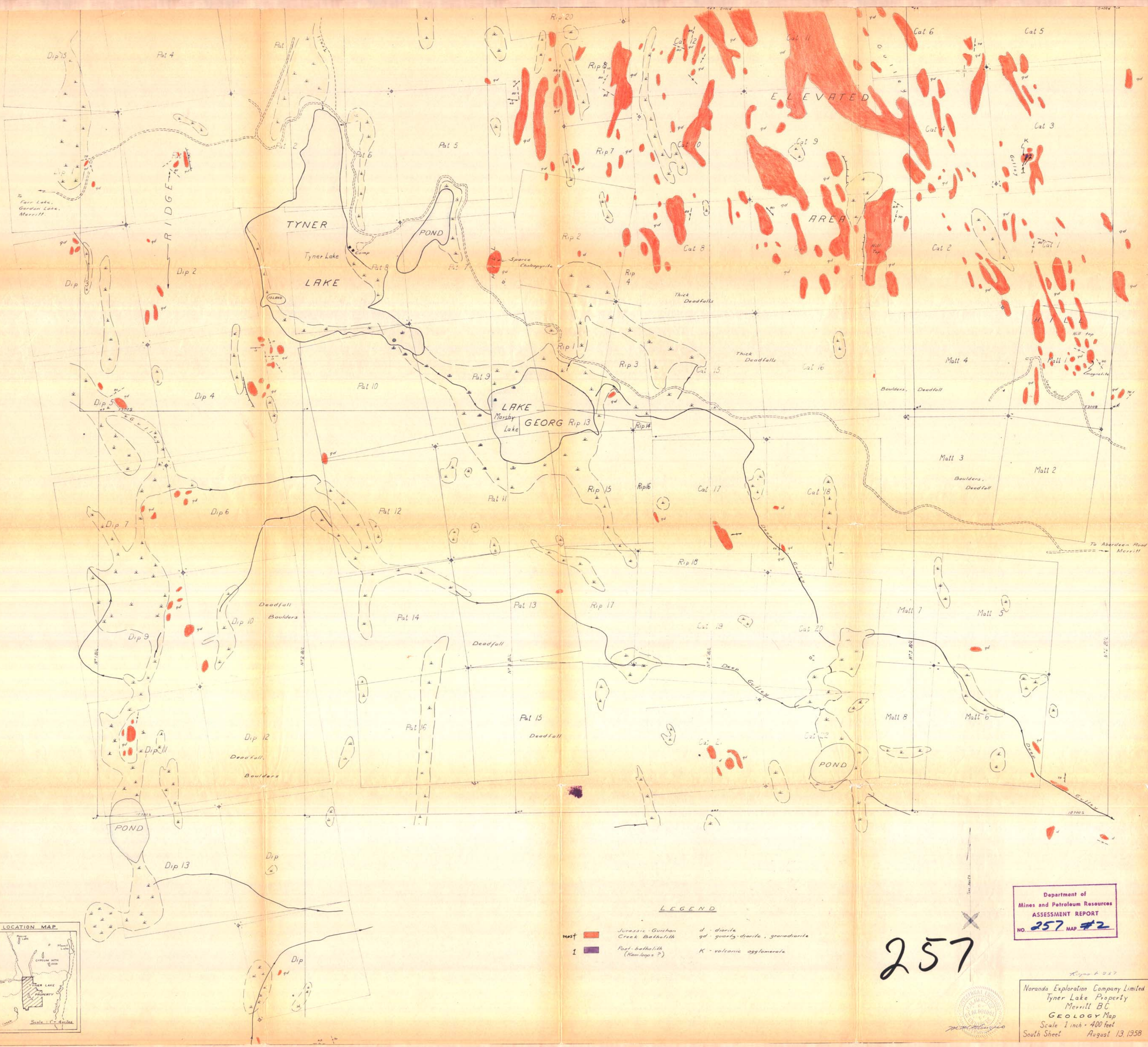
5. The most interesting features of the Tyner Lake property, the swamp filled northerly and northwesterly trending lineaments, cannot be eliminated by our electromagnetic work where overburden exceeds 100 feet. It is possible that these structures may contain small copper deposits of the O.K. type.
6. Only geological mapping was done on the north half of the property and thus further work here could be considered.

Respectfully submitted,



Morris M. Menzies, P.Eng.

MMM/ai



LEGEND

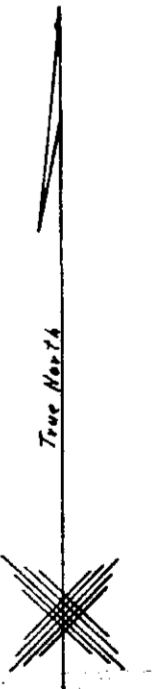
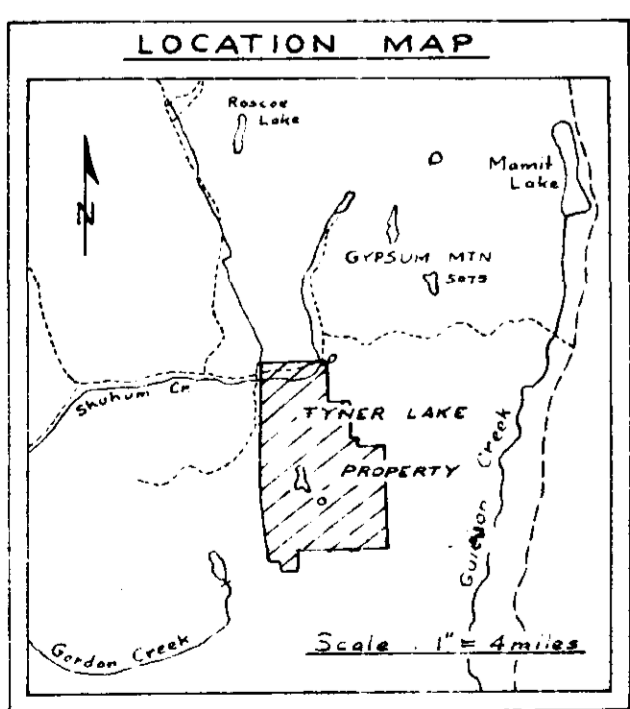
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|------|------------------------------------|--------------------------|-----------------------------------|
| mass | Jurassic - Guichon Creek Batholith | d - diorite | gd - quartz-diorite, granodiorite |
| 1 | Post-batholith (Kamloops?) | K - volcanic agglomerate | |

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Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 257 MAP #2



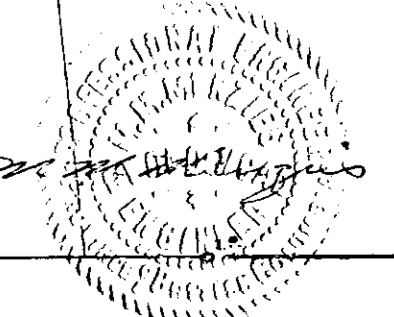
Noranda Exploration Company Limited
Tyner Lake Property
Merrill BC
GEOLOGY Map
Scale 1 inch = 400 feet
South Sheet August 13, 1958



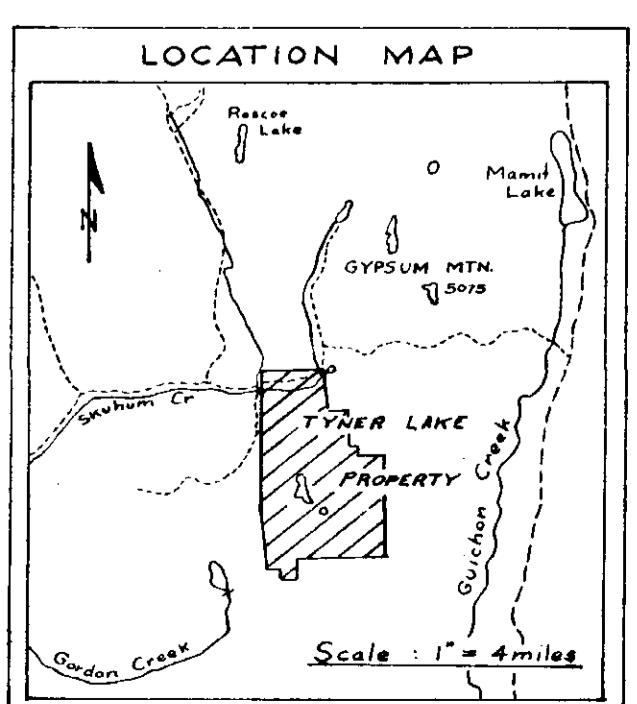
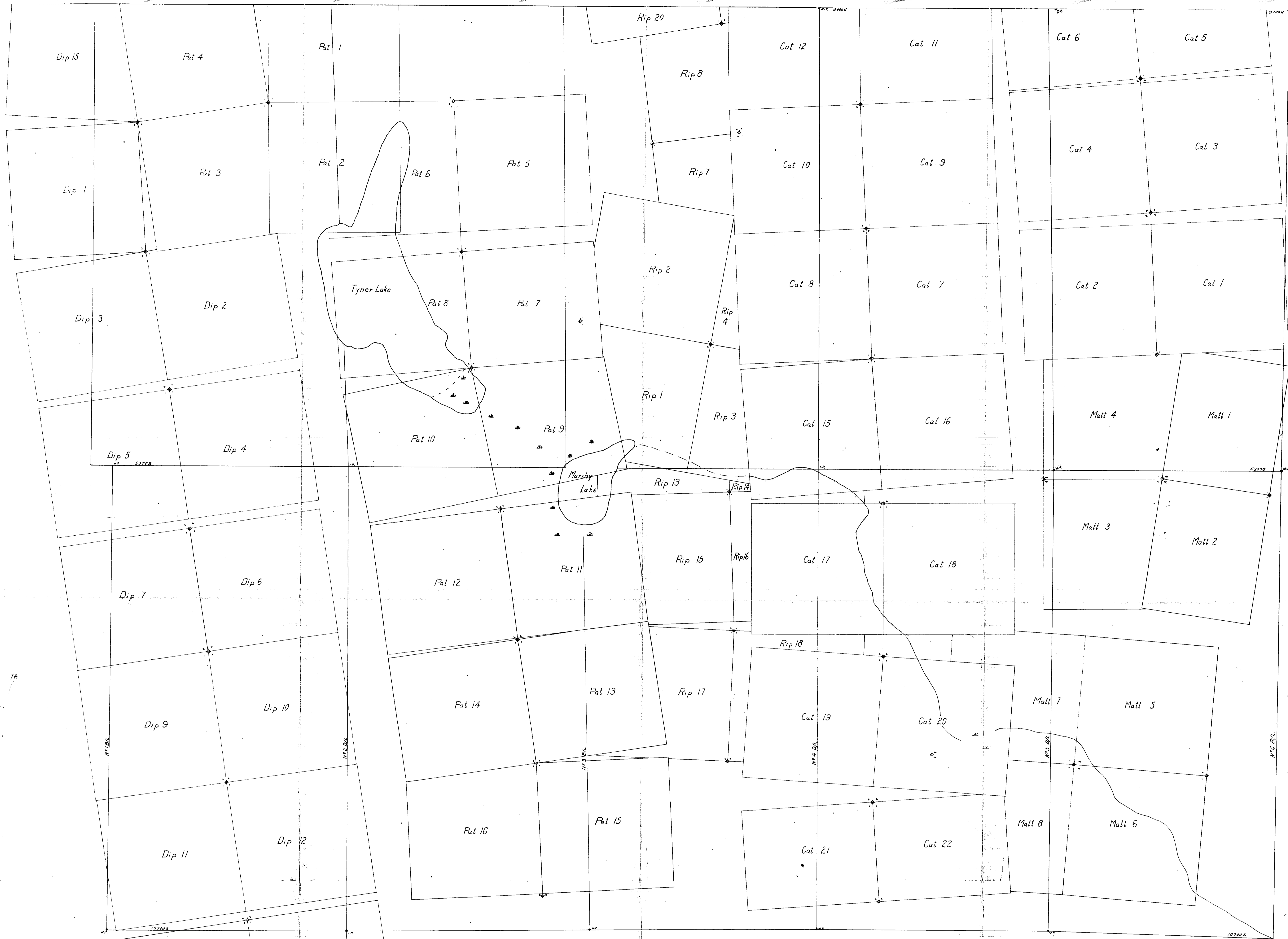
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **257** MAR **43**

Noranda Exploration Company Limited
Tyner Lake Property
Merrill B.C.
Claim and Grid Map
Scale: 1 inch = 400 feet
North Sheet August 13, 1958

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August 257



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Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 257 MAP #4



Report 257
 Noranda Exploration Company Limited
 Tyner Lake Property
 Merrill B.C.
 Claim and Grid Map
 Scale: 1 inch = 400 feet
 South Sheet August 13, 1955