3407

REPORT

ON

ROTTACKER CREEK PROPERTY

FOR

NATION LAKE MINES LTD.

Lat. 55° 20' N

Long. 125° 10' W

93 N /6E

BY

L. D. GATENBY, P. ENG.

Vancouver, B. C.

August 5, 1971

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SUMMARY, CONCLUSIONS AND RECOMMENDATIONS:

The Rottacker Creek property of Nation Lake Mines Limited comprises 62 claims and one fraction staked in two groups in 1970 covering the western contact area of the Omineca Batholith a few miles east of Indata Lake. The Pinchi fault zone is along the western side of the Batholith and subsidiary and/or branching faults probably are present in the granodiorite underlying the claim group.

One small shear zone copper occurrence has been known for a number of years on a tributary of Rottacker Creek. Formal recorded work in the way of reconnaissance geological mapping and soil sampling was first done by Cominco in 1967 on the lower western part of the claims just covering the old showing. This report deals with grid line cutting and a geochemical soil survey comprising about thirty line miles of grid and 500 soil samples by Nation Lake Mines Limited in July 1971 over the eastern part of the claim group to the east of the Cominco survey and our inspection of this work, observations and interpretation of the results.

It is considered both soil surveys have adequately covered the claim block and have indicated a weak and discontinuous mineral trend conformable with the old occurrence over several thousand feet of length and a few hundred feet of width. From our inspection of several outcrops and overburden conditions it is concluded the zone is probably composed of several small shear zone occurrences similar to the old showing and no further work is justified at this time.

PURPOSE AND SCOPE OF REPORT:

At the request of Mr. P. J. Martin, President of Nation Lake Mines Limited [N.P.L.] an examination was made by the writer of the Rottacker Creek property July 25th and 26th in the company of W. Rigler, one of the original stakers. At the time of the examination a crew of three men were busy line cutting and soil sampling the property. It was the purpose of the examination to advise and report on this work and assess the physiography as relating to the soil sampling and the geology and mineralization of the area. The writer took eleven check soil samples, inspected the soil holes and claim posts on three grid lines and mapped the original copper occurrence.

LOCATION AND ACCESS: [See Location Map No. 1]

The Rottacker Creek property is located in the Omineca Mining Division of B. C. at about 55° 20' N latitude and 125°11' W longitude and 3,500' elevation. It is situated about three miles east of Indata Lake, which is one of the chain of Nation Lakes about 140 miles northwest of Prince George. Access is via helicopter to the property, or float plane to Indata Lake from Fort St. James. Access is also possible for equipment from the Vanderhoof road by boat on the Nation Lake's chain. Bulldozers are also reported to have reached the north end of Indata Lake by way of Mansion Creek and Kwaneka Creek.

PROPERTY AND OWNERSHIP: [See Claim Map No. 2]

The property comprises 62 claims and a fraction made up by 18 Rot and 44 "C claims" and a fraction. The

Rot claims were staked on February 24, 1970 and recorded March 13, 1970 by C. J. Campbell as agent for P. J. Martin. One year's assessment work has been filed on these claims. The "C claims" group was staked August 4, 1970 and recorded August 14, 1970 by W. Rigler as agent for Tchentlo Lake Mines Limited [now Nation Lake Mines Limited]. Record numbers of the individual claims are:

Rot #3 - #20	Record Nos. 86470 - 487
C Claim #1 - 44	Record Nos. 92569 - 612
C Claim #1 Fraction	Record No. 92613

The posts and claim lines of the Rot #17 and #18 and C claims Nos. 21 to 24 were inspected and found to be in accordance with the location regulations of the B. C. Mineral Act.

HISTORY:

The copper occurrence on the tributary of Rottacker Creek was reportedly first shown to prospectors W. Rigler and R. Jackson about 1960 by an Indian trapper and they have since intermittently held claims covering this showing. In 1967 Cominco Ltd. conducted a reconnaissance geological and geochemical soil survey on compass traverse lines spaced about 400' apart covering an area about 4,000' by 6,000' in the southern part of the present Rot claims and just covering the copper occurrence. The present survey was done between July 14th and 30th, 1971.

GENERAL PHYSIOGRAPHY, GEOLOGY AND MINERALIZATION:

The property is situated in the Omineca Batholith near its western contact and southern tip. The

batholith extends in a northwesterly direction for about 100 miles with the Pinchi fault along its western side. The fault and its many branches cut Cache Creek and Takla Group sediments and volcanics as well as some batholith rocks. The Pinchi fault has late movement and also quite possibly represents a pre-batholith break. It is important for mercury deposits and in addition several notable occurrences of copper mineralization are known in the batholith near its western contact such as Nation Lake's Tchentlo property, Falconbridge's Chuchi Lake property, Hogam Mine's Kwanika Creek deposit and several occurrences in the neighborhood of Old Hogam.

Near the western boundary of the claims and west of Rottacker Creek limestone bluffs are reported and the claims roughly cover the northerly trending western contact of the batholith. The original copper occurrence, as exposed at one location on the north bank of a steep walled creek, is in a N 15° to 20° W trending shear zone with alteration over about a 15' to 20' width. Our examination showed several outcrops of fresh granodiorite or quartz monzonite with some fracturing and several remnant islands of Tertiary acid lavas [rhyolite] and red weathering detridal sediments in the tributary stream valleys.

The claims cover the lower slopes of Nation Mountain and glacial drift depths decrease and outcrop frequency increases towards the east. The Cominco survey covering about a mile width on the low western side reported about 5% rock outcrop. Glacial drift cover over most of this area is thick and geochemical sampling would generally only be effective in the drainages. However, east of this in the present survey area the overburden

cover is relatively light with rock fragments in the soil and where not swampy is considered acceptable for soil surveys.

WORK DONE: [See Maps Nos. 3 and 4]

The present survey work entails about 66,500' of line cutting on the Rot claims group, 116,600' on the "C Claim" group and 495 soil samples, 11 check samples and 1 rock sample. Lines were run north-south parallel to the claim lines from a central base line. Although near parallel to the regional structures, the small 400' line spacing gives reasonable cross section continuity. About 20% of the area was found to be swampy with deep humus and was not soil sampled. Some outcrops of granodiorite as well as the original showing were inspected, mapped and located on the geochemical soil map.

DISCUSSION OF RESULTS:

As explained earlier, the physiography of the property is such that soil sampling at 400' intervals should detect any large porphyry type bodies of copper and/or molybdenum from about the zero or "L" line on the eastern part of the Rot claims and most of the "C Claim" group. The 1967 Cominco survey to the west is in deeper glacial drift with less than 5% outcrop noted [most of this is barren Tertiary rocks] and for the most part would probably not be effective except that if a substantial amount of mineral was present it should have been detected in the drainages.

Both these surveys have shown several scattered and small groups of anomalous samples. Some of these can be roughly grouped in a N 10° to 20° W trending zone up to 1,000' wide over the original shear zone occurrence and probably indicating some continuation of this and other small shears in the general trend. These results, however, do not suggest enough size or continuity of the mineralization to justify more work. Other scattered anomalous samples further up the mountain were mainly on the edge of swamp areas and in small drainages and were probably largely influenced by the humus content of the soil and shallow water table.

The original showing is typical chloritized and seritized alteration of the granodiorite over a 15' to 20' width controlled from one or more 6" shear zones trending N 10° to 20° W. The old pit is badly fractured due to blasting and sloughed. One 6" shear zone dug out showed quartz and calcite stringers with chalcopyrite and pyrite in the shear and also one foot blebs in the alteration halo on small cross fractures. One rough chip sample of the alteration material gave 0.13 oz. silver per ton and 0.14% copper. The occurrence is considered important only as a marker in a possible general mineral trend.

The granodiorite or quartz monzonite of the batholith in this area has a disseminated magnetite content of 2% to 3% which would give it a high variable background. Hydrothermal alteration zones should register as magnetic lows. Conversely, a steep magnetic high might indicate a rock change to possibly an ultrabasic or hydrothermal magnetite in a mineralized structure.

Respectfully submitted,

L. B. Gatenby, P. Eng.

CERTIFICATION

I, Lisle B. Gatenby, of the City of Vancouver, in the Province of British Columbia, hereby certify as follows:

1] That I am a Registered Professional Engineer in the Province of British Columbia.

2] That I am a graduate of the University of British Columbia in the faculty of Mining Engineering.

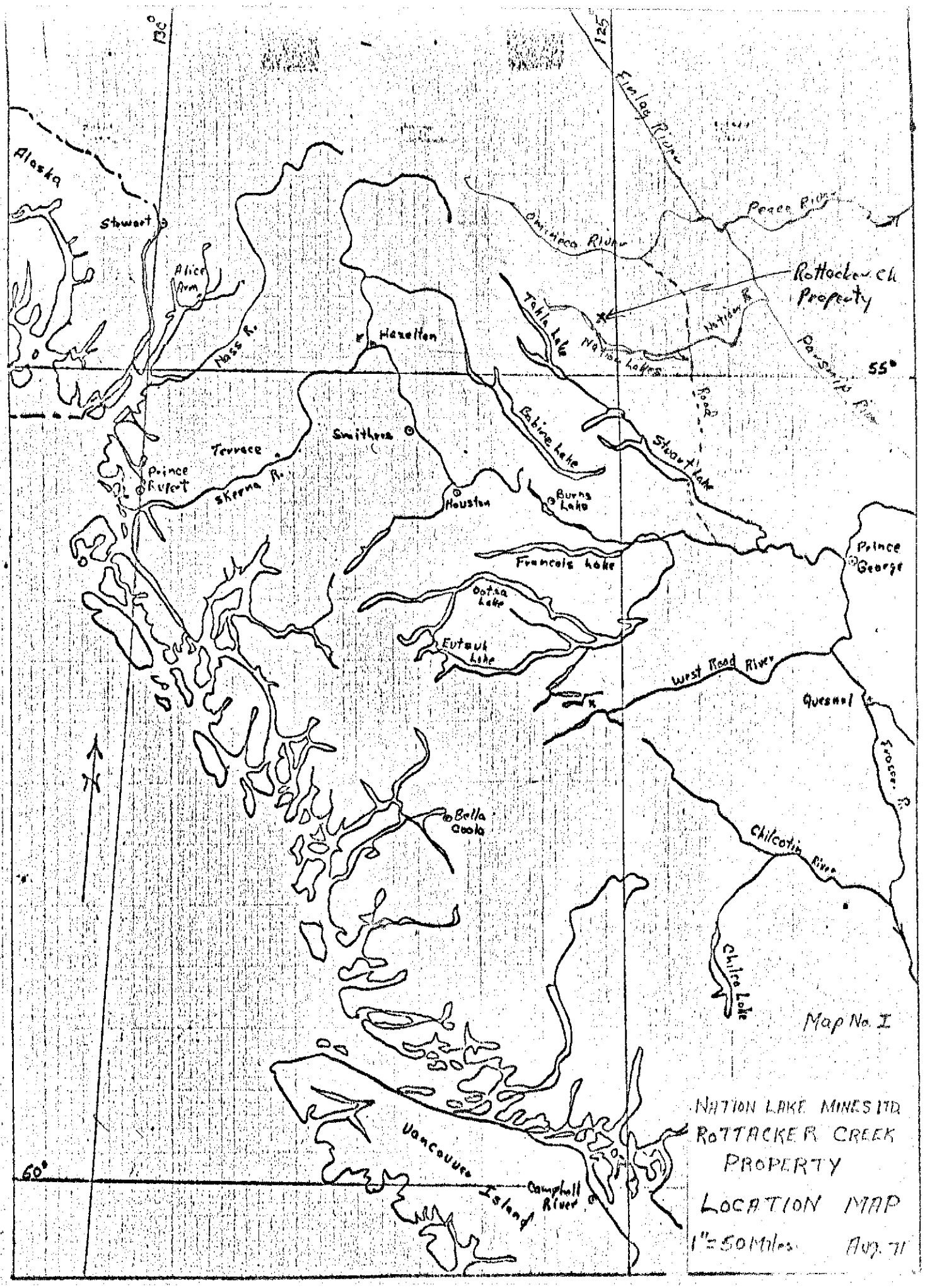
3] That I have practiced my profession as an exploration and mining engineer continuously for the past twenty-five years in western Canada and the United States and in northern South America.

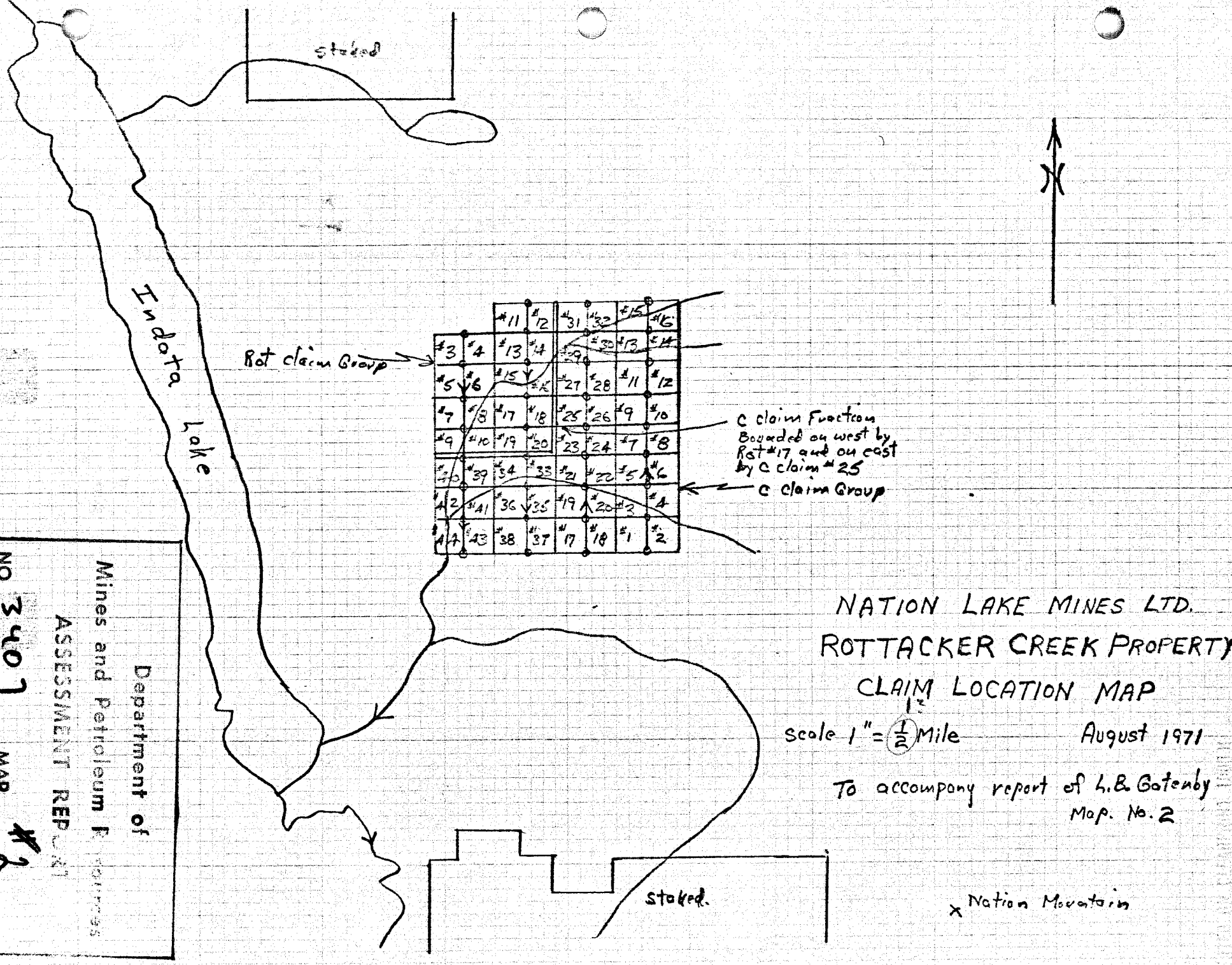
4] That I have no interest, directly or indirectly, in any of the securities or properties of Nation Lake Mines Limited.

5] That the information contained herein was obtained from my examination of the property July 24th and 25th, 1971 and information supplied by the employees of Nation Lake Mines Limited.

L. B. Gatenby, P. Eng.

Vancouver, B. C.,
August 5, 1971


130°
125°
Alaska
Stewart
Alice Arm
Nass R.
Hazelton
Omineca River
Peace River
Rottacker Ck Property
Tahla Lake
Nation Lakes
Nation R.
Parsnip River
55°
Babine Lake
Stuart Lake
Terrace
Smithers
Prince Rupert
Skeena R.
Houston
Burns Lake
Francois Lake
Prince George
Ootsa Lake
Eutsuk Lake
West Road River
Quesnel
Fraser R.
Bella Coola
Chilcotin River
Chilco Lake
Map No. I
Vancouver Island
Campbell River
60°
NATION LAKE MINES LTD
ROTTACKER CREEK
PROPERTY
LOCATION MAP
1"=50 Miles
Aug. 71



NATION LAKE MINES LTD.

ROTTACKER CREEK PROPERTY

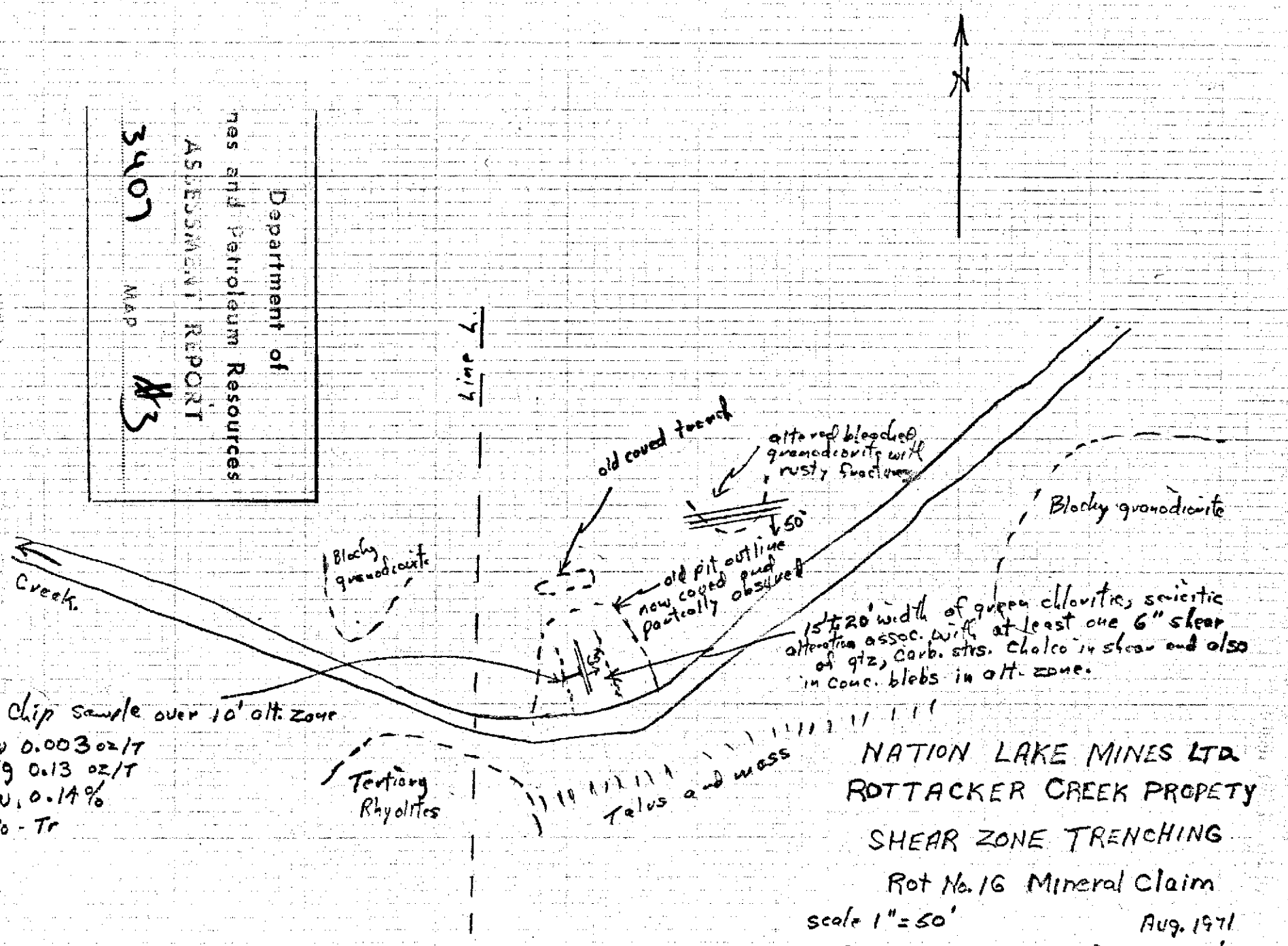
CLAIM LOCATION MAP

scale 1" = ½ Mile — August 1971

To accompany report of L. B. Gotenby

Map. No. 2

× Nation Mountain



NATION LAKE MINES LTD.
ROTTACKER CREEK PROPETY
SHEAR ZONE TRENCHING
Rot No. 16 Mineral Claim
scale 1" = 50' Aug. 1971
To accompany report of L.E. Bot by
Map No. 4