

5449

92H/6E

GEOLOGICAL REPORT

on the

COQUIHALLA PROPERTY

for

RICH HILL MINES LTD. (N.P.L.)

92H 6W New Westminster, B.C.

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 5449	MAP

August 6, 1974
Vancouver, B.C.

L. Sookchoff, P.Eng.,
Consulting Geologist

LIST OF ILLUSTRATIONS

	Scale	
#1 LOCATION MAP	1" = <u>134 miles</u>	<i>ridiculous!</i>
2 CLAIMS AND GEOLOGY SHOWING ANOMALOUS ZONES	1" = 3000 feet	
GEOCHEMICAL AND MAGNETOMETER SURVEY - JOHN CLAIMS	1" = 400 feet	
3 MAGNETOMETER SURVEY - KING CLAIMS	1" = 400 feet	
4 GEOCHEMICAL SURVEY - KING CLAIMS	1" = 400 feet	

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SUMMARY

The Coquihalla property of Rich Hill Mines is comprised of two separate groups of claims situated approximately 16 miles northeast of Hope, British Columbia.

Sufficient water is available for all phases of the exploration and development programme.

A natural gas line is within 500 feet of the King Group.

Diesel electric power would be required for the initial phases of the programme.

Gold-bearing quartz veins were first discovered in the Hozameen and Ladner rock groups in 1891, however, not until 1927 was the Coquihalla Serpentine belt prospected for gold and the Aurum prospect now being explored by Carolin Mines was discovered.

Since mid-1973 Carolin Mines has conducted exploration work on two former producers - the Aurum and the Pipestem Mine.

A preliminary magnetometer and geochemical survey over portions of the John and King claims outlined two northwesterly trending anomalies on the King 12 and King 14 claims. Values of up to 108 ppm As. in a background of 10 ppm occur within the anomalies.

A subtle anomaly is indicated on the John 13 mineral claims.

Pyrite mineralization was located on the John claims.

On the Pipestem property which Carolin Mines is currently exploring, mineralization occurs as pyrite and arsenopyrite with sporadic high gold values in silicified zones of the Ladner Group.

CONCLUSIONS AND RECOMMENDATIONS

The John and King claims cover an area which is geologically favourable for the location of gold-bearing zones such as occur within three miles to the northwest of the property currently under exploration by Carolin Mines.

Two significant northwesterly trending anomalous zones have been located on the King claims. Sub-anomalous readings occur on the John claims.

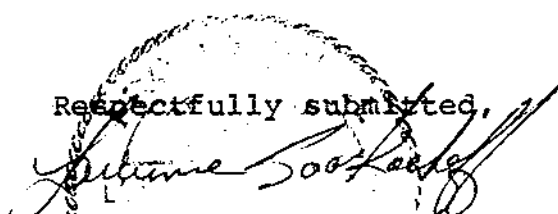
The potential of locating mineral-bearing structures has been enhanced by the preliminary surveys and follow-up reconnaissance and detail exploration work is warranted.

It is recommended that a programme of geological mapping in conjunction with a magnetometer and geochemical survey be carried out on the property.

Diamond drilling would then be initiated and completed in two phases.

It is also recommended that Rich Hill Mines Ltd (NPL) allocate the sum of \$11,500 to initiate and execute the first phase of the recommended exploration and development programme.

Respectfully submitted,



Laurence Sookochoff, P.Eng.,
Consulting Geologist

Vancouver, B.C.

August 6, 1974

INTRODUCTION

At the request of officials of Rich Hill Mines Ltd (NPL) the writer made an examination of the Coquihalla property located within two miles southwest of the Carolin Mines, Aurum, Idaho, Pipestem project in the Coquihalla River Gold Belt area.

The purpose of the examination was to assess the geological potential of the property for the location of potential gold-bearing zones.

Additional information for the report was obtained from pertinent government publications and from private reports on the area.

Since the initial property examination and upon the writer's recommendations, preliminary geochemical and magnetometer surveys were carried out on portions of the John and the King group of claims.

PROPERTY

The property is comprised of two groups of located mineral claims within 4000 feet of each other and separated by the Coquihalla River. They are as follows:

<u>Claim Name.</u>	<u>Record No.</u>	<u>Expiry Date</u>
<u>John Group</u>		
John 6-11	29254-59	May 31, 1975
John 13 & 14	29261-62	May 31, 1975
John 1 and 2	29249-50	May 31, 1975
John 12	29260	May 31, 1975
<u>King Group</u>		
King 11-14	29171-74 incl.	May 9, 1975

Portions of the John 1, 2, 6, 12 and 14 claims may be in contravention.

The John 13 and 14 claim posts were checked and the claims were staked in accordance with the prescribed regulations set out in the Mineral Act.

The property is to be referred to as the Coquihalla property hereafter.

LOCATION AND ACCESS

The property is located approximately 16 miles by road, northeast of Hope, B.C. in the New Westminster Mining Division.

The northern portion of the John Group is bounded by 15 Mile Creek, an easterly flowing creek draining into the Coquihalla River. The southern boundary of the King Group is bounded by Dewdney Creek.

Access is via a paved and hard surfaced road from Hope, following the Coquihalla River to the northeast.

TOPOGRAPHY AND TIMBER

The property covers the southeast and west facing slopes of the Coquihalla River Valley. Moderate slopes prevail with elevations ranging from 1,500 to 3,000 feet above sea level. Heavy stands of fir and pine cover the lower elevations.

WATER AND POWER

Sufficient water is available from creeks in the property for all phases of the exploration and development programme.

Diesel-electric power would be required for the initial phases of the programme.

TRANSPORTATION AND SUPPLIES

All supplies required for exploration would be available from Hope, or from Vancouver, 98 miles west of Hope.

The Canadian Pacific Railway branch line through the Coquihalla Valley is within 1,000 feet of the property.

A natural gas line is within 500 feet of the eastern edge of the King claim group.

HISTORY

An excerpt on the history of the general area is taken from G.S.C. Paper 69-47; "Interest in the area began with the discovery in 1891-92 of gold-bearing quartz veins in Siwash Creek Valley. Prospecting in subsequent years was directed at quartz veins and siliceous zones in the Ladner and Hozameen groups. Not until 1927, when high-grade gold ore was found associated with serpentine on the Aurum property, was prospecting of the 'Coquihalla Serpentine Belt' actually started."

Since mid-1973 Carolin Mines has conducted exploratory work on a property 12 air miles northeast of Hope, B.C. and which covers two former producers, the Aurum and the Pipestem Mine.

GEOLOGY

In the vicinity of the John Group a narrow lenticular northwest trending belt of ultramafics is in contact with the Hozameen Group of pelites, chert, volcanics and limestone to the west and in fault contact with the Ladner Group of pelites and volcanic sandstone to the east.

The ultramafic belt is comprised of serpentinite, serpentized peridotite, minor hornblendite, pyroxenite and dunite and locally associated gabbro, diorite and altered volcanic rocks.

The gabbroic and dioritic rocks form dyke-like bodies in the serpentinite. The serpentine belt cuts and is cut by greenstone of the Hozameen Group, generally with a zone of shearing along contacts.

The King Group covers the Ladner Group of pelites and volcanic sandstone which is in fault contact with the serpentinite belt of rocks to the east. The fault contact which passes through the southwest corner of the King group trends northwesterly and may be a significant structure in relation to the mineralization in the area.

PREVIOUS WORK

In July 1974 preliminary geochemical and magnetometer surveys were carried out over the John and the King group of claims. The results were as follows:

John Group

Two short lines of approximately 1,000 feet were established and magnetometer readings and soil samples were taken every 100 feet. The samples were analyzed for As as an indication of potential auriferous associated arsenopyrite.

Sub-anomalous to anomalous values were outlined along the eastern edge of the John 13 and 14 mineral claims.

The anomaly correlates well with the low magnetometer readings along the northern portion of this line.

King Group:

Two northwesterly-trending anomalous zones were outlined on the King 12 and the King 14 mineral claims. Values of up to 108 ppm (As) in a background of approximately 10 ppm occur within the northern anomaly.

There is a general correlation of high As values and low magnetometer readings in the anomalous area.

The northwesterly trending anomalies may be reflecting mineral bearing fracture zones paralleling the main fault zone passing through the southeast corner of the King Group.

MINERALIZATION

Disseminations of pyrite within slate and serpentine was found on the John claims.

On the Carolin Mines property one and a half miles to the north, mineralization occurs as:

1. Native gold, pyrrhotite, pyrite, chalcopyrite, arsenopyrite and possibly millerite on slickensided surfaces in talcose rocks or serpentine. (Aurum property).

2. Pyrite and arsenopyrite with sporadic high values in gold is in silicified zones or quartz veins paralleling cleavage and bedding in the Ladner Group. (Pipestem property).

3. Quartz flooded arsenide-sulphide bands

Mineralization consists of arsenopyrite, pyrrhotite, chalcopyrite and pyrite replacing limey greywacke to argillite host rocks (Idaho zone).

RECOMMENDED EXPLORATION AND DEVELOPMENT PROGRAMME

The exploration programme should be designed to further delineate and locate other potential anomalous zones on the John and the King claim groups with emphasis on the exploration of more geologically favourable King claims.

An initial programme of geochemical and magnetometer surveys on the two groups should be carried out with detailing done within the anomalous areas. A substantial preliminary diamond drill programme should be initiated to test the prime zones of interest.

A second phase of follow-up diamond drilling would then be carried out.

COST OF RECOMMENDED EXPLORATION AND DEVELOPMENT PROGRAMME

PHASE I

Geological Mapping	\$1,000
Geochemical Survey	2,000
Magnetometer survey	2,000
Diamond drilling 500 feet @ \$10/foot	5,000
Engineering and Supervision	1,000
Contingencies	500
	<hr/>
TOTAL PHASE I	\$11,500

PHASE II

Diamond drilling 2000 feet @ \$14/ft (all inclusive)	\$28,000
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The first phase of the recommended exploration and development programme is expected to take one month to complete.

Respectfully submitted,

Laurence Sookochoff
Laurence Sookochoff, P.Eng.,
Consulting Geologist

Vancouver, B.C.

August 6, 1974

REFERENCES

Carolin Mines Ltd (NPL)

Press Releases

Geological Survey of Canada, Hope Map-Area, West Half
British Columbia, 1970.

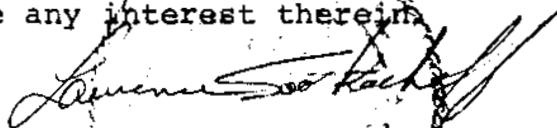
CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify;

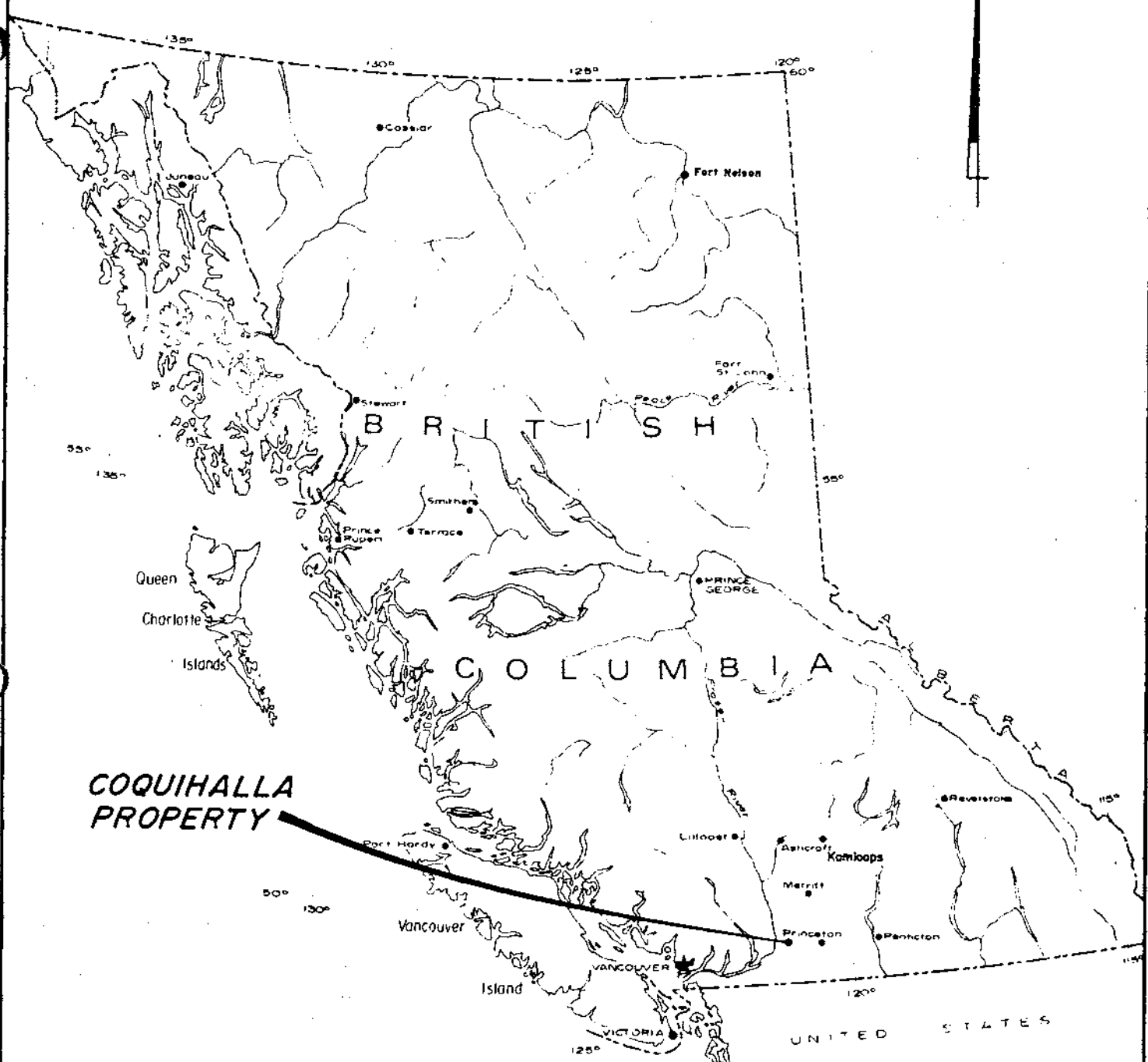
That I am a Consulting Geologist and am an associate of T.R. Tough & Associates Ltd., of 519-602 West Hastings Street, Vancouver, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising in my profession for the past eight years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information obtained for this report was obtained from an examination of the John Claim Group on June 15, 1974; from published reports and pertinent government publications.
5. I have no direct or indirect interest whatsoever in the property described herein, nor in the securities of Rich Hill Mines Ltd (NPL) and do not expect to receive any interest therein.

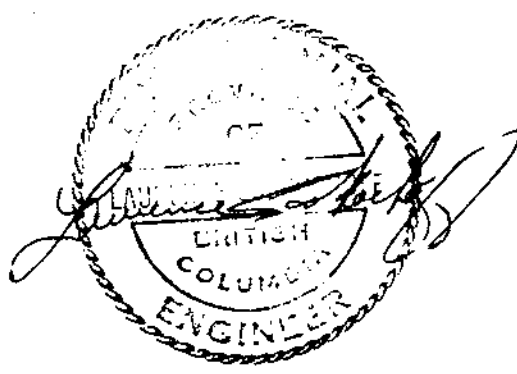

Laurence Sookochoff, P.Eng.,
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August 6, 1974

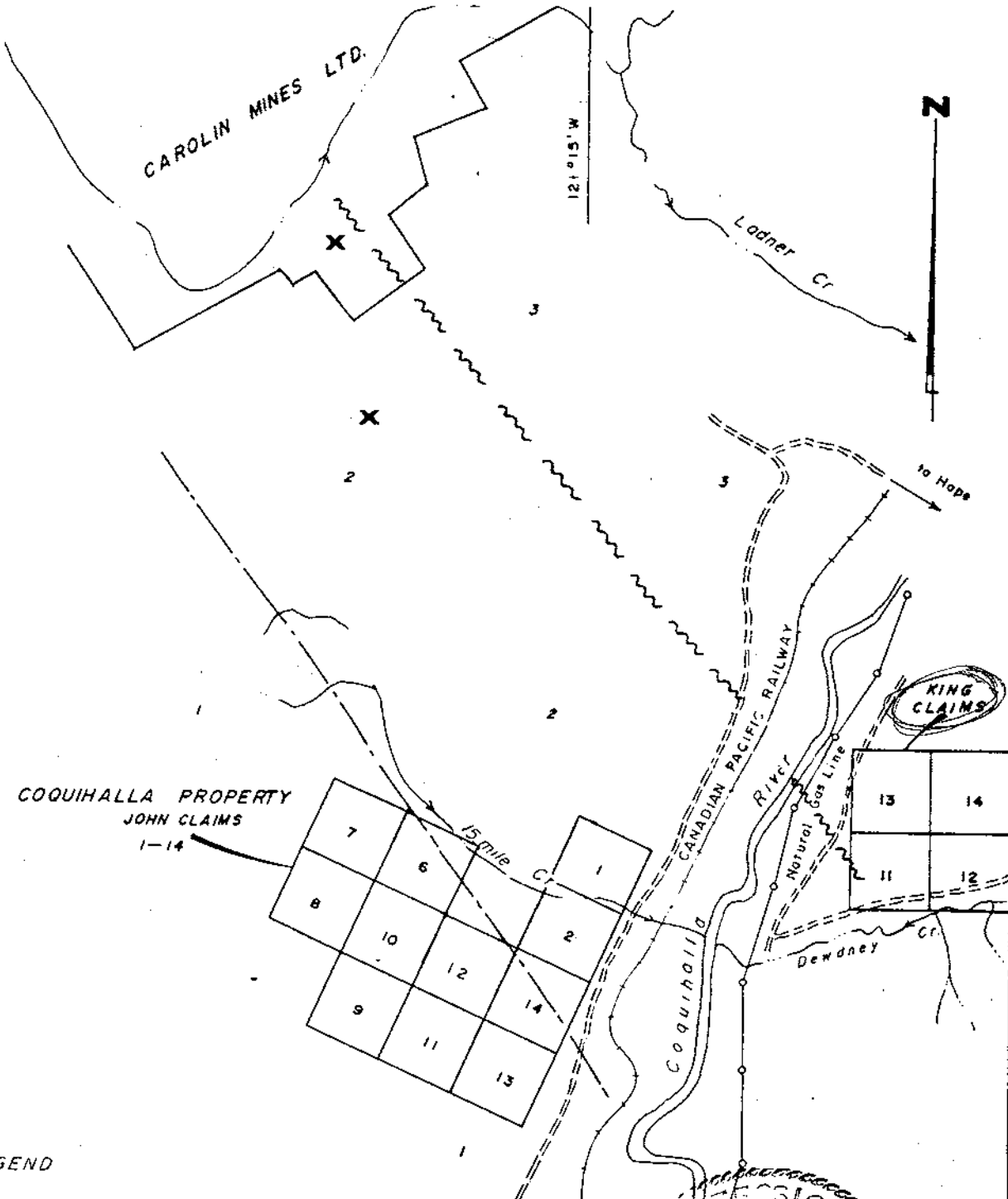


**COQUIHALLA
PROPERTY**

**5449
MAP 1**

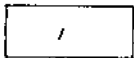


T.R. TOUGH & ASSOCIATES LTD.	
RICH HILL MINES LTD. (N.P.L.)	
COQUIHALLA PROPERTY	
NEW WESTMINSTER M.D., B.C.	
LOCATION MAP	
SCALE 1" = 134mi	
DRAWN. PDT	DATE. JUNE '74

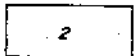


49° 28' N

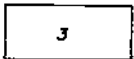
LEGEND



HOZAMEEN GROUP
- pelite, chert, volcanics
& limestone



ULTRAMAFICS
- serpentinite



LADNER GROUP
pelite, volcanic sandstone



GEOLOGICAL BOUNDARY



FAULT

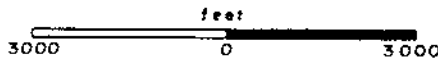


MINERAL OCCURRENCE

James Seal
5449 MAP 2

T. R. TOUGH & ASSOCIATES LTD.

RICH HILL MINES LTD. (N.P.L.)
JOHN CLAIM GROUP
NEW WESTMINSTER M.D., B.C.
CLAIM MAP & GEOLOGY



AFTER GSC MAP 12 - 1969

DRAWN POT SCALE 1"=3000' JUNE 1974

15 W
KING CLAIMS

BASELINE

15 E



MAG VALUES IN GAMMAS!
CONTOUR INTERVAL 100 GAMMAS.

5449 MAP3

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5449 MAP 3

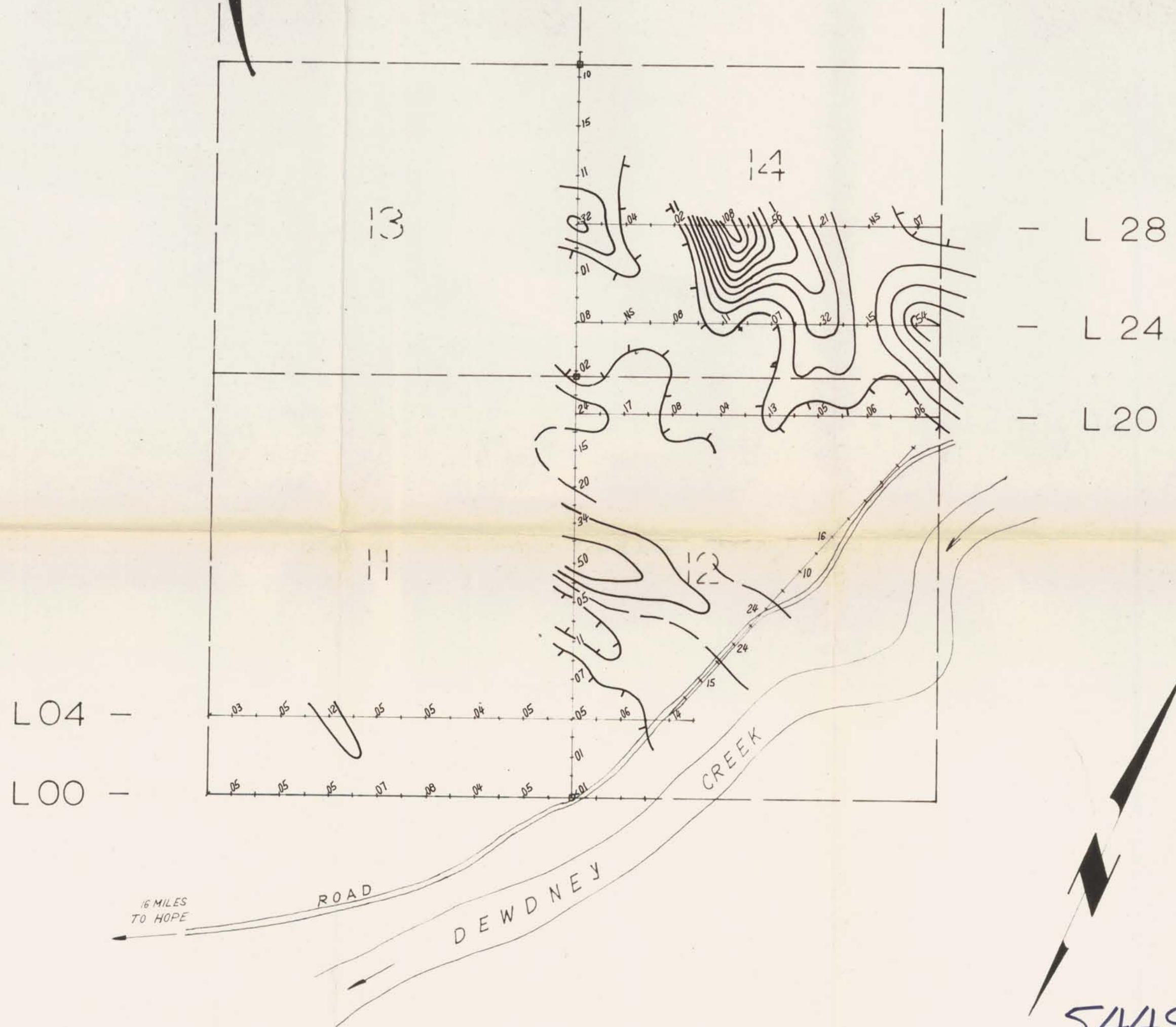
KING CLAIMS
HOPE AREA - B.C.
RICH HILL MINES LTD. (NPL)
MAGNETOMETER SURVEY

0 400' 800'
DRAWN: *K.P.W.* PLATE: 2

15 W
KING CLAIMS

BASELINE

15 E



ARSENIC VALUES IN P.P.M.!
CONTOUR INTERVAL 10 P.P.M..

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MAP 4

Department of
Mines and Petroleum Resources
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NO. 5449 MAP 4

KING CLAIMS
HOPE AREA — B.C.
RICH HILL MINES LTD. (NPL)
GEOCHEMICAL SURVEY

0 400' 800'

DRAWN: *fp-w* PLATE: 3