

# 4323

92I/8W

PROGRESS REPORT

on the

SACK CLAIM GROUP  
KAMLOOPS MINING DIVISION  
AND  
NICOLA MINING DIVISION

Lat.  $50^{\circ}28'N$   
Long.  $120^{\circ}28'W$

for

TWIN RIVER RESOURCES LTD. (N.P.L.)

<u>Claim Name</u>	<u>Record Number</u>
Sack 1 - 8	119290 - 119297
Sack 9 - 14	114869 - 114874
Sack 15 - 18	<del>53777 - 73780</del>

by

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **4323** MAP

G. C. Gutrath, B. Sc., P. Eng., Geologist

ATLED EXPLORATION MANAGEMENT LTD.

Vancouver, B. C.

April 1973

NTS 92I-8W

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
SUMMARY.....	1
CONCLUSION.....	2
RECOMMENDATION.....	2
Phase II.....	2
Phase III.....	3
ESTIMATED COSTS.....	3
Phase II.....	3
Phase III.....	4
GEOGRAPHY.....	4
Location.....	4
Access.....	4
Topography.....	4
Vegetation.....	4
Climate.....	5
Water.....	5
CLAIMS.....	5
WORK COMPLETED AND RESULTS.....	6
Linecutting and Grid Survey.....	6
Claim Survey and Staking.....	6
Magnetometer Survey.....	6
Geological Survey.....	8
ENGINEER'S CERTIFICATE.....	10
REFERENCES.....	11
 ILLUSTRATIONS	
#1 Location Map.....	After Page 4
#2 Magnetometer Survey Map (1" = 400').....	In Map Pocket
#3 Geology	
#4 Index map 1" = 1/2 mi.	

## INTRODUCTION

At the request of W. L. C. Newsom, Director of Twin River Resources Ltd., (N.P.L.), Phase I of the proposed exploration programme outlined by Atled Exploration Management Ltd. in its letter of February 16, 1973 has been completed.

The field work, consisting of line cutting, magnetometer survey, claim survey and cursory geological mapping was carried out between March 18 and March 29, 1973.

There was two to three feet of snow in the area, and the roads had not been plowed through the property. Because of this, the field crew was only able to drive within two miles of the property resulting in field costs being somewhat higher than anticipated.

## SUMMARY

The Sack Group of 18 contiguous claims is located in south-central British Columbia 20 miles south of Kamloops.

There is good access to the property from Merritt or Kamloops via Highway No. 5. The property is cut by numerous logging roads.

The claim group is underlain by Nicola volcanics of Triassic age and schists of Paleozoic age that have been intruded by Coast Range granodiorite.

The geological mapping was limited by the snow cover, but enough outcrop was exposed to assist in the interpretation of the magnetometer survey.

Molybdenite mineralization in quartz veins was found cutting the granodiorite in one outcrop area. Minor occurrences of pyrite, pyrrhotite and minor chalcopyrite were commonly found in the schists and volcanics.

The magnetic results indicated a general north to north-easterly trend to the volcanic series. The majority of the previous trenching has been done on molybdenite occurrences near the edges of the magnetic "lows".

#### CONCLUSION

The survey results and the discovery of numerous old workings over a large area of the property are encouraging. The continuation of the programme is definitely warranted to determine the significance of the mineral occurrences.

It is concluded that Phase II of the exploration programme should be initiated as soon as the claim group is clear of snow.

#### RECOMMENDATION

It is recommended that Phase II of the exploration programme be carried out as follows.

#### PHASE II

1. Collect geochemical soil samples at 100-foot intervals on the grid and analyze for Cu, Mo, Pb and Zn.

2. Map the geology on a scale of one inch equals 400 feet on the entire claim group using the grid for survey control. Detail map the trench areas and sample.
3. Clean out the original trenches with a bulldozer and trench the anomalous areas if feasible.

PHASE III

Phase III will be contingent on the results of Phase II. It is expected that additional geophysical surveys, bulldozer trenching and percussion drilling will be required.

ESTIMATED COSTS

Phase II

1. Geochemical soil survey	
(a) Sampling (100-foot stations)	
20 miles @ \$50.00/mile	\$1,000.00
(b) Analyses: 475 samples @ \$2.00/sample	950.00
2. Geological mapping	
(a) One geologist 10 days	1,500.00
(b) Assaying	500.00
3. Bulldozer trenching	
D-7 50 hours @ \$40.00/hour	2,000.00
4. Transportation	
One 4 x 4 truck	350.00
5. Living expenses	450.00
6. Consulting, data compilation and report	<u>1,000.00</u>
	7,750.00
Overhead and contingencies @ 20%	<u>1,650.00</u>
	\$9,400.00

Phase III (contingent on Phase II)

1. Estimate four line miles of induced polarization survey	\$ 2,650.00
2. Bulldozer trenching Estimate 50 hours @ \$40.00/hour	2,000.00
3. Percussion drilling Estimate 2,000 feet @ an overall cost of \$4.50/foot	<u>9,000.00</u>
	\$13,650.00

GEOGRAPHY

1. Location

The Sack claim group is located approximately 20 miles south of Kamloops in south-central British Columbia.

Coordinates of the property are 50° 28' north latitude and 120° 28' west longitude.

2. Access

The property can be reached from Merritt or Kamloops via Highway No. 5. Three-quarters of a mile south of Stump Lake, a gravel road goes east approximately four miles to the property.

3. Topography

The claims cover an area varying in elevation from 3,400 to 4,100 feet. There are numerous sharp bluffs and gullies with relief of 100 to 200 feet.

4. Vegetation

Approximately two-thirds of the property is covered with a mixed forest of fir, spruce and pine. The remainder of the area



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. **4323** MAP #1

TWIN RIVER RESOURCES LTD.

is open grassland.

5. Climate

The property is located in the Interior Dry Belt with 10 to 15 inches of rain per year. There would be a maximum of five feet of compacted snowfall at 3,500 feet elevation.

6. Water

There is enough water on the property in the spring for drilling purposes. By late summer, the majority of the small ponds and streams would be dry.

CLAIMS

The following is a list of the claims in the Sack Group. The claims are partly in the Kamloops and partly in the Nicola Mining Divisions.

<u>Claim</u>	<u>Tag Number</u>	<u>Record Number</u>	<u>Expiry Date</u>
Sack 1	11291M	119290	April 20, 1973
Sack 2	11292M	119291	April 20, 1973
Sack 3	11293M	119292	April 20, 1973
Sack 4	11294M	119293	April 20, 1973
Sack 5	11295M	119294	April 20, 1973
Sack 6	11296M	119295	April 20, 1973
Sack 7	11297M	119296	April 20, 1973
Sack 8	11298M	119297	April 20, 1973
Sack 9	323559M	114869	May 2, 1973
Sack 10	323560M	114870	May 2, 1973
Sack 11	323561M	114871	May 2, 1973
Sack 12	323562M	114872	May 2, 1973
Sack 13	323563M	114873	May 2, 1973
Sack 14	323564M	114874	May 2, 1973
Sack 15	323565M	53777	May 2, 1973
Sack 16	323566M	53778	May 2, 1973
Sack 17	323567M	53779	May 2, 1973
Sack 18	323568M	53780	May 2, 1973
Sack 1 Fr	341133M	unknown	Recorded April 10, 1973
Sack 2 Fr	341134M	unknown	Recorded April 10, 1973



WORK COMPLETED AND RESULTS

I. Linecutting and Grid Survey

A total of 19.50 line miles was cut and surveyed. A north-south base line 8,800 feet long was cut. East-west crosslines were established at 400-foot intervals to cover the entire claim group.

II. Claim Survey and Staking

The claims were surveyed into the grid and were found to be reasonably well staked. The Sack No. 1 and 2 Fr. were staked to cover an open area indicated by the claim survey.

III. Magnetometer Survey

A. Survey Completed

1. General

A total of 19.0 line miles was magnetically surveyed using a station interval of 100 feet. In anomalous areas, readings were taken at 50-foot intervals.

2. Method

The instrument used was a vertical force fluxgate magnetometer which is hand held and levelled using a bubble level on the face of the instrument.

The magnetometer was held by the aid of a harness to maintain constant height above ground and constant distance from the operator. Readings were taken facing one direction using the most sensitive scale possible.

Loop times of less than two hours were encountered, resulting in good control of the diurnal corrections. A nearby base-station was read at the beginning and end of each day for the day-to-day correlation and to monitor any possible magnetic storms.

### 3. Instrumentation

A Scintrex MF-1 Model Fluxgate magnetometer was used. This unit measures the vertical force variations of the earth's magnetic field, displayed in gammas, on a meter having five ranges for a total of  $\pm 100,000$  gammas. The MF-1 is very light, is fully portable, has excellent temperature stability, has negligible orientation error and is of rugged construction.

### 4. Data Compilation and Presentation

The readings and time of readings were recorded in a metal-free field book, and transferred to a planimetric map for contouring after the necessary diurnal and day-to-day corrections were made.

The scale of the contour map is 400 feet. A variable gamma contour interval has been used.

### B. Survey Results

The magnetometer survey was executed over the entire claim group.

The magnetometer results indicate northerly trending structures although there is very little correlation between given anomalous

areas. This is believed to be a result of variable magnetite content in the volcanics and schists and is in part complicated by the granodiorite dikes.

The majority of the trenching and molybdenite occurrences are associated with magnetic "lows" or near the margin of the "lows". This is particularly noticeable on the Sack 3, 4 and Sack 2 Fr.

A strong magnetic anomaly occurs on the north-east corner of the property, but there is no outcrop exposed to determine the cause of the anomaly.

#### IV. Geological Survey

##### A. Survey Completed

The geological mapping was hindered by the snow cover. Reconnaissance mapping of the exposed outcrops was done to assist in the interpretation of the magnetic survey results and to locate the mineralized area described in previous reports. However, this geological mapping is of a very preliminary nature, and an outcrop geological map will not be completed until more work is done on the property.

##### B. Survey Results

There are numerous outcrops in the western part of the claim group, and the majority of these are Nicola volcanics and Paleozoic schists and gneisses. However, a large proportion of this area was masked by snow, making interpretation difficult.

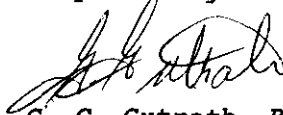
Granodiorite dikes, believed to be apophyses of the main batholith located to the west of the property, were found on the Sack No. 3 claim on line 44N 300 feet west. The north-south contact of the batholith was not located on the western side of the property.

Three areas of previous trenching were noted on the Sack 3, 4 and Sack 2 Fr claims. A short adit was located on the Sack 4 claim, and very old pits and trenches were found on the Sack 8. One drill set-up was found on the Sack 3.

The majority of this work was done on quartz veins carrying minor amounts of molybdenite, pyrrhotite, pyrite and trace amounts of chalcopyrite. The quartz veining is most often directly associated with the granodiorite, and appears to have a regional trend of north-south to N 20° E.

The adit was driven in altered Nicola volcanics. Minor amounts of yellow ferrimolybdenite were noted on the walls of the adit. Numerous small amounts of chalcopyrite were located in the volcanics and the schistose series.

Respectfully submitted,



G. C. Gutrath, B.Sc., P.Eng.  
Geologist

ATLED EXPLORATION MANAGEMENT LTD.

ENGINEER'S CERTIFICATE

I, GORDON C. GUTRATH, of 3636 Lakedale Avenue, in the Municipality of Burnaby, in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a consulting geologist with a business address of 420-475 Howe Street, Vancouver 1, British Columbia.
2. That I am a graduate of the University of British Columbia where I obtained my B.Sc. in geological science in 1960.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.
4. That I have practiced my profession as a geologist for the past 13 years, and
5. That I have no interest, direct or indirect, in the property with which this report is concerned, nor do I expect to receive any such interest; and I have no direct or indirect interest in the securities of Twin River Resources Ltd. (N.P.L.).



---

Gordon C. Gutrath, B.Sc., P.Eng.

DATED at the City of Vancouver, Province of British Columbia, this    th day of April, 1973.

REFERENCES

1. Cockfield, W. E. Geological Mineral Deposits of Nicola Map-Area, British Columbia. Memoir 249, 1961.
2. Tully, D. W. Report on the Sack Claim Group #1 - 18, Kamloops-Nicola Mining Division.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

**In the Matter of** COSTS INCURRED IN CARRYING OUT A  
MAGNETOMETER SURVEY AND GEOLOGICAL MAPPING ON  
THE SACK GROUP.

I,

of Vancouver, B. C.

in the Province of British Columbia, do solemnly declare that the following are the details of the cost of the exploration program:

1. Line Cutting - 19.5 miles @ \$80.00/mile		
G. Baker		
W. Clark		
L. Mamosar		\$ 1,560.00
2. Magnetometer Survey		
19.0 miles @ \$60.00/mile		
P. Henry		1,140.00
3. Geological Mapping		
P. Henry		400.00
4. Food and Accommodation		
3 men @ \$12.00/day for 12 days		432.00
5. Transportation		
Ford 4 x 4 18 days @ \$20.00/day	\$ 360.00	
2040 miles @ \$.15/mile	306.00	
Skidoo	250.00	916.00
6. Report and maps		400.00
		<u>4,848.00</u>

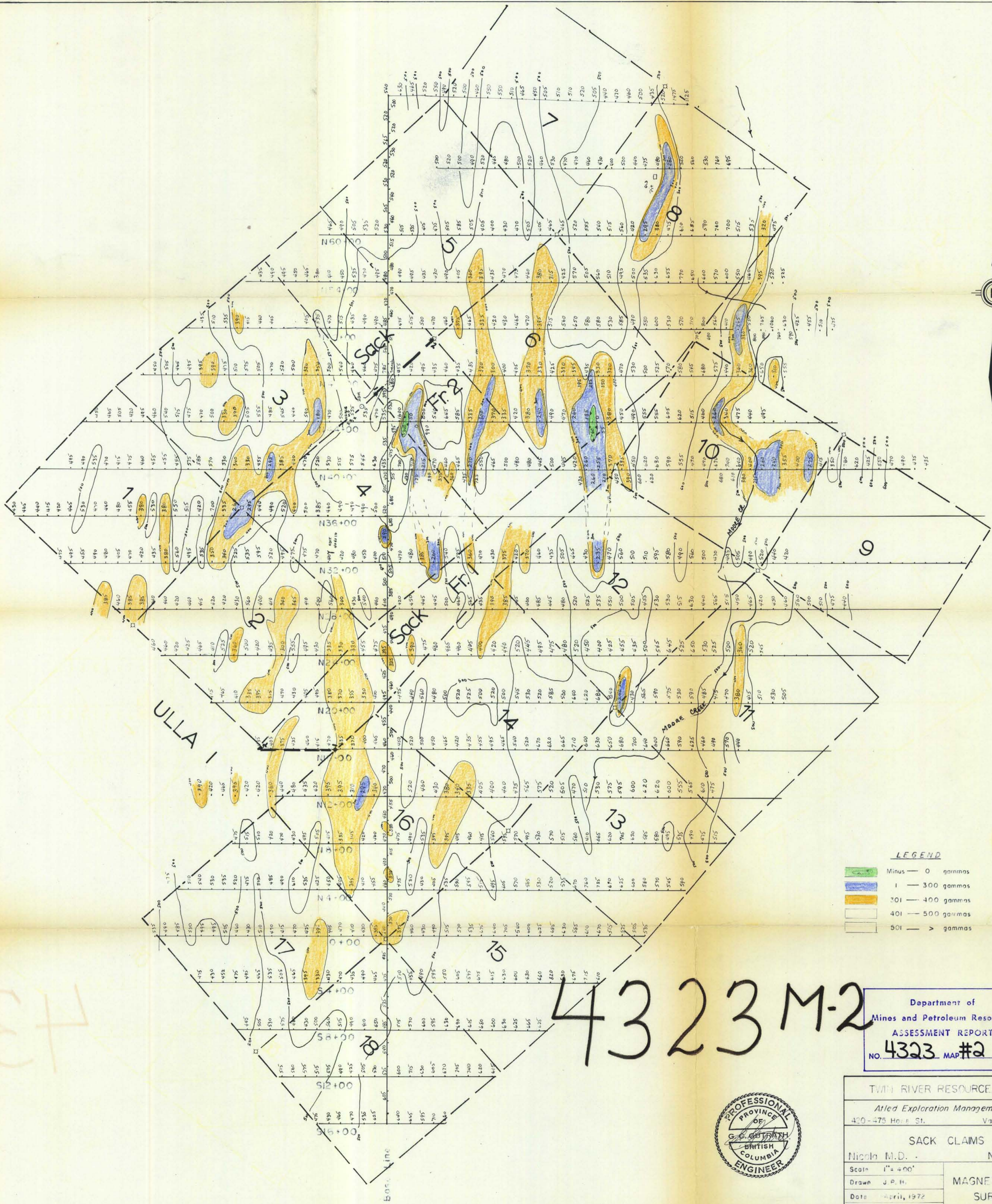
And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 26  
day of April 1973, A.D.

*George B. Phelps*

*Bill Turner*  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder



**LEGEND**

	Minus — 0 gammas
	1 — 300 gammas
	301 — 400 gammas
	401 — 500 gammas
	501 — > gammas

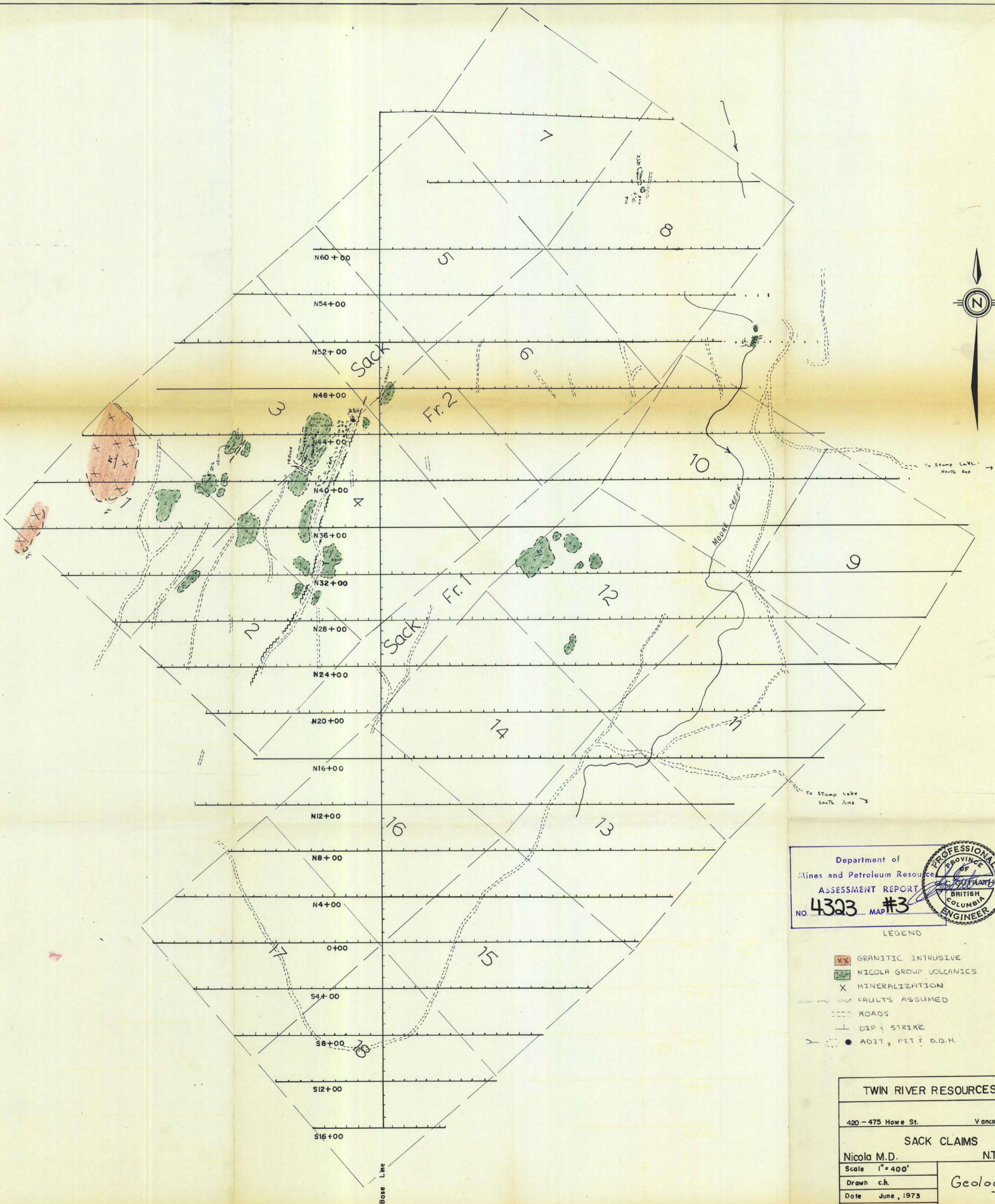
4323 M-2

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4323 MAP #2



TWIN RIVER RESOURCES LTD.	
Atled Exploration Management Ltd. 420-475 Howe St. Vancouver 1, B.C.	
SACK CLAIMS	
Nicola M.D.	N.T.S. 92-1/8
Scale 1" = 400'	MAGNETOMETER SURVEY
Drawn J.P.H.	
Date April, 1972	
Number	

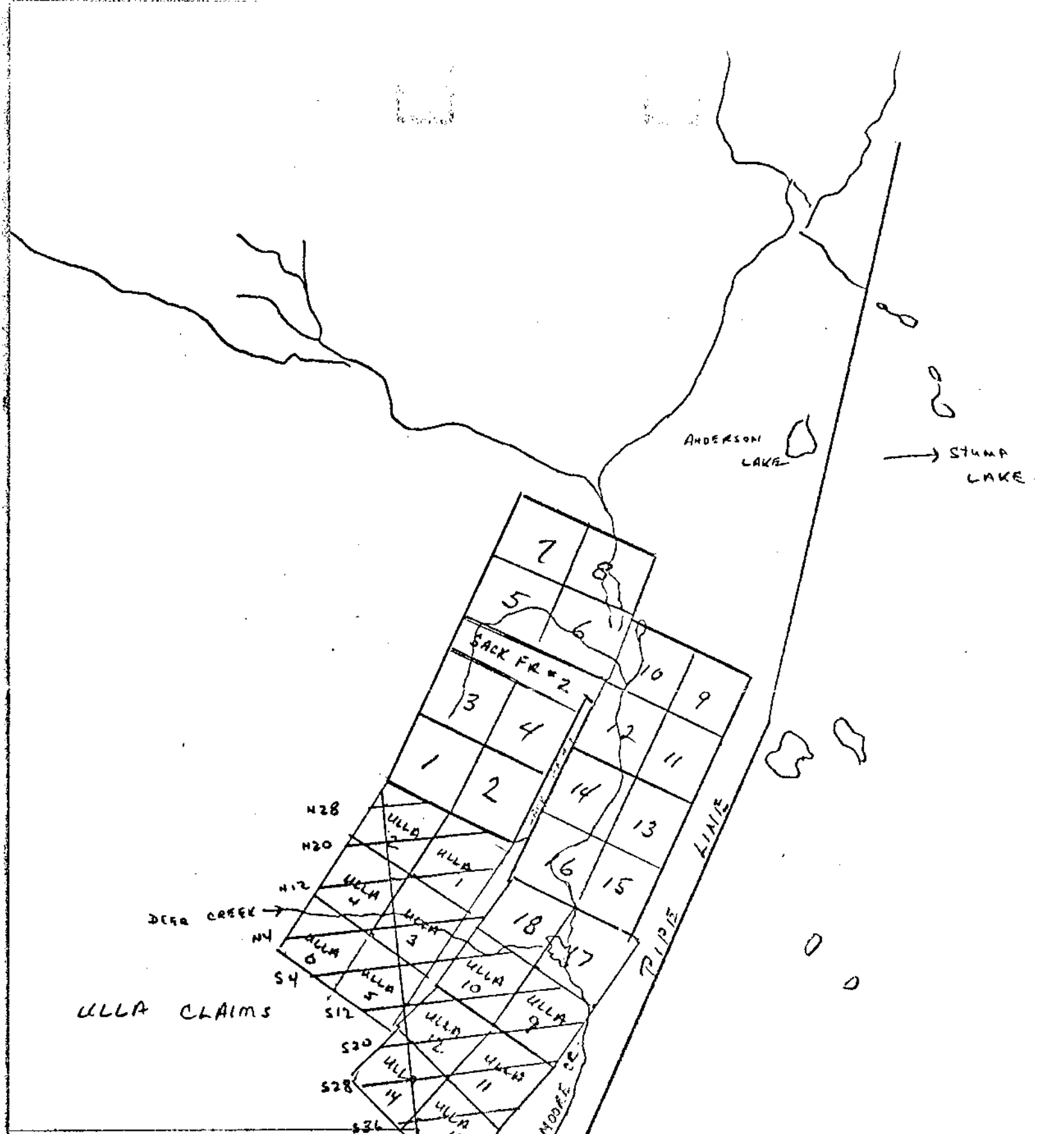




Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 4323 MAP #3  
 PROVINCE OF BRITISH COLUMBIA  
 PROFESSIONAL ENGINEER

- LEGEND
- XX GRANITIC INTRUSIVE
  - NICOLA GROUP VOLCANICS
  - X MINERALIZATION
  - FAULTS ASSUMED
  - ROADS
  - DIP & STRIKE
  - ADIT, PIT & D.D.H.

TWIN RIVER RESOURCES LTD.	
420 - 475 Howe St.	Vancouver 1, B.C.
SACK CLAIMS	
Nicola M.D.	N.T.S. 92-V8
Scale 1" = 400'	Geology
Drawn c.h.	
Date June, 1973	
Number	



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. **4323** MAP **#4**

Scale 1" = 1/2 miles  
 MAP 922/8