

A REPORT ON A GEOLOGICAL SURVEY

of the

MACK 1 to 36 MINERAL CLAIMS

and the

MACK 1, 2, 7 & 8 FRACTIONAL MINERAL CLAIMS

SNOW PEAK AREA LIARD M D , B.C.

Located at 58° 30' N. Lat.  
130° 20' W. Long.  
on NTS Sheet 104-J-8

PREPARED ON BEHALF OF TORMEX RESOURCES LTD.

By

T L. Sadlier-Brown, Geologist

and

A.E. Nevin, Geologist, Ph.D., P.Eng.

Field work carried out August 12 to September 28, 1976



Location Map Mack Claims

Part of Sheet 104J(8w)  
Scale: 1:250000

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## 1.0 INTRODUCTION

### 1.1 Location and Access

The Mack claims are located on Snow Peak 16 air miles west of the settlement of Dease Lake in northern British Columbia. Dease Lake is accessible from Watson Lake, Y.T. via the Cassiar-Telegraph Creek Road which joins the Alaska Highway a few miles west of the town of Watson Lake. A gravel airstrip close to the weather station at Dease Lake is suitable for small to intermediate sized aircraft, and two helicopter charter operators are located at Dease Lake.

The Dease Lake - Telegraph Creek Road extends southwest from the south end of Dease and crosses Auguschidle Creek some 16 miles west of the settlement. Auguschidle Creek drains the south flank of Snow Peak, and at this point the claims are 8 air miles north of the road.

The claims centre reference co-ordinates are: 58° 30' N. Lat. 130° 20' W. Long. and the N.T.S. map number is 104J/8.

### 1.2 Claims and Ownership

The Mack Group comprises a contiguous block of 40 mineral claims all legally and beneficially owned by Tormex Resources Ltd., of 1511 - 715 5th Avenue, Calgary, Alberta. They are located in the Liard Mining Division and shown on B.C. Department of Mines Claim Sheet 73M-3 - Record data is as follows:

<u>Name</u>	<u>Record No.</u>	<u>Claims</u>	<u>Due Date</u>
Mack (1-6)	39272-39277K	6	August 13, 1979
Mack (7-16)	39278-39287	10	August 13, 1977
Mack 17, 18	39288-39289	2	August 13, 1978
Mack 19-28	39290-39299	10	August 13, 1977
Mack 29-36	65045-65052	8	July 28, 1977
Mack 1 & 2Fr	65059-65060	2	July 28, 1977
Mack 7 & 8Fr	67215-67216	2	August 28, 1977

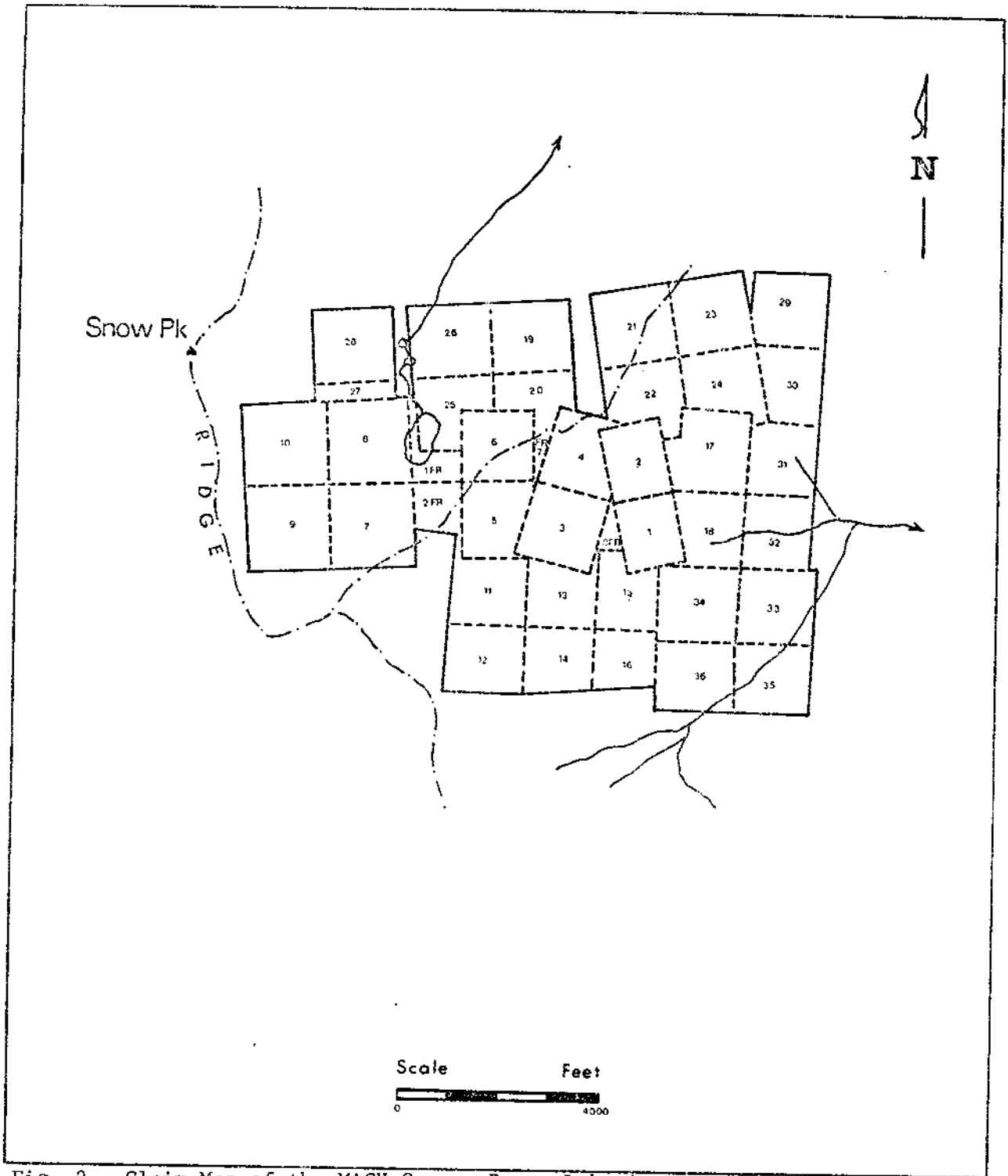


Fig. 2. Claim Map of the MACK Group, Dease Lake Area  
Liard Mining Division (NTS Sheet 104-J-8W).

### 1.3 Physiography and Topography

Snow Peak is the most prominent physical feature in the immediate Dease Lake area. It is situated in the Tanzilla Plateau subdivision of the Strikine Plateau physiographic region of northern B.C. and rises to 6,348 feet above sea level from the Tanzilla and Dease Lake valleys which are about 2,500 feet above sea level. Tree line is at approximately 5000 feet and the greater part of the property lies above this elevation. Vegetation consists of stunted spruce and balsam at lower elevations and alpine plants in higher areas. A small tarn lake is located in the north part of the claim area. Drainage here is northerly into Little Dease Creek while the southern claims are drained by Tatsho and Auguschidle Creeks into the Tanzilla River.

### 2.0 HISTORY

Sulphide mineralization has been known at Snow Peak since the early 1960's and the showings were originally staked in 1966 by A. Nehase, of Dease Lake. The claims, however, lapsed the following year and the ground remained open until 1969 when the Mack claims were staked by Tournagain Mining Ltd. Tournagain carried out geochemical and geological investigation in 1970 and 1971. The Mack Group was transferred to Tormex Resources Ltd. in 1972 (then a subsidiary of Tournagain) and additional claims were added to the group. The soil sampling survey was expanded and a 28 line mile vertical field magnetometer survey was carried out. Subsequently a number of peripheral claims were permitted to lapse. In the 1975-1976 assessment year this ground was re-staked and some road construction and trenching were carried out.

The work described in this report was carried out subsequent to the trenching during the summer of 1976.

### 3.0 GEOLOGY

#### 3.1 General Statement

The Dease Lake area is described on GSC Map 21-1962, by H. Gabrielse, J.G. Souther, and E.F. Roots. The area was included in "Operation Stikine", a GSC mapping project carried out during the late 1950's.

The Mack Group is located in an area underlain by a belt of lower Juriassic metasedimentary rocks cut by abundant sills and dikes of feldspar porphyry. A small stock composed of granodiorite and quartz monzonite intrudes the metasediments immediately north and east of Snow Peak.

#### 3.2 Geology of the Mineralized Area

Sulphide minerals occur within a slightly porphyritic granodiorite body distinguished by 1 to 2% biotite in crisp heagonal books, 1% ragged greenish-black bornblende crystals, and large white plagioclase phenocrysts, in a plagioclase-quartz groundmass.

The mineralization has been observed in an elongate zone trending for about 3000 feet in an east south easterly direction from the south wall of the cirque southeast of the tarn. Molybdenite and pyrite together and separately occupy fractures in the granodiorite in the mineralized zone. Either occurs in hairline fractures devoid of other minerals, or quarter-inch quartz seams. Spacing on moly and/or pyrite stringers ranges from about 6" to 2 feet.

The fracture-controlled molybdenite and/or pyrite occurs as coarse, one-eighth to quarter-inch grains disseminated along the fracture (and not as the smeared molybdenite-paint common in such fractures).

- 5 -

The mineralized fractures dip steeply north, and there is a subtle change in strike from  $305^{\circ}$  in the NW to  $295^{\circ}$  in the SE. There are more than one set of fractures but all are at small angles to one another. In addition to the sulphides they contain oxidation products jarosite-after-pyrite and ferrimolybdite-after-molybdenite, indicating leaching of values. Some scheelite and/or powellite is also present.

Disseminated molybdenum and pyrite in interstices in the rock are present within the fracture controlled molybdenum zone. Molybdenum occurs as rare minute grains, and pyrite as discontinuous patches approaching 0.1%. Outside the molybdenum zone there are occasional patches of disseminated pyrite and a few pyritic fractures. Although much of this material is fresh (unoxidized) there are local occurrences of iron-oxide pseudomorphs after pyrite.

The molybdenite zone is accompanied by a subtle and discontinuous "sugary", finer-grained texture in the granodiorite. The hanging wall (north side) seems to be a locus for a slightly coarser texture than average. This is the only large-volume change near the mineralized zone. There is no noticeable silica or K-spar flooding.

Samples taken from a trench near the central part of the known zone of mineralization gave the following results:



- 6 -

Trench #1

<u>Sample No.</u>	<u>Interval</u>	<u>Width</u>	<u>Mo</u>	<u>Cu</u>	<u>Au</u>	<u>WO<sub>3</sub></u>
16766	0 - 10 NE	10	.008	.01	.002	.02
16767	10 - 20 NE	10	.033	.01	.002	.02
16768	20 - 25 NE	5	.007	.01	.008	.01
16769	25 - 31 NE	6	.005	.01	.007	.01
16770	31 - 37 NE	6	.008	.01	.020	.02
16771	37 - 42 NE	5	.007	.01	.020	.01
16772	42 - 49 NE	7	.021	.02	.002	.02
16773	49 - 55 NE	6	.008	.02	.002	.01
16774	55 - 61 NE	6	.008	.02	.045	.02
16775	61 - 67 NE	6	.016	.02	.047	.03

Trench #2

16776	0 - 47 SW	47	.012	.01	.002	.02
16777	50 - 95 SW	45	.006	.01	.002	.01

Quote B.C. Rept. A-46-34

5.0 CONCLUSIONS AND RECOMMENDATIONS

An elongate zone of molybdenum mineralization has been outlined by both geological mapping and IP surveys. No reliable estimate of the grade is available as representative results from surface sampling are difficult, if not impossible to obtain. Nevertheless interesting values in molybdenum and gold have been returned.

- 7 -

It is recommended that the mineralized zone be tested by diamond drilling from one to three setups located at the following locations:

DDH #1: 42 + 50E, 11S (150' W of 44E, 11S)

DDH #2: 36 + 100E, 8S (100' E and 100' S of 36E, 7S)

DDH #3: 28E, 8 + 80S


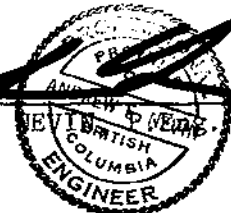
Estimated depth for each of the three holes is about 400 feet and the holes should be inclined at about 55° to the southwest. The work could be carried out in two phases with DDH 1 constituting Phase I and DDH 2 and 3 constituting a second phase which would be contingent upon results of the first hole.

An estimate of costs for Phase I is 18000 and for Phase 2, \$30,000.

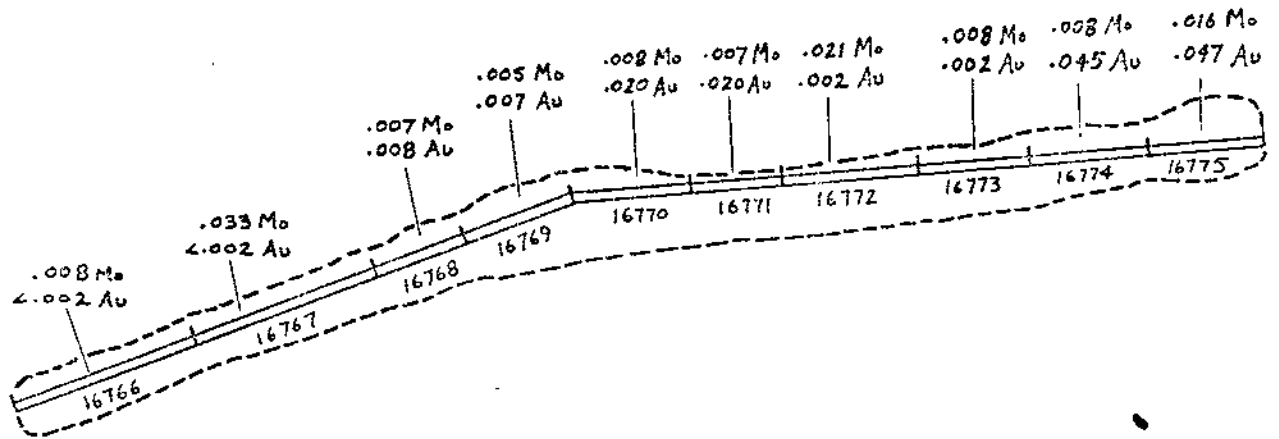
Respectfully submitted

NEVIN SADLIER-BROWN GOODBRAND LTD.

  
\_\_\_\_\_  
T.L. SADLIER-BROWN

  
\_\_\_\_\_  
ANDREW E. NEVIN  


Dwg 5



### No. 1 TRENCH; Mack Claims

Scale: 1 inch to 10 feet

June 1977

FIG. 6. Index to Claims covered by Drawings 3 & 4.



APPENDIX

- A        Notes on Induced Polarization Surveys  
          Snow Peak Area (by T. Gledhill)
  - B        List of Personnel
  - C        Declaration of Costs
  - D        Statement of Qualifications
  - E        Engineers Certificate
- 
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APPENDIX A

Tormex Resources Ltd.

Notes on Induced Polarization Surveys

Snow Peak Property

Liard Mining Division, B.C.

January 20, 1977

SUMMARY <sup>1</sup>

Five dipole-dipole traverses were run over the Snow Peak Property. Access was difficult. An anomaly was located over the copper-moly anomaly south of the baseline. Line 16E did not extend far enough south to confirm the westward extension of this anomaly but there was an indication off the south of the traverse. A second anomaly occurs on line 16E at the baseline correlates with the geochemical anomaly.

Each of these anomalies warrant further work in the form of trenching or drilling.

Original signed by:

Tom Gledhill, B.A., P.Eng.

<sup>1</sup> Plotted IP pseudosections for lines 16E, 20E, 28E, 36E, and 44E are attached. Note that results for Line 44E are shown on the compilation (Map 4) plotted on Line 40E which is believed to be the correct location.

APPENDIX B

Personnel employed on the Mack Claims Geological Project, Snow Peak Area, Lillooet M.D. during the 1976 Field Season:

J.T. Crandall	- Aug. 25-26 (2 days @\$150 day)	\$ 300.00
J. Gonzalez	- Aug. 12-19 (6.5 days @\$150 day)	975.00
A.E. Nevin	- Aug. 11-19,25,26 (11 days @\$250 day)	2,744.00
T.L. Sadlier-Brown	- Aug. 12-Sept. 25 (16 days @\$195 day)	3,166.00
T. McCrory	- Sept. 24-25 (2 days @\$100 day)	200.00

APPENDIX CStatement of Costs: Mack Claims

## Geological Mapping

Wages & Fees	\$ 7,385
Field Supplies, expendable	933
Rental on field equipment	415
Communication	172
Assays	50

Cobra Drill Rental	80
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Office and Storage - Dease Lake (prorated)	275
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## Transportation

Vehicle Rental	609
Helicopter Charter 11.5 hrs. @\$185/hr.	2,127
Fixed wing fares	372
Shipping Charges	582

## Report Preparation

Wages	1,170
Drafting copying	530

Total:	<u>\$14,700</u>
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I declare that the above is a true accounting of costs incurred during the 1976 assessment year.

  
 T. L. Sadlier-Brown  
 Project Manager



APPENDIX D

STATEMENT OF QUALIFICATIONS

I, T.L. Sadlier-Brown hereby state:

1. That I am a consulting geologist and partner in the firm of Nevin Sadlier-Brown Goodbrand Ltd. with offices at 503 - 134 Abbott Street, Vancouver, B.C., V6B 2K4.
2. I was educated at Carleton University in Ottawa, Ontario.
3. I have been actively engaged in geological field work for 17 years as a technical officer with the Geological Survey of Canada and as an exploration geologist with several corporations and consulting firms.
4. Since 1965 I have acted in the field of exploration geology in positions of responsibility and have been a principal in the firm of Nevin Sadlier-Brown Goodbrand Ltd. since 1972.
5. I personally carried out geological examinations and supervised field work described in this report during the 1976 field season.
6. I have no interest direct or indirect in the properties or securities of Tormex Resources Ltd. nor do I expect to receive such interest.

  
\_\_\_\_\_  
T.L. Sadlier-Brown

June 23, 1977

APPENDIX E - CERTIFICATE

I, Andrew E. Nevin hereby certify that:

1. My residence address is 962 Montroyal Blvd. North Vancouver, B.C., my office address is 5th floor - 134 Abbott Street, Vancouver, B.C. V6B 2K4, and that I am a Geologist by occupation.
2. I hold a B.Sc. in Geophysics from St. Lawrence University, an M.A. in Geology from University of California, Berkeley, and a PH.D. in Geology from University of Idaho. I have been practicing my profession since 1961, and I am a member of the Association of Professional Engineers (Geological) of the Province of British Columbia, and a Registered Professional Geologist in the State of Idaho.
3. I personally examined the prospects and carried out geological mapping during the course of the 1976 field season.
4. I hold no direct or indirect interest in the properties or securities of Tormex Resources nor do I expect to receive any such interest.

  
Andrew E. Nevin, P.D., P. Eng.

June 23, 1977

185

9S

00

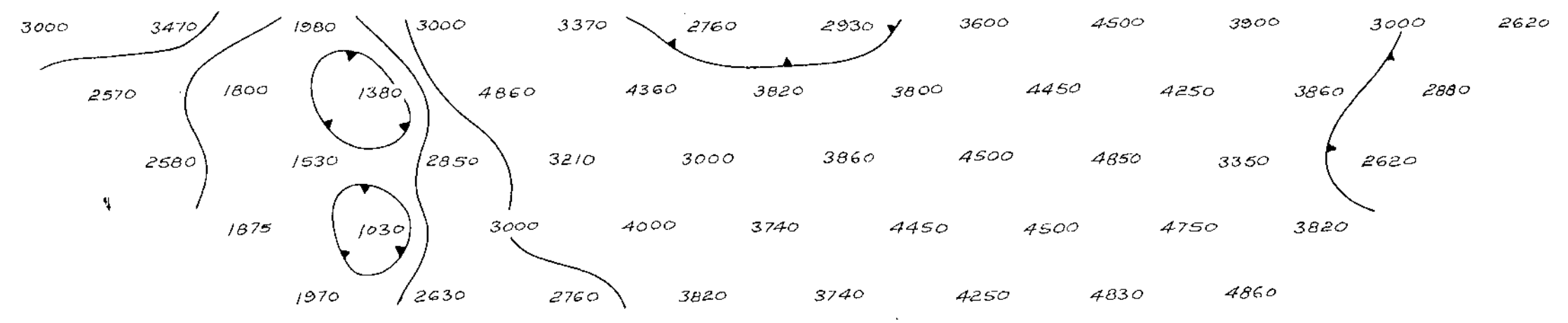
Cliff

9N

18N

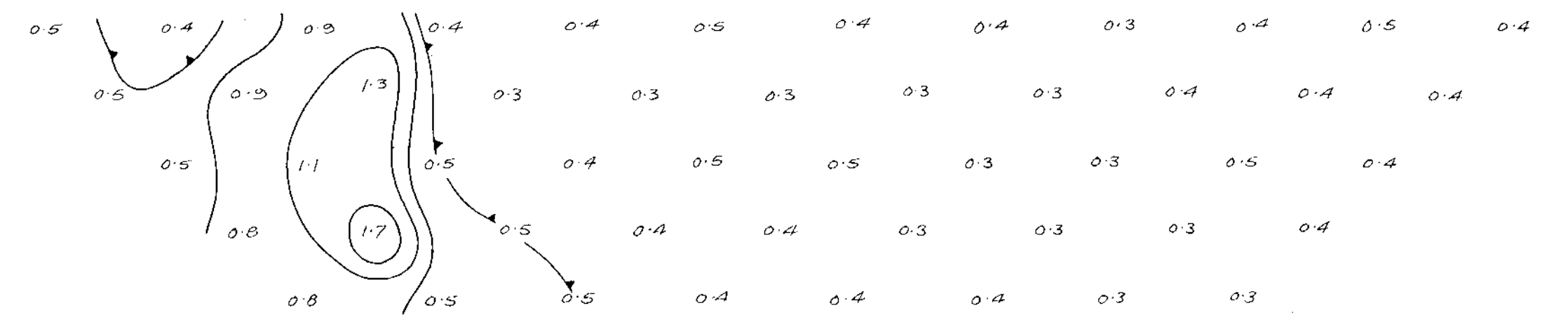
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AND  
RESISTIVITY SURVEY  
for  
TORMEX RESOURCES LTD.  
SNOW PEAK PROPERTY

LINE NO. 36+00E



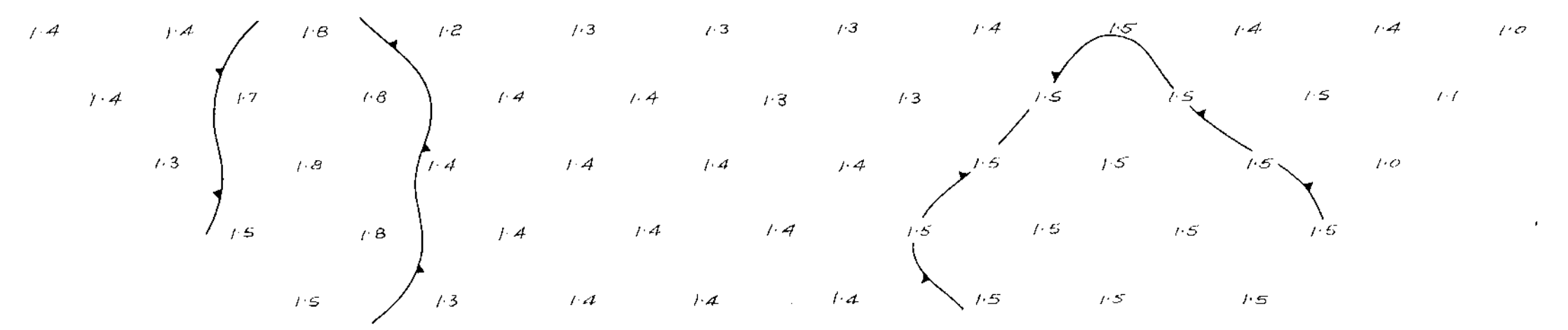
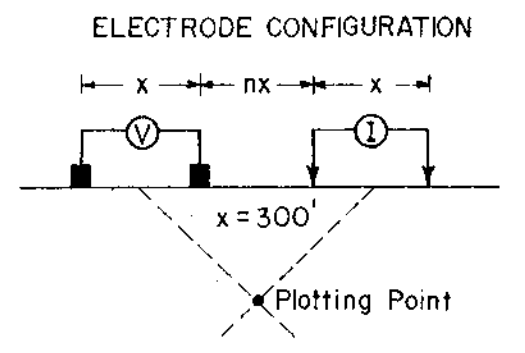
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← n = 3  
← n = 4  
← n = 5

Apparent Resistivity  
(ohm feet)



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← n = 3  
← n = 4  
← n = 5

Metal Factor



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Frequency Effect  
(%)

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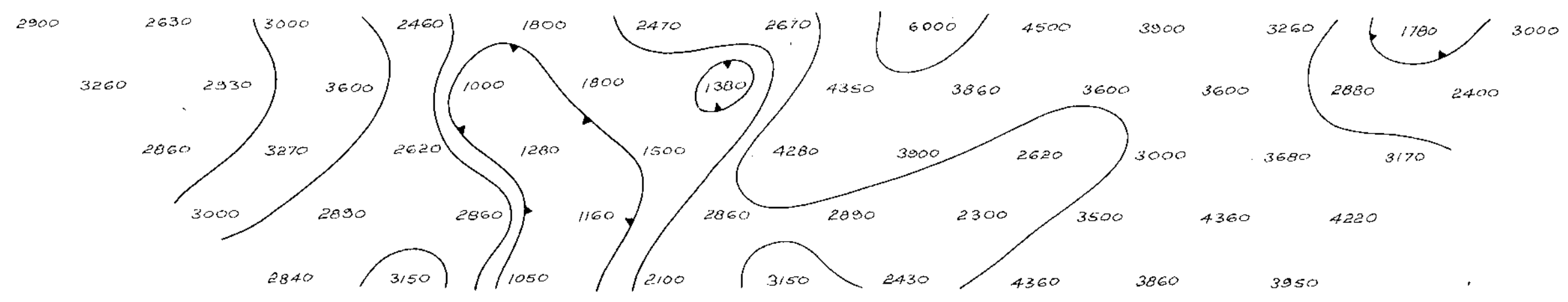
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Contours at logarithmic multiples of  
10, 15, 20, 30, 50, 75 & 100

LINE NO. 36+00E

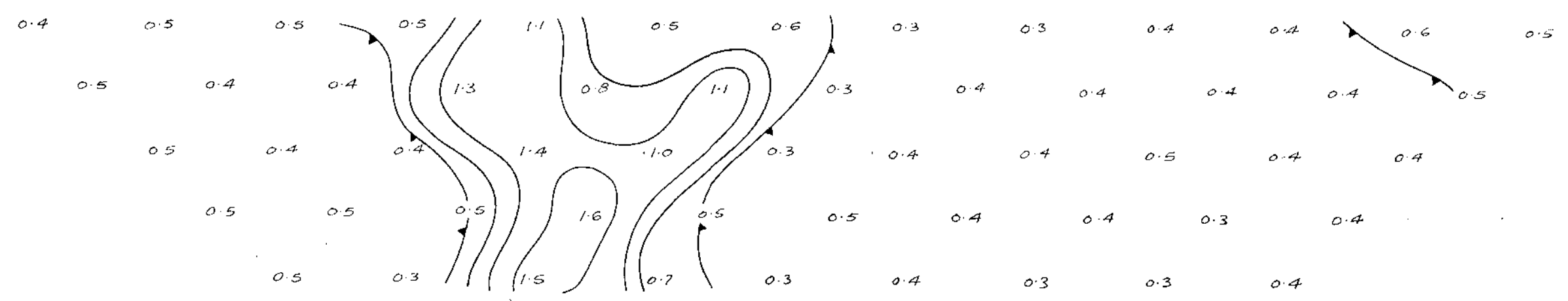
27S 18S 9S 00 Cliff 9N 18N

INDUCED POLARIZATION  
AND  
RESISTIVITY SURVEY  
for  
**TORMEX RESOURCES LTD.**  
SNOW PEAK PROPERTY

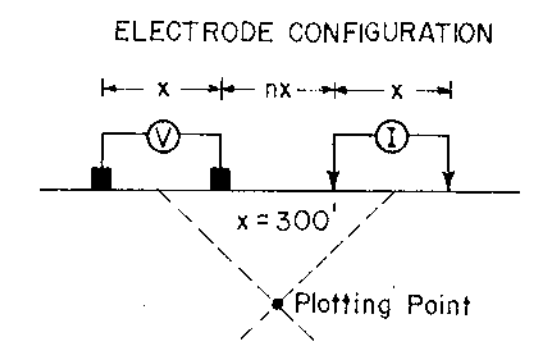


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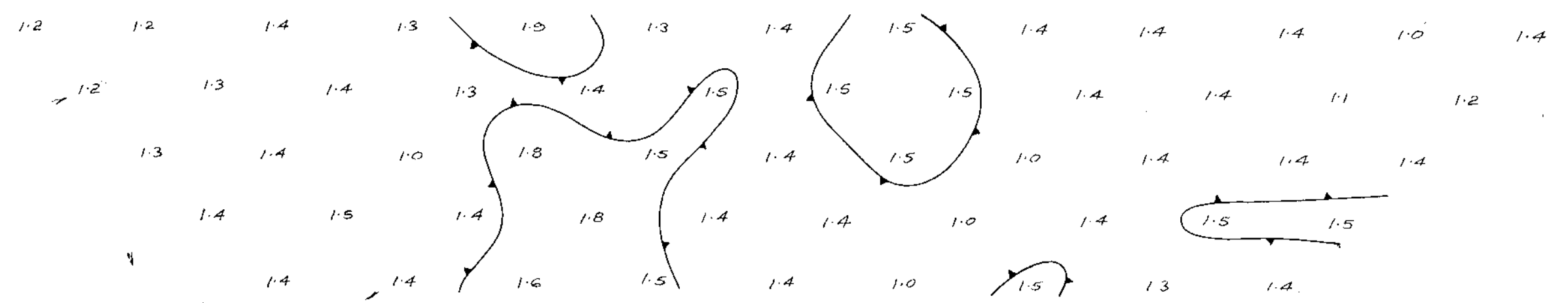
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accompanies a report on the NACK claims  
by T. Sadlier-Brown & A.E. Novin, June 1977



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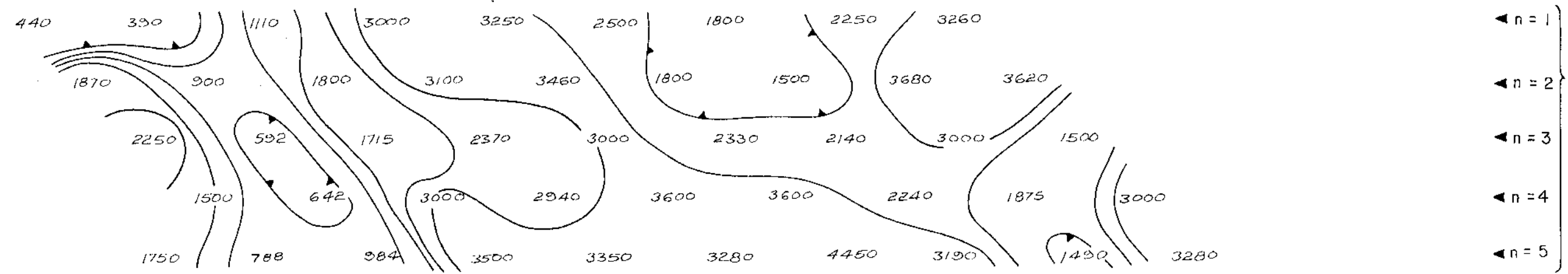
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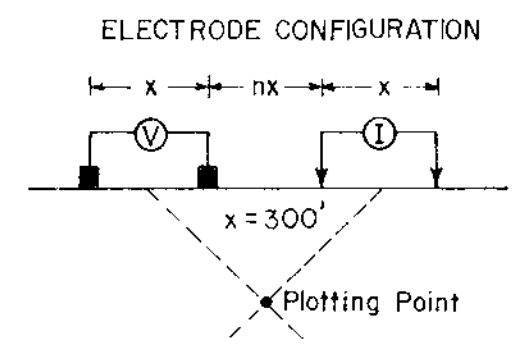
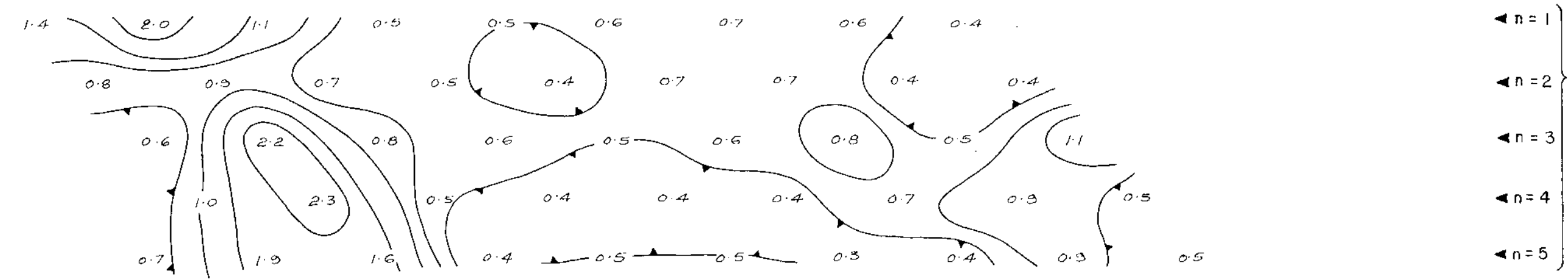
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18S 3S 00 9N 18N

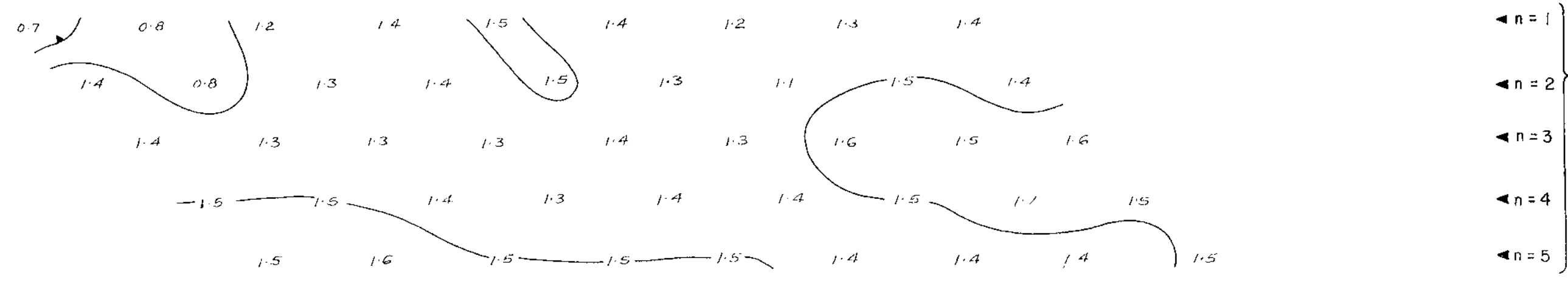
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AND  
RESISTIVITY SURVEY  
for  
**TORMEX RESOURCES LTD.**  
SNOW PEAK PROPERTY



LINE NO. 20+00E



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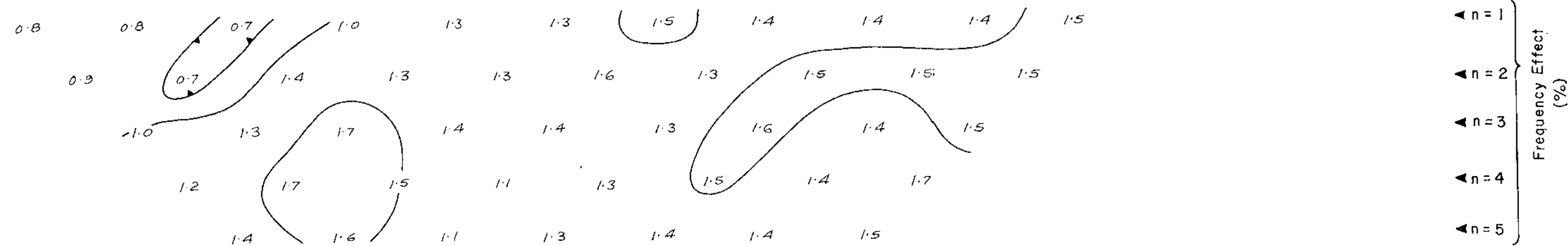
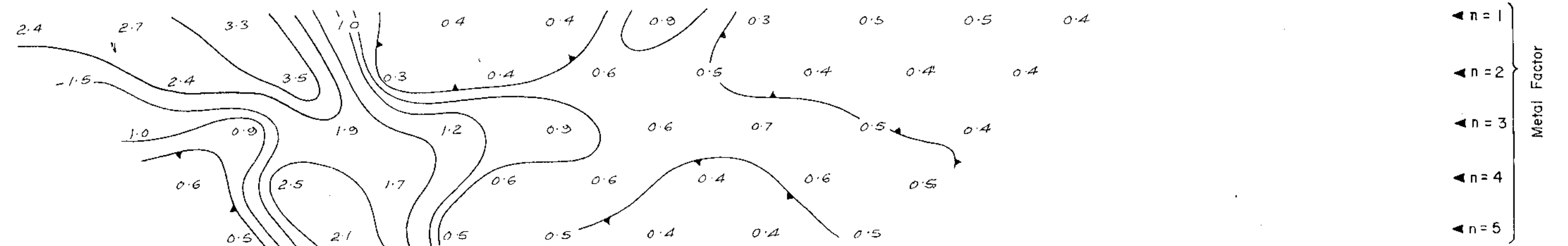
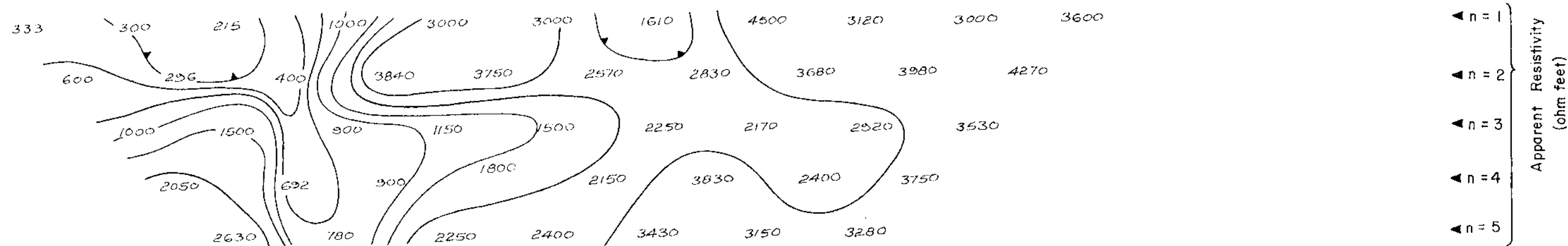
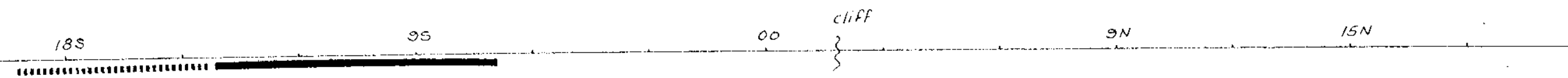


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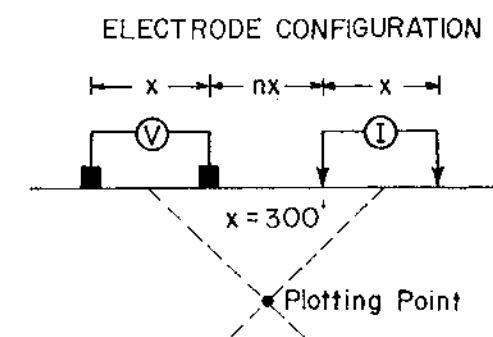
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LINE NO. 20+00E



INDUCED POLARIZATION  
AND  
RESISTIVITY SURVEY  
for  
**TORMEX RESOURCES LTD.**  
SNOW PEAK PROPERTY

LINE NO. 28+00E



accompanies a report on the MACK Claims  
by T. Sadler-Brown & A.F. Novin, June 1977

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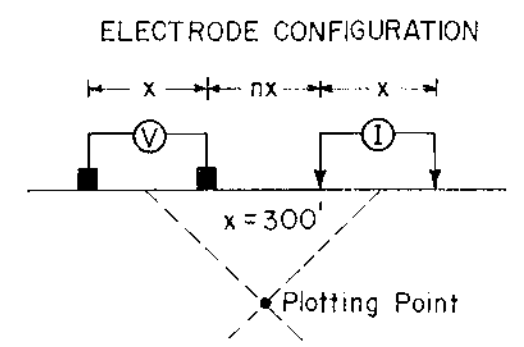
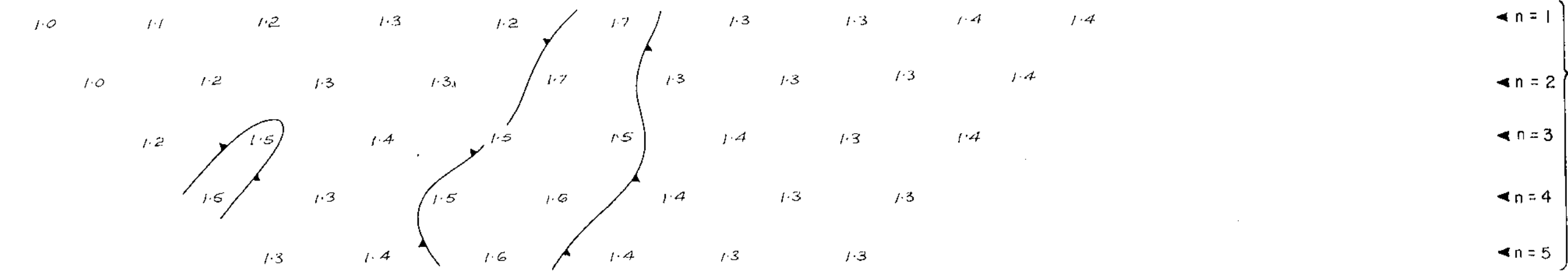
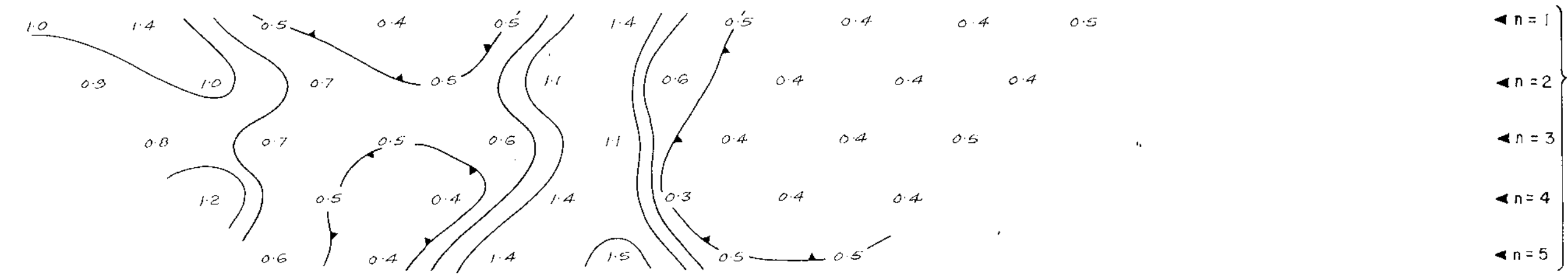
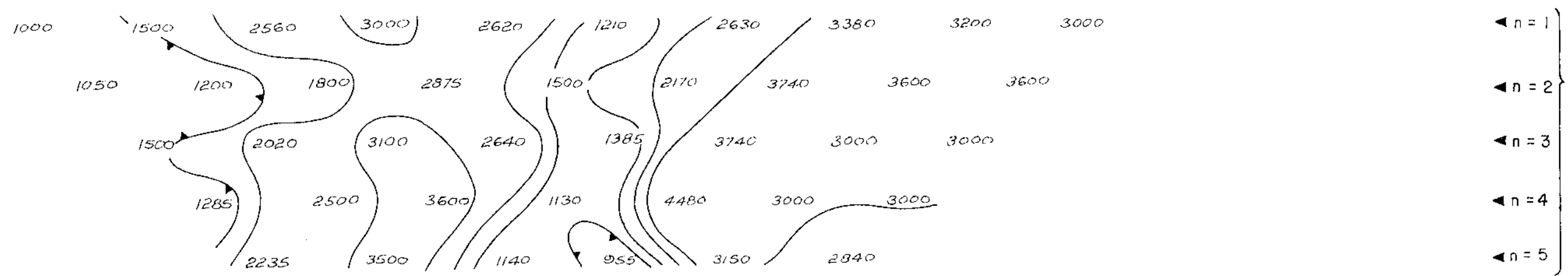
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Contours at logarithmic multiples of  
10, 15, 20, 30, 50, 75 & 100

LINE NO. 28+00E

18S 9S cliff 00 9N 18N

INDUCED POLARIZATION AND RESISTIVITY SURVEY for TORMEX RESOURCES LTD. SNOW PEAK PROPERTY

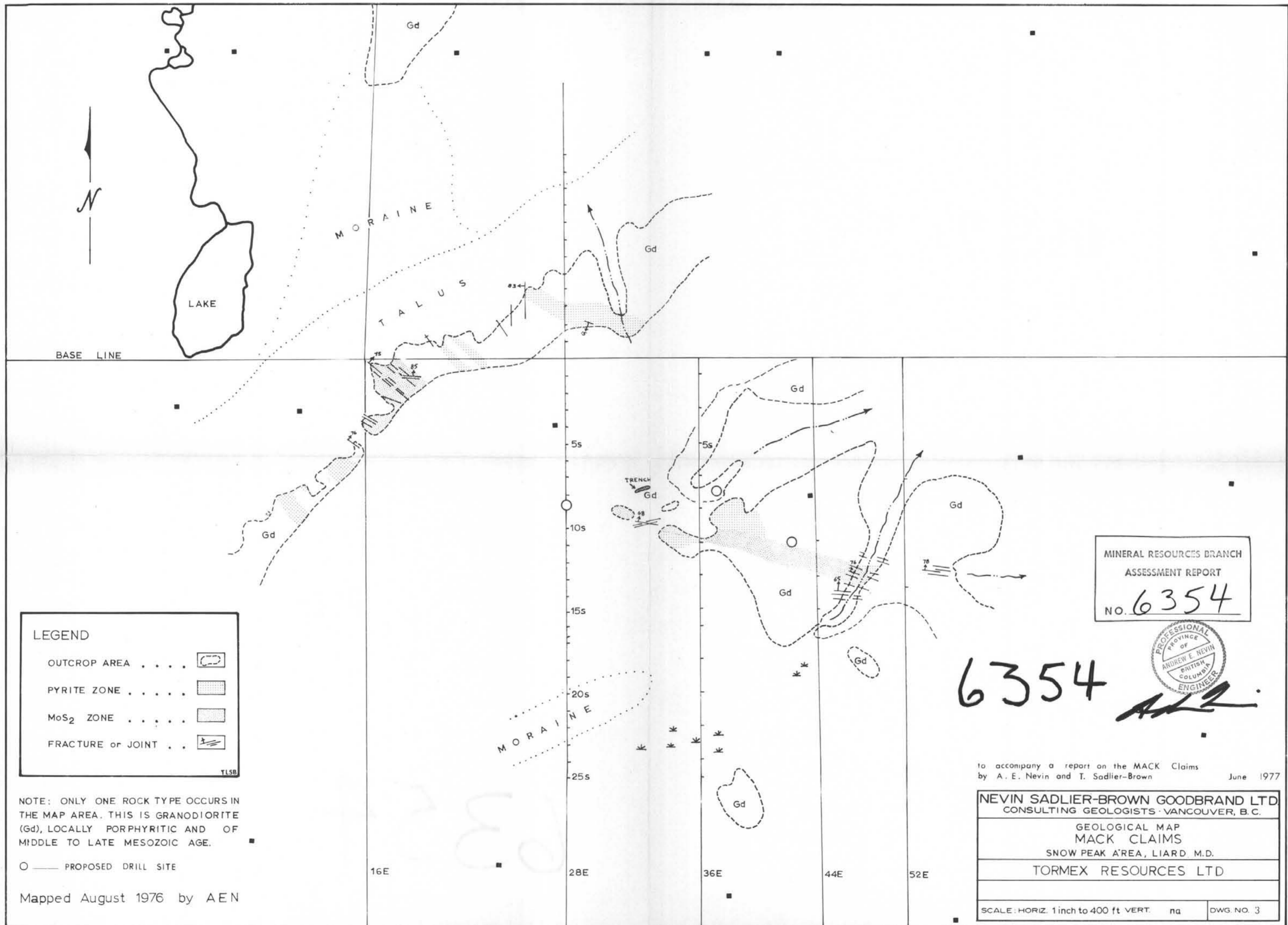


accompanies a report on the "All Claims" by T. Sadler-Brown & A.F. Devlin, Dec 1977

6354

SCALE 1" = 300 feet, DATE September 1976  
Contours at logarithmic multiples of 10, 15, 20, 30, 50, 75 & 100

LINE NO. 16+00E



**LEGEND**

- OUTCROP AREA . . . . .
- PYRITE ZONE . . . . .
- MoS<sub>2</sub> ZONE . . . . .
- FRACTURE or JOINT . . .

TL5B

NOTE: ONLY ONE ROCK TYPE OCCURS IN THE MAP AREA. THIS IS GRANODIORITE (Gd), LOCALLY PORPHYRITIC AND OF MIDDLE TO LATE MESOZOIC AGE.

○ — PROPOSED DRILL SITE

Mapped August 1976 by AEN

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
No. 6354



6354 *AEN*

to accompany a report on the MACK Claims  
by A. E. Nevin and T. Sadlier-Brown June 1977

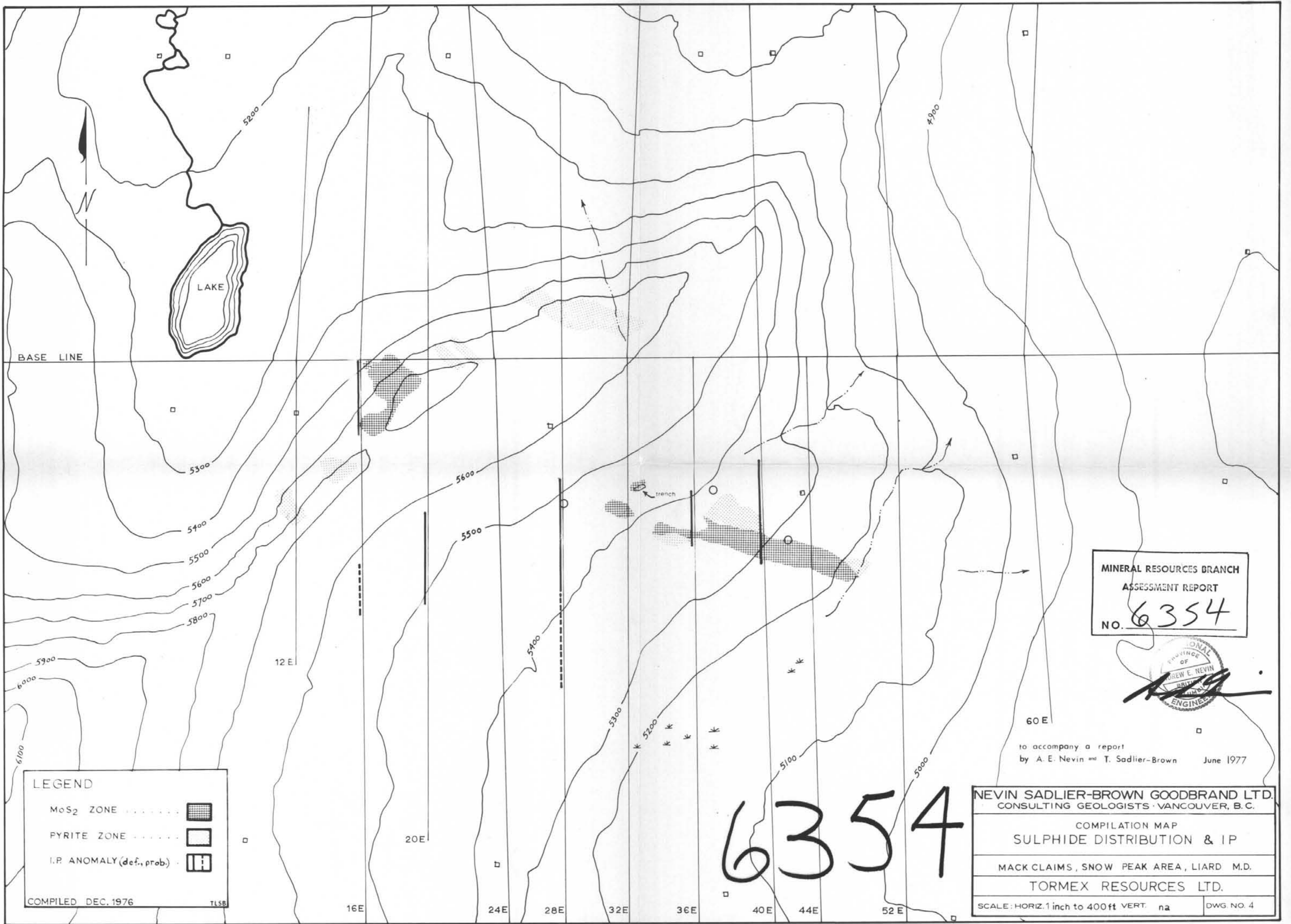
**NEVIN SADLIER-BROWN GOODBRAND LTD**  
CONSULTING GEOLOGISTS · VANCOUVER, B.C.

GEOLOGICAL MAP  
MACK CLAIMS  
SNOW PEAK AREA, LIARD M.D.

TORMEX RESOURCES LTD

SCALE: HORIZ. 1 inch to 400 ft VERT. na DWG. NO. 3





BASE LINE

LAKE

trench

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. 6354

PROVINCIAL ENGINEER  
ANDREW E. NEVIN  
BRITISH COLUMBIA  
ENGINEER

to accompany a report  
by A. E. Nevin and T. Sadlier-Brown June 1977

LEGEND

MoS<sub>2</sub> ZONE [stippled pattern]

PYRITE ZONE [cross-hatched pattern]

I.P. ANOMALY (def., prob.) [dashed lines]

COMPILED DEC. 1976 TLSB

6354

NEVIN SADLIER-BROWN GOODBRAND LTD.  
CONSULTING GEOLOGISTS - VANCOUVER, B.C.

COMPILATION MAP  
SULPHIDE DISTRIBUTION & IP

MACK CLAIMS, SNOW PEAK AREA, LIARD M.D.

TORMEX RESOURCES LTD.

SCALE: HORIZ. 1 inch to 400 ft VERT. na DWG. NO. 4