84-982-12751 9/85

ASSESSMENT REPORT

GEOCHEMICAL SURVEY

THOR 1 CLAIM

ATLIN MINING DIVISION

TATSAMENIE LAKE AREA, B. C.

N.T.S. 104K/1W

LATITUDE 58°14'W

LONGITUDE 132°21'W

OWNER: CHEVRON MINERALS LTD.

OPERATOR: CHEVRON CANADA RESOURCES LIMITED

Author: Godfrey Walton

October 1984

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,751

a2/08/

TABLE OF CONTENTS

LIST OF FIGURES

LOCATION AND ACCESS

The THOR Group is situated at approximately 132°21'W and 58°14'N, 10 km south of Tatsamenie Lake (Figure 1). The claims are 166 km southeast of Atlin, B.C. and 78 km northwest of Telegraph Creek, B.C. Access to the claims was by helicopter from a base camp at Tatsamenie Lake.

CLAIM STATUS AND HISTORY

The THOR 1 claim was staked in September of 1982 (Figure 2)

Claim	Record Number	Record Date	No. of Units
THOR 1	1744	September 22, 1982	15

The claims cover previously unstaked ground. Chevron personnel started working on the claim block prior to staking in 1981 and 1982. Reconnaissance geology prospecting located a small vein from which values greater than .3 oz/ton were obtained. These results inspired the staking and subsequent trenching in 1983 of these veins, without a lot of success

REGIONAL GEOLOGY

The THOR Group is underlain by pre-Upper Triassic phyllite and intercalated volcanic rocks (Souther, 1971). South and west of the claims lie Tertiary Sloko Group rhyolite and pyroclastic rocks and a dyke swarm that is likely related to the Sloko Group (Souther, 1971). East and north of the THOR Group lie Permian limestone. A stock of post Middle Jurassic diorite intrudes pre-Upper Triassic phyllite and volcanic rocks to the north of the claims.

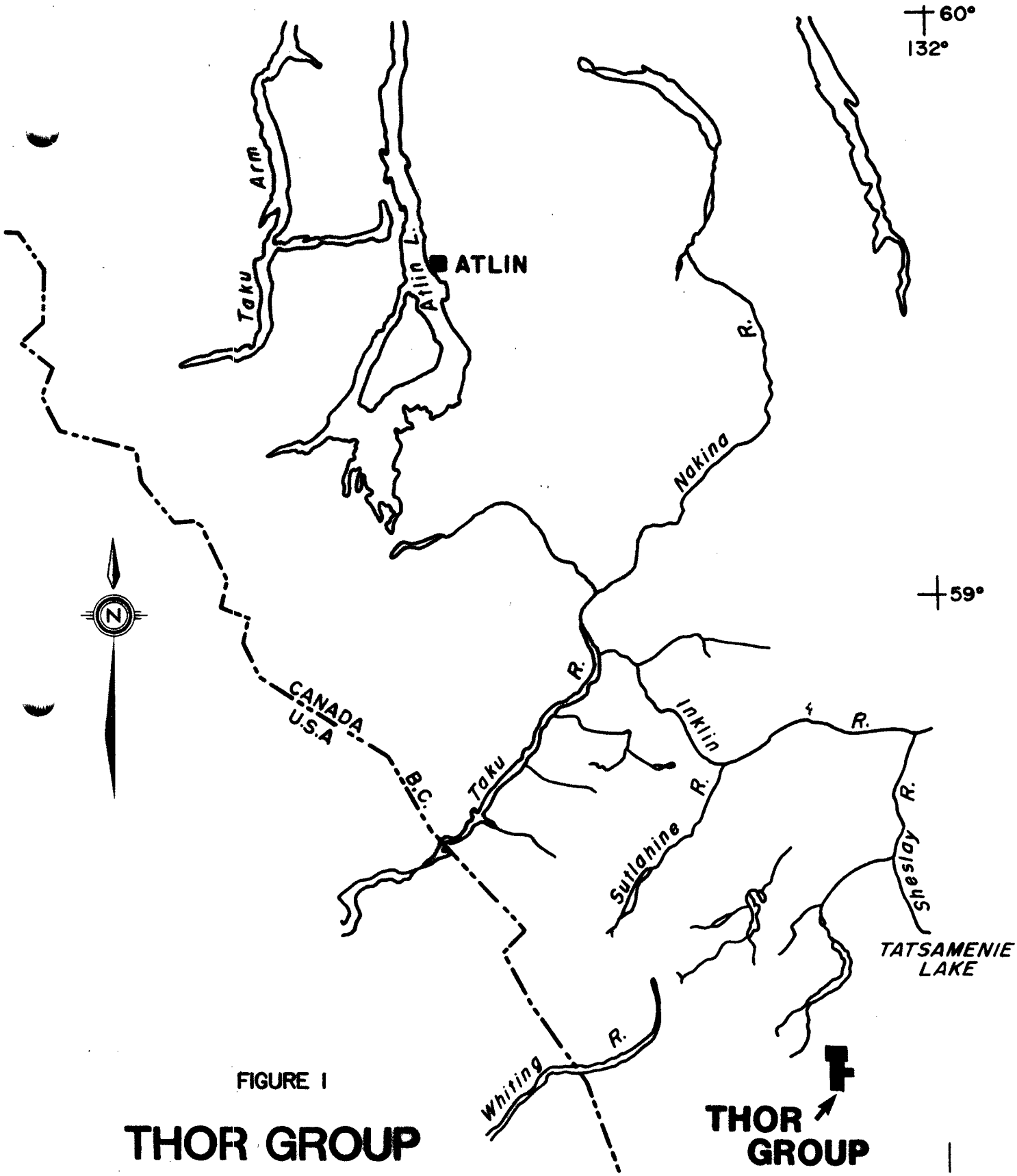

FIGURE 1

THOR GROUP

LOCATION MAP

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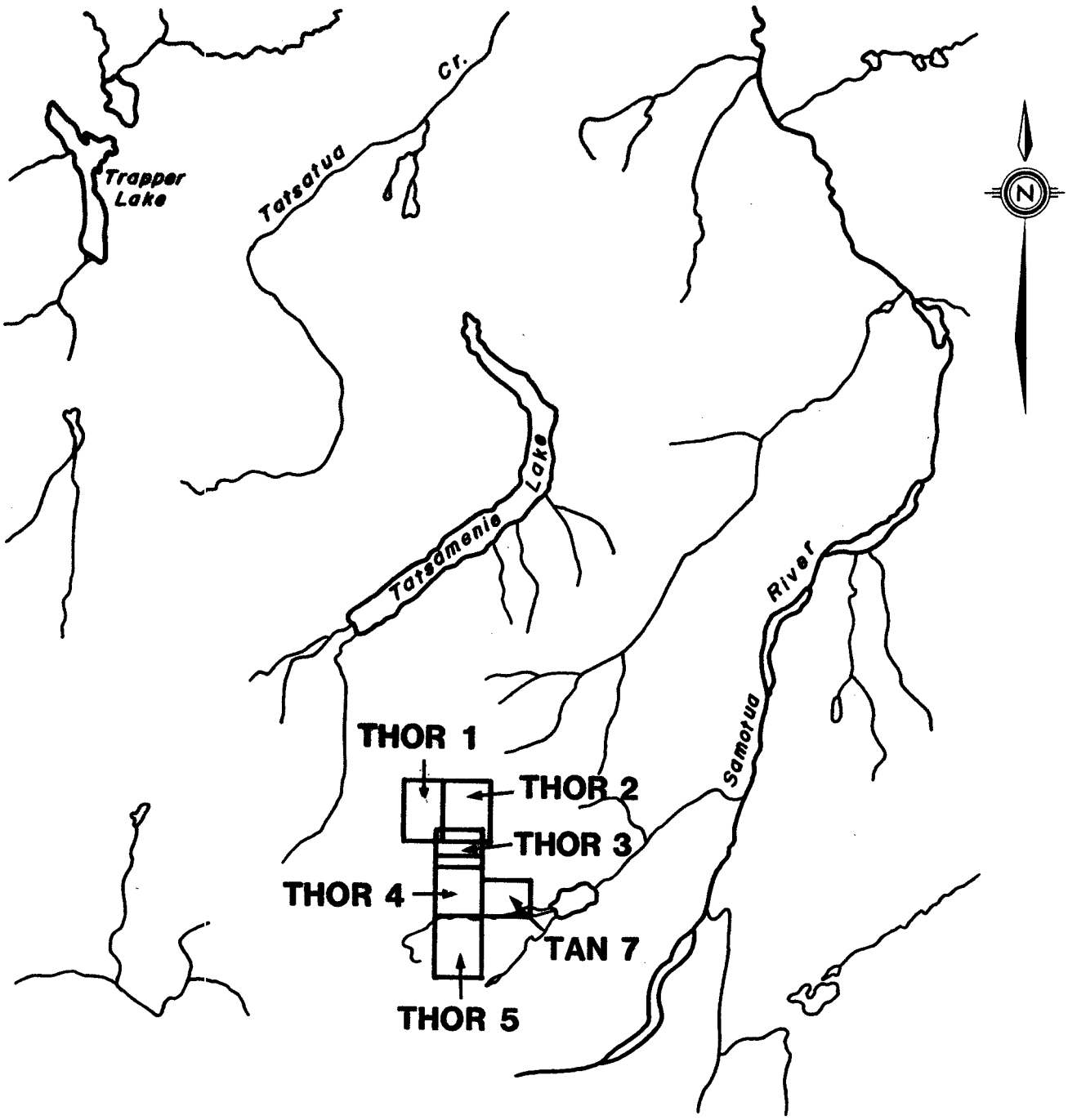

FIGURE 2

THOR GROUP CLAIM MAP

0 10 Km

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objective was to prospect and sample as many rock types to be certain there are no veins or other forms of mineralization on the property. A fault bounded block of felsic and mafic phyllite is conspicuous from an aerial view due to characteristic rusty coloured weathering. Greenstones occur northwest of the block of phyllite while southeast lies a mafic volcanic feldspar porphyry. The fault bounded block of phyllite may possibly be a small horst.

The following description has been taken from last year's assessment report to complement the geology:

Pre-Upper Triassic

Unit 1: Greenstone

The greenstone unit is fine grained, massive, fairly resistant and weathers a medium to dark green colour. Extensive chlorite alteration is restricted to localized areas within the greenstone.

Unit 2: Felsic Phyllite

The felsic phyllite unit is well foliated and light green in colour. Numerous quartz sweats which parallel foliation also contain K-spar, hematite and tourmaline. The felsic phyllite is fairly recessive and weathers a rusty orange-brown colour.

Unit 3: Mafic Phyllite

The mafic phyllite is dark grey to black and fine grained. The foliation of this unit resembles a slaty parting. The mafic phyllite is moderately recessive and weathers a dark grey to a dirty brown colour.

Unit 4: Dolomite - Limestone

The dolomite - limestone unit is interbedded with the phyllites. Dolomite occurs in beds ranging from a few centimeters to a few meters wide. The colour of the dolomite is creamy white to pink or grey. The dolomite weathers buff to dark brown.

Unit 5: Mafic Volcanic Feldspar Porphyry

Unit five is fresh, dark grey to black. White to light grey feldspar phenocrysts are up to 0.5 cm long and compose about 30% to 35% of the rock. The groundmass of the feldspar porphyry consists of aphanitic mafic minerals. The porphyry is blocky and weathers dark green to black.

ALTERATION AND MINERALIZATION

The main alteration type is silicification although there has been some iron-carbonate alteration and some sweats of K-feldspar, hematite and tourmaline.

The silicification in the phyllite masks the foliation and is mainly confined to areas around fractures. In the dolomite/limestone the silicification is controlled by bedding planes and appears of lensoid shapes spreading from central fracture zones.

The iron carbonate alteration is quite widespread in the fault bound package of phyllite and dolomite.

GEOCHEMICAL SURVEY ON CLAIMS

A total of 40 rock samples were collected throughout the exposed rock or coarse talus on the claim. They were all shipped to the Chemex Laboratory in Vancouver and prepared and analyzed as outlined in Apppendix A.

On the whole the analysis of rock samples have produced very low values (Fig. 3). Three samples have anomalous gold values, two appear related to a structure that was mapped previously and the third is closely associated with a silica zone. The mineralization is probably limited in extent because other samples near the silica zones are not anomalous and other samples near the structure are not anomalous in gold.

The higher gold values have no support in silver; some minor support in arsenic and antimony.

CONCLUSION AND RECOMMENDATION

Rock sampling away from the known mineralization has not outlined any further mineralization. It suggests the potential for further mineralization on this claim block is very limited.

I, therefore, do not recommend any further work on this claim

REFERENCE

Souther, J. G. (1971), Geology and Mineral Deposits of Tulsequah map-area, British Columbia, Geological Survey of Canada, Memoir 362, 84p.

a2/13/7

COST STATEMENT

THOR

(1) **Personnel**

Name	Field Days	Office Days
T. Zanger	1	
F. Wohlgemuth	1	
D. Cook	1	
G. Walton	___	1
	3	1

Average cost for field day - $93/man day	$ 279.00
Average cost for office day - $246/man day	246.00
(2) Geochemical Analysis for Au, As, Ag, Sb	
40 rocks @$17.40/rock	700.00
(3) Camp Costs	
3 man days @$60/man day	180.00
(4) Helicopter	
0.6 hrs. @$450/hr.	270.00
(5) Drafting	
2 man days @$100/man day	200.00
	$1,875.00

a2/08/8

STATEMENT OF QUALIFICATIONS

I, Godfrey Walton, have worked as a geologist since 1974 in Alberta, British Columbia, Yukon, Northwest Territories and Ontario. I graduated in 1974 with a B.Sc. (Hons) degree from the University of Alberta and was awarded a M.Sc degree from Queens University in January 1978. I have been employed by Chevron on a permanent basis since 1976.

I am a member in good standing with the Canadian Institute of Mining and Metallurgy, the Society of Exploration Geochemists and the Mineralogical Association of Canada.

The field work on the THOR 1 claim was carried out under my supervision.

Godfrey Walton

GODFREY WALTON

a2/08/9

APPENDIX A

GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

1. Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.

2. A 1.00 gram portion of the sample is weighted into a calibrated test tube. The sample is digested using hot 70% $HClO_4$ and concentrated HNO_3. Digestion time = 2 hours.

3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.

4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	-	1 ppm
Molybdenum	-	1 ppm
Zinc	-	1 ppm
*Silver	-	0.2 ppm
*Lead	-	1 ppm
*Nickel	-	1 ppm
Chromium	-	5 ppm

*Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

PPM Antimony:

A 2.0 gm sample digested with conc. HCl in hot water bath. The iron is reduced to Fe^{+2} state and the Sb complexed with I^-. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm ± 0.2.

Detection limit: 0.2 ppm

PPM Arsenic:

A 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with $NaBH_4$ and the arsenic content determined using flameless atomic absorption.

Detection limit: 1 ppm

PPM Tungsten:

0.50 gm sample is fused with potassium bisulfate and leached with hydrochloric acid. The reduced form of tungsten is complexed with toluene 3,4 dithiol and extracted into an organic phase. The resulting colour is visually compared to similarly prepared standards.

Detection limit: 2 ppm W

FIRE ASSAY METHOD - Silver & Gold

Silver and gold analyses are done by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay.

0.5 assay ton sub samples are fused in litharge, carbonate and siliceous fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The combined Ag & Au is weighed on a microbalance, parted, annealed and again weighed as Au. The difference in the two weighings is Ag.

F.A. - A.A. GOLD COMBO METHOD

For low grade samples and geochemical materials 10 gram samples are fused with the addition of 10 mg of Au-free Ag metal and cupelled. The silver bead is parted with dilute HNO_3 and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer to a detection of 5 ppb.

SAMPLE NO.	Au ppb	Ag ppm	As ppm	Sb ppm
FW4TI-140	<5	0.1	3	1.0
141	<5	0.1	3	1.9
142	<5	0.1	7	1.4
143	<5	0.1	35	0.3
144	5	0.1	3	0.3
145	<5	0.1	3	0.6
146	<5	0.1	3	0.5
147	<5	0.1	3	0.3
148	5	0.1	9	0.1
149	<5	0.2	11	0.2
150	<5	0.3	24	0.3
151	<5	0.2	2	0.2
152	<5	0.2	3	0.2
153	<5	0.1	35	0.6
154	5	0.2	3	0.3
155	5	0.3	1	1.8
156	<5	0.2	1	1.2
157	<5	0.2	2	6.6
158	<5	0.1	2	1.0
159	100	0.1	63	2.4
160	920	0.1	170	3.8
161	10	0.2	9	3.6
162	<5	0.2	2	4.3
TZ4TI-154	<5	0.1	1	0.2
155	<5	0.1	1	0.1
156	<5	0.1	3	0.8
157	<5	0.1	45	0.6
158	<5	0.1	6	0.4
159	<5	0.1	1	0.4
160	<5	0.1	10	0.2
161	<5	0.1	1	0.1
162	<5	0.1	2	0.1
163	<5	0.1	1	0.1
164	<5	0.1	1	0.1
165	<5	0.1	22	0.4
166	<5	0.1	1	0.1
167	<5	0.1	83	1.6
168	285	0.1	14	0.1
169	<5	0.1	1	0.1
170				

LEGEND

QUATERNARY

6 GLACIAL TILL

PRE-UPPER TRIASSIC

5 MAFIC VOLCANIC FELDSPAR PORPHYRY.

4 DOLOMITE AND LIMESTONE - THIN TO THICKLY BEDDED, GRAY TO BUFF-PINK.

3 PHYLLITE - MAFIC; BLACK FOLIATION RESEMBLES SLATEY PARTING.

2 PHYLLITE - FELSIC; LIGHT GREEN TO BROWN, WELL FOLIATED.

1 GREENSTONE - RELATIVELY UNALTERED.

SYMBOLS

- GEOLOGICAL CONTACT; OBSERVED, APPROXIMATE
- LIMIT OF OUTCROP
- FAULT; OBSERVED, APPROXIMATE
- 32 BEDDING
- 60 FOLIATION
- 17 MINOR FOLD AXIS
- 20 VEIN ATTITUDE
- SILICA ALTERATION
- TRENCH LOCATION
- T TETRAHEDRITE OCCURRENCE
- ROCK SAMPLE
- SOIL SAMPLE

SNOW 1 / THOR 1

SNOW 2 / THOR 2

THOR 3

THOR 4 / TAN 7

THOR 5 / TAN 6

GLACIER

0 100 200 300 400 500 600 700 800 900 1000 M

SCALE 1:10 000

GEOLOGICAL BRANCH
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12,751

Chevron Canada Resources Limited
Minerals Staff

THOR CLAIM GROUP

GEOLOGY

FIGURE No. 3		PROJECT No. M504	
DATE OCT. 1983	REVISIONS		SCALE 1:10 000
NTS No. 104 K			FILE No. G-17
COMPILED BY			