

82-93-10158

ASSESSMENT REPORT
GEOLOGICAL AND GEOCHEMICAL SURVEY

SAM CLAIMS 1, 2
ATLIN MINING DIVISION
TATSAMENIE LAKE AREA, B.C.

NTS 104 K/1, 8

132° 19' W
58° 15' N

OWNER: CHEVRON CANADA LTD.
OPERATOR: CHEVRON STANDARD LTD.

AUTHOR:
KEN SHANNON

FEBRUARY, 1982

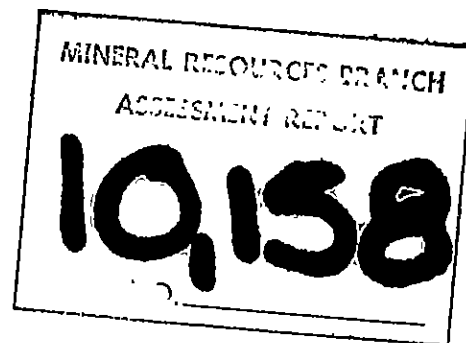


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INTRODUCTION

LOCATION AND ACCESS

The SAM claims are situated at $132^{\circ} 19'$ W and $58^{\circ} 15'$ N, approximately 8km southeast of the south end of Tatsamenie Lake (Fig. 1). Access to the property was provided by helicopter from a base camp at Trapper Lake, 29km to the northwest. Float plane access to Tatsamenie Lake is available from Dease Lake, 135km to the east and Atlin, 160km to the northwest.

HISTORY

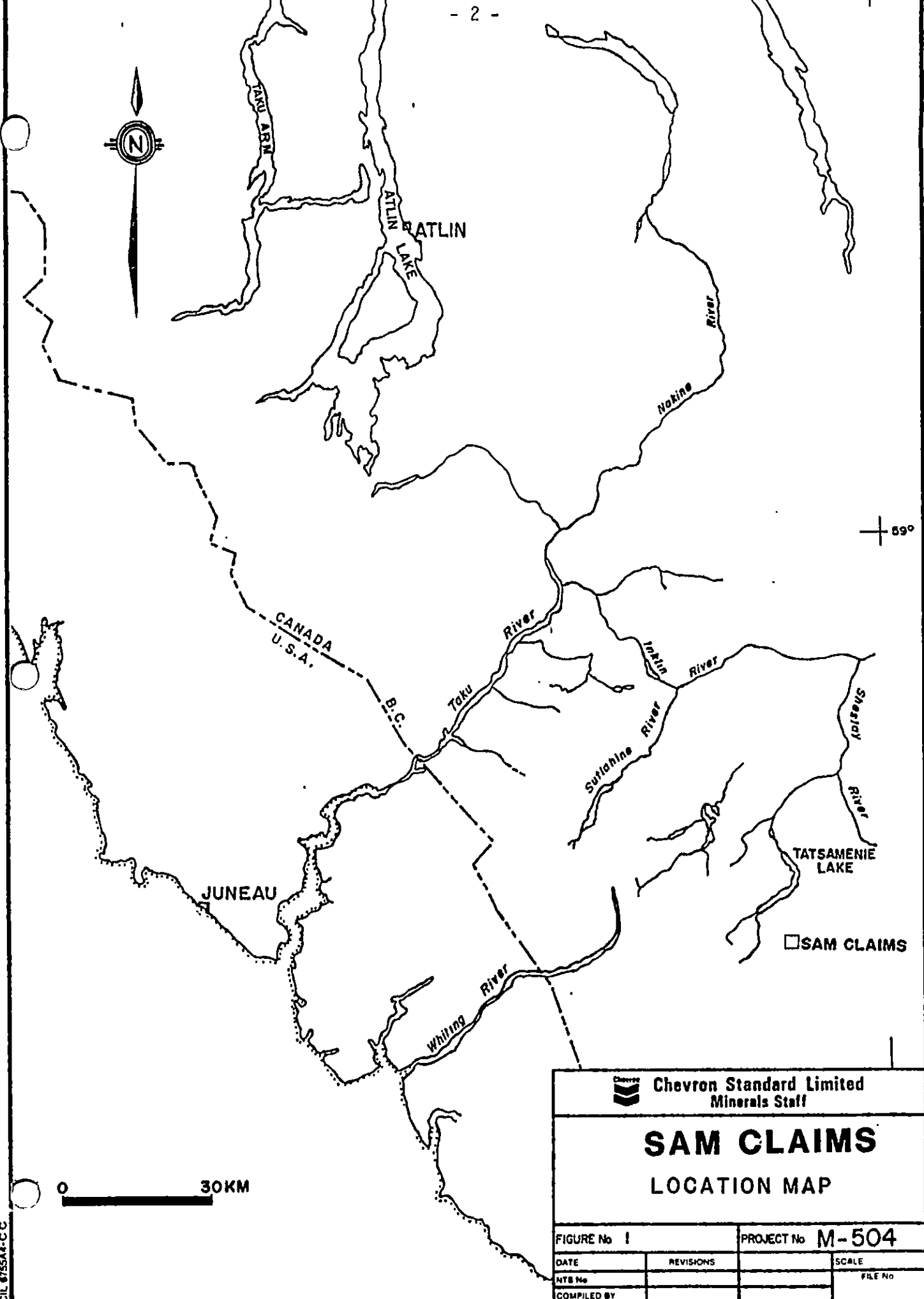
The SAM claims were staked on the basis of anomalous soil and silt samples taken during July 1980 along a stream running northeast through the claims. No known workings are in the vicinity and the claims are on previously unstaked ground. The property is owned by Chevron Canada Ltd. with Chevron Standard Ltd. acting as the operator.

CLAIMS

The property comprises the following claims (Fig. 2):

<u>Claim</u>	<u>Record No.</u>	<u>No. of Units</u>
SAM 1	1290	15
SAM 2	1291	10

The SAM claims were staked on the 24th day of February 1981 and recorded March 5th, 1981.



**Chevron Standard Limited
Minerals Staff**

SAM CLAIMS LOCATION MAP

FIGURE No 1		PROJECT No M-504	
DATE	REVISIONS	SCALE	
NTB No		FILE No	
COMPILED BY			

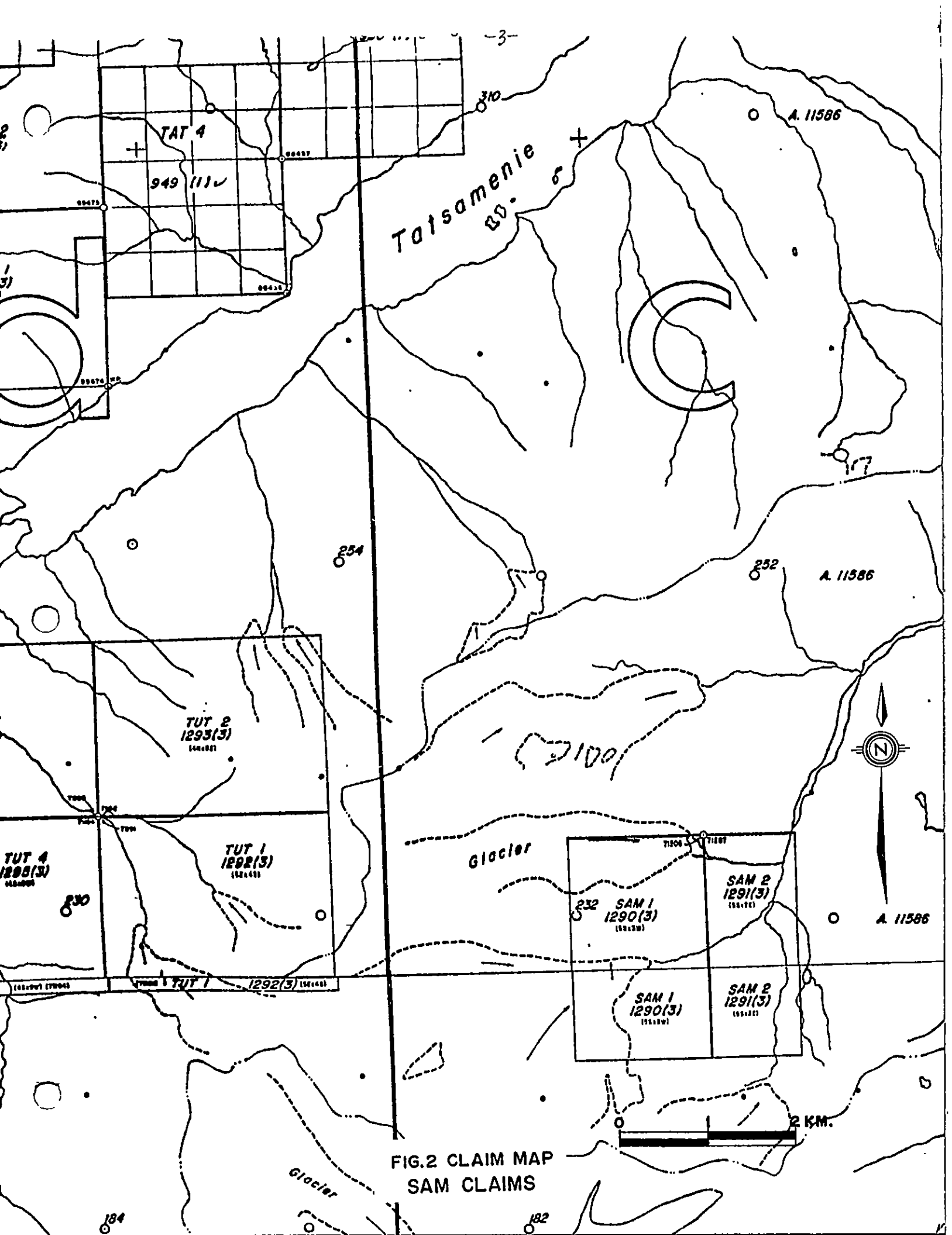


FIG. 2 CLAIM MAP
SAM CLAIMS

REGIONAL GEOLOGY

The SAM claims are situated on the east margin of the Coast Plutonic Complex as mapped by Souther (1971). The claims are underlain by Triassic and older oceanic rocks mainly limestone and fine-grained sediments (now phyllites). Dykes, sills and intrusive bodies related to the Coast Plutonic Complex have intruded the limestones and phyllites on the claims.

GEOLOGICAL SURVEY OF CLAIMS

The variety of Pre-Triassic rocks includes phyllite, tuff, gabbro, and limestone. On the property, the main strike of the units is approximately east-west and dips are moderate to the north. The phyllites range from light green to black in colour and appear to be mainly chloritized sediments. Common within the phyllite units are lenses and beds of limestone up to 10m thick. The limestones are often thinly bedded (< 10cm) and usually recrystallized. Fresh surfaces on the limestone are white to gray and weathered surfaces gray to buff. Included in the Pre-Triassic stratigraphy are sills of gabbro usually < 5m thick. Quartz, K-spar and specularite veins and quartz "sweats" are common in all rocks on the claims. Extensive skarn zones containing chlorite-actinolite-epidote occur sporadically throughout the phyllites and are possibly related to small diorite plugs noted locally on the property. Late-stage quartz and quartz-carbonate stringers are abundant in gossanous altered zones which have extensive silicification and carbonatization.

MINERALIZATION

Pyrite is common in the altered quartz-carbonate zones on the claims and locally is abundant in the phyllite units. Some samples of galena-quartz vein float were found in the main northeast creek-bed draining the claims. Some of the altered limestones have disseminated malachite, which is probably forming from weathered tetrahedrite as on the TUT claims to the west. Minor arsenopyrite and stibnite were noted in quartz-carbonate gossans and in quartz veins in the phyllites.

GEOCHEMICAL SURVEY OF CLAIMS

Reconnaissance soil, silt and rock samples were taken throughout the claims. A total of 18 rock and 36 soil and silt samples were collected. Most of the soil samples were taken from the B-horizon if possible, if not, the C-horizon was used. Samples were collected with a rock pick and sample depths ranged from 5-25cm.

Soil and silt samples were placed in kraft wet strength soil bags, air dried and shipped to Chemex Labs, North Vancouver, B.C. The samples were further dried and then sieved, with the -80 mesh portion being retained for analysis. Rock samples were crushed then ground to -80 mesh also. For Au determination, a fire assay - atomic absorption technique is used with the fire assay bead being dissolved in HCl and HNO₃ then analyzed by conventional atomic absorption techniques. For Ag, a mixture of HClO₄ and HNO₃ is used to digest

the sample, which is followed by atomic absorption spectrophotometry. The As analyses are done by standard colorometric techniques following an HClO_4 plus HNO_3 digestion. Antimony analyses were done by digesting the sample in HCl , then adding potassium iodide, extracting with TOPO - MIBK and then analyzing by atomic absorption spectrophotometry. Location of samples and corresponding geochemical results can be seen on Figures 3 to 7.

As + Sb - arsenic and antimony are usually associated with quartz-carbonate altered zones and probably reflect the presence of arsenopyrite and stibnite which were noted on the claims.

Ag - silver was virtually absent from the property except for one silicified limestone zone near the north-central part of SAM 2. The silver is associated with tetrahedrite which is disseminated throughout the altered rocks only in this area.

Au - most of the samples contained background gold concentrations, however, four samples had gold values greater than 100ppb.

CONCLUSIONS

The few scattered gold anomalies are associated with quartz-carbonate alteration of the Pre-Triassic host rocks. Minor tetrahedrite-rich zones have silver associated with them. Potential for large scale altered and mineralized zones does not appear to be high.

RECOMMENDATIONS

Follow-up of gold-silver anomalies with detailed sampling and, if warranted, trenching to establish widths of mineralization.

REFERENCE

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

1981 PROGRAM
SAM CLAIMS
TATSAMENIE LAKE AREA, B.C.

PERIOD: June 2, 3, 4, 15, 28, July 15, 17
(10 man-days - 675 total camp man-days = 1.5% camp costs)

COSTS:

1. Labour

<u>Name</u>	<u>Position</u>	<u>Field Days</u>	<u>Office Days</u>
K. Shannon	Geologist	4	3
M. Thicke	Geologist	3.5	
J. Hawthorne	Sampler	4.5	
D. Abercrombie	Sampler	1	
		<u>10</u>	<u>3</u>

Total = 13 days

Average cost per man-day = \$100.00

Total labour cost = \$100./day x 13 days \$ 1,300.00

2. Analyses

Rocks (Au, As, Ag) 18 @ \$12.50 each \$ 225.00

Soils and Silts (Au, As, Ag, Sb) 36 @ \$11.10 each \$ 399.60

3. Food - 10 man-days x \$20.00/man-day \$ 200.00

4. Camp Costs - prorated 1.5% x \$21,000.00 \$ 315.00

5. Helicopter - 8.6 hours @ \$360.00/hr \$ 3,096.00

6. Fuel - 220 gal. @ \$3.80/gal \$ 836.00

7. Drafting - 4 days @ \$100.00/day \$ 400.00

TOTAL PROGRAM COST \$ 6,771.60

Chevron Standard Limited PAC Account transferral \$ 744.88
(11% of \$6,771.60)

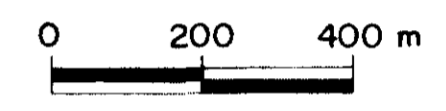
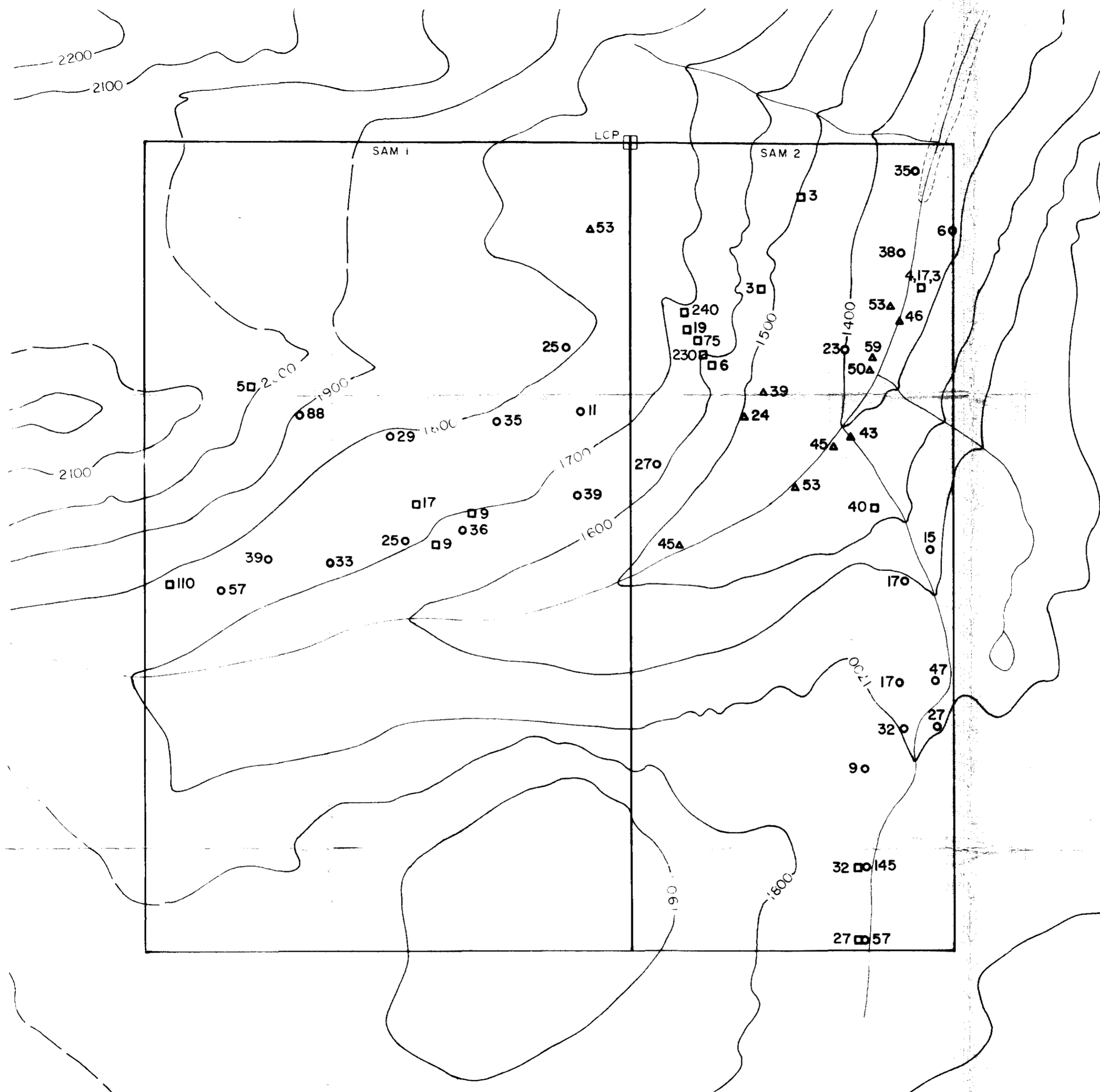
ASSESSMENT TOTAL = \$ 7,516.48

STATEMENT OF QUALIFICATIONS

I, Ken Shannon, have worked as a geologist in B.C. on a seasonal basis since graduation from University of British Columbia with a B.Sc. (Hons) in 1975. Currently finishing work on a M.Sc. thesis at University of British Columbia, I am employed as a project geologist by Chevron Standard Limited of Vancouver, B.C.

A handwritten signature in cursive script that reads "Ken Shannon".

Ken Shannon

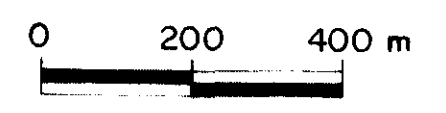
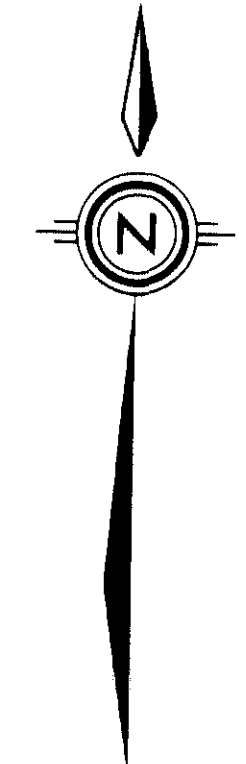
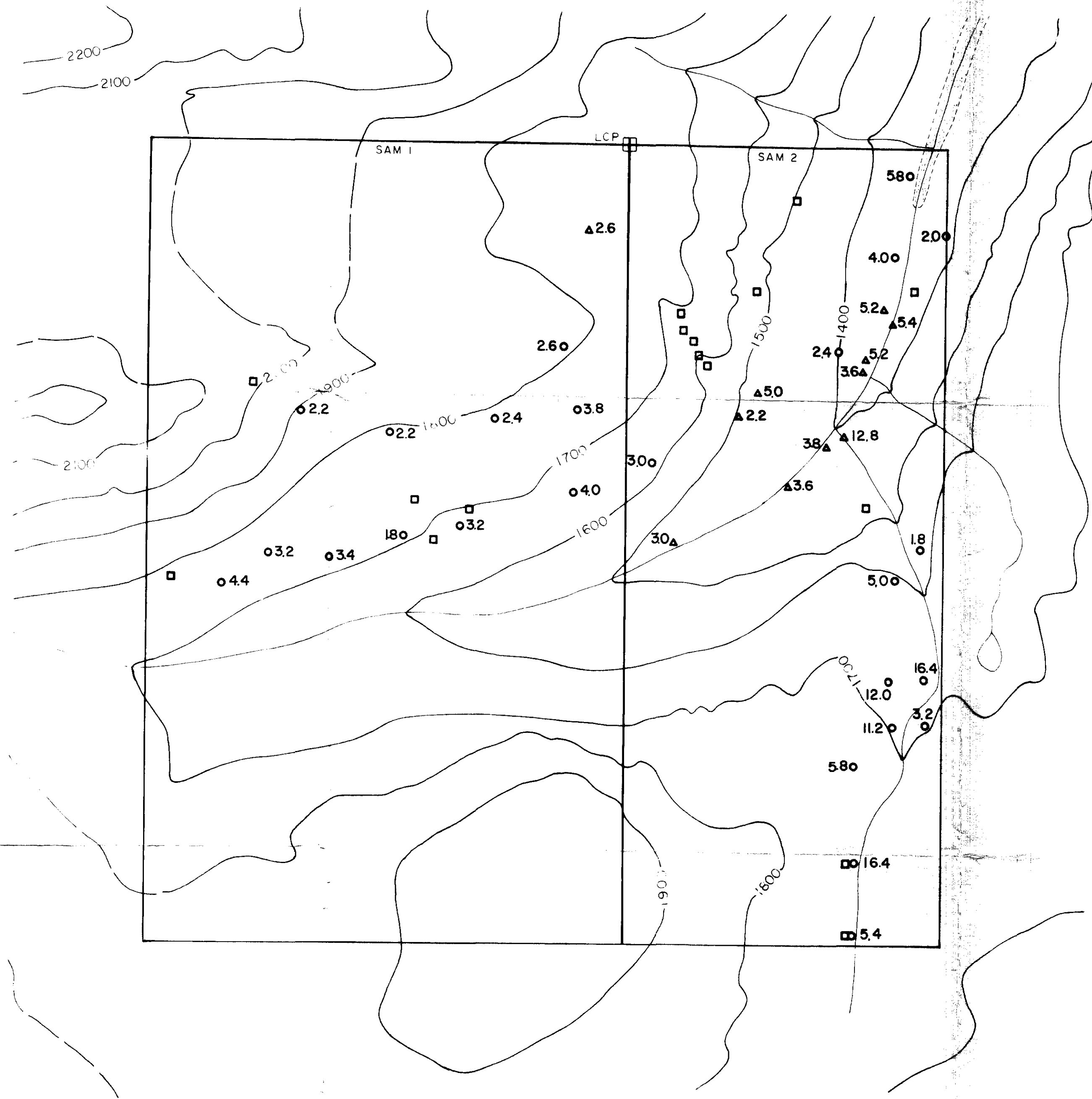


LEGEND

- ROCK
- SOIL
- △ SILT

ANNUAL RESOURCES BRANCH
ASSESSMENT REPORT
10,158
NO.

Chevron Standard Limited Minerals Staff	
SAM CLAIMS GEOCHEMISTRY As - ppm	
FIGURE No. 3	PROJECT No. M 504
DATE: FEB 10/82	SCALE: 1:10,000
BY: 104 K	
BY: K.S.	

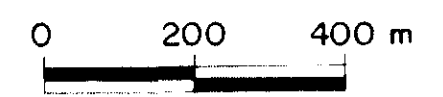
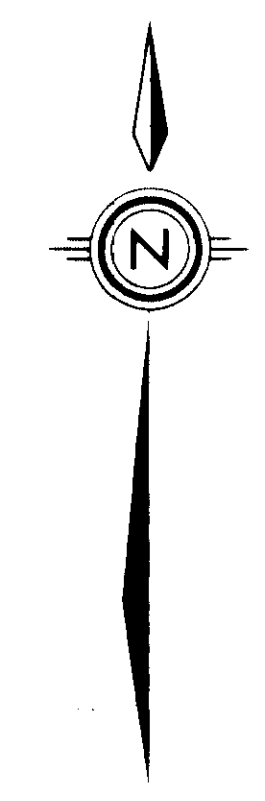
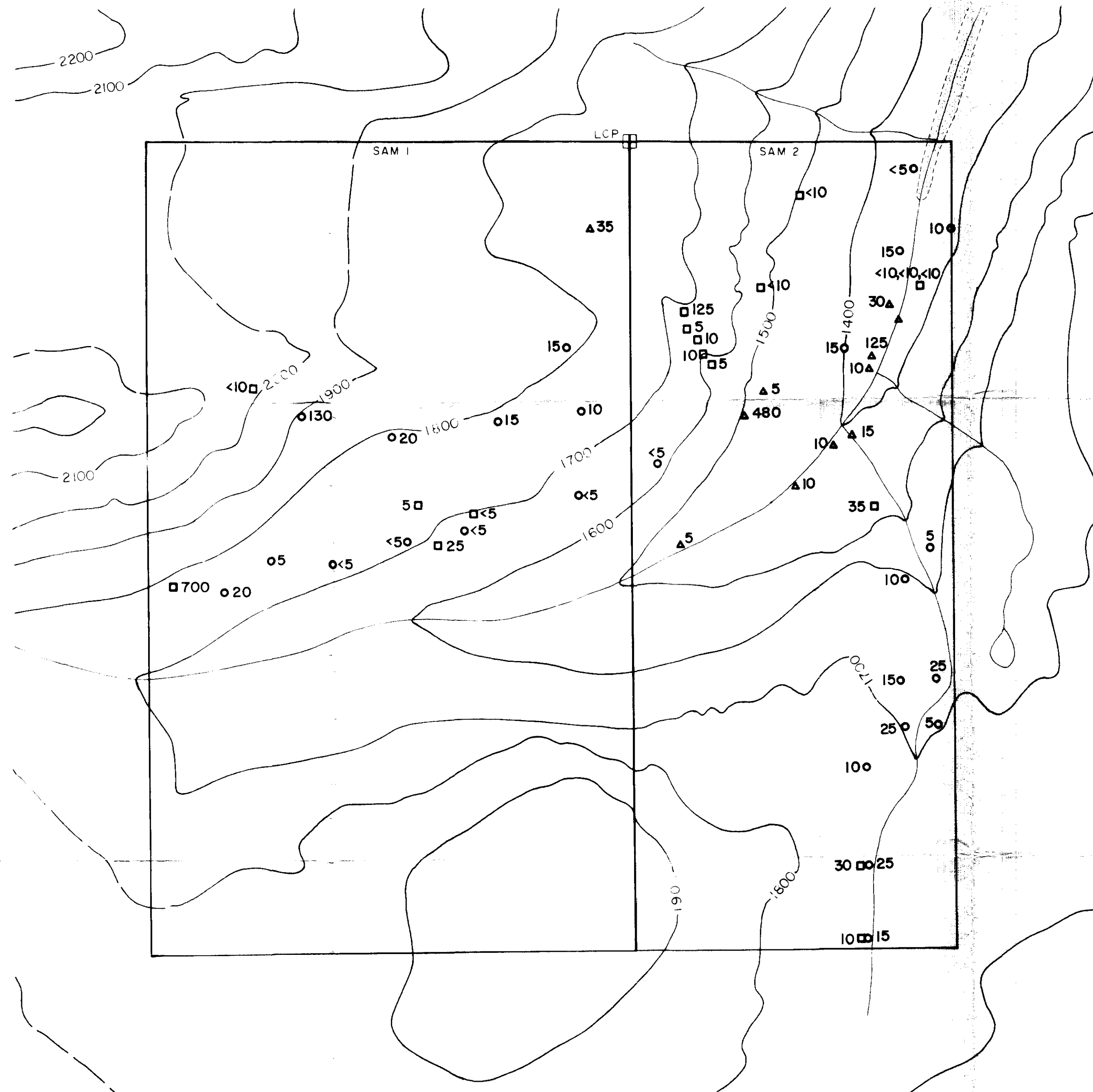


LEGEND

- ROCK
- SOIL
- △ SILT

MINERAL RIGHTS ASSIGNMENT REPORT
10,158
 NO.

Chevron Standard Limited Minerals Staff	
SAM CLAIMS GEOCHEMISTRY Sb - ppm	
FIGURE No. 4	PROJECT No. M 504
FEB 10/82	1:10,000
104 K	
K S	

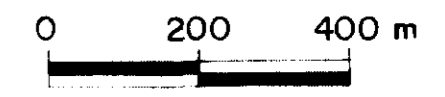
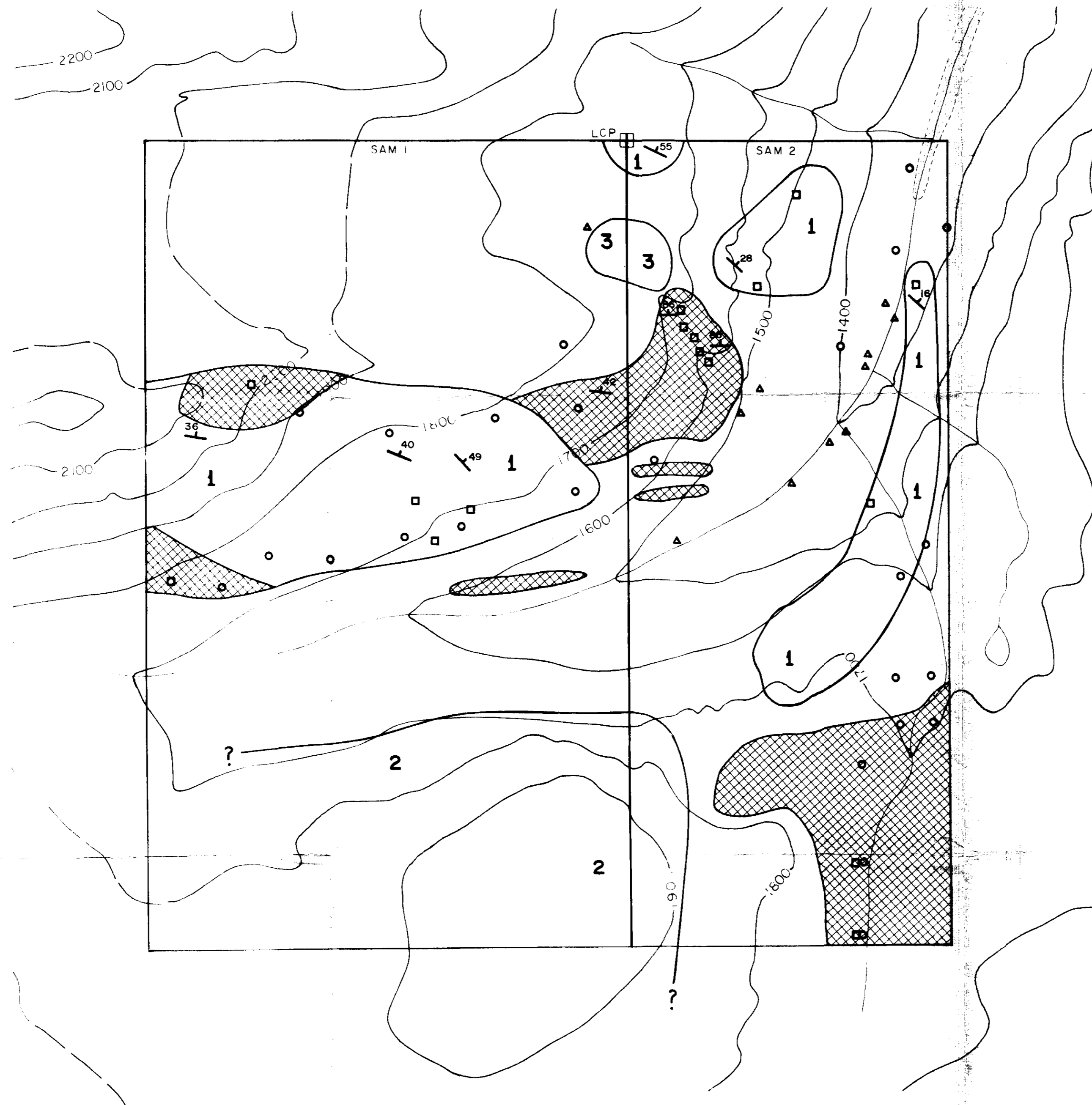


LEGEND

- ROCK
- SOIL
- △ SILT

MINERAL DEVELOPMENT BRANCH
 ASSESSMENT REPORT
10,158

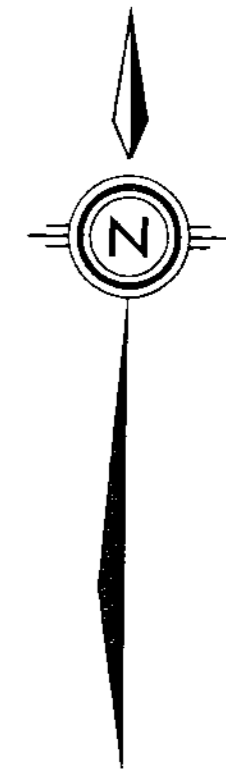
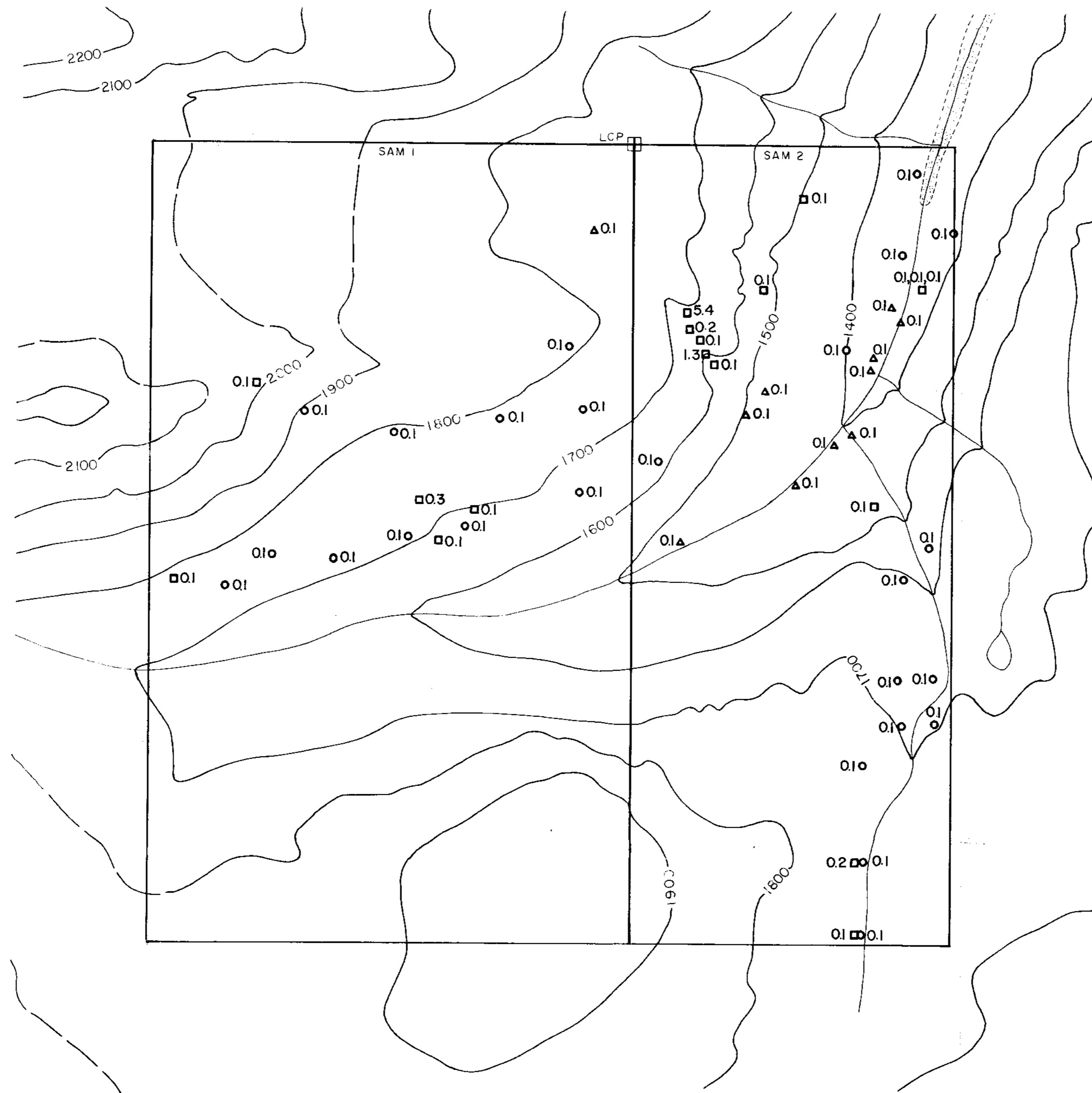
Chevron Standard Limited Minerals Staff	
SAM CLAIMS GEOCHEMISTRY Au - ppb	
FIGURE No. 6	PROJECT No. M 504
DATE: FEB 10/82	SCALE: 1:10,000
BY: 104 K	
CHECKED: K.S.	



- LEGEND**
- ROCK
 - SOIL
 - △ SILT
 - 1 PHYLITE, MINOR LMST & GABBRO
 - 2 LIMESTONE
 - 3 GABBRO
 - ⊗ GOSSAN
 - ∠₃₀ BEDDING SYMBOL WITH DIP

MINERAL CLAIM NO. 10,158

Chevron Standard Limited Minerals Staff	
SAM CLAIMS GEOLOGY	
FIGURE No. 7	FIGURE No. M 504
FEB 10/82	1:10,000
104 K	
K S	



LEGEND

- ROCK
- SOIL
- △ SILT

MINERAL RESOURCES BRANCH
 ACCESSORY REPORT
10,158
 NO.

Chevron Standard Limited Minerals Staff	
SAM CLAIMS GEOCHEMISTRY Ag - ppm	
FIGURE No. 5	PROJECT No. M 504
DATE: FEB. 10/82	SCALE: 1:10,000
NO. 104 K	
DRAWN BY: K.S.	