

5187

GEOCHEMICAL SURVEY

94E/2W & 3E
on

THE SHAS CLAIMS

TOODOGGONE RIVER AREA

OMINECA MINING DIVISION

by

W. Meyer, P. Eng.

(Work done on behalf of SHASTA MINES & OIL LTD. (N.P.L.)

Claims: SHAS 27 - 38
Location: BLACK LAKE
57° 14' 127° 5'
Dates: July 16 - July 21, 1974

August 25, 1974

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5187 MAP

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SUMMARY

During the 1974 field season, a programme of soil sampling and prospecting was carried out on the SHAS 27-38 mineral claims in the Toodoggone River area of British Columbia on behalf of Shasta Mines & Oil Ltd.(N.P.L.)

A detailed geochemical programme was carried out to assess the gold, silver anomaly that was located in a 1973 reconnaissance programme.

The detailed programme outlined 3 geochemically anomalous areas, one area being a gold silver anomaly with values up to 4.62 ppm gold or .11 oz/ton gold and two areas with silver copper anomalies with values up to 60 ppm silver or 1.4 oz/ton silver.

INTRODUCTION

During July 1974 a field programme was carried out on the "SHAS" claims group at the request of Mr. H. Faulkner of Shasta Mines & Oil Ltd. (N.P.L.) The object of the programme was to assess the gold geochemical anomaly outlined during the 1973 reconnaissance programme.

The work was carried out by staff of W. Meyer & Associates Ltd. under the direction of the author.

Five line miles of detailed geochemical sampling was carried out in the anomalous area, geology noted and representative rock specimens collected. The line grid was more accurately positioned relative to the drainage in the area.

LOCATION and ACCESS

The "SHAS" claims are located in the Toadoggone River area of north central B.C. immediately north and east of the Black Lake airstrip centred around Latitude 57° N and Longitude 127° 5'W. Access is via either wheel or float equipped fixed-wing from Smithers B.C., Dease Lake B.C. or McKenzie, B.C. Smithers and McKenzie are both serviced by major highways or daily airline service from Vancouver, B.C. direct or via Prince George, B.C.

CLAIMS

The "SHAS" group consists of 12 full sized claims originally recorded on July 21, 1972.

The technical work on which this report is based in intended to apply as assessment credits on the following claims:

<u>Claim</u>	<u>Record No.</u>	<u>Title</u>	<u>Expiry Date</u>
SHAS 27-38	113610-113621	Shasta Mines & Oil Ltd.	July 21, 1974

GEOGRAPHY and VEGETATION

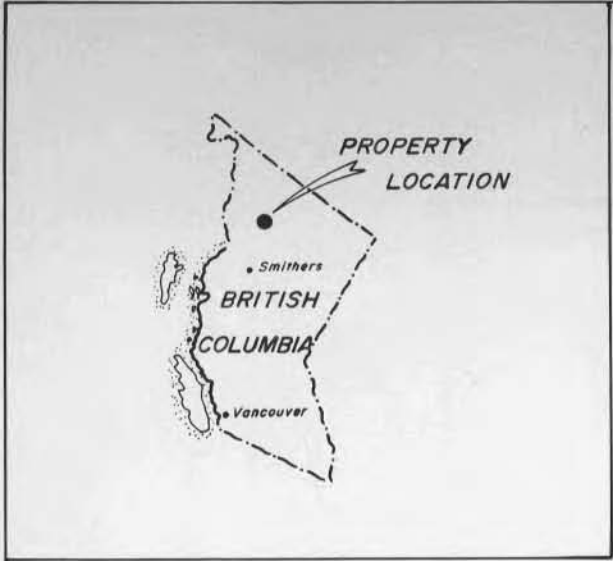
The relief on the property is in the order of 750' with Black Lake being 4,200' above sea level. The topographic slopes are moderate to steep with small bluffs occurring in the most south-easterly corner.

The property is located below the treeline, the timber being mainly jackpine and spruce. Approximately 80% of the claim block is in a burn with little mature timber and much small underbrush.

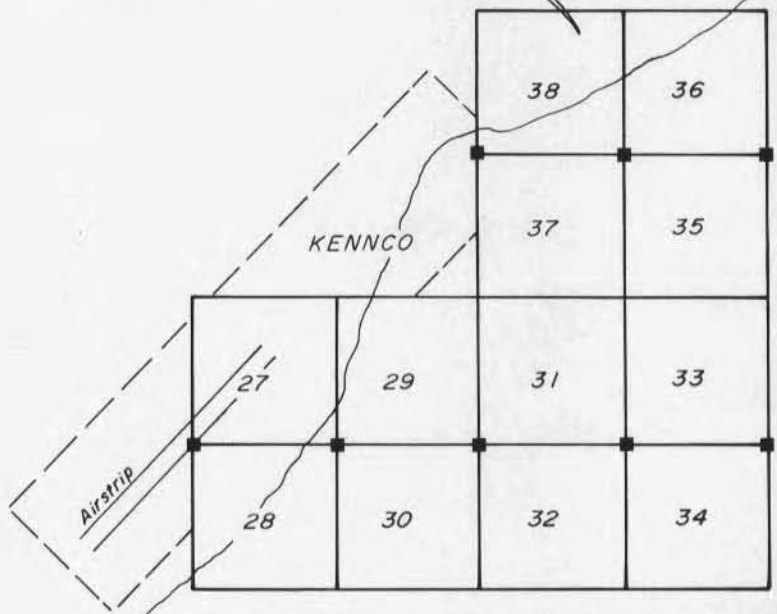
GEOLOGY

Regional

Intermediate volcanic flows and fragmented rocks of Upper Triassic and Lower Jurassic age, termed the Takla Group, are overlain by a second group of uncertain age, termed the Toodoggone Volcanics. Both groups are intruded by dioritic stocks of the Omineca Intrusions, and are overlain by Paleocene sediments (Sustut Group)



SHAS GROUP



Department of
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SHASTA MINES & OIL LTD.
 Toodoggone River Area
LOCATION MAP
 Aug. 1974 1" = 2000' Figure No-

Typical Takla Group volcanics are greenish grey and fine grained with porphyritic mafic constituents.

The Toodoggone Volcanics are highly potassic feldspar porphyries of almost intrusive appearance. In fact, they may have gradational contacts with some of the Omineca Intrusions. Age dating by the B.C. Department of Mines suggests a similar age for the Toodoggone Volcanics and Omineca Intrusions.

Property Geology

The geology of the property has previously been described in a report entitled "Geological, Geochemical and Magnetometer Survey - Shas Claim Group" by A. Floyd B.C., M.Sc., and W. Meyer, P. Eng. dated August 1973.

An excellent description of the regional geology by N.C. Carter may be found in "Geology, Exploration and Mining in British Columbia" 1971.

Briefly, the area is underlain by Takla Group rocks intruded by a large body of quartz diorite to granodiorite of the Omineca Intrusives.

In the east and north-east areas of the property, the rocks appear to be potassic feldspar porphyries of the Toodoggone Volcanic unit.

GEOCHEMISTRY

Method

A total of 198 soil samples were collected at 100 to 200 feet intervals along grid lines 200 to 400 feet apart.

This detail grid was inserted between the old lines (1973) over the anomalous areas. Seven reconnaissance soil samples were taken in the north-east corner of the property.

Lines were compassed, chained, blazed and flagged simultaneously with collection of the samples.

Samples were collected with a spade from the "B" horizon where possible and placed in Kraft paper envelopes and dried before dispatch to the laboratory.

Analysis was for copper, gold and silver at Acme Analytical Laboratories, Burnaby, B.C. The samples were further dried and screened to -80 mesh. A weighed portion was then ignited and digested in HCl and HNO₃ dilute to 100 mls with 5% HCl and analyzed by atomic absorption. The results are plotted on Figs. 2, 3 and 4 and contoured with Ag intervals at 1 ppm, Au intervals at .5 ppm and Cu at 25 ppm.

Results

Gold

Gold was deemed to be weakly anomalous if detected. A threshold of .1 was chosen, while values >1.0 were strongly anomalous. (Fig. 2)

A significant gold anomaly occurs on Line 126E from 101N to 109N, with values up to 4.62 ppm. The anomaly measures 900' x 800' and is open to the east. This gold anomaly also is coincidental with a silver anomaly.

Silver

A frequency plot at the silver value resulted in a background population of less than 2.0 ppm silver with a mode of .5 ppm over the claim group.

The threshold of 2.0 ppm silver was chosen as the lower limit of the weakly anomalous values, while values > 3.0 ppm were considered anomalous. (Fig. 3)

Three anomalous areas were outlined:

1. This anomaly occurs along lines 122E and 126E from 99N to 112N and is coincidental with the gold anomaly. The peak value is 15.0 ppm with the anomaly measuring 1300' x 800'.
2. On line 114E from 111N to 115N a silver anomaly occurs with a peak value of 20.0 ppm silver.

3. Line I26E from I16N to I26N has the highest silver anomaly on the property, with the peak value being 60.0 ppm silver (1.4 oz/ton)

Copper

A frequency plot of the values reveals a background population of less than 70 ppm with a mode of 20 ppm over the claim group.

This threshold of 70 ppm was chosen as the lower limit of the weakly anomalous values while > 100 ppm was chosen as anomalous. (Fig. 4)

Scattered weakly anomalous values occur throughout the surveyed area. One of the larger anomalies (Line I14E) may be related to drainage while the remainder are of low magnitude and small areal extent, some being "one reading" anomalies.

These copper anomalies are not considered to be significant.

CONCLUSIONS

A detailed geochemical survey has been completed over an area of the SHAS claims where a previous reconnaissance survey indicated significant gold-silver values in soils.

At least 3 significant anomalous areas have been outlined.

Peak assay values of 4.62 ppm (or .11 oz/ton) gold in the -80 mesh fraction and 60 ppm (1.4 oz/ton) silver were returned in two different localities.

The anomalous areas warrant evaluation by further testing and physical work.

Respectfully submitted



W. Meyer, P. Eng.



APPENDIX 1

PERSONNEL and DATES

<u>Name</u>	<u>Position</u>	<u>Dates of Work</u>	<u>Days</u>
W. Meyer	Geologist	July 15	1
P. Dunsford	Technician	July 13-July 21	9
G. Bonny	Sampler	July 16-July 21	6

AFFIDAVIT RE COST OF SURVEY

I, Peter Dunsford, do solemnly declare that the geochemical survey on the Shasta Mines & Oil Ltd. SHAS claims was carried out during July, 1974 and is described in this report. The data was obtained by W. Meyer & Associates Ltd. staff for Shasta Mines & Oil Ltd. at a total property related cost of at least \$2,400.00

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

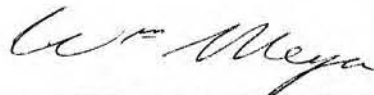
British Columbia, this 25TH
day of August, A.D. 1974

Peter Dunsford

CERTIFICATE

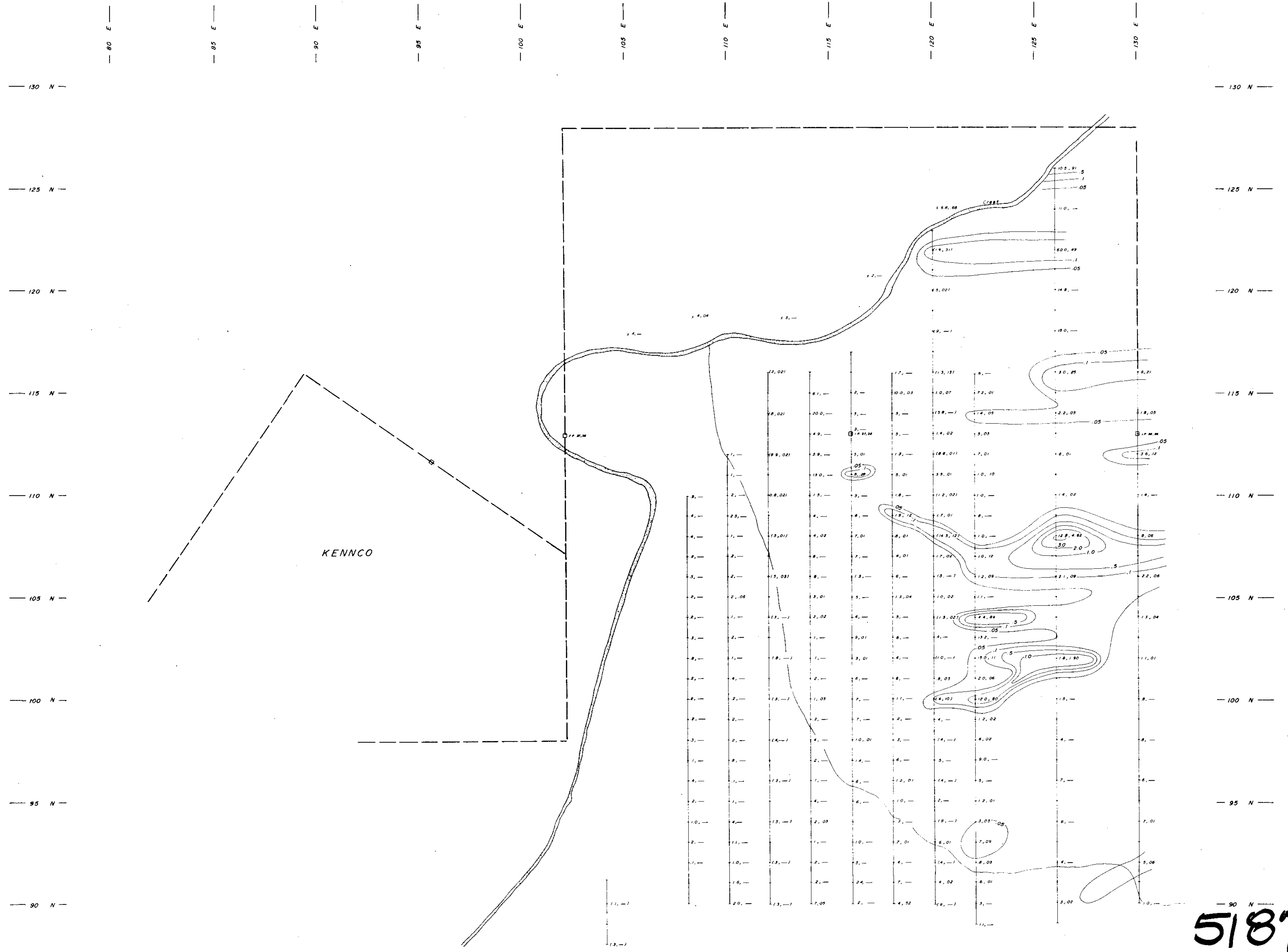
I, William Meyer, do hereby certify that:

1. I am a geologist with residence at 911 Jarvis Street, Coquitlam, B.C.
2. I am a graduate of the University of British Columbia (B.Sc., 1962)
3. I am a registered member of the Association of Professional Engineers of the Province of British Columbia.
4. I have worked as an exploration geologist for twelve years for the following companies: Phelps Dodge Corporation of Canada Ltd., Gibraltar Mines Ltd., Associated Geological Services Ltd., Western Geological Services Ltd., (senior partner). I am presently a senior partner in W. Meyer & Associates Ltd.
5. The programme described in this Report was carried out by a W. Meyer & Associates Ltd. crew under my direction.
6. I have no interest, direct or indirect, nor do I anticipate receiving any, in the properties or securities of Shasta Mines & Oil Ltd.



William Meyer, P. Eng.





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LEGEND

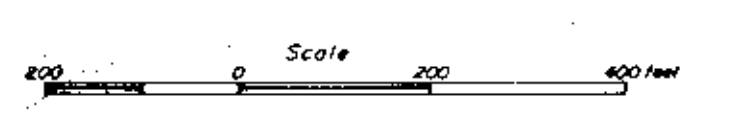
Ag	Au
12.22	1973 Silver & Gold
13.22	1974 " "
-	Au (not detected)

To Accompany Report On: Geochemical Survey
"Shos Claim Group" By W. Mayer, P. Eng
August 18, 1974

SHASTA MINES AND OIL LTD. (N.P.L.)

TODDGGONE RIVER AREA

GEOCHEMISTRY — SILVER & GOLD



August 1974

Figure No. - 2



KENNCO

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M3
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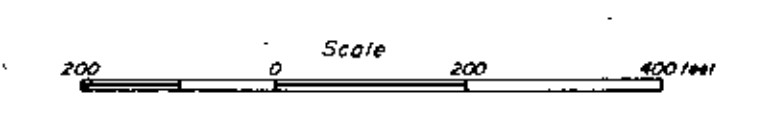
LEGEND

- Ag Au
- 2.8, 22) 1973 Silver & Gold
- 2.8, 23 1974 Silver & Gold
- Au (not detected)

To Accompany Report On Geochemical Survey
"Shasta Claim Group" By W. Meyer, P. Eng
August 18, 1974.

SHASTA MINES AND OIL LTD. (N.P.L.)

FOODCROGONE RIVER AREA
GEOCHEMISTRY — SILVER & GOLD



August 1974

Figure No - 3

