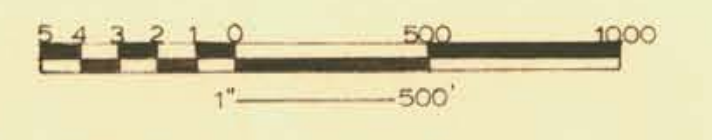




A — A Location of Magnetic Profile
2293

SUMMIT OILS LTD
 REDTOP CREEK PROPERTY
 CHAIN AND COMPASS CLAIM SURVEY

- | | | | |
|--------------|-------|-----------|------------------------------|
| Soil Profile | ○ SP2 | — | Road, primary |
| | | - - - | secondary |
| | | - · - · - | Trail |
| | | - - - - - | Right-of-way for new highway |
| | | — | Best line |
| | | - - - - - | Claim line |



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **2293** MAP #2

To accompany report by W.G. Stevenson and G.L. Anderson on the Summit claim group, N of Topley, Omineca Mining Division, dated January 21/70

2293

SUMMIT OILS LTD.

REDTOP CREEK PROPERTY

GEOCHEMICAL, GEOLOGICAL, & GEOPHYSICAL

REPORT

By:

PACIFIC GEOCHEMICAL SERVICES LTD.

January 21, 1970.

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Certificate of W.G. Stevenson, P.Eng.	10

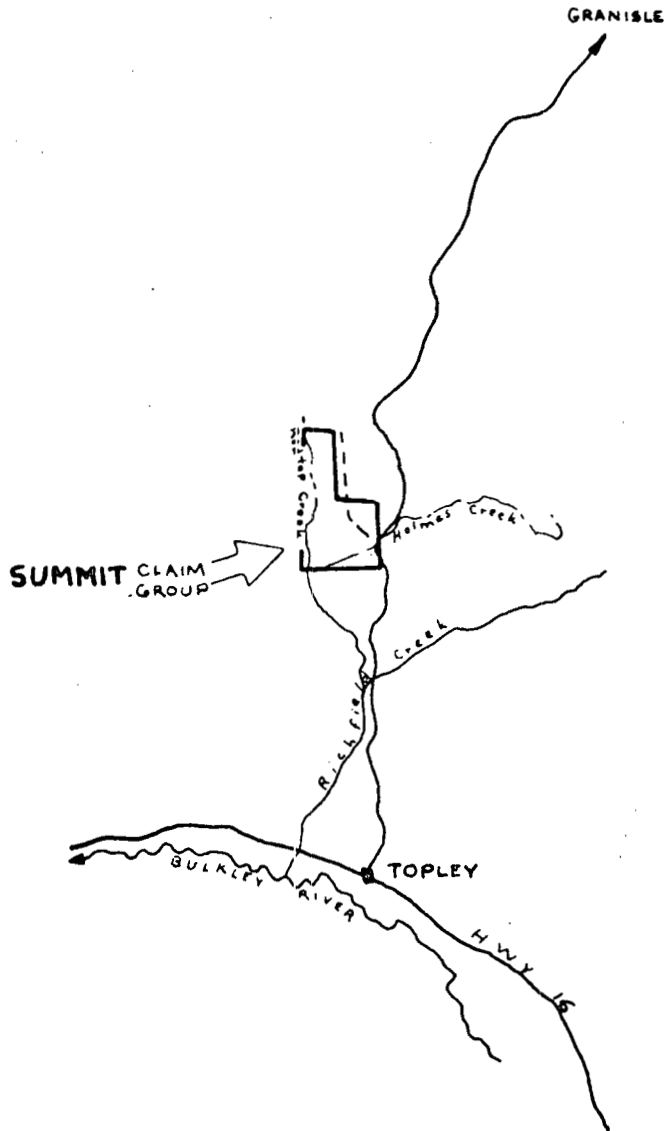
ILLUSTRATIONS

#1 Location Map	Fig. 1.-	1
#2 Chain & Compass Claim Survey (including geology and drainage survey)	Fig. 2.-	Front Cover
#3 Geochemical Map - Copper	Fig. 3.-	Back Cover
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**Department of
Mines and Petroleum Resources
ASSESSMENT REPORT**

NO. **2293** MAP

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2293** MAP **#1**



SUMMIT OILS LTD
REDTOP CREEK
PROPERTY LOCATION MAP

1" = 4 mi.

FIG. 1

INTRODUCTION

The Summit Claims were staked by Summit Oils Ltd., with the objective of claiming ground containing a relative "low" magnetic area which is bordered by a structurally warped "high" trending northwest through the property. These magnetic features were discovered on release of the airborne magnetic survey, Map 5312-G. The objective of the exploration program outlined in this report, was to determine the importance of this magnetic anomalous property, and further, to attempt to outline any areas within the property that were geochemically anomalous.

A crew of eight men were employed on the property to carry out the program which entailed geochemical, geological, and geophysical work, as well as the surveying and cutting of a base line to establish control.

LOCATION AND ACCESS

These Mineral Claims are located at 54° 36' North Latitude, 126° 19' West Longitude. They are positioned eight miles north of Topley, B.C.

A good secondary road cuts across the property from Topley and the new highway to Granisle will run through the property.

PROPERTY

A block of 49 Mineral Claims and Fractions were staked and recorded during April, 1969. A chained picket base line was cut on the property and 100' stations were established on this line. The claims were surveyed by chain and Brunton Compass and were tied in to the base line. Using this method as control, eight fractions were discovered within the property and were consequently staked for Summit Oils Ltd. The claim group is now secure and the claim boundaries are positioned on the ground as shown in Figure 2.

GEOCHEMICAL PROFILE

There were three soil profiles taken at various locations over the property. These locations are shown in Figure 2. The profile pits were dug to a depth of 16" and the different horizons were sampled.

In profiles #1 - #3, the "A₀" and "A₁" horizons were intermixed and covered the surface to a depth of approximately one half to one inch; except in profile #3 which ran to 4" and was taken in a swampy area.

The "A₂" horizon was distinct in all three profiles, was light gray to red-brown and was composed of an ashy fine clay. It was slightly oxidized to non-oxidized and was approximately 1" in thickness.

The "B" horizon was distinct from the "A₂" horizon but was intermixed with the "C" horizon. It was a light gray sandy clay in all instances and carried to a depth below the pit bottoms. All rock encountered in this horizon was round.

In profiles #1 & #2, the "B" horizon carried approximately one and a half times the amount of copper and zinc as did the overlaying soils. In profile #3, the copper, silver, and zinc were concentrated on the surface and the values were approximately two times those of the "B" horizon.

The sampling depth of 10" ("B" horizon) was determined from these profiles. All profile samples were analysed for various metals and PH tests were run on them to determine the nature and extent of ion mobility in the soils of the property. The PH was "5" in all profile samples. Copper, silver and zinc ions tend to travel with relative ease in such an acid environment.

GEOCHEMICAL SURVEY

Triangular traverses were run by experienced field assistants using the pace and compass method. The samplers started from and tied in to the base line for control. 192 soil samples were taken at 500' intervals on these traverses, with their locations flagged and coded.

The sample holes were dug with a rock hammer, and the samples were taken by hand and placed in a water resistant bag, where they remained until analysis.

The samples were packaged and shipped to Chemex Laboratories Ltd., of North Vancouver, B.C., where drying, sieving and analysis by atomic absorption were carried out under the supervision of professional chemists.

Copper was run on all the samples, and the anomalous areas in copper shown in Figure 3. can be assumed to be anomalous in silver and zinc also, as 46 tested samples showed silver and zinc to increase in intensity proportionally with copper. The background value for copper was found to be 20 p.p.m. The intensity ranged from 2 - 80 p.p.m. copper, less than 0.5 - 2 p.p.m. silver, and 52 - 290 p.p.m. zinc.

GEOLOGY

The most recent geological map of this area is published by the B.C. Department of Mines and Petroleum Resources as Map 69-1. This map is drawn to a scale of 1" = 4 miles and shows Hazelton formation extending northeasterly from Houston 22 miles to the claim group. The Hazelton rocks are red to green andesite flows and tuffs, with interbedded sedimentary rocks, all of Jurassic age.

An intrusive body is shown on this map two miles east of the claim block. This body covers an area 10 miles by 4 miles. The position of the claims as shown on this map is within the drift covered area.

Our prospectors did not find any outcrop or mineralization on the property.

GEOPHYSICS

The British Columbia Department of Mines and the Department of Energy, Mines and Resources of the Federal Government have jointly conducted an airborne magnetic survey over this region. Geophysical Map 5312-G published to a scale of 1" = 1 mile shows a complex pattern of magnetic intensities which probably reflect geology.

This magnetic map shows various anomalies and magnetic trends. One of these trends is over the Summit claims.

A Scintrex MF-1R-100 fluxgate magnetometer was used to run a survey on the base line and the roads. These magnetometer lines are shown in red on Figure 2. The base line was cut to run across the aeromagnetic contours. The purpose of the magnetic survey was to check the correlation between ground and aeromagnetics, and to check for possible structure, such as extensions of the granitic body mapped outside the claim block; faults and contacts.

The ground magnetic readings were taken at 100' intervals using an established base station to check for the intensity of the diurnal variation. Readings over the property ranged from 4300 to 8300 gammas.

CONCLUSIONS

A - GEOCHEMISTRY

1 - From analysis and PH testing of samples taken from three profiles on the property, a sampling depth of 10" ("B" horizon) was found to be the most likely sampling medium to give reliable geochemical readings.

2 - Surface anomalies can be expected to have limits extended from the source due to the ease in which copper, silver and zinc ions will travel in the soils of the property.

However, due to the low relief on the property, the limits of the anomalies will have a minimal displacement.

3 - Swamp areas on the property have a definite concentrating effect on the copper, silver and zinc ions. When sampling in these areas, the sample should be taken from below the humic material.

4 - Round float encountered in all the sample holes suggests definite glacial deposition of materials over the entire property.

5 - Areas of intensity in copper shown in the geochemical map are definitely anomalous and are indicative of a relatively strong source of this metal. The suspected heavy overburden on this property may account for the generally low values in copper.

B - GEOPHYSICS

1 - There is an apparent correlation between ground and aeromagnetics. However, due to the small scale (approximately 10 X smaller) of the aeromagnetic map, the aeromagnetic profile is very smooth and does not show any abrupt changes. The ground magnetic profile however, does show such changes.

2 - The ground magnetic profile shows a " high " over a width of approximately 2000'. This " high " is repeated over the same width at approximately 2000' northeast (center to center) and thereby indicates a high magnetic trend running northeast at this position on the property. This " high " may also be seen on the aeromagnetic map.

3 - There is a sporadic copper anomaly running northeast along the flanks of this high. These anomalous geochemical and magnetic features suggest the possibility of mineralized zones underlying these areas.

RECOMMENDATIONS

1 - Establish a controlled grid on the total area containing the sporadic copper anomaly trending northeast.

2 - Carry out detailed geochemical sampling on this grid.

3 - Carry out ground Magnetic, Electromagnetic, and Induced Polarization surveys on the established grid.

4 - A Seismic Survey should be run on areas proven interesting from steps 1 - 3.

5 - A drilling program should be organized based on the outcome of steps 1 - 4.

Project management carried out by G.L. Anselmo, BA, President of Pacific Geochemical Services Ltd., under the supervision of W.G. Stevenson, P.Engineer.

STATEMENT OF SUPERVISOR'S QUALIFICATIONS:

I, Garry L. Anselmo, DO HEREBY CERTIFY:


- That I have studied three years at U.B.C. in geology and geochemistry.

- That I am a graduate of Simon Fraser University.

- That I have worked two years at Britannia Beach with Anaconda American Brass Ltd., doing geochemical lab and field work.

- That I have worked two summers with Kennco Explorations (Western) Ltd. and one summer with Amax Explorations Ltd. in field explorations.

- That I am president and field manager for Pacific Geochemical Services Ltd. of 1424 Crown St., North Vancouver, British Columbia.


G.L. Anselmo, BA
President

STATEMENT OF OPERATOR'S QUALIFICATIONS

I, Alexander M. Homenuke, DO HEREBY CERTIFY:


- That I attended the British Columbia Institute of Technology for two years.

- That I am a graduate of that Institute in Mining Technology.

- That I worked four summers as a helper for Canadian Longyear Ltd. diamond drilling.

- That I spent two months with Silver Standard Mines Ltd. and one summer with Amax Explorations Ltd. as a field assistant on reconnaissance.

- That upon graduation from B.C.I.T. I was employed by Pacific Geochemical Services Ltd. on permanent staff.


A.M. Homenuke

CERTIFICATE

I, William G. Stevenson, DO HEREBY CERTIFY:

- That I am a Consulting Geological Engineer with offices at Suite 209 Stock Exchange Building, 475 Howe Street, Vancouver 1, B.C.

- That I am a graduate of the University of Utah, 1946, with a B.S. Degree.

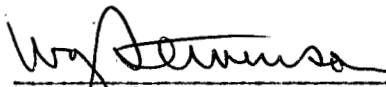
- That I am a registered Professional Engineer in the Association in British Columbia.

- That I have practised my profession for 22 years.

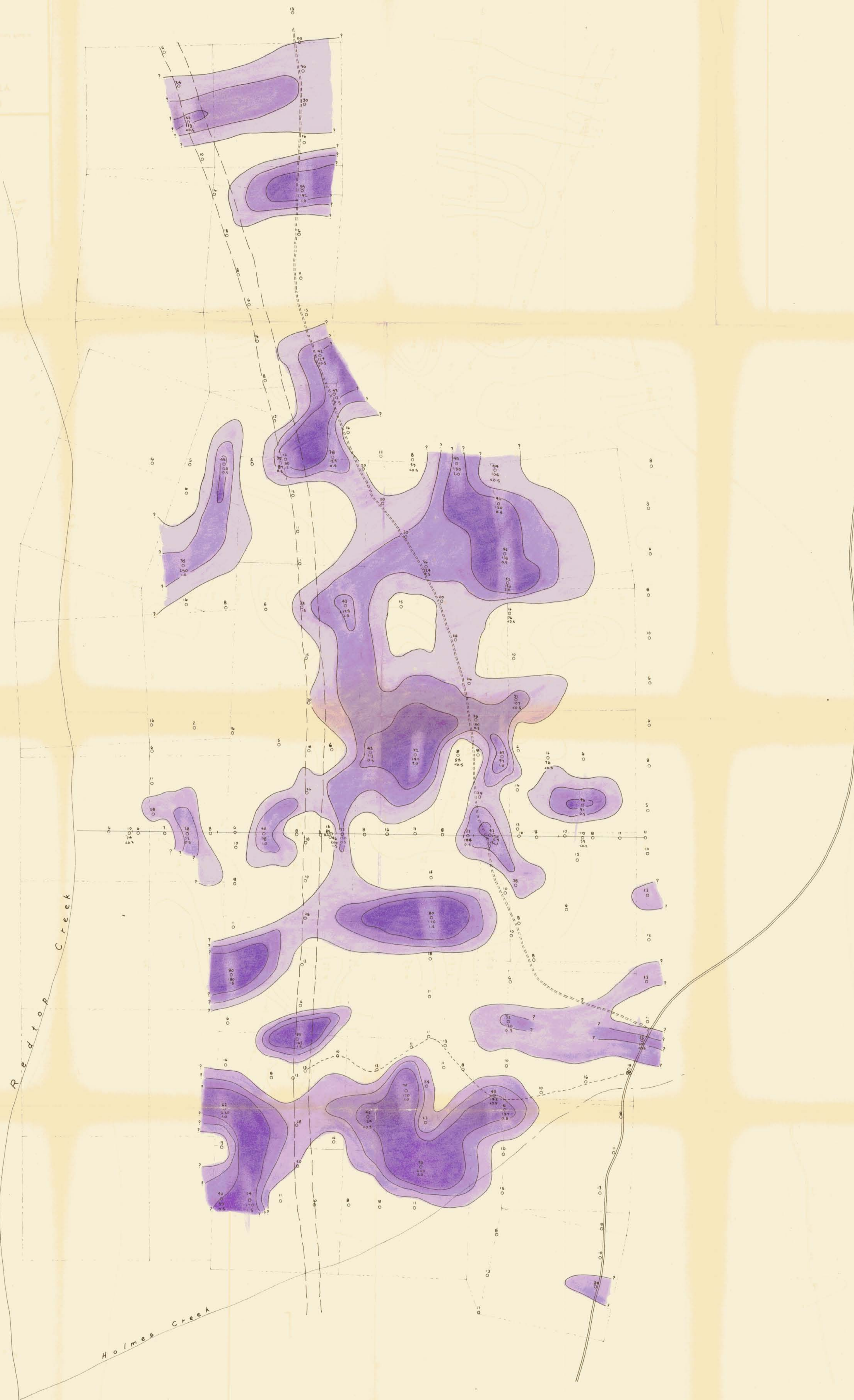
- That I have no direct, indirect or contingent interest in the Summit Mineral Claims or in the securities of Summit Oils Ltd., nor do I intend to receive any such interest.

- That this report dated January 21, 1970, is based on a study of published and unpublished maps and reports, discussions with colleagues and from examinations I conducted on August 1, 1969. DATED at Vancouver, British Columbia, this 21st. day of January, 1970.

W.G. Stevenson & Associates Ltd.
Consulting Geologists



W.G. Stevenson, P.Eng.



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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2293 MAP #3

SUMMIT OILS LTD
REDTOP CREEK PROPERTY
GEOCHEMICAL SURVEY
COPPER

ppm
Sample site: \circ Cu
 \bullet Zn
 Δ Ag

ppm
40
30
20

— Road, primary
- - - - - Road, secondary
- - - - - Trail
- - - - - Right-of-way for new
- - - - - highway

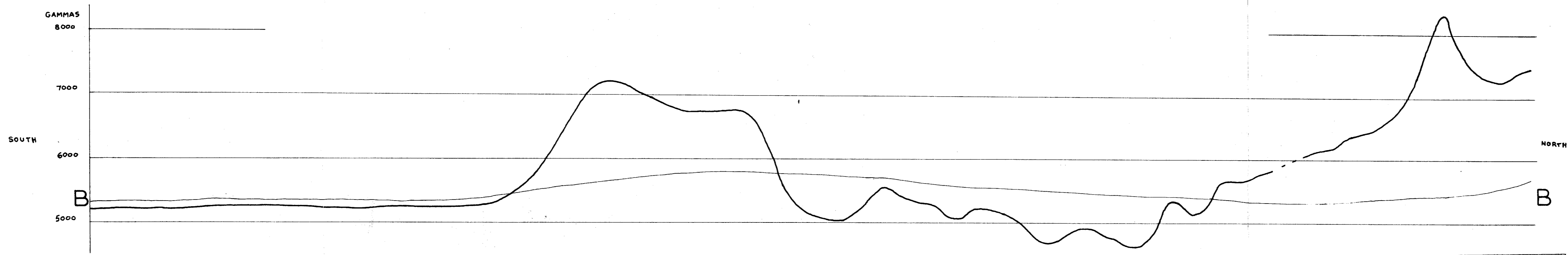
— Base line
- - - - - Claim line



Larry S. Amelin
To accompany report by W.G. Steinhilber and G.L. Anselmi on the Summit
claim group, N of Topley, Ontario Mining Division, dated January 21, 1960

FIG. 3

Drafting - AMH & GLA
Pacific Geochemical Services Ltd.



1" — 500'

2293

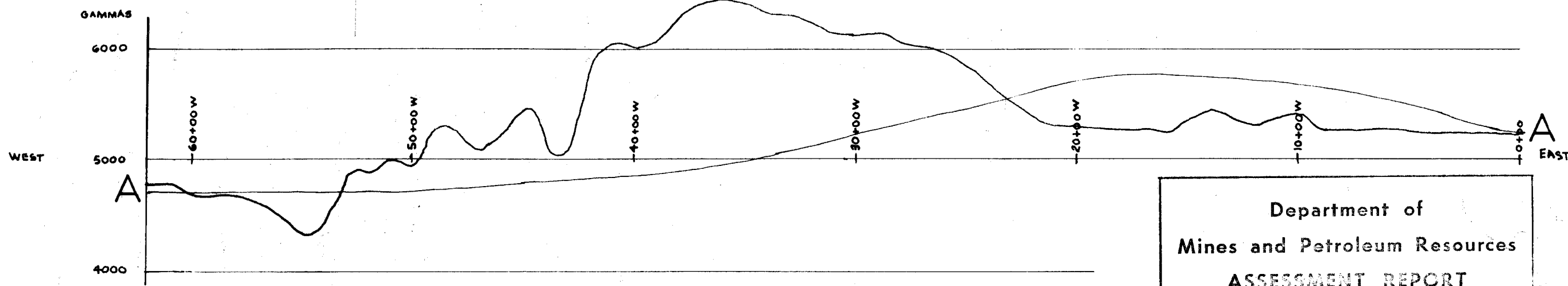
Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **2293** MAP **#5**

Harry J. Anselmo

To accompany Fig. 4 of report on Redtop Creek Property

January 21/70

FIG. 4-a



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **2293** MAP **#4**

SUMMIT OILS LTD
 REDTOP CREEK PROPERTY
 MAGNETIC PROFILE

— Ground Profile — Aerial Profile

Profile location shown on Fig. 2

Drafting- AMH	13-1-70
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2293

Garry L. Anselmo
 To accompany report by W.G. Stevenson and G.L. Anselmo on the
 Summit claim group, N of Topley, Omineca Mining Division, dated *January 21/70*

FIG. 4