

GEOCHEMICAL REPORT
ON THE
SUSIE CLAIMS
OMINECA MINING DIVISION

94C/5W

ROBERT G. POTTER
UTAH MINES LTD.

10TH JULY, 1973.

4487

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GEOCHEMICAL REPORT
ON THE
SUSIE CLAIMS
OMINECA MINING DIVISION
56° 30' N, 125° 50' W

FOR
DOUGLAS STELLING
GERMANSEN LANDING, B.C.

BY
ROBERT G. POTTER, MSc., P. ENG.
SENIOR GEOLOGIST, UTAH MINES LTD.

10TH JULY, 1973

Filmed

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4487	M.P.

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GEOCHEMICAL REPORT ON THE SUSIE CLAIMS
LOCATED SIX MILES NORTHWEST OF AIKEN LAKE
OMINECA MINING DIVISION
CO-ORDINATES 56° 30' N, 125° 50' W

SUMMARY AND RECOMMENDATIONS

The Susie claim group comprises a contiguous block of twenty-two full sized claims and three fractions. Gold mineralization is known to occur within the group in zones of pyritized volcanic and intrusive rock.

During the summer of 1972, Stellac Explorations Ltd. carried out a program of chip sampling and soil geochemistry.

Results of the chip sampling show only very low gold values in material taken from the surface. This could be due to the weathered state of much of the sample material.

Geochemical results show only a scattering of erratic high values of copper, zinc, gold and arsenic over generally low background levels of each of those elements. They do not outline any areas of mineralization, the scattered highs being very likely the result of downslope movement of mineralized material.

Expenditures for the above program totaled \$1,921.30. The claims on which assessment credits are requested are as follows:

<u>NAME OF CLAIM</u>	<u>CREDIT REQUESTED</u>
Susie 1 to 6 inclusive	2 years each
Susie 8	2 years
Susie 9 to 12 inclusive	1 year each
Susie 7	1 year
	TOTAL - 19 years

It is recommended that further work on this property by Stellac include detailed geological mapping of the surface exposures followed up by surface sampling in order to determine the following:

1. The spatial distribution of pyritic zones with respect to stratigraphy and structure.
2. The relationship of gold values with the pyrite content of the rock.
3. The variation of gold content with the degree of weathering (i.e. is there a trend to depletion or enrichment of gold in oxidized material?).

It may be possible to reopen the portals of two old adits on the property. If so, these should be carefully sampled. Interesting gold values are reported to have been intersected in these workings which were driven in the 1930's (up to 1/3 ounce per ton over tens of feet (Roots, 1954).

PROPERTY

The Susie group comprises a contiguous group of 22 full sized claims and three fractions, the details of which are as follows:

<u>NAME OF CLAIM</u>	<u>RECORD NO.</u>	<u>DATE RECORDED</u>
Susie 1 to 12 inclusive	113402 to 113413 res.	July 21, 1972
Susie 13 to 20 inclusive	121908 to 121915 res.	April 13, 1973
Susie 24 and 25	121919 & 121920	April 13, 1973
Susie 21 and 23 (fr.)	121916 to 121918	April 13, 1973

These claims are held in the name of Douglas Stelling of Germansen Landing, British Columbia. While on the property, the writer checked several of the location posts and lines and found the claims to be staked in accordance with the requirements of the British Columbia Mineral Act.

LOCATION AND ACCESS

The property is located some six miles northwest of Aiken Lake in the Omineca Mining Division (NTS sheet 94-C-5W). Approximate geographical coordinates are: 56° 30' N, 125° 50' W. It covers steep terrain on the south side of Lay Creek valley between elevations 4,000 and 6,000 feet above sea level.

Access is gained by about three miles of low gradient horse trail from the Omineca road or by helicopter to a relatively flat cirque bottom at an eleva-

tion of 5,000 feet.

HISTORY

Significant work on what is now the Suzie group was carried out by the Consolidated Mining and Smelting Co. in the 1930's. The property was then known as the Granite Basin Group. Work done included surface trenching and a reported 379 feet of subsurface workings at two levels. The portals to the two adits have since caved, but these workings may possibly be rendered accessible by a minimum amount of retrimbering.

Gold values of up to 1/3 ounce per ton across thirty feet are reported from underground sampling by CM&S (Roots, 1954).

Stellac Explorations acquired the property in 1972. Following the recommendations of Dr. D.L. Cooke, P. Eng., Stellac carried out a program of rock chip sampling and soil geochemistry over selected parts of the property.

GEOLOGY

The property is underlain by volcanic flows and clastics and fine sediments of the Takla group and by small dioritic bodies of the Onineca intrusions. The rocks are well exposed on a steep cirque face above timberline. Figure 1, which is taken from G.S.C. Memoir 274, shows the approximate distribution of lithologic units present in this area. It also shows the spatial distribution of roughly conformable mineralized zones which carry up to several per cent of fine disseminated pyrite. The pyritized zones carry gold values which reach as high as 1/3 ounce per ton in parts of the subsurface workings. No detailed information is available on the distribution or continuity of the gold.

GEOCHEMISTRY

I. COLLECTION

The area covered by the soil sampling grid corresponds roughly to that part of the property which lies below timberline. The soil profile within this area is not everywhere completely developed, but effort was made to sample

material at and near to that of a true "B" horizon as possible.

In all, some 300 soil samples were taken at 200 foot intervals on lines 200 feet apart. The lines running perpendicular to the claim location lines. Of these samples, 220 were analyzed for copper and zinc. Samples from alternate stations on every second line (i.e. corresponding to a square pattern having a 400 foot sample spacing) were analyzed for gold and arsenic. Sampled material was placed in Kraft envelopes and sent to the geochemical lab of Stellac Explorations at Germansen Landing

II. SAMPLE PREPARATION AND ANALYSIS

Determinations for copper and zinc were carried out by Stellac as follows:

- Samples were dried at a temperature of approximately 100° C.
- A 100 milligram portion at the minus 80 mesh fraction of each sample was fused with potassium pyrosulphate.
- The fused mass was digested with 6N hydrochloric acid and the resulting solution diluted to a specific volume.
- Aliquots of this solution were transferred to test tubes containing copper and zinc buffers.
- Copper was determined by the standard biquinoline method and zinc by the standard dithizone method.
- Color comparisons were made with suitably fresh standard solutions of the respective elements.

Gold and arsenic determinations were done by Bondar-Clegg and Co. Ltd. of North Vancouver, British Columbia as follows:

Extraction	- Arsenic; Perchloric and nitric acids
	Gold; Fire assay and hot aqua regia
Determinations	- Arsenic; Colorimetric
	- Gold; Atomic Absorption

III. RESULTS

Figures 2 and 3 show the frequency distributions of the four considered elements. Threshold and anomalous levels for the elements determined by visual inspection of the frequency curves are as follows:

<u>ELEMENT</u>	<u>THRESHOLD VALUE</u>	<u>LOWER LIMIT OF ANOMALOUS VALUES</u>
Copper	80 ppm	100 ppm
Zinc	75 ppm	95 ppm
Gold	50 <u>ppb</u>	65 <u>ppb</u>
Arsenic	16 ppm	20 ppm

Figures 4 to 7 are plots of the geochemical values for the four elements. The erratic and sparse distribution of high values of each of the elements does not permit any significant contouring of the data. These results could be expected from soils developing on coarse talus comprising a mixture of mineralized and unmineralized rock fragments. They do not outline any area of significant potential.

CHIP SAMPLING

Thirteen rock chip samples were collected across pyritic exposures above the old adits. These samples comprised small chips taken at about three inch spacing. Much of the material collected was oxidized, but no records were kept of the approximate percentage of oxidized material. Figure 1 shows the approximate location of sampled sections.

Assay results from this work have proved disappointing. Most of the assays reveal only trace amounts of gold (less than .005 ounces per ton). Two samples contain .005 ounces per ton, two .01 ounces per ton and one .05 ounces per ton.

APPENDIX A

STATEMENT OF EXPENDITURES

SUSIE MINERAL CLAIMS

OMINECA MINING DIVISION

CHIP SAMPLING: 6th and 7th August, 1972

D.L. Cook, Ph.D., P. Eng.

Consulting Geologist

Douglas Stelling - Field Operator

Collection of samples and consulting
fee

\$330.00

Assays

70.20

\$ 400.20

GEOCHEMISTRY: 13th to 19th September, 1972

Douglas Stelling - Field Laboratory
Operator

Glen Brovschenko - Field Assistant

COLLECTION OF SAMPLES

Travel 2 days @ \$40.00 per day per man

\$160.00

Collection 5 days @ \$40.00 per day per man

\$400.00

Camp expenses 6 days @ \$10.00 per day

\$ 60.00

TOTAL COLLECTION

\$ 620.00

SAMPLE PREPARATION AND ANALYSES

Preparation 300 samples @ \$0.20 =

\$ 60.00

Analyses - 220 Cu @ \$1.00 each =

\$220.00

Analyses - 220 Zn @ \$0.50 each =

\$110.00

Analyses for Au and As by Bondar-Clegg & Co

82 samples

\$311.10

TOTAL ANALYSES

\$ 701.10

INTERPRETATION AND REPORT: 8th and 9th July, 1973

R.G. Potter, MSc., P. Eng

2 days @ \$100.00 per day

\$ 200.00

TOTAL EXPENDITURES

\$1,921.30

APPENDIX B

STATUTORY DECLARATION IN
SUPPORT OF EXPENDITURES

CANADA) IN THE MATTER OF the Statement of
Province of British Columbia) Expenditures for Rock Sampling work
TO WIT) and Soil Geochemistry on the Susie
Mineral Claims in the Omineca Mining
Division.

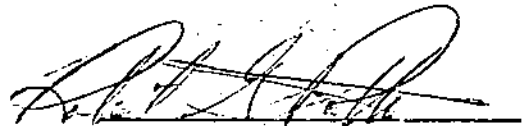
I, ROBERT GARY POTTER, Geologist in the employ of Utah Mines Ltd.
of 412-510 W. Hastings St., Vancouver, in the Province of British
Columbia, DO SOLEMNLY DECLARE:

- 1) That the Geochemical and Rock Sampling Program carried out on the Susie Claim Group were effected in a proper manner.
- 2) That the Statement of Expenditures set out in Appendix A of my report "Geochemical Report on the Susie Claims", dated July 10, 1973, truly represents the amounts expended on the said claims.

AND

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)
Germansen Landing, in the)
Province of British Columbia)
this 11 day of July)
A.D. 1973)



W. J. ...
A Commissioner for taking
Affidavits for British Columbia

Sub-Commissioner

APPENDIX C

CERTIFICATE

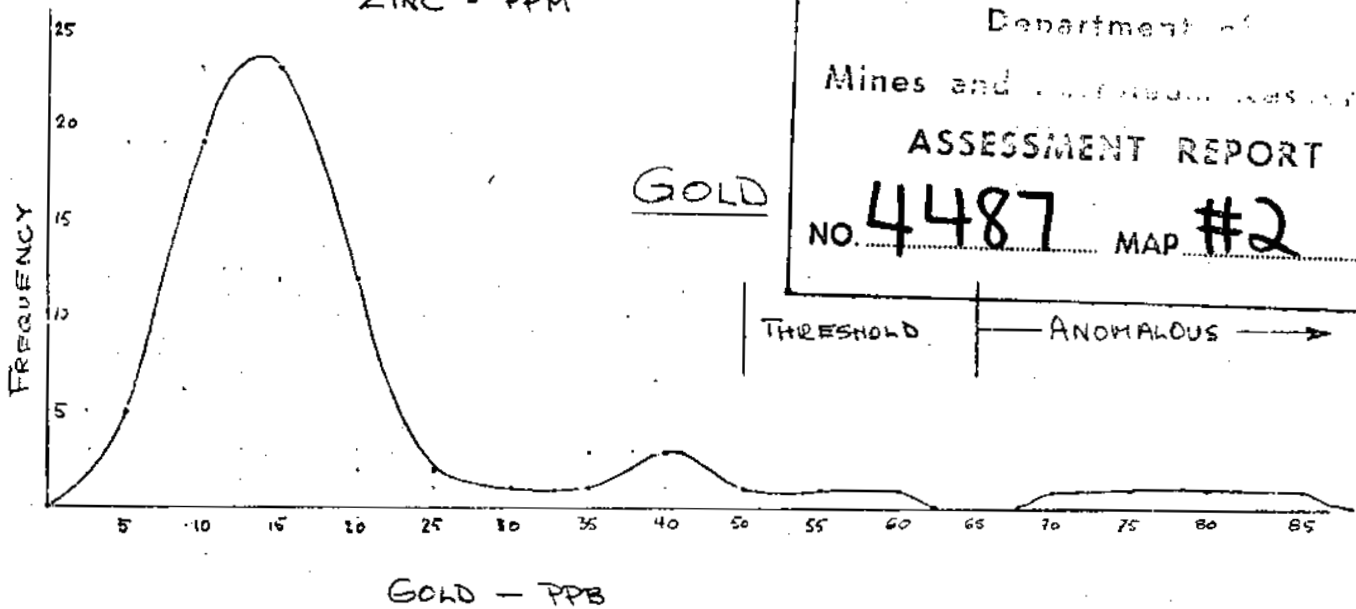
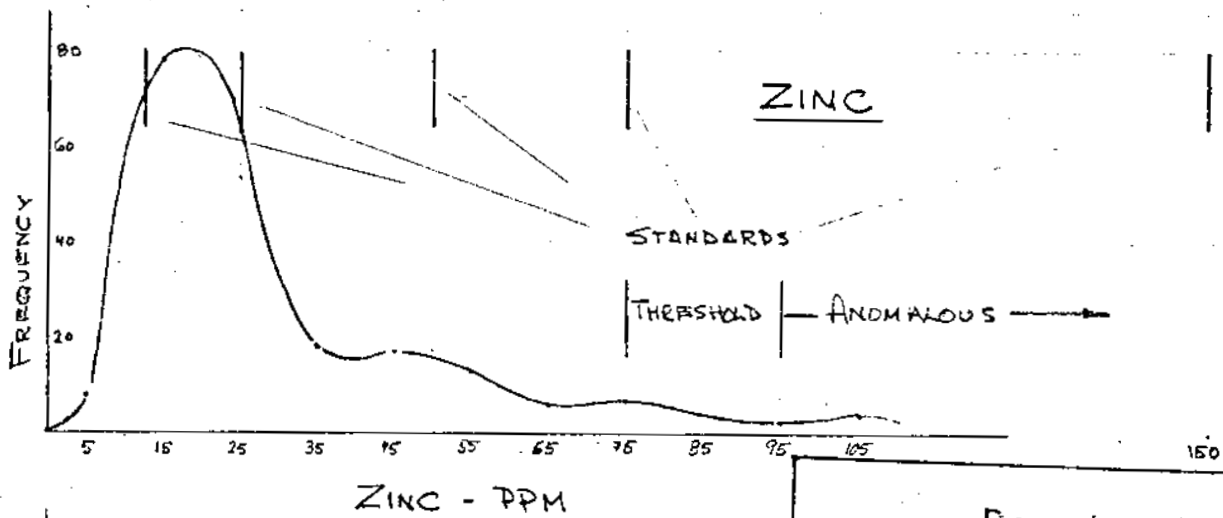
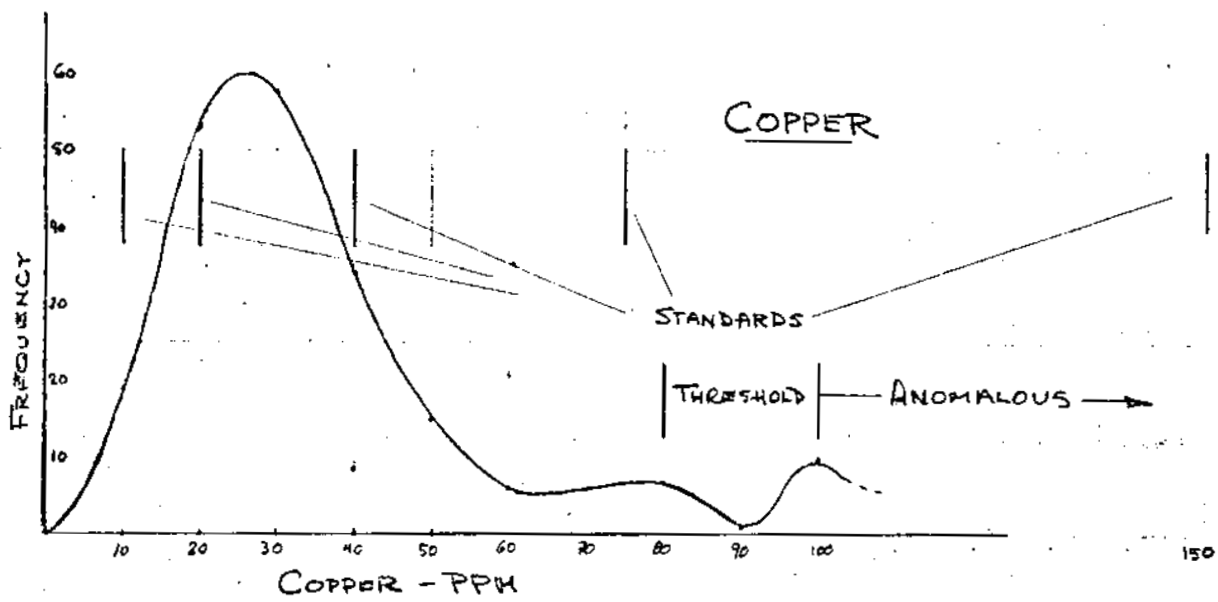
I, ROBERT GARY POTTER, of 3212 West 5th Avenue, Vancouver, British Columbia, Canada,

Hereby Certify

1. That I am a Geologist currently in the employ of Utah Mines Ltd. of 412-510 West Hastings Street, Vancouver 2., British Columbia.
2. That I graduated with a BAsC. in Geological Engineering from the University of British Columbia in 1961 and an MSc. (Applied) degree from McGill University in 1972.
3. That since graduation I have practiced my profession in Canada and Spain.
4. That I am a certified member of the Association of Professional Engineers of the Province of British Columbia.
5. That the accompanying report is based on a visit to the Suzie property on 8th July, 1972, on personal knowledge of the area, and on survey results which I believe to be accurate.
6. That I have no interest, financial or otherwise, in this or any other property of Stellac Explorations Ltd.

Dated this 10th day of July, 1973, at Germansen Landing, British Columbia.





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FIG. 2 FREQUENCY DISTRIBUTIONS
Cu, Zn & Au

4487-M1

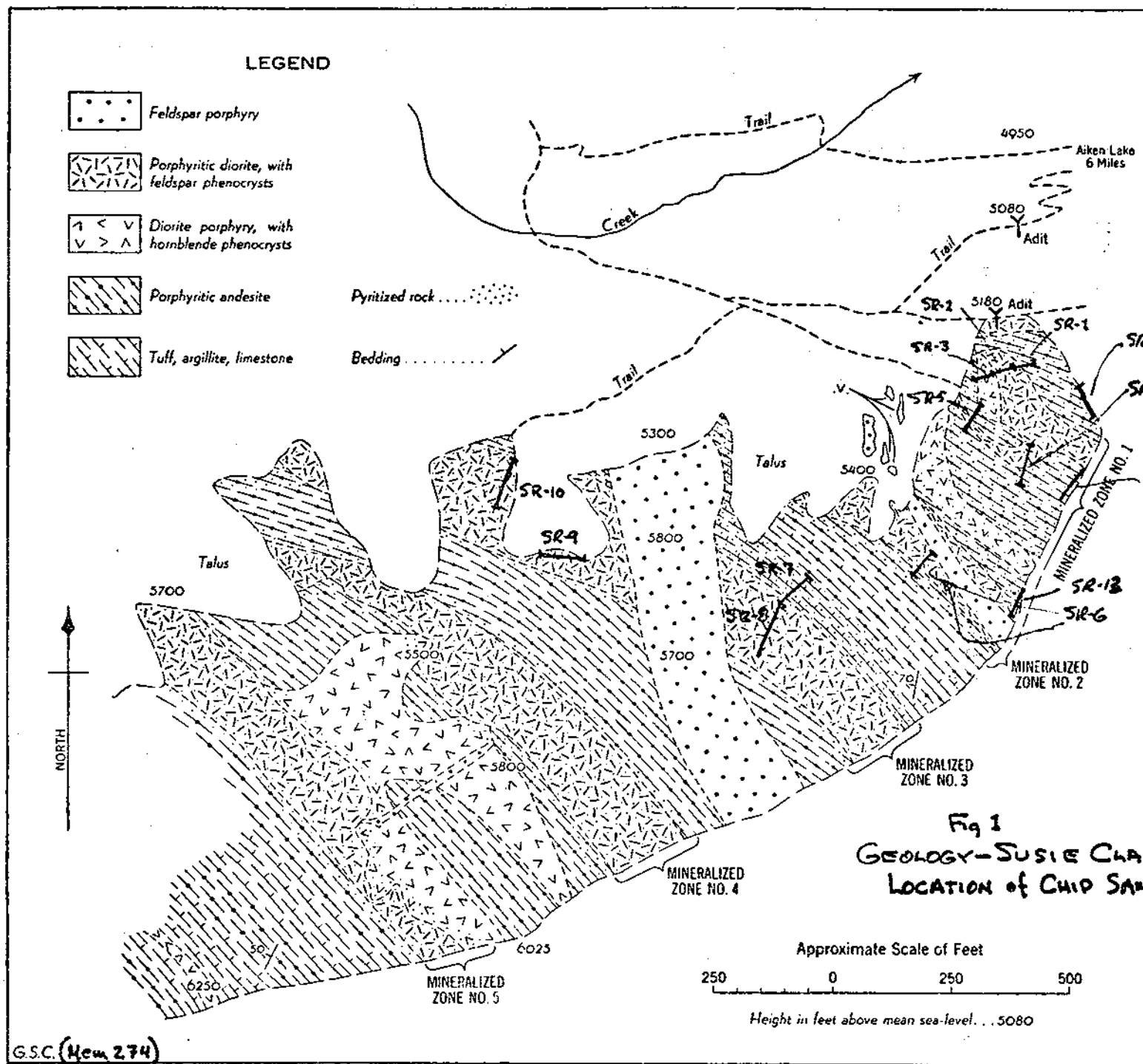


Figure 15. Sketch plan of surface geology on cirque headwall, Granite Basin mineral claim. (Susie Claims)

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NO. 4487 MIP # 1

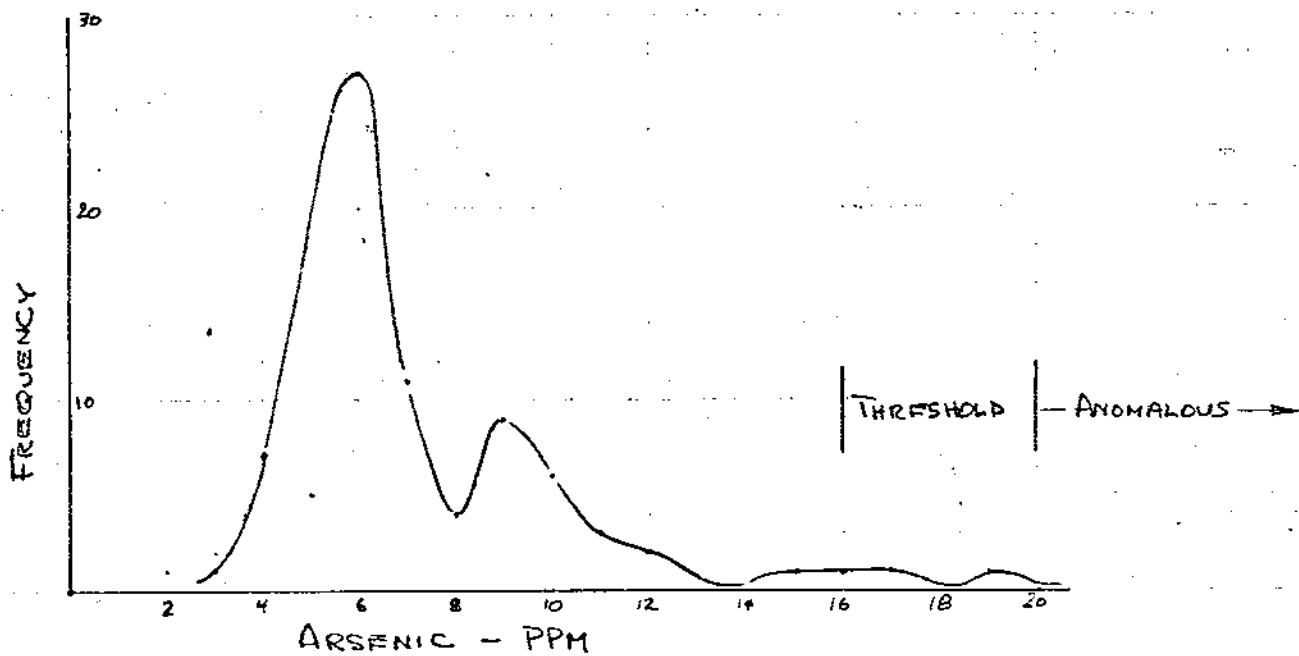


FIG. 3 FREQUENCY DISTRIBUTION
ARSENIC

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4487 MAP #3

TO:

Stellac Explorations Ltd.,
 (Germansen Landing)
 P.O. Box 933
 Fort St. James, B.C.
 cc:
 Dr. D. L. Cooke
 334 Francis Road
 Richmond, B.C.



Certificate of Assay
TABLE # 1
WARNOCK HERSEY INTERNATIONAL LIMITED
 COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PHONE: (604) 876-4111
 TELEX: 04-50353
 CABLE ADDRESS:
 ELDORICO

FILE NO. 461 - 16946

DATE December 8, 1972

We Hereby Certify that the following are the results of assays made by us upon submitted ORE samples

MARKED	GOLD		SILVER	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON						
91568	0.05	\$	0.28						
91569	Trace		Trace						
91570	Trace		Trace						
91571	0.01		0.09						
91572	Trace		Trace						
91573	Trace		Trace						
91574	Trace		Trace						
91575	0.005		0.06						
91751	0.005		0.28						
91755	Trace		Trace						
91756	Trace		Trace						
91757	Trace		Trace						
91758	0.01		0.13						

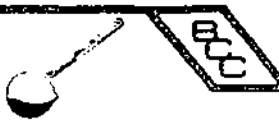
Note. Rejects retained one week.
 Pulps retained one month.
 Pulps and rejects may be stored for a maximum of one year by special arrangement.

Gold calculated at \$ per ounce

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

B. C. Assayer

Provincial Assayer



BONDAR-CLEGG & COMPANY LTD.

geologists • geochemists • analysts

1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE 988-5315

GEOCHEMICAL LAB REPORT

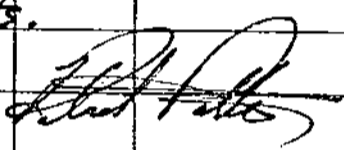
No. 23 - 89

As; Perchlorid & Nitric Acid
Extraction Au; Fire Assay & Hot Aqua Regia
As; Colorimetric
Method Au; Atomic Absorption

Project # 61-13-574
From Union Miniere Explorations & Mining Corp.
Date May 1, 1973
Ltd.

Fraction Used

Analyst K. B.

SAMPLE NO.	As ppm	Au ppb	REMARKS
SV 0 + 0	31	20	
0E + 4N	4	10	<i>These analyses were carried out by Union Miniere for Stelac. Permission granted by apply "Unoci" to apply cost of this work to assessment requirements.</i> 
0E + 8N	6	180	
0E + 12N	7	L15*	
4 + 0	6	L30*	
4E + 4N	11	20	
4E + 8N	4	L10*	
4E + 12N	3	L15*	
8 + 0	6	30	
8E + 4N	5	L10	
8E + 8N	7	L10*	
8E + 12N	6	L20*	
12 + 0	19	50	
12E + 4N	6	20	
12E + 8N	6	L15	
12E + 12N	4	L30*	
16 + 0	9	20	
16E + 4N	11	75	
16E + 8N	6	75	
16E + 12N	6	10	
20 + 0	10	L20*	
20E + 4N	9	45	
20E + 8N	8	70	
20E + 12N	9	15	
24 + 0	15	40*	
24E + 4N	10	20*	
24E + 8N	6	20	
24E + 12N	8	35	
28 + 0	16	100	
28E + 4E	79	25	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

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SAMPLE NO.	As ppm	Au ppb	SAMPLE NO.	As ppm	Au ppb
SU 28E + 8N	10	10	SU 64E + 12N	12	L15*
28E + 12N	7	L15*	68 + 0	7	L10
32 + 0	17	25*	72E + 4N	6	L25*
32E + 4N	10	L35*	72E + 8N	6	L20*
32E + 8N	9	L20*	72E + 12N	6	L20*
32E + 12N	10	15	74 + 0	4	L10
36 + 0	11	85	76E + 4N	7	L15*
36E + 4N	7	15*	76E + 8N	6	L10
36E + 8N	7	L15*	76E + 12N	5	L15*
36E + 12N	9	10*	82 + 0	9	L20*
40E + 4N	9	L20*	82E + 4N	9	L15*
40E + 8N	6	L10	82E + 8N	9	15
40E + 12N	6	15	82E + 12N	6	L15
44E + 4N	6	10	86 + 0	12	L20*
44E + 8N	5	L15*	86E + 4N	8	40
44E + 12N	6	50	86E + 8N	4	15
48 + 0	7	L20*	SU 86E + 12N	235	L40*
48E + 4N	6	L20*			
48E + 8N	6	50			
48E + 12N	7	L15*			
52 + 0	4	L200*			
52E + 4N	6	L10			
52E + 8N	5	10			
52E + 12N	7	L15*			
56 + 0	10	L20*			
56E + 4N	8	15			
56E + 8N	6	L50*			
56E + 12N	4	L15*			
60 + 0	6	20			
60E + 4N	6	IS			
60E + 8N	6	15			
60E + 12N	5	L100*			
64 + 0	7	L15*			
64E + 4N	6	L10			
SU 64E + 8N	6	10			

* detection limit on small sample

L denotes 'less than'

IS denotes 'insufficient sample'