

PROSPECTING REPORT

on the

SURPRISE 2 CLAIMS

ATLIN MINING DIVISION

for

R.H. SERAPHIM, P. ENG.  
#316, 470 Granville Street  
Vancouver, B.C.

WORK COMPLETED JUNE 11 to JUNE 27, 1978

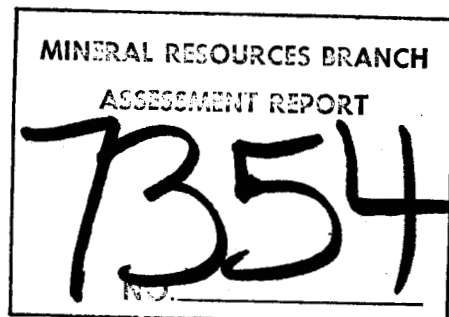
N.T.S. 104N/11W

Lat.  $59^{\circ} 37'$  Long.  $133^{\circ} 20'$

by

T.E. LISLE, P. ENG.

July 13, 1979



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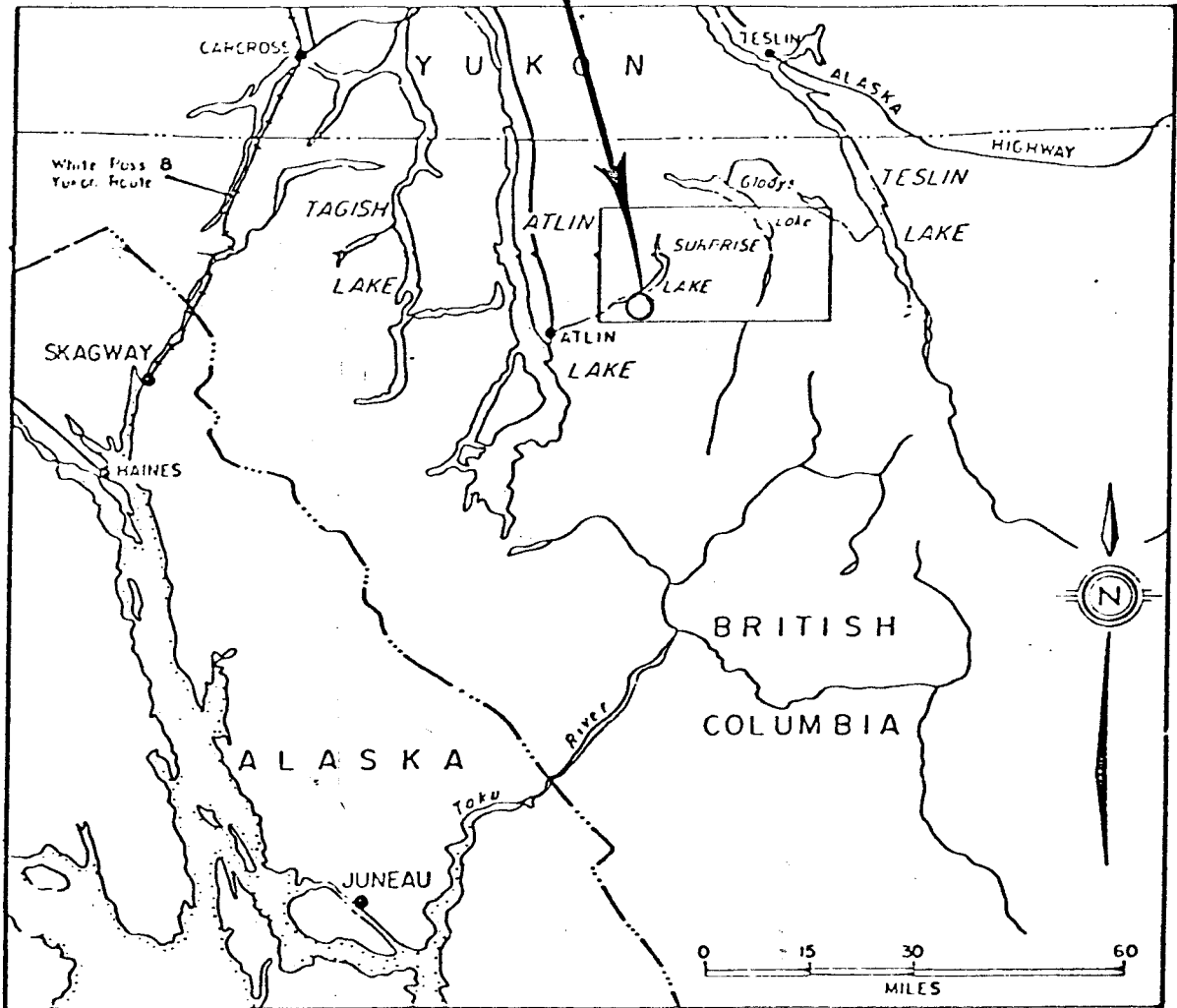
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SURPRISE No.2 MINERAL CLAIM



R.H. SERAPHIM ENGINEERING LTD.

LOCATION MAP , SURPRISE 2 M.C.

ATLIN MINING DIVISION

104 N/11W

Fig. 1.

## Summary and Conclusions

The Surprise No. 2 claim is located east of Wright Creek about 2 Km south of Surprise Lake, in the Atlin Mining Division.

The Claim is underlain by alaskite, and by meta-sedimentary, metavolcanic, and ultra basic rocks of Paleozoic age.

The claim covers a strong northeast lineament, a probable fault zone, passing through the contact of the Surprise Lake Alaskite Batholith. Prospecting in the vicinity of the lineament did not reveal strong target areas requiring high priority follow-up.

A few of the silt samples collected ~~from~~ near the base of the outcrops do contain anomalous Uranium assays. The rocks up slope near these sample sites show background radiometrics and, as the samples are from an area of emergent water, perhaps reflect accumulations due to the flushing effect of near surface ground water. Because these sample sites are down-slope from the lineament, a few test pits, along the lineament for sampling purposes might be advisable.

## INTRODUCTION

R.H. Seraphim Engineering Limited, on behalf of Wyoming Mineral Corporation, initiated a reconnaissance uranium exploration program in the Atlin area in 1978. The program included prospecting with geiger counters and G1S4 spectrometers, and limited geological and geochemical surveys around the Surprise Lake Alaskite batholith.

The program was partly in response to the uranium reconnaissance geochemical survey carried out by the Provincial and Federal Governments in 1977.

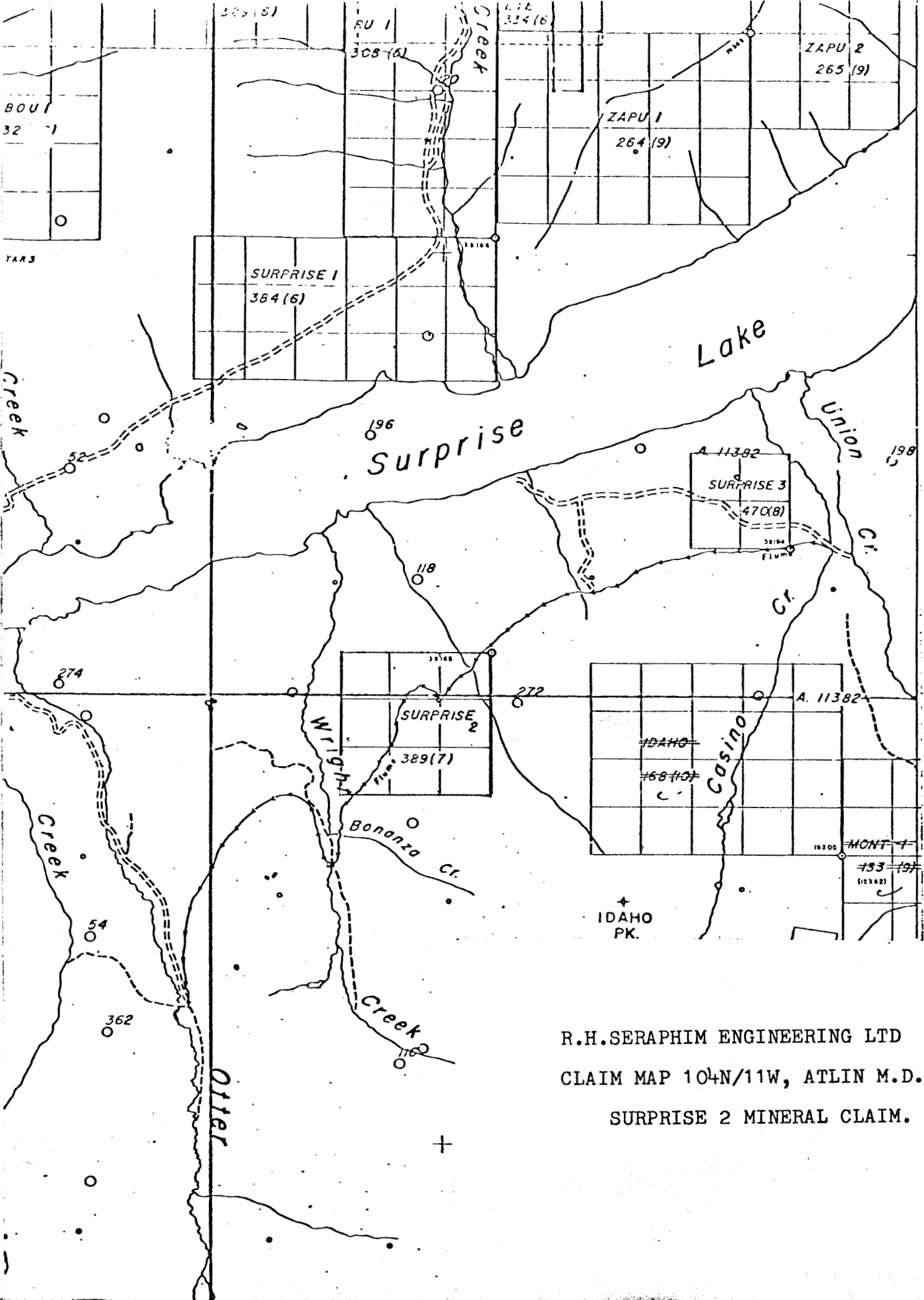
The Surprise No. 2 mineral claim was staked to cover the strong northeast~~trend~~ing lineament passing through the contact of the Surprise Lake alaskite batholith north of Wright Creek. The lineament was prospected at various times during 1978.

The results of this preliminary work are described herein and shown on the attached maps.

## CLAIM

The Surprise No. 2 claim, record No. 389(7) is comprised of 9 units staked 3 south and 3 west from a legal corner post.

The Legal Corner Post and post 3 S-3W are on the old flume line east of Wright Creek.



R.H.SERAPHIM ENGINEERING LTD  
 CLAIM MAP 104N/11W, ATLIN M.D.  
 SURPRISE 2 MINERAL CLAIM.

## LOCATION, ACCESS, TOPOGRAPHY

The Surprise Lake batholith is located between Latitudes  $59^{\circ}34'$  and  $59^{\circ}50'$ , and Longitudes  $132^{\circ}20'$  and  $133^{\circ}30'$  in northwestern British Columbia.

The southwest corner of the batholith is about 19 kilometers (12 miles) northeast of Atlin, B.C. Access to the western sections of the batholith is by a system of dirt and gravel roads leading from Atlin. Access to the central and eastern sections of the batholith is by helicopter or fixed wing aircraft.

Elevations in the area range from about 900 to 2100 meters above sea level.

The area has been subjected to repeated glaciation. The terrain is characterized by broad valleys, subdued upland surfaces and moderate to steep valley slopes. Some of the creeks headwater in precipitous cirques.

The Surprise 2 claim is approximately 1.5 Km. south of Surprise Lake, and east of Wright Creek. Access is by the Wright Creek road from Atlin.

## HISTORY

The Surprise Lake alaskite intrusion has been known for many years to contain anomalous amounts of uranium.

In 1954 and 1955, Barymin Company investigated radioactive occurrences in the Cracker, Ruby and Boulder Creek areas. The main showing found in this investigation was the Purple Rose at the head of Cracker Creek. This prospect contains zeunerite and metazeunerite in an area of quartz veining and kaolinized fracture zones near the western margins of the intrusions.

In 1976 and 1977, Placer Developments Ltd. investigated uraniumiferous surficial deposits, containing in the order of 1.0 lb. uranium per ton, in the Trout Lake area. In the same period, a consortium of companies including Malabar Mines, Getty Mines Ltd. and Union Oil Company of Canada Ltd. investigated a number of uranium occurrences, including the Purple Rose, and drilled one of them in the area to the west of Trout Lake in 1978.

Mattagami Lake Mines have been exploring claims in the central section of the batholith during the past two years. A large number of claims were acquired by other companies and by individuals on the release in June, 1978, of geochemical data from the government sponsored uranium reconnaissance program.

The area has been investigated for placer gold, but other than this, no extensive exploration is known to have taken place for Uranium on the Surprise 2 claim.



WORK PROGRAM

The Claim area was prospected by R.H. Seraphim Engineering field personnel on the dates listed in Appendix I.

Silt samples were collected from the drainage in and around the claim area and analyzed for Uranium, (Fluorometric analysis - Chemex - North Vancouver). Outcrops were examined and also subjected to radiometric testing with G.I.S. 4 Spectometers and Geiger counters.

Results of this work are shown on the attached map.

## GEOLOGY

The Surprise Lake Alaskite batholith intrudes an assemblage of volcanic, sedimentary and ultramafic rocks of paleozoic age, and granitic rocks of Mesozoic age.

J.D. Aitken mapped the area from 1951 to 1955 and incorporated the results of his investigations in Memoir # 307. The following excerpts from that publication provide some insight into the geology of the batholith.

"..... The contacts of the Surprise Lake batholith also dip steeply outward everywhere except in the vicinity of Ruby Creek, where parts of the roof remain, and in detail the contact relations are exactly like those at Dawson Peaks .... Dykes of alaskite reach up to a quarter-mile from steep contacts, but are few .... Schistose rocks are found at several points along the contacts of the Surprise Lake batholith and the Dawson Peaks stock, but normally the contact-metamorphosed rocks are hornfels..... The alaskite (13a) forms light brown crumbly outcrops from which fresh specimens are not easily gained. It is recognized in the field by its inequigranular, highly variable texture (from fine to very coarse grained, and in places, porphyritic), abundant smoky quartz, low mafic-mineral content, and lack of colour-contrast between the two feldspars. Streaks and clots of simple pegmatite, a few inches long at most, are widespread and some outcrops contain small drusy cavities.

GEOLOGY cont'd

The only mafic mineral, brown biotite fringed with green, comprises 1 to 5 per cent of the rock. Traces of muscovite are present in most specimens. Fluorite and apatite are widespread in traces. Topaz and allanite are very rare. Arsenopyrite appears in the habit of a normal accessory mineral in one specimen .... The alaskite displays a confusing variety of textural types, here in sharp contact with one another, there in gradational contact. Finer-grained varieties generally cut coarser-grained ones, but there are many exceptions. ... The simplest textures occur in the coarse-grained and nearly equigranular rocks, in which quartz forms large grains of simple outline."

GEOLOGY Cont'd

The Surprise No. 2 claim is near Surprise Lake where the batholith intrudes an assemblage of Cache Creek volcanic and sedimentary rocks, and lesser ultrabasic rocks. The intruded rocks are hornfelsed and minor amounts of pyrrhotite are widely scattered.

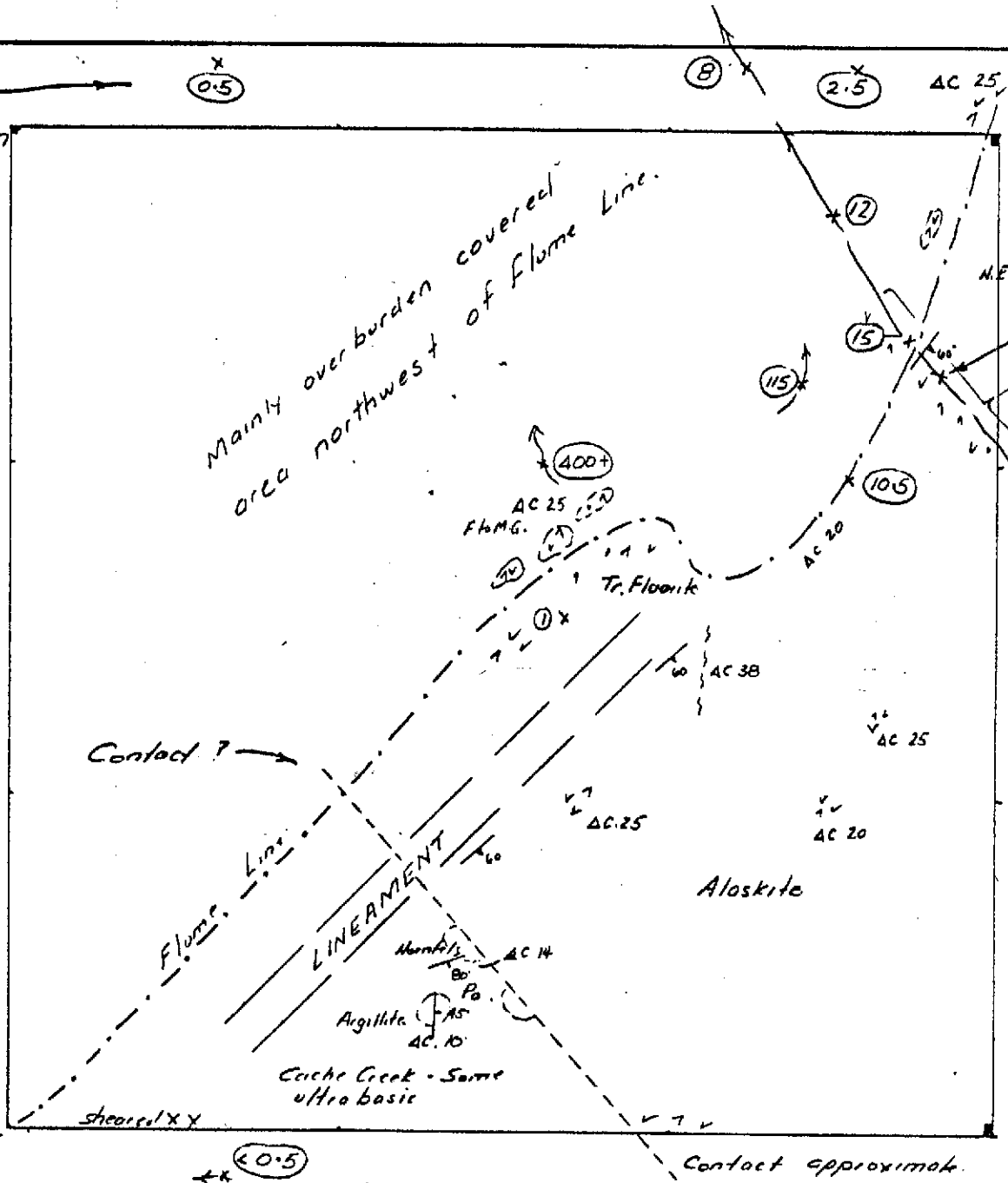
No polymetallic veins were found associated with the lineament, and no accumulation of uranium, except as noted in the geochemistry, was detected.

*J. E. Lusk*

Note:

Samples shown north of claim line are on south side of Surprise lake except those on Flume line

Mainly overburden covered area northwest of flume line.



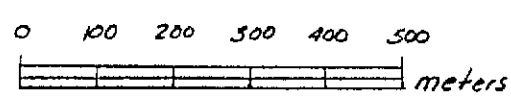
7.5 On Flume.  
4.5 On Flume.

AC. 20 - U+Th count  
(10 second scale, GIS 4.

21 S.H 21 PPM U.  
R. denotes rock sample.

↑ ↑  
Fine Grain  
dikes.  
Tr. Fluorite.

*[Signature]*



R. H. SERAPHIM ENGINEERING LTD

SURPRISE 2 CLAIM  
Prospecting sketch

Scale 1:10,000. July, 1979

APPENDIX 1

SURPRISE No. 2

EXPENDITURES

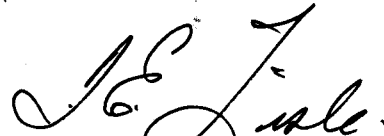
Labour -	E. Scholtes - prospecting		
	June 11,12 & 13/78	3 @ \$90.00	\$ 270.00
	D. Fennings - Assistant		
	June 11,12 & 13/78	3 @ \$50.00	150.00
	D. Keonig - Geologist		
	June 22/78	1 @ \$90.00	90.00
	T. Lisle - Geologist		
	June 27/78	1 @ \$150.00	150.00
			<hr/>
TRUCK RENTAL	4 @ \$35.00		\$ 140.00
CAMP COSTS	8 @ \$15.00		120.00
GEOCHEMISTRY	16 @ \$3.00		48.00
			<hr/>
	TOTAL		\$ 968.00
			<hr/> <hr/>

*T. E. Lisle*

CERTIFICATE OF QUALIFICATION

I, T.E. Lisle of 145 West Rockland Road,  
North Vancouver, B.C. declare that:

1. The work described in this report was carried out by me and by the personnel listed in Appendix 1 under my supervision.
2. I am a graduate of the University of British Columbia with a B.Sc. 1964.
3. I have worked intermittently in exploration geology for several years prior to 1964, and have worked continuously in the same field since that date.
4. I am a member of the following organizations:
  - (a) Canadian Institute of Mining & Metallurgy
  - (b) Geological Association of Canada
  - (c) Association of Professional Engineers of B.C.



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T.E. Lisle, P.Eng.