

RAM GROUP

1974

(EXAMINATION REPORT)

ACCESS: The property is seventy-two (72) air miles east of Dease Lake and one hundred and five (105) air miles south of Watson Lake. These are the nearest supply points and are on the Stewart-Cassiar and Alaska Highways, respectively. Dease Lake will be the northern terminal of the British Columbia Railway extension now under construction. In summer, float planes from Dease or Watson Lake can land supplies at Rainbow Lake, twenty (20) miles southwest of the property, and, in winter, ski-equipped planes could land on the Turnagain River, two (2) miles from the property. All other access and logistical support would have to be by helicopter. (BLUE SHEEP LAKE 10 MI W.) W.C.

AREA: The area lies within the Cassiar Mountains, a moderately rugged region with local relief of as much as 4,500 feet. In general, the irregular mountain masses are separated by deep, smoothly glaciated valleys. The property lies on the southeast corner of a mountainous area, two (2) miles north of the junction of the Cassiar and Turnagain Rivers. The property consists of roughly thirty (30) claims (see Figure 2). Elevations range from 3,000 feet in the east to 7,000 feet in the west. The area of interest, at present, lies between 5,500 feet and 6,500 feet, and helicopter access is good to the center of this area. To the east of this point, the mountain drops off rapidly to the Turnagain River. The area of interest is above tree line with thirty (30) to fifty (50) per cent outcrop and considerable talus. On foot, one can cover almost all the property. However, because of the terrain, grid geophysics or geochemistry would be impractical. In July and August, sufficient water for drilling could be obtained from the creek up to about the 5,800 foot level. However, all timber for set ups would have to be flown in.

FINANCIAL PROPOSALS: In a discussion with Mr. Kuhn, on 26th November, 1974, he mentioned a down payment figure of \$20,000.00, with a standard option agreement involving moderate work commitments

and payments leading to a buy-out. At present, no firm figures have been discussed for the option. I feel the down payment figure is high and could be substantially reduced. Further interest in the group is to some extent dependent on discussions with El Paso Mining Co. as to the availability of their data on the Ewe Group immediately to the southwest of the Ram Group and the possibilities of an agreement on this ground. The Ram Group has potential on its own as a small, medium to high grade, scheelite deposit, ~~but the group was not worked on extensively~~  
~~(see map of the area)~~ ~~on the strongest anomaly~~, ~~showing (2)~~  
~~to the southwest of the present Ram Group.~~

HISTORY AND DEVELOPMENT: The Ram Group was originally staked by Mr. Kuhn in 1968<sup>WK</sup> for El Paso Mining Co. <sup>(BEFORE THE EWE GP)</sup> as part of the Ewe Group, but this part of the <sup>WK</sup> property was not worked on extensively. <sup>(ON STRONGEST ANOMALY AS PER CREEK PANNING AND GEOL. WK)</sup>  
The area of drilling and detailed work lies about one (1) to two (2) miles southwest of the present Ram Group. During this time, Mr. Kuhn was involved in other projects for El Paso and in 1973 the Ram Claims were turned back to him by El Paso under the terms of his prospecting agreement. In April of 1974, the property was submitted by Mr. Kuhn to Utah and we agreed to examine it as part of the Omineca Program when we were in the area. John Grant, company prospector, and I spent approximately one week in the area looking at the Ram Group, itself, and trying to assess the regional potential for similar deposits. During this time we prepared a geologic map of the Ram area, did some soil and silt sampling and UV lamp prospecting.

PRODUCTION: Nil

RESERVES: No data.

GEOLOGY AND MINERALIZATION: The Ram Group lies along the northeastern flank of the Cassiar Batholith, which is composed mostly of granodiorites and quartz monzonites with biotite as the main mafic mineral. The batholith forms the northwest trending backbone of the Cassiar Mountains, and intrudes a thick sequence of lower pal-

ozoic carbonates and pelitic sediments along its northeastern flank near the Turnagain River. The Ram Group is underlain by Cambrian limestones, dolomites, quartzites and schists outcropping between two (2) granodiorite bodies of the Cassiar batholith system. The Cambrian rocks occupy a narrow band or trough between these intrusives. Figure is a copy of part of the G.S.C. Cry Lake map sheet and Figure is a reconnaissance map of the Ram Group showings prepared during the examination. The latter shows a westerly dipping sequence of limestones, dolomites, quartzites, schists and gneisses, sandwiched between two (2) granodiorite bodies. As the map indicates, the sequence consists of a schist-gneiss-quartzite unit, apparently overlain by a predominantly limestone unit which is in turn overlain by another schist-gneiss-quartzite unit. This sequence seems to be roughly conformable on the Ram Group, but detailed geologic mapping would be required to work out actual relationships. Folding, faulting, and stratigraphy are much more complex than indicated in Figure. The apparent top and bottom of the sequence is cut off by the intrusives.

The "lower" unit is very limonitic and is mostly interbedded quartzite and quartz feldspar biotite gneisses with carbonate beds. The "uppermost" unit is very similar, with perhaps slightly more quartzite than the lower one and less carbonate. The middle carbonate unit is predominantly a grey arenaceous limestone, generally bedded and crystalline. Quartzite and gneissic interbeds are common. Figure shows a somewhat simplified cross-section through the area of interest which indicates an approximate thickness of 1,000 feet in this area. North of the creek, on Ram #16, there is an apparent facies change in the limestone unit. The unit north of this point consists of a massive buff-colored dolomite.

MINERALIZATION: The main mineral of interest on the Ram Group is scheelite ( $\text{CaWO}_3$ ). Minor molybdenite, powellite, galena, sphalerite and manganese oxides were also observed during the examination. The scheelite occurs mostly as disseminations in limestone skarns. The amount of scheelite is dependent upon the intensity

of skarn development. Several substantial zones of this type of mineralization were outlined during lamping surveys on the Ram Group. The largest zone had a surface width of approximately 600 feet along the western intrusive contact. In this zone, some spectacular mineralization was observed in float and outcrop. Grade appeared to drop off away from the intrusive. This zone and another small, high grade zone in Talus and subcrop are outlined in red on the geology map. Substantial lower grade mineralization also occurs between these two (2) zones, although large sections of barren limestone and quartzites and schists also occur. Scheelite occurs as envelopes on quartz veins in all the rock types on the property, but this type of mineralization is of little economic interest since it is very localized.

Minor molybdenite and a yellow fluorescent mineral, probably powellite, accompany the scheelite mineralization. Molybdenum substituting in the  $W_3$  ion can be a problem in some metalurgical uses for scheelite. Mineral Facts and Problems, in a table on page 401 of the 1970 edition, quotes a requirement of less than 0.80 per cent molybdenum by weight in a seventy per cent (70%)  $W_3$  concentrate. Apparently, in concentrations of this level, the scheelite fluorescence is yellowish white, instead of blue white, and this was not observed to any extent on the Ram Group. The mere presence of molybdenum minerals with the tungsten does not seem to have much bearing on the level of molybdenum replacement in the tungsten trioxide ion, since the two (2) largest Tungsten producers in the U.S. area also Molybdenum producers.

SKARN: The skarn is a medium to coarse grained rocks with a mineral composition of quartz, garnet, diopside and calcite.

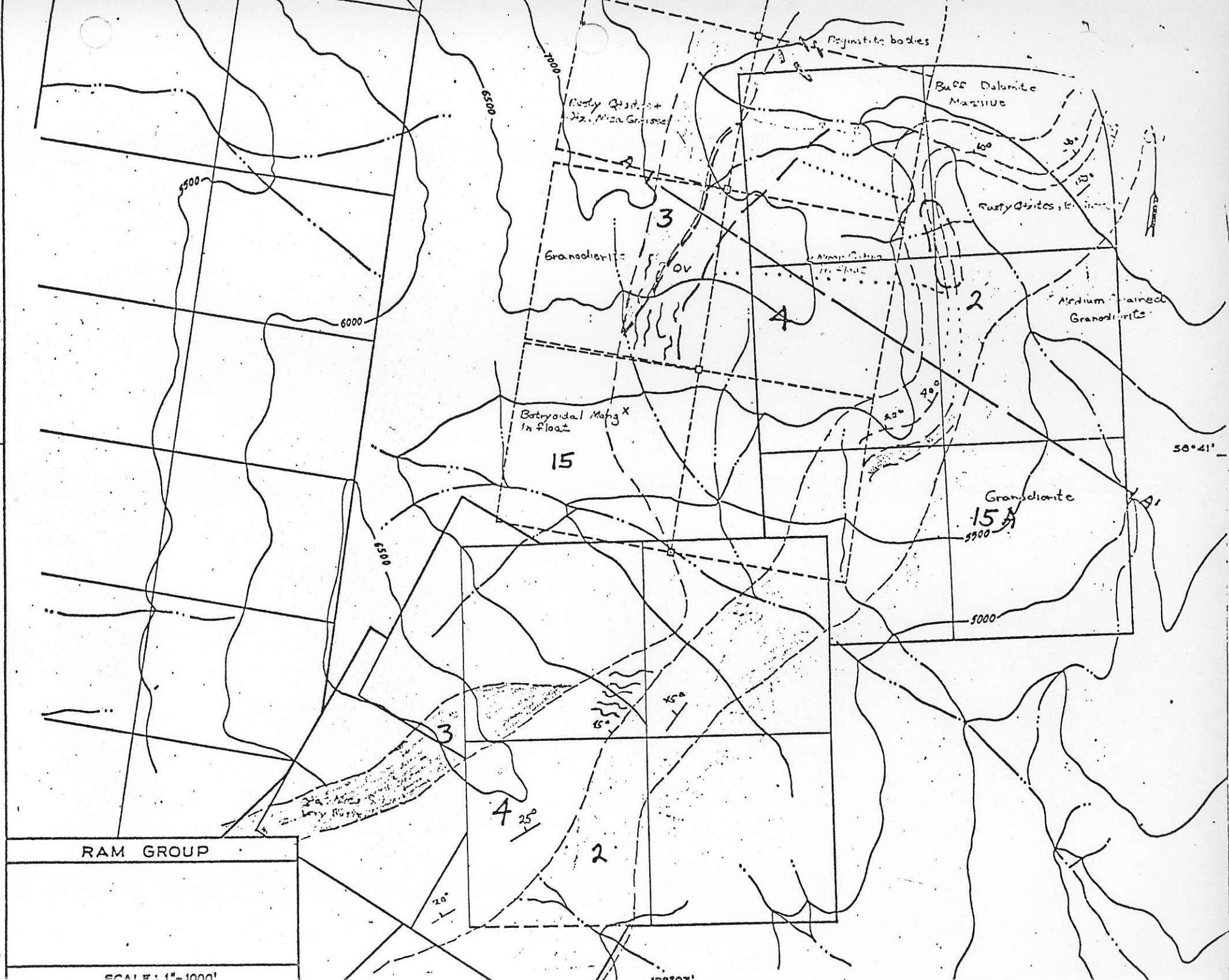
The geology of the Ram showing area is in many respects similar to that of the Ewe showing to the southwest.

REMARKS: From an assessment of regional prospecting data consisting of silt sampling, panning concentrates, soil geochemistry and grab sample assays, the Ram showings present the most attractive target in the area. Panning concentrates and silt samples from Schist Creek show progressive increases as one approaches the showing areas. The highest silt sample on the north branch of the creek below the showings was 1,680 ppm.

A total of eight-five (85) soil samples have been collected by Mr. Kuhn and the writer in the Ram area and the results are shown in Figures 2 and 3. Values obtained over areas where no mineralization was observed indicate a background of less than thirty (30) ppm. Using an arbitrary figure of one hundred (100) ppm as a definitely anomalous level, an anomaly four thousand (4,000) feet wide and open to the northeast and southwest is indicated with a maximum value of seven thousand two hundred (7,200) ppm in Mr. Kuhn's data and one of four hundred (400) ppm in our own data. The soil geochem data, where checked, seems to accurately reflect areas of known mineralization, but, due to the steep terrain and poor soil development, I do not think a detailed systematic grid approach would be possible. The soil geochemistry results merely reflect upslope mineralization, rather than pinpointing mineralized zones.

Grade sample assays by Mr. Kuhn and the writer gave some spectacular results. However, no rigorous chip or channel samples were taken during the examination. The highest assays obtained were in strong skarn zones, outlined in red in Figures and . Figure shows the location of our samples and Figure those of Mr. Kuhn.

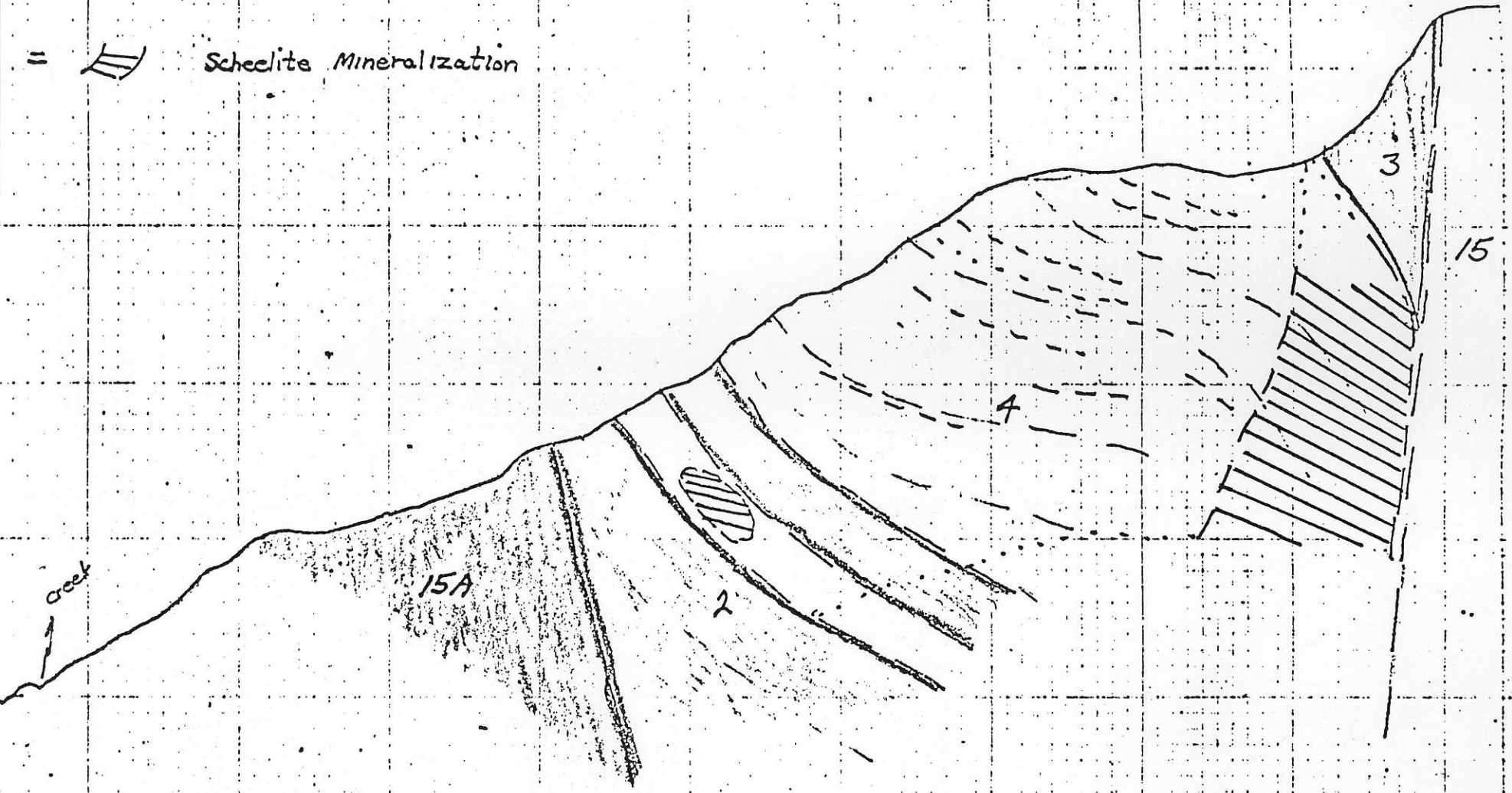
UV lamp traverses on the Ram Group revealed substantial low grade scheelite mineralization and several zones of high grade material. The geochemistry and geologic reconnaissance indicates a possible extension to the northeast.



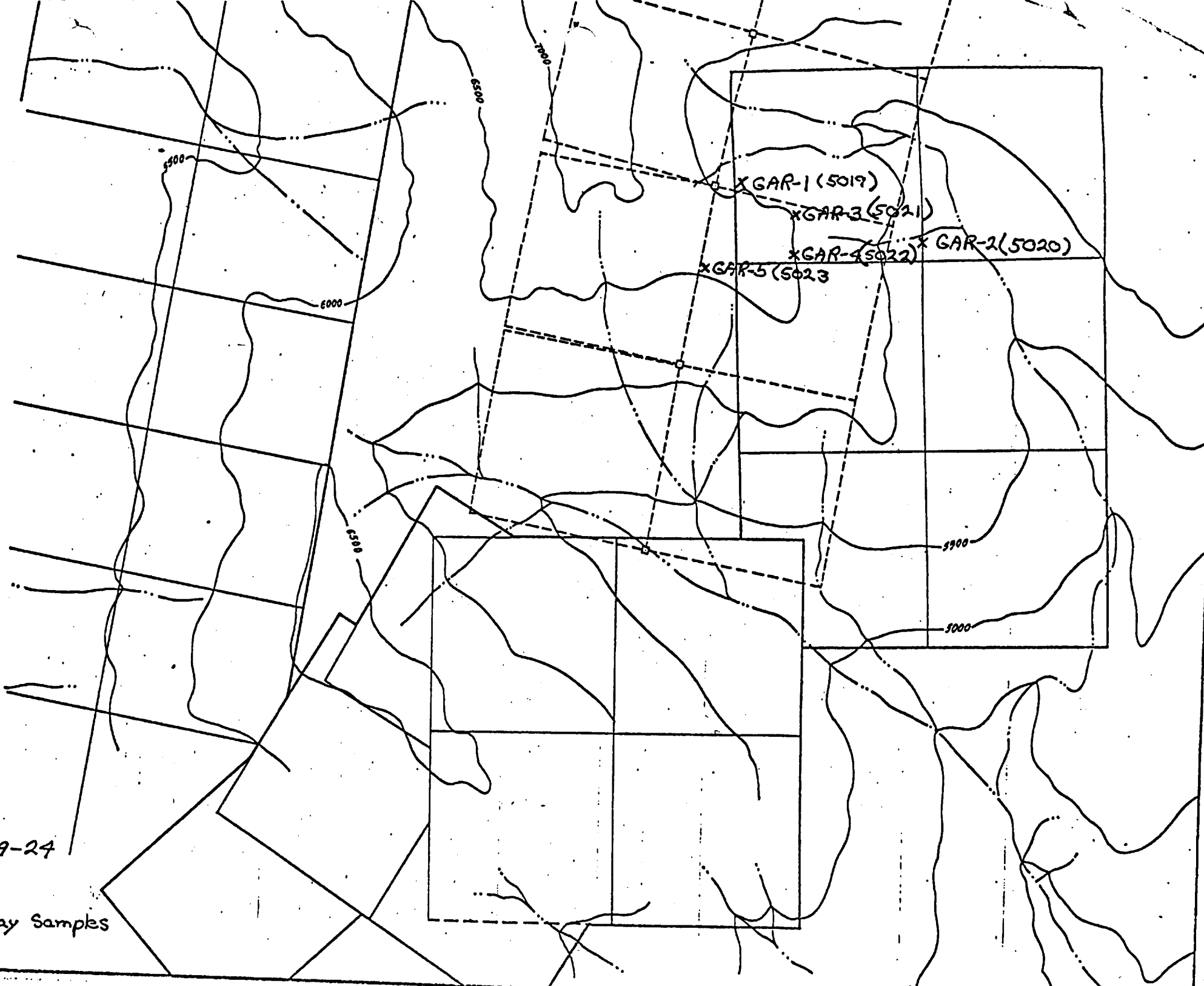
Section plane 122° Looking SSW.

Scale 1" = 500'

=  Scheelite Mineralization



A.



5019-24

Assay Samples



*Chowder*



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TO: Utah Mines Ltd.,  
412 - 510 W. Eastings St.,  
Vancouver, B. C.

CERTIFICATE NO. 28455

INVOICE NO. 12729

RECEIVED

ATTN: Mr. R. Potter

ANALYSED Oct. 3/74

SAMPLE NO. :	PPM
	<i>Tungsten</i>
GAD 10	< 8
11	< 8
12	12
13	8
GAD 14	12
GAS 20	< 8
GAS 2 1	8
JGD 73	16
74	< 8
75	< 8
76	8
77	< 8
JGD 78	16
JGP 13	< 8
16	200
17	< 8
18	< 8
19	< 8
20	40
21	< 8
22	< 8
JGP 26	8
RAD 1	150
2	160
3	100
4	75
5	160
6	35
7	350
8	140
9	80
10	100
11	240
12	160
13	150
14	160
15	180
16	180
17	70
RAD 18	160

*Ram Soils*



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CANADIAN TESTING  
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## CERTIFICATE OF ANALYSIS

TO: Utah Mines Ltd.,  
412 - 510 W. Hastings St.,  
Vancouver, B.C.

ATTN: Mr. R. Pottor

CERTIFICATE NO. 28456  
INVOICE NO. 12612  
RECEIVED  
ANALYSED October 3/74

SAMPLE NO. :	PPM	
		Tungsten
RAD 19	100	} Ram soils
20	8	
21	8	
22	< 8	
23	15	
24	< 8	
25	< 8	
26	< 8	
27	< 8	
28	< 8	
29	< 8	
30	16	
31	8	
32	8	
33	16	
34	32	
35	400	
36	320	
37	180	
38	16	
39	50	
40	180	
41	160	
42	90	
43	180	
44	56	
45	300	
46	130	
47	75	
48	60	
49	60	
RAD 50	70	



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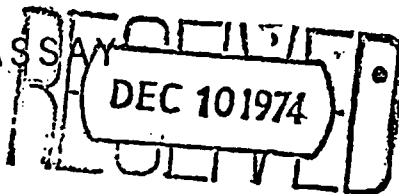


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## CERTIFICATE OF ASSAY



TO: Utah Mines Ltd.,  
1600 - 1050 W. Pender  
Vancouver, B. C.

CERTIFICATE NO.    23807 A  
INVOICE NO.        13149  
RECEIVED           Dec. 2/74  
ANALYSED           Dec. 6/74

ATTN:

SAMPLE NO. :	%	%	
	WO <sub>3</sub>	Mo	
5019	12.8		} Ram Grab Samples (high grade)
5020	7.53	<0.001	
5021	2.25	0.002	
5022	0.29		
5023	7.0		
5024	0.12	<0.001	

Spectro to follow on samples 5019, 5023 & 5024.



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REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

Fig 3 RAM GROUP  
GEOCHEMISTRY  
- 7100 PPM  
G.A. Clouthier  
1" = 1000'

