

GEOLOGICAL EXAMINATION,  
SOIL AND SEDIMENT SAMPLING  
around the  
HAWK SCHEELITE PROSPECT,  
YUKON TERRITORY

Claims: Hawk 1 to 8  
Hawk 9 to 16  
N.T.S. 105 H - 3  
61°02'N, 129°02'W

Work performed between the 16th May and 22nd May 1978  
and report prepared by T. Liverton, July 1978.

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CLAIMS:

<u>Claims</u>	<u>Tag Number</u>	<u>Expiry</u>
Hawk 1 - 8	YA 26737-44	11/Oct./78
9-16	YA 28133-40	14/Nov./78

Claims are owned by Alex Black.

## INTRODUCTION

The original Hawk group of eight claims was offered to Union Carbide by Alex Black in November 1977. He had discovered scheelite and black sands in a small gully while prospecting for gold in the region. He staked a further eight claims in December and I visited the area briefly at that time. Since there was from 1 to 2 feet of snow on the ground then, little could be seen except from the black sands in the gully. It appeared that the showing could have as easily been from mineralization in place as from glacially transported material.

In May 1978 I spent six days on the claims, together with Larry Talbot and Peter Wild (assistants). We carried out soil sampling on a grid basis and panned creeks as well to attempt to define the source of the scheelite.

I consider that the scheelite present has been concentrated from glacial till by the small stream and that there is little chance of the source being found nearby.

## LOCATION AND ACCESS

The claims are located on the east side of the Frances River valley at about 3,200 feet (975 metres) elevation and are 12 kilometres north-easterly from the Frances River Bailey Bridge. They may be reached either by helicopter or by a good day's walk from the road. The country is undulating and, in the immediate vicinity of the claims, heavily timbered.

## 1978 WORK

A program of sampling around the original showing was carried out as follows:

The origin for the grid was chosen near the camp at the original prospect, that is, at the No. 1 post for Hawk 1 and 2. The following lines, oriented close to the true north were laid out and sampled at 100 metre intervals.

Line 2 W	- from 1 S to 5 S
1 W	0 N to 5 S
0 E	2 S to 5 S
1 E	2 N to 5 S
2 E	2 N to 5 S
3 E	4 N to 5 S

continued.....

Line O E was also sampled at 5 N and a traverse on the northern side of the main creek as were also J E at 5 and 6 N and 2 E at 6 and 7 N. Lines were laid out with compass and tape (figures refer to 100's of metres).

Samples of about one kilogramme were taken from 0.5 metre or so depth and were later panned. Results were expressed as numbers of scheelite grains per pan. Scheelite grain size varied from about 0.1 to 1mm, but no more than 14 grains were observed from any sample, which elsewhere is considered barely anomalous.

A traverse across the main creek on the opposite plateau showed similarly negative results and samples taken down the erosion bank of the main creek gave only one or two grains in any sample. Most samples, however, show some zircon and black sand with occasional garnets.

The hollow containing the two anomalous gullies comprising the original showing was next examined in detail. Samples taken down the 30 metre high banks gave only a few grains of scheelite per panful. At the head of gullies the sediments gave grain counts of 2, which increases down the stream, particularly where the stream gradient flattened out locally.

At the mouth of the north-eastern gully, about 7 metres from the main creek counts of several hundred grains with much garnet, zircon and black sand may be obtained. Here, small pebbles of calc-silicate hornfels, a few centimetres across are found in the stream bed.

Line traverses were made away from the original showing - to the south and the east.

The traverse to the South (about 2km) was intended to examine any geology observable on the prominent ridge. On this ridge the western side contains many large ( 1 metre or more) granite boulders and is presumable mantled in till. No scheelite was seen, however. The top and eastern side have residual soils covering quartzite and slate, judging by rock fragments in the soil. The granite contact is, therefore, some unknown distance to the east.

continued.....

A traverse up the main creek (to the east) was made to check the plateau on its southern side and to see if any scheelite was carried down the creek from the hills, and the observable granite contacts, where traces of scheelite were noted in previous years. It appears that the whole plateau is of glacial till, mostly sand-sized for 1.5 km north-east of the showing. No scheelite was found in the main creek at a point 1.4 km NE of the camp.

Scheelite values in the creek a hundred metres below the showing were also noted to be below background for sediments in this region.

#### CONCLUSIONS

The scheelite found at the original showing is a result of concentration (ground-sluicing) by the small gully. This gully is the only such erosion feature that has cut through the 30 metres of till within at least 2 kilometres along the main creek and thus it appears as an isolated anomaly.

Although the skarn pebbles and garnet found with scheelite in the gully have been transported from somewhere, there is no practical way of tracing the source.

#### RECOMMENDATIONS

Since no way exists of readily tracing the source of the glacially transported scheelite, no further work can be advised on the claims.

STATEMENT OF QUALIFICATIONS OF AUTHOR

Timothy Liverton: Graduated from the University of Sydney with a B Sc degree in Geology and Geophysics in 1964.

Experience: - in Australia.

1965 - Employed by R. Hare and Associates (consultants) to work on tin, tungsten and copper mines and prospect in Queensland and Western Australia. Work included surface and underground surveying and geological mapping, supervision of diamond drilling and regional mapping.

1966 and 1967 - Employed by the Electrolytic Zinc Company of A'Asia Ltd. to work on base metal exploration in souther N.S.W. and uranium prospect in S.A. Work involved detailed mapping, supervision of drilling, geochemical surveys and geophysics and petrographic studies.

1968 to 1970 - Employed by Trans Australian Exploration to carry out regional mapping and prospecting over 2000 square miles of Queensland to explore for copper, molybdenum and tungsten.

1971 and 1972 - Employed by ANZ Exploration (Union Carbide) to carry out uranium exploration in the Northern Territories - in Canada and abroad.

1973 - Working as a civil engineer in England.

1974 to present - Employed by Union Carbide Canada Ltd. to work in Yukon and Northern B. C. tungsten projects during the summer. During the winter working on reconnaissance for quartz in Greenland, for Manganese in Amazonia, Brazil; as a mine geologist at the Pine Creek Mine, California, work on Tungsten exploration in Norway and development work in Portugal.

COST STATEMENTWagesLiverton

6 days at 87.00	522.00	
Plus Administrative Overheads (25%)		652.00

Talbot

6 days at 46.15	276.90	
Plus Administration		346.13

Wild

6 days at 39.23	235.38	
Plus Administration		<u>294.23</u>

1,292.86

Helicopter 41 hours at \$350		1,435.00
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Equipment		56.63
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Food		275.11
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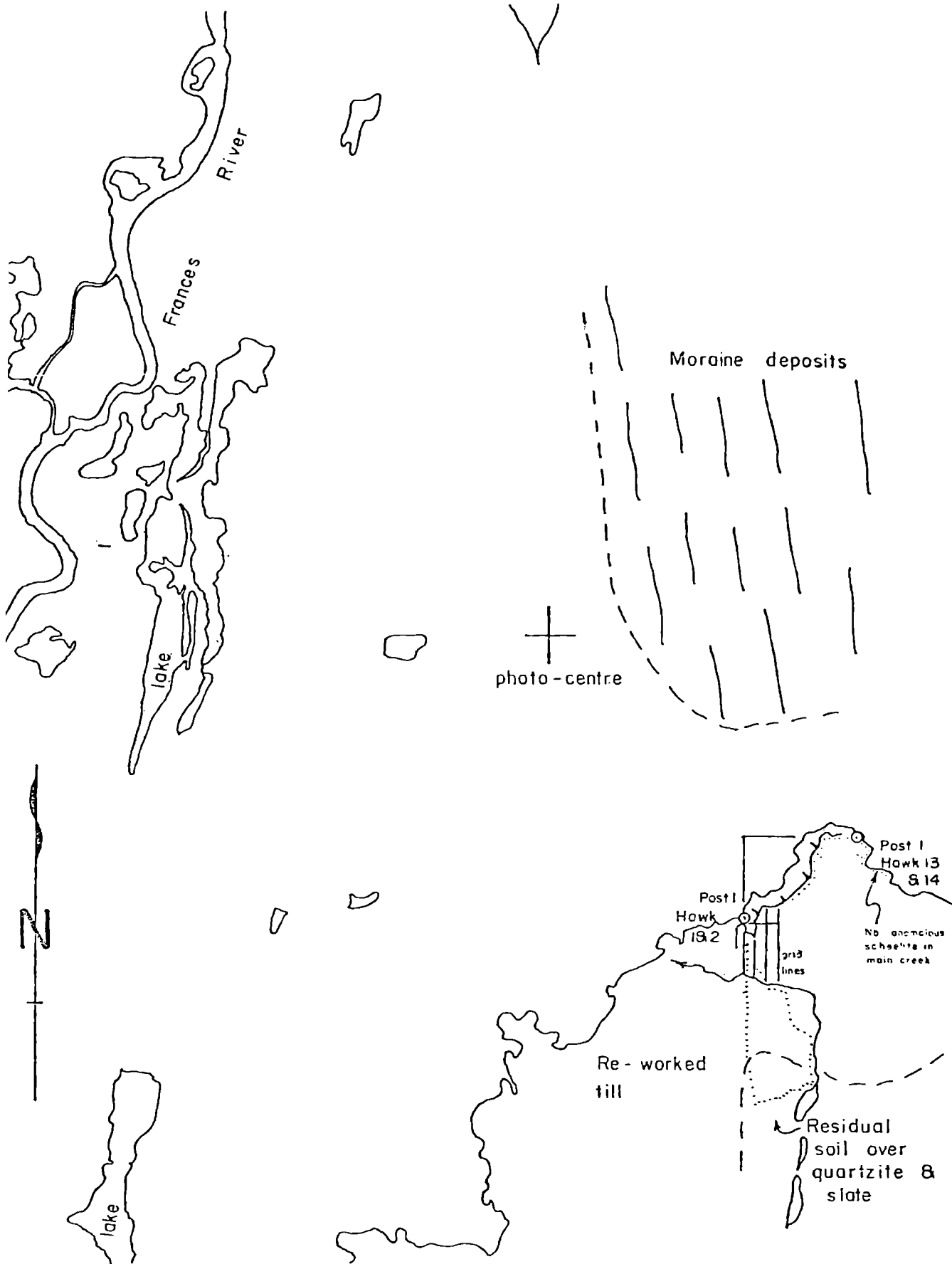
Airphotos		103.49
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Truck Hire (\$25 per day and 25¢ per mile)		<u>190.00</u>
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3,353.09

Report Preparation		<u>200.00</u>
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\$3,553.09

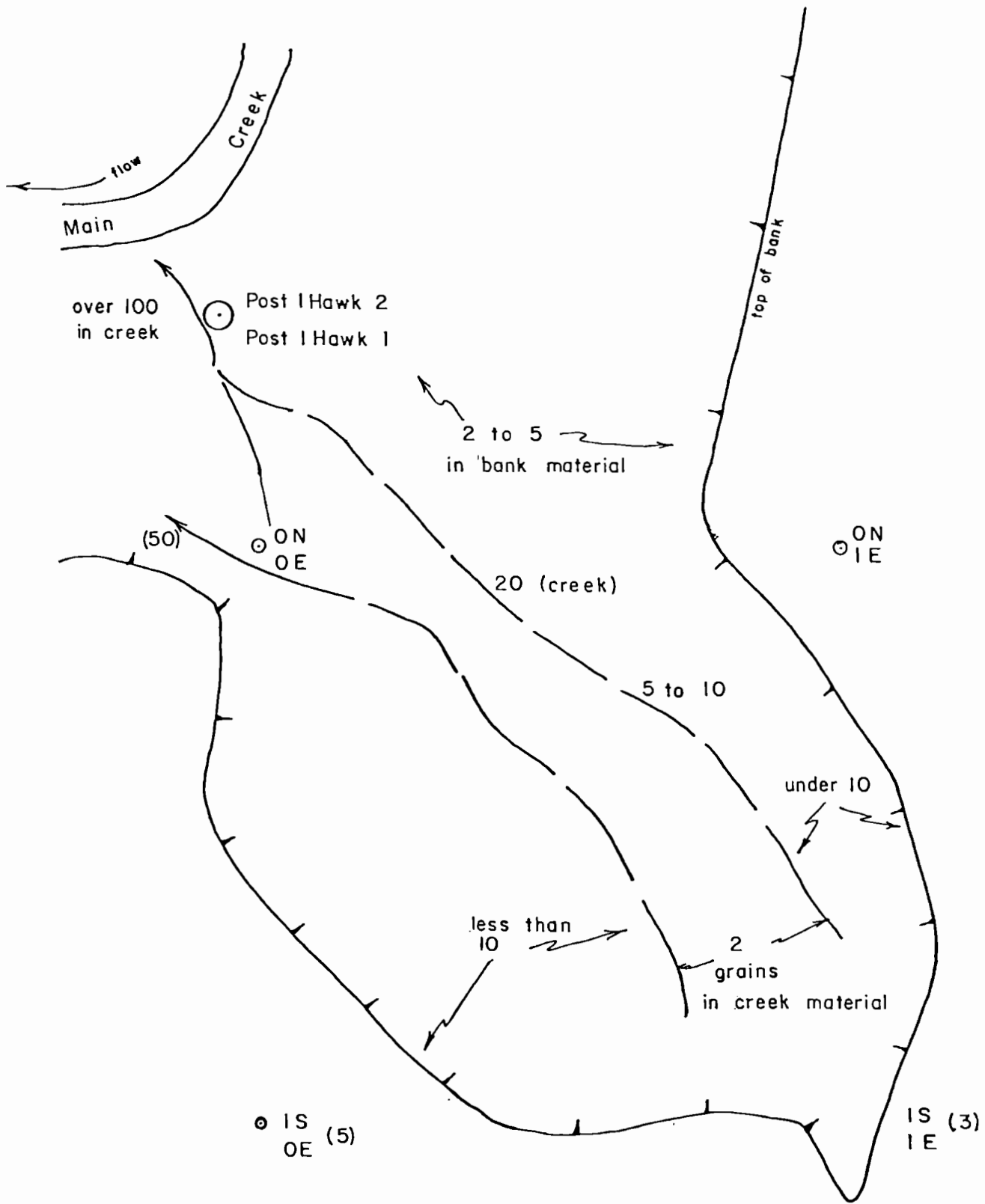


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### HAWK CLAIMS: LOCATION OF GRID, CLAIMS & TRAVERSE

Grid lines are shown as solid lines; traverses are shown dotted.

Traced from a contact print of photo A17109-28 Scale 1 to 54,000 approximate



Figures shown alongside coordinates are grains of scheelite

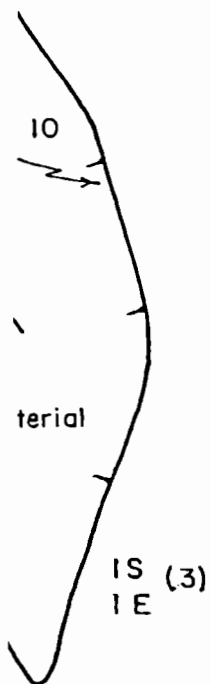
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UNION CARBIDE CAN	
HAWK CLA	
SKETCH OF SCHEELITE	
Scale: 1 to 1000	Dr.
Compass survey: L.T. & P.W.	Ju

scheelite per panful of soil (approximately 1 Kg sample)

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2E

⊙ IN  
3E



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Post I Hawk

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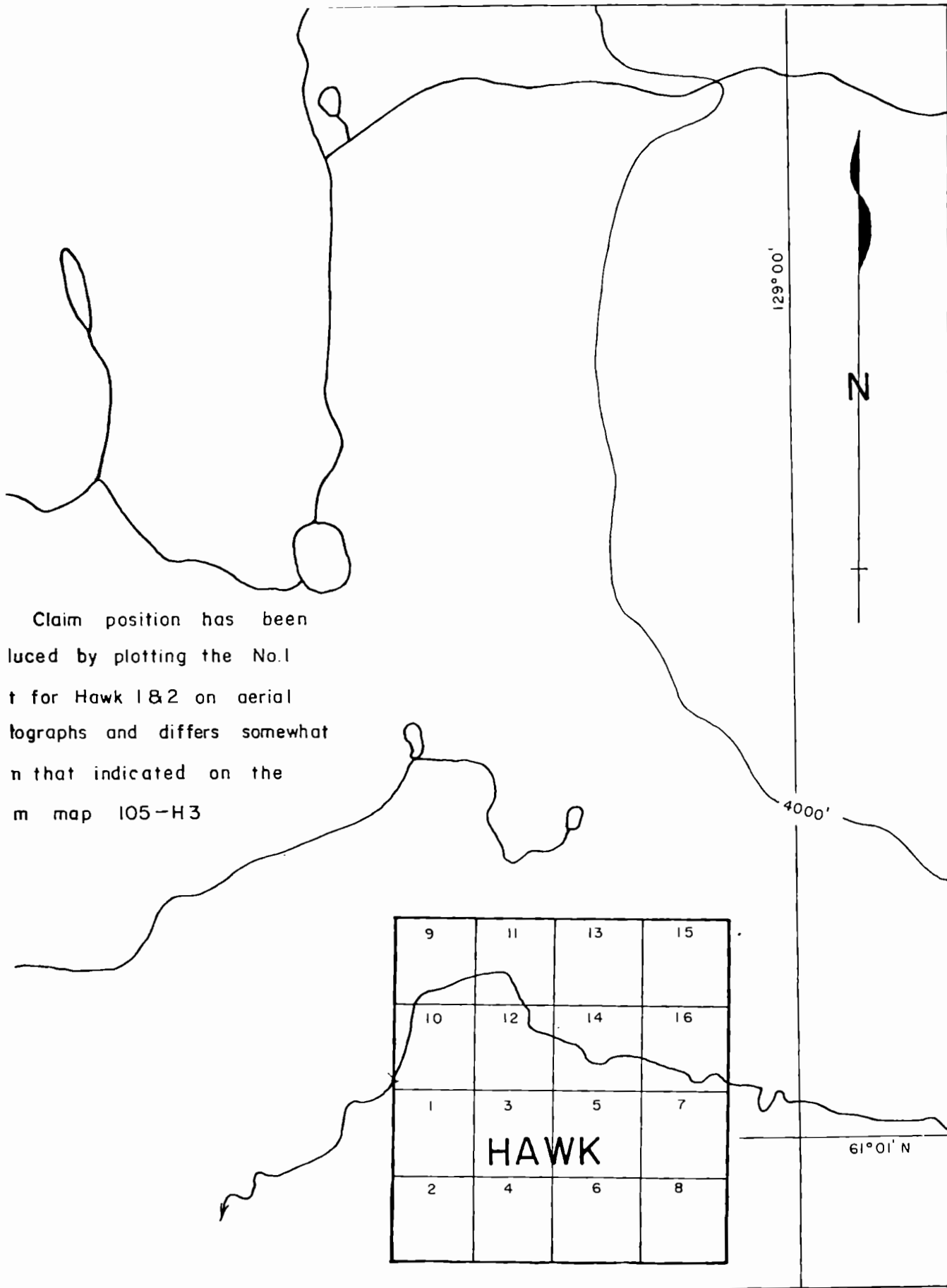
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3E

100  
Metres

soil (approximately 1 Kg sample)

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HAWK CLAIMS		
SKETCH OF SCHEELITE SHOWING		
Scale: 1 to 1000	Drawn: T. Liverton	
Compass survey: L.T. & P.W.	June 1978	Sheet No.



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**HAWK SCHEELITE PROSPECT CLAIMS**

Scale: 1" to 1/2 mile. From sheet 105H-3

T Liverton, July 1978