MINERAL RELOURCES FRANCH



PROSPECTING AND STREAM

SEDIMENT SAMPLING

ON THE

ANN CLAIM

RECORD NO 3631(6)

KAMLOOPS MINING DIVISION

N.T.S. MAP SHEET 82M/13

LATITUDE 51°45½'N LONGITUDE 119°35'W

OWNER/OPERATOR: DIMAC RESOURCE CORP.

> REPORT BY: P.A. RONNING

DATE OF REPORT:

SEPTEMBER 5, 1981

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1. INTRODUCTION

The Ann Claim is about 22 kilometers northeast of the village of Vavenby and 10 kilometers north of the North Thompson River in east central British Columbia. The sixteen unit claim straddles a ridge between two forks of Martin Creek. It can be reached by following the Mad River road northeast from Highway 5 for about 12½km to the Martin Creek crossing. From there a 4 wheel drive trail forks to the left and leads to within a couple of hundred meters of the claim.

The claim straddles a rounded, steep sided ridge between the two main forks of Martin Creek, covering an area whose elevation ranges from 940 meters to 1,650 meters above sea level. Rainfall is heavy and extremely dense timber and underbrush hamper foot travel. At upper elevations patches of snow persist into July.

Very high concentrations of tungsten, in the form of scheelite, occur in the two main forks of Martin Creek and in a tributary of the east fork. The Ann Claim was staked to cover the area where it is felt the scheelite must originate. Since it was staked most of the 400 hectares has been prospected in some detail. Twenty-six samples of stream sediment and forty-six of soil have been collected, panned and examined under ultraviolet light. Thirteen stream sediment samples have been chemically analyzed for tungsten.

This report describes the results of this work.

2. General Geology

The claim lies within the Adams Lake sheet, the geology of which was mapped by R.B. Campbell in 1962 and 1963 at a scale of 1:253, 440 (G.S.C. Map 48 1963). It is underlain by rocks of the Shuswap Metamorphic Complex assigned to Campbell's Unit la and described as ".... well foliated granitic gneiss;

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quartz-feldspar-biotite gneiss, quartz-feldspar-hornblende gneiss, amphibolite; minor quartz-mica schist, quartzite, marble and skarn; abundant and locally dominant pegmatite, muscovite granite and biotite granodiorite".

The local geology of the claim is poorly known as most of the ridge is covered by overburden. Occasional outcrops of quartz monzonite, biotite granodiorite, alaskite, pegmatite, quartz biotite schist, quartz muscovite schist and quartzite occur (Map 3). In Area A where high quantities of scheelite occur in soil and stream sediments, the few outcrops consist of quartz monzonite.

3. Pan Sampling of Stream Sediments

3a Method

The method used for pan sampling stream sediments was to fill an ordinary gold pan with sand to silt size material from a creek. usually the mixing in of some mud and gravel could not be avoided. The material in the pan was washed down, eliminating mud, gravel and most minerals of low to average specific gravity. When only a couple of cubic centimeters of material remained it was transferred to an ordinary soil sample envelope and dried out. The dried samples were examined under ultra-violet light and the grains of scheelite counted.

This method of sampling was also used, in conjunction with sampling for chemical analysis, on a regional exploration program in the Raft River and Mad River region. It was found that in most instances the pan sample results and the geochemical analyses gave similar information; that is if a sample from a particular location gave a high count of scheelite grains then chemical analysis of material from the same location would show a high tungsten concentration. However,

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several instances occurred in which high grain counts of scheelite were found but the tungsten analyses gave low results. In these cases, the grains of scheelite seen in the pan were of medium to coarse sand size. Since standard techniques of geochemical analysis call for sieving the samples to minus 80 mesh before analysis, such medium to coarse grains would be eliminated from the sample.

Most of the scheelite in stream sediments and soils on the Ann Claim is quite coarse, so panning and grain counts were used more often than geochemical analysis.

Experience with the geional survey showed that most stream sediments give pan counts of less than 10 grains of scheelite. A count of 20 or more is unusual; one of 30 or more is most unusual and should be followed up.

3b Results

A pan sample from the east fork of Martin Creek just upstream from its confluence with the main creek gave a count of 40 grains of scheelite. As a result, as many as possible of the tributaries of the east fork were sampled (see Maps 4, 5). Only one trubutary contains anomalous amounts of scheelite, giving another pan count of 40. For convenience this tributory has been labelled Creek A, and the area it drains Area A.

Creek A was sampled in more detail, and as Map 5 shows one fork gave a pan count of 90 grains of scheelite. Above the site of the 90 count, the creek was sampled nine more times at approximately 20 meter intervals (see Map 7). The high counts persist, with minor exceptions, upstream to a point at which a spring bubbles out of the hillside, froming the origin of this fork of Creek A. A sample of sediment from a small pool at this spring gave a count of 100 grains of scheelite.

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Probably the source of the scheelite is upslope (west) of the spring.

Martin Creek proper showed a pan count of 38 grains of scheelite just above the point where the east fork joins it (loc. Pl40, Map 4). All the tributaries draining into it from the east (ie. from the Ann Claim) were sampled using both methods (pan counts and geochemical analysis). The results are shown on Maps 5 and 6. One small tributary (loc. Pl77) gave a pan count of 33 grains of scheelite. Geochemical analysis showed only 1 ppm; nevertheless this tributary was prospected and pan sampled in some detail (Map 8). Due to the small size of the creek and the lack of good material to sample only 4 additional samples were collected and these were of poor quality. No further high counts were obtained and the significance of the original high count of 33 is unknown.

4. Pan Sampling of Soils

4a Method

Pan sampling of soil was tried in Area A as a test to see if it could be an effective tool for detailed prospecting. Fortysix samples were collected at 25m intervals on two north-south test lines, each 550m long.

The method used was to collect enough soil from each site to make a panful and put it in a large plastic bag. The samples were later washed down in a gold pan and treated in the same way as stream sediment samples.

Since one would expect grains of scheelite to be concentrated in the soil by mechanical rather than chemical means, more attention was paid to the depth from which samples were collected than to the soil horizon. In most cases small holes were dug and samples collected from about 20cm below the surface. In four instances pits were dug to a depth of lm and the sample bags filled with material from random points throughout each pit.

Most of the soil is medium brown and very sandy with few pebbles or large fragments. It could be an ancient glaciofluvial sand, now transformed into soil. The only other type of soil sampled was dark greyish earth forming a thin layer over and filling the interstices between boulders on overgrown scree slopes.

4b Results

Map 7 shows the results of the soil sampling. The counts range from a low of 1 to a high of 75. There is not enough background information available to properly estimate what should be considered a high count in soils. However 20 grains of scheelite is considered a high count in stream sediments, and lacking a better guide, 20 grains is considered the "threshold" level in soils for the purposed of this report.

Using that figure, 14 of the soil samples gave a high result. Three of the four samples from 1m deep pits had very high counts of grains of scheelite. There seems to be little correlation between type of soil (of the 2 types mentioned in 4a) and scheelite count.

The spatial distribution of high counts is quite erratic, as might be expected of a mechanically concentrated mineral in soil. However the presence of the high counts is encouraging, and perhaps by extending the soil grid an area could be delineated within which the high counts occur. This would assist

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in discovering the source of the scheelite.

5. Stream Sediment Geochemistry

Little emphasis was placed on stream sediment geochemistry for prospecting but 13 samples were collected from the Ann Claim and run for tungsten (Map 6). Several others not on the claim and a few collected before the claim was staked are also shown on the map. In general the high pan counts that led to the interest in Area A are reflected in the geochemical results. In other cases, particularly on Martin Creek proper, the correspondence is poor, probably due to the size of the scheelite grains in the stream sediments (see section 3a). There are a couple of moderately high tungsten concentrations on tributaries of Martin Creek (at P171 and P181) but these have not been followed up.

6. Prospecting

Prospecting on the Ann Claim consisted of looking for mineralized boulders in all the creeks that were sampled and of looking for mineralized outcrops over most of the claim. Samples were collected of any rocks which looked as if they could contain scheelite and these were examined under ultraviolet light.

No scheelite has been found in any rocks. Even a full day spend looking at boulders in the east fork of Martin Creek downstream from Area A did not result in any success.

7. Conclusions and Recommendations

High scheelite concentrations in stream sediments in both



the major forks of Martin Creek indicate that scheelite occurs widely in the area. Sampling the tributaries of both forks has shown that the source may be on the ridge between the two forks. In Area A there are high concentrations of scheelite in stream sediments throughout the length of Creek A. There are some very high concentrations over about 200 meters near its head. As well, some very high concentraitons of scheelite occur in the soil above the head of Creek A. A source of scheelite must exist near the west end of Area A. No mineralized outcrops have been found but this is not too surprising as few outcrops exist. The absence of mineralized boulders is, however, perplexing.

Two possibilities exist. There may be scheelite mineralization in buried bedrock somewhere upslope (west) of the head of the creek in Area A. Alternatively, the scheelite could be coming from an old placer deposit in sandy soil of glaciofluvial origin.

If the scheelite comes from an old placer deposit it is probably not of much interest. However a deposit in bedrock could have considerable economic potential.

The best method for continuing exploration is to extend the soil sampling survey. Taking the point OE, 0+00N of the existing grid as the origin, the survey should be extended to 500m west, 500m north and 500m south. The sampling could be done using the pan sampling method already used, or samples could be analyzed geochemically. If geochemical analysis is chosen, the samples should be sieved only to minus 10 mesh, not the standard minus 80 mesh.

If the soil sampling is successful in delineating a target area the next step should be trenching with a bulldozer.

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Number, size and orientation of these tenches would have to be decided on or after the target area has been delineated by soil sampling.

It is difficult to propose any trenches based on the present information because little is known about the possible strike of any potential mineralization. However, should it be necessary to begin trenching without more soil sampling it would be best to begin at about 100m west, 1+00m north (with reference to 0E, 0+00N of the existing soil grid) and work south to about 100m west, 1+00m south. At the least this should provide enough lithologic and structural information to decide if more trenching is warranted and if so in which direction.

P. RONNING

September 6, 1981 Kingston, Ontario

APPENDIX 1

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ANALYTICAL PROCEDURES

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- 1. Geochemical samples (soils, silts) are dried at 80°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
 - A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO4 and concentrated HNO3. Digestion time = 2 hours.
 - 3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analysed to atomic absorption procedures.
 - 4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper - l ppm Molybdenum - l ppm Zinc - l ppm * Silver - 0.2 ppm * Lead - l ppm

* Ag & Pb are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

TUNGSTEN:

.0.50 gm sample is fused with potzssium bisulfate and leached with hydrochloric acid. The reduced form of tungsten is complexed with toluene 3,4 dithiol and extracted into an organic phase. The resulting color is visually compared to similarly prepared standards. Detection limit - 2 PPM

Rock chips

- Samples are crushed, split in a Jones riffler and pulverized in a puck and ring pulverizer. Coarse reject is discarded. A pulp of approximately 100 gm is retained.

APPENDIX 2

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COST STATEMENT

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COST STATEMENT

Wages:

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P.	Ronning .	- June	23,	25,	July	l,	2,	4,	11,	
13	, 14, 15,	16/81								
	10 days (@ \$120.	00/0	lay	•					\$1,200.00

Room and Board:

10 days @ \$30 per day 300.

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Transportation:

Truck Rental 10 days @ \$25.00/day	250.00
Mileage - 140 km/day x 10 days @ \$.12/km	168.00
Fuel - 140 km/day x 10 days @ \$.08/km	112.00

Report Preparation:

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Writing and drafting	
P. Ronning - September 3, 4/1981	
2 days @ \$120.00/day	240.00
Typing	100.00

TOTAL \$2,370.00

APPENDIX 3

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STATEMENT OF QUALIFICATIONS

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Statement of Qualifications

- I, Peter A. Ronning, of Sechelt, British Columbia, hereby certify that:
 1. I am a graduate of the University of British Columbia, having received the degree of Bachelor of Applied Science in Geological Engineering in 1973.
 - 2. I have worked as a geologist in mineral exploration since 1973.
 - 3. The work described in this report on the Ann Claim was done by myself.
 - 4. I have no direct personal financial interest in the Ann Claim or in Dimac Resource Corp.

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Peter A. Ronning 10 September, 1981 Kingston, Ontario

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	• 11	• 15	
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	• 5	• 4	
2 +00N	• 5	• 22	
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1+50N	• 7	• 36	
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1+00N	• 8	• 55*	-
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			10526
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4.7

- all samples panned

150 meters

note: this is a freehand sketch. scale is approximate

drawn by: P. Ronning Aug. 1981.



