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# APPENDIX "A"

.

# Statement of qualifications of Leon A. Hansen, B.S.

Geochemist and Consultant

1954:	B.S. Physical Geology, University of Utah
1963;	M.S. Mineralogy, option Geochemistry; (graduation pending completion of writing thesis)
1950 - 1954:	Part-time research in applied geochemistry for International Smelting and Refining Co. and The Anaconda Company, Utah
1954 - 1963:	Exploration geologist and geochemist, The Anaconda Company, Utah
1963:	Exploration geologist and geochemist, The Anaconda Company (Canada) Limited, Britannia, B. C.

# APPENDIX "B"

## STATEMENT OF COSTS OF THE SOIL SAMPLING SURVEY

Soil sampling and line ma	rking:		
Labour Maintenace	59 man days for seven	\$ 933.00 <u>175.00</u>	\$ 1,108.00
Soil analysis;	500 samples		500,00
Soil sampling supplies, b		40,00	
Transportation:			<b>130</b> ,00
Mapping and printing			50,00
Supervision		275,00	
			\$ 2,103,00

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 defore me at the arty of unce that the st the stand of the stand o overhere 1963 A.D.) day of /

A Commissioner for taking Affidavits within British Columbia or a Notary Public in and for the Province of British Columbia

# APPENDIX "B"

#### EVIDENCE OF EXPENDITURES INCURRED

# Salaries and wages:

Name	Category	Rate	Dates worked	Wages	Time
R. Adamson J. Roscoe R. McCann F. Foran C. Mitchell D. Nicholl B. Watson W. Allen	Geologist Sampler Sampler Sampler Sampler Sampler Sampler Cook	\$825.00/mo. 550.00/ 550.00 495.00 440.00 440.00 410.00 440.00	Oct.13- Oct. 22,1963 Oct.13- Oct. 22, 1963 Oct.13- Oct. 22, 1963 Oct.13- Oct. 18, 1963 Oct.13- Oct. 22, 1963 Oct.13- Oct. 21, 1963 Oct.13- Oct. 21, 1963 Oct.13- Oct. 21, 1963 Oct.13- Oct. 22, 1963	\$206.00 113.00 56.00 125.00 110.00 110.00 103.00 110.00 \$933.00	8 days 8 5 8 7 8 7 8 7 8 7 8 7 8 59 days
					· · ·

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 the Cuty of <u>henry</u>, in the) Province of British Columbia, this / Ridery day of Monemba 1363, A.D.

A Commissioner for taking Affidavits within British Columbia or a Notary Public in and for the Province of British Columbia

#### JULIAN MINING COMPANY LIMITED

# GEOCHEMICAL SURVEY

of the

#### ELK - DEER CLAIM GROUP

### Introduction:

The ELK 7 to 12 (inclusive) claims were staked in November, 1960; the DEER 1 to 12 (inclusive) claims were staked in March, 1962. The ELK claims were staked by Carl Erickson, the DEER claims by Robert Gabel and both groups were sold to Julian Mining Company in June, 1963. These claims cover an area mapped as Jurrassic intrusives and are located north and northwest of known molybdenite showings.

Prospecting in 1962 determined that bedrock outcrops on the ELK claims are exposed sparsely and similar investigations on the DEER claims located erratic exposures of bedrock. Molybdenite as float was observed on DEER 6 and DEER 10 and on the south border of the DEER group. Molybdenite in place was located immediately south of the ELK claims by drilling in 1962.

It was, therefore, decided to conduct a systematic soil sampling survey on the DEER-ELK group in October, 1963 with the object of defining areas of cone centration of molybdenum ions as a first step in the investigation of these claims,

#### Description:

The ELK-DEER group is made up of the following adjoining claims: the ELK 7 to 12 incl., and the DEER 1 to 12 incl. They occupy an area on the north and northwest flank of a mountain east of Savory Ridge. The location is approximately 5 miles southwest of Endako, B. C. and the claims adjoin Endako Mines' property on its north and northwest boundary.

Ground cover varies from sparse spruce and pine on ELK 7 and 8 to dense second growth pine on the DEER group. Bedrock cover is generally complete over the claims but it is estimated to be relatively shallow, being in places less than five feet. One large and several smaller swamp covered areas occurs on the south central part of this group.

# Geology:

Where exposed, typical Topley graniodiorites were observed during the course of this investigation. Volcanic rocks of rhyolitic composition were observed in places along an east-west trending ridge underlying ELK 11 and ELK 12 and DEER 6, 8, 10 and 12 claims.

#### Reason for the Survey:

This survey was planned to locate and define areas of anomolous concentrations of molybdenum where further investigations of the subsurface could be concentrated.

#### Details of the Survey:

1) <u>Method of taking samples</u>: An east-west base line was established using chain and compass survey along the south border of the DEER claims, following a general line connecting the DEER 1 to 4 claim posts. Prior to this survey, the tree growth along this line had been cleared using a bulldozer. Grid survey lines were cut and flagged at chained intervals of 200 feet along parallel north-south lines at intervals of 600 feet east and west commencing on the south boundary base line.

#### Page 2

Line cutting, marking, chaining and soil sampling was done in one continuous operation. Each grid line was marked at intervals of one hundred feet using a letter/number coordinate system. A sample of the A-2 zone in the soil was taken at intervals of 400 feet along each grid line and also at 200 feet east and west of the grid line at the midway point on the line. Where possible, the sample was taken from the base of the largest coniferous tree and the zone, distance from surface, specie of tree and diameter was recorded.

As the survey of grid lines was established each grid line was chained across east or west tie lines to insure parallelism of lines and corrections were made to realign the grid at 600 foot intervals and as the survey lines intersected chaim lines the chaim posts were tied in to the grid survey.

Approximately 30 samples were taken from each claim. Samples were installed in mineral free manila envelopes, dried and shipped out for assay.

2) <u>Method of determining molybdenum content</u>: A sample was taken from the A-2 zone if available or from the A-1 or A-0 zones.

A standard weight of dried soil sample was screened to sub 80 mesh to the inch. The sample was then given a hot acid digestion from which a standard acid solution was allowed to cool and settle until clear.

A standard aliquot of sample solution was then combined with thiocyanate, etc. to form a colored complex and the parts per million of molybdenum were determined spectorphotometically by measuring the transmittancy of the colored complex. Parts per million were determined from a graphic comparison of similarly prepared standards.

# Results of the Soil Sampling Survey:

Earlier work in the Endako area has determined that 12 ppm of molybdenum as a first estimate of value is significant.

A map on a scale of 200 feet to the inch is enclosed indicating the location where each sample was taken with reference to the grid lines, and the location of the claim posts.

When assaying of samples is completed, a substitute map for the one enclosed with assay results plotted, will be submitted together with a discussion of the results,

Respectfully submitted,

lacrae. P.Eng.

November 14, 1963

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#### 'Results of the Soil Sampling Survey:

The grid soil-sample survey indicates the following concentration of molybdenum ions:

> A strong anomaly on Elk 7 and Elk 8 which has an indicated length of 2400 feet.

A moderate anomaly on Deer No. 6 which has an indicated length of 700 feet.

A moderate anomaly on the west boundary of Deer No. 8 which has an indicated length of 600 feet.

Molybdenum concentrations in the soil of 20 parts per million are considered anomalous and concentrations down to 10 parts per million in areas where the soil reported 20 parts per million or better may be significant.

The anomalous areas on Deer No. 6 and Deer No. 8 warrant more detailed sampling and the area west and south of Elk No. 7 and Elk No. 9 warrants

sampling.

Respectfully submitted,

oderick Macrae, P. Eng.

December 31st, 1963.





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Department of Mines and Petroleum Resources AUSECSMENT REPORT NO. 525 MAP Report 525 JULIAN MINNG CO L'D ELK-DEER CLAIM GROUP GEOCHEMICAL SURVEY OMINECA MINING DIVISION SCALE: 1"=200'

Alland TO ACCOMPANY GEOCHEMICAL REPORT B R MACRAE, P. ENG. , ON THE ELK - DEER GROUP, ENDAKO AREA, OMINECA M.D., DATED NOV. 13, 1963