

RICHARDSON GEOLOGICAL CONSULTING LTD.

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NTS

82F/14

DAVID MINERALS LTD.

Interim Report - October, 1980

In 1978, David Minerals Ltd. acquired a 150 ton per day mill which is adjacent to Kootenay Lake one kilometre south of Ainsworth, B.C. The intention was to refurbish the facilities and to process silver-lead-zinc ores from properties within shipping distance of the mill. Mineral deposits, which by themselves are not necessarily economic if a new mill had to be built, could be economic if an operating mill was owned.

To this end, the Ainsworth Property was assembled, and numerous properties and old dumps were examined. At present, the principal properties held are as follows:

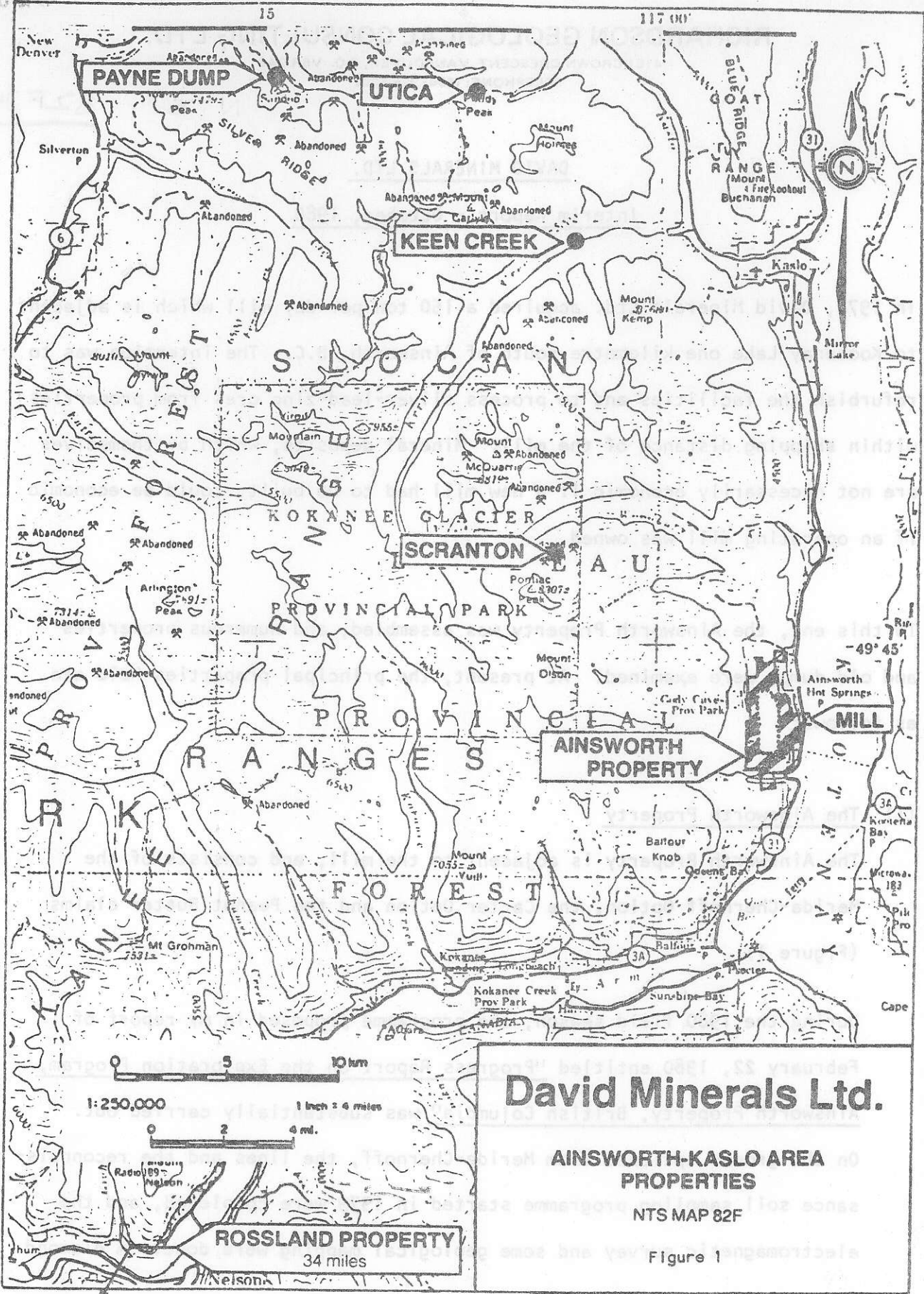
(1) The Ainsworth Property

The Ainsworth Property is adjacent to the mill, and consists of the Merida-Chernoff Option, the Carter Option and the Peanut Butter claims (Figure 1).

During the 1980 field season, the programme proposed in my report of February 22, 1980 entitled "Progress Report on the Exploration Program, Ainsworth Property, British Columbia" was substantially carried out.

On the ground optioned from Merida-Chernoff, the lines and the reconnaissance soil sampling programme started in 1979 were completed, and the electromagnetic survey and some geological mapping were done. A diamond

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David Minerals Ltd.

**AINSWORTH-KASLO AREA
PROPERTIES**

NTS MAP 82F

Figure 1

drilling programme was done to investigate several showings and several anomalies found by the above programmes. The drilling programme did not outline mineralization of immediate interest, and, at present, no ore is known on the ground optioned from Merida-Chernoff. A total exceeding \$428,000 has been expended doing this work. All the available data will be correlated this winter, and for this \$25,000 should be allocated.

(2) The Utica Property

A recent report describes a dump on the Utica Property. The dump was estimated to contain approximately 40,000 tons of material grading 7.2 oz/ton silver. David Minerals Ltd. began to process this material in their mill on a custom basis, and subsequently arranged to purchase the dump together with 17 crown granted mineral claims and the surface rights contained within Sublot 22.

The Utica Property was examined recently by Mr. R. Wolfe, P.Eng., and described in Cochrane and Wolfe's report of September 8, 1980 entitled "Report on the Utica Mine, Slocan Mining Division, British Columbia" (Figure 1). They recommend that a re-evaluation be done of the backfill in the old stopes and of mineralization exposed in the old workings. To open the workings and to do the evaluation will require \$50,000. In addition, they recommend exploration for mineralization along strike and down dip. To assemble data and to design these programmes will require \$10,000.

(3) The Payne Dump

The Payne Mine was discovered in 1891, and was the first discovery in the silver-rich, central area of the Slocan. Initially, only high-grade ore

was economic, and massive, argentiferous galena was cobbled from the vein material and shipped to a smelter. The resultant "waste", consisting of sphalerite and disseminated galena in vein material, was used as backfill in the stopes or was trammed to surface and dumped down the hillside. The present owners of the property brought the dump to the Company's attention, and suggested that the dump contains enough silver, lead and zinc to be economic at the present time.

The Payne Dump will be sampled by cleaning out an existing bulldozer trench which crosses it, cutting a second trench and taking seven bulk samples of seven tons each. The samples will be screened and assayed separately to determine their contents of silver, lead and zinc. The sampling programme will cost \$20,000.

(4) The Rossland Property

The Rossland Property, though further away, was considered initially as a possible source of millfeed for the Ainsworth Mill (Figure 1). The Property was previously held and explored by Cascade Molybdenum Mines Ltd., and a very large amount of data is available. I summarize my conclusions about the Property as follows:

1. The property was fragmented after the period of Cascade's work, but an opportunity to reconsolidate the claims, particularly the Giant and Novelty which contained Cascade's main deposits, has arisen.
2. Cascade's drilling programme, which consisted of vertical diamond drill holes and which outlined Cascade's reserves, was designed to investigate molybdenite which occurs in bulk deposits within a mixed breccia.

3. During the drill programme, several intersections with good gold content were encountered in the Giant and Novelty zones.
4. Two ore reserve calculations were made by major consulting companies. Their results for the combined Giant and Novelty claims were as follows:

<u>Company</u>	<u>Tons</u>	<u>MoS₂ (%)</u>	<u>Au (oz/ton)</u>
Stearns, Roger Canada Ltd. (P.2)	1,070,280	0.282	0.034
Chapman Wood & Griswold (P.4)	778,500	0.340	0.058

Calculations were also made for molybdenum mineralization which occurs on the Golden Queen and St. Elmo claims with results as follows:

<u>Company</u>	<u>Tons</u>	<u>MoS₂ (%)</u>
Chapman Wood & Griswold (P.4)	237,000	0.273

An in-house memorandum written for Scurry-Rainbow Oil Ltd., the company that was doing the exploration on the Cascade Molybdenum Property, expressed concern about the accuracy of the molybdenum assays. Apparently, this concern was resolved to the satisfaction of the engineers at Stearns, Roger and Chapman, Wood & Griswold.

Considering that the properties contain substantial reserves of molybdenum and several excellent diamond drill intersections of gold and that the prices of these commodities have increased very substantially in real terms since the properties were explored 10 years ago, I recommend that the properties be acquired while they are available and that the deposits be re-evaluated in order to determine whether they are economic at this

time. Even if they are not, they are a valuable asset, and should either be held by agreements which will allow their long term retention or be purchased outright.

Several months would be required to collect and evaluate all the data describing these deposits. This could be done best by a two man group consisting of a geologist and a mining engineer. Their salaries and expenses would be approximately \$50,000. In general terms their assignment would be as follows:

1. Collect all the available data.
2. Visit the property to investigate the drilling areas and the old drill core to determine what can be salvaged and check assayed.
3. Review the tonnage calculations.
4. Re-examine the gold data to determine whether a specific drill programme should be designed to investigate gold in veins or zones in contrast to the incidental accumulation of gold data from vertical holes drilled to investigate the bulk molybdenum deposits.
5. A programme of check drilling should be designed to redrill several of the old holes to check their grades and the quality of the past assaying.

The above drill programmes would require an expenditure of \$200,000 in addition to the above-mentioned \$50,000.

References:

1. "Revised Evaluation of a Consolidated Operation, Scurry-Rainbow Oil Limited, Red Mountain Mines Ltd." by N.C. Croome, M.E. Hertel and T. Csizmazia (Stearns, Roger Canada Limited) 1967.
2. "Preliminary Evaluation of a Proposed Consolidated Operation, Scurry-Rainbow Oil Limited and Red Mountain Mines Limited" by Herbert J. Toohy (Chapman, Wood and Griswold Ltd.) 1971.

In summary, the costs will be as follows:

1.	The Ainsworth Property	\$ 25,000
2.	The Rossland Property	250,000
3.	The Utica Property	60,000
4.	The Payne Dump	<u>20,000</u>
		\$355,000

The above studies will lead to programmes requiring very substantial amounts of money.



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CERTIFICATE

I, Paul W. Richardson, of the City of Vancouver in the Province of British Columbia, hereby certify the following:

1. I am a geological engineer residing and with an office at 4161 Crown Crescent, Vancouver, B.C.
2. I am a graduate of the University of British Columbia with B.A.Sc. (1949) and M.A.Sc. (1950) degrees in Geological Engineering. I have a Ph.D. (1955) degree from the Massachusetts Institute of Technology in Geology.
3. I have practised my profession since 1949.
4. I am a member of the Association of Professional Engineers of British Columbia.
5. I have no interest, direct or indirect, in the Ainsworth Property, the Utica Property, the Payne Dump or the Rosslund Molybdenum Property or in David Minerals Ltd., nor do I expect to receive any such interest in the future.
6. I have visited each of the above properties, and this letter, dated November 4, 1980, is based on experience gained on these visits and on the quoted references. Exhaustive research into all the available data, only part of which is presently in hand, has not as yet been done.
7. I consent to the use of this interim report in a Prospectus or a Statement of Material Facts.

Dated at Vancouver, B.C. this 4th day of November, 1980.

P. W. Richardson
P.W. Richardson, Ph.D., P.Eng.



A circular professional seal for the Province of British Columbia. The outer ring contains the text 'PROFESSIONAL ENGINEER'. The inner ring contains 'PROVINCE OF BRITISH COLUMBIA'. In the center, the name 'P.W. RICHARDSON' is printed above the word 'ENGINEER'.



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Geotechnical Consulting / Exploration Services

geology
geophysics
geochemistry

November 13, 1980

Directors,
David Minerals Ltd.,
1016 - 475 Howe Street,
Vancouver, B.C.

RE: The "Utica Mine Report", (Cochrane-Wolfe
Sept.8, 1980) and Mr. P. Richardson's
Interim Report of Nov. 4, 1980.

Section 10 of "Summary and Conclusions",
in the Cochrane - Wolfe report is as follows.

10. "Contingent on the current price of silver, and the possible escalation of the price during the "shipping" period, it is also recommended to re-evaluate in situ reserves at the old Utica Mine, and to explore for possible along strike and down dip potential in addition to possible new structures which may be found with modern exploration techniques."

No cost estimate was included since the recommendation was contingent on metal prices. These prices have remained relatively steady and therefore a cost estimate is advisable. Mr. Paul Richardson, P.Eng., in an interim report dated Nov.4, 1980, estimated that \$50,000 may be required to rehabilitate No. 4 level with an additional \$10,000 to process and assemble data.

In a recent conversation with Mr. H. Hemerick, of David Minerals Ltd., a very experienced mining man familiar with the Utica Mine, advised that there is at least two

major caves of unknown extent that would have to be mucked out prior to an examination. Cost estimates of underground rehabilitation work are extremely difficult due to the "unknown extent" factor. However, I feel there should be a sufficient budget available for the work, and would advise that the budget be raised slightly to \$75,000 for the rehabilitation work, and \$10,000 for data assembly.

Yours truly,

A handwritten signature in black ink, appearing to read 'D. R. Cochrane', written in a cursive style with a long horizontal flourish extending to the right.

D. R. Cochrane, P.Eng.

