## DUNCAN PROJECT AREA PROPOSAL

# and VAL, LEN, TINE CLAIM GROUPS

VANCOUVER ISLAND, B.C.

N.T.S. 92B/13

BY

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FOR

ABER RESOURCES LTD.

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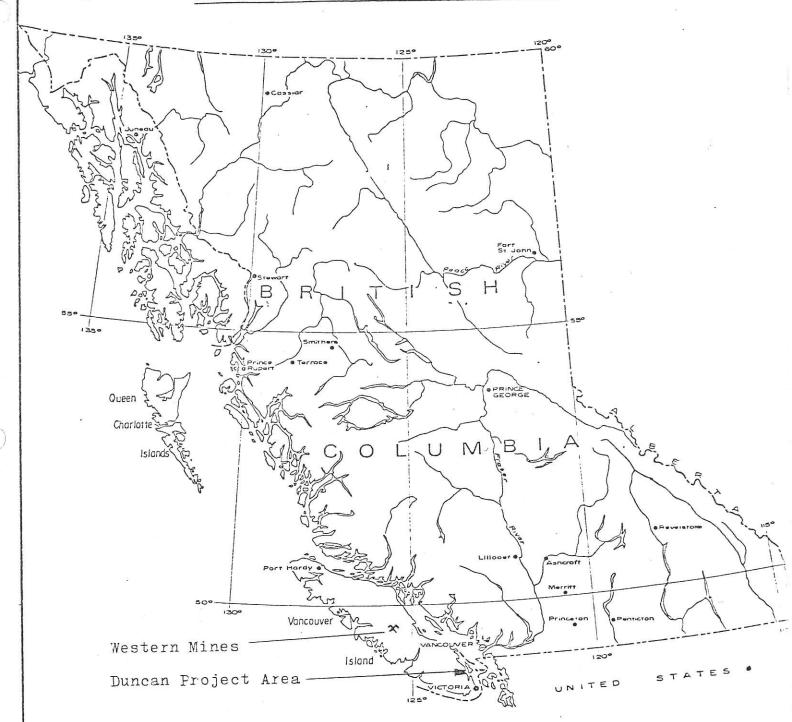
#### INTRODUCTION

The exploration proposal that follows is based on the volcanogenic massive sulphide potential of Devonian volcanic and volcano-sedimentary rocks of Vancouver Island. Western Mines Ltd. is currently the only producing mine of this type of Vancouver Island, containing recently discovered reserves of 40 million tons grading approximately 8% zinc and 2% copper, together with significant precious metal values. The Westmin property is entirely surrounded by a Provincial Park where exploration is prohibited. The only other known occurrence in this geologic environment is at Mount Sicker, near Duncan, where reconnaissance work by the writer indicates that the most favourable stratigraphic horizon is largely absent due to erosion. The project area proposed in this report is the unexplored area to the south of the Mount Sicker Belt where, despite younger cover rocks, structural conditions are considered favourable for the clustering of one or more massive sulphide deposits. The occurrence of Mount Sicker mineralization in graphitic phyllite within acid volcanic rocks indicates that electromagnetic surveys will be useful in the selection of targets.

#### LOCATION AND ACCESS

The project area is located 80 miles southeast of the Western Mines deposit and lies adjacent to a former producing mine known as the "Twin J" or "Mount Sicker" deposit. (Figure 1) Both the Western Mines and Mount Sicker ores are hosted by the Myra Formation as defined by Muller (in press).

Located in the Victoria Mining Division of B.C., the project area consists of a block of ground approximately  $8 \times 16$  miles immediately west and north of the City of Duncan, B.C. (Figure 2) This area is well served by paved highways, railroads, power lines, and old logging roads.



# LAND STATUS AND OWNERSHIP

The only claims within the project area are held by Aber Resources Ltd. and comprise two groups recorded in February 1981. (See attached Claim Schedule - Table 1.) The claims are beneficially owned as to 66 2/3% by Aber Resources Ltd. The remaining 33 1/3% is administered by Aber Resources Ltd.

TABLE 1

CLAIM SCHEDULE

<u>Claim Name</u>	Record No.	Metal Tag No.	Expiry Date	<u>Units</u>
Bar	485	46431	Feb. 23, 1982	19
A1	486	46432	Feb. 23, 1982	20
And	487	46433	Feb. 23, 1982	8
Jac	488	46434	Feb. 23, 1982	20
Roy	489	46435	Feb. 23, 1982	8
Val	482	46427	Feb. 23, 1982	20 (*)
Len	483	46428	Feb. 23, 1982	20 (*)
Tine	484	46429	Feb. 23, 1982	<u>15</u> (*)
			TOTAL UNITS	130 (*)

TOTAL ACRES 7,800

<sup>(\*)</sup> Subject to revision

# GEOLOGICAL SETTING

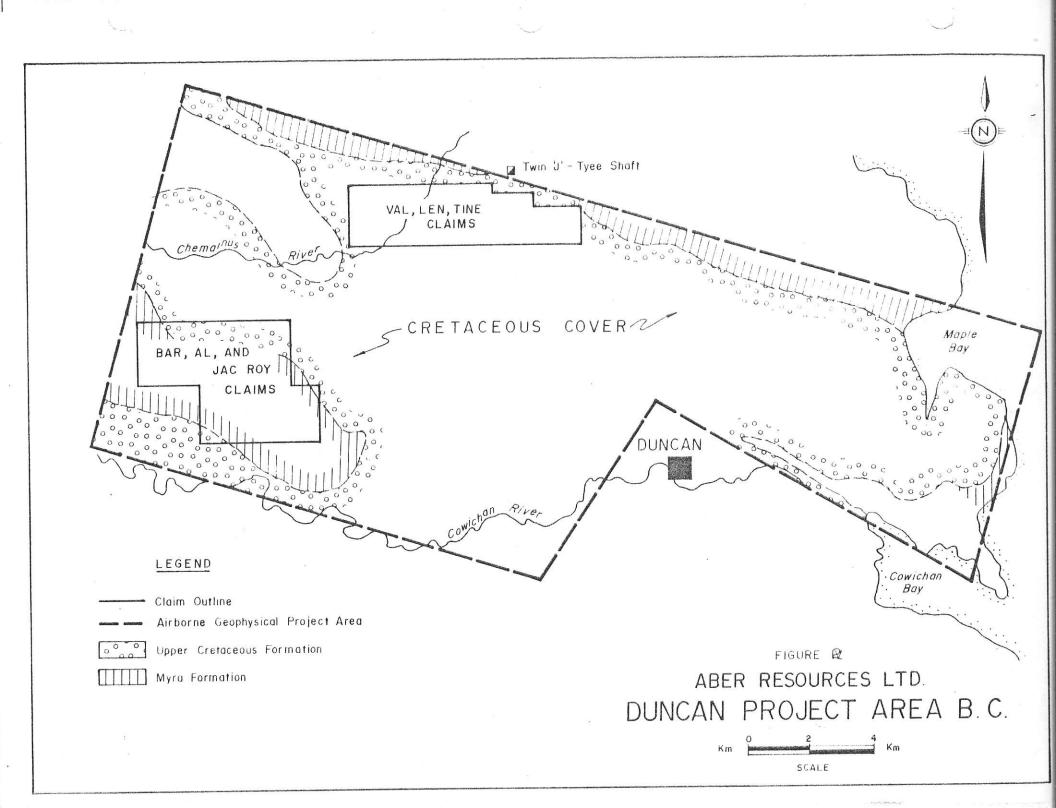
The project area shown on Figure 2 is designed to include previously unexplored extensions of the Myra Formation in the vicinity of the well explored Mount Sicker Belt. To date intensive exploration to the north of the project area has failed to reveal additional ore zones because the favoured ore horizon is largely removed by erosion.

Based on the 'cluster effect' of volcanogenic massive sulphides, the present exploration idea is to explore the partly covered favourable Myra Formation (Devonian?) immediately south of the Mount Sicker Belt, where it is preserved beneath unconformable Upper Cretaceous rocks of the Nanaimo Group. No serious exploration work has been conducted in this area, where the favourable Myra Formation is preserved in fault-bounded basins that subsided as the Cretaceous strata were deposited. The unconformity between the Devonian - Mississippian and Cretaceous rocks is probably a buried subaerial topography: its depth will, therefore, be unpredictable in elevation except near its outcrop edge. However, the presence of gentle dips away from faulted areas suggests that the unconformity dips gently northwards, and may be dragged upwards near the faulted boundaries of the Cretaceous basin.

The Myra Formation reappears from beneath the Cretaceous sediments in the southwestern part of the project area where the BAR, AL, JAC, AND, ROY claim group is located. These claims are underlain by a cherty facies of the Myra Formation similar to those to the north of Mount Sicker. The writer considers that the rhyolitic rocks are present at shallow depth beneath the Cretaceous, along the south limb of a covered syncline.

#### LOCAL GEOLOGY AND TARGET PROPOSAL

The writer's geological mapping of the Mount Sicker area shows that the folds and faults (and cleavage) are arcuate and convex to the north at the mine. (Figure 3) This arcuate feature may result from the deflection of the regional structure by a massive rhyolitic volcanic centre. Independent



#### LOCAL GEOLOGY AND TARGET PROPOSAL (continued)

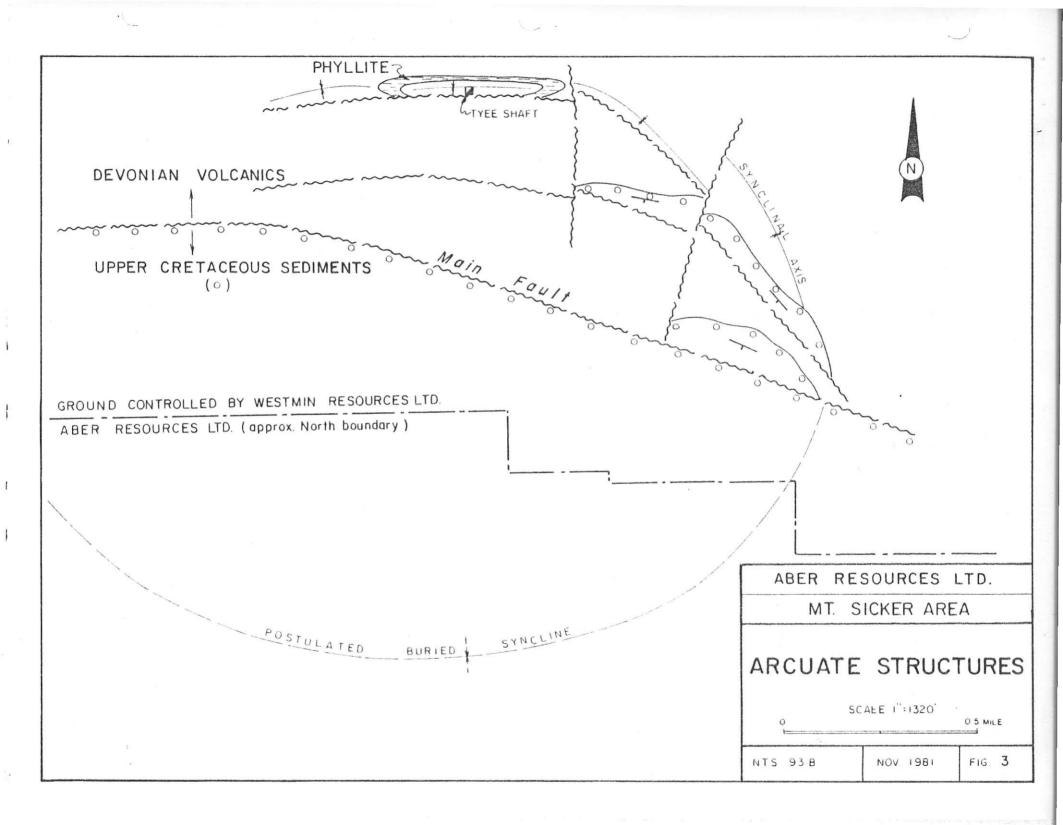
evidence for such a build-up of rhyolite is shown in a reconstructed vertical cross-section. (Figure 4) In this Figure, the dips have been restored to sub-horizontal and erosion has been ignored. [Thicknesses shown are based on width of outcrop combined with inclination of primary structures.]

The continuation of the volcanic centre to the south of the mine is blanketed by Cretaceous sedimentary rocks of unknown thickness. It is hypothesized that the south half of the volcanic centre underlies these sediments. In other words the ore-bearing arcuate rim-syncline may continue at depth to the south of the Fulford Fault identified by Clapp (1928) and Muller (1980). Geophysical and coincident mercury in rock geochemical anomalies, if identified near the postulated rim syncline, would justify drilling. This bet is covered by the VAL, LEN and TINE claim block.

#### PROPOSED PROGRAM

Because of the extensive glacial and hard-rock cover of the favourable Myra Formation and the graphitic nature of the host rocks, an airborne geophysical survey is proposed, followed by gridding, ground geophysics, and detailed geological mapping. The project area contains some moderately rugged portions, but the flight line azimuths across the area (200° and 020°) are such that the steepest slopes are oblique to the flight paths. The airborne survey would enjoy better weather in the months of May or June.

The helicopter mounted Aerodat or Dighem system are the most suitable for this area. A contract for 500 line miles (835 line km.) would cover the proposed area with 1/4 mile or 400 metre line spacings. Results should be monitored during the survey so that any fill-in lines can be flown. A previous Dighem survey of the Mount SickerBelt utilized 1/8 line spacings, but this is considered unnecessary because both the graphitic host and



# PROPOSED PROGRAM (continued)

massive sulphides of the Mount Sicker deposit have a strike-length of 800 metres. Also, the plunge of the structures is less than 20°, so that the target is a sub-horizontal tabular or cigar-shaped body.

# TABLE 2

## BUDGET ESTIMATE

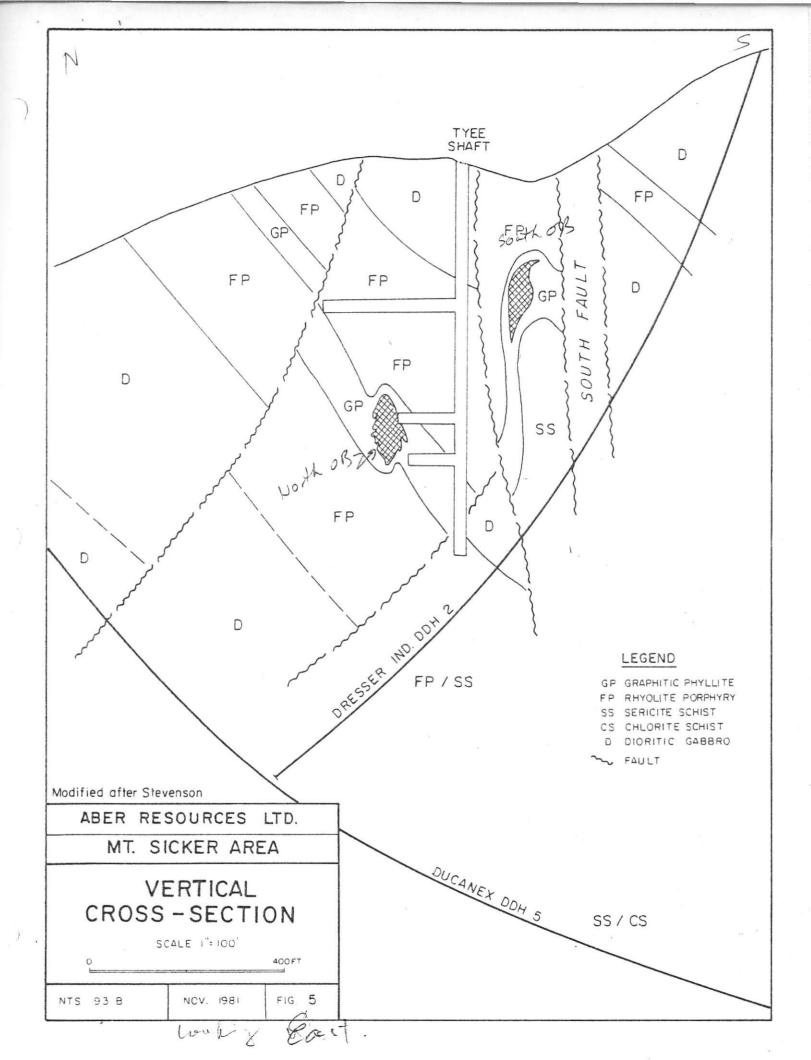
# PHASE 1

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Airborne Survey 500 line miles @ \$90.00	\$ 45,000
VAL, LEN, TINE Trial Hg Survey	5,000
TOTAL PHASE 1	\$ 50,000
PHASE 2	
Line Cutting	\$ .10,000
Ground Follow-Up Geophysics	50,000
Detailed Geology	25,000
TOTAL PHASE 2	\$ 85,000
PHASE 3	
Diamond Drilling	\$200,000

R.V. Beavon, B.Sc., Ph.D., F.G.A.C. Consulting Geologist

Vancouver, B.C. November 1981



#### CERTIFICATE .

1, Roy V. Beavon, of the City of Richmond in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and a principal in Beavon Consulting Limited, with offices located at 8720 Millmore Road, Richmond, British Columbia.

## I further certify that:

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- 1. I am a graduate of the University of Wales (U.K.) with the degrees of B.Sc. (1957) and Ph.D. (1960).
- 2. I have been practising my profession continuously for the past twenty years.
- 3. I am a Fellow of the Geological Association of Canada, a Fellow of the Geological Society of America, and of the Geological Society of London.
- 4. The information for this report was obtained from personal examinations of the district ranging back to 1971, and from private reports and government publications.
- 5. I have an indirect interest in the property through ownership of securities of Aber Resources Ltd.

DATED at Vancouver, British Columbia this 13th day of November, 1981.

R.V. Beavon, B.Sc., Ph.D. Consulting Geologist

## REFERENCES

- BEAVON, R.V., (Private Reports and Maps)
- CLAPP, C.H. and COOK, H.C., (1977), Sooke and Duncan Map Areas, G.S.C. Memoir 96.
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- WATSON, I.M., (1972), Geological Rport on the Mt. Sicker Mines Ltd. Property Duncan Area, B.C. for Duncanex Resources Ltd.
- Assessment File Report 3950 (B.C. Department of Mines)

