

CORPORATION FALCONBRIDGE COPPER

DATE: August 8, 1983
TO: D. H. Watkins
COPIES TO: M. J. Knuckey
DE FROM: Alex J. Davidson
SUJET SUBJECT: ADAMS BARRIERE AREA-PROPOSED RECONNAISSANCE PROGRAM

824426

Summary

Three distinct deposits were visited in the Adams Barriere area in June. The deposits (Chu Chua, Mosquito King, Homestake) are quite different from each other in setting, type of mineralization, deposit potential, and in regional potential for other deposits of the same type.

The Chu Chua (2 mt of 2% Cu, 0.4% Zn, No PM) occurs in mafic volcanics at a high elevation. The deposit though open at depth (greater than 600 m) is clearly uneconomic. Regional potential for this type of deposit is excellent except for a lack of outcrop in the area which could hinder CFC style exploration.

The Mosquito King consists of thin (less than 2m) beds of sphalerite in limy argillaceous sediments. Potential on property is excellent. However regionally topography is rugged and heavily forested, the ground is heavily staked and the deposit type is not suited to CFC tactics. Option terms for the Mosquito King are presently unrealistic but could change with time.

The Homestake consists of pods of exhalative barite and sulphides with particularly good grades in silver. The pods are hosted by highly altered felsics, are stacked stratigraphically and are capped by graphite and massive andesite. Property terms are impossible but regional potential is excellent.

A four person crew will carry out recce geological and lithogeochemical traverses in the Adams Barriere area in September and October. They will spend approximately five weeks in the Homestake area and three in the Chu Chua rocks. No recce work is planned around the Mosquito King. A proposed budget is attached.

Chu Chua

This massive sulphide deposit (2 mt 2% Cu, 0.4% Zn, no PM) occurs in mafic volcanics near the base of a thick sequence of pillowed flows in the Fennell Formation. It was discovered by Dighem II conductor follow-up and drilled on the basis of ground geophysics. It occurs at 6000 ft elevation in an area essentially devoid of outcrop. Although there is potential to increase tonnage at depth (below 600 m) underlying agreements between Craigmont and the vendors are impossible (25% NPI to vendors). No work is recommended on the deposit itself.

The Chu Chua lies at the base of the Upper Fennel, a thick sequence of pillowed flows. The Lower Fennel which also contains some pillowed flows is characterized by an abundance of thin cherty units, gabbro sills and dykes, quartz feldspar porphyry dykes/flows and thin argillites and conglomeratic sediments. The Lower Fennel overlies the Eagle Bay formation which is largely made up of felsic to intermediate volcanics and sediments. I interpret the Lower Fennel as a transition zone between dominantly felsic volcanics and sediments below and great thicknesses of pillowed mafic volcanics above. This type of transition zone is an excellent environment for MS deposition and this particular package of rocks (30 km strike by up to 6 km wide) is a first class exploration target. The major problem with the area is heavy forest cover and lack of outcrop though outcrop may be good in some areas. I recommend the crew spend up to one-third of the recce program in the Lower Fennel.

Mosquito King

This property, located at an elevation of 5000 ft on the Adams Plateau (E of Adams Lake) is held by Orell Resources and includes the Bowler Creek, PET and Spar properties. These prospects occur in silty, sandy, and limy sediments of the Eagle Bay Formation. Mineralization at the Mosquito King is sediment hosted and occurs as massive-disseminated beds of sphalerite up to 2 metres thick exposed

over an area of at least 4 sq km. The mineralized beds are almost flat lying, can be multiple in nature, and from previous workers appear to be intensely folded (especially at Spar). A 160 ton bulk sample taken by Orell averaged 0.2% Cu, 8.5% Zn, 10.1% Pb, 7.09 oz/ton Ag and 0.07 oz/ton Au.

Results of CFC sampling of the various zones are:

	%Cu	%Zn	%PB	Ag oz/ton	Au oz/ton
Far West Showing	0.59	4.30	7.10	5.58	.023
Ball Park Area	0.04	4.10	0.13	0.30	.015
Lower Showing	0.001	20.20	5.25	4.14	0.029
Main Banded Seds	0.017	7.20	2.68	1.68	0.058
Gold Trench	0.022	1.36	0.09	0.34	0.128

The results though extremely variable are interesting especially when the possibilities of open pit methods and high PM zones are considered. A good number of companies have worked on the property including Craigmont, Brinex and Giant Metallic. Most of the work has consisted of geophysics but some drilling has been done.

Orell's terms for an option agreement are unrealistic (\$200,000 cash and \$450,000 work/5 years for 75% interest) but he has indicated an extreme willingness to bargain.

The property itself is interesting and has potential for large tonnage. However significant expenditures would be required in 1983 and 1984 to properly evaluate it even if more realistic option terms could be negotiated. Unfortunately the area surrounding the Mosquito King is staked, densely forested, and outcrop is poor. Thus no recce field work is recommended for the Mosquito King area in 1983 but an evaluation of a data package sent by Orell will continue.

Kamad Silver - Homestake

The best showing in the Adams Barriere area, Kamad Silver's Homestake Mine, occurs in highly altered (sericitic) and schistose felsic volcanics. Mineralization consists of massive pods (at least 3) of exhalative barite and sulphides in a classic volcanogenic

massive sulphide environment. The barite pods are capped by a graphitic horizon and overlain by massive unaltered andesite. Excellent potential exists to both significantly increase tonnage and to find additional pods. A CFC sample taken from the barite bluffs (the uppermost horizon) which is not considered ore ran 0.18% Cu, 1.49% Zn, 1.77% Pb, 5.04 oz/ton Ag and 0.015 oz/ton Au. Unfortunately the owners of the property are extremely difficult if not impossible to deal with and it is unlikely that we could option this property.

Regionally the "Homestake schists" which host the barite pods outcrop over an 8 km strike length and other felsic to intermediate volcanics of the Eagle Bay Formation outcrop over a strike length of 30 km in the area immediately south of the Homestake. Armour Mountain near Barriere itself appears to be a QFP domal feature and blocks examined on the lower slopes of the mountain were bimodal agglomerate (rhyolite blocks in a mafic matrix). There is also reportedly a copper showing on this mountain. CFC is in the process of staking 18 units to cover Mt. Armour. I recommend the crew spend two-thirds of the proposed recce program in the Squam Bay to Mt. Armour region.

Adams Barriere Reconnaissance

A two-month four-person reconnaissance program has been budgeted for the Adams Barriere area. The aim of this program is to cover in a reconnaissance manner the areas of favourable geology and good exploration potential outlined above.

Based in Barriere the crew will concentrate on the Mt. Armour to Squam Bay area including the area immediately around the Homestake Mine. Reconnaissance lithogeochemical and geological traverses will be spaced every kilometre over the 30 km strike length.

The Homestake schist unit and the Mt. Armour property will be covered in greater detail. Property acquisition either to tie onto our Mt. Armour claims or in other areas will follow.

A significant part (up to 1/3) of the program will be spent exploring the Lower Fennel between the Barriere Fault and the Chu Chua deposit. This area already hosts one massive sulphide (albeit uneconomic) and excellent potential exists for discovering others. Also much of the staked ground adjoining the Chu Chua has recently lapsed and more will lapse as assessment requirements increase. Government mapping done in the area and access to Craigmont's Dighem II survey will help localize traverses in area of good outcrop and geophysical responses. Lithogeochemical and geological traverses will attempt to find evidence of hydrothermal alteration in such areas. A good base of lithogeochemical data in such a favourable area will greatly aid future exploration.

No recce work is planned for the area surrounding Mosquito King as most of the ground is staked, we are not as familiar with this type of deposit and outcrop is sparse.

This program was originally scheduled to be carried out in October. However ongoing logging activities at our North Forks property prevents any field work planned there in September. Four of the North Forks crew will thus start the Adams Barriere recce in early September. Approximately 5 weeks will be spent in the Kamad belt and 3 in the Lower Fennel. The crew will most likely be led by Jenna Hardy.

A handwritten signature in black ink, appearing to read 'Alex J. Davidson', with a stylized, overlapping flourish at the end.

Alex J. Davidson





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BRITISH COLUMBIA

EXPLORATION FORECAST 1983

NAME -	ADAMS - BARRIERE	PROJECT NO	NEW
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GEOLOGY	Salaries	15000	
	Travel Expenses	1000	
	Contract Payments	0	
	Field Expenses	4000	
	Analyses	1000	21000
GEOPHYSICS	Salaries	0	
	Travel Expenses	0	
	Contract Payments	0	
	Field Expenses	0	
	Analyses	0	0
GEOCHEMISTRY	Salaries	7000	
	Travel Expenses	1000	
	Contract Payments	0	
	Field Expenses	4000	
	Analyses (900 @ \$15.)	13500	25500
DRILLING	Salaries	0	
	Travel Expenses	0	
	Contract Payments	0	
	Field Expenses	0	
	Analyses	0	0
	Linecutting		
	Property Acquisition		3000
	Hotels and Meals		6500
	Computer Usage		
	Option Payments		
	Property Maintenance		
	Share of Regional Office		14000
	Other		
	Participants Share		
	TOTAL		70000

NOTES: October - Crew recce mapping, sampling, property acquisition

-  Upper Fennel
-  Lower Fennel
-  Homestake Schist
-  Felsic - intermediate volcanics & sediments

- C - CHU CHUA
- H - HOMESTAKE
- M - MOSQUITO KING
- S - SPAR
- A - MT ARMOUR

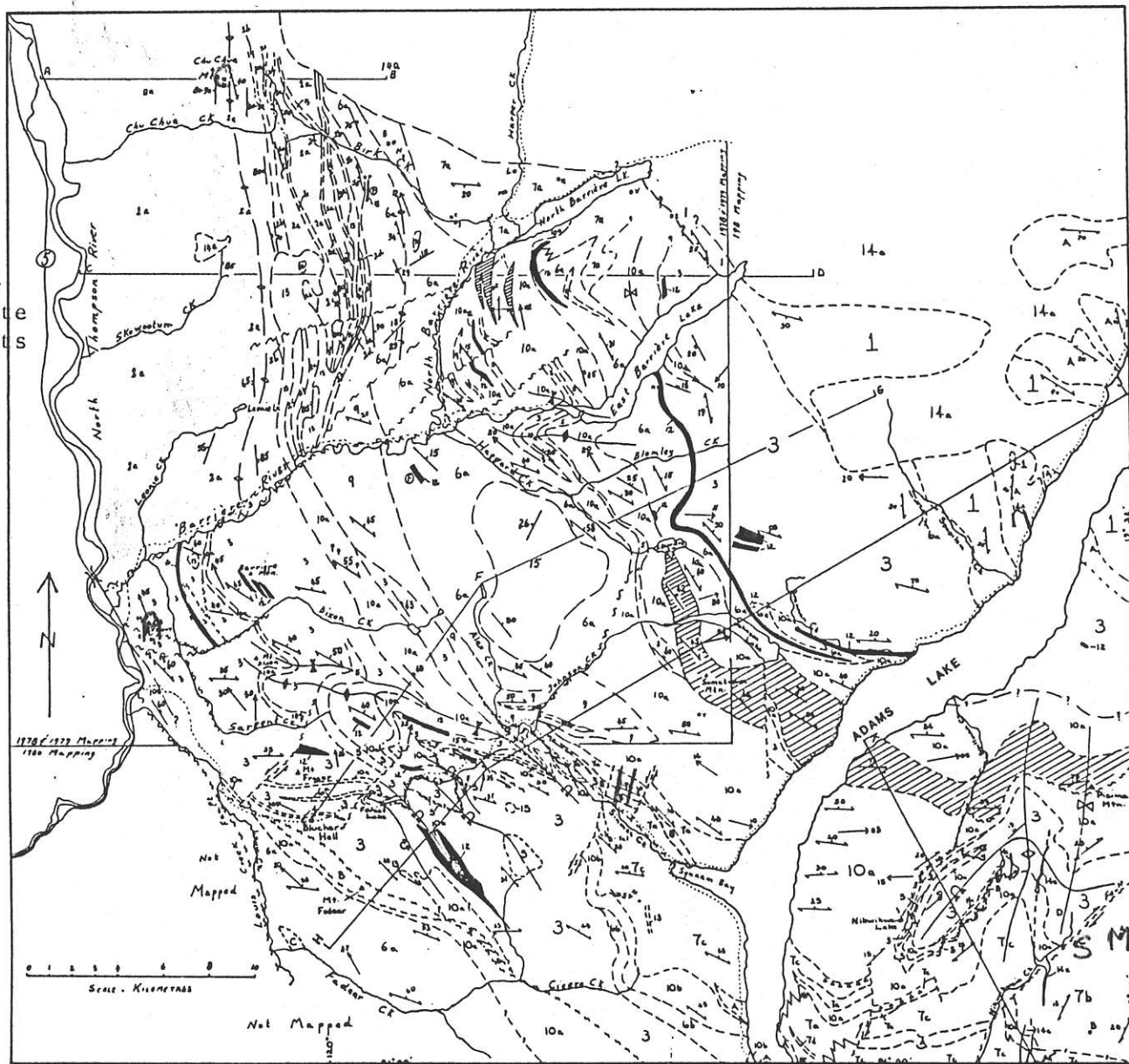


Figure 3. Generalized geological map of the Barriere Lakes-Adams Plateau area.