To: Vic Preto, Manager, District Geology and Coal Resources

Re: MONTHLY REPORT, August and September 1990

Introduction

The IAGOD mineral deposits tour through the Kootenay District went well and benefited from the input of Jim Fyles for the portion west of Creston. I was surprised to learn that the Sullivan deposit is on university geology exams in The benefit of such trips is that discussion with China! foreign geologists expands your viewpoint of where mineral deposits can be found.

A number of summer drill programs have been completed in the East Kootenays. These include Star(9 ddh), Cash (17 ddh of 150 metres), Eng (5ddh). None of the Sullivan plays has had significant success. My guess at current properties to watch include Katie near Salmo (drilling by Noranda pending on this copper-gold porphyry), Wilds Creek (drilling by Kokanee on stratabound zinc) and the Sumit by Yellowjack Res. (gold in limestone-potential stockwork). This month's report focuses on the East Kootenays.

Exploration

->WILD Kokanee Explorations Ltd. has begun drilling on the Wild Claim near Wyndell (82F/2). This is a property whose assessment work has been poorly documented but has reputed to contain geologic reserves of 500000 tonnes at 5-6 per cent zinc. Sphalerite occurs in two apparently stratabound units within the Dutch Creek Formation. The Dutch Creek Fm. consists of interbedded green quartz phyllite, black phyllite (with magnetite) and argillaceous limestone together with a very thin volcanic unit. The sphalerite occurs with coarse banded pyrite. It is often white to yellowish in color and the zinc content not apparent. The first drillhole intersected 2.5 metres of 10 per cent zinc. The property is interesting as the geologic environment suggests potential for sedex deposits. The favorable zones are open to the southwest but this is an area of overburden and increasing proximity to residential areas.

Both the Dutch Creek and Mt. Nelson Formations in the Kootenay Lake area are fertile ground for grassroots exploration. A search in minfile for barite occurrences could be one approach in assessing potential for sedex deposits.

Kokanee Explorations Ltd. is proposing to exploit the $\longrightarrow U/NE$ Vine deposit near Cranbrook (82G/5) with a small open pit (100000 tonne sample) given favorable results in close spaced percussion drilling. The economics are not there for an undergound operation. A model of the deposit shows it has been tested for 375 metres along strike and for a depth

(Bar)

(new)

of 800 metres. It consists of two principal veins along a fault structure which also contains a gabbro dike. The hangingwall vein is most persistent, up to 5 metres thick but averaging two metres. The mineralogy is galena, sphalerite, arsenopyrite, pyrrhotite, pyrite with most of the gold content at depth. Over one million dollars has been spent in 1990.

On Sept.5 I examined core from the Star property (82F/1). The stock of Barkhor Res. Inc. had shot up to three dollars but has fallen to twenty cents. Additional drillholes have not repeated the initial results from the "bedded sulphide" zone. In core the sulphides (galena, sphalerite, pyrrhotite, chacopyrite) are enclosed in coarse y quartz bands which appear to be bedding sills of vein material. The quartz seems too coarse and crystalline to be The sulphides do show some convoluted features syngenetic. that some might interpret as contorted sulphide beds. In other core the quartz veining is more apparently erratic. The sulphides associated with the quartz sills may be related to Moyie gabbro sills. About 500000 dollars has been spent to date. Nine drillholes of about 300 metres each have been completed. Further work is on hold pending interest by a major. The property does have large areas of alteration (tourmalinisation, albitisation) and should not be dismissed because the geometry of known mineralisation is irregular and does not fit the Sullivan type.

Exploration interest in the Cranbrook Creston area is migrating off the Sullivan time horizon and into the 1000 metres of stratigraphy above based on thin sulphide beds. Exploration work is facilitated by correlation of marker horizons which are given specific names. The geological talk is of Munroe time, Sundance time etc. on properties such as Star, Eng, Dodge.

Teck reports drilling at the Roo property, a red bed copper prospect in the Purcell Supergroup near Roosville (82G/2) was inconclusive.

Talks have taken place between personnel of the Kenville mine and Winchester Properties who hold an adjacent property (Royal Canadian) with similar mineralisation (gold and scheelite in quartz vein). The Kenville is a good property that may yet see production.

Domtar is test drilling a new area for gypsum. The south quarry at Lussier Creek immediately south of their present quarry is expected to go into production sometime next year.

Other drilling reported: Oldtimer claims(5ddh), Rely (5ddh for 2331 feet).

Star (Barkhor)