



# BARRINGER LABORATORIES INC.

15000 W. 8TH AV.  
Golden, Colorado 80401  
Phone: (303) 277-1887  
FAX: (303) 277-1889

## TELECOPY TRANSMITTAL

TO: DR Rodney Cox

FROM: Johnnie Walker

DATE: 3/28/90

WE ARE SENDING 4 PAGES.

Rodney,  
Here is a copy of the final letter  
I sent Frank Soblick.

I was so pleased you got the  
grand at usage take.

I may also see John Lawrence (Pell's Dodge)  
at Reno next week so it should be a good  
visit there.

Regards  
Johnnie

March 23, 1990

Frank Joklik, President  
Kennecott Exploration  
10 East South Temple  
Salt Lake City, UT 84111

Dear Frank,

We have reevaluated the results from the Freuchen Bay, Melville joint venture project and still come to the same conclusion that the area has a very high potential for base metal discoveries and that we have delineated sulfide drill targets as well as other areas of high base metal potential.

The facts are:

1. Very high geochemical lake sediment values for zinc, nickel and copper.
2. Geological setting of an intracratonic rift with infolded lower Proterozoic meta sediments and volcanics. The metamorphic grade is amphibolite facies with grade high enough to give remobilization of components, e.g., sweated out pegmatites and quartz bodies, and concentrations of sulfides into folds, etc.
3. These sediments/volcanics are intruded by mafic (amphibolites) rocks. The metamorphosed sediments and volcanics comprise a suite of quartzitic schists, biotite-quartz schists, hornblendites, and marbles infolded in Archean gneisses.
4. The Archean gneiss on the northerly contact with the lower Proterozoic is a major structural zone and the gneiss in this area of the permits shows very high magnetic responses from Government Airborne Magnetic surveys. The magnetic response coincides with an outcrop of an ultramafic rock exposed at one locality, within the gneiss. The gneiss at this locality also has a zone of magnetite rich rocks which appear very local in distribution.

## Interpretation

5. This setting is very similar to that at Thompson, Manitoba. Iron formation, however, is not observed in this part of the area, but is part of the sequence to the north. It is possible that the high magnetic responses may also reflect infolded iron formation at depth.
6. The gossanous frost heaved soils and sparse gossan outcrop in this area show relatively low geochemical values compared to the lake sediments. Nevertheless they are still anomalous compared to the host rock environment. Furthermore the pH of the run off waters is 4.5, an acidity which is extremely low in what is an overall carbonate terrain. This acidity, therefore has to be caused by oxidizing sulfides and is acid enough to mobilize all the base metals from these overburden soils and surface gossan material.
7. Electromagnetic anomalies coincide with anomalous soil geochemistry on four of the detailed suggesting excellent locations for drilling sulfide concentrations in the near surface environment (<60 meters).

## Additional Facts

8. Outside the Permit areas and now covered by a claim block and a new permit are two surface gossans in a slightly different weathering/overburden setting. The geology may also be different. These gossans do contain sulfides and chalcopyrite, sphalerite as well as pyrrhotite occur near the surface. Drill holes drilled into these gossans in 1971 by Aquitaine used small Winkie drills which had only very shallow penetration. Nevertheless a zone of some 50 ft. of continuous sulfides was intersected in one of the drill holes. Values of 8% Zn, .3% Ni and .3% Cu over a four ft. section was intersected just beneath the surface in another of the drill holes.

### Conclusions

One can never be sure that the best economic targets have been located. However, the data has delineated sulfide targets in a sulfide-rich environment where lake sediment samples are analyzing +2000 ppm Zn +400 ppm Ni and +300 ppm Cu. The Winkie drill holes of Aquitaine confirm excellent initial Zn, Ni, Cu values near surface at one location which require follow-up with more extensive and deeper drilling.

The geological setting still bears strong resemblance to the Thompson Ni-Cu belt of Manitoba. Similarities exist also to other lower Proterozoic environments such as Broken Hill, Australia and Black Mountain, South Africa, at least in the grade of metamorphism, the anatexis this produced and the resultant remobilization and concentration of base metals into folds.

### Recommendations

Drill present targets delineated by the work in 1989 and at the same time carry out reconnaissance geology and detailed geochemistry within the newly acquired Permit Areas. Further detailed deep penetrating airborne electromagnetic and magnetic surveying should be considered relatively early in the project as we believe the area has a high potential for a buried large base metal deposit.

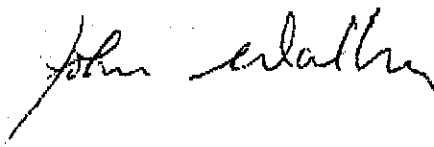
We would like to arrange a meeting with you in Salt lake City on March 29. Please let us know if this date is suitable.

Regards,

Sincerely,

A. R. Barringer

John L. Walker



JLW:vc

cc R. Babcock

T. Patton