



Curragh
Resources Inc.

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February 1, 1991

Cominco Engineering Services Ltd.
P.O. Box 491
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Attention: Mr. W.J. Kuit

Dear Sir:

We would request your assistance in the preparation of a proposal to design a small scale lime treatment plant for the Dy Underground Exploration and Mining Program.

The Dy Project is located approximately 6 kilometres east of the Vangorda Development near Faro, Yukon. Underground exploration will proceed in the form of a -20% decline to the ore body. The portal site is located approximately 800m west of Blind Creek which is a prime Chinook Salmon spawning stream.

Initial development in the decline will be in rock which is non-acid generating and may be disposed of at the mouth of the portal. A small settling pond will be constructed below the dump to collect and clarify surface runoff; removal of suspended solids will be the primary function.

As the decline is extended beyond about 1000m horizontally, potentially acid generating rock will be encountered. Groundwater discharged from the decline will likely be rich in zinc and possibly copper and lead. It is our expectation that a secondary water treatment facility will have to be constructed and operational at this point in time.

We envision the facility to have three components:

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- i) a relatively small collection pond to receive the pumped water from the underground. This pond will accumulate sufficient volume of water to allow intermittent operation of the lime treatment plant.
- ii) a lime treatment plant enclosed in a small, heated, insulated building. It will consist of a pump to move water from the collection pond through the plant, a lime slurry mixing apparatus, metering pump and possible flocculant addition system to promote settling.
- iii) a large settling pond to clarify the treated outflow prior to release to the natural watercourse.

Groundwater investigations to date have been limited but maximum flows are expected to be about 500 IGPM. Outflows will be required to be below total values of 0-5 mg/l zinc, 0.2 mg/l lead and 0.3 mg/l copper while inflows could vary dramatically dependent on proximity of operations to the orebody.

The secondary treatment facility will have to be in place and operational by October 31, 1991. It is anticipated that mining operations will extend through mid 1994.

The design should:

1. Provide alternative designs and options to achieve the stated water quality objectives.
2. Offer specific equipment selection and costs (including the building and heating system); acquisition information should be provided.
3. Estimate consumption rates of consumables and average operating costs.
4. Comment on required collection pond sizing.
5. Comment on required settling pond sizing with and without flocculation; surface area and storage volume should be specified. It would be preferred if the requirement of dredging could be avoided through provision of adequate storage volume but this may not be practical.
6. Minimize construction, operation and maintenance costs.

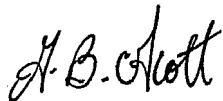
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7. Consider various levels of automation based on:
 - i) cost comparisons for operational manpower savings;
 - ii) environmental advantages of a fail safe system.

Thank you, in advance, for a proposal to design a system such as this. It would be appreciated if your response could be provided by February 22, 1991.

Yours truly,

CURRAGH RESOURCES INC.



G. B. Acott, P. Biol.
Manager, Environmental Affairs

GBA*blb
cc: Leo Hwozdyk, Project Supervisor - Mine