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## KERR ADDISON MINES LIMITED

JAN - 4 1978

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I.D.B.
A.H.C.
P.S.C.
W.J.
<del>P.S.C.</del>
S.P.
M.D.R.
J.B.S.
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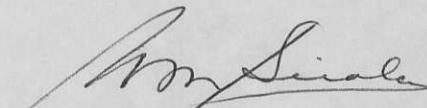
To D.A. Lowrie From W.M. Sirola

Subject HECATE GOLD CORPORATION, BANKS ISLAND, B.C. Date December 29, 1977

To augment my memorandum of December 22 on this situation, I now understand that Hecate has spent more than the \$400,000 required to earn 60% and that Falconbridge must make a decision by February 15 as to whether or not it wishes to retain its 40% position.

If it could be arranged, it might be a good idea for one of us to visit the operation in the near future to better assess the merits and demerits of this operation. At least some of the workings are in graphitic sediments and ground conditions therefore could be similar to those which exist at the Grum deposit. Such a visit would probably provide access to technical detail (maps etc.) which we otherwise might not see.

At this stage, it is an interesting prospect and little else, but that in itself would, in my view, justify an examination.

  
W.M. Sirola

WMS:mcb

DEC 30 1977

Attach to  
memo  
Dec. 77

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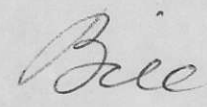
**To** D.A. Lowrie **From** W.M. Sirola

**Subject** HECATE GOLD MINING COMPANY - DEAL WITH **Date** December 22, 1977

FALCONBRIDGE

As a kind of corporate addendum to my previous memorandum on this property, I now add the following information:

Hecate obtained an option from Falconbridge on the Banks Island Gold Property which involves the expenditure of \$400,000 to earn 60%. At that point, Falconbridge may elect to put up its 40% of any future expenditures and maintain a 60 : 40 ratio, or if Falconbridge is unwilling to advance further funds, they would lose one percentage point for every \$10,000 expended by Hecate, provided however that under no circumstances would Falconbridge's position be reduced to less than 10% of the net profits.



W.M. Sirola

WMS:meb

## KERR ADDISON MINES LIMITED

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DEC 19 1977

To D.A. Lowrie From W.M. Sirola

Subject Hecate Gold Corporation, Banks Island, B.C. Date December 14, 1977

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FILE

The Banks Island gold deposits are in skarn zones in limy and argillaceous septa in the Coast Range intrusions.

Post-skarn tension fractures are mineralized with quartz, pyrite, pyrrhotite, arsenopyrite and gold. Despite the mineral associations, the gold is free.

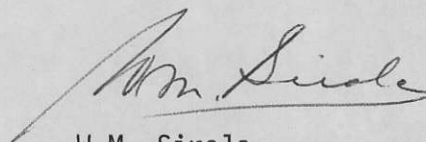
The ore shoots pinch and swell and some of the bulges are 100 to 200 ft. long. According to Jim McDougall, they also plunge but surface drilling has not established the angle of plunge.

Falconbridge optioned the property to Hecate because they thought that the tonnage was limited and the development costs would be high.

The attached report by Seraphim and Magee suggested that a decline be driven in the footwall and cross cuts be driven into the mineralization. To some extent, this plan is now being followed.

190 drill holes have been completed from surface for a total of 28,000 ft. This drilling investigated 8 separate zones and the 230 core samples averaged 0.72 ozs of gold and 1 oz of silver across 2.6 ft.

The deposit is intriguing, but it remains to be seen whether or not it will be profitable.



W.M. Sirola

Encls.

WMS:meb

FEB 15 1978

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To D.A. Lowrie From W.M. Sirola

Subject BANKS ISLAND GOLD DEPOSITS, BANKS ISLAND, B.C. Date February 13, 1978

In the light of your recent discussions with Stan Charteris regarding these deposits, it seems more appropriate for me to list the pros and cons, rather than to enter into a long-winded discourse on the geology and general exploration data obtained thus far. Suffice it to say that the Banks Island gold deposits occur in north westerly trending sedimentary septa encased by Coast Range granites. The gold values occur in pyrite and arsenopyrite and the accompanying minerals are lead, zinc, pyrrhotite and, in one case, rhodonite. East-west trending tension zones where they intersect prominently northwest trending linears appear to be the best loci for gold deposits. Sulphide mineralization is sometimes massive, sometimes heavily impregnated with quartz.

Falconbridge has worked sporadically on the deposits since 1960 and in that time, have completed 22,000 ft. of diamond drilling in 147 holes. McIntyre drilled some 6,000 ft. on their Tel claims.

The pros and cons as I see them are as follows:-

Favourable Aspects

1. Values found in 23 separate localities averaged 0.62 ozs of au from 200 surface samples. Eight prospects (430 samples) averaged 0.72 ozs au and 1 oz ag.
2. The deposits other than the Kim zone have not been completely drilled. Most are open at depth and some are open along strike.
3. Numerous unexplored east-west tension zones between northwest trending linears remain to be explored.
4. Metallurgical testing to date has been favourable.
5. There is a possible continual increase in precious metal prices.
6. The potential of gold bearing ore shoots is often much greater than indicated by drilling. For example, drilling by Anaconda of the Lovitt Mine at Wenatchee indicated narrow gold intersections. Subsequent mining greatly expanded these figures.

Unfavourable Aspects

1. Work to date suggests that although the ore shoots are satisfactory in grade, the contained tonnages are limited.

*and are usually with massive sulphides*

\* Veins in shear zones - extensive timbering and lassing required -

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To.....From.....

Subject.....Date.....

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2. Underground development of limited size plunging ore shoots could be very costly, i.e. a poor ratio of development in ore to development in waste.
3. No available power and the personnel would have to be air-lifted from Prince Rupert.
4. Deposits are too far apart for co-ordinated development. Each would require its own development ramp or other means of access.
5. A production decision on any meaningful scale would require establishment of docking facilities on the east side of Banks Island. Road access to mine sites would be costly.
6. The property is currently tied up in a deal with Hecate Gold Corporation. Current costs of underground development now in the order of \$600,000 and will probably exceed \$1 ml. before the "Bob zone" is developed.

Should the Hecate programme prove successful, any attempt to participate on our part would be expensive. Should the programme fail, serious doubts could be raised as to the wisdom of further exploration.

Viewed dispassionately, one could easily shrug off the Banks Island deposits. Viewed reasonably, a good case can be made for further search for a company seriously interested in gold mining. My understanding is that the Falcon-bridge search on Banks Island was sustained mainly by surplus funds left over from other projects.

In the light of our current budget for this region, the problem is largely academic. I am not personally a believer in small vein exploration in the light of today's costs, but in the reviews I have made to date of gold areas in B.C., Banks Island is certainly one of the best.

500 TPD  
A 5,000 T.P.D. concentrator at today's prices would cost in the order of \$5 ml. and operating costs, including pre-production development, would be in the order of \$45 per ton. This means that a recoverable grade of 0.40 ozs of gold would be required to generate a 15 to 20% return on invested capital. While this may appear to be a difficult grade to maintain, the deposits are high grade and most of the zones drilled to date do not have the same dilution problems as the "Bob zone" currently under development.

BAD GROUND

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To.....From.....

Subject.....Date.....

- 3 -

For your records, I have enclosed photostat copies of G.A. Vary's 1973 study of the deposits and R.H. Seraphim and J.B. Magee's 1977 report. I also enclose three copies of George Cross Newsletter, showing current results from the work being done by Hecate Gold Corporation.

  
W.M. Sirola

Encls.

WMS:meb

KERR ADDISON MINES LIMITED

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Attached to previous Dec. '77

I.D.B.
A.H.C.
P.S.C.
W.J.
D.A.L.
S.P.
M.M.R.
J.S.S.

*DLW*

To W. M. Sirola From D. A. Lowrie

Subject Banks Island Gold Deposits Date February 15, 1978  
Re: Your Memo dated February 13, 1978

I share your opinion that this specific environment is a good exploration bet despite the work performed to date. The objective, as I see it, would be to discover wider zones of good grade in a more competent mining host.

The 1973 cost figures appear to be lower by a factor of more than 100%. The capital burden on a 500,000 ton deposit might be in the order of \$20/ton plus.

The combination of heavy exploration costs expended to date plus our budget restraint would make negotiation difficult if not impossible at this time. I suggest we postpone any action but continue to watch the situation.

DAL:LFR

D. A. Lowrie

HECATE GOLD CORPORATION  
 BANKS ISLAND PROJECT  
 GOLD ZONES

m. 200 100 0 200 400 600 800 1000 m.

DATE: JULY, 1979

