

| Inter-Office Letter                              |                                  |                        |
|--|----------------------------------|------------------------|
| COMPANY  |                                  | DATE August 17th, 1971 |
| FROM: R. W. Nusbaum                              | TO:                              |                        |
| SUBJECT: Hill Top Claim Group Property Submittal | A. E. Aho<br>J. S. Brock✓ 811020 |                        |
|  |                                  | ATTN. OF:              |

### SUMMARY

A group of 39 claims located in an accessible and very active exploration area 25 miles northeast of Barriere, B.C. has been submitted to Dynasty Explorations for option. The claims cover a schist formation containing copper mineralization for at least 500 vertical feet and possibly a mile along strike.

### CONCLUSIONS

Copper mineralization found disseminated in a continuous rock formation such as this schist indicates the potential for large, low-grade, open pit copper mines and this particular claim group contains the same rock type and copper mineralization on which Noranda is reportedly doing a feasibility study and at least two other companies are drilling.

### RECOMMENDATIONS

It is recommended that Dynasty Explorations option the Hill Top claim group and conduct an exploration program including geochemistry, mapping and several diamond drill holes to determine whether or not the prospect contains economic potential. A program such as this would require about one year and cost 50 to 75 thousand dollars.

### INTRODUCTION

An invitation was extended by me by Mr. J. A. Fennell, a prospector from Barriere, B.C. to examine a claim group on which he had found some rusty schist similar to that on which Noranda is doing a feasibility study for a large open pit copper mine.

The area is presently being logged and the only time to visit the showings is on Sunday while the loggers are not working. The logging operation should be completed in about two weeks. One day was spent on the claim group collecting samples and examining exposures along the logging roads and skid trails, the weather was fair and warm.

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### LOCATION

The claim group is located on the headwaters of Fennell and Otter Creeks in the Kamloops Mining District. Latitude 51°29', Longitude 119°39'. Map Sheet 82-M-5E.  
U.T.M. Grid zone 11 LH  
5708,000N, 736,000E.

### ACCESS

The claim group is accessible by gravel road 25 miles northeast of Barriere, B.C. which is 39 miles north of Kamloops on Provincial Highway No. 5. Access to a few claims of the group is by logging roads and skid trails most of which are not suitable for vehicles.

### PROPERTY AND OWNERSHIP

The Hill Top claim group consists of 39 claims staked in July and August of 1970 and owned by J. A. Fennel and W. R. Bennett, both of Barriere, B.C. Assessment work has been done for 1971.

### TOPOGRAPHY

General and local relief is 2,300 feet ranging in elevation from 3,400 feet at the divide between Fennell and Otter Creeks to 5,700 feet at the divide between the Adams and North Thompson Rivers. The terrain is very steep and covered with deep overburden and heavy brush and timber with a climate similar to that of the west coast of B.C.

### HISTORY OF THE OCCURRENCE

The Hill Top claim group is a new prospect, exposures along road cuts and skid trails are compliments of the logging operation.

An airborne magnetic survey conducted by Lockwood Survey Corp. for the Dept. of Energy, Mines Resources indicates two magnetic highs of 3300 gammas each on the headwaters of Fennell and Otter Creeks corresponding to the area of the Hill Top claim group. The significance of these magnetic anomalies is not yet known.

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### GENERAL GEOLOGY

The rocks in the general area probably belong to the Barriere Formation which consists of Proterozoic and/or Paleozoic sediments. Rocks observed in the area are mainly schist and limestone. The general strike of the formations is east west and the dip is to the north, northwest ranging from 20° to almost 90°. Outcrops are rare except in the high alpine meadows. The only exposures seen were those along logging roads and skid trails. Host rock for the copper mineralization is the schist, no mineralization was seen in the limestone.

### MINERALIZATION

Sulfide mineralization of pyrite, chalcopyrite and possibly bornite occurs as fine grains along the bedding planes, in small veins and on fractures in the schist. Secondary copper sulfides of chalcocite and covellite can be seen on grains of chalcopyrite on some fractures. Malachite and azurite are found on some fractures but is not abundant and is probably masked by the strong iron oxides. A very fine grained grey mineral which appeared to be galena was observed in a few samples but could not be positively identified. The prospector Sandy Fennell said that he found traces of nickel in some of his samples which could indicate the presence of pentlandite.

The sulfide mineralization appears to be associated mainly with the strongly altered and silicified zones in the schist with no mineralization found in the limestone or limey schist zones. Composition of the schist varies considerably and was found to be talc schist in some places, chloritic, graphitic, limey or silicified in others. Lenses or layers of limestone several feet thick are found inter-bedded with the schist in some sections.

Sulfide mineralization of pyrite and chalcopyrite was found in the schist on both the east and west sides of Otter Creek with approximately one mile, apparently along strike, between the showings. The area between the showings is completely covered with overburden. The two showings on the east side

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consist of one narrow silicified zone a few inches thick containing abundant pyrite and chalcopyrite concentrated mainly along the bedding planes, and a zone several feet thick which contains abundant pyrite along the bedding planes but little or no chalcopyrite.

On the west side of Otter Creek a distance of 800 feet was paced along a skid trail where can be found intermittent exposures of silicified and altered chloritic schist containing malachite, azurite, covellite, chalcocite, chalcopyrite, pyrite and possibly bornite and galena in varying amounts.

The skid trail follows a general north-south direction along the west side of the creek which presents a rough cross section of the northerly dipping schist formation. A vertical thickness of more or less continuous mineralization is estimated at 500 feet to the end of the skid trail and there is no obvious reason why the mineralization should not continue. A detailed study of the structure in the area will probably be the key to spotting drill targets and projecting mineralized zones.

The general area contains over a hundred known prospects and at least three companies are conducting diamond drilling programs this season. One company, Noranda, is reportedly in the process of doing a feasibility study on a large, low-grade copper prospect at the head of Harper Creek, about 10 miles to the west of the Hill Top claim group and apparently in the same schist formation.

The general setting indicates a potential large scale, low-grade copper deposit suitable to open pit mining methods.

The owners of the claim group want the following schedule of cash payments plus 6% interest in the property for an option agreement:

|  |
|--|
| Down payment of \$10,000 to be made by Aug. 23, 1971 |
| \$25,000 - November 1, 1972                          |
| \$30,000 - November 1, 1973                          |
| \$35,000 - November 1, 1974                          |
| \$40,000 - November 1, 1975                          |
| \$75,000 - November 1, 1976.                         |
| <u>\$ 215,000</u>                                    |

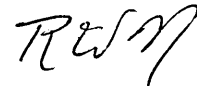
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An exploration program including several diamond drill holes to determine whether or not the claim group contains economic potential would require about a year and cost 50 to 75 thousand dollars.

A geological service company or the crew presently working in the Yukon could be used to cut a grid and stake additional claims, and staff personnel could sample and map the claim group. Apparently geophysics have been tried in the area but with very poor results probably due to the high pyrite and graphite content in the schist. No geophysical surveys are recommended at this stage of the program. After the mapping, outcrop sampling and geochemistry are completed this data would be used to spot several diamond drill holes to be completed before November 1st, 1972.



R. W. Nusbaum

RWN/mp

# Inter-Office Letter

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Eight grab samples were collected from exposures along a skid trail over a distance of 800 feet on the west side of Otter Creek. Two samples were analyzed geochemically for Cu, Mo, Pb, Zn and Ni, and the others were assayed for Cu and Ni.

|      | <u>Cu</u>  | <u>Mo</u> | <u>Pb</u>  | <u>Zn</u> | <u>Ni</u> |     |
|------|------------|-----------|------------|-----------|-----------|-----|
| H-7A | 131        | 0         | 52         | 154       | 45        | ppm |
| H-12 | 230        | 0         | 22         | 68        | 50        | ppm |
| H-7  | < 0.01% Cu |           | < 0.01% Ni |           |           |     |
| H-8  | .32% Cu    |           | "          |           |           |     |
| H-9  | .24% Cu    |           | "          |           |           |     |
| H-10 | .42% Cu    |           | "          |           |           |     |
| H-11 | 1.28% Cu   |           | "          |           |           |     |
| H-13 | .05% Cu    |           | "          |           |           |     |

Seven grab samples were collected from exposures along a logging road on the east side of Otter Creek. Three samples were assayed for Cu and Ni, and the others were analyzed geochemically for Cu, Mo, Pb, Zn and Ni. Although there is abundant pyrite in the schist on the east side of the creek very little chalcopyrite was seen.

|      | <u>Cu</u>  | <u>Mo</u> | <u>Pb</u>  | <u>Zn</u> | <u>Ni</u> |     |
|------|------------|-----------|------------|-----------|-----------|-----|
| H-1A | 88         | 3         | 18         | 49        | 43        | ppm |
| H-2  | 63         | 0         | 22         | 63        | 29        | ppm |
| H-3  | 270        | 13        | 94         | 1080      | 74        | ppm |
| H-6  | 41         | 0         | 24         | 80        | 21        | ppm |
| H-1  | .01% Cu    |           | .02% Ni    |           |           |     |
| H-4  | < 0.01% Cu |           | < 0.01% Ni |           |           |     |
| H-5  | .02% Cu    |           | < 0.01% Ni |           |           |     |

R. W. Nusbaum

# Inter-Office Letter

|          |  |           |                          |
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| COMPANY  |  | DATE      | September 7th, 1971      |
| FROM:    | R. W. Nusbaum  | TO:       | A. E. Aho<br>J. S. Brock |
| SUBJECT: | Fennell Prospect Progress<br>Report for August, 1971 | ATTN. OF: |                          |

The option agreement between Dynasty Explorations and J. A. Fennell and W. R. Bennett was signed in Barriere on August 23, 1971. Fifty-four claims were staked in August, 20 claims to the east and 34 claims to the north. Rocks to the west consist of quartzite and granite, and to the south mainly gneiss. The area to the south and west is of no interest but the area to the northeast is underlain by schist. Strong FeOx is found in a few areas but no copper mineralization was seen. The schist appears to be of the same formation as on the Fennell prospect so more claims will be staked to hold the ground until it can be decided which units of the schist formation are most likely to contain copper mineralization.

Apparently stream sediment sampling is not effective in this area, however, soil samples from immediately above copper mineralization do give a "kick" of over 100 ppm Cu. These samples anomalous in copper also give anomalous values in Pb and Zn, Mo in soils is generally zero except where the highest copper values are obtained then the Mo values go to 4 ppm.

A contract for line cutting will be with Jean Alix Co., or Versatile Mine Services, both of Kamloops, B.C., and should commence about September 10th.

R. W. Nusbaum

RWN/mp  
Attch.



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA  
TELEPHONE: 985-0648

• CHEMISTS

• GEOCHEMISTS

• ANALYSTS

• ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Dynasty Explorations Ltd.,  
330 - 355 Burrard St.,  
Vancouver. 1. B.C.

ATTN: Mr. Nusbaum

*Project 851*

CERTIFICATE NO. 16057

INVOICE NO. 5907

DATE RECEIVED August 23/71

DATE ANALYSED August 26/71

| SAMPLE NO.: | PPM<br>Copper | PPM<br>Molybdenum | PPM<br>Lead | PPM<br>Zinc |
|-------------|---------------|-------------------|-------------|-------------|
| HTB 1       | 26            | 0                 | 28          | 82          |
| 2           | 26            | 0                 | 30          | 95          |
| 3           | 26            | 0                 | 30          | 90          |
| 4           | 28            | 0                 | 31          | 93          |
| 5           | 98            | 0                 | 30          | 82          |
| 6           | 70            | 1                 | 30          | 153         |
| 7           | 189           | 0                 | 82          | 349         |
| 8           | 62            | 0                 | 82          | 183         |
| 9           | 70            | 0                 | 42          | 107         |
| 10          | 102           | 0                 | 48          | 145         |
| 11          | 424           | 4                 | 105         | 200         |
| 11+5A       | 562           | 3                 | 117         | 90          |
| 12          | 341           | 4                 | 82          | 194         |
| 13          | 173           | 4                 | 52          | 138         |
| 14          | 34            | 0                 | 26          | 68          |
| 15          | 36            | 0                 | 30          | 74          |
| 16          | 51            | 1                 | 35          | 87          |
| 17          | 30            | 0                 | 28          | 74          |
| 18          | 50            | 0                 | 46          | 120         |
| 19          | 34            | 0                 | 35          | 95          |
| 20          | 22            | 0                 | 24          | 71          |
| 21          | 28            | 0                 | 28          | 74          |
| 22          | 36            | 0                 | 22          | 63          |
| HTB 23      | 18            | 0                 | 22          | 74          |



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Certified by *Glen Amadori*





212 BROOKSBANK AVE.  
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CANADA  
TELEPHONE: 985-0648  
AREA CODE: 604

• CHEMISTS      • GEOCHEMISTS      • ANALYSTS      • ASSAYERS

# CERTIFICATE OF ASSAY

CERTIFICATE NO. 20366

To: Dynasty Explorations Ltd.,  
330 - 355 Burrard St.,  
Vancouver, 1. B. C.

INVOICE NO. 5898

RECEIVED August 23/71

ATTN: Mr. J. Brock

Mr. R. Nusbaum

ANALYSED August 25/71



MEMBER  
CANADIAN TESTING  
ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA