

671871

14/423 Hamilton St.,
 Vancouver, B.C.
 March 15th, 1953

Mr. Earl Brett
 CHILLIWACK, B.C.

Dear Mr. Brett:

With reference to a bulk sample of ore you gave me from the Frenier Property on Porcupine Mountain.

This sample was composed of rusty decomposed quartz fragments and chips, together with rusty altered country rock.

The sample showed no visible free gold and very little sulphides, under the glass when examined, therefore, it was taken to Messrs. Eldridge & Co. Limited, Assayers & Metallurgists for assay. The results were as follows:

1. Sample cut for assay returned - 1.84 ozs. AU - Value \$64.40
2. Seiving Test to establish necessary grinding to release the values -
 - + 10 mesh
Weight 40.9%
 - + 20 mesh
Weight 20.3%
 - 20 mesh
Weight 38.8
 - Head Sample
Weight 100%

(Sgd.) G. S. Eldridge (Provincial Assayer)

3. Jig Test -

	Weight Percent	Gold oz. per ton	Distribution Percent
Concentrates	9.8%	5.67	30.0%
Middles	17.3%	2.04	19.4%
Coarse Tails	54.2%	1.06	30.4%
Slimes	18.7%	1.95	20.2%

"It would appear from the above figures that the ore would have to be ground much finer to free the gold."

(Sgd.) G. S. Eldridge

4. Table Test -

	WEIGHT PERCENT	GOLD OZ./PER TON	GOLD DISTRIBUTION PERCENT
HEADS	100.00	1.64	100.00
Concentrate	.80	98.80	48.20
Middlings 1	6.85	2.06	8.70
" 2	4.75	.76	2.23
" 3	5.50	.42	1.42
Tailings	54.5	.16	5.38
Slimes	27.6	2.01	34.07
			<u>100.00</u>

(SGD.) G. S. Eldridge

From the results of these tests I have laid out a flow sheet for a pilot sampling mill using mostly equipment you have on hand, and suggest adding Jig & Classifier to Ball Mill Circuit followed by Forester Type Kötätun Cell Table & Blankets all concentrate to be treated by barrel amalgamation for bullion recovery of the free gold content, and concentrate stored for future cyanide treatment when and as tonnage justifies such installation.

After carefully studying Mr. H. Sargent's report of 19488 letter of April 1949, together with map on the property and assay returns from samples taken November 1952 from the open cuts by Mr. J. C. Cooper. My conclusion is that bulk sampling would be the only satisfactory method to arrive at the true value of this property.

Mr. Frenier has performed four years more assessment work on the claims, carrying out pitting and trenching as suggested by Mr. Sargent.

A good trail has been located from the Empire ("Koster's) Ranch which can be turned into a tractor road without much rock work.

The program of work for the 1953 season as worked out by yourselves, will give the best results in the shortest possible time viz:-

1. Your efficiently built two portable buildings - Cookhouse & bunkhouse, can accommodate the crew necessary, and keep up close to the tractor and bulldozer while building the gravel road, thereby eliminating walking time to and from the work.
2. The same camp will be ample when it arrives on the property for this season, thereby saving considerable time in starting actual development.

3. The use of bulldozer for stripping the vein formation will prepare for detailed engineers examination in the early fall.
4. Ore vein material moved by the bulldozer can be run through your pilot mill plant, this will be large scale bulk sampling and by careful recording of tonnage milled a true value of the deposit can be calculated. Bulk sampling by a small mill is much preferable to channel sampling of ore carrying free gold values.
5. It is apparent from the work done on the property since Mr. Sargent's report of 1948 and results obtained, that it has now reached a stage where mechanical assistance is advisable to speed up development as suggested by Mr. Sargent.
6. Three months stripping by bulldozer will open up the property so that an examining engineer can then lay out future work to advantage.
7. Your stripping should be concentrated on the already known Sugar Bowl and Bonanza veins where values have been very encouraging.

I am of the opinion that this program as laid out by you and your associates will be productive of good results with very moderate capital expenditure and in the shortest possible time.

W. J. Stuart Moswicker