

M E M O

June 22, 1976.

To: R.W. Margetts

From: W.R. Bacon

Re: Assessment Work Report on
Arbutus, Mapleleaf and Monica Claim Groups,
Texada Island, B.C.
dated May 26, 1976 - by Thomas Patrick Anderson.

I have looked over this report rather quickly and am not in a position to assess properly the work of somebody who has spent 142 field days and 72 office days in a restricted area such as the north end of Texada Island. However, there has obviously been a great deal of emphasis on aeromagnetic work. The geology was quite well known prior to Mr. Anderson's work and there is very little comment I can make here.

The whole thrust of Anderson's work involved an aeromagnetic survey and the interpretation of its results, and there is no question that the results have received a thorough interpretation by a man who knows his magnetics. The result has been a number of anomalies, about one half dozen - but most of Anderson's enthusiasm is reserved for the 2220 gamma aeromagnetic anomaly (north of the east end of Priest Lake). Anderson says this anomaly "cannot be a surface or near-surface feature".

Magnetic anomalies result from rocks or minerals that are magnetic. This is obvious but it is worthwhile pointing out that the mineral magnetite (Fe_3O_4)

is many times more magnetic than any other mineral or aggregate of minerals known. Magnetite is an important iron ore that has been mined for 25 years on the west coast of Texada Island and any strong magnetic anomaly, airborne or otherwise, on Texada Island may very well be caused by the occurrence of magnetite.

The only other mineral with significant magnetism is pyrrhotite (Fe_xS_{x+1}), but rocks vary considerably in magnetism. On Texada Island, for instance, the green volcanics will be more highly magnetic than the granitic rocks, and the limestone will be the least magnetic of all.

Anderson has dwelt at considerable length on the interpretation of the aeromagnetic anomalies but it is obvious that anomaly 2220 is far more significant to him than any other. Therefore, any exploration based on the results of the aeromagnetic survey should be directed, firstly, to 2220. He considers that the source body (of this anomaly) may be at a depth of 1000 to 2000' and I would recommend a drill hole in the centre of this anomaly to probe the ground to this depth, keeping in mind that Anderson considers the source body may be cylindrical or prismatic in form and, possibly, dipping steeply northward.

Magnetite may not be as glamorous as copper or gold (which were mined at Vananda years ago)* but the fact remains that magnetite has sustained an economic

* Vananda (1948-52)	63,934 T.	- 10,066 oz. Au	- 31,439 oz. Ag	-
				- 1,500,000 lbs. Cu
Little Billie (1896-1916)	6,296 T.	- 1,610 oz. Au	- 7,088 oz. Ag	
				- 302,000 lbs. Cu

iron operation for 25 years on the west coast of Texada. Any substantial new find of magnetite, providing it is reasonably accessible, might be extremely attractive to Texada Mines Ltd., particularly at this time when that operation is nearing its end.

I do not wish to say anything further about the Anderson report as it has been a considerable number of years since I visited Texada Island. It would have been better if a coloured geological map (Plate 5) had been included with the report but, nevertheless, there is no question in my mind concerning the favourability of the geology at the northern end of Texada Island. I would be pleased to have further discussions with you and Stan Beale on this subject when this is convenient.

W.R. Bacon

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