

----- 413 Granville Street

September 21, 1955

Mr. M. C. Robinson
 c/o Dominion Oil Ltd.
 29 St. Vincent Street,
 Port of Spain,
 Trinidad, B. W. I.

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 Port of Spain
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Vincent

Dear Mal:-

I have a copy of your letter of August 19th. to Art Ham and will refer to it in some detail below.

It was a disappointment not to be able to go over the ground with you and discuss some points in more detail than was possible in Vancouver.

I hope that you were fully recovered from your food-poisoning before you had to return to Trinidad.

Reference your Paragraph No. 2:

I do not recall any areas in the mine workings where bedding attitudes change radically where the manner in which they change is not evident from the data on the maps. There may be, and probably are, areas on the surface where the manner of change is not recorded on the map, either from carelessness or lack of sufficient data. To check this up on the surface would be, for me at least, a long slow job. I would be glad to check any underground work that you think is doubtful.

Paragraph No. 3:

There are lithological changes in the Monarch-Hecla workings as well as changes in the thickness of beds, but in general, I know of no way to describe the changes in lithology to make them sufficiently distinctive to be of use.

About all I have done, or can do, is to roughly grade rock as argillite, quartzite or intermediate by the ease of scratching it with a pick point, and in the case of limestone by using acid which has been done from end to end of the new work. Color of a fresh fracture varies from grey through brown to black, and where one color predominates over a considerable distance I have generally noted it.

I am not sure what "gradational contacts" mean- is it a gradual change along a contact, or is it the sequence of slightly changing beds?

Mr.M.C.Robinson, Sept.19th.,1955 Page 2

While on surface work I gained the impression that many if not most of the individual beds were apt to change in thickness, lithology and general appearance over moderate distances. I am, therefore, somewhat sceptical of success in correlating beds, or a series of beds, between the surface and most of the mine workings except in the case of the main limestone zone which does not appear in any of the newer workings, at least there is nothing that appears at all like the silicified limestone which outcrops on the surface. It may, however, be possible that the zone between Sta. 740 and Sta. 744 of the Hecla 5000 level, which contains only a small percentage of limestone, represents the surface limestone band.

Paragraph No. 4:-

I fully agree with your statements in this paragraph, and intend to soon see what I can do along these lines. However, I must admit that I am rather doubtful of success, and not too sure that it is possible for anyone to succeed with the data we have or can get at present.

Paragraph No. 5:-

To the best of my knowledge you have all the geological maps to date except, possibly, the Standard-Mammoth surface geology plan a copy of which I am sending you under separate cover, together with two scraps of tracing showing work done between May 1st. and September 1st., 1955.

I intend, very soon, to put the new underground work on the original cross-sections (marked AA to I) on the surface geology plan and will send them to you when completed. I plan no other maps except two or three new cross-sections through the Mammoth-Monarch-Hecla workings at right angles to the vein-shear.

Will be glad to receive any suggestions from you at any time.

Best regards

Yours sincerely

Copy to A.M.H.