

November 15, 1955.

Mr. Marc Boyer,
Deputy Minister,
Mines and Technical Surveys Dept.
294 Albert Street,
O T T A W A, Ontario.

Dear Mr. Boyer:

It will be recalled that in 1950 this Department undertook a continuing survey of the arsenic problem in the Yellowknife area at the request of the Department of Resources and Development. Under this survey, visits have been made to the area twice yearly for the purpose of inspecting the operations of the two producing mines. From 1951 on environmental samples have been collected with a view to determining whether the level of arsenic in the area has been decreasing. At intervals in the five-year period, meetings have been held in Ottawa with a view to maintaining an appreciation of the situation among interested officers of the Lands Division, the Mineral Dressing and Process Metallurgy Division and officers of our Department.

I may say that the technical problem of following the arsenic contamination in this extended area necessitated long term study in order to establish the trend in the rise and fall of contamination. During the early part of this year it was felt that a significant picture of the situation could be drawn. The enclosed report in three copies summarizes the survey work from 1950 - 1955.

The environmental section of the report indicates that at the present time significant arsenic contamination in the area still exists. This contamination in

large measure originates from the Giant Yellowknife Mine which increased its roaster tonnage beyond the capacity of the collection system in 1953. Enlargement of the Cottrell system to match the increased tonnage put through the Mine since 1953 has been completed. The report suggests that this and certain modifications in roasting technique which are now being made will lead to satisfactory reduction in arsenic contamination. Nevertheless the situation warrants close examination in the coming months.

The disposal of arsenic at the Giant Yellowknife Mine has apparently been successfully provided for but at Con Mine there is suggestive evidence that arsenic might be finding its way into Pud Lake from the storage basin used at that Mine.

Our medical findings which are summarized in the second section of the report cover the years 1952 and 1953 and did not indicate the existence of poisoning among the population.

The survey at Yellowknife has required collection of samples in the area and the transport of substantial material to Ottawa for analysis. In this work we have been assisted by the Lands Branch officials, the Mines Branch Laboratories and the Companies. It is felt that some consideration might be given to the advantages of having samples both collected and analyzed in Yellowknife. This would not only be more efficient but would provide more direct contact with the Mines and the local Medical Officer of Health. The report therefore recommends a review of the assessment program with officers of the Northern Affairs Department and the Department of Mines and Technical Surveys.

I have asked Mr. Robertson if he would arrange such a review so that the future course to be followed might be decided.

Yours very truly,

Encl.

G.D.W. Cameron, M.D., D.P.H.,
Deputy Minister, National Health.