

C O P Y

CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA, LIMITED

CONFIDENTIALTrail, B.C.,
June 7th, 1949.

R. A. Gibson, Esq.,
Deputy Commissioner,
Administration of the Northwest Territories,
Ottawa, Ontario.

Dear Mr. Gibson:

In reference to your letter of June 2nd, which I received on my return from Kimberley, I think I should review the history of our roasting at Con.

When we built the plant in 1941, we knew, of course, that the concentrate would run about 15% arsenic and made plans to collect it in a baghouse. However, we found that three similar plants in the Little Long Lac area discharged much greater quantities of arsenic, in the aggregate, to the atmosphere with no bad effects on the adjoining district. Considering the sparse population in the Yellowknife area, the prevalence of heavy winds and the difficulty of disposing of the arsenic, if collected, we concluded the baghouse was unnecessary and cancelled the plans.

The operation of the plant in 1942 was interrupted by the decline in the war demand for gold. The plant operated for only seven months and there was nothing to cause us any concern regarding the dissipation of arsenic.

The plant was re-started on July 21st, 1948. Last winter the snow was sampled by Mr. Gray, our superintendent in charge of milling, on April 9th, about half-way between the camp and the roaster and adjacent to the pipe box and also from an area about 100 yards south-west of the mill near the cap house. From six square feet of snow, the arsenic concentration was .36 grams of dust, assaying 7.4% arsenic or about 4 oz. per acre. From the area near the mill, this figure was 22.4 grams, assaying 55% arsenic or 19.5 lbs. per acre. This indicated no particular reason for concern.

Put on our Yellowknife file

$\frac{7}{100} \times 0.36$
2.52
0.025 gms

25 mgms / 6 sq ft

4 mgms / sq ft

correct figure
is 196 (not 19.6)
lb/acre
J.P.W.



...

Correct answer
is
6.83 g/acre
J.P.W.

2.

The present situation, whereby a number of cows on a farm south of the Con Mine were thought to have died from arsenic poisoning, and two men in a camp north of Giant showed symptoms of arsenic poisoning after drinking melted snow water, was brought to my attention during my inspection trip to Con during the third week of May. I immediately wired for our Industrial Hygiene Consultant, Mr. Kurt Raht, who arrived at Con on May 27th and also consulted Dr. Stanton, who stated he did not consider the situation to be dangerous so far as indicated by the information then available. Mr. Raht confirmed the presence of arsenic in surface run-off waters in varying quantities, which at certain localities reached a concentration which could be dangerous to human beings if taken in sufficient quantity. Mr. Raht was then instructed to consult Dr. Stanton, in his official capacity as Medical Health Officer for Yellowknife, and determine his opinion as to the danger in view of Mr. Raht's findings. We proposed shutting down the roasting plant immediately if Dr. Stanton considered there was danger to the local residents. However, Dr. Stanton advised that he did not consider the situation called for shutting down the plant. 11

I may note that shutting down the roasting plant temporarily while plant installations were made to recover the arsenic would not affect us seriously since most of the Con gold is recovered by amalgamation and cyanidation. Our flotation and roasting are scavenging operations. However, we have hesitated to shut down the plant since such action on our part would probably embarrass Giant, who depend on flotation and roasting to recover almost all of their gold. The problem of arsenic disposal is, of course, a matter of even more concern to Giant than it is to us because of their greater output.

Mr. Raht has not yet made his final report and consequently we have made no definite plans. It appears, however, that because of the low precipitation in the Yellowknife area and the long winter, there will be a short period every spring when the run-off water in certain localities may carry a dangerous accumulation of arsenic. If this is so, you may be sure that we will make the necessary plant installations to eliminate it.

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3.

In view of Dr. Stanton's opinion, we think there is no need for the people of Yellowknife to be concerned about the matter. We will, of course, make a settlement with the man whose cows appear to have died from arsenic poisoning.

Yours very truly,

(SGD.) W. G. Jewitt
Manager of Mines.