

DEPARTMENT  
OF  
RESOURCES AND DEVELOPMENT

Northern Administration  
& Lands Branch

Yellowknife, N.W.T.  
June 13th, 1951

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Director,  
Northern Administration & Lands Branch  
Department of Resources & Development,  
OTTAWA, Ontario.

ROASTER FUMES - NEGUS MINES

Mr. McNiven was in to discuss roasting, arsenic collection and arsenic disposal. I asked him to prepare a report on this topic, a copy of which I herewith enclose. It is their intention to install a Dorrco vertical type roaster and also an impinger arsenic collection plant similar to the one used at the Con Mine, if Con are willing to sell their rights; failing this they will use a Peabody scrubber. In either case the product collected will be a sludge consisting of about 20% solids.

As Mr. McNiven points out in his letter, it was impossible to find a suitable basin on surface near enough to the mill to be practical and safe for storage of this arsenic sludge. He did mention one basin that could be slashed and dammed off but the drainage is towards the lake and if by chance there was any seepage it might conceivably contaminate the Negus, and even the town water supply, this would be too risky. It was then decided to look for storage underground and 217 stope in No. 2 vein, which is quite a tight structure, was selected. It is possible, as Mr. McNiven suggests in his letter, to stop any seepage from this settling basin. If there is seepage it would be in the old abandoned part of the mine and would not contaminate the present mine workings. The greatest problem is ventilation. As there will be SO<sub>2</sub> gas coming off there is a possibility of pockets of this gas accumulating in dead end drifts, etc. which might become a serious problem. This problem could also, however be overcome by proper ventilation and periodic checks throughout the mine to guard against this condition cropping up.

There should not be any danger of polluting Mine domestic water supplies as the seepage, if any, would be below the lake level.

Please give this your immediate consideration as Negus are anxious to go ahead with preparations of this underground settling basin to have it ready when Roasting operations begin. In the meantime I will keep in touch with new developments by Negus with regard to this problem. Any other information required will be supplied if available.

(Sgd) S. Homulos,

S. Homulos,  
Mining Inspector.

Attach.