

Notes on meeting held in Mr. R. A. Gibson's Office at 2:00 P.M. February 8th, 1950, to discuss the method of removal and subsequent disposal of arsenic trioxide from roaster smoke at the Con Mine, Yellowknife, N. W. T.

The meeting opened at 2:00 P.M. with Mr. R.A. Gibson, Deputy Commissioner, Northwest Territories Council as Chairman. The following representatives were present:

Mr. W. G. Jewitt, Manager of Mines, C.M. & S. Co. Ltd.

Mr. K. Raht, Metallurgist, C.M. & S. Co. Ltd.

Dr. K. Kay, Chief, Industrial Health Lab. Dept. National Health & Welfare,

Dr. K.G. Charron, Chief Industrial Health Div. " " " "

Dr. O.L. Stanton, Medical Health Officer, Yellowknife and Chairman, Local
Trustee Board

Dr. H. J. Atkinson, Dept. of Agriculture.

Dr. M. Katz, Defence Research Board.

Mr. C.S. Parsons, Chief, Bureau of Mines, Dept. Mines & Technical Surveys.

Mr. R. J. Traill, Chief Metallurgist " " " " "

Mr. K. J. Christie, Chief Mining Inspector, Dept. of Resources & Development.

Mr. G. M. Webster, A/Mine Inspector, Yellowknife. " " " "

Mr. C. K. LeCapelain, Chief, Yukon - MacKenzie Division " " "

The Chairman asked Mr. Jewitt to outline the problem and open discussion^{on} the subject. Mr. Jewitt described the impinger method of extraction and Mr. Raht outlined their plan for disposing of the "slurry" resulting from the extraction. This consists of setting aside the old tailings pile in Crank Lake as a restricted area and sealing off the entire area so that no percolation will take place contaminating any adjacent areas. Pits dug into the old tailings pile will receive the slurry and a seepage ditch, made impervious to percolation will be dug, if required, so that the liquid from the slurry pits may be returned to the impingers for re-circulation. Addition of lime or ferric oxide to produce an insol would be added, should it be found that any percolation within the tailings pile results.

Considerable discussion took place on the proposed method of disposal and it was felt by officials of the Department of National Health and Welfare that this method, still in the experimental stage, should not be conducted where the health of the community was endangered. It was pointed out that the Company would give every assistance by carrying out tests to ensure

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that no arsenic escaped the Crank Lake tailings pile and if any escape is detected impervious dams would be constructed. Dr. Charron mentioned the physical impossibility of carting away large quantities of slurry for disposal if the open pit method is unsatisfactory.

Dr. Stanton did not feel there was any immediate danger of arsenic poisoning to the community except by drinking snow water, but he could foresee a definite hazard during the spring run-off period and the berry picking season, and he had warned residents of this danger by inserting notices in the local paper and by letter to the mining companies concerned. Observations from clinical data were also presented.

Dr. Katz brought up the point of efficiency of recovery and Mr. Raht said that the present figure was 94 per cent and they hoped to bring this up to 98 per cent when techniques and mechanical difficulties are improved.

Mr. Raht elaborated on the pit method of disposal comparing it to the method employed at the Allenby concentrator (C.I.M.M. Transactions, Volume LIII, 1950, pp. 32-35) and he felt that the pit method of disposal could store the slurry for an indefinite period. The entire area would have to be fenced off and maintained under close supervision. Mr. Parsons emphasized that the proposed disposal method and dispersal areas would have to ^{be} continuously tested and Mr. Jewitt gave the assurance of co-operation in making tests. Dr. Charron then asked for a meeting the following morning to confer with officials on the continuing survey, regulations to be adopted, and responsibility for carrying out tests.

Mr. Gibson summed up the proposal of disposing of the arsenic trioxide and asked Mr. Jewitt to submit his proposals in writing with accompanying plans and authoritative engineering assurance that the scheme of disposing of the slurry by the pit method was practicable with impervious dams constructed if found necessary in order to confine contamination to a limited area.

The meeting was then adjourned.