

TO
A

M.L. Brown,
Regional Mining Engineer
& Mining Inspector

FROM
DE

Gary Ireland,
Environmental Control Technician

SECURITY - CLASSIFICATION - DE SÉCURITÉ

OUR FILE - N/RÉFÉRENCE

YOUR FILE - V/RÉFÉRENCE

DATE

August 21, 1978

SUBJECT
OBJET

Arsenic in Air Survey at Giant Yellowknife Mines,
June 27-29,

Equipment:

- (1) Micronair II sampling pumps from Bendix.
- (2) Acetate filters in cassettes - 37 mm. diameter,
.09 micron pore size.

Comments:

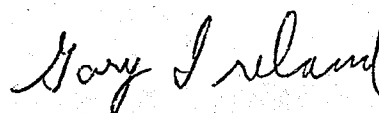
On June 27-29, 1978, I took total dust samples in locations in the concentrator and arsenic treatment circuit. Health and Welfare Canada took samples at the same time. I had my samples analyzed for arsenic. The results are appended.

The permissible average concentration of total arsenic in the worker's atmosphere is 0.050 milligrams/cubic metre. This is the sum of the soluble and insoluble components.

This survey shows an average concentration well below the limit with only a few excursions over. The high levels in the cottrell hopper area are due to cleanup and maintenance. Dust masks are worn. Their effectiveness depends on fit. I am pleased with the performance of the lunchroom filter.

The high sample in the cottrell electrical precipitator generator room appears to be caused by someone deliberately knocking dust off the wall near the sampler.

Giant mines is now taking samples in the same manner and locations as I. I suggest we receive a copy of their results and reduce the frequency of my arsenic surveys, perhaps include it with my environmental survey.



Gary Ireland

Enclosure

Arsenic in Air at Giant Yellowknife Mines

<u>Date</u>	<u>Location</u>	<u>mg/m³</u>	
		<u>Soluble</u>	<u>Insoluble</u>
June			
27	Dry Arsenic Pump	.010	.009
27	Baghouse between Hoppers	.007	.013
27	Catwalk in Baghouse	.007	.009
27	Cottrell by Compressors - Cleanup	.063	Contaminated
27	Cottrell between Hoppers - Cleaning Screw	.045	Contaminated
27	Cottrell Lunchroom - Filter On	.009	.007
27	Roaster Wet Arsenic Pump	.006	.006
27	RO-2	.004	Contaminated
27	Roaster Control Room	.003	Contaminated
27	Roaster Disc Filter	.010	Contaminated
28	Baghouse Hoppers	.008	.008
28	Cottrell above Sump	.005	.001
28	Cottrell Lunchroom	.013	.016
28	Cottrell Electrical Precipitator Generators	.050	Contaminated
28	Cottrell Shakers	.008	.004
28	Roaster Disc Filter	.009	Contaminated
28	RO-2	.004	.012
28	Carbon Plant Desk	.003	.004
28	Flotation Section in Mill	.001	.012
28	Grinder Discharge	.002	.003
29	Cottrell Lunchroom	.013	.004
29	Cottrell by Compressors	.009	.001
29	Baghouse Catwalk	.004	.003
29	Cottrell Electrical Precipitator Generators	.010	.007
29	Cottrell Shakers	.014	.008
29	RO-2	.004	.004
29	Roaster Disc Filter	.008	.017
29	Flotation	.001	.005
29	Drum Filters and Clarifiers	.001	.002
29	Fine Ore Bin	.001	.019