

## Water Board Requirements

In May of 1978 the Northwest Territories Water Board granted Giant Yellowknife Mines a water use license covering the quantity and quality of water consumed and discharged in the mining and milling processes. Section 14 of the license defines the effluent quality requirements that Giant will have to meet by May 1, 1981.

PARAMETER	MAXIMUM MONTHLY AVERAGE CONCENTRATION	MAXIMUM CONCENTRATION OF ANY GRAB SAMPLE
Total Arsenic	0.5 mg/litre	1.0 mg/litre
Available Cyanide	0.1 mg/litre	0.2 mg/litre
Total Cyanide	2.0 mg/litre	4.0 mg/litre
Total Copper	0.3 mg/litre	0.6 mg/litre
Total Lead	0.2 mg/litre	0.4 mg/litre
Total Nickel	0.5 mg/litre	1.0 mg/litre
Total Zinc	0.5 mg/litre	1.0 mg/litre
Suspended Solids	15.0 mg/litre	30.0 mg/litre
Oil and Grease	--	5.0 mg/litre

The waste shall have pH between 7.0 and 10.0

The average quality of the final tailings pond effluent discharged during 1979 indicates that with the exception of total lead, Giant Yellowknife Mines will be unable to meet the license ~~will be~~ ~~unable to meet the license~~ requirement set for May of 1981 without investment in some form of pollution abatement technology.

<u>Date</u>	<u>pH</u>	<u>S.S.</u> <u>mg/l</u>	<u>As<sub>T</sub></u> <u>ppm</u>	<u>CN<sub>T</sub></u> <u>ppm</u>	<u>CN<sub>A</sub></u> <u>ppm</u>	<u>Cu<sub>T</sub></u> <u>ppm</u>	<u>Ni<sub>T</sub></u> <u>ppm</u>	<u>Zn<sub>T</sub></u> <u>ppm</u>	<u>Pb<sub>T</sub></u> <u>ppm</u>
Mean	9.15	8.02	10.55	25.53	9.59	10.52	0.98	1.782	0.048
Variance	0.2033	52.5997	22.1594	70.8722	11.1389	38.2996	0.1569	0.9626	0.0010
Std. Deviation	0.5235	7.2526	4.7074	8.4185	3.3375	6.1837	0.3961	0.9811	0.0319

## Possible consequences of not meeting water quality standards

Under section 3 of the water use license, Grant Yellowknife Mines was required to post a \$150,000 security deposit in the name of the N.W.T. Water Board. Failure to comply with the terms of the water use license can lead to charges being laid against the licensee under the Northern Inland Waters Act and Regulations. The maximum fine under this act is \$50,000 per day of infraction.