1703 (042)

2 NOV 1989

Mr. Rich Sundet
ADEC Anchorage/Western
District Office
3601 C St., Suite 322
Anchorage, Alaska 99503

Dear Mr. Sundet:

We recently received the analysis from our summer water quality monitoring program at and near the Red Devil Mine, and we are providing you with the results of that analysis in the following table:

Location	Mercury (Hg)	Arsenic (As)	Lead (Pb)
		mg/L	
Surface Water			
Red Devil Cr. upstream of mine (Nat. Cond.)	ND(0.0002)	ND(0.001)	0.135
Red Devil Creek below settling ponds	ND(0.0002)	0.154	0.104
Red Devil Creek at Mouth	ND(0.0002)	0.196	0.0945
Kuskokwim R. 100' upstream of Red Devil Cr.	ND(0.0002)	0.0018	0.0448
Kuskokwim R. 200'downstream of Red Devil Cr.	ND(0.0002)	0.0037	0.0765
McCally Creek (Natural Condition)	ND(0.0002)	ND(0.001)	0.190
Ground Water			
Mercury Inn Guest Kitchen	ND(0.0002)	ND(0.001)	0.191
Mercury Inn Residence Kitchen	ND(0.0002)	ND(0.001)	0.290
Allowable Limits (Drinking Water)	0.002	0.05	0.05

Since last years monitoring indicated that lead and arsenic exceeded EPA standards, we expanded our program this year to include those metals at all sampling points. Water Quality data for Red Devil Creek is limited to, so it may be somewhat premature to make too much out of and overreact to the data we have at this time. Yet at the same time if we see harmful trends emerging like the lead and arsenic levels then they must be recognized and addressed.

As can be seen from the data, Mercury levels were below detection limits at all sampling points. Arsenic on the other hand exceeded EPA drinking water standards below the mine, but at natural condition sampling points it like Mercury was below detection limits. Arsenic in the Kuskokwim River was within Allowable Limits.

Lead exceeded EPA drinking water standards at almost all sampling points, but was lower below the mine than at the background level natural condition sampling points. Since this is the second year in a row where Lead in the well water has greatly exceeded the Allowable Limit at the Mercury Inn, we will call and write the owners and let them know that they may well have a problem. We will suggest to the owners of the Mercury Inn that they contact your office for assistance in dealing with the Lead problem.

A larger sampling program and public notification of this problem in the Red Devil area may be prudent if other data in the area also points to high Lead levels. Our basic area of interest in Red Devil is the mine, and it seems to us, based on our data, that the mine is not the source of the Lead but rather that the Lead is a part of the natural mineralization of the area. We will continue monitoring for Lead at the Red Devil Mine, but again feel that Lead in the ground water is unrelated to mining and perhaps a regional problem. We assume, therefore, that DEC will take the lead in dealing with the Lead problem in the village, if in fact it proves to be a problem.

It is obvious, based on the limited data, that Red Devil Creek exceeds EPA Arsenic standards, and that the reason for that appears to be related to historic mining activities at Red Devil Mine. However, at this point we simply do not know given the tremendous dilution factor of the Kuskokwim River and other potential regional sources of Arsenic whether the Red Devil contribution of arsenic to the system is significant or not.

In order to find out we will continue to monitor Mercury, Arsenic, and Lead to develop a heavy metals' history in Red Devil Creek which will assist us in developing a course of action. It is our understanding in this part of the Kuskokwim, that when the vegetative and top organic layers of the soil are disturbed like at the mine or the Red Devil airstrip, Arsenic levels are elevated.

We would appreciate any information that you may have regarding the arsenic and lead levels in the Kuskokwim region.

If there are any questions, please call Carl Persson at (907) 267-1277.

Sincerely,

/s/ Richard J Vernimen
Richard J. Vernimen
District Manager

cc: Wayne Svejnoha (AK 933)

042:MWheeler:mmw:11/01/89:33740