



Rio Algom

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Return Receipt Requested

April 16, 2001

Mr. Steve Ingle
WDEQ/LQD
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

RE: Corrective Action Report 8, West Evaporation Pond Leak
Permit to Mine 633, License SUA-1548, Docket 40-8964

Dear Mr. Ingle:

On September 14, 2000, during a routine inspection, it was discovered that the west evaporation pond sump contained greater than 6 inches of water. The water level in the pond, four feet six inches at the time of the discovery, was immediately lowered in order to stop the leak. The sump water was analyzed for chloride, specific conductance, bicarbonate, U_{nat}, and sulfate with the results shown below:

Chemical	Concentration
Chloride	8,510 mg/l
Specific Conductance @ 25 °C	32.95 m Siemens
Bicarbonate	283.1 mg/l
U _{nat} as U ₃ O ₈	22.6 mg/l
Sulfate	7,429 mg/l

Upon receipt of the confirming analysis, both Steve Ingle of WDEQ and John Lusher of NRC were notified via telephone on September 22, 2000.

After patching the suspect locations, the water level was slowly raised beginning on October 30th. On November 6th, with the pond level at four feet six inches, the sump began collecting water. The water level of the pond was dropped to three feet eight inches in order to stop the leakage.

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The pond did not leak again until January 6, 2001. A sample was taken on the same day with the following results:

Chemical	Concentration
Chloride	9,428 mg/l
Specific Conductance @ 25 °C	41.39 m Siemens
Bicarbonate	448 mg/l
U _{nat} as U ₃ O ₈	25.0 mg/l
Sulfate	11,212 mg/l

A weekly sample taken on January 19, 2001 contained 8,300 mg/l chloride and had a specific conductance of 22.22 m Siemens. The pond quit leaking on January 22nd without any change in the pond's water level and has not leaked since.

A monthly sample was taken on 3/15/01; results shown below.

Chemical	Concentration
Chloride	2,740 mg/l
Specific Conductance @ 25 °C	13.98 m Siemens
Bicarbonate	472 mg/l
U _{nat} as U ₃ O ₈	6.5 mg/l
Sulfate	4,196 mg/l

The pond did not leak again until 3/29/01, so a weekly sample was taken. The conductivity was at 14.80 m Siemens and the chloride was at 6,400 mg/l. The water level was drawn down to the one foot six inch (1' 6") level and the leakage stopped.

Additional repairs will be made to the liner as soon as the weather improves.

Additional monthly reports will be submitted until correction of the situation is confirmed. If you have any questions or comments regarding the submittal, please feel free to contact John Cash at (307) 358-3744, ext. 62 or myself at ext. 14.

Sincerely,



John P. McCarthy
Radiation Safety Officer

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xc: P. Drummond (RAMC - Smith Ranch Facility)
J. Lusher-U.S. NRC (Div. of Low Level Waste Mgt. & Dec.) Rockville, MD
Certified Mail - 7099 3220 0002 1632 0103, return receipt requested
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