

QUIVIRA MINING COMPANY

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April 1, 1997

Certified Mail

Return Receipt Requested (P 268 360 599)

Mr. Joe Holonich
U.S. Nuclear Regulatory Commission
Uranium Recovery Branch
Division of Low Level Waste Management & Decommissioning
M/S T7J9
11555 Rockville Pike
Rockville, MD 20850

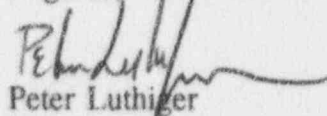
Re: License SUA-1473
Docket No. 40-8905

Dear Mr. Holonich,

Pursuant to Mr. Marvin Freeman's telephone conversation with Mr. Ken Hooks of your staff on March 5, 1997, enclosed is a report describing the events and corrective actions implemented as a result of a liner tear on evaporation pond #19. The damage to the liner was caused by abnormal strong winds. Corrective measures were implemented immediately upon discovery; with final repairs completed on March 13, 1997.

If you have any questions, please call me at (505) 287-8851, extension 205.

Regards,



Peter Luthiger
Supervisor, Radiation Safety
and Environmental Affairs

Enclosure

xc: T. Fletcher
M. Freeman
NRC (Arlington, TX)
R. Ohrborn (NMED-GWPB)
file

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QUIVIRA MINING COMPANY
License SUA-1473
Docket No. 40-8905

Completion Report of Minor Liner
Damage to Evaporation Pond #19

On March 4, 1997, some minor liner damage was discovered on the east berm of lined evaporation pond #19 resulting from abnormally strong winds. The attached maps indicate the location of evaporation pond #19 and the location of the liner damage. The horizontal liner tear, which is located above the water level along the east berm adjacent to monitor well MW-19, allowed a portion of the lower segment of the liner to sag below the water level allowing pond water to contact the earthen berm under the liner.

Mr. Ken Hooks of the U.S. Nuclear Regulatory Commission and Mr. Richard Ohrbom of the New Mexico Environment Department (NMED) Ground Water Protection Bureau were notified on March 5, 1997 of the situation and that corrective actions were in progress.

Upon discovery, the sagging portion of the lower liner was immediately brought back above the water level to stop any further potential seepage into the pond berm. The damaged area was then stabilized that same afternoon to ensure that the lower liner would remain above the pond water level during repairs. As monitor well MW-19 is located adjacent to the damaged area, a sample was obtained from the well on March 4, 1997 and analyzed for any initial indication of seepage. Monitor well MW-19 is a component of the NMED approved discharge plan for the Section 4 lined evaporation ponds. Results of the water sample, which was analyzed for pH, chloride, and total dissolved solids, indicated no discernible impacts to the well.

Repairs to the berm and liner were initiated on March 5, 1997. As a result of the pond water being in contact with the earthen berm, some minor erosion occurred to the berm due to the wave action caused by the strong winds. Clean alluvial fill material was utilized to replace and refortify the pond berm and to facilitate repairs to the liner. Upon satisfactory completion of the berm restoration, repairs to the damaged liner were initiated.

The upper and lower portions of the torn liner were positioned on the earthen berm and all foreign matter and dirt were removed from the repair area in order to provide a good bonding surface. In addition to this, the edges of the liner along the tear were also cleaned to ensure proper bonding. To ensure a satisfactory seal, an additional piece of liner material was used to overlap the upper and lower liner segments. This "patch" was overlapped at least one (1) foot on all sides of the damaged area.

The bonding material, specifically Chevron Industrial Membrane (CIM), was prepared in accordance with the manufacturer's specifications. After spreading the CIM along all edges of the torn liner, the liner patch was then carefully positioned on top of the CIM layer. After additional CIM was placed on the patch to ensure proper sealing of all edges, the CIM was allowed to cure for approximately 24 hours.

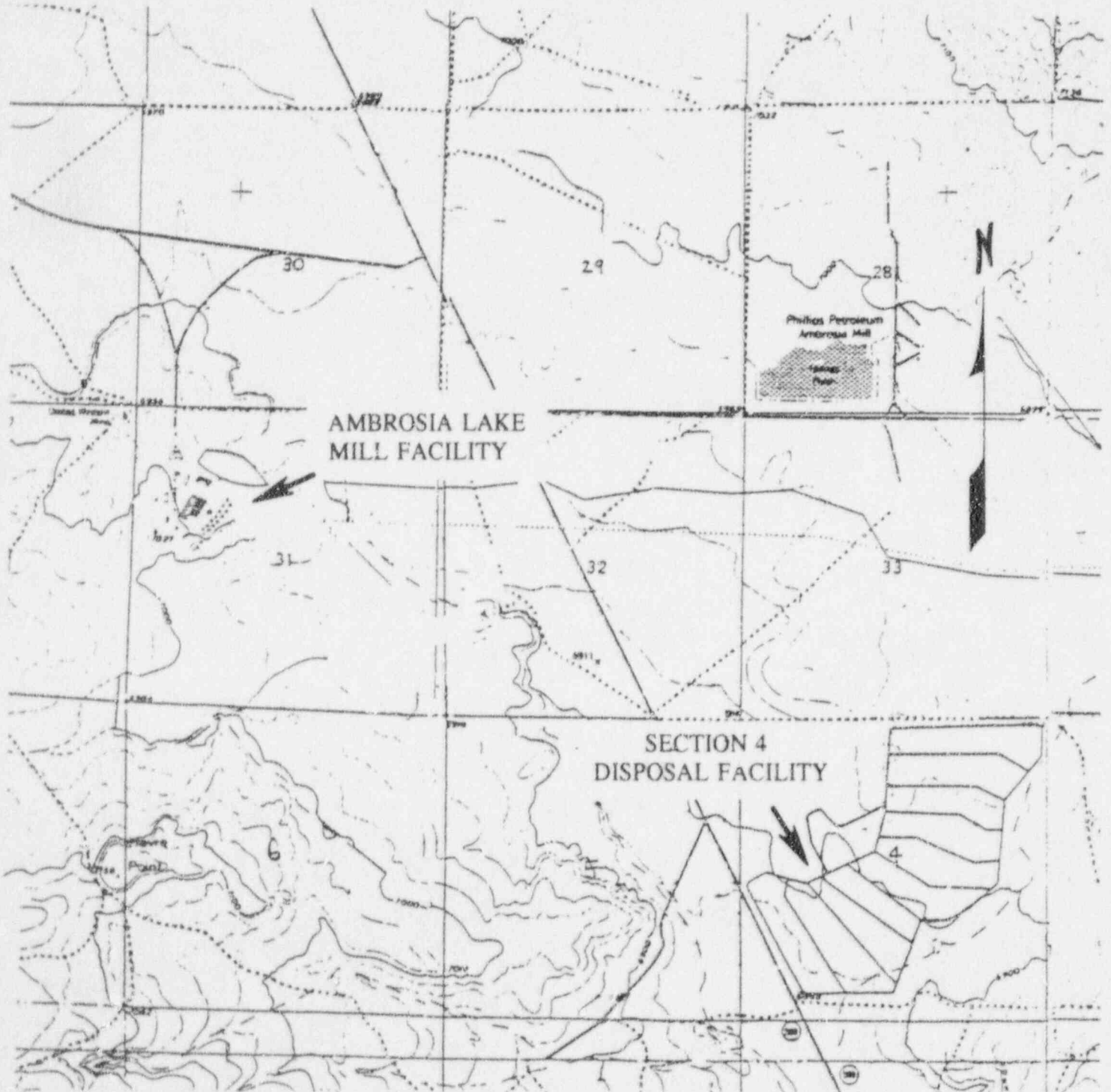
All repair work was inspected to ensure that the corrective measures implemented were successful in repairing the pond liner. Results of this inspection indicated that repairs were satisfactory. Pond 19 will not receive additional solutions for approximately one month in order to allow for continued surveillance of the repaired area.

Based on the extent of the liner tear, the area of exposed berm, and the time of actual contact, it is estimated that the quantity of pond water that seeped into the berm is minimal. However, as a precautionary measure, ground water sampling of the adjacent monitor wells will be performed on a quarterly frequency for pH, chloride, sulfate, total dissolved solids, and nitrate.

Quivira believes that due to the minimal quantity of pond water which may have seeped into the earthen berm, along with the retardation factors exhibited by soils in the Ambrosia Lake area; any seepage which may have occurred is not expected to migrate beyond the disposal area boundary. In the unlikely event monitoring indicates otherwise, Quivira will, in consultation with NRC and NMED, implement appropriate corrective actions.

MAP 1

LOCATION OF SECTION 4 EVAPORATION PONDS



MAP 2

LOCATION OF POND 19 LINER TEAR

