

MAY 20 1985

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MEMORANDUM FOR: Myron H. Fliegel, Section Leader
Hydrology Section, WMGT

FROM: Mark Larson
Hydrology Section, WMGT

SUBJECT: TRIP REPORT TO NAVAJO UMTAP SITES

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During the week of May 6-10, 1985, Division of Waste Management staff including myself toured five UMTAP sites: Ambrosia Lake, Tuba City, Mounment Valley, Mexican Hat, and Shiprock. We were accompanied by DOE and their contractors.

Prior to the tour on Monday morning, a preview of the sites was presented at a meeting at DOE/TAC headquarters in Albuquerque. DOE stated that they would like us to see technical information, such as data and results, early on before the NEPA and RAP documents are released - thereby streamlining the review process.

The purpose of the trip was to familiarize NRC staff with the sites. I spent my time with the site hydrologist from the TAC looking at outcrops of water-bearing units, monitoring well locations and constructions, recharge areas, domestic water supplies, and other specific features of the individual sites.

Ambrosia Lake

The Ambrosia Lake tailings pile is located in the Grants Mineral Belt area approximately 80 miles west of Albuquerque. Of technical interest at the site was the ponded water on top of the pile as well as a subsidence area near the pile. Previous underground mining has left a large network of tunnels in the area. The UMTAP pile is dwarfed by the Kerr-McGee "active" pile located 1 1/2 miles to the west.

Tuba City

The Tuba City tailings pile is located approximately 80 miles north of Flagstaff. The site sits on a slope leading down to Moenkopi Wash which contains a perennial stream. TAC personnel stated that groundwater contamination has been detected below the pile and to the southeast, between the pile and the wash. More wells are planned to delineate the extent of contamination and the rate and direction of groundwater movement.

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Monument Valley

The Monument Valley tailings pile is actually located in Cane Valley which is adjacent to Monument Valley in Arizona. According to the TAC, groundwater contamination has been detected between the pile and Cane Valley Wash. One resident lives directly between the pile and the Wash and obtains his water from a well. Future work planned by the TAC is dependent on the results of detailed water quality analyses.

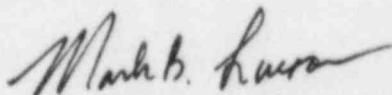
Mexican Hat

The Mexican Hat tailings pile is located in an arroyo which does not contain a perennial stream. According to the TAC, groundwater is first encountered at a depth greater than 150 feet in an artesian aquifer. In drilling these wells, the TAC encountered hydrogen sulfide gas and oil. A small zone of saturated material was reported by the TAC as occurring directly beneath the pile. The alluvium in the arroyo is very thin and the bedrock (mostly fine-grained sedimentary rocks) is notably fractured.

Shiprock

The Shiprock tailings pile is located in the town of Shiprock along the banks of the San Juan River. A recent development is the detection of groundwater contamination along the floodplain of the San Juan River. The TAC is planning on installing 32 monitoring wells in the area to delineate contamination. Some construction has begun at the site.

This memo will be part of a larger trip report being prepared in WMLU by the Project Manager, Mark Haisfield.



Mark Larson
Hydrology Section, WMGT

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