NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 11, 1996

Ms. Ruby Williams
USEPA, Multi-Media Planning
& Permitting Division
6 PDN
1445 Ross Avenue
Dallas, Texas 75202

Re: Yates Petroleum Corporation
David Ross "AIT" Federal No. 1
Section 35, T-22S, R-31E, NMPM

Devon Energy Corporation
Todd "26" Federal No. 3
Section 26, T-23S, R-31E, NMPM

Eddy County, New Mexico

Dear Ms. Williams:

Please be advised that on November 13 and 20, 1995, radioactive tracer surveys were conducted, respectively, on the Todd "26" Federal Well No. 3 and David Ross "AIT" Federal Well No. 1. As you may recall, these wells, which are located in close proximity to the Waste Isolation Pilot Project (WIPP), were suspected to be contributing to water level rises in the Culebra interval. The radioactive tracer surveys were conducted in an effort to determine, in fact, whether or not these wells demonstrate external mechanical integrity.

The results of the tracer surveys (analysis attached), indicate no channeling behind the production casing and no vertical migration of fluid from the injection interval.

It is the opinion of the Division that no further testing of these wells is necessary.

If I can be of further assistance, please contact me at (505) 827-8184.

Sincerely,

David Catanach

David Catanach
Engineer

xc: Mr. Ray Leissner
USEPA, Region VI

Mr. W. J. LeMay
Division Director

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INJECTION PROFILE LOG ANALYSIS

Salt Water Disposal Wells Adjacent to WIPP

Yates Petroleum Corporation
David Ross 'AIT' Well No.1, November 20, 1995

Witnessed by: Bob Fant, Yates Petroleum Corporation
Ben Stone, New Mexico Oil Conservation Division
Ray Smith, New Mexico Oil Conservation Division

Well Status: Injecting at normal rate and pressure of 3154 bpd @ 840 psi.
Injection through perforated intervals: top - 4500', bottom - 5670'.

Procedure: RIH with 1 3/8" profile string consisting of collar locator, isotope ejector, gamma ray detector and temperature tools. Ran injecting temperature followed by gamma ray correlation. Depth correction made. Tracer studies followed beginning with tracer intensities (drag runs). Velocities began with a 'no flow' inside the pipe at 5674'. A downward channel check was made next followed by selective velocity shots across the perforated interval. Finally, an upward channel check was made followed by 100% shots above the perforations, a packer leak check and tubing drop shots to confirm the 100% rate. The well was shut-in and shut-in temperatures were run at 1 and 2 hour intervals. POH with logging tools.

Conclusion: Tracer studies indicate uniform fluid distribution across the perforated interval with the exception of the upper perfs from 4500-90'. This interval appears to be receiving no fluid injection. No upward channel is evident, however, temperatures indicated a slight channel down from the bottom perfs to approximately 5690'±. Temperatures confirm distribution of fluid across all other intervals.

Other: An injection profile had been run on this well in October of 1992. Results were very similar in every respect. No channel up from perfs and, in fact, the upper perfs were not taking any injection during this survey either.