



TIERRA
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January 21, 1993

Ms. Kathy Brown
New Mexico Oil Conservation Division
P.O. Box 2088
Land Office Building
Santa Fe, New Mexico 87504

RECEIVED
APR 12 1993
OIL CON. DIV.
DIST. 3

RE: BLOOMFIELD REFINERY PROPOSED INJECTION WELL
FORMATION WATER QUALITY INFORMATION AND
INJECTION PRESSURE INFORMATION:

Dear Ms. Brown:

In the application sent to you, prepared by Tierra Environmental Company, Inc. on page 4, Item 5, the application made reference to a water quality analysis from Basin Disposal. On page 6, second paragraph reference was again made to Basin Disposal's well. In speaking with our geologist, he had obtained that information verbally. A written report was never obtained. We have made every attempt to obtain the report from Basin Disposal, but to no avail. They cannot locate one. I would respectfully submit, that if one does exist, it would be in the OCD files. Also, the other information described on page 6 paragraphs 1 and 2 was obtained from the San Juan Basin Geological Society regarding the estimated TDS levels in the Cliff House formations.

The injection pressure for the well is estimated to be about 1200-1500 psi, (refer to application page 3, item VII. 3.) The actual injection pressure will be determined by a step rate injection test, following completion, in order to determine the surface parting or fracturing pressure in the proposed formation. Once that pressure has been established, a limiting pressure device will be designed and installed to insure pressures are kept below the maximum fracture pressure. Following the test, the intention is to use hydrostatic pressure from the storage tanks for injection, should that pressure not exceed the maximum. If that pressure proves not sufficient for efficient injection and pumping is required, providing the maximum pressures allow, a system will be designed to increase the injection pressure. In any case a pressure limiting device will be designed and installed. Prior to installation the designed will be submitted to OCD for approval.

Ms. Kathy Brown
January 21, 1993
Page two

Tierra Environmental has submitted to Bloomfield Refining, three (3) options, we feel are viable solutions to the problem of two (2) wells that OCD identified as not cemented to the top of the injection formation. That information will be forwarded to you, when they make a decision as to which option they wish to pursue.

I hope this information is sufficient and we appreciate your cooperation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Phillip C. Nobis".

Phillip C. Nobis
Vice President
Risk Management

cc: BRC
file