

Van Waters & Rogers Inc.

subsidiary of **Univar**

32131 STEVEN WAY
CONIFER, CO 80433
PHONE (303) 838-5898
FAX (303) 838-8058

December 4, 1997

Rob Pine, Geologist III
Groundwater Quality Bureau
New Mexico Environmental Department
P. O. Box 26110
Santa Fe, New Mexico 87052

Dear Mr. Pine:

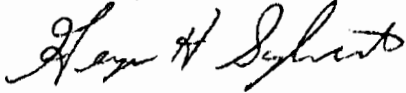
I have compiled information regarding performance of the groundwater treatment system currently in operation at the Van Waters & Rogers (VW&R) Albuquerque facility as you requested. As you are aware the treatment system consists of four groundwater extraction wells, a packed tower air stripper, and an infiltration gallery. The system is designed to extract 150-gallons of water per minute and is currently operating at an average rate of 123-gallons per minute. Approximately 53,572,500 gallons of groundwater were processed through the system from May 1, 1996 through April 30, 1997. Since that time the system has processed an additional 27,698,020 gallons through October 31, 1997. From start-up of the remedial system on June 4, 1990 through October 31, 1997, a total of 388,768,327 gallons of groundwater has been recovered and returned to the subsurface via the infiltration gallery. The November 1997 production figures are not yet available, I will forward this information to you upon receipt however, I do not anticipate that the total volume of groundwater treated and returned to the subsurface will vary significantly for prior monthly averages.

VW&R has experienced problems with the infiltration gallery on four separate occasions: October 1991, November 1992, and November 1993. On each of the four occasions precipitated calcium carbonate filled the void spaces of the infiltration bed and prevented treated groundwater from percolating downward. As a result the water levels in the gallery were raised and surface moisture was noted over the surface area of the gallery. In October 1991 and again in November 1992 the calcium carbonate was dissolved by flushing with dilute HCL. Following the November 1993 incident, VW&R doubled the infiltration capacity of the gallery and pretreated the groundwater with AquaMag, a liquid phosphate, which is designed to hold the calcium carbonate in solution. Since that time VW&R has not experienced any problems with the infiltration gallery. VW&R attributes most of the success to the addition of the AquaMag. The packing material of the air stripping tower has not been changed since June 1994 when VW&R began adding the

product to the pretreated groundwater. Prior to its use, the packing material had to be changed every 8 to 9 months due to calcium carbonate precipitation.

I have enclosed the October 1997 productions report for your review. Should you need any additional information, please do not hesitate to contact me at the above address.

Sincerely,



George H. Sylvester
Senior Project Manager
Environmental Affairs

cc: S. Smelser - VW&R/Albuquerque
W. Grotheer - VW&R/Kirkland