



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
JACKSON DISTRICT OFFICE



STEVEN E. CHESTER  
DIRECTOR

September 10, 2007

Mr. Farsad Fotouhi  
Corporate Vice President  
Environmental Engineering  
Pall Life Sciences, Inc.  
600 South Wagner Road  
Ann Arbor, MI 48103-9019

Mr. Alan D. Wasserman  
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535 Griswold Street  
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Detroit, MI 48226-3535

Mr. Michael L. Caldwell  
Zausmer, Kaufman,  
August & Caldwell, P.C.  
31700 Middlebelt Road,  
Suite 150  
Farmington Hills, MI 48334

Dear Sirs:

SUBJECT: Gelman Sciences, Inc. Remedial Action  
Installation of Test Boring, PLS-07-01, Western System, Dated March 2007

We received the above referenced report on March 9, 2007. We delayed our response to allow for additional technical discussion. The report and follow-up discussions have not resolved our concerns about the nature and extent and source of 1,4-dioxane groundwater contamination in this area of the Western System. We recognize that Pall Life Sciences (PLS) has done a considerable amount of investigation in this area, and that the contamination is relatively low, compared to other areas. However, because concentrations have not declined as predicted by PLS, and remain above the generic residential cleanup criterion (GRCC) for groundwater of 85 parts per billion (ppb), we do not agree with the recommendations in the report that no additional investigation is needed and that the frequency of batch purging be reduced.

The results from the test boring show that there is a thinning of the aquifer in this area, and that the concentration of 1,4-dioxane is about 5 ppb. The report states that this supports the belief that the migration pathway is to the north of the test boring. Static water level analysis was not provided with the report. Previous potentiometric surface contour maps have shown a northwesterly groundwater flow; however, this is based on a limited set of data.

Our April 26, 2006 letter approving the work plan for this boring had requested two monitoring wells to define the extent of contamination. Subsequent technical discussions between PLS and the Department of Environmental Quality Staff (DEQ) resulted in an agreement that PLS initially install only one boring, and that the need for additional monitoring wells would be determined after receipt of the results from the boring.

PLS has been unable to satisfactorily explain, and we still do not understand why 1,4-dioxane concentrations in MW-53i have consistently been about 50 ppb lower than the AACS well since the AACS well was installed in 2003. These two wells are about ten feet apart and each has ten-foot screens at the same depth. This unexplained anomaly continues to raise questions about the source of this contamination.

Our April 26, 2006 letter also requested sampling of MW-53i and the Ann Arbor Cleaning Supply (AACS) extraction well during purging. The report did not address any of the sampling that was done, and, to our knowledge, PLS collected only one of the requested samples. On June 1, 2006, the DEQ took two samples from the AACS well during purging. PLS staff collected one sample. No samples were collected from MW-53i. The DEQ results were provided to PLS, and are shown below, along with the PLS sample result.

<b>AACS Sample Results</b>			
<b>Date</b>	<b>Time</b>	<b>Lab</b>	<b>Result (ppb)</b>
6/1/06	11:00 a.m.	DEQ	140
6/1/06	1:30 p.m.	PLS	117
6/1/06	3:05 p.m.	DEQ	130

PLS questioned the DEQ results, which were higher than the PLS result. The DEQ analysis was done by the drinking water section of the DEQ's environmental laboratory. Upon review, the DEQ laboratory staff acknowledged that the calibration range of the equipment and dilution of the samples may not have been ideal for these samples.

We would like to split samples with PLS on the MW-53i and the AACS wells in October. We are consulting with our laboratory to ensure our samples will be analyzed using appropriate methods and quality control/quality assurance procedures.

Prior to making a decision on the need for additional monitoring wells, the requested samples from the MW-53i and the AACS wells need to be collected and analyzed. We had requested three sets of samples from the AACS well and MW-53i, prior to, during, and immediately after the batch purging. Static water measurements should be taken from MW-53i at the same time water samples are collected. We renew this request, and believe the results will provide data to better understand the contaminant distribution in the vicinity of the AACS well. We would like to discuss the procedures to be followed prior to sample collection.

We responded to your request to reduce the monthly batch purging from monthly to every other month in an electronic mail dated August 23, 2007. Our position has not changed, and is re-stated here. Attachment 7 to the March Report shows the trend of results from the AACS well as PLS has drawn it, using data through January 2007, when the concentration of dioxane was 112 ppb. There was a decline in concentrations from February to May 2007 (as low as 104 ppb). Results from June and July were 112 and 116 ppb, respectively. According to the PLS trend line, concentrations should now be about 100 ppb.

Although concentrations of dioxane in this area are relatively low, they remain above the GRCC of 85 ppb. We do not believe the frequency of batch purging should be decreased under the current conditions, when the current monthly batch purging does not result in the decrease in concentrations predicted by the trend analysis.

Please contact me at 517-780-7937 to discuss the requested sampling.

Sincerely,

Sybil Kolon  
Environmental Quality Analyst  
Gelman Sciences Project Coordinator  
Remediation and Redevelopment Division

SK/KJ

cc: Ms. Celeste Gill, Department of Attorney General  
Mr. Mitchell Adelman, DEQ/Gelman File  
Mr. James Cogger, DEQ