

August 3, 2007

Ms. Sybil Kolon
Department of Environmental Quality
Jackson State Office Building
301 E. Louis Glick Highway
Jackson, Michigan 49201

Re: Evergreen System

Dear Ms. Kolon:

Pall Life Sciences submits the enclosed Evergreen System Work Plan for Well Installation South of Valley Drive.

Should you have any questions regarding this Work Plan, please contact me at (734) 913-6130.

Sincerely,

Farsad Fotouhi

Farsad Fotouhi
Vice President
Corporate Environmental Engineering

cc: Celeste Gill, MDAG
Alan Wasserman, Esq.
Michael Caldwell, Esq.
Matthew Naud, City of Ann Arbor

Evergreen System

Work Plan for Well Installation South of Valley Drive

Background

Pall Life Sciences (PLS) and the Michigan Department of Environmental Quality (MDEQ) have agreed that additional water level and water quality data are to be collected in the area south of the Valley-Evergreen/Valley-Clarendon intersection. This work plan is in addition to the existing PLS's proposal (June 29, 2007) for installation of a monitoring well near Hollywood and Dellwood.

The primary purposes for investigating this area are:

1. Further examine the linkage between the Unit D2 plume in the Evergreen Subdivision and the Unit E (E1 plume) south of the Evergreen Subdivision. It is in this area that PLS believes the Unit E1 plume migrates north toward the Evergreen extraction wells. This is to support PLS' Motion to Amend Consent Judgment and Petition for Dispute Resolution.
2. Further evaluate the LB-1/LB-3 capture zone.

It is PLS opinion that extraction at Allison Street is not necessary to capture the Unit D2 plume, and that the Allison well is primary extracting water derived from the Unit E (E1) plume, which was not the original intent of the Allison wells. If the investigation reveals that the groundwater contamination has migrated past the capture zones of the Evergreen System extraction wells LB-1 and LB-3, and operation of another well(s) in the Allison or other areas is necessary to contain the Unit D2 plume, PLS will submit a work plan to MDEQ to address this issue.

Monitoring Well Installation

PLS proposes a minimum of one test boring/well (or nested wells) south of the Valley-Evergreen/Valley-Clarendon intersections. More than one boring/well location may be installed during this investigation. Access in this area is limited due to abundant surface features and the topographic surface. Figure 1 shows the general area where the boring/well(s) will be installed. PLS will use the following drilling procedures for the boring/well installation.

Well Boring/Well Installation Methods

Using a hollow-stem auger drilling method, the proposed test boring will be drilled to a depth sufficient to encounter bedrock. The proposed sampling methods are split spoon and Simulprobe for collection of soil and soil/groundwater, respectively.

Soil samples will be collected as split-spoon samples at 10-foot intervals, beginning at ground surface and ending at the bedrock surface. Starting at a depth approximately 10 feet below the uppermost water-bearing zone, soil/groundwater samples will be collected using Simulprobe techniques and continue through water-bearing deposits capable of providing adequate sample. In water-bearing units, Simulprobe sampling will be performed at a maximum frequency of every 10 feet. Split-spoon sampling will not be collected at the Simulprobe intervals, as the Simulprobe will account for the soil sampling. During the drilling of each boring, all soil samples will be described/classified based on their physical characteristics by an onsite geologist. Groundwater samples will be collected using a Simulprobe and analyzed for 1,4-dioxane by PLS analytical laboratory.

Upon reaching the total depth of the boring, as determined by the onsite geologist, the borehole will be geophysically logged using a natural gamma tool. This data will supplement the formation samples and provide additional information regarding site geological conditions.

A well or nested wells will be installed for the primary purpose of obtaining representative water quality and water level data. The vertical 1,4-dioxane distribution and the thickness of the aquifer in this area will be the primary considerations in determining whether nested wells

would be appropriate at this site. Such decisions will be at the discretion of PLS, however, PLS will discuss all well installation plans with the MDEQ.

Wells will be constructed of galvanized steel casing and equipped with a 5-foot stainless-steel well screen. Unless site conditions suggest otherwise, the primary well screen will be installed at the depth corresponding to the highest 1,4-dioxane levels. If multiple well screens are installed, the depth of the subsequent screens will be determined after review of boring data. All wells will be gravel packed and grouted. The wells will likely be completed as flush mounts, equipped with locking caps and locks. Soil cuttings derived from the drilling and development water will be transported back to PLS for appropriate management.

Reporting

PLS will provide MDEQ with a boring log for the boring/well shortly after the boring/well is completed. This well will be incorporated into PLSs routine water level/quality monitoring programs. Analytical and water level data for the well will be reported along with other data in the quarterly reports. PLS will also provide a separate report MDEQ an analysis of the findings of this investigation when all drilling and subsequent data collection events are completed.

Schedule

PLS is attempting to coordinate drilling for several wells (Dellwood, Veterans Park). PLS will include this well with the upcoming drilling. Providing site access can be obtained, PLS anticipates drilling for this project to begin in September 2007. Ideally, PLS will be able to install this well and coordinate data collection with the next scheduled sampling round. If the well cannot be installed by September, then another round of water level data will be collected after well installation and groundwater samples will be collected from the new wells. This data collection will be completed within one month after the drilling activities are completed.

PLS will provide MDEQ a report on this investigation within 1-2 months after the drilling and sampling activities are completed.

