Pall Corporation

Work Plan for the Drilling of a Test Boring Monitoring Well(s) on the University of Michigan Saginaw Forest Property
December 2, 2010

BACKGROUND

The Michigan Department of Natural Resources and Environment (DNRE) has requested that Pall Life Sciences (PLS) further investigate the extent of 1,4-dioxane in the area of the University of Michigan (U of M) Saginaw Forestby drilling a test boring and installing one or more monitoring wells (in a well nest) near the western property line for the Saginaw Forest property. At the request of U of M, PLS is providing this work plan for the proposed activities.

OVERVIEW OF WORK ACTIVITIES

The work involves the following tasks:

- The drilling of a test boring and collection of geological information;
- The collection of a groundwater sample and analysis of the sample for 1,4-dioxane;
- The installation of one or more 2-inch steel wells.

ROLES AND RESPONSIBILITIES

U of M – The U of M will need to provide PLS and its contractors access to the property for these work activities. The U of M will be responsible for marking any private utilities not in the MISS DIG system.

Pall Life Sciences - PLS will be financially responsible for the proposed work. PLS staff will also coordinate the work activities with the U of M and PLS contractors.

Fleis and Vandenbrink (F&V)– F&V will provide consulting services to PLS for this project. F&V will have staff on-site during the well installation process.

Stearns Drilling (Stearns) – Stearns will provide the pilot boring and well installation services. Stearns will be responsible for contacting MISS DIG to stake underground utilities. A list of contact names for the project will be provided to U of M prior to the start of the project.

SCHEDULE

It is proposed that the work activities will be initiated sometime December 2010 to January 2011. The exact drilling date will be provided as soon as drilling is scheduled. It is estimated that the work will take approximately 1 week to complete. PLS will notify U of M prior to entering the site and of any scheduling changes, if they should occur.

The estimated duration for key work activities is as follows:

Activity Estimated Time to Complete

The drilling of a test boring and collection of geological information- 2-4 Days

The installation of one or more 2-inch wells- 2 Days

The collection of a groundwater sample and analysis of the sample for 1,4-dioxane - 1 Day

LOGISTICAL ISSUES

The following items will need to be considered as part of the work activities:

- During drilling activities, a drilling rig and associated equipment will be brought to the site. Access to the site will be needed to get the equipment to the drilling location.
- Prior to any drilling activities, Stearns will contact MISS DIG and request a utility staking. Access to the site may be needed prior to drilling for the purpose of a site meeting.
- PLS will obtain local permits for the drilling/well installation activities.
- The drilling activities will cause some disruption at the site. PLS and its contractors will work with U of M to minimize these disruptions.
- Equipment will need to be stored on-site during the work activities. Stearns will coordinate with the U of M representative to determine a suitable location for the equipment.
- Sometime after the well installation PLS will need to survey the well location/elevation and collect groundwater samples.

BACKGROUND TECHNICAL INFORMATION

Boring/Well Location

The boring/well(s) will be drilled near the western property west of Third Sister Lake along an existing trail. PLS is available to meet with U of M representatives to stake out the locations prior to site work.

Boring/Sampling

A hollow-stem auger rig will be used to drill an 8 1/4-inch diameter boring. The purpose of the boring is to vertically profile this entire water bearing unit from the water table (or first saturated zone) to the bedrock. Both groundwater and soil samples will be collected during boring advancement using a split spoon or SimulProbe sampler. Groundwater samples will be collected at 10 foot intervals in water bearing zones. The samples will be analyzed by PLS for 1,4-dioxane.

The boring data will be used to make a decision regarding any well installations (number of wells, depth etc..) One or more separate borings will be drilled for the well(s). All wells will be constructed of 2-inch galvanized casing and equipped with a 5-foot stainless steel screen. The well screen will be gravel packed from the base of the screen to a few feet above the screen top, and the remainder of the boring annulus will be grouted. All grouting will meet local and state requirements for borings/test wells.

Upon completion of the well installation, the well(s) will be developed using air lifting methods. All development water will be containerized and transported off site for proper management at the PLS site.

A bolt-down flush mount manhole will be placed over the well(s). A compression plug will be placed on the top on the well(s) top and will be locked to inhibit tampering.

Drilling Waste Managements

All soils and fluids derived during the drilling, including any development water, will be containerized and hauled off site by PLS contractors.

Site Cleanup

PLS and/or its contractors will restore the site after drilling activities are complete.

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