

Attachment D

Soil Sampling Protocol and Consent To Enter Private Property

MDEQ Draft Protocol for Soil Sampling in the Tittabawassee River Flood Plain

Soil samples are to be collected from residential properties located downstream of Midland. The purpose of the sampling is to better determine the extent of dioxin/furan contamination in the soil and to support the activities of the Michigan Department of Community Health (MDCH). The sample locations were selected in collaboration with staff from the MDCH. The number of sample locations at each residential property generally varies between three to four sample locations. Initially, one sample location is chosen from each of the following portions of the residential property:

- The portion located outside of the floodplain.
- The portion that is the slope or gradient leading down to the river shoreline.
- The portion that is located in the frequently flooded portion of the property.

The following factors may increase or decrease the numbers of samples collected from a residential property:

- The size of the residential property and/or the relative size of the specific portion of the residential property as discussed above.
- The presence of any unique topographic or other physical features on the property.
- Any specific property use that would result in additional risk of dioxin exposure.
- Undisturbed and non-forested areas are preferred. Any areas where fill is known to have come from outside the floodplain onto the property will not be sampled.

As site conditions allow, soil samples are collected from each of four soil layers at each sample location, these being 0-1", 0-3", 3-6", and 12-15". Soil samples are manually collected using a hand auger. Multiple auger holes are necessary at each location to provide a sufficient quantity of soil to fill sample jars for analysis. At each soil layer, soil from the multiple auger holes will be composited and homogenized in a disposable metal pan prior to transfer to the sample containers. Vegetative cover will be removed prior to sample collection. Any soil remaining after all sample jars are filled is placed back into the auger holes at the end of sample collection activities. Auger holes are brought back to grade using available soil and supplemented as necessary with commercially purchased potting soil. The hand auger is decontaminated prior to sampling the next soil layer or soil sample location, and sample pans, spoons, and gloves are disposed. The soil type, unusual characteristics of the sample location and time of collection are recorded as field notes. Soil samples are packed in ice for transport to Triangle Laboratories for analysis of dioxin and furan compounds (USEPA Method 1613). This procedure is repeated for each sample depth at all sample locations.

Global positioning system coordinates are established for each sample location for mapping purposes and to re-locate sample sites, if necessary. Based on the information that has been collected to date, the position of a sample location within the estimated floodplain appears to be an important factor to consider when determining the likelihood that a property, or portion of a property, is contaminated with dioxin.

Analytical Laboratories

Soil dioxin analysis (Method 1613), Triangle Laboratory, 2445 S. Alston Ave., Durham, North Carolina.

CONSENT TO ENTER PRIVATE PROPERTY

(Date)

(Legal Description of Property)

I, _____, _____
(Print Name) (Address)

(City, State Zip Code) (Telephone)

owner of the property described above, having been informed of the request of the Michigan Department of Environmental Quality (MDEQ) to conduct response activities on this property, hereby permit and authorize the MDEQ, its employees, contractors, or authorized representatives to have entry and as necessary to re-enter the above-described premises and to undertake any and all response activities necessary to collect soil samples from the property. I understand that the MDEQ is conducting an investigation to determine the nature, extent, and impact of environmental contamination. I also understand that the MDEQ believes at this time that the source of the contamination that is the subject of the investigation response activities may have originated from the release of hazardous substances from other property(s) and, as a result of natural occurrences or human activities, the contamination may have migrated or spread onto my property.

I understand that I am entitled to accompany the MDEQ, its employees, contractors, or authorized representatives during these activities; to participate in the collection of any split samples taken as part of these activities; and, if I so request, to receive a copy of any sample analysis results, photographs, or videotapes taken as part of these activities. I am aware that sample analysis results and related information will be shared with the Michigan Department of Community Health. I agree to comply with the requirements of the facility health and safety plan, as appropriate and necessary, during these sampling activities.

I agree that the duration of this entry authorization shall be of such reasonable length to enable the MDEQ, its employees, contractors, or authorized representative to satisfactorily complete the activities described above. If I choose to revoke this entry authorization, I agree that I will do so in writing and deliver it to: Ms. Brenda J. Brouillet, District Supervisor, Saginaw Bay District Office, Remediation and Redevelopment Division, MDEQ, 503 N. Euclid Avenue, Bay City, Michigan, 48706 at least thirty (30) days prior to the effective date of the revocation of entry authorization. I agree that the duration of this entry authorization shall continue until either I revoke it, or the activities described above are completed. I also agree that as long as this entry authorization remains in force, I will not interfere with, interrupt, change, or otherwise disturb any systems or equipment installed or utilized by the MDEQ, its employees, contractors, or authorized representatives.

This voluntary, written permission is given by _____,
(Signature)

the property owner, to the Michigan Department of Environmental Quality.