Soil Results

The results of the soil samples were compared to the Residential Direct Exposure Limits,

Extraction Wells

2-inch-diameter well with total depth of 11 feet
1-foot Schedule (Sch.) 40 polyvinyl chloride (PVC) sump at bottom
5-foot Sch. 40 PVC 10-slot screen extending from 5 feet bls to 10 feet bls
2-inch-diameter Sch. 40 PVC riser to above ground surface
6/20 sand pack
Bentonite seal to prevent surface runoff seepage along well casing

Four sets of nested monitoring wells will also installed near the extraction wells at the locations shown on Contract Drawing 1 in Attachment B. The monitoring well construction is summarized below.

Monitoring Wells

2-inch-diameter well
Shallow "S" wells with total depth of 10 feet
Mid-range "M" wells with total depth of 18 feet
"S" wells with Sch. 40 PVC 10-slot screen extending from 5 feet bls to 10 feet bls
"M" wells with Sch. 40 PVC 10-slot screen extending from 16 feet bls to 18 feet bls
2-inch-diameter Sch. 40 PVC riser to near ground surface
20/30 sand pack
Bentonite seal to prevent surface runoff seepage along well casing
Protective flush-mount surface casing and locking cap

Each extraction well will be equipped with a pneumatically operated pump. The pumps have capacity of up to 2 gallons per minute (gpm) but the average flow from each well is expected to be 0.25 to 0.5 gpm. The air supply for the pneumatic pumps will be an existing air compressor located in the adjacent treatment building. Each well pump will have a sample tap along with isolation valves for the air supply and water discharge.

The extraction wells will discharge into a manifold consisting of ¾ and 1-inch-diameter Sch. 80 PVC pipe. Secondary containment for the water piping will be provided by piping or a containment tray as shown on the Contract Drawings in Attachment B. The piping from eight extraction wells will be combined in one manifold while the other seven extraction wells will combine in a second manifold. Flowmeters and sample taps are provided for each manifold, while a sample tap is provided for the combined flow from all the extraction wells.

The extraction wells will discharge into a 17,600 gallon double-walled steel storage tank. A vapor-phase carbon unit will be installed on the vent from the storage tank. As necessary, water will be removed from the storage tank using a vacuum truck and transported off-site for proper disposal. A containment area will be provided for the vacuum trucks during the loading operation.

While the extraction system will be manned continuously during operation, alarms will be provided at two locations in the containment tray to detect a water leak. Additionally, alarms will be provided to detect water in the containment section of the double-walled tank and for high level in the storage tank.

Operating personnel will be responsible to monitor and record key process parameters such as extraction wells in operation, air pressure, water flow rates, groundwater levels and storage tank level. They will also closely visually observe all facilities and containment/high level alarms. Samples will be periodically collected from each extraction well, groups of extraction wells in each piping manifold, the combined flow from all the wells, in the storage tank and from monitoring wells. The samples will be

Attachment A

Results of Soil and Groundwater Sampling Program

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38037X04

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40'

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40'

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Attachment B

Interim Source Removal Contract Drawings

STRUMENT SPECIFICATIONS

1. FLOW METERS SHALL BE BADGERMETER, INC. ¾–INCH INDUSTRIAL MODEL M25 RCDL POSITIVE DISPLACEMENT NUTATING DISC FLOWMETER WITH BRONZ

CONTAINMENT TRAY BA

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DVER: 17.0S (A

Attachment C

Interim Source Removal Construction Schedule

ID	Task Name
1	Complete Design
2	Install Wells
3	Survey Wells
4	Develop Wells
5	Construct Containment Structures
6	Double-Walled Storage Tank Delivery
7	Install Containment, Pumps and Piping
8	Start-Up Testing
9	System Operations