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May 4, 2018

Mr. Michael Belveg
Project Manager
NYSDEC Region 7
615 Erie Boulevard West
Syracuse, New York 13204

Re: Pass and Seymour AOC-1 Source Removal Workplan

Dear Mr. Belveg;

The purpose of this letter is to provide a workplan for focused excavation of two potential source areas within a portion of AOC-1 at the Pass and Seymour Brownfield site C734102 located at 50 Boyd Ave, Solvay New York.

As you are aware, groundwater impacted with Trichloroethene (TCE) and related compounds was treated in 2009 and again in 2012 with Potassium and Sodium Permanganate in two portions of the site designated as AOC-1 both overburden and bedrock plus AOC-2. Much of the groundwater impacted with solvent contamination has responded well to the chemical oxidation process with many of the impacted wells showing declines of 90%. However a core area of bedrock wells in AOC-1 has shown persistent high concentrations of TCE and Dichloroethene (DCE) particularly in four wells: OW1-1, OW1-2, OW1-3 and BR09-37. These wells, shown on the attached figure, are clustered in an area between the former manufacturing building and the existing office building.

Passive Soil Gas and Soil Sampling

In order to better identify potential sources of groundwater impact in AOC-1 Bedrock a soil vapor survey was undertaken in 2016 and soil borings and soil testing were completed in 2017. The results of soil borings and soil testing of select samples were described in a letter report to you dated November 29, 2017. The purpose of the soil boring program was to identify and quantify concentrations of Trichloroethene and related chlorinated compounds in overburden and weathered bedrock. The interface between weathered and unweathered bedrock within the AOC-1 area was found to be at depths between 10 and 15 feet below ground surface, based on location. That interface also roughly corresponds with both the seasonal low water table and the probable feasible depth of excavation for an excavation machine (backhoe).

Soil testing results indicated that impacted material exists in two areas within AOC-1. The first location correlated with soil boring SB-11 as shown on figure 1, and the second location correlated with borings SB-12, 13 and 15. For ease of discussion we will refer to these as locations SB-11 and SB-12.

Excavation Approach

SB-11 is located 23 feet north of a point that is 6 feet west of monitoring well OW1-2. SB-12 is 40 feet due north of monitoring well BR09-37.

SB-11 Location: a standard track mounted excavator will be staged in order to excavate in the exact location of the SB-11 boring. As the excavation proceeds material will be staged in two locations. As the bucket is filled it will be scanned using a photoionization detector (PID). Any material that causes a PID reading that exceeds 10ppm will be placed in a lined roll off container for off-site disposal. Material that is scanned and produces a PID reading of less than 10ppm will be staged within reach of the excavator on a plastic sheet. Based on the results of the boring at this location it is known that there is impacted material between 10 and 14 feet below grade. The excavation will extend to 14 feet, below which the rock is too hard to be excavated. Any impacted material encountered above 14 feet will be removed by excavation laterally until there is no indication of material exceeding PID readings of 10ppm.

SB-12 Location: as with the excavation at location SB-11 the excavator will remove material and place it either in a roll off for off-site disposal or on plastic sheeting. The excavation will focus on a triangular area defined by boring locations 12, 13 and 15. Samples taken from the borings indicated that the highest concentrations of TCE impacted soil were at 3 feet below grade. However impacted material was found at 8 feet in two of the borings. The goal of excavation will be to remove any impacted material encountered and to the extent that impact extends laterally the excavation will be expanded to remove it. It is not likely that the backhoe will be capable of removing material below 10 feet below grade, simply because the unweathered rock will be too hard.

Material Disposal

Soil that is placed in roll offs will be tested per the requirements of the disposal facility, but any material moved off site for disposal will be sent to a facility licensed to accept oil as hazardous waste for thermal treatment to remove the TCE and related compounds. It is assumed that at least one sample per roll off will be analyzed for all VOC's and SVOC's. The contractor in charge of excavation will also arrange for transport and disposal of impacted soil and will provide appropriate manifests documenting hauling and disposal of impacted soil. Based on discussions with NYSDEC, soil impacted with TCE as the primary COC may be taken to a Part 360 treatment facility or double lined landfill if the concentration is below 58ppm. However it appears that all part 360 facilities permitted to accept impacted soil will not accept it if the TCE concentration is 0.5 ppm or higher. Any material with TCE concentrations exceeding 0.5ppm will be disposed of at a hazardous waste treatment and disposal facility. The presence of PFOA's in soil, while not anticipated, may require a more expensive treatment option than the bioremediation facility permitted to take hazardous TCE impacted soil.

Excavation Backfill

Material that is screened with a PID and reflects readings of less than 10ppm will be staged and when each excavation is complete will be used to backfill the volumes removed at locations SB-11 and SB-12. Any remaining volume needed to backfill each excavation will be provided by a source that is certified as clean material. To maintain engineering controls the material used will be" run of crusher" stone with a geotextile marker layer at 1 foot below the final grade.

Health and Safety

During excavation a PID will be used continuously to monitor air outside the excavation at a perimeter of 20 feet from the edge of the excavation. If any measurements exceed 50 parts per million, excavation will be stopped and both the roll off and the excavation will be contained with a tarp until the source of volatiles can be isolated and levels reduced. Any roll offs leaving the site will be tarped prior to removal.

Reporting

At the completion of soil removal a report will be prepared and submitted to Pass and Seymour and the NYSDEC/NYSDOH documenting what was encountered during excavation, how much soil was removed for off-site disposal and what the PID and analytical results were from screening and sampling. Included will be the manifests documenting the shipment and disposal of impacted soil.

Schedule

It is proposed that this work be completed when the water table is at the annual low level. For purposes of planning it is suggested that this work be completed during the month of August.

Please call me or email me if you have questions or comments.

Very Truly Yours,

David W. Stoner
President


Figure Legend
Existing AOC-1 Monitoring Wells
Soil Boring Locations
OW1-3
15
13
12
BR09-37
11
OW1-2
OW1-1
Boyd Ave
DW Stoner & Associates, LLC
Pass and Seymour Boyd Ave Site
NYSDEC Brownfield Site Number C734102
Figure 1
Soil Boring Locations (#11,12,13,15)
Job Number 1227 April 2018