

July 6, 2016

Mr. John Hnat  
WDNR  
2300 N Dr. Martin Luther King Jr Dr.  
Milwaukee, WI 53212

RE: Proposed Additional Investigative and Remedial Actions; Response to May 2, 2016  
WDNR Letter, Master Dry Cleaners DERF Site, 6326 W. Bluemound Road,  
Wauwatosa, WI, BRRTS # 02-41-545142

FID 241 398 630

Dear Mr. Hnat:

## 1.0 OBJECTIVE

The purpose of this submittal is to propose additional soil investigation and soil / vapor remediation actions for the above-referenced site. In addition, Attachments A and B to this document provides responses to issues noted in your May 2, 2016 letter.

## 2.0 SITE CONDITIONS

### 2.1 Site Status and Completed Activities

The drycleaning business operated from then 1970's to 2015, and the drycleaning machine was removed in early 2016. The building is currently vacant, but a new tenant is seeking to use the building, with potential purchase. Occupancy is planned after sub-building soil and vapor issues have been resolved, so there is some urgency to implement the proposed additional remedial measures. The City of Wauwatosa will not allow occupancy of the building until the WDNR provides approval of a revised remedial action plan and the work has been implemented.

As you know, the site investigation for the project was completed by Sigma Environmental, Milwaukee, WI, with the investigation completed in 2012. Soil borings and a monitoring well network consisting of 19 locations were established during the investigation (Figure 1). Soil, groundwater, and subslab and indoor vapor samples of the neighboring residential property to the north (Richard Rusch, 518 64<sup>th</sup> Street) were obtained, with no elevated responses. The investigation was considered complete, and remedial action options were solicited from consulting firms to address the drycleaning contamination.

The property was formerly a gas station from approximately 1950 to 1970, and Sigma directed a petroleum remedial excavation outside the southwest part of the building in 2006. Petroleum-contaminated soil was removed from the former underground storage tank area, but remaining petroleum persisted in the soil and groundwater southwest of the building. The petroleum activities were closed by the WDNR in June 2013, with notification of off-site contamination in groundwater provided to the neighbor to the north (Richard Rusch, 518 N 64<sup>th</sup> Street). A cap maintenance plan was also part of the

requirement for closure, with essentially the entire building and parking lot paved surfaces identified as cap areas that should be maintained to be protective of the environment.

After winning competitive bids, and with review and approval of the WDNR, in early December 2015 Fehr Graham directed the site remediation remedy - injection of an aqueous mixture containing 3,200 pounds of Provectus IR at the most contaminated area of the property. Areas of injection focused on the south, east, and north edges of the building, but did not access the building interior.

In February 2016, after approval by the DNR, three additional soil borings were installed in the building, and a former floor sump was excavated and removed. Soil samples obtained during sump removal reveal elevated PCE is present beneath the former sump and beneath the sanitary sewer drain that exited the former sump. In an effort to address these elevated areas of soil contamination, the sump was filled with a 250-pound slurry of the same chemical that was injected at the site (Provectus IR). The mixture gradually drained into the subsurface.

Subslab vapor samples were also obtained in February 2016 to assess potential vapor intrusion issues for future building occupants.

On March 10, 2016, upon receipt of the laboratory analytical results from the sub building soils, additional proposed sub-building soil treatment via chemical injection and soil vapor extraction was proposed by Fehr Graham. The WDNR responded on May 2, 2016 with additional question and comments about the proposed activities.

In late April 2016, as laid out in the remedial action plan, the first round of post-injection groundwater samples were obtained from all 19 site monitoring wells. A status report was sent by Fehr Graham in June 7, 2016 that presented the results from the latest groundwater chemistry results and the February 2016 subslab vapor results.

## 2.2 Existing Site Conditions

### 2.2.1 Geology and Hydrogeology

The site geology consists of approximately 16 feet of unconsolidated glacial till, primarily silty clay, silt, and silty sand, overlying dolomite. The depth to water is approximately ten feet below grade, and the site is relatively flat. Groundwater flow is to the north / northeast and vertical hydraulic groundwater gradients are slightly downward, as noted at well nests SMW-4 / PZ-2 and SMW-9 / PZ-1.

### 2.2.2 Groundwater Chemistry

The groundwater beneath the site contains elevated levels of the drycleaning chemical tetrachloroethene (PCE), and related breakdown products trichloroethene (TCE), cis- and trans-dichloroethene (DCE), and vinyl chloride (VC). The highest concentrations are found in groundwater from monitoring well SMW-9, which is just outside the building rear (east) door in an area where filters were historically cleaned. The contamination extends downgradient to the north, with impacts present in monitoring wells SMW-11, located 60

x 15

GW = ~10'

feet north of the property line, and SMW-14, located approximately 120 feet north of the northwest corner of the Master Cleaners property (Figure 2).

Petroleum products from the former gas station release are also present in some locations at levels above the groundwater standards, including the compounds benzene, ethylbenzene, xylenes, trimethylbenzenes, and naphthalene. Elevated petroleum is present in groundwater primarily south of the building, and in downgradient well SMW-10 north of the site (Table A.1.I)

The December 2015 treatment of the groundwater via injection of Provectus IR has significantly improved the overall groundwater chemistry for both petroleum and drycleaning chemicals. With further monitoring planned, it is anticipated continued improvements over time will be observed.

### 2.2.3 Vapor Chemistry

Subslab vapors beneath the Master Cleaners building were tested in February 2016, and the results indicate elevated levels of PCE and TCE are present beneath the building (Table A.5, Figure 3). Prior to occupancy, a subslab vapor mitigation system should be installed to prevent exposure to elevated vapors by building occupants.

During the site investigation, subslab and indoor vapors were tested on the neighboring building to the north, at 518 N. 64<sup>th</sup> Street. Test results are summarized on Table A.5, and sample locations are mapped on Figure 3. The results indicate elevated levels of TCE were present in the subslab vapors, but no drycleaning chemicals were detected in indoor air samples obtained in the basement or the first floor of the house in February 2012.

Injection of Provectus IR took place on the Master Cleaner property in December 2015. During the injection, elevated readings on the combustible gas meter were noted in the headspace of monitoring wells SMW-4, SMW-8, SMW-10, and SMW-14. No elevated LEL measurements were recorded in the basement of the Rusch House (518 N. 64<sup>th</sup> Street). It is expected the observation of elevated LEL in well headspaces was the result of mobilization of residual petroleum during the injection process. PCE is not combustible and would not cause elevated LEL responses.

### 2.2.4 Soil Chemistry

The soil chemistry results from all sampling at the site is mapped on Figure 4 and shown on Table A.2.I, and the soil chemistry results beneath the building is reflected on the cross section (Figure 5). The depth to water is approximately ten feet below grade, and some of the soil chemistry results that have been obtained reflect saturated soil. Utilities have also been shown on Figure 4 for assessment of potential contaminant migration pathways.

Comparison of Figures 2 and 4 reveals that the most elevated levels of drycleaning chemicals are present in the same location as noted for groundwater. Very high concentrations of PCE were detected in the soil beneath the sump (3,160 to 10,800 mg/kg PCE at a depth of five and a half feet) beneath the building. Elevated PCE is also present

at the connection of the sump to the sanitary sewer pipe that drained the sump, at a depth of 2.5 feet below grade (37.6 mg/kg PCE). 37,600 ppb

Based on results from nearby soil borings (HA-1, HA-2, B-101, B-103, and the outdoor perimeter building borings SGP-2, SGP-3, SGP-4, SGP-5, and SGP-6, the area of highly elevated PCE beneath the sump is not horizontally extensive. The zone of highly elevated PCE is likely limited to a vertical pathway extending immediately beneath the sump, down to the water table surface (Figure 5).

Similarly, there is no reason to believe there is a laterally extensive area of highly-elevated PCE in soil beneath the sanitary lateral pipe underneath the building and outside between the building and 64<sup>th</sup> Street. However, further assessment of the potential for additional areas of high PCE in soil beneath the utilities is proposed.

The most elevated petroleum constituents in soil are present southwest of the building (SS-1, SS-3, around the former UST excavation area, Figure 1). Elevated petroleum in saturated soil has been noted beneath the building at borings B-103, directly northeast of the former UST basin. The elevated petroleum in this area is likely present due to migration of contaminated groundwater from the former UST basin source area.

#### 2.2.5 Contaminant Mass

To evaluate remedial options for remaining soil contamination, an evaluation of the mass of PCE contamination was completed (Table 1). In any mass calculation, there are significant assumptions that must be part of the assessment. Assumptions for this case include:

- The depth to water is ten feet, the depth to bedrock is 16 feet, and the calculation has separated the remaining contaminants into saturated (>10') and unsaturated (<10') component.
- A soil mass of 1.5 tons per cubic yard was used for calculations
- The soil chemistry results from the site investigation remain unchanged, despite possible decreases from the injection treatment in December 2015.
- Dimensions of the area where highly elevated PCE beneath the removed 30-inch diameter sump are four feet square, and extend from the current base of the sump, 5.5 feet, to the top of the water table at ten feet.
- The dimensions of the elevated PCE beneath the indoor sanitary lateral line extend two feet wide by 42 feet beneath the building, from a depth of 2.5 feet to the water table at ten feet.
- Contamination beneath the remainder of the building is divided into an east and west half, with dimensions of 30 feet by 25 feet by 9.5 feet vertically for each half.

- Outside contamination has been estimated to extend a distance of ten feet north, south, east, and west surrounding the entire perimeter of the building.
- Although no data has been obtained specifically from the outside utility line backfill, it has been assumed the utility lines contain contaminated fill from the building to the sidewalk (40 feet by two foot impacted width), from the assumed base of five feet to the ten-foot water table surface. Assessment of the utility line corridor is proposed to verify the impacts in this area.
- Chemistry results from borings located within the areas of impact noted above were averaged to determine the estimated mass. For areas with no available data, such as the outside utility lines, the information from the indoor sample next to the sump was used.

The results indicate the following:

1. There is an estimated 3,550 tons (2,364 cubic yards) of saturated and unsaturated soil beneath the site that contains an estimated 174 pounds of PCE.
2. At a density of 13.5 pounds per gallon, there is roughly 13 gallons of PCE bound up in the soil and saturated soil beneath the site.
3. The highly contaminated area beneath the former sump contains an estimated 130 pounds of PCE in nine tons of unsaturated and saturated soil. Another estimated five pounds of PCE is estimated to be present in 63 tons of soil beneath the utility line backfill beneath the building, while nine pounds PCE is present beneath the eastern half of the building, and only two pounds of PCE is present beneath the western half of the building.
4. Roughly 146 pounds of PCE (84% of total) is present in soil and saturated soil beneath the building, 25 pounds outside the building, and 4 pounds may be present in the outside utility lateral, assuming the lateral has the same chemical concentration as the one lateral sample inside the building at the sump. Further evaluation of the actual soil concentrations surrounding the lateral both inside and outside the building is proposed.
5. Unsaturated soil containing PCE represents 39% (68 pounds) of the PCE mass but is found in 2,190 tons of soil (61% of total impacted soil).

### 3.0 PROPOSED ADDITIONAL REMEDIATION ACTIVITIES

Additional soil assessment and remediation is proposed for completion beneath the building, and from the sanitary sewer lateral that runs north and west from the building to 64<sup>th</sup> Street.

#### 3.1 Goal and Objective of Remedial Option

① Contaminant mass removal is the main objective of this proposed additional remedial option. As shown on Table 1, most of the remaining PCE contaminant mass is present in the soil surrounding the former sump. While indoor excavation is difficult, removal of a relatively small quantity of soil at the former sump (2.2 tons) and beneath the sanitary sewer indoor lateral (25 tons) can remove an estimated 51 percent of the indoor unsaturated PCE contamination.

② Similarly, testing is proposed to evaluate the need for removal of the outside sanitary and water laterals. If concentrations are shown to be similar to indoor levels at the sewer lateral, removal of roughly 75 tons of soil surrounding the sanitary and water lateral outside the building may eliminate roughly 22 percent of the outside unsaturated PCE contamination.

As required by NR722, an evaluation of remediation alternatives has been prepared, but for the sake of brevity, it has been included as Attachment B. Below is a brief description of the proposed remedial action, followed by a task by task description and cost estimate.

#### 3.2 Recommended Remedial Option

① The recommended remedial option for the site involves soil excavation and removal of remaining contaminant mass. Proposed excavation areas include the indoor sump area and the indoor sanitary sewer lateral, plus outdoor excavation and replacement of the sanitary sewer lateral. Pre-excavation testing is proposed to verify the excavation needs at the outdoor lateral.

② Upon soil removal, a contingency has been provided for the possible addition of a liquid chemical solution to help further diminish remaining PCE.

③ After excavation, the building and utility lateral will be restored. A subslab vapor mitigation system will be installed, with communication testing performed to demonstrate effectiveness. Once these actions have been completed, the building should be able to be occupied.

④ Continued groundwater monitoring, per the previously approved plan and schedule, will proceed, with the second post-injection groundwater sample event scheduled for October 2016.

#### 3.3 Proposed Additional Scope of Work

The following actions are proposed:

Task 0: Project Management

Additional project management time has been included on the cost estimate to cover additional labor needed to perform these additional activities. Project management activities include correspondence with the WDNR, neighboring property owners, invoicing, budget management, and routine project tasks.

Task F: Additional Assessment of Utility Corridors

There is known elevated PCE in soil under the former building sump (3,160 to 10,800 mg/kg PCE at 5.5 feet). Elevated PCE in soil is also present at the sewer lateral exiting the sump under the building (37.6 mg/kg PCE at 2.5 feet).

Soil chemistry results along the sewer lateral inside the building and further downstream from the sump are not known, but suspected to be contaminated. Soil chemistry results along the sanitary sewer lateral outside the building are also not known, but could be impacted.

Video mapping of the sanitary sewer lateral is proposed to evaluate the location of the line and whether there are any apparent breaks in the piping where material inside the lateral may have been released to the surrounding soils. A plumber will be contracted to run a video camera inside the sewer, locating the line at the ground surface with marking paint, and also marking locations where potential breaks are observed. The line will be traced both inside and outside the building, an estimated 65 feet outside and 40 feet inside. If previously marked locations are no longer apparent, a private utility locator will be hired to mark the location of the gas lateral and the water lateral, as they are also present in the area of concern.

Upon interpretation of the information from the sewer video, Geoprobe borings will be advanced near the likely breaking points. A total of six Geoprobe borings are proposed, four outside, and two inside (Figure 6). The borings will involve advancement of a 2.5-inch diameter core barrel adjacent to select identified potential breaks, with soil samples retained from three depths outside, and two depths inside at each boring for laboratory analysis of VOCs. If no breaks are identified, the borings will be advanced at locations shown on Figure 6.

Care will be taken to avoid damage to the utility lines by offsetting approximately 1.5 feet from the identified line location. The water lateral also is present, presumable in the same trench, and off-set will need to accommodate the water lateral line.

Soil samples will be retained from the approximate base of the pipe (estimated three to four feet for indoor borings, and five to six feet for outdoor borings), plus a deeper interval from the borehole base at eight feet. Additionally, shallow soil above the laterals will be retained from the outside borings, from approximately 3 to 4 feet, to evaluate whether the shallow soil can be reused as clean fill upon excavation. A total of 16 soil VOC analyses are proposed. Two soil samples will also be retained for TCLP VOC analysis, to support landfill disposal criteria.

Additional soil samples may be retained as necessary to characterize the soil for landfill disposal, pending finalization of the landfill requirements.

#### Task G: Landfill Disposal Approval

Upon receipt of the laboratory analytical results, approval for soil disposal will be pursued. Disposal approval paperwork will be prepared and submitted for approval.

The disposal companies will require the WDNR provide concurrence with the criteria proposed for determination that soil is either hazardous or non-hazardous. A hazardous waste determination for the site has been provided in Attachment B. Review and approval by the WDNR is requested for the hazardous waste determination criteria.

Basically, the proposed threshold values for determination of whether soil is hazardous or not are:

*Handwritten notes:*  
Linen  
+ ACS  
- medium  
Tillu

PCE	14 mg/kg	<sup>AND</sup> or pass TCLP limit 0.7 mg/l
TCE	8.81 mg/kg	<sup>AND</sup> or pass TCLP limit 0.5 mg/l
DCE	2040 mg/kg	<sup>AND</sup>
VC	2.03 mg/kg	<sup>AND</sup> or pass TCLP limit 0.2 mg/l

It is anticipated testing performed as part of Task F will demonstrate that soil from the exterior and interior utility lines will be acceptable for disposal as non-hazardous waste at a licensed subtitle D facility in Wisconsin, and only soil from the sump area will be considered hazardous waste.

#### Task H: Soil Excavation and Disposal

Excavation and proper disposal of soil from beneath the building and around the sewer / water lateral is proposed. If the soil sampling test results from Task F above indicate minimal impacts are present along the exterior sewer lateral, excavation of the outside utility lines may not prove necessary, but at this time, it is assumed excavation will be necessary both inside and outside the building. A permit for the work will be obtained from the City of Wauwatosa prior to completion.

The interior excavation will be performed using a micro- or mini-excavator and a skid steer. The exterior location will likely utilize a full size backhoe and a trench box.

Excavation will include an estimated 40-foot long by four-foot wide by eight-foot deep area of water and sewer lateral removal outside the building (50 CY = 75 tons) and 40-foot long by two-foot wide by six-foot deep area (20 CY = 30 tons) inside around the indoor sanitary lateral. Assuming test results indicate no impacts, the shallow soil in the outside excavation from zero to four feet (35 tons) will be removed and set aside as clean fill for reuse as backfill in the restored excavation.

The sump excavation is planned to extend as deep as the mini-backhoe can reach, eight foot in depth, by an estimated four-foot by four-foot area. Because the sump extended to a depth of five feet and that space remains as a void, the volume of soil assumed for the hazardous waste dig material around the former sump is only four feet square by

three-feet thick, or 1.8 CY = 2.7 tons. For planning purposes the quantity of soil from the hazardous waste area is only anticipated to require five drums for containment / disposal. The material will be excavated, drummed, and stored outside, pending pick up by the licensed hazardous waste disposal firm.

Excavation activities will take care to minimize damage beyond the excavation footprint. Saw cutting of concrete and asphalt will be performed prior to digging. Removed asphalt and concrete will be taken off site for recycling / regrind. All excavated soil will be removed and placed in dump trucks for hauling to the licensed disposal facility. Indoor excavation work will require handling of material using a skid steer to get the material outside, prior to loading in a dump truck.

The excavation will extend approximately two to three feet beneath the existing utility lateral base grade, but the depth may vary based on the soil chemistry results from Task F. For the interior excavation, the sewer lateral at the sump is only 2.5 feet below grade, but it gravity drains, and will be deeper downgradient, closer to the building exterior wall. Excavation to six feet below grade is anticipated, with removal of the lateral line. Soil will be direct hauled to a licensed disposal facility, likely Waste Management's Parkview recycling and disposal facility, under manifest approval. For the interior excavation, use of a trench box is not anticipated to be necessary due to the shallow depth and the need for only limited line restoration.

If the soil boring results from Task F indicate excavation is warranted, the exterior sewer lateral will be dug using a four-foot wide trench box. It is expected removal of both the sewer and water laterals will be performed to make excavation of the underlying contaminated soil possible. Excavation limits will extend from the building to the edge of the sidewalk at 64<sup>th</sup> Street and will remain on private property. Excavation work will not extend onto the right of way of 64<sup>th</sup> Street. Upon reaching the excavation limit by the sidewalk, a plastic and clay plug will be installed to minimize the potential for vapor and water movement from the site laterals to the main utility lines in the street. The plastic and clay plug will extend from approximately two feet below grade to the excavation base at eight feet, and will consist of a minimum of a foot of hydrated granular bentonite sandwiched between a double layer of Stegowrap 15 mil plastic.

*→ sniffer #5 - what is criteria for  
EXCAVATION  
other than HAZ  
waste  
or limit  
in place.*

Restoration of the indoor sewer lateral will only take place where needed to serve the future building use. This is anticipated to be from the bathroom to the existing lateral that exits the building. No restoration of the current lateral is planned in areas where the line is no longer needed, such as from the former sump and sink drain along the north wall.

Restoration will include backfilling with pea gravel or other suitable material that will be compacted with the excavation equipment to provide a suitable substrate for the new replacement water lateral and sewer lateral. A licensed plumber will be used, and a permit will need to be obtained from the City of Wauwatosa.

Prior to backfilling, perimeter soil samples will be obtained from the excavation base and both excavation walls to document remaining chemistry. These samples will be obtained from an estimated two locations outside at various depths, and one location inside, for a

total of nine samples. Analysis will be performed for VOCs. Some of these analyses may not be needed, depending on the results of the soil boring findings under Task F.

#### Task I: Contingency for Chemical Addition in Excavation Base

Due to the inability to remove all contaminants, primarily due to the limited reach of the mini-excavator when digging inside a building, an estimated 150 gallons of eight to nine percent emulsified zero valent iron (EZVI). Is proposed to be added to the indoor excavation upon conclusion of digging.

This step provides a means to aggressively remove further contaminant mass beneath the building that will not be able to be reached via excavation.

Upon reaching the targeted excavation depth, a solution of EZVI, a compound similar to the Provect IR material injected in December, will be mixed and added into the base of the excavation. The solution will have a relatively low viscosity, and will soak into the unsaturated soil and dissipate into the saturated soil.

The technology will facilitate rapid mass flux abatement followed by complete mineralization over a period of several years of activity. The EZVI emulsion is engineered to sequester and destroy free phase and suspended chlorinated solvents using nano-scale suspended zero valent iron powder (far less than one 1-micron size). The previously injected Provect IR had a much larger zero valent iron particulate size (25 to 30 microns).

The EZVI proposed for addition will address potential remaining free phase PCE, if present. The EZVI material consists of a water droplet containing suspended zero valent iron particles, surrounded by a boundary layer of vegetable oil. The oil is hydrophobic, and only allows other hydrophobic substances, such as PCE, to pass through the oil layer, where the PCE will then react with the suspended zero valent iron, destroying the PCE. Since EZVI has similar physical properties as free phase PCE, it will follow the same migratory pathways that spilled PCE would have taken, maximizing contact and destruction of remaining PCE.

Since the excavation will be open and further treatment of the source area is possible, we recommend implementation of this additional treatment. The liquid will be batch mixed and added to the sub-building trench. The below building trench will extend to a depth of six to eight feet below grade over an estimated 40-foot distance, and addition of 150 gallons to the two-foot wide trench will result in approximately 0.25 feet of liquid in the base of the indoor excavation. The solution will soak into the underlying soils, likely within a day or two of placement.

After the liquid has been placed, the excavation will be backfilled with granular material, the replacement sewer lateral will be installed in part of the excavation, the vapor mitigation system extension piping added, and the floor restored, as described in Task E below.

The existing site injection permit from the WDNR can be extended to accommodate this slight change in proposed delivery method and chemical. The permit was written to cover pressure injection of Provectus IR, a zero valent iron proprietary solution. Non-pressurized

(gravity) addition of a small quantity (150 gallons) of another formulation of zero valent iron proprietary solution will be requested to be added to the injection permit.

Monitoring of subsurface headspace gasses will be completed both pre-and post-chemical solution addition (PID, four gas meter measurements) at nearby monitoring wells (SMW-3, SMW-4, SMW-8, SMW-5, SMW-7, SMW-3, and SMW-10). Since the liquid will be added via gravity drainage, and not under pressure as previously was completed, there is little need to monitor distant monitoring wells for changes in headspace gasses.

Since the addition will only take place inside the building, approximately 50 feet from the utility mains beneath 64<sup>th</sup> Street, there is no significant risk of migration of the solution to the utility main pipes beneath 64<sup>th</sup> Street. We will involve the City of Wauwatosa in the planning stages for this work, and notify them prior to initiation of the chemical mixture addition. If necessary, we will monitor the appearance of the nearest downgradient storm and sanitary sewer lines, but given the depth of addition, location, and lack of pressure injection, we do not expect monitoring of the storm or sanitary sewer main lines will be necessary.

#### Task E: Building Restoration with Subslab Vapor Mitigation System Installation

Pre-excavation testing of the subslab vapors demonstrate elevated vapors are present beneath the eastern portion of the building, likely primarily related to the release at the sump. Vapor levels in the subslab from the southwestern portion of the building were not elevated above levels that would require mitigation.

Despite completion of the indoor excavation, some contaminants will persist in the subsurface soil beneath the building. A vapor mitigation system has been previously approved for installation at the site to address subslab vapors. However, to improve the performance of the vapor mitigation system, additional measures will be taken during backfilling of the indoor excavation. These include

- 1) installation of an estimated 40 feet of perforated 2-inch diameter Schedule 40 PVC piping within the granular fill of the sump and indoor sanitary sewer lateral excavation
- 2) Connect of the 2-inch piping to a 3-inch diameter Schedule 40 PVC subslab vapor extraction point, which will be installed adjacent to the building exterior wall
- 3) Placement of an estimated 1000 square feet of Stegowrap 15 mil thick vapor barrier material beneath the floor of the building in the areas where the floor cuts were made. The Stegowrap will help provide a barrier so the subslab system extracts subslab vapors instead of indoor air.

Following installation of these vapor enhancements, the concrete floor will be restored.

The vapor mitigation system will consist of a single electric low horsepower fan, installed on the exterior wall, piped to the single floor connection. The location of the fan will depend on planned building renovations for entry and windows, as the fan needs to be located specific distances from air entry points.

Upon installation, a vapor mitigation system communication test will be performed to evaluate the adequacy of the system to capture subslab vapors. A report documenting the results will be sent with the remedial action documentation report of the additional remediation activities.

#### Task J: Documentation Report Preparation

Upon completion of the additional remedial activities, a documentation report will be prepared that summarizes the activities. The report will include figures, tables, and laboratory analytical reports to document findings. Copies of proper soil disposal will be included as an attachment.

After completion of these activities in the fall of 2016, the groundwater monitoring program that was previously approved by the WDNR in the original Fehr Graham Remedial Action Plan will continue. The next sample event is planned for October 2016.

#### Task 6: Groundwater Monitoring Six Events with Email Reports

The scope of work and costs approved in the original Remedial Action Plan included groundwater sampling at twelve (12) monitoring wells over six quarterly groundwater monitoring events. Based on the results from the initial post-injection sample event, it is proposed sampling be performed at 14 monitoring wells, detailed below, on the following schedule:

14 Wells to Sample Quarterly: SMW-3, 4, 6, 7, 8, 9, 10, 11, 14, PZ-1, 2, and MW-1, 2,3

All 19 monitoring wells will be sampled in April 2017 in anticipation of possible request of case closure, and again in the final of the six approved sample events, if closure is not possible after the April 2017 sample event.

Sampling of off-site monitoring wells requires the submittal of the results to the private well owners. Formal submittal of results was not required when the project was bid, and some time has been added to this task to accommodate the additional time required to keep the neighbors informed.

Sampling will take place on the following schedule:

Time	Number of Wells		Comments
Oct 2016	14		Skip wells 1,2,5, 12, 13
Jan 2017	14		
April 2017	19		Sample All Wells
July 2017	14		
Oct 2017	14		
Jan 2018	19		Sample All Wells
TOTAL	94		Increase of 16 wells over approved

#### 4.0 COST ESTIMATE

The estimated cost for the proposed work is provided on Table 1A, and totals \$68,376, including \$9,925 as a contingency for addition of chemicals to the indoor excavation base (Task I). We have obtained bids for the excavation, disposal, and chemical products from vendors, and passed their charges on with no markup.

Please review the costs, and provide approval of the attached Change Order # 3.

As required by the DERF program bidding requirements, we certify that we will complete services in compliance with ch NR 169, NR 140, and the NR 700 to NR 754 rule series. We will make available to the WDNR for inspection and copying, upon request, all documents and records related to the contract services. We have not prepared this bid in collusion with any other consultant submitting a bid on this site. We will perform all services in an ethical, professional and timely manner. Insurance information for Fehr Graham has previously been provided. We have and will maintain the necessary insurance and deductible coverages specified by NR169.

#### 5.0 SCHEDULE

The anticipated project schedule for the proposed supplemental source removal work is laid out below:

Activity	Duration
Sewer Video and Evaluation	1 day
Geoprobe Borings	1 day
Soil Lab Analysis	2 weeks
Landfill Approval	2 weeks
Excvn Inside w/ Chemical Addn	1 week
Excavation Outside	1 week
Vapor Mitigation System	1 day
Vapor Communication Test	1 day
Data Evaluation and Interpretation	On-Going
Documentation Report	4 weeks
Total	12 to 14 weeks

We plan to get the second round of post-injection groundwater samples in October, the proceed with the quarterly sampling schedule laid out under Task 6 above (January 2017; April 2017; July 2017; Oct 2017; Jan 2018).

I trust this information meets your needs. If you have any questions, please give me a call.



Kendrick A. Ebbott, P.G.  
Branch Manager

Attachments:

A: Response to WDNR May 2, 2016 Letter Comments  
B: NR 722 Remedial Action Options Analysis with Hazardous Waste Determination  
Figure 1: Site Layout and Utilities  
Figure 2: Groundwater Chemistry April 25 & 26, 2016  
Figure 3: Vapor Chemistry Results  
Figure 4: Soil Chemistry Results  
Figure 5: Draft Geologic Cross Section Map A-A'  
Figure 6: Proposed Remedial Testing and Excavation  
Table A.1.I Groundwater Analytical Results Table - VOCs  
Table A.2.I Soil Analytical Results Table - VOC  
Table A.5 Vapor Analytical Results Table - VOC  
Table 1: Contaminant Mass Calculation  
Table 1A: Cost Estimate  
Change Order 3

CC: Mr. Harold Shipshock, Master Cleaners, c/o Mr. Tom Shipshock, via email  
Mr. Don Gallo, Whyte Hirschboeck, via email only

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-1						
				12/12/06	09/25/07	12/06/07	09/09/08	08/18/09	09/30/15	04/25/16
Date										
Groundwater Elevation				682.46	682.06	680.92	682.05	681.43	683.03	683.84
Benzene	(ug/L)	0.5	5	<0.47	<i>0.51 J</i>	<0.47	<i>0.38 J</i>	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<i>2.19</i>	<i>72</i>	<i>0.61 J</i>	<i>23.6</i>	<0.87	<i>23.9</i>	<i>20.1</i>
Toluene	(ug/L)	160	800	<0.59	<i>0.93 J</i>	<0.46	<i>0.62 J</i>	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<i>7.05 J</i>	<i>16.45</i>	<0.99	<i>2.47 J</i>	<2.13	<i>2.3</i>	<i>1.9 J</i>
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<i>2.3</i>	<0.50
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.50	<i>1.9 J</i>
Naphthalene	(ug/L)	10	100	<2.2	<i>3.8 J</i>	<1.8	<i>2.19 J</i>	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.52	<0.52	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<i>5.68</i>	<i>18.5</i>	<1.57	<i>0.83</i>	<2.6	<i>0.91</i>	<i>0.68 J</i>
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<i>1.48</i>	<i>18.5</i>	<1.2	<i>0.83 J</i>	<1.1	<i>0.91 J</i>	<i>0.68 J</i>
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<i>4.2</i>	<0.37	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<0.52	<i>0.69 J</i>	<0.52	<i>0.60</i>	<0.42	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	0.5	5	<0.44	<i>0.56 J</i>	<0.44	<0.47	<0.39	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	<0.68	<0.68	<0.68	<0.44	<0.68	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.95	<0.95	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<0.17	<0.2	<0.2	<0.2	<0.2	<0.18	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.69	<0.69	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.62	<0.36	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.82	<0.5	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.3	<0.38	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<1.1	<i>7.3</i>	<0.52	<i>1.06 J</i>	<1.5	<i>4.9</i>	<i>2.4</i>
sec-Butylbenzene	(ug/L)	NS	NS	<0.76	<i>8</i>	<i>0.59 J</i>	<i>1.64 J</i>	<i>0.86 J</i>	<i>7.2</i>	<i>7.1</i>
tert-Butylbenzene	(ug/L)	NS	NS	<0.6	<0.34	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.52	<0.46	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.56	<0.31	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.54	<0.47	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.61	<0.48	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1.0	<1	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<1.1	<0.49	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.62	<0.38	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<2.5	<1.4	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.65	<0.32	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.49	<0.49	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.69	<0.35	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.72	<0.3	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.68	<0.33	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.5	<0.46	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.56	<0.56	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.72	<0.45	<0.45	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.3	<0.64	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.47	<0.47	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.67	<0.39	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<1.2	<0.98	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<0.71	<1.3	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<2.1	<1.5	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.99	<i>35</i>	<i>1.3 J</i>	<i>14.6</i>	<i>1.79</i>	<i>25.8</i>	<i>25.5</i>
p-Isopropyltoluene	(ug/L)	NS	NS	<0.81	<i>1.58</i>	<0.35	<0.77	<0.57	<i>1.3</i>	<i>1.4</i>
n-Propylbenzene	(ug/L)	NS	NS	<0.61	<i>100</i>	<i>2.16</i>	<i>31.5</i>	<i>2.31</i>	<i>71.4</i>	<i>62.6</i>
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.65	<0.65	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.89	<0.75	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.4	<1.6	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.5	<1.5	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.5	<0.5	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.5	<0.5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.61	<0.61	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

*ITALICS* indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-2						
Date	12/12/06			09/25/07	12/06/07	09/09/08	08/18/09	09/30/15	04/25/16	
Groundwater Elevation	684.09			683.74	681.92	683.66	682.89	683.27	684.64	
Benzene	(ug/L)	0.5	5	<0.47	<0.47	<0.47	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.38	<0.38	<0.38	<b>0.37 J</b>	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.59	<0.46	<0.46	<0.39	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<1.1	<0.99	<0.99	<b>1.01 J</b>	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<2.2	<1.8	<1.8	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.52	<0.52	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<1.2	<1.57	<1.57	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<0.39	<1.2	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<1.2	<0.37	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<0.52	<0.52	<0.52	<0.5	<0.42	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	0.5	5	<0.44	<0.44	<0.44	<0.47	<0.39	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	<0.68	<0.68	<0.68	<0.44	<0.68	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.95	<0.95	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<0.17	<0.2	<0.2	<0.2	<0.2	<0.18	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.69	<0.69	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.62	<0.36	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.82	<0.5	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.3	<0.38	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<1.1	<0.52	<0.52	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.76	<0.36	<0.36	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.6	<0.34	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.52	<0.46	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.56	<0.31	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.54	<0.47	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.61	<0.48	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1.0	<1	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<1.1	<0.49	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.62	<0.38	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<2.5	<1.4	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.65	<0.32	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.49	<0.49	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.69	<0.35	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.72	<0.3	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.68	<0.33	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.5	<0.46	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.56	<0.56	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.72	<0.45	<0.45	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.3	<0.64	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.47	<0.47	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.67	<0.39	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<1.2	<0.98	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<0.71	<1.3	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<2.1	<1.5	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.99	<0.48	<0.48	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.81	<0.35	<0.35	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.61	<b>0.42 J</b>	<0.38	<0.54	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.65	<0.65	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.89	<0.75	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.4	<1.6	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.5	<1.5	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.5	<0.5	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.5	<0.5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.61	<0.61	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		SMW-3											
Date		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	12/12/06	09/25/07	12/06/07	09/09/08	08/18/09	07/01/10	10/29/10	01/10/12	09/30/15	04/25/16
Groundwater Elevation				679.93	679.01	678.96	679.47	678.65	680.12	678.47	678.73	679.14	679.68
Benzene	(ug/L)	0.5	5	<i>176</i>	<i>308</i>	<i>320</i>	<i>175</i>	<i>133</i>	<i>590</i>	<i>145</i>	<i>144</i>	<i>96.3</i>	<i>24.2</i>
Ethylbenzene	(ug/L)	140	700	<i>340</i>	<i>142</i>	<i>62</i>	<i>148</i>	<i>42 J</i>	<i>500</i>	<i>65</i>	<i>58</i>	<i>204</i>	<i>31.9</i>
Toluene	(ug/L)	160	800	<i>256</i>	<i>26.8 J</i>	<i>23 J</i>	<i>20.2 J</i>	<i>11.6 J</i>	<i>130 J</i>	<i>16.9 J</i>	<i>30.5</i>	<i>31.0</i>	<i>10.0</i>
Xylenes (TOTAL)	(ug/L)	400	2,000	<i>294</i>	<i>86.2</i>	<i>&lt;48.5</i>	<i>54.6 J</i>	<i>&lt;42.6</i>	<i>685</i>	<i>22 J</i>	<i>39.8 J</i>	<i>31.6</i>	<i>21.7</i>
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	NR	<i>19.7 J</i>	<i>15.0</i>
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	NR	<i>11.9</i>	<i>6.7</i>
Naphthalene	(ug/L)	10	100	<i>110 J</i>	<i>&lt;36</i>	<i>&lt;90</i>	<i>&lt;36</i>	<i>&lt;34</i>	<i>247</i>	<i>18.2 J</i>	<i>&lt;20</i>	<i>&lt;25.0</i>	<i>&lt;2.5</i>
MTBE	(ug/L)	12	60	<i>&lt;26</i>	<i>&lt;10.4</i>	<i>&lt;26</i>	<i>&lt;14</i>	<i>&lt;10</i>	<i>&lt;24.5</i>	<i>&lt;4.9</i>	<i>&lt;4.7</i>	<i>&lt;1.7</i>	<i>&lt;0.17</i>
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<i>264</i>	<i>47.2</i>	<i>&lt;78.5</i>	<i>53.4 J</i>	<i>&lt;52</i>	<i>300</i>	<i>16.1 J</i>	<i>&lt;14</i>	<i>14.0</i>	<i>17.5</i>
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<i>264</i>	<i>39 J</i>	<i>&lt;60</i>	<i>42</i>	<i>&lt;22</i>	<i>261</i>	<i>16.1 J</i>	<i>&lt;14</i>	<i>14.0</i>	<i>14.8</i>
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<i>&lt;60</i>	<i>8.2 J</i>	<i>&lt;18.5</i>	<i>11.4 J</i>	<i>&lt;30</i>	<i>39 J</i>	<i>&lt;7.3</i>	<i>&lt;13</i>	<i>&lt;5.0</i>	<i>2.7</i>
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<i>52 J</i>	<i>174</i>	<i>126</i>	<i>81</i>	<i>13.6 J</i>	--	--	--	<i>21.0</i>	<i>28.7</i>
Trichloroethene (TCE)	(ug/L)	0.5	5	<i>264</i>	<i>313</i>	<i>278</i>	<i>274</i>	<i>103</i>	--	--	--	<i>92.2</i>	<i>56.2</i>
cis-1,2-Dichloroethene	(ug/L)	7	70	<i>870</i>	<i>2,400</i>	<i>2,250</i>	<i>2,040</i>	<i>1,740</i>	--	--	--	<i>1,350</i>	<i>105</i>
trans-1,2-Dichloroethene	(ug/L)	20	100	<i>&lt;47.5</i>	<i>30 J</i>	<i>&lt;47.5</i>	<i>&lt;12.2</i>	<i>&lt;12.2</i>	--	--	--	<i>15.4</i>	<i>2.6</i>
Vinyl Chloride	(ug/L)	0.02	0.2	<i>212</i>	<i>314</i>	<i>298</i>	<i>227</i>	<i>123</i>	--	--	--	<i>229</i>	<i>40.9</i>
Methylene Chloride	(ug/L)	0.5	5	<i>&lt;34.5</i>	<i>&lt;13.8</i>	<i>&lt;34.5</i>	<i>&lt;19.8</i>	<i>&lt;30</i>	--	--	--	<i>&lt;2.3</i>	<i>1.9</i>
Bromobenzene	(ug/L)	NS	NS	<i>&lt;31</i>	<i>&lt;7.2</i>	<i>&lt;18</i>	<i>&lt;8.8</i>	<i>&lt;8.6</i>	--	--	--	<i>&lt;2.3</i>	<i>&lt;0.23</i>
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	--	--	--	<i>&lt;3.4</i>	<i>&lt;0.34</i>
Bromodichloromethane	(ug/L)	0.06	0.6	<i>&lt;41</i>	<i>&lt;10</i>	<i>&lt;25</i>	<i>&lt;6</i>	<i>&lt;8.2</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
Bromoform	(ug/L)	0.44	4.4	<i>&lt;15</i>	<i>&lt;7.6</i>	<i>&lt;19</i>	<i>&lt;14</i>	<i>&lt;9.2</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
Bromobenzene	(ug/L)	1	10	NR	NR	NR	NR	NR	--	--	--	<i>&lt;24.3</i>	<i>&lt;2.4</i>
n-Butylbenzene	(ug/L)	NS	NS	<i>&lt;55</i>	<i>&lt;10.4</i>	<i>&lt;26</i>	<i>&lt;11</i>	<i>&lt;30</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
sec-Butylbenzene	(ug/L)	NS	NS	<i>&lt;38</i>	<i>&lt;7.2</i>	<i>&lt;18</i>	<i>&lt;14.6</i>	<i>&lt;8.6</i>	--	--	--	<i>&lt;21.9</i>	<i>&lt;2.2</i>
tert-Butylbenzene	(ug/L)	NS	NS	<i>&lt;30</i>	<i>&lt;6.8</i>	<i>&lt;17</i>	<i>&lt;6.4</i>	<i>&lt;9.2</i>	--	--	--	<i>&lt;1.8</i>	<i>&lt;0.18</i>
Carbon Tetrachloride	(ug/L)	0.5	5	<i>&lt;26</i>	<i>&lt;9.2</i>	<i>&lt;23</i>	<i>&lt;6</i>	<i>&lt;8.6</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
Chlorobenzene	(ug/L)	NS	NS	<i>&lt;28</i>	<i>&lt;6.2</i>	<i>&lt;15.5</i>	<i>&lt;7.8</i>	<i>&lt;7.8</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
Chloroethane	(ug/L)	80	400	<i>&lt;27</i>	<i>&lt;9.4</i>	<i>&lt;23.5</i>	<i>&lt;19.4</i>	<i>&lt;30</i>	--	--	--	<i>&lt;3.7</i>	<i>&lt;0.37</i>
Chloroform	(ug/L)	0.6	6	<i>&lt;30.5</i>	<i>&lt;9.6</i>	<i>&lt;24</i>	<i>&lt;9.4</i>	<i>&lt;9.6</i>	--	--	--	<i>&lt;25.0</i>	<i>&lt;2.5</i>
Chloromethane	(ug/L)	3	30	<i>&lt;50</i>	<i>&lt;20</i>	<i>&lt;50</i>	<i>&lt;10</i>	<i>&lt;10</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
2-Chlorotoluene	(ug/L)	NS	NS	<i>&lt;55</i>	<i>&lt;9.8</i>	<i>&lt;24.5</i>	<i>&lt;8.2</i>	<i>&lt;7.4</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
4-Chlorotoluene	(ug/L)	NS	NS	<i>&lt;31</i>	<i>&lt;7.6</i>	<i>&lt;19</i>	<i>&lt;6</i>	<i>&lt;12.6</i>	--	--	--	<i>&lt;2.1</i>	<i>&lt;0.21</i>
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<i>&lt;125</i>	<i>&lt;28</i>	<i>&lt;70</i>	<i>&lt;34</i>	<i>&lt;40</i>	--	--	--	<i>&lt;21.6</i>	<i>&lt;2.2</i>
Dibromochloromethane	(ug/L)	6	60	<i>&lt;32.5</i>	<i>&lt;6.4</i>	<i>&lt;16</i>	<i>&lt;8</i>	<i>&lt;15.2</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<i>&lt;24.5</i>	<i>&lt;9.8</i>	<i>&lt;24.5</i>	<i>&lt;15.2</i>	<i>&lt;10.4</i>	--	--	--	<i>&lt;1.8</i>	<i>&lt;0.18</i>
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	--	--	--	<i>&lt;4.3</i>	<i>&lt;0.43</i>
1,2-Dichlorobenzene	(ug/L)	60	600	<i>&lt;34.5</i>	<i>&lt;7</i>	<i>&lt;17.5</i>	<i>&lt;17.6</i>	<i>&lt;13.2</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
1,3-Dichlorobenzene	(ug/L)	120	600	<i>&lt;36</i>	<i>&lt;6</i>	<i>&lt;15</i>	<i>&lt;13.4</i>	<i>&lt;6.8</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
1,4-Dichlorobenzene	(ug/L)	15	75	<i>&lt;34</i>	<i>&lt;6.6</i>	<i>&lt;16.5</i>	<i>&lt;14.8</i>	<i>&lt;15.4</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
Dichlorodifluoromethane	(ug/L)	200	1,000	<i>&lt;25</i>	<i>&lt;9.2</i>	<i>&lt;23</i>	<i>&lt;15.2</i>	<i>&lt;9</i>	--	--	--	<i>&lt;2.2</i>	<i>&lt;0.22</i>
1,1-Dichloroethane	(ug/L)	85	850	<i>&lt;28</i>	<i>&lt;11.2</i>	<i>&lt;28</i>	<i>&lt;11.8</i>	<i>&lt;8.8</i>	--	--	--	<i>&lt;2.4</i>	<i>&lt;0.24</i>
1,2-Dichloroethane	(ug/L)	0.5	5	<i>&lt;36</i>	<i>31.4</i>	<i>&lt;22.5</i>	<i>&lt;8.2</i>	<i>&lt;8.6</i>	--	--	--	<i>&lt;1.7</i>	<i>1.8</i>
1,1-Dichloroethene	(ug/L)	0.7	7	<i>&lt;15</i>	<i>&lt;12.8</i>	<i>&lt;32</i>	<i>&lt;10</i>	<i>&lt;9.4</i>	--	--	--	<i>7.5 J</i>	<i>&lt;0.41</i>
1,2-Dichloropropane	(ug/L)	0.5	5	<i>&lt;23.5</i>	<i>&lt;9.4</i>	<i>&lt;23.5</i>	<i>&lt;5.4</i>	<i>&lt;5.2</i>	--	--	--	<i>&lt;2.3</i>	<i>&lt;0.23</i>
1,3-Dichloropropane	(ug/L)	NS	NS	<i>&lt;33.5</i>	<i>&lt;7.8</i>	<i>&lt;19.5</i>	<i>&lt;8</i>	<i>&lt;9.8</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
2,2-Dichloropropane	(ug/L)	NS	NS	<i>&lt;60</i>	<i>&lt;19.6</i>	<i>&lt;49</i>	<i>&lt;10.6</i>	<i>&lt;17.8</i>	--	--	--	<i>&lt;4.8</i>	<i>&lt;0.48</i>
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	--	--	--	<i>&lt;4.4</i>	<i>&lt;0.44</i>
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	--	--	--	<i>&lt;2.3</i>	<i>&lt;0.23</i>
Diisopropyl ether	(ug/L)	NS	NS	<i>&lt;35.5</i>	<i>&lt;26</i>	<i>&lt;65</i>	<i>&lt;7.4</i>	<i>&lt;6.4</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<i>&lt;105</i>	<i>&lt;30</i>	<i>&lt;75</i>	<i>&lt;34</i>	<i>&lt;30</i>	--	--	--	<i>&lt;21.1</i>	<i>&lt;2.1</i>
Isopropylbenzene	(ug/L)	NS	NS	<i>&lt;49.5</i>	<i>&lt;9.6</i>	<i>&lt;24</i>	<i>&lt;12</i>	<i>&lt;7.8</i>	--	--	--	<i>20.7</i>	<i>7.2</i>
p-Isopropyltoluene	(ug/L)	NS	NS	<i>&lt;40.5</i>	<i>&lt;7</i>	<i>&lt;17.5</i>	<i>&lt;15.4</i>	<i>&lt;11.4</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
n-Propylbenzene	(ug/L)	NS	NS	<i>57 J</i>	<i>&lt;7.6</i>	<i>&lt;19</i>	<i>14 J</i>	<i>&lt;6.6</i>	--	--	--	<i>41.7</i>	<i>3.6</i>
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<i>&lt;32.5</i>	<i>&lt;13</i>	<i>&lt;32.5</i>	<i>&lt;6.4</i>	<i>&lt;10.8</i>	--	--	--	<i>&lt;1.8</i>	<i>&lt;0.18</i>
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<i>&lt;44.5</i>	<i>&lt;15</i>	<i>&lt;37.5</i>	<i>&lt;10</i>	<i>&lt;11</i>	--	--	--	<i>&lt;2.5</i>	<i>&lt;0.25</i>
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<i>&lt;70</i>	<i>&lt;32</i>	<i>&lt;80</i>	<i>&lt;32</i>	<i>&lt;32</i>	--	--	--	<i>&lt;21.3</i>	<i>&lt;2.1</i>
1,2,4-Trichlorobenzene	(ug/L)	14	70	<i>&lt;75</i>	<i>&lt;30</i>	<i>&lt;75</i>	<i>&lt;22</i>	<i>&lt;42</i>	--	--	--	<i>&lt;22.1</i>	<i>&lt;2.2</i>
1,1,1-Trichloroethane	(ug/L)	40	200	<i>&lt;25</i>	<i>&lt;10</i>	<i>&lt;25</i>	<i>&lt;5.6</i>	<i>&lt;9.2</i>	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>
1,1,2-Trichloroethane	(ug/L)	0.5	5	<i>&lt;25</i>	<i>&lt;10</i>	<i>&lt;25</i>	<i>&lt;7.8</i>	<i>&lt;8.2</i>	--	--	--	<i>&lt;2.0</i>	<i>&lt;0.20</i>
Trichlorofluoromethane	(ug/L)	NS	NS	<i>&lt;30.5</i>	<i>&lt;12.2</i>	<i>&lt;30.5</i>	<i>&lt;16.2</i>	<i>&lt;14.4</i>	--	--	--	<i>&lt;1.8</i>	<i>&lt;0.18</i>
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	--	--	--	<i>&lt;5.0</i>	<i>&lt;0.50</i>

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

ITALICS indicates exceedance of NR 140.10 Preventive Action Limit  
 BOLD indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-4							
Date	12/12/06			09/25/07	12/06/07	09/09/08	08/18/09	01/10/12	09/30/15	04/26/16	
Groundwater Elevation	680.23			678.83	678.71	678.97	678.34	679.17	681.45	680.54	
Benzene	(ug/L)	0.5	5	<23.5	<9.4	<9.4	<12	<8.2	1.28 J	<0.50	<2.5
Ethylbenzene	(ug/L)	140	700	<19	<7.6	<7.6	107	39 J	<0.98	<0.50	2.8 J
Toluene	(ug/L)	160	800	<29.5	<9.2	<9.2	254	88	<0.89	<0.50	<2.5
Xylenes (TOTAL)	(ug/L)	400	2,000	<55	<19.4	<19.8	411	165	2.06 J	<1.5	8.1 J
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<1.0	8.1 J
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.50	<2.5
Naphthalene	(ug/L)	10	100	<110	<36	<36	<90	<34	<2	<2.5	<12.5
MTBE	(ug/L)	12	60	<26	<10.4	<10.4	<35	<10	<0.47	<0.17	<0.87
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<60	<31.4	<31.4	49.5	<52	<1.4	<1.0	<5.0
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<19.5	<24	<24	36 J	<22	<1.4	<0.50	<2.5
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<60	<7.4	<7.4	13.5 J	<30	<1.3	<0.50	<2.5
Tetrachloroethene (PCE)	(ug/L)	0.5	5	670	610	560	560	460	--	112	21.9
Trichloroethene (TCE)	(ug/L)	0.5	5	340	540	430	400	330	--	14.1	13.0
cis-1,2-Dichloroethene	(ug/L)	7	70	1,460	1,730	1,900	5,600	2,530	--	70.6	658
trans-1,2-Dichloroethene	(ug/L)	20	100	84 J	105	89	123	77	--	4.6	14.4
Vinyl Chloride	(ug/L)	0.02	0.2	11.5 J	11.8 J	13.4	44	16	--	<0.18	15.3
Methylene Chloride	(ug/L)	0.5	5	<34.5	<13.8	<13.8	<49.5	<30	--	<0.23	<1.2
Bromobenzene	(ug/L)	NS	NS	<31	<7.2	<7.2	<22	<8.6	--	<0.23	<1.2
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	--	<0.34	<1.7
Bromodichloromethane	(ug/L)	0.06	0.6	<41	<10	<10	<15	<8.2	--	<0.50	<2.5
Bromoform	(ug/L)	0.44	4.4	<15	<7.6	<7.6	<35	<9.2	--	<0.50	<2.5
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	--	<2.4	<12.2
n-Butylbenzene	(ug/L)	NS	NS	<55	<10.4	<10.4	<27.5	<30	--	<0.50	<2.5
sec-Butylbenzene	(ug/L)	NS	NS	<38	<7.2	<7.2	<36.5	<8.6	--	<2.2	<10.9
tert-Butylbenzene	(ug/L)	NS	NS	<30	<6.8	<6.8	<16	<9.2	--	<0.18	<0.90
Carbon Tetrachloride	(ug/L)	0.5	5	<26	<9.2	<9.2	<15	<8.6	--	<0.50	<2.5
Chlorobenzene	(ug/L)	NS	NS	<28	<6.2	<6.2	<19.5	<7.8	--	<0.50	<2.5
Chloroethane	(ug/L)	80	400	<27	<9.4	<9.4	<48.5	<30	--	<0.37	<1.9
Chloroform	(ug/L)	0.6	6	<30.5	<9.6	<9.6	<23.5	<9.6	--	<2.5	<12.5
Chloromethane	(ug/L)	3	30	<50	<20	<20	<25	<10	--	<0.50	<2.5
2-Chlorotoluene	(ug/L)	NS	NS	<55	<9.8	<9.8	<20.5	<7.4	--	<0.50	<2.5
4-Chlorotoluene	(ug/L)	NS	NS	<31	<7.6	<7.6	<15	<12.6	--	<0.21	<1.1
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<125	<28	<28	<85	<40	--	<2.2	<10.8
Dibromochloromethane	(ug/L)	6	60	<32.5	<6.4	<6.4	<20	<15.2	--	<0.50	<2.5
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<24.5	<9.8	<9.8	<38	<10.4	--	<0.18	<0.89
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	--	<0.43	<2.1
1,2-Dichlorobenzene	(ug/L)	60	600	<34.5	<7	<7	<44	<13.2	--	<0.50	<2.5
1,3-Dichlorobenzene	(ug/L)	120	600	<36	<6	<6	<33.5	<6.8	--	<0.50	<2.5
1,4-Dichlorobenzene	(ug/L)	15	75	<34	<6.6	<6.6	<37	<15.4	--	<0.50	<2.5
Dichlorodifluoromethane	(ug/L)	200	1,000	<25	<9.2	<9.2	<38	<9	--	<0.22	<1.1
1,1-Dichloroethane	(ug/L)	85	850	<28	<11.2	<11.2	<29.5	<8.8	--	<0.24	<1.2
1,2-Dichloroethane	(ug/L)	0.5	5	<36	<9	<9	<20.5	<8.6	--	<0.17	<0.84
1,1-Dichloroethene	(ug/L)	0.7	7	<15	<12.8	<12.8	<25	10 J	--	0.42 J	<2.1
1,2-Dichloropropane	(ug/L)	0.5	5	<23.5	<9.4	<9.4	<13.5	<5.2	--	<0.23	<1.2
1,3-Dichloropropane	(ug/L)	NS	NS	<33.5	<7.8	<7.8	<20	<9.8	--	<0.50	<2.5
2,2-Dichloropropane	(ug/L)	NS	NS	<60	<19.6	<19.6	<26.5	<17.8	--	<0.48	<2.4
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	--	<0.44	<2.2
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	--	<0.50	<2.5
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	--	<0.23	<1.1
Diisopropyl ether	(ug/L)	NS	NS	<35.5	<26	<26	<18.5	<6.4	--	<0.50	<2.5
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<105	<30	<30	<85	<30	--	<2.1	<10.5
Isopropylbenzene	(ug/L)	NS	NS	<49.5	<9.6	<9.6	<30	<7.8	--	<0.14	<0.72
p-Isopropyltoluene	(ug/L)	NS	NS	<40.5	<7	<7	<38.5	<11.4	--	<0.50	<2.5
n-Propylbenzene	(ug/L)	NS	NS	<30.5	<7.6	<7.6	<27	<6.6	--	<0.50	<2.5
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	--	<0.50	<2.5
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<32.5	<13	<13	<16	<10.8	--	<0.18	<0.90
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<44.5	<15	<15	<25	<11	--	<0.25	<1.2
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<70	<32	<32	<80	<32	--	<2.1	<10.7
1,2,4-Trichlorobenzene	(ug/L)	14	70	<75	<30	<30	<55	<42	--	<2.2	<11.0
1,1,1-Trichloroethane	(ug/L)	40	200	<25	<10	<10	<14	<9.2	--	<0.50	<2.5
1,1,2-Trichloroethane	(ug/L)	0.5	5	<25	<10	<10	<19.5	<8.2	--	<0.20	<0.99
Trichlorofluoromethane	(ug/L)	NS	NS	<30.5	<12.2	<12.2	<40.5	<14.4	--	<0.18	<0.92
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	--	<0.50	<2.5

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

ITALICS indicates exceedance of NR 140.10 Preventive Action Limit  
 BOLD indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-5						
Date	12/12/06			09/25/07	12/06/07	09/09/08	08/18/09	09/30/15	04/25/16	
Groundwater Elevation	682.85			681.25	680.57	681.43	680.57	683.00	682.85	
Benzene	(ug/L)	0.5	5	<0.47	<0.47	<0.47	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.38	<0.38	<0.38	<0.35	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.59	<0.46	<0.46	0.44 J	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<1.1	<0.99	<0.99	<1.67	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<2.2	<1.8	<1.8	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.52	<0.52	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<1.2	<1.57	<1.57	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<0.39	<1.2	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<1.2	<0.37	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<0.52	<0.52	<0.52	0.53 J	<0.42	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	0.5	5	<0.44	<0.44	<0.44	<0.47	<0.39	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	<0.68	<0.68	<0.68	<0.44	<0.68	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.95	<0.95	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<0.17	<0.2	<0.2	<0.2	<0.2	<0.18	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.69	<0.69	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.62	<0.36	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.82	<0.5	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.3	<0.38	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<1.1	<0.52	<0.52	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.76	<0.36	<0.36	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.6	<0.34	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.52	<0.46	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.56	<0.31	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.54	<0.47	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.61	<0.48	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1.0	<1	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<1.1	<0.49	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.62	<0.38	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<2.5	<1.4	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.65	<0.32	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.49	<0.49	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.69	<0.35	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.72	<0.3	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.68	<0.33	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.5	<0.46	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.56	<0.56	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.72	<0.45	<0.45	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.3	<0.64	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.47	<0.47	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.67	<0.39	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<1.2	<0.98	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<0.71	<1.3	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<2.1	<1.5	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.99	<0.48	<0.48	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.81	<0.35	<0.35	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.61	<0.38	<0.38	<0.54	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.65	<0.65	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.89	<0.75	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.4	<1.6	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.5	<1.5	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.5	<0.5	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.5	<0.5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.61	<0.61	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

*ITALICS* indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-6					
Date	09/25/07			12/06/07	09/09/08	08/18/09	09/30/15	04/26/16	
Groundwater Elevation	681.81			681.91	682.33	681.61	682.68	682.43	
Benzene	(ug/L)	0.5	5	<0.47	<0.47	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.38	<0.38	<0.35	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.46	<0.46	<0.39	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<0.99	<0.99	<1.67	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<1.8	<1.8	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.52	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<1.57	<1.57	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<1.2	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<0.37	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<b>0.72 J</b>	<0.52	<b>1.33 J</b>	<b>1.94</b>	<b>2.8</b>	<b>2.0</b>
Trichloroethene (TCE)	(ug/L)	0.5	5	<b>0.51 J</b>	<0.44	<0.47	<0.39	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	<b>7.6</b>	<b>1.64 J</b>	<0.44	<0.68	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.95	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<b>0.4 J</b>	<0.2	<0.2	<0.2	<0.18	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.69	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.36	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.5	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.38	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<0.52	<0.52	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.36	<0.36	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.34	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.46	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.31	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.47	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.48	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<0.49	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.38	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<1.4	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.32	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.49	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.35	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.3	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.33	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.46	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.56	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.45	<0.45	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.64	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.47	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.39	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<0.98	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<1.3	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<1.5	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.48	<0.48	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.35	<0.35	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.38	<0.38	<0.54	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.65	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.75	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.6	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.5	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.5	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.61	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

ITALICS indicates exceedance of NR 140.10 Preventive Action Limit  
 BOLD indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		SMW-7										
Date	Groundwater Elevation	NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	09/25/07	12/06/07	09/09/08	08/18/09	07/01/10	10/29/10	01/10/12	09/30/15	04/26/16
				681.13	680.41	681.45	680.81	683.43	680.24	681.80	682.34	683.21
Benzene	(ug/L)	0.5	5	<b>99</b>	<b>46 J</b>	<b>18 J</b>	<20.5	<20	<20	<24.5	<20.0	<20.0
Ethylbenzene	(ug/L)	140	700	<b>2,750</b>	<b>2,070</b>	<b>3,500</b>	<b>2,960</b>	<b>2,490</b>	<b>2,570</b>	<b>2,760</b>	<b>2,400</b>	<b>1,580</b>
Toluene	(ug/L)	160	800	<b>1,460</b>	<b>1,800</b>	<b>860</b>	<b>610</b>	<b>400</b>	<b>420</b>	<b>234</b>	<b>70.3</b>	<b>36.2 J</b>
Xylenes (TOTAL)	(ug/L)	400	2,000	<b>14,300</b>	<b>9,800</b>	<b>15,900</b>	<b>12,800</b>	<b>11,800</b>	<b>11,500</b>	<b>12,400</b>	<b>11,830</b>	<b>6,970</b>
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	9,050	5,340
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	2,780	1,630
Naphthalene	(ug/L)	10	100	<b>188 J</b>	<b>109 J</b>	<b>400</b>	<b>340</b>	<b>390</b>	<b>360</b>	<b>410</b>	<b>273</b>	<b>120 J</b>
MTBE	(ug/L)	12	60	<26	<26	<35	<25	<24.5	<24.5	<23.5	<7.0	<7.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<b>1,680</b>	<b>1,044</b>	<b>2,640</b>	<b>1,664</b>	<b>1,780</b>	<b>1,800</b>	<b>2,240</b>	<b>1,879</b>	<b>1,000</b>
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<b>1,370</b>	<b>810</b>	<b>2,090</b>	<b>1,360</b>	<b>1,400</b>	<b>1,420</b>	<b>1,730</b>	<b>1,530</b>	<b>808</b>
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<b>310</b>	<b>234</b>	<b>550</b>	<b>304</b>	<b>380</b>	<b>380</b>	<b>510</b>	<b>349</b>	<b>192</b>
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<26	<26	<25	<21	--	--	--	<20.0	<20.0
Trichloroethene (TCE)	(ug/L)	0.5	5	<22	<22	<23.5	<19.5	--	--	--	<13.2	<13.2
cis-1,2-Dichloroethene	(ug/L)	7	70	<34	<34	<22	<34	--	--	--	<10.2	<10.2
trans-1,2-Dichloroethene	(ug/L)	20	100	<47.5	<47.5	<30.5	<30.5	--	--	--	<10.3	<10.3
Vinyl Chloride	(ug/L)	0.02	0.2	<10	<10	<10	<10	--	--	--	<7.0	<7.0
Methylene Chloride	(ug/L)	0.5	5	<34.5	<34.5	<49.5	<75	--	--	--	<9.3	<9.3
Bromobenzene	(ug/L)	NS	NS	<18	<18	<22	<21.5	--	--	--	<9.2	<9.2
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	--	--	--	<13.6	<13.6
Bromodichloromethane	(ug/L)	0.06	0.6	<25	<25	<15	<20.5	--	--	--	<20.0	<20.0
Bromoform	(ug/L)	0.44	4.4	<19	<19	<35	<23	--	--	--	<20.0	<20.0
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	--	--	--	<97.4	<97.4
n-Butylbenzene	(ug/L)	NS	NS	<26	<26	<b>53 J</b>	<75	--	--	--	<20.0	<20.0
sec-Butylbenzene	(ug/L)	NS	NS	<18	<18	<36.5	<21.5	--	--	--	<87.4	<87.4
tert-Butylbenzene	(ug/L)	NS	NS	<17	<17	<16	<23	--	--	--	<7.2	<7.2
Carbon Tetrachloride	(ug/L)	0.5	5	<23	<23	<15	<21	--	--	--	<20.0	<20.0
Chlorobenzene	(ug/L)	NS	NS	<15.5	<15.5	<19.5	<19.5	--	--	--	<20.0	<20.0
Chloroethane	(ug/L)	80	400	<23.5	<23.5	<48.5	<75	--	--	--	<15.0	<15.0
Chloroform	(ug/L)	0.6	6	<24	<24	<23.5	<24	--	--	--	<100	<100
Chloromethane	(ug/L)	3	30	<50	<50	<25	<25	--	--	--	<20.0	<20.0
2-Chlorotoluene	(ug/L)	NS	NS	<24.5	<24.5	<20.5	<18.5	--	--	--	<20.0	<20.0
4-Chlorotoluene	(ug/L)	NS	NS	<19	<19	<15	<31.5	--	--	--	<8.5	<8.5
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<70	<70	<85	<100	--	--	--	<86.6	<86.6
Dibromochloromethane	(ug/L)	6	60	<16	<16	<20	<38	--	--	--	<20.0	<20.0
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<24.5	<24.5	<38	<26	--	--	--	<7.1	<7.1
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	--	--	--	<17.1	<17.1
1,2-Dichlorobenzene	(ug/L)	60	600	<17.5	<17.5	<44	<33	--	--	--	<20.0	<20.0
1,3-Dichlorobenzene	(ug/L)	120	600	<15	<15	<33.5	<17	--	--	--	<20.0	<20.0
1,4-Dichlorobenzene	(ug/L)	15	75	<16.5	<16.5	<37	<38.5	--	--	--	<20.0	<20.0
Dichlorodifluoromethane	(ug/L)	200	1,000	<23	<23	<38	<22.5	--	--	--	<9.0	<9.0
1,1-Dichloroethane	(ug/L)	85	850	<28	<28	<29.5	<22	--	--	--	<9.7	<9.7
1,2-Dichloroethane	(ug/L)	0.5	5	<22.5	<22.5	<20.5	<21.5	--	--	--	<6.7	<6.7
1,1-Dichloroethene	(ug/L)	0.7	7	<32	<32	<25	<23.5	--	--	--	<16.4	<16.4
1,2-Dichloropropane	(ug/L)	0.5	5	<23.5	<23.5	<13.5	<13	--	--	--	<9.3	<9.3
1,3-Dichloropropane	(ug/L)	NS	NS	<19.5	<19.5	<20	<24.5	--	--	--	<20.0	<20.0
2,2-Dichloropropane	(ug/L)	NS	NS	<49	<49	<26.5	<44.5	--	--	--	<19.4	<19.4
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	--	--	--	<17.6	<17.6
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	--	--	--	<20.0	<20.0
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	--	--	--	<9.2	<9.2
Diisopropyl ether	(ug/L)	NS	NS	<65	<65	<18.5	<16	--	--	--	<20.0	<20.0
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<75	<75	<85	<75	--	--	--	<84.2	<84.2
Isopropylbenzene	(ug/L)	NS	NS	<b>57 J</b>	<b>48 J</b>	<b>108</b>	<b>75</b>	--	--	--	<b>49.7</b>	<b>46.9</b>
p-Isopropyltoluene	(ug/L)	NS	NS	<17.5	<17.5	<38.5	<28.5	--	--	--	<20.0	<20.0
n-Propylbenzene	(ug/L)	NS	NS	<b>121</b>	<b>110</b>	<b>300</b>	<b>220</b>	--	--	--	<b>119</b>	<b>105</b>
Styrene	(ug/L)	10	100	NR	NR	NR	NR	--	--	--	<20.0	<20.0
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<32.5	<32.5	<16	<27	--	--	--	<7.2	<7.2
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<37.5	<37.5	<25	<27.5	--	--	--	<10	<10
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<80	<80	<80	<80	--	--	--	<85.3	<85.3
1,2,4-Trichlorobenzene	(ug/L)	14	70	<75	<75	<55	<105	--	--	--	<88.4	<88.4
1,1,1-Trichloroethane	(ug/L)	40	200	<25	<25	<14	<23	--	--	--	<20.0	<20.0
1,1,2-Trichloroethane	(ug/L)	0.5	5	<25	<25	<19.5	<20.5	--	--	--	<7.9	<7.9
Trichlorofluoromethane	(ug/L)	NS	NS	<30.5	<30.5	<40.5	<36	--	--	--	<7.4	<7.4
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	--	--	--	<20.0	<20.0

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-8									
Date	09/25/07			12/06/07	09/09/08	08/18/09	07/01/10	10/29/10	01/10/12	09/30/15	04/25/16		
Groundwater Elevation	679.30			679.08	679.36	678.90	681.62	678.60	679.76	679.97	680.56		
Benzene	(ug/L)	0.5	5	2,560	2,050	770	141	0.94 J	32	6.0	<0.50	<0.50	
Ethylbenzene	(ug/L)	140	700	112	95	68	17.6 J	1.34 J	3.5	3.4	<0.50	<0.50	
Toluene	(ug/L)	160	800	193	52 J	64	<10.2	1.33 J	3.2	13.3	<0.50	<0.50	
Xylenes (TOTAL)	(ug/L)	400	2,000	1,394	280	188 J	78.2 J	4.48 J	5.08 J	4.3 J	<1.5	<1.50	
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	<1.0	<1.0	
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	<0.50	<0.50	
Naphthalene	(ug/L)	10	100	<90	<90	90 J	54 J	<1.2	1.92 J	<2	<2.5	<2.5	
MTBE	(ug/L)	12	60	<26	<26	<35	<10	<0.49	<0.49	<0.47	<0.17	<0.17	
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	1,142	294	319	39	14.2	6.5	18.74	<1.0	<0.50	
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	880	224	238	39 J	8.8	6.5	17	<0.50	<0.50	
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	262	70	81	<30	5.4	<0.73	1.74 J	<0.50	<0.50	
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<26	<26	<25	<8.4	--	--	--	<0.50	<0.50	
Trichloroethene (TCE)	(ug/L)	0.5	5	<22	<22	<23.5	<7.8	--	--	--	<0.33	0.53 J	
cis-1,2-Dichloroethene	(ug/L)	7	70	<34	<34	<22	<13.6	--	--	--	2.0	2.3	
trans-1,2-Dichloroethene	(ug/L)	20	100	<47.5	<47.5	<30.5	<12.2	--	--	--	<0.26	<0.26	
Vinyl Chloride	(ug/L)	0.02	0.2	<10	<10	<10	<4	--	--	--	<0.18	<0.18	
Methylene Chloride	(ug/L)	0.5	5	<34.5	<34.5	<49.5	<30	--	--	--	<0.23	<0.23	
Bromobenzene	(ug/L)	NS	NS	<18	<18	<22	<8.6	--	--	--	<0.23	<0.23	
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	--	--	--	<0.34	<0.34	
Bromodichloromethane	(ug/L)	0.06	0.6	<25	<25	<15	<8.2	--	--	--	<0.50	<0.50	
Bromoform	(ug/L)	0.44	4.4	<19	<19	<35	<9.2	--	--	--	<0.50	<0.50	
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	--	--	--	<2.4	<2.4	
n-Butylbenzene	(ug/L)	NS	NS	<26	<26	<27.5	<30	--	--	--	<0.50	<0.50	
sec-Butylbenzene	(ug/L)	NS	NS	<18	<18	<36.5	<8.6	--	--	--	<2.2	<2.2	
tert-Butylbenzene	(ug/L)	NS	NS	<17	<17	<16	<9.2	--	--	--	<0.18	<0.18	
Carbon Tetrachloride	(ug/L)	0.5	5	<23	<23	<15	<8.6	--	--	--	<0.50	<0.50	
Chlorobenzene	(ug/L)	NS	NS	<15.5	<15.5	<19.5	<7.8	--	--	--	<0.50	<0.50	
Chloroethane	(ug/L)	80	400	<23.5	<23.5	<48.5	<30	--	--	--	<0.37	<0.37	
Chloroform	(ug/L)	0.6	6	<24	<24	<23.5	<9.6	--	--	--	<2.5	<2.5	
Chloromethane	(ug/L)	3	30	<50	<50	<25	<10	--	--	--	<0.50	<0.50	
2-Chlorotoluene	(ug/L)	NS	NS	<24.5	<24.5	<20.5	<7.4	--	--	--	<0.50	<0.50	
4-Chlorotoluene	(ug/L)	NS	NS	<19	<19	<15	<12.6	--	--	--	<0.21	<0.21	
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<70	<70	<85	<40	--	--	--	<2.2	<2.2	
Dibromochloromethane	(ug/L)	6	60	<16	<16	<20	<15.2	--	--	--	<0.50	<0.50	
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<24.5	<24.5	<38	<10.4	--	--	--	<0.18	<0.18	
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	--	--	--	<0.43	<0.43	
1,2-Dichlorobenzene	(ug/L)	60	600	<17.5	<17.5	<44	<13.2	--	--	--	<0.50	<0.50	
1,3-Dichlorobenzene	(ug/L)	120	600	<15	<15	<33.5	<6.8	--	--	--	<0.50	<0.50	
1,4-Dichlorobenzene	(ug/L)	15	75	<16.5	<16.5	<37	<15.4	--	--	--	<0.50	<0.50	
Dichlorodifluoromethane	(ug/L)	200	1,000	<23	<23	<38	<9	--	--	--	<0.22	<0.22	
1,1-Dichloroethane	(ug/L)	85	850	<28	<28	<29.5	<8.8	--	--	--	<0.24	<0.24	
1,2-Dichloroethane	(ug/L)	0.5	5	<22.5	<22.5	<20.5	<8.6	--	--	--	<0.17	<0.17	
1,1-Dichloroethene	(ug/L)	0.7	7	<32	<32	<25	<9.4	--	--	--	<0.41	<0.41	
1,2-Dichloropropane	(ug/L)	0.5	5	<23.5	<23.5	<13.5	<5.2	--	--	--	<0.23	<0.23	
1,3-Dichloropropane	(ug/L)	NS	NS	<19.5	<19.5	<20	<9.8	--	--	--	<0.50	<0.50	
2,2-Dichloropropane	(ug/L)	NS	NS	<49	<49	<26.5	<17.8	--	--	--	<0.48	<0.48	
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	--	--	--	<0.44	<0.44	
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	--	--	--	<0.50	<0.50	
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	--	--	--	<0.23	<0.23	
Diisopropyl ether	(ug/L)	NS	NS	<65	<65	<18.5	<6.4	--	--	--	<0.50	<0.50	
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<75	<75	<85	<30	--	--	--	<2.1	<2.1	
Isopropylbenzene	(ug/L)	NS	NS	60 "J"	<24	<30	<7.8	--	--	--	<0.14	<0.14	
p-Isopropyltoluene	(ug/L)	NS	NS	<17.5	<17.5	<38.5	<11.4	--	--	--	<0.50	<0.50	
n-Propylbenzene	(ug/L)	NS	NS	94	44 "J"	64 "J"	<6.6	--	--	--	<0.50	<0.50	
Styrene	(ug/L)	10	100	NR	NR	NR	NR	--	--	--	<0.50	<0.50	
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<32.5	<32.5	<16	<10.8	--	--	--	<0.18	<0.18	
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<37.5	<37.5	<25	<11	--	--	--	<0.25	<0.25	
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<80	<80	<80	<32	--	--	--	<2.1	<2.1	
1,2,4-Trichlorobenzene	(ug/L)	14	70	<75	<75	<55	<42	--	--	--	<2.2	<2.2	
1,1,1-Trichloroethane	(ug/L)	40	200	<25	<25	<14	<9.2	--	--	--	<0.50	<0.50	
1,1,2-Trichloroethane	(ug/L)	0.5	5	<25	<25	<19.5	<8.2	--	--	--	<0.20	<0.20	
Trichlorofluoromethane	(ug/L)	NS	NS	<30.5	<30.5	<40.5	<14.4	--	--	--	<0.18	<0.18	
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	--	--	--	<0.50	<0.50	

Notes:  
 NS = No standard established  
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ITALICS indicates exceedance of NR 140.10 Preventive Action Limit  
 BOLD indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-9						
Date	09/25/07			12/06/07	09/09/08	08/18/09	01/10/12	09/30/15	04/26/16	
Groundwater Elevation	678.95			678.85	679.39	678.60	679.08	680.47	680.35	
Benzene	(ug/L)	0.5	5	<23.5	<235	<120	<82	42 J	<500	<100
Ethylbenzene	(ug/L)	140	700	279	<190	<175	226 J	64 J	<500	179 J
Toluene	(ug/L)	160	800	<23	<230	<195	<102	92	<500	<100
Xylenes (TOTAL)	(ug/L)	400	2,000	90 J	<485	<835	<426	<55	<1,500	<300
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<1,000	<200
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<500	<100
Naphthalene	(ug/L)	10	100	<90	<900	<900	<340	<105	<2,500	<500
MTBE	(ug/L)	12	60	<26	<260	<350	<100	<40	<174	<34.8
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	403	<785	<335	<520	<40	<1,000	<200
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	147 J	<600	<225	<220	<40	<500	<100
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	256	<185	<115	<300	<37	<500	<100
Tetrachloroethene (PCE)	(ug/L)	0.5	5	39,800	28,800	44,000	162,000	23,000	81,800	14,100
Trichloroethene (TCE)	(ug/L)	0.5	5	8,100	6,200	4,000	5,000	2,860	1,190	1,710
cis-1,2-Dichloroethene	(ug/L)	7	70	6,000	7,900	6,500	7,700	6,100	1,480	47,000
trans-1,2-Dichloroethene	(ug/L)	20	100	175	<475	<305	218 J	297	<257	180 J
Vinyl Chloride	(ug/L)	0.02	0.2	58	255 J	185 J	258	146	<176	2,110
Methylene Chloride	(ug/L)	0.5	5	<34.5	<345	<495	<300	<55	<233	<46.5
Bromobenzene	(ug/L)	NS	NS	<18	<180	<220	<86	<37	<230	<46.0
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<340	<68.1
Bromodichloromethane	(ug/L)	0.06	0.6	<25	<250	<150	<82	<34	<500	<100
Bromoform	(ug/L)	0.44	4.4	<19	<190	<350	<92	<21.5	<500	<100
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	<2,430	<487
n-Butylbenzene	(ug/L)	NS	NS	34 J	<260	<275	<300	<45	<500	<100
sec-Butylbenzene	(ug/L)	NS	NS	<18	<180	<365	<86	<50	<2,190	<437
tert-Butylbenzene	(ug/L)	NS	NS	<17	<170	<160	<92	<35.5	<180	<36.1
Carbon Tetrachloride	(ug/L)	0.5	5	<23	<230	<150	<86	<23.5	<500	<100
Chlorobenzene	(ug/L)	NS	NS	<15.5	<155	<195	<78	<25.5	<500	<100
Chloroethane	(ug/L)	80	400	<23.5	<235	<485	<300	<70	<375	<74.9
Chloroform	(ug/L)	0.6	6	<24	<240	<235	<96	<24.5	<2,500	<500
Chloromethane	(ug/L)	3	30	<50	<500	<250	<100	<95	<500	<100
2-Chlorotoluene	(ug/L)	NS	NS	<24.5	<245	<205	<74	<35	<500	<100
4-Chlorotoluene	(ug/L)	NS	NS	<19	<190	<150	<126	<22	<214	<42.7
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<70	<700	<850	<400	<140	<2,160	<433
Dibromochloromethane	(ug/L)	6	60	<16	<160	<200	<152	<27.5	<500	<100
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<24.5	<245	<380	<104	<31.5	<178	<35.6
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<427	<85.3
1,2-Dichlorobenzene	(ug/L)	60	600	<17.5	<175	<440	<132	<38	<500	<100
1,3-Dichlorobenzene	(ug/L)	120	600	<15	<150	<35	<68	<43.5	<500	<100
1,4-Dichlorobenzene	(ug/L)	15	75	<16.5	<165	<370	<154	<49	<500	<100
Dichlorodifluoromethane	(ug/L)	200	1,000	<23	<230	<380	<90	<90	<224	<44.8
1,1-Dichloroethane	(ug/L)	85	850	<28	<280	<295	<88	<49	<242	<48.3
1,2-Dichloroethane	(ug/L)	0.5	5	<22.5	<225	<205	<86	<25	<168	<33.6
1,1-Dichloroethene	(ug/L)	0.7	7	<32	<320	<250	<94	<30	<410	352
1,2-Dichloropropane	(ug/L)	0.5	5	<23.5	<235	<135	<52	<20	<233	<46.6
1,3-Dichloropropane	(ug/L)	NS	NS	<19.5	<195	<200	<98	<35.5	<500	<100
2,2-Dichloropropane	(ug/L)	NS	NS	<49	<490	<265	<178	<95	<484	<96.8
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<441	<88.2
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<500	<100
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	<230	<45.9
Diisopropyl ether	(ug/L)	NS	NS	<65	<650	<185	<64	<34.5	<500	<100
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<75	<750	<850	<300	<110	<2,110	<421
Isopropylbenzene	(ug/L)	NS	NS	100	<240	<300	<78	<46	<143	<28.7
p-Isopropyltoluene	(ug/L)	NS	NS	<17.5	<175	<385	<114	<46	<500	<100
n-Propylbenzene	(ug/L)	NS	NS	306	195 J	<270	132 J	52 J	<500	102 J
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	<500	<100
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<32.5	<325	<160	<108	<50	<181	<36.1
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<37.5	<375	<250	<110	<26.5	<249	<49.9
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<80	<800	<800	<320	<65	<2,130	<427
1,2,4-Trichlorobenzene	(ug/L)	14	70	<75	<750	<550	<420	<75	<2,210	<442
1,1,1-Trichloroethane	(ug/L)	40	200	<25	<250	<140	<92	<42.5	<500	<100
1,1,2-Trichloroethane	(ug/L)	0.5	5	<25	<250	<195	<82	<23.5	<197	<39.5
Trichlorofluoromethane	(ug/L)	NS	NS	<30.5	<305	<405	<144	<85	<185	<37.0
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	<500	<100

**Notes:**  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

*ITALICS* indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-10						
Date	09/09/08			08/18/09	07/01/10	10/29/10	01/10/12	09/30/15	04/26/16	
Groundwater Elevation	678.23			677.94	680.07	677.51	678.29	678.27	679.57	
Benzene	(ug/L)	0.5	5	<b>24.5 J</b>	<20.5	<4	<b>6.1</b>	<b>3.6</b>	<5.0	<1.0
Ethylbenzene	(ug/L)	140	700	<b>2,470</b>	105 J	12 J	<b>296</b>	<b>390</b>	<b>326</b>	<b>19.2</b>
Toluene	(ug/L)	160	800	<b>1,140</b>	53 J	37	<b>65</b>	<b>120</b>	<b>65.5</b>	<b>67.0</b>
Xylenes (TOTAL)	(ug/L)	400	2,000	<b>8,730</b>	<b>699</b>	90	<b>770</b>	<b>1,237</b>	<b>795</b>	<b>336</b>
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<b>688</b>	<b>216</b>
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	<b>107</b>	<b>120</b>
Naphthalene	(ug/L)	10	100	<b>312</b>	<85	<12	<b>61</b>	<b>107</b>	<b>54.2</b>	<5.0
MTBE	(ug/L)	12	60	<35	<25	<4.9	<0.49	<0.47	<1.7	<0.35
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<b>2,350</b>	<b>354</b>	43.9	<b>427</b>	<b>621</b>	<b>486.7</b>	<b>226.7</b>
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<b>1,880</b>	<b>270</b>	<b>27.2</b>	<b>370</b>	<b>490</b>	<b>454</b>	<b>175</b>
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<b>470</b>	<b>84 J</b>	<b>16.7 J</b>	<b>57</b>	<b>131</b>	<b>32.7</b>	<b>51.7</b>
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<b>7,700</b>	<b>440</b>	--	--	--	<b>583</b>	<b>1.0 J</b>
Trichloroethene (TCE)	(ug/L)	0.5	5	<b>139</b>	<19.5	--	--	--	<b>363</b>	<b>75.7</b>
cis-1,2-Dichloroethene	(ug/L)	7	70	<22	<34	--	--	--	<b>777</b>	<b>162</b>
trans-1,2-Dichloroethene	(ug/L)	20	100	<30.5	<30.5	--	--	--	<b>14.2</b>	<0.51
Vinyl Chloride	(ug/L)	0.02	0.2	<10	<10	--	--	--	<b>37.5</b>	<b>2.9</b>
Methylene Chloride	(ug/L)	0.5	5	<49.5	<75	--	--	--	<2.3	<0.47
Bromobenzene	(ug/L)	NS	NS	<22	<21.5	--	--	--	<2.3	<0.68
Bromochloromethane	(ug/L)	NS	NS	NR	NR	--	--	--	<3.4	<1.0
Bromodichloromethane	(ug/L)	0.06	0.6	<15	<20.5	--	--	--	<5.0	<1.0
Bromoform	(ug/L)	0.44	4.4	<35	<23	--	--	--	<5.0	<1.0
Bromomethane	(ug/L)	1	10	NR	NR	--	--	--	<24.3	<4.9
n-Butylbenzene	(ug/L)	NS	NS	<b>66 J</b>	<75	--	--	--	<b>6.1 J</b>	<1.0
sec-Butylbenzene	(ug/L)	NS	NS	<36.5	<21.5	--	--	--	<21.9	<4.4
tert-Butylbenzene	(ug/L)	NS	NS	<16	<23	--	--	--	<1.8	<0.36
Carbon Tetrachloride	(ug/L)	0.5	5	<15	<21	--	--	--	<5.0	<1.0
Chlorobenzene	(ug/L)	NS	NS	<19.5	<19.5	--	--	--	<5.0	<1.0
Chloroethane	(ug/L)	80	400	<48.5	<75	--	--	--	<3.7	<0.75
Chloroform	(ug/L)	0.6	6	<23.5	<24	--	--	--	<25.0	<5.0
Chloromethane	(ug/L)	3	30	<25	<25	--	--	--	<5.0	<1.0
2-Chlorotoluene	(ug/L)	NS	NS	<20.5	<18.5	--	--	--	<5.0	<1.0
4-Chlorotoluene	(ug/L)	NS	NS	<15	<31.5	--	--	--	<2.1	<0.43
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<85	<100	--	--	--	<21.6	<4.3
Dibromochloromethane	(ug/L)	6	60	<20	<38	--	--	--	<5.0	<1.0
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<38	<26	--	--	--	<1.8	<0.36
Dibromomethane	(ug/L)	NS	NS	NR	NR	--	--	--	<4.3	<0.85
1,2-Dichlorobenzene	(ug/L)	60	600	<44	<33	--	--	--	<0.50	<1.0
1,3-Dichlorobenzene	(ug/L)	120	600	<33.5	<17	--	--	--	<5.0	<1.0
1,4-Dichlorobenzene	(ug/L)	15	75	<37	<38.5	--	--	--	<5.0	<1.0
Dichlorodifluoromethane	(ug/L)	200	1,000	<38	<22.5	--	--	--	<2.2	<0.45
1,1-Dichloroethane	(ug/L)	85	850	<29.5	<22	--	--	--	<2.4	<0.48
1,2-Dichloroethane	(ug/L)	0.5	5	<20.5	<21.5	--	--	--	<1.7	<0.34
1,1-Dichloroethene	(ug/L)	0.7	7	<25	<23.5	--	--	--	<4.1	<0.82
1,2-Dichloropropane	(ug/L)	0.5	5	<13.5	<13	--	--	--	<2.3	<0.47
1,3-Dichloropropane	(ug/L)	NS	NS	<20	<24.5	--	--	--	<5.0	<1.0
2,2-Dichloropropane	(ug/L)	NS	NS	<26.5	<44.5	--	--	--	<4.8	<0.97
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	--	--	--	<4.4	<0.88
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	--	--	--	<5.0	<1.0
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	--	--	--	<2.3	<0.46
Diisopropyl ether	(ug/L)	NS	NS	<18.5	<16	--	--	--	<5.0	<1.0
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<85	<75	--	--	--	<21.1	<4.2
Isopropylbenzene	(ug/L)	NS	NS	<b>130</b>	<b>20 J</b>	--	--	--	<b>18.8</b>	<b>1.5 J</b>
p-Isopropyltoluene	(ug/L)	NS	NS	<38.5	<28.5	--	--	--	<5.0	<b>3.2</b>
n-Propylbenzene	(ug/L)	NS	NS	<b>360</b>	<b>40 J</b>	--	--	--	<b>40.9</b>	<b>1.7 J</b>
Styrene	(ug/L)	10	100	NR	NR	--	--	--	<5.0	<1.0
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<16	<27	--	--	--	<1.8	<0.36
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<25	<27.5	--	--	--	<2.5	<0.50
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<80	<80	--	--	--	<21.3	<4.3
1,2,4-Trichlorobenzene	(ug/L)	14	70	<55	<105	--	--	--	<22.1	<4.4
1,1,1-Trichloroethane	(ug/L)	40	200	<14	<23	--	--	--	<5.0	<1.0
1,1,2-Trichloroethane	(ug/L)	0.5	5	<19.5	<20.5	--	--	--	<2.0	<0.39
Trichlorofluoromethane	(ug/L)	NS	NS	<40.5	<36	--	--	--	<1.8	<0.37
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	--	--	--	<5.0	<1.0

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-11				SMW-12			
Date	09/09/08			08/18/09	09/30/15	04/26/16	09/09/08	08/18/09	09/30/15	04/26/16	
Groundwater Elevation				678.76	678.13	678.46	679.44	678.64	677.78	678.38	679.04
Benzene	(ug/L)	0.5	5	<4.8	<8.2	<0.50	<1.2	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<7	<17.4	<0.50	<1.2	<0.35	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<7.8	<10.2	<0.50	<1.2	<0.39	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<33.4	<42.6	<1.5	<3.7	<1.67	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	<1.0	<2.5	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	<0.50	<1.2	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<36	<34	<2.5	<6.2	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<14	<10	<0.17	<0.44	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	10.6	<52	<1.0	<2.4	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	10.6 J	<22	<0.50	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<4.6	<30	<0.50	<1.2	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	266	205	268	<1.2	0.75 J	<0.42	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	0.5	5	220	133	96.8	<0.83	<0.47	<0.39	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	90	57	63.6	126	<0.44	<0.68	1.9	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<12.2	<12.2	<0.26	7.1	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<4	<4	77.0	19.1	0.59 J	1.2	5.8	<0.18
Methylene Chloride	(ug/L)	0.5	5	<19.8	<30	<0.23	<0.58	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<8.8	<8.6	<0.23	<0.58	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	<0.34	<0.85	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<6	<8.2	<0.50	<1.2	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<14	<9.2	<0.50	<1.2	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	<2.4	<6.1	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<11	<30	<0.50	<1.2	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<14.6	<8.6	<2.2	<5.5	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<6.4	<9.2	<0.18	<0.45	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<6	<8.6	<0.50	<1.2	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<7.8	<7.8	<0.50	<1.2	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<19.4	<30	<0.37	<0.94	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<9.4	<9.6	<2.5	<6.2	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<10	<10	<0.50	<1.2	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<8.2	<7.4	<0.50	<1.2	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<6	<12.6	<0.21	<0.53	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<34	<40	<2.2	<5.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<8	<15.2	<0.50	<1.2	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<15.2	<10.4	<0.18	<0.44	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	<0.43	<1.1	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<17.6	<13.2	<0.50	<1.2	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<13.4	<6.8	<0.50	<1.2	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<14.8	<15.4	<0.50	<1.2	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<15.2	<9	<0.22	<0.56	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<11.8	<8.8	<0.24	<0.60	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<8.2	<8.6	<0.17	<0.42	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<10	<9.4	<0.41	<1.0	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<5.4	<5.2	<0.23	<0.58	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<8	<9.8	<0.50	<1.2	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<10.6	<17.8	<0.48	<1.2	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	<0.44	<1.1	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	<0.50	<1.2	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	<0.23	<0.57	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<7.4	<6.4	<0.50	<1.2	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<34	<30	<2.1	<5.3	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<12	<7.8	<0.14	<0.36	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<15.4	<11.4	<0.50	<1.2	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<10.8	<6.6	<0.50	<1.2	<0.54	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	<0.50	<1.2	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<6.4	<10.8	<0.18	<0.45	<0.32	<0.54	<0.18	<0.18
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<10	<11	<0.25	<0.62	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<32	<32	<2.1	<5.3	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<22	<42	<2.2	<5.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<5.6	<9.2	<0.50	<1.2	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<7.8	<8.2	<0.20	<0.49	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<16.2	<14.4	<0.18	<0.46	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	<0.50	<1.2	NR	NR	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

*ITALICS* indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	SMW-13				SMW-14		
Date	08/18/09			01/10/12	09/30/15	04/25/16	08/18/09	09/30/15	04/26/16	
Groundwater Elevation	677.63			678.08	678.04	679.00	677.27	677.48	678.56	
Benzene	(ug/L)	0.5	5	<0.41	<0.5	<0.50	<0.50	<2.05	<0.50	<1.0
Ethylbenzene	(ug/L)	140	700	<0.87	<0.78	<0.50	<0.50	<4.35	<0.50	<1.0
Toluene	(ug/L)	160	800	<0.51	<0.53	<0.50	<0.50	<2.55	<0.50	<1.0
Xylenes (TOTAL)	(ug/L)	400	2,000	<2.13	<1.1	<1.5	<1.50	<10.65	<1.5	<3.0
m&p-Xylene	(ug/L)	NS	NS	NR	NR	<1.0	<1.0	NR	<1.0	<2.0
o-Xylene	(ug/L)	NS	NS	NR	NR	<0.50	<0.50	NR	<0.50	<1.0
Naphthalene	(ug/L)	10	100	<1.7	<2.1	<2.5	<2.5	<8.5	<2.5	<5.0
MTBE	(ug/L)	12	60	<0.5	<0.8	<0.17	<0.17	<2.5	<0.17	<0.35
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<2.6	<0.8	<1.0	<0.50	<13	<1.0	<2.0
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<1.1	<0.8	<0.50	<0.50	<5.5	<0.50	<1.0
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<1.5	<0.74	<0.50	<0.50	<7.5	<0.50	<1.0
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<0.42	<0.44	<0.50	<0.50	<2.1	<0.50	<1.0
Trichloroethene (TCE)	(ug/L)	0.5	5	<0.39	<0.47	<0.33	<0.33	<1.95	<0.33	<0.66
cis-1,2-Dichloroethene	(ug/L)	7	70	<0.68	<0.74	<0.26	<0.26	<b>151</b>	<b>652</b>	<b>282</b>
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.61	<0.79	<0.26	<0.26	<b>15.5</b>	<b>35.4</b>	<b>14.9</b>
Vinyl Chloride	(ug/L)	0.02	0.2	<0.2	<0.18	<0.18	<0.18	<b>32</b>	<b>38.6</b>	<b>22.3</b>
Methylene Chloride	(ug/L)	0.5	5	<1.5	<1.1	<0.23	<0.23	<7.5	<0.23	<0.47
Bromobenzene	(ug/L)	NS	NS	<0.43	<0.74	<0.23	<0.23	<2.15	<0.23	<0.46
Bromochloromethane	(ug/L)	NS	NS	NR	NR	<0.34	<0.34	NR	<0.34	<0.68
Bromodichloromethane	(ug/L)	0.06	0.6	<0.41	<0.68	<0.50	<0.50	<2.05	<0.50	<1.0
Bromoform	(ug/L)	0.44	4.4	<0.46	<0.43	<0.50	<0.50	<2.3	<0.50	<1.0
Bromomethane	(ug/L)	1	10	NR	NR	<2.4	<2.4	NR	<2.4	<4.9
n-Butylbenzene	(ug/L)	NS	NS	<1.5	<0.9	<0.50	<0.50	<7.5	<0.50	<1.0
sec-Butylbenzene	(ug/L)	NS	NS	<0.43	<1	<2.2	<2.2	<2.15	<2.2	<4.4
tert-Butylbenzene	(ug/L)	NS	NS	<0.46	<0.71	<0.18	<0.18	<2.3	<0.18	<0.36
Carbon Tetrachloride	(ug/L)	0.5	5	<0.43	<0.47	<0.50	<0.50	<2.15	<0.50	<1.0
Chlorobenzene	(ug/L)	NS	NS	<0.39	<0.51	<0.50	<0.50	<1.95	<0.50	<1.0
Chloroethane	(ug/L)	80	400	<1.5	<1.4	<0.37	<0.37	<7.5	<0.37	<0.75
Chloroform	(ug/L)	0.6	6	<0.48	<0.49	<2.5	<2.5	<2.4	<2.5	<5.0
Chloromethane	(ug/L)	3	30	<0.5	<1.9	<0.50	<0.50	<2.5	<0.50	<1.0
2-Chlorotoluene	(ug/L)	NS	NS	<0.37	<0.7	<0.50	<0.50	<1.85	<0.50	<1.0
4-Chlorotoluene	(ug/L)	NS	NS	<0.63	<0.44	<0.21	<0.21	<3.15	<0.21	<0.43
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<2	<2.8	<2.2	<2.2	<10	<2.2	<4.3
Dibromochloromethane	(ug/L)	6	60	<0.76	<0.55	<0.50	<0.50	<3.8	<0.50	<1.0
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.52	<0.63	<0.18	<0.18	<2.6	<0.18	<0.36
Dibromomethane	(ug/L)	NS	NS	NR	NR	<0.43	<0.43	NR	<0.43	<0.85
1,2-Dichlorobenzene	(ug/L)	60	600	<0.66	<0.76	<0.50	<0.50	<3.3	<0.50	<1.0
1,3-Dichlorobenzene	(ug/L)	120	600	<0.34	<0.87	<0.50	<0.50	<1.7	<0.50	<1.0
1,4-Dichlorobenzene	(ug/L)	15	75	<0.77	<0.98	<0.50	<0.50	<3.85	<0.50	<1.0
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.45	<1.8	<0.22	<0.22	<2.25	<0.22	<0.45
1,1-Dichloroethane	(ug/L)	85	850	<0.44	<0.98	<0.24	<0.24	<2.2	<0.24	<0.48
1,2-Dichloroethane	(ug/L)	0.5	5	<0.43	<0.5	<0.17	<0.17	<2.15	<b>0.49 J</b>	<0.34
1,1-Dichloroethene	(ug/L)	0.7	7	<0.47	<0.6	<0.41	<0.41	<2.35	<b>2.6</b>	<0.82
1,2-Dichloropropane	(ug/L)	0.5	5	<0.26	<0.4	<0.23	<0.23	<1.3	<0.23	<0.47
1,3-Dichloropropane	(ug/L)	NS	NS	<0.49	<0.71	<0.50	<0.50	<2.45	<0.50	<1.0
2,2-Dichloropropane	(ug/L)	NS	NS	<0.89	<1.8	<0.48	<0.48	<4.45	<0.48	<0.97
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	<0.44	<0.44	NR	<0.44	<0.88
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	<0.50	<0.50	NR	<0.50	<1.0
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	<0.23	<0.23	NR	<0.23	<0.46
Diisopropyl ether	(ug/L)	NS	NS	<0.32	<0.69	<0.50	<0.50	<1.6	<0.50	<1.0
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<1.5	<2.2	<2.1	<2.1	<7.5	<2.1	<4.2
Isopropylbenzene	(ug/L)	NS	NS	<0.39	<0.92	<0.14	<0.14	<1.95	<0.14	<0.29
p-Isopropyltoluene	(ug/L)	NS	NS	<0.57	<0.92	<0.50	<0.50	<2.85	<0.50	<1.0
n-Propylbenzene	(ug/L)	NS	NS	<0.33	<0.59	<0.50	<0.50	<1.65	<0.50	<1.0
Styrene	(ug/L)	10	100	NR	NR	<0.50	<0.50	NR	<0.50	<1.0
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.54	<1	<0.18	<0.18	<2.7	<0.18	<0.36
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.55	<0.53	<0.25	<0.25	<2.75	<0.25	<0.50
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.6	<1.3	<2.1	<2.1	<8	<2.1	<4.3
1,2,4-Trichlorobenzene	(ug/L)	14	70	<2.1	<1.5	<2.2	<2.2	<10.5	<2.2	<4.4
1,1,1-Trichloroethane	(ug/L)	40	200	<0.46	<0.85	<0.50	<0.50	<2.3	<0.50	<1.0
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.41	<0.47	<0.20	<0.20	<2.05	<0.20	<0.39
Trichlorofluoromethane	(ug/L)	NS	NS	<0.72	<1.7	<0.18	<0.18	<3.6	<0.18	<0.37
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	<0.50	<0.50	NR	<0.50	<1.0

**Notes:**  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	PZ-1				
Date	12/06/07			09/09/08	08/18/09	09/30/15	04/26/16	
Groundwater Elevation				678.96	679.89	668.34	679.68	680.16
Benzene	(ug/L)	0.5	5	<0.47	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.38	<0.35	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.46	<0.39	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<0.99	<1.67	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<1.8	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<1.57	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<i>1.12 J</i>	<b>37</b>	<b>4.3</b>	<b>2.9</b>	<b>1.7</b>
Trichloroethene (TCE)	(ug/L)	0.5	5	<i>0.56 J</i>	<b>1.81</b>	<i>0.96 J</i>	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	<b>8.3</b>	<b>9.5</b>	<b>7.7</b>	<i>0.36 J</i>	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<b>2.09</b>	<0.2	<0.2	<0.18	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<0.52	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.36	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.45	<0.41	<0.43	<0.17	<0.17
1,1,1-Dichloroethene	(ug/L)	0.7	7	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	<0.50	<0.50
trans-1,3Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.48	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.35	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.38	<b>0.55 J</b>	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichlorethane	(ug/L)	40	200	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichlorethane	(ug/L)	0.5	5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	<0.50	<0.50

**Notes:**  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

*ITALICS* indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	PZ-2					
Date	09/09/08			08/18/09	07/01/10	10/29/10	09/30/15	04/26/16	
Groundwater Elevation	678.11			677.76	678.93	677.52	677.90	678.90	
Benzene	(ug/L)	0.5	5	2.56	<2.05	<0.4	<0.4	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.35	<4.35	<0.65	<0.65	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.39	<2.55	<0.86	<0.86	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<1.67	<10.65	<2.15	<2.15	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<1.8	<8.5	<1.2	<1.2	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.7	<2.5	<0.49	<0.49	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<0.74	<13	<1.49	<1.49	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<0.51	<5.5	<0.76	<0.76	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<0.23	<7.5	<0.73	<0.73	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<0.5	<2.1	--	--	<0.50	4.7
Trichloroethene (TCE)	(ug/L)	0.5	5	<0.47	<1.95	--	--	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	148	79	--	--	6.3	8.4
trans-1,2-Dichloroethene	(ug/L)	20	100	3.06	3.5 J	--	--	<0.26	0.87 J
Vinyl Chloride	(ug/L)	0.02	0.2	116	15.5	--	--	2.6	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.99	<7.5	--	--	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.44	<2.15	--	--	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	--	--	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.3	<2.05	--	--	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.7	<2.3	--	--	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	--	--	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<0.55	<7.5	--	--	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.73	<2.15	--	--	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.32	<2.3	--	--	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.3	<2.15	--	--	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.39	<1.95	--	--	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.97	<7.5	--	--	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.47	<2.4	--	--	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<0.5	<2.5	--	--	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<0.41	<1.85	--	--	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.3	<3.15	--	--	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<1.7	<10	--	--	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.4	<3.8	--	--	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.76	<2.6	--	--	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	--	--	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.88	<3.3	--	--	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.67	<1.7	--	--	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.74	<3.85	--	--	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.76	<2.25	--	--	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.59	<2.2	--	--	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.41	<2.15	--	--	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.5	<2.35	--	--	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.27	<1.3	--	--	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.4	<2.45	--	--	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<0.53	<4.45	--	--	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	--	--	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	--	--	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	--	--	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<0.37	<1.6	--	--	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<1.7	<7.5	--	--	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.6	<1.95	--	--	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.77	<2.85	--	--	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.54	<1.65	--	--	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	--	--	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.32	<2.7	--	--	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.5	<2.75	--	--	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.6	<8	--	--	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.1	<10.5	--	--	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.28	<2.3	--	--	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.39	<2.05	--	--	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.81	<3.6	--	--	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	--	--	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

ITALICS indicates exceedance of NR 140.10 Preventive Action Limit  
 BOLD indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-1							
				02/20/06	12/12/06	09/25/07	12/06/07	09/09/08	08/18/09	09/30/15	04/26/16
Date				97.64	679.56	678.12	678.00	678.60	677.80	678.35	679.15
Groundwater Elevation											
Benzene	(ug/L)	0.5	5	<0.26	<2.35	<0.47	<0.47	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.3	<1.9	<0.38	<0.38	<0.35	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.52	<2.95	<0.46	<0.46	<0.39	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<1.17	<5.5	<0.99	<0.99	<1.67	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<0.85	<11	<1.8	<1.8	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.36	<2.6	<0.52	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<1.15	<6.0	<1.57	<1.57	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<0.32	<1.95	<1.2	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<0.83	<6.0	<0.37	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<b>81</b>	<b>48</b>	<b>43</b>	<b>27.2</b>	<b>22.1</b>	<b>5</b>	<b>6.8</b>	<b>4.3</b>
Trichloroethene (TCE)	(ug/L)	0.5	5	<b>38</b>	<b>36</b>	<b>52</b>	<b>32</b>	<b>9.8</b>	<b>5.3</b>	<b>12.8</b>	<b>6.6</b>
cis-1,2-Dichloroethene	(ug/L)	7	70	<b>7.8</b>	<b>9.0 J</b>	<b>9.7</b>	<b>8.2</b>	<b>2.08</b>	<b>0.77 J</b>	<b>6.0</b>	<b>0.78 J</b>
trans-1,2-Dichloroethene	(ug/L)	20	100	<b>0.77 J</b>	<4.75	<0.95	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<0.16	<b>1.4 J</b>	<b>0.79</b>	<b>0.38 J</b>	<b>1.03</b>	<b>0.8</b>	<b>0.87 J</b>	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.55	<3.45	<0.69	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.35	<3.1	<0.36	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.28	<4.1	<0.5	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.4	<1.5	<0.38	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<0.61	<5.5	<0.52	<0.52	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.25	<3.8	<0.36	<0.36	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.34	<3.0	<0.34	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.25	<2.6	<0.46	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.26	<2.8	<0.31	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.37	<2.7	<0.47	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.78	<3.05	<0.48	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1.1	<5.0	<1	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<0.42	<5.5	<0.49	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.24	<3.1	<0.38	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<4.1	<12.5	<1.4	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.74	<3.25	<0.32	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.58	<2.45	<0.49	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.86	<3.45	<0.35	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.64	<3.6	<0.3	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.69	<3.4	<0.33	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.2	<2.5	<0.46	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.91	<2.8	<0.56	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.25	<3.6	<0.45	<0.45	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.2	<1.5	<0.64	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.37	<2.35	<0.47	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.4	<3.35	<0.39	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<0.34	<6.0	<0.98	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<0.23	<3.55	<1.3	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<1.6	<10.5	<1.5	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.56	<4.95	<0.48	<0.48	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.5	<4.05	<0.35	<0.35	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.56	<3.05	<0.38	<0.38	<0.54	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.49	<3.25	<0.65	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.29	<4.45	<0.75	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.6	<7.0	<1.6	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.1	<7.5	<1.5	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.42	<2.5	<0.5	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.35	<2.5	<0.5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.48	<3.05	<0.61	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	NR	<0.50	<0.50

**Notes:**  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

*ITALICS* indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-2							
Date	02/20/06			12/12/06	09/25/07	12/06/07	09/09/08	08/18/09	09/30/15	04/25/16	
Groundwater Elevation	98.34			680.26	679.21	679.09	679.67	678.61	679.34	679.66	
Benzene	(ug/L)	0.5	5	<0.26	<0.47	<0.47	<0.47	<0.24	<0.41	<0.50	<0.50
Ethylbenzene	(ug/L)	140	700	<0.3	<0.38	<0.38	<0.38	<0.35	<0.87	<0.50	<0.50
Toluene	(ug/L)	160	800	<0.52	<0.59	<0.46	<0.46	<0.39	<0.51	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<1.17	<1.1	<0.99	<0.99	<1.67	<2.13	<1.5	<1.50
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.50	<0.50
Naphthalene	(ug/L)	10	100	<0.85	<2.2	<1.8	<1.8	<1.8	<1.7	<2.5	<2.5
MTBE	(ug/L)	12	60	<0.36	<0.52	<0.52	<0.52	<0.7	<0.5	<0.17	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<1.15	<1.2	<1.57	<1.57	<0.74	<2.6	<1.0	<0.50
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<0.32	<0.39	<1.2	<1.2	<0.51	<1.1	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<0.83	<1.2	<0.37	<0.37	<0.23	<1.5	<0.50	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<0.45	<b>3.5</b>	<b>1.38 J</b>	<b>2.75</b>	<b>15.1</b>	<b>2.03</b>	<b>0.95 J</b>	<0.50
Trichloroethene (TCE)	(ug/L)	0.5	5	<0.37	<b>1.38 J</b>	<b>0.45 J</b>	<b>1.71</b>	<b>1.62</b>	<b>1.58</b>	<0.33	<b>0.59 J</b>
cis-1,2-Dichloroethene	(ug/L)	7	70	<0.27	<0.68	<0.68	<0.68	<b>0.46 J</b>	<0.68	<b>0.26 J</b>	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<0.4	<0.95	<0.95	<0.95	<0.61	<0.61	<0.26	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<0.16	<0.17	<0.2	<0.2	<0.2	<0.2	<0.18	<0.18
Methylene Chloride	(ug/L)	0.5	5	<0.55	<0.69	<0.69	<0.69	<0.99	<1.5	<0.23	<0.23
Bromobenzene	(ug/L)	NS	NS	<0.35	<0.62	<0.36	<0.36	<0.44	<0.43	<0.23	<0.23
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.34	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<0.28	<0.82	<0.5	<0.5	<0.3	<0.41	<0.50	<0.50
Bromoform	(ug/L)	0.44	4.4	<0.4	<0.3	<0.38	<0.38	<0.7	<0.46	<0.50	<0.50
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	NR	<2.4	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<0.61	<1.1	<0.52	<0.52	<0.55	<1.5	<0.50	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<0.25	<0.76	<0.36	<0.36	<0.73	<0.43	<2.2	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<0.34	<0.6	<0.34	<0.34	<0.32	<0.46	<0.18	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<0.25	<0.52	<0.46	<0.46	<0.3	<0.43	<0.50	<0.50
Chlorobenzene	(ug/L)	NS	NS	<0.26	<0.56	<0.31	<0.31	<0.39	<0.39	<0.50	<0.50
Chloroethane	(ug/L)	80	400	<0.37	<0.54	<0.47	<0.47	<0.97	<1.5	<0.37	<0.37
Chloroform	(ug/L)	0.6	6	<0.78	<0.61	<0.48	<0.48	<0.47	<0.48	<2.5	<2.5
Chloromethane	(ug/L)	3	30	<1.1	<1.0	<1	<1	<0.5	<0.5	<0.50	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<0.42	<1.1	<0.49	<0.49	<0.41	<0.37	<0.50	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<0.24	<0.62	<0.38	<0.38	<0.3	<0.63	<0.21	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<4.1	<2.5	<1.4	<1.4	<1.7	<2	<2.2	<2.2
Dibromochloromethane	(ug/L)	6	60	<0.74	<0.65	<0.32	<0.32	<0.4	<0.76	<0.50	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<0.58	<0.49	<0.49	<0.49	<0.76	<0.52	<0.18	<0.18
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.43	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<0.86	<0.69	<0.35	<0.35	<0.88	<0.66	<0.50	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<0.64	<0.72	<0.3	<0.3	<0.67	<0.34	<0.50	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<0.69	<0.68	<0.33	<0.33	<0.74	<0.77	<0.50	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<0.2	<0.5	<0.46	<0.46	<0.76	<0.45	<0.22	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<0.91	<0.56	<0.56	<0.56	<0.59	<0.44	<0.24	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<0.25	<0.72	<0.45	<0.45	<0.41	<0.43	<0.17	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<0.2	<0.3	<0.64	<0.64	<0.5	<0.47	<0.41	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<0.37	<0.47	<0.47	<0.47	<0.27	<0.26	<0.23	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<0.4	<0.67	<0.39	<0.39	<0.4	<0.49	<0.50	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<0.34	<1.2	<0.98	<0.98	<0.53	<0.89	<0.48	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	<0.44	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	NR	<0.50	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	NR	<0.23	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<0.23	<0.71	<1.3	<1.3	<0.37	<0.32	<0.50	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<1.6	<2.1	<1.5	<1.5	<1.7	<1.5	<2.1	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<0.56	<0.99	<0.48	<0.48	<0.6	<0.39	<0.14	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<0.5	<0.81	<0.35	<0.35	<0.77	<0.57	<0.50	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<0.56	<0.61	<0.38	<0.38	<0.54	<0.33	<0.50	<0.50
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	NR	<0.50	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<0.49	<0.65	<0.65	<0.65	<0.32	<0.54	<0.18	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<0.29	<0.89	<0.75	<0.75	<0.5	<0.55	<0.25	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<1.6	<1.4	<1.6	<1.6	<1.6	<1.6	<2.1	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<1.1	<1.5	<1.5	<1.5	<1.1	<2.1	<2.2	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<0.42	<0.5	<0.5	<0.5	<0.28	<0.46	<0.50	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<0.35	<0.5	<0.5	<0.5	<0.39	<0.41	<0.20	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<0.48	<0.61	<0.61	<0.61	<0.81	<0.72	<0.18	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	NR	<0.50	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-3								
Date	02/20/06			12/12/06	09/25/07	12/06/07	09/09/08	08/18/09	01/10/12	09/30/15	04/26/16	
Groundwater Elevation	98.81			681.48	679.93	679.74	679.92	679.49	680.27	681.06	681.02	
Benzene	(ug/L)	0.5	5	<52	<47	<47	<23.5	<12	<0.41	2.5	4.0	<5.0
Ethylbenzene	(ug/L)	140	700	<60	<38	<38	28.5 J	<17.5	<0.87	9.1	1.4	<5.0
Toluene	(ug/L)	160	800	<104	<59	<46	<23	<19.5	<0.51	2.22 J	0.60 J	<5.0
Xylenes (TOTAL)	(ug/L)	400	2,000	<234	<110	<99	<49.5	<83.5	<2.13	13.5 J	<1.5	<15.0
m&p-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	<1.0	<10.0
o-Xylene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	NR	<0.50	<5.0
Naphthalene	(ug/L)	10	100	<170	<220	<180	<90	<90	<1.7	9.8	<2.5	<25.0
MTBE	(ug/L)	12	60	<72	<52	<52	<26	<35	<0.5	<0.47	<0.17	<1.7
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<230	<120	<157	<78.5	<36.5	<2.6	7.75	<1.0	<10.0
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<64	<39	<120	<60	<25.5	<1.1	5.8	<0.50	<5.0
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<166	<120	<37	<18.5	<11.5	<1.5	1.95 J	<0.50	<5.0
Tetrachloroethene (PCE)	(ug/L)	0.5	5	282	247	198	140	261	158	--	240	<5.0
Trichloroethene (TCE)	(ug/L)	0.5	5	1,770	1,730	2,150	1,720	1,030	690	--	677	4.4 J
cis-1,2-Dichloroethene	(ug/L)	7	70	3,800	3,090	3,700	3,400	2,560	1,790	--	1,200	436
trans-1,2-Dichloroethene	(ug/L)	20	100	170 J	<95	<95	74 J	69 J	117	--	29.4	10.0
Vinyl Chloride	(ug/L)	0.02	0.2	102 J	98	320	152	117	55	--	90.6	480
Methylene Chloride	(ug/L)	0.5	5	<110	<69	<69	<34.5	<49.5	<1.5	--	<0.23	<2.3
Bromobenzene	(ug/L)	NS	NS	<70	<62	<36	<18	<22	<0.43	--	<0.23	<2.3
Bromochloromethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	--	<0.34	<3.4
Bromodichloromethane	(ug/L)	0.06	0.6	<56	<82	<50	<25	<15	<0.41	--	<0.50	<5.0
Bromoform	(ug/L)	0.44	4.4	<80	<30	<38	<19	<35	<0.46	--	<0.50	<5.0
Bromomethane	(ug/L)	1	10	NR	NR	NR	NR	NR	NR	--	<2.4	<24.3
n-Butylbenzene	(ug/L)	NS	NS	<122	<110	<52	<26	<27.5	<1.5	--	<0.50	<5.0
sec-Butylbenzene	(ug/L)	NS	NS	<50	<76	<36	<18	<36.5	<0.43	--	<2.2	<21.9
tert-Butylbenzene	(ug/L)	NS	NS	<68	<60	<34	<17	<16	<0.46	--	<0.18	<1.8
Carbon Tetrachloride	(ug/L)	0.5	5	<50	<52	<46	<23	<15	<0.43	--	<0.50	<5.0
Chlorobenzene	(ug/L)	NS	NS	<52	<56	<31	<15.5	<19.5	<0.39	--	<0.50	<5.0
Chloroethane	(ug/L)	80	400	<74	<54	<47	<23.5	<48.5	<1.5	--	<0.37	<3.7
Chloroform	(ug/L)	0.6	6	<156	<61	<48	<24	<23.5	<0.48	--	<2.5	<25.0
Chloromethane	(ug/L)	3	30	<220	<100	<100	<50	<25	<0.5	--	<0.50	<5.0
2-Chlorotoluene	(ug/L)	NS	NS	<84	<110	<49	<24.5	<20.5	<0.37	--	<0.50	<5.0
4-Chlorotoluene	(ug/L)	NS	NS	<48	<62	<38	<19	<15	<0.63	--	<0.21	<2.1
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<820	<250	<140	<70	<85	<2	--	<2.2	<21.6
Dibromochloromethane	(ug/L)	6	60	<148	<65	<32	<16	<20	<0.76	--	<0.50	<5.0
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<116	<49	<49	<24.5	<38	<0.52	--	<0.18	<1.8
Dibromomethane	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	--	<0.43	<4.3
1,2-Dichlorobenzene	(ug/L)	60	600	<172	<69	<35	<17.5	<44	<0.66	--	<0.50	<5.0
1,3-Dichlorobenzene	(ug/L)	120	600	<128	<72	<30	<15	<33.5	<0.34	--	<0.50	<5.0
1,4-Dichlorobenzene	(ug/L)	15	75	<138	<68	<33	<16.5	<37	<0.77	--	<0.50	<5.0
Dichlorodifluoromethane	(ug/L)	200	1,000	<40	<50	<46	<23	<38	<0.45	--	<0.22	<2.2
1,1-Dichloroethane	(ug/L)	85	850	<182	<56	<56	<28	<29.5	<0.44	--	<0.24	<2.4
1,2-Dichloroethane	(ug/L)	0.5	5	<50	<72	<45	<22.5	<20.5	<0.43	--	<0.17	<1.7
1,1-Dichloroethene	(ug/L)	0.7	7	<40	<30	<64	<32	<25	<0.47	--	3.5	<4.1
1,2-Dichloropropane	(ug/L)	0.5	5	<74	<47	<47	<23.5	<13.5	<0.26	--	<0.23	<2.3
1,3-Dichloropropane	(ug/L)	NS	NS	<80	<67	<39	<19.5	<20	<0.49	--	<0.50	<5.0
2,2-Dichloropropane	(ug/L)	NS	NS	<68	<120	<98	<49	<26.5	<0.89	--	<0.48	<4.8
1,1-Dichloropropene	(ug/L)	NS	NS	NR	NR	NR	NR	NR	NR	--	<0.44	<4.4
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	NR	--	<0.50	<5.0
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	NR	NR	NR	NR	NR	NR	--	<0.23	<2.3
Diisopropyl ether	(ug/L)	NS	NS	<46	<71	<130	<65	<18.5	<0.32	--	<0.50	<5.0
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<320	<210	<150	<75	<85	<1.5	--	<2.1	<21.1
Isopropylbenzene	(ug/L)	NS	NS	<112	<99	<48	<24	<30	<0.39	--	2.2	2.5 J
p-Isopropyltoluene	(ug/L)	NS	NS	<100	<81	<35	<17.5	<38.5	<0.57	--	<0.50	<5.0
n-Propylbenzene	(ug/L)	NS	NS	<112	<61	<38	<19	<27	<0.33	--	0.61 J	<5.0
Styrene	(ug/L)	10	100	NR	NR	NR	NR	NR	NR	--	<0.50	<5.0
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<98	<65	<65	<32.5	<16	<0.54	--	<0.18	<1.8
1,1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<58	<89	<75	<37.5	<25	<0.55	--	<0.25	<2.5
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<320	<140	<160	<80	<80	<1.6	--	<2.1	<21.3
1,2,4-Trichlorobenzene	(ug/L)	14	70	<220	<150	<150	<75	<55	<2.1	--	<2.2	<22.1
1,1,1-Trichloroethane	(ug/L)	40	200	<84	<50	<50	<25	<14	<0.46	--	<0.50	<5.0
1,1,2-Trichloroethane	(ug/L)	0.5	5	<70	<50	<50	<25	<19.5	<0.41	--	<0.20	<2.0
Trichlorofluoromethane	(ug/L)	NS	NS	<96	<61	<61	<30.5	<40.5	<0.72	--	<0.18	<1.8
1,2,3-Trichloropropane	(ug/L)	12	60	NR	NR	NR	NR	NR	NR	--	<0.50	<5.0

**Notes:**  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	B-101	B-102	B-103	Trip Blank
Date	02/24/16			02/24/16	02/24/16	9/30/15	
Groundwater Elevation				NA	NA	NA	NA
Benzene	(ug/L)	0.5	5	<12.5	<5.0	<50.0	<0.50
Ethylbenzene	(ug/L)	140	700	<b>749</b>	<b>162</b>	<b>3,590</b>	<0.50
Toluene	(ug/L)	160	800	<b>323</b>	<5.0	<b>2,490</b>	<0.50
Xylenes (TOTAL)	(ug/L)	400	2,000	<b>1,804</b>	<b>280.8</b>	<b>12,470</b>	<1.5
m&p-Xylene	(ug/L)	NS	NS	<b>1,590</b>	<b>267</b>	<b>9,770</b>	<1.0
o-Xylene	(ug/L)	NS	NS	<b>214</b>	<b>13.8</b>	<b>2,700</b>	<0.50
Naphthalene	(ug/L)	10	100	<b>144</b>	<b>102</b>	<b>467 J</b>	<2.5
MTBE	(ug/L)	12	60	<4.4	<1.7	<17.4	<0.17
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	96	480	<b>3,170</b>	<b>1,692</b>	<b>5,540</b>	<1.0
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<b>2,520</b>	<b>1,420</b>	<b>4,310</b>	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<b>650</b>	<b>272</b>	<b>1,230</b>	<0.50
Tetrachloroethene (PCE)	(ug/L)	0.5	5	<b>57.1</b>	<5.0	<b>7,030</b>	<0.50
Trichloroethene (TCE)	(ug/L)	0.5	5	<b>23.0 J</b>	<3.3	<b>1,120</b>	<0.33
cis-1,2-Dichloroethene	(ug/L)	7	70	<b>210</b>	<2.6	<b>4,090</b>	<0.26
trans-1,2-Dichloroethene	(ug/L)	20	100	<6.4	<2.6	<25.7	<0.26
Vinyl Chloride	(ug/L)	0.02	0.2	<b>11.9 J</b>	<1.8	<b>99.3 J</b>	<0.18
Methylene Chloride	(ug/L)	0.5	5	<5.8	<2.3	<23.3	<0.23
Bromobenzene	(ug/L)	NS	NS	<5.8	<2.3	<23.0	<0.23
Bromochloromethane	(ug/L)	NS	NS	<8.5	<3.4	<34.0	<0.34
Bromodichloromethane	(ug/L)	0.06	0.6	<12.5	<5.0	<50.0	<0.50
Bromoform	(ug/L)	0.44	4.4	<12.5	<5.0	<50.0	<0.50
Bromomethane	(ug/L)	1	10	<60.9	<24.3	<243	<2.4
n-Butylbenzene	(ug/L)	NS	NS	<12.5	<5.0	<b>222</b>	<0.50
sec-Butylbenzene	(ug/L)	NS	NS	<54.7	<21.9	<219	<2.2
tert-Butylbenzene	(ug/L)	NS	NS	<4.5	<1.8	<18.0	<0.18
Carbon Tetrachloride	(ug/L)	0.5	5	<12.5	<5.0	<50.0	<0.50
Chlorobenzene	(ug/L)	NS	NS	<12.5	<5.0	<50.0	<0.50
Chloroethane	(ug/L)	80	400	<9.4	<3.7	<37.5	<0.37
Chloroform	(ug/L)	0.6	6	<62.5	<25.0	<250	<2.5
Chloromethane	(ug/L)	3	30	<12.5	<5.0	<50.0	<0.50
2-Chlorotoluene	(ug/L)	NS	NS	<12.5	<5.0	<50.0	<0.50
4-Chlorotoluene	(ug/L)	NS	NS	<5.3	<2.1	<21.4	<0.21
1,2-Dibromo-3-chloropropane	(ug/L)	0.02	0.2	<54.1	<21.6	<216	<2.2
Dibromochloromethane	(ug/L)	6	60	<12.5	<5.0	<50.0	<0.50
1,2-Dibromoethane (EDB)	(ug/L)	0.005	0.05	<4.4	<1.8	<17.8	<0.18
Dibromomethane	(ug/L)	NS	NS	<10.7	<4.3	<42.7	<0.43
1,2-Dichlorobenzene	(ug/L)	60	600	<12.5	<5.0	<50.0	<0.50
1,3-Dichlorobenzene	(ug/L)	120	600	<12.5	<5.0	<50.0	<0.50
1,4-Dichlorobenzene	(ug/L)	15	75	<12.5	<5.0	<50.0	<0.50
Dichlorodifluoromethane	(ug/L)	200	1,000	<5.6	<2.2	<22.4	<0.22
1,1-Dichloroethane	(ug/L)	85	850	<6.0	<2.4	<24.2	<0.24
1,2-Dichloroethane	(ug/L)	0.5	5	<4.2	<1.7	<16.8	<0.17
1,1-Dichloroethene	(ug/L)	0.7	7	<10.3	<4.1	<41.0	<0.41
1,2-Dichloropropane	(ug/L)	0.5	5	<5.8	<2.3	<23.3	<0.23
1,3-Dichloropropane	(ug/L)	NS	NS	<12.5	<5.0	<50.0	<0.50
2,2-Dichloropropane	(ug/L)	NS	NS	<12.1	<4.8	<48.4	<0.48
1,1-Dichloropropene	(ug/L)	NS	NS	<11.0	<4.4	<44.1	<0.44
cis-1,3-Dichloropropene	(ug/L)	0.04	0.4	<12.5	<5.0	<50.0	<0.50
trans-1,3-Dichloropropene	(ug/L)	0.04	0.4	<5.7	<2.3	<23.0	<0.23
Diisopropyl ether	(ug/L)	NS	NS	<12.5	<5.0	<50.0	<0.50
Hexachloro-1,3-butadiene	(ug/L)	NS	NS	<52.6	<21.1	<211	<2.1
Isopropylbenzene	(ug/L)	NS	NS	<b>155</b>	<b>105</b>	<b>269</b>	<0.14
p-Isopropyltoluene	(ug/L)	NS	NS	<12.5	<b>11.0</b>	<50.0	<0.50
n-Propylbenzene	(ug/L)	NS	NS	<b>455</b>	<b>267</b>	<b>885</b>	<0.50
Styrene	(ug/L)	10	100	<12.5	<5.0	<50.0	<0.50
1,1,1,2-Tetrachloroethane	(ug/L)	7	70	<4.5	<1.8	<18.1	<0.18
1,1,2,2-Tetrachloroethane	(ug/L)	0.02	0.2	<6.2	<2.5	<24.9	<0.25
1,2,3-Trichlorobenzene	(ug/L)	NS	NS	<53.3	<21.3	<213	<2.1
1,2,4-Trichlorobenzene	(ug/L)	14	70	<55.2	<22.1	<221	<2.2
1,1,1-Trichloroethane	(ug/L)	40	200	<12.5	<5.0	<50.0	<0.50
1,1,2-Trichloroethane	(ug/L)	0.5	5	<4.9	<2.0	<19.7	<0.20
Trichlorofluoromethane	(ug/L)	NS	NS	<4.6	<1.8	<18.5	<0.18
1,2,3-Trichloropropane	(ug/L)	12	60	<12.5	<5.0	<50.0	<0.50

Notes:  
 NS = No standard established  
 -- = Not analyzed for parameter  
 NR = Not Reported

**ITALICS** indicates exceedance of NR 140.10 Preventive Action Limit  
**BOLD** indicates exceedance of NR 140.10 Enforcement Standard

Sample ID	Date	Depth	Description	DEPTH to Seasonal Low Water Table (ft BGS)	Saturated (S) or Unsaturated (U)	PID Reading	Notes	UST OEX					
								SS-1	SS-2	SS-3	GP-1	GP-2	
								06/23/06	06/23/06	06/23/06	12/06/06	12/06/06	12/06/06
								4.5-5'	10'	10'	3-4'	3-4'	13'
								NR	NR	NR	NR	NR	NR
								8-10'	8-10'	8-10'	8-10'	8-10'	8-10'
								U	S	S	U	U	S
								NR	NR	NR	NR	NR	NR
Benzene	(ug/kg)	5.12	1,490	<29	<3,000	<610	<32	<29	<32				
Ethylbenzene	(ug/kg)	1,570	7,470	<29	<b>44,000</b>	<b>18,000</b>	<30	<27	<30				
Toluene	(ug/kg)	1,110	818,000	<29	<3,000	<b>1,200</b>	<35	<31	<35				
Xylenes (TOTAL)	(ug/kg)	3,940	258,000	<100	<b>170,000</b>	<b>110,000</b>	<94	<85	<94				
m&p-Xylene	(ug/kg)	NS	778,000	NR	NR	NR	NR	NR	NR				
o-Xylene	(ug/kg)	NS	434,000	NR	NR	NR	NR	NR	NR				
Naphthalene	(ug/kg)	658	5,150	<59	<b>17,000</b>	<b>9,700</b>	<90	<81	<90				
MTBE	(ug/kg)	27	59,400	<29	<3,000	<610	<47	<42	<47				
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	1,380	NS	0.0	<b>150,000</b>	<b>88,000</b>	0.0	0.0	0.0				
1,2,4-Trimethylbenzene	(ug/kg)	NS	89,800	<29	<b>120,000</b>	<b>69,000</b>	<36	<32	<36				
1,3,5-Trimethylbenzene	(ug/kg)	NS	182,000	<29	<b>30,000</b>	<b>19,000</b>	<41	<37	<41				
Tetrachloroethene (PCE)	(ug/kg)	4.54	30,700	<29	<3,000	<610	<36	<33	<36				
Trichloroethene (TCE)	(ug/kg)	3.58	1,260	<29	<3,000	<610	<41	<37	<41				
cis-1,2-Dichloroethene	(ug/kg)	41.2	156,000	<29	<3,000	<610	<32	<29	<32				
trans-1,2-Dichloroethene	(ug/kg)	58.8	1,560,000	<29	<3,000	<610	<30	<27	<30				
Vinyl Chloride	(ug/kg)	0.138	67	<41	<4,100	<850	<25	<23	<25				
Methylene Chloride	(ug/kg)	2.56	60,700	<59	<5,900	<1,200	<b>200</b>	<33	<b>130</b>				
Bromobenzene	(ug/kg)	NS	354,000	<29	<3,000	<610	<37	<33	<37				
Bromochloromethane	(ug/kg)	NS	232,000	NR	NR	NR	NR	NR	NR				
Bromodichloromethane	(ug/kg)	0.326	390	<29	<3,000	<610	<46	<41	<46				
Bromoform	(ug/kg)	2.33	61,500	NR	NR	NR	NR	NR	NR				
Bromomethane	(ug/kg)	5.06	10,300	NR	NR	NR	NR	NR	NR				
n-Butylbenzene	(ug/kg)	NS	108,000	<29	<3,000	<610	<43	<39	<43				
sec-Butylbenzene	(ug/kg)	NS	145,000	<29	<3,000	<b>1,800</b>	<40	<36	<40				
tert-Butylbenzene	(ug/kg)	NS	183,000	<29	<3,000	<610	<36	<33	<36				
Carbon Tetrachloride	(ug/kg)	3.88	854	<29	<3,000	<610	<32	<29	<32				
Chlorobenzene	(ug/kg)	NS	392,000	<29	<3,000	<610	<31	<28	<31				
Chloroethane (ethyl chloride)	(ug/kg)	227	2,120,000	<59	<5,900	<1,200	<76	<68	<76				
Chloroform	(ug/kg)	3.33	423	<29	<3,000	<610	<29	<26	<29				
Chloromethane	(ug/kg)	15.5	171,000	<59	<5,900	<1,200	<59	<53	<59				
2-Chlorotoluene	(ug/kg)	NS	907,000	<59	<5,900	<1,200	<35	<32	<36				
4-Chlorotoluene	(ug/kg)	NS	253,000	<29	<3,000	<610	<31	<28	<31				
1,2-Dibromo-3-chloropropane	(ug/kg)	0.173	8	<59	<5,900	<1,200	<39	<36	<39				
Dibromochloromethane	(ug/kg)	32	933	<29	<3,000	<610	<48	<44	<49				
1,2-Dibromoethane (EDB)	(ug/kg)	0.0282	47	<29	<3,000	<610	--	--	--				
Dibromomethane	(ug/kg)	NS	35,000	NR	NR	NR	NR	NR	NR				
1,2-Dichlorobenzene	(ug/kg)	1,170	376,000	<29	<3,000	<610	<41	<37	<41				
1,3-Dichlorobenzene	(ug/kg)	1,150	297,000	<29	<3,000	<610	<31	<28	<31				
1,4-Dichlorobenzene	(ug/kg)	144	3,480	<29	<3,000	<610	<42	<38	<42				
Dichlorodifluoromethane	(ug/kg)	3,090	135,000	<59	<5,900	<1,200	<32	<29	<32				
1,1-Dichloroethane	(ug/kg)	483	4,720	<29	<3,000	<610	<38	<34	<38				
1,2-Dichloroethane	(ug/kg)	2.84	608	<29	<3,000	<610	<41	<37	<41				
1,1-Dichloroethene	(ug/kg)	5.02	342,000	<29	<3,000	<610	<41	<37	<41				
1,2-Dichloropropane	(ug/kg)	3.32	1,330	<29	<3,000	<610	<38	<35	<38				
1,3-Dichloropropane	(ug/kg)	NS	1,490,000	<29	<3,000	<610	<46	<42	<47				
2,2-Dichloropropane	(ug/kg)	NS	527,000	NR	NR	NR	NR	NR	NR				
1,1-Dichloropropene	(ug/kg)	NS	NS	NR	NR	NR	NR	NR	NR				
cis-1,3-Dichloropropene	(ug/kg)	0.286	1,220,000	NR	NR	NR	NR	NR	NR				
trans-1,3-Dichloropropene	(ug/kg)	0.286	1,570,000	NR	NR	NR	NR	NR	NR				
Diisopropyl ether	(ug/kg)	NS	2,260,000	<29	<3,000	<610	<35	<32	<35				
Hexachloro-1,3-butadiene	(ug/kg)	NS	6,220	<41	<4,100	<850	<50	<45	<50				
Isopropylbenzene	(ug/kg)	NS	268,000	<29	<b>6,400</b>	<b>2,800</b>	<39	<35	<39				
p-Isopropyltoluene	(ug/kg)	NS	162,000	<29	<3,000	<b>780</b>	<37	<34	<37				
n-Propylbenzene	(ug/kg)	NS	264,000	<29	<b>25,000</b>	<b>11,000</b>	<34	<30	<34				
Styrene	(ug/kg)	220	867,000	NR	NR	NR	NR	NR	NR				
1,1,1,2-Tetrachloroethane	(ug/kg)	53.4	2,590	NR	NR	NR	NR	NR	NR				
1,1,2,2-Tetrachloroethane	(ug/kg)	0.156	753	<29	<3,000	<610	<52	<47	<52				
1,2,3-Trichlorobenzene	(ug/kg)	NS	48,900	<29	<3,000	<610	<59	<54	<59				
1,2,4-Trichlorobenzene	(ug/kg)	408	22,000	<29	<3,000	<610	<56	<50	<56				
1,1,1-Trichloroethane	(ug/kg)	140	640,000	<29	<3,000	<610	<37	<34	<37				
1,1,2-Trichloroethane	(ug/kg)	3.24	1,480	<41	<4,100	<850	<52	<47	<52				
Trichlorofluoromethane	(ug/kg)	NS	1,120,000	<29	<3,000	<610	<29	<26	<29				
1,2,3-Trichloropropane	(ug/kg)	51.9	5	NR	NR	NR	NR	NR	NR				
No. of Individual Exceedances (DC)								--	--	--	0	0	--
Cumulative Hazard Index (DC)								--	--	--	0.0005	0.	--
Cumulative Cancer Risk (DC)								--	--	--	3.3E-09	0.0E+00	--

**Exceedance Highlights:**

**BOLD Red** font indicates DC RCL exceedance per DNR RCL calculator 7/14/14, and BTV exceedance for metals. **\*B1\***: Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

**Italic** font indicates GW RCL Exceedance per DNR RCL calculator 7/14/14. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

**Notes:**

Xylenes reported as total of m-, o-, p-xylenes  
 NS = No standard established  
 NA = Not analyzed for parameter  
 NR = Not Reported

TABLE A.2.1  
Soil Analytical Results Table - VOC  
Master Drycleaning, Inc.  
6326 W. Bluemound Rd., Wauwatosa, WI 53213  
BRRTS# 02-41-545142

Sample ID	Date	Depth	Description	DEPTH to Seasonal Low Water Table (ft BGS)	Saturated (S) or Unsaturated (U)	PID Reading	Notes	GP-3		SMW-1		SMW-2		SMW-3	
								12/06/06	12/06/06	12/06/06	12/06/06	12/06/06	12/06/06	12/06/06	12/06/06
								3-4'	12-13'	4-6'	8-10'	2-4'	10-12'	2-4'	6-8'
								NR	NR	silt	silt	sand/silt	clay	sand	silt
								8-10'	8-10'	8-10'	8-10'	8-10'	8-10'	8-10'	8-10'
								U	S	U	S	U	S	U	U
								NR	NR	9.0	359	0.1	0.1	0.6	19.5
Benzene	(ug/kg)	5.12	1,490	<31	<32	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Ethylbenzene	(ug/kg)	1,570	7,470	<29	<31	<25	2,200 J	<25	<25	<25	<25	<25	<25	<25	750
Toluene	(ug/kg)	1,110	818,000	<34	<35	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Xylenes (TOTAL)	(ug/kg)	3,940	258,000	<90	<94	<50	<2,500	<50	<50	<50	<50	<50	<50	<50	502 J
mâp-Xylene	(ug/kg)	NS	778,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
o-Xylene	(ug/kg)	NS	434,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naphthalene	(ug/kg)	658	5,150	<87	<91	<25	4,200	<25	<25	<25	<25	<25	<25	<25	222
MTBE	(ug/kg)	27	59,400	<45	<47	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	1,380	NS	0.0	0.0	26.7	13,100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	(ug/kg)	NS	89,800	<35	<36	26.7 J	13,100	<25	<25	<25	<25	<25	<25	<25	2,980
1,3,5-Trimethylbenzene	(ug/kg)	NS	182,000	<40	<41	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	130
Tetrachloroethene (PCE)	(ug/kg)	4.54	30,700	<40	<37	<25	<1,250	<25	<25	<25	<25	1,440	<25	<25	3,000
Trichloroethene (TCE)	(ug/kg)	3.58	1,260	<40	<42	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	40 J
cis-1,2-Dichloroethene	(ug/kg)	41.2	156,000	<31	<33	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
trans-1,2-Dichloroethene	(ug/kg)	58.8	1,560,000	<29	<31	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Vinyl Chloride	(ug/kg)	0.138	67	<25	<26	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Methylene Chloride	(ug/kg)	2.56	60,700	138	139	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Bromobenzene	(ug/kg)	NS	354,000	<36	<37	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Bromochloromethane	(ug/kg)	NS	232,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromodichloromethane	(ug/kg)	0.326	390	<44	<46	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Bromoform	(ug/kg)	2.33	61,500	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromomethane	(ug/kg)	5.06	10,300	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
n-Butylbenzene	(ug/kg)	NS	108,000	<41	<43	55 J	6,400	<25	<25	<25	<25	<25	<25	<25	740
sec-Butylbenzene	(ug/kg)	NS	145,000	<39	<41	<25	2,060 J	<25	<25	<25	<25	<25	<25	<25	208
tert-Butylbenzene	(ug/kg)	NS	183,000	<35	<36	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Carbon Tetrachloride	(ug/kg)	3.88	854	<31	<32	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Chlorobenzene	(ug/kg)	NS	392,000	<30	<31	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Chloroethane (ethyl chloride)	(ug/kg)	227	2,120,000	<73	<77	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Chloroform	(ug/kg)	3.33	423	<28	<29	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Chloromethane	(ug/kg)	15.5	171,000	<57	<60	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
2-Chlorotoluene	(ug/kg)	NS	907,000	<34	<36	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
4-Chlorotoluene	(ug/kg)	NS	253,000	<30	<32	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dibromo-3-chloropropane	(ug/kg)	0.173	8	<38	<40	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Dibromochloromethane	(ug/kg)	32	933	<47	<49	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dibromoethane (EDB)	(ug/kg)	0.0282	47	--	--	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Dibromomethane	(ug/kg)	NS	35,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-Dichlorobenzene	(ug/kg)	1,170	376,000	<39	<41	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,3-Dichlorobenzene	(ug/kg)	1,150	297,000	<30	<31	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,4-Dichlorobenzene	(ug/kg)	144	3,480	<41	<43	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Dichlorodifluoromethane	(ug/kg)	3,090	135,000	<31	<32	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,1-Dichloroethane	(ug/kg)	483	4,720	<37	<39	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dichloroethane	(ug/kg)	2.84	608	<40	<42	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,1,1-Dichloroethane	(ug/kg)	5.02	342,000	<39	<41	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dichloropropane	(ug/kg)	3.32	1,330	<37	<39	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,3-Dichloropropane	(ug/kg)	NS	1,490,000	<45	<47	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
2,2-Dichloropropane	(ug/kg)	NS	527,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1-Dichloropropene	(ug/kg)	NS	NS	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
cis-1,3-Dichloropropene	(ug/kg)	0.286	1,220,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
trans-1,3-Dichloropropene	(ug/kg)	0.286	1,570,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Diisopropyl ether	(ug/kg)	NS	2,260,000	<34	<36	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Hexachloro-1,3-butadiene	(ug/kg)	NS	6,220	<48	<50	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Isopropylbenzene	(ug/kg)	NS	268,000	<38	<40	<25	3,080	<25	<25	<25	<25	<25	<25	<25	250
p-Isopropyltoluene	(ug/kg)	NS	162,000	<36	<38	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	130
n-Propylbenzene	(ug/kg)	NS	264,000	<32	<34	<25	13,300	<25	<25	<25	<25	<25	<25	<25	1,200
Styrene	(ug/kg)	220	867,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,1,2-Tetrachloroethane	(ug/kg)	53.4	2,590	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,2,2-Tetrachloroethane	(ug/kg)	0.156	753	<51	<53	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2,3-Trichlorobenzene	(ug/kg)	NS	48,900	<57	<60	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2,4-Trichlorobenzene	(ug/kg)	408	22,000	<54	<56	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	(ug/kg)	140	640,000	<36	<38	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,1,2-Trichloroethane	(ug/kg)	3.24	1,480	<50	<53	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
Trichlorofluoromethane	(ug/kg)	NS	1,120,000	<28	<29	<25	<1,250	<25	<25	<25	<25	<25	<25	<25	<25
1,2,3-Trichloropropane	(ug/kg)	51.9	5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
No. of Individual Exceedances (DC)								0	--	--	--	0	--	0	--
Cumulative Hazard Index (DC)								0.0004	--	--	--	0.	--	0.0125	--
Cumulative Cancer Risk (DC)								2.3E-09	--	--	--	0.0E+00	--	4.7E-08	--

**Exceedance Highlights:**

**BOLD Red** font indicates DC RCL exceedance per DNR RCL calculator 7/14/14, and BTV exceedance for metals. **\*B1\***: Cumulative exceedance (HI > 1), even though no individual DC RCL was exceeded.  
**Italic** font indicates GW RCL Exceedance per DNR RCL calculator 7/14/14. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

**Notes:**

Xylenes reported as total of m-, o-, p-xylenes  
NS = No standard established  
NA = Not analyzed for parameter  
NR = Not Reported

Sample ID	Date	Depth	Description	DEPTH to Seasonal Low Water Table (ft BGS)	Saturated (S) or Unsaturated (U)	PID Reading	Notes	SMW-4		SMW-5		SGP-1		SGP-2	
								12/06/06	12/06/06	12/06/06	12/06/06	09/06/07	09/06/07	09/06/07	09/06/07
								4-6'	8-10'	2-4'	6-8'	4-6'	8-10'	0-2'	6-8'
								clay	clay	silt	silt	silt	silt	sand/clay	sand/silt
								8-10'	8-10'	8-10'	8-10'	8-10'	8-10'	8-10'	8-10'
								U	S	U	U	U	S	U	U
								0.3	0.1	0.3	0.3	0.7	0.2	0.7	0.7
Benzene	(ug/kg)	5.12	1,490	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Ethylbenzene	(ug/kg)	1,570	7,470	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Toluene	(ug/kg)	1,110	818,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Xylenes (TOTAL)	(ug/kg)	3,940	258,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
m&p-Xylene	(ug/kg)	NS	778,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
o-Xylene	(ug/kg)	NS	434,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naphthalene	(ug/kg)	658	5,150	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
MTBE	(ug/kg)	27	59,400	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	1,380	NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	(ug/kg)	NS	89,800	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	(ug/kg)	NS	182,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene (PCE)	(ug/kg)	4.54	30,700	<25	<b>115</b>	<25	<25	<b>550</b>	<b>124</b>	<b>1,620</b>	<b>1,390</b>				
Trichloroethene (TCE)	(ug/kg)	3.58	1,260	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
cis-1,2-Dichloroethene	(ug/kg)	41.2	156,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
trans-1,2-Dichloroethene	(ug/kg)	58.8	1,560,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Vinyl Chloride	(ug/kg)	0.138	67	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methylene Chloride	(ug/kg)	2.56	60,700	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Bromobenzene	(ug/kg)	NS	354,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Bromochloromethane	(ug/kg)	NS	232,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromodichloromethane	(ug/kg)	0.326	390	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Bromoform	(ug/kg)	2.33	61,500	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromomethane	(ug/kg)	5.06	10,300	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
n-Butylbenzene	(ug/kg)	NS	108,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
sec-Butylbenzene	(ug/kg)	NS	145,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
tert-Butylbenzene	(ug/kg)	NS	183,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Carbon Tetrachloride	(ug/kg)	3.88	854	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chlorobenzene	(ug/kg)	NS	392,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chloroethane (ethyl chloride)	(ug/kg)	227	2,120,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chloroform	(ug/kg)	3.33	423	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chloromethane	(ug/kg)	15.5	171,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
2-Chlorotoluene	(ug/kg)	NS	907,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
4-Chlorotoluene	(ug/kg)	NS	253,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dibromo-3-chloropropane	(ug/kg)	0.173	8	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Dibromochloromethane	(ug/kg)	32	933	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dibromoethane (EDB)	(ug/kg)	0.0282	47	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Dibromomethane	(ug/kg)	NS	35,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-Dichlorobenzene	(ug/kg)	1,170	376,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3-Dichlorobenzene	(ug/kg)	1,150	297,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,4-Dichlorobenzene	(ug/kg)	144	3,480	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Dichlorodifluoromethane	(ug/kg)	3,090	135,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1-Dichloroethane	(ug/kg)	483	4,720	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dichloroethane	(ug/kg)	2.84	608	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1-Dichloroethene	(ug/kg)	5.02	342,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dichloropropane	(ug/kg)	3.32	1,330	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3-Dichloropropane	(ug/kg)	NS	1,490,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
2,2-Dichloropropane	(ug/kg)	NS	527,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1-Dichloropropene	(ug/kg)	NS	NS	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
cis-1,3-Dichloropropene	(ug/kg)	0.286	1,220,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
trans-1,3-Dichloropropene	(ug/kg)	0.286	1,570,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Diisopropyl ether	(ug/kg)	NS	2,260,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Hexachloro-1,3-butadiene	(ug/kg)	NS	6,220	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Isopropylbenzene	(ug/kg)	NS	268,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
p-Isopropyltoluene	(ug/kg)	NS	162,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
n-Propylbenzene	(ug/kg)	NS	264,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Styrene	(ug/kg)	220	867,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,1,2-Tetrachloroethane	(ug/kg)	53.4	2,590	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,2,2-Tetrachloroethane	(ug/kg)	0.156	753	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2,3-Trichlorobenzene	(ug/kg)	NS	48,900	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2,4-Trichlorobenzene	(ug/kg)	408	22,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	(ug/kg)	140	640,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1,2-Trichloroethane	(ug/kg)	3.24	1,480	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trichlorofluoromethane	(ug/kg)	NS	1,120,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2,3-Trichloropropane	(ug/kg)	51.9	5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
No. of Individual Exceedances (DC)				--	--	0	--	--	--	--	--	0	--	--	--
Cumulative Hazard Index (DC)				--	--	0.	--	--	--	--	--	0.0141	--	--	--
Cumulative Cancer Risk (DC)				--	--	0.0E+00	--	--	--	--	--	5.3E-08	--	--	--

**Exceedance Highlights:**

**BOLD Red** font indicates DC RCL exceedance per DNR RCL calculator 7/14/14, and BTY exceedance for metals. **\*B1\***: Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

**Italic** font indicates GW RCL Exceedance per DNR RCL calculator 7/14/14. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

**Notes:**

Xylenes reported as total of m-, o-, p-xylenes  
 NS = No standard established  
 NA = Not analyzed for parameter  
 NR = Not Reported

TABLE A.2.1  
Soil Analytical Results Table - VOC  
Master Drycleaning, Inc.  
6326 W. Bluemound Rd., Wauwatosa, WI 53213  
BRRTS# 02-41-545142

Sample ID	Date	Depth	Description	DEPTH to Seasonal Low Water Table (ft BGS)	Saturated (S) or Unsaturated (U)	PID Reading	Notes	Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	SGP-3		SGP-4		SGP-5		SGP-6	
										09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
										4-6'	8-10'	0-2'	6-8'	2-4'	8-10'	0-2'	6-8'
										silt	silt	sand/clay	silt	silt	clay	silt	clay
										8-10'	8-10'	8-10'	8-10'	8-10'	8-10'	8-10'	8-10'
										U	S	U	U	U	S	U	U
										3.8	2.3	0.2	0.7	0.2	0.2	0.2	0.2
Benzene	(ug/kg)	5.12	1,490	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Ethylbenzene	(ug/kg)	1,570	7,470	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Toluene	(ug/kg)	1,110	818,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Xylenes (TOTAL)	(ug/kg)	3,940	258,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
m&p-Xylene	(ug/kg)	NS	778,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
o-Xylene	(ug/kg)	NS	434,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naphthalene	(ug/kg)	658	5,150	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
MTBE	(ug/kg)	27	59,400	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	1,380	NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	(ug/kg)	NS	89,800	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	(ug/kg)	NS	182,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene (PCE)	(ug/kg)	4.54	30,700	<b>6,900</b>	<b>7,800</b>	<b>560</b>	<b>940</b>	<b>105</b>	<b>1,670</b>	<b>29.9 J</b>	<b>253</b>	<25	<25	<25	<25	<25	<25
Trichloroethene (TCE)	(ug/kg)	3.58	1,260	<b>65</b>	<b>267</b>	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
cis-1,2-Dichloroethene	(ug/kg)	41.2	156,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
trans-1,2-Dichloroethene	(ug/kg)	58.8	1,560,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Vinyl Chloride	(ug/kg)	0.138	67	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methylene Chloride	(ug/kg)	2.56	60,700	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Bromobenzene	(ug/kg)	NS	354,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Bromochloromethane	(ug/kg)	NS	232,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromodichloromethane	(ug/kg)	0.326	390	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Bromoform	(ug/kg)	2.33	61,500	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromomethane	(ug/kg)	5.06	10,300	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
n-Butylbenzene	(ug/kg)	NS	108,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
sec-Butylbenzene	(ug/kg)	NS	145,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
tert-Butylbenzene	(ug/kg)	NS	183,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Carbon Tetrachloride	(ug/kg)	3.88	854	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chlorobenzene	(ug/kg)	NS	392,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chloroethane (ethyl chloride)	(ug/kg)	227	2,120,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chloroform	(ug/kg)	3.33	423	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Chloromethane	(ug/kg)	15.5	171,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
2-Chlorotoluene	(ug/kg)	NS	907,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
4-Chlorotoluene	(ug/kg)	NS	253,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dibromo-3-chloropropane	(ug/kg)	0.173	8	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Dibromochloromethane	(ug/kg)	32	933	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dibromoethane (EDB)	(ug/kg)	0.0282	47	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Dibromomethane	(ug/kg)	NS	35,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-Dichlorobenzene	(ug/kg)	1,170	376,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3-Dichlorobenzene	(ug/kg)	1,150	297,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,4-Dichlorobenzene	(ug/kg)	144	3,480	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Dichlorodifluoromethane	(ug/kg)	3,090	135,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1-Dichloroethane	(ug/kg)	483	4,720	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dichloroethane	(ug/kg)	2.84	608	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1-Dichloroethene	(ug/kg)	5.02	342,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2-Dichloropropane	(ug/kg)	3.32	1,330	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3-Dichloropropane	(ug/kg)	NS	1,490,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
2,2-Dichloropropane	(ug/kg)	NS	527,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1-Dichloropropene	(ug/kg)	NS	NS	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
cis-1,3-Dichloropropene	(ug/kg)	0.286	1,220,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
trans-1,3-Dichloropropene	(ug/kg)	0.286	1,570,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Diisopropyl ether	(ug/kg)	NS	2,260,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Hexachloro-1,3-butadiene	(ug/kg)	NS	6,220	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Isopropylbenzene	(ug/kg)	NS	268,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
p-Isopropyltoluene	(ug/kg)	NS	162,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
n-Propylbenzene	(ug/kg)	NS	264,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Styrene	(ug/kg)	220	867,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,1,2-Tetrachloroethane	(ug/kg)	53.4	2,590	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,2,2-Tetrachloroethane	(ug/kg)	0.156	753	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2,3-Trichlorobenzene	(ug/kg)	NS	48,900	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,2,4-Trichlorobenzene	(ug/kg)	408	22,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	(ug/kg)	140	640,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,1,2-Trichloroethane	(ug/kg)	3.24	1,480	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trichlorofluoromethane	(ug/kg)	NS															





TABLE A.5  
 Vapor Analytical Table - VOC  
 Master Drycleaning, Inc.  
 6326 W. Bluemound Rd., Wauwatosa, WI 53213  
 BRRTS# 02-41-545142

					SIGMA GIS REPORT					
Sample ID		C-Carcinogen N-Non Carcinogen	WDNR / WDHFS Residential Subslab	WDNR / WDHFS Residential Indoor Air	VP-1	VP-2	VP-3	VP-3R	1st Flr	Basement
Sample Date	Sample Location				7/21/2009	7/21/2009	7/21/2009	4/7/2010	2/7/2012	2/7/2012
Type of Sample	Collection Method				518 North 64th Street Sub-Slab	518 North 64th Street Sub-Slab	518 North 64th Street Sub-Slab	518 North 64th Street Sub-Slab	518 North 64th Street Ambient	518 North 64th Street Ambient
Time Period of Collection	Analytical Method									
Method/Result Leak Detection										
Benzene	µg/m <sup>3</sup>	C	120	3.6	<2.6	3.25	<45	<2.5	--	--
Ethyl Benzene	µg/m <sup>3</sup>	C	370	11	<3.5	<3.7	<61	3.75	--	--
Toluene	µg/m <sup>3</sup>	N	170,000	5,200	22.2	14.6	80.4	8.43	--	--
Xylenes	µg/m <sup>3</sup>	N	3,300	100	12.36	16.33	181	21.2	--	--
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	N	240	7.3	<3.9	<4.0	<68	18	--	--
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	N	NS	NS	<4.0	<4.1	<69	4.1	--	--
Tetrachloroethene (PCE)	µg/m <sup>3</sup>	N	1,400	42	17.2	8.96	<96	5.52	<0.92	<0.92
Trichloroethene (TCE)	µg/m <sup>3</sup>	C	70	2.1	<4.4	<4.5	683	449	<0.74	<0.74
cis-1,2 Dichloroethene	µg/m <sup>3</sup>	N	NS	NS	--	--	--	--	<1.1	<1.1
trans-1,2 Dichloroethene	µg/m <sup>3</sup>	N	NS	NS	--	--	--	--	<1.1	<1.1
Vinyl Chloride	µg/m <sup>3</sup>	C	57	1.7	--	--	--	--	<0.35	<0.35
Methylene Chloride	µg/m <sup>3</sup>	C	21,000	630	<2.8	<2.9	<49	3.43	--	--
Acetone	µg/m <sup>3</sup>	N	1,067,000	32,000	91	40.8	1,440	74.9	--	--
2-Butanone (Methyl Ethyl Ketone)	µg/m <sup>3</sup>	N	173,300	5,200	8.69	8.09	14,400	8.69	--	--
Carbon Disulfide	µg/m <sup>3</sup>	N	24,300	730	<3.1	31	<42	<2.3	--	--
Chlorobenzene	µg/m <sup>3</sup>	N	1,733	52	<3.7	5.62	<65	<3.6	--	--
Cyclohexane	µg/m <sup>3</sup>	N	210,000	6,300	<2.8	19.2	<49	5.6	--	--
1,4-Dichlorobenzene	µg/m <sup>3</sup>	C	87	2.6	17.7	19.6	<84	5.81	--	--
Ethyl Acetate	µg/m <sup>3</sup>	N	2,433	73	6.96	<3	118	3.08	--	--
4-Ethyltoluene	µg/m <sup>3</sup>		NS	NS	<4.1	<4.2	<71	8.0	--	--
n-Heptane	µg/m <sup>3</sup>	N	NS	NS	<3.3	4.58	<58	<2.8	--	--
n-Hexane	µg/m <sup>3</sup>	N	24,300	730	<2.9	4.66	<51	6.18	--	--
2-Hexanone	µg/m <sup>3</sup>		1,033	31	<3.5	<3.6	<61	12.1	--	--
Methyl Isobutyl Ketone (MIBK)	µg/m <sup>3</sup>	N	103,300	3,100	<3.5	<3.6	115	4.58	--	--
Styrene	µg/m <sup>3</sup>	N	33,300	1,000	4.76	<3.8	<64	<3.5	--	--
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	N	70	2.1	<3.9	6.71	<100	<5.8	--	--
1,1,1-Trichloroethane	µg/m <sup>3</sup>	N	170,000	5,200	6.1	<4.6	<77	9.98	--	--
Trichlorofluoromethane	µg/m <sup>3</sup>	N	NS	NS	8.57	<4.6	<77	<4.2	--	--

Notes:  
 N = Noncarcinogen; C = Carcinogen  
 ITALICS : Exceeds Subslab Vapor Standard  
 BOLD Exceeds Residential subslab or Indoor Air Standard  
 NA=Not Analyzed  
 NS : No Standards  
 Standards from DNR Quick look-Up Table based on EPA Regional Screening Table Updated December 2015

TABLE A.5  
 Vapor Analytical Table - VOC  
 (Site Name)  
 (Street, State, Zip)  
 BRRTS#

Sample ID	Sample Date	Sample Location	Type of Sample	Collection Method	Time Period of Collection	Analytical Method	Method/Result Leak Detection	C-Carcinogen N-Non Carcinogen	WDNR / WDHFS SMALL COMMERCIAL Subslab	WDNR / WDHFS SMALL COMMERCIAL Indoor Air	VP-1	VP-2
											2/24/2016	2/24/2016
											SE corner	ctr work area
											sub-slab	sub-slab
											grab	grab
											30 min	30 min
											TO-15	TO-15
											water/shut-in; pass	water/shut-in; pass
Benzene											0.84	6.8
Ethylbenzene											2.6	4.5
Toluene											15.3	142
Xylenes											12.5	17.6
Napthalene											6.3	5.3
1,2,4-Trimethylbenzene											15.0	9.2
1,3,5-Trimethylbenzene											2.9	2.2
Methyl-tert-butyl-ether (MTBE)											<0.47	<0.42
Tetrachloroethene (PCE)											608	63,100
Trichloroethene (TCE)											1.1	545
cis-1,2 Dichloroethene											<0.38	7.1
trans-1,2 Dichloroethene											<0.60	<0.53
Vinyl Chloride											<0.30	<0.27
Methylene Chloride											0.95 J	<0.75
Acetone											38.4	227
Benzyl Chloride											<0.26	<0.23
Bromodichloromethane											<0.30	<0.27
Bromoform											<1.4	<1.3
Bromomethane											0.77 J	<0.43
1,3-Butadiene											<0.27	<0.24
2-Butanone (Methyl Ethyl Ketone)											2.9 J	37.7
Carbon Disulfide											0.37 J	3.4
Carbon Tetrachloride											<0.30	<0.27
Chlorobenzene											<0.21	<0.19
Chloroethane (Ethyl Chloride)											<0.30	<0.27
Chloroform											<0.29	<0.26
Chloromethane (Methyl Chloride)											<0.17	<0.15
Cyclohexane											27.8	86.9
Dibromochloromethane											<1.3	<1.2
1,2-Dibromoethane (EDB)											<1.2	<1.1
1,2-Dichlorobenzene											<0.79	<0.71
1,3-Dichlorobenzene											<0.82	<0.74
1,4-Dichlorobenzene											<0.77	<0.69
Dichlorodifluoromethane											3.2	3.5
1,1-Dichloroethane											<0.24	<0.22
1,2-Dichloroethane											<0.32	<0.28
1,1-Dichloroethene											<0.37	<0.33
1,2-Dichloropropane											<0.42	<0.38
cis-1,3-Dichloropropene											<0.57	<0.51
trans-1,3-Dichloropropene											<0.40	<0.36
1,2-Dichlorotetrafluoroethane											<0.48	<0.43
Ethanol											73.1	96.5
Ethyl Acetate											<0.54	<0.48
4-Ethyltoluene											3.3	2.6
n-Heptane											20.4	16.5
Hexachloro-1,3-butadiene											<1.0	<0.90
n-Hexane											55.3	141
2-Hexanone											<0.64	<0.57
Methyl Isobutyl Ketone (MIBK)											<0.34	5.4 J
2-Propanol (Isopropanol)											8.0	27.6
Propylene											<0.21	<0.19
Styrene											0.37 J	0.56 J
1,1,2,2-Tetrachloroethane											<0.51	<0.46
Tetrahydrofuran											<0.18	<0.17
1,2,4-Trichlorobenzene											<1.4	<1.3
1,1,1-Trichloroethane											<0.38	<0.34
1,1,2-Trichloroethane											<0.38	<0.34
Trichlorofluoromethane											1.2 J	1.0 J
1,1,2-Trichlorotrifluoroethane											<0.47	0.82 J
Vinyl Acetate											<0.51	<0.46

N = Noncarcinogen; C = Carcinogen  
 Blue and ITALICS : Exceeds Subslab Vapor Standard  
 BOLD Exceeds Indoor Air Standard  
 NA=Not Analyzed  
 NS : No Standards

Standards based on DNR Quick Look Up Table and EPA RSL Tables <http://www.epa.gov/reg3hwmd/risk/human/rb-concentration-table/index.htm> Dec 2015  
 Small Commercial vs. Large Commercial/Industrial determined based on WDNR Publication RR-800

TABLE 1 : Calculation of Contaminant Mass  
Master Cleaners, 6326 Bluemound Road, Wauwatosa, WI

SUB-BUILDING				Unsaturated Material (water at ten feet)								Saturated Material (Ten Feet to Bedrock at Sixteen Feet)							
Boring / Lab Sample	Sample Depth	PCE	Average PCE	N/S	E/W	Thickness	Depth	Volume	Volume	Mass PCE	N/S	E/W	Thickness	Depth	Volume	Volume	Mass PCE		
	Ft below grade	(mg/kg)	(mg/kg)	Ft	Ft	Ft	(ft bgs)	CY	Tons	pounds	Ft	Ft	Ft	(ft bgs)	CY	Tons	pounds		
<b>Under Sump</b>																			
Floor	5.5	3,160	6,980	4	4	4.5	5.5 to 10	2.7	4.0	55.8	4	4	6	10 to 16	3.6	5.3	74.5		
Floor	5.5	10800																	
<b>Under Inside Sewer Lateral</b>																			
Sump W Wall	2.5	37.6	37.6	2	42	7.5	2.5 to 10	23.3	35.0	2.6	2	42	6	10 to 16	18.7	28.0	2.1		
<b>Under East of Building</b>																			
HA-1	1-1.5'	2.6	5.4	30	25	9.5	0.5 to 10	263.9	395.8	4.3	30	25	6	10 to 16	166.7	250.0	4.5		
	4-4.5'	10.9																	
HA-2	1-1.5'	3																	
	4.5-5'	2.32																	
B-103	8-9.5'	8.18																	
	16-17'	9.05																	
<b>Under West of Building</b>																			
B-101	1-3'	2.14	1.5	30	25	9.5	0.5 to 10	263.9	395.8	1.2	30	25	6	10 to 16	166.7	250.0	0.8		
	8.5-10'	2.87																	
B-102	1-3'	0.882																	
	9-10'	0.237																	
<b>TOTAL UNDER BUILDING</b>									<b>830.7</b>	<b>64.0</b>					<b>533.3</b>	<b>81.9</b>			
<b>OUTSIDE BUILDING (10' Perimeter)</b>																			
<b>East</b>																			
<b>East: North Half</b>																			
SGP-3	4-6'	6.9	7.4	15	10	10	0 to 10	55.6	83.3	1.2	15	10	6	10 to 16	33.3	50.0	21.4		
	8-10'	7.8																	
SMW-9	14-15'	214																	
<b>East: South Half</b>																			
SGP-2	0-2'	1.62	1.5	15	10	10	0 to 10	55.6	83.3	0.3	15	10	6	10 to 16	33.3	50.0	0.2		
	6-8'	1.39																	
<b>North</b>																			
SGP-4	0-2'	0.56	0.6	10	70	10	0 to 10	259.3	388.9	0.5	70	10	6	10 to 16	155.6	233.3	0.3		
	6-8'	0.94																	
SGP-5	2-4'	0.105																	
	8-10'	1.67																	
SGP-6	0-2'	0.0299																	
	6-8'	0.253																	
<b>South</b>																			
SMW-3	2-4'	1.44	1.1	10	70	10	0 to 10	259.3	388.9	0.9	10	70	6	10 to 16	155.6	233.3	0.5		
	6-8'	3																	
SMW-7	0-2'	0																	
	6-8'	0																	
<b>West</b>																			
SMW-5	2-4'	0	0.0	10	70	10	0 to 10	259.3	388.9	0.0	10	70	6	10 to 16	155.6	233.3	0.0		
	6-8'	0																	
<b>Utility Lateral Outside</b>																			
Assume Sump W Wall Chem	2.5'	37.6	37.6	2	40	5	5 to 10	14.8	22.2	1.7	2	40	6	10 to 16	17.8	26.7	2.0		
<b>TOTAL OUTSIDE BUILDING</b>									<b>1355.6</b>	<b>4.5</b>					<b>826.7</b>	<b>24.4</b>			

<b>TOTAL SITE</b>								<b>2186</b>	<b>68</b>						<b>1360</b>	<b>106</b>
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If Excavation Inside	Dimensions	CY Soil	Tons Soil	Pounds PCE	PERCENT Unsaturated PCE Removed from Site	UNSATURATED MASS		SATURATED MASS			
						Soil	PCE	Soil	PCE		
Sump Soil Remove to 8'	4' x 4' x 8'	1.8	2.7	37.2	57.5	Percent Under Bldg	38.0	93.5	Percent Under Bldg	39.2	77.1
San Inside Remove to 6'	2' x 42' x 6'	18.7	28.0	2.1		Percent Outside by Bldg	62.0	6.5	Percent Outside by Bldg	60.8	22.9
						Percent in Lateral Outside	1.0	2.4	Percent in Lateral Outside	2.0	1.9
<b>TOTAL INSIDE Removed</b>		<b>20.4</b>	<b>30.7</b>	<b>39.3</b>		<b>TOTAL SITE MASS</b>					
						Percent Unsat under Bldg	23.4	36.6			
						Percent Outside by Bldg	38.2	2.6			
						Percent in Lateral Outside	0.6	1.0			
<b>TOTAL SITE Removed</b>		<b>67.9</b>	<b>101.8</b>	<b>40.3</b>	<b>58.9</b>						

Note\* : Outside Lateral excavation wider (4') than contaminant mass assumed width (2').

**TABLE 1A: Supplemental Source Removal Remedial Action Cost Estimate**  
 July 5, 2016  
 Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI

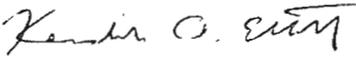
ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
Stego Wrap Barrier	627	1	lump	\$627.00
Pea Gravel Backfill	31	30	ton	\$930.00
Concrete Resurfacing	6.5	136	SF	\$884.00
Shipping	275	1	Ground	\$275.00
<b>Outdoor Excavation</b>				
City Permit / Water Shur off	150	1	lump	\$150.00
Mobilization Outdoor	1550	1	lump	\$1,550.00
Asphalt Saw	4.2	86	ft	\$361.20
Asphalt Remove	2.5	160	SF	\$400.00
Asphalt Load / Haul / Dispose - lump	500	1	lump	\$500.00
Non-Haz Soil Load and Haul	16	40	ton	\$640.00
Outdoor Lateral Replacement	14.8	40	foot	\$592.00
Outdoor Water Replacement	10.33	40	foot	\$413.20
Excavation and Operator	135	16	hour	\$2,160.00
Trench Box Install and Use	1500	1	lump	\$1,500.00
Resurface Asphalt	11	200	SF	\$2,200.00
Pea Gravel Backfill	15	40	ton	\$600.00
Landfill Tip Fee Outsdie	34	40		\$1,360.00
<b>Laboratory Analyses</b>				
Soil VOC		52	9 each	\$468.00
<b>Subtotal Task</b>				<b>\$31,038.80</b>
<b>Task I: Contingency Addition of Chemicals</b>				
One Day Mix and Deliver				
Contractor				
Mix Equipment Mob	\$900.00	1	lump	\$900.00
Decon Equipment	\$150.00	1	lump	\$150.00
2 man Crew 1 day	\$1,000.00	1	day	\$1,000.00
Water Truck with Water	\$0.50	200	gallon	\$100.00
PPE	\$100.00	2	man day	\$200.00
<i>Chemicals</i>				
Delivery	\$500.00	1	lump	\$500.00
Nano EZVI	\$23.50	150	gallon	\$3,525.00
<b>Subtotal Task</b>				<b>\$6,375.00</b>
<b>Task 5: Building Restoration with Subslab Vapor Mitigation System Installation</b>				
<i>Included in Task 3 Costs and Prior Approved Budget for System Install</i>				
<b>Task 6 Addl GW Monitoring 6 Events W Email Report</b>				
<i>Addl 16 Wells and Addl Time for Off-Site Info to Owners</i>				
Laboratory	\$50.00	16	each	\$800.00
<b>Subtotal Task</b>				<b>\$800.00</b>
<b>CONTRACTOR SERVICES TOTAL</b>				<b>\$42,116.80</b>
<b>TOTAL ESTIMATED COST</b>				<b>\$68,376.80</b>
<p>Master Drycleaners Inc. approves of the site remediation costs described above and authorizes Fehr Graham to proceed with these activities. Fehr Graham shall not exceed any of these costs without receiving written authorization. The terms and conditions of the original contract for this project will apply to these services.</p>				
Master Cleaners Inc.			Date	
<p>This approval does not guarantee the reimbursement of costs. Final determination regarding the eligibility of costs will be determined at the time of claim review.</p>				
Mr. J. Hnat, WDNR Project Manager			Date	
			6-Jul-16	
Mr. Kendrick A. Ebbott, Fehr Graham			Date	

TABLE 1A: Supplemental Source Removal Remedial Action Cost Estimate  
 July 5, 2016  
 Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
<b>CONSULTING SERVICES</b>				
<b>Task 0: Project Management (addl actions)</b>				
Sr. Hydrogeologist or Engineer	\$100.00	30	hour	\$3,000.00
Administrative	\$60.00	10	hour	\$600.00
<b>Subtotal Task</b>				<b>\$3,600.00</b>
<b>Task F: Addl Assessment Utility Corridors</b>				
<i>Video Sewer, Six Geoprobos w 12 soil samples</i>				
Sr. Hydrogeologist or Engineer	\$100.00	6	hour	\$600.00
Field Technician Drill, Soil Sample	\$70.00	12	hour	\$840.00
Field Technician Prep, Logs, COC, Ship	\$70.00	4	hour	\$280.00
Drafting	\$60.00	3	hour	\$180.00
Field Supplies	\$50.00	1	day	\$50.00
<b>Subtotal Task</b>				<b>\$1,950.00</b>
<b>Task G: Landfill Disposal Approval</b>				
Sr. Hydrogeologist or Engineer	\$100.00	10	hour	\$1,000.00
Field Technician	\$70.00	12	hour	\$840.00
<b>Subtotal Task</b>				<b>\$1,840.00</b>
<b>Task H: Soil Excavation and Disposal</b>				
<i>Indoor 3 days, Outdoor 2 days</i>				
Sr. Hydrogeologist	\$100.00	10	hour	\$1,000.00
Field Technician 5 days	\$70.00	50	hour	\$3,500.00
Field Technician (Prep, notes, COC)	\$70.00	10	hour	\$700.00
PID Meter	\$100.00	5	day	\$500.00
Field Supplies	\$50.00	2	day	\$100.00
<b>Subtotal Task</b>				<b>\$5,800.00</b>
<b>Task I: Contingency Addition Chemicals In Excvn Base</b>				
<i>Oversight of Mixing, Monitor Well Headspace, Permit Amendment</i>				
Sr. Hydrogeologist (Permit, Correspondence)	\$100.00	10	hour	\$1,000.00
Sr. Hydrogeologist (Field PM)	\$100.00	6	hour	\$600.00
Field Technician Mix Assist, Monitoring	\$70.00	10	hour	\$700.00
Field Technician Data Eval / process	\$70.00	10	hour	\$700.00
Four Gas Meter	\$150.00	2	day	\$300.00
PID Meter	\$100.00	2	day	\$200.00
Field Supplies	\$50.00	1	day	\$50.00
<b>Subtotal Task</b>				<b>\$3,550.00</b>
<b>Task E: Building Restoration with Subslab Vapor Mitigation System Installation</b>				
<i>Communication Testing</i>				
Sr. Hydrogeologist	\$100.00	4	hour	\$400.00
Field Technician 5 days	\$70.00	6	hour	\$420.00
<b>Subtotal Task</b>				<b>\$820.00</b>
<b>Task J: Documentation Report</b>				
Sr. Hydrogeologist or Engineer	\$100.00	24	hour	\$2,400.00
Field Technician Data Entry, Tables	\$70.00	12	hour	\$840.00
Drafting	\$60.00	16	hour	\$960.00
Project Assistant	\$60.00	5	hour	\$300.00
<b>Subtotal Task</b>				<b>\$4,500.00</b>
<b>Task 6 GW Monitoring 6 Events W Email Report</b>				
<i>Add 16 Wells and Addl Time for Off-Site Info to Owners</i>				
Sr. Hydrogeologist - letters to off site	\$100.00	12	hour	\$1,200.00
Field Technician Sample Addl Wells	\$70.00	16	hour	\$1,120.00
Technician Addl Data Process	\$70.00	12	hour	\$840.00
Drafting	\$60.00	12	hour	\$720.00
Field Supplies	\$20.00	16	well	\$320.00
<b>Subtotal Task</b>				<b>\$4,200.00</b>
<b>CONSULTING SERVICES TOTAL</b>				<b>\$26,260.00</b>
<b>CONTRACTOR</b>				
<b>Task F: Addl Assessment Utility Corridors</b>				
<i>Video Sewer, Six Geoprobos w 12 soil samples</i>				
Video Sewer Line	750	1	lump	750
Private Utility Locate	350	1	lump	350
Geoprobe Mobilize	500	1	lump	500
Drill / Sample Interior	9.5	20	foot	190
Drill / Sample Exterior	7.5	40	foot	300
Abandon	1.2	60	foot	72
Decon	75	1	hour	75
Conc Penetrations	50	2	each	100
<b>Laboratory</b>				
Soil VOCs	52	16	each	832
TCLP VOC	117	2	each	234
Landfill Criteria Testing	500	1	each	500
<b>TASK SUBTOTAL</b>				<b>3903</b>
<b>Task H: Soil Excavation and Disposal</b>				
<b>Environmental Contractor</b>				
Mobilization indoor	1600	1	lump	\$1,600.00
Concrete Saw / Break Inside	4.2	102	feet	\$428.40
Concrete Disposal Inside	3.5	136	sf	\$476.00
Concrete Load / Haul	500	1	lump	\$500.00
Mini Excvtor w/ Operator	135	32	hour	\$4,320.00
Crew / Equipment Per Day Charge	636	3	day	\$1,908.00
Non-Haz Soil Load, Haul out of bldg	35	30	ton	\$1,050.00
Haz Soil Load and Haul out of Bldg,	100	5	drum	\$500.00
Drums	60	5	each	\$300.00
Haz Soil Disposal	450	5	drum	\$2,250.00
Non-Haz Soil Displ Indoor Tip Fee	34	30	ton	\$1,020.00
Non-Haz Soil Displ Haul	16	30	ton	\$480.00
Indoor Lateral Replacement	14.8	20	foot	\$296.00
Vapor Pipe and Install	10	30	foot	\$300.00

**REMEDIAL ACTION CHANGE ORDER # 3: July 6, 2016**  
 Master Cleaners, Wauwatosa, WI BRRTS # 02-41-545142

DESCRIPTION	Unit Price	Quantity	Units	Total ADDL Cost	Prior Apprvd Cost	TOTAL COST
<b>CONSULTANT SERVICES</b>						
Task O: Project Management	See Table 1A			3600	4420	8020
Task A : Remove DCM				0	0	0
Task B: Geoprobe Borings Inside Bldg				0	1685	1685
Task C: Subslab Vapor Sample / Analysis				0	1765	1765
Task D Floor Drain Removal, Chem Treat Sub Building				0	2390	2390
Task E Vapor Mit System Instln	See Table 1A			820	1460	2280
Task 1 RA Report, WPDES Permit, Notifications, Access				0	5280	5280
Task 2 Pre-Inj. Baseline GW Sampling (18 wells) Indoor Util Locate				0	3087	3087
Task 3 Injection				0	10760	10760
Task 4 Post Inj GW Monitor 4 months				0	3431	3431
Task 5 Inj Doc Report				0	2880	2880
Task 6 GW Monitoring 6 events at 12 wells	See Table 1A			4200	8718	12918
Task 7 GW Monitor Status				0	4140	4140
Task 8 Closure Request w DNR Fees				0	6120	6120
Task 9 Well Abandonment				0	2450	2450
Task F Addl Assessment Utility Corridors	See Table 1A			1950	0	1950
Task G Landfill Disposal Approval	See Table 1A			1840	0	1840
Task H Soil Excvn and Disposal	See Table 1A			5800	0	5800
Task I Contingency Chemical Addn under Building Post Excvn	See Table 1A			3550	0	3550
Task J Documentation Report	See Table 1A			4500	0	4500
<b>Total Consultant</b>				<b>26260</b>	<b>58586</b>	<b>84846</b>
<b>CONTRACTOR SERVICES</b>						
Task A Remove DCM				0	0	0
Task B Geoprobe Borings inside Bldg				0	1853	1853
Task C Subslab Vapor Sample / Analysis				0	576	576
Task D Floor Drain Removal, Chem Treat Sub-Building				0	8473.5	8473.5
Task E Vapor Mit System Instln				0	2500	2500
Task 2 Pre-Inj Baseline GW Sample (18 wells) Indoor Util locate				0	1300	1300
Task 3 Injection Outside				0	14723.5	14723.5
Task 4 Post Inj Monitor 4 months Lab GW				0	900	900
Task 6 GW Monitoring 6 Events, 12 wells	See Table 1A			800	5100	5900
Task F Addl Assessment Utility Corridors	See Table 1A			3903		3903
Task G Landfill Disposal Approval				0		0
Task H Soil Excvn and Disposal	See Table 1A			31039		31039
Task I Contingency Chemical Addn under Building Post Excvn	See Table 1A			6375		6375
<b>Total Contractor</b>				<b>42117</b>	<b>35426</b>	<b>77543</b>
<b>TOTALS</b>				<b>68377</b>	<b>94012</b>	<b>162389</b>

Master Drycleaners Inc. approves of the site remediation costs described above and authorizes Fehr Graham to proceed with these activities. Fehr Graham shall not exceed any of these costs without receiving written authorization. The terms and conditions of the original contract for this project will apply to these services.

Master Cleaners Inc.

Date

This approval does not guarantee the reimbursement of costs. Final determination regarding the eligibility of costs will be determined at the time of claim review.

Mr. J. Hnat, WDNR Project Manager

Date



Mr. Kendrick A. Ebbott, Fehr Graham

6-Jul-16

Date

## **ATTACHMENT A**

### **Response to May 2, 2016 WDNR Letter and Comments**

The WDNR raised several issues and questions in their May 2, 2016 letter response to the Fehr Graham proposed additional remedial activities plan of action. Many of the points raised in the WDNR letter were related to the previously proposed plan. Since that plan is no longer being considered for implementation, it is not worthwhile to discuss each point in detail.

Instead, we have proposed completion of additional assessment and remediation actions to continue to move the project forward. Below are answers to some of the WDNR concerns related to the site, that are hopefully no longer an issue going forward.

### **Response to WDNR May 2, 2016 Letter**

There were several issues raised in the WDNR letter dated May 2, 2016 that are paraphrased and addressed below. Recommended additional actions are described in the next section.

- 1) The goals / objectives of proposed additional sub-building remedial actions were not clearly defined.

The intention of the proposed additional soil treatment plan sent by Fehr Graham was to quickly take advantage of an opportunity to address remaining contamination in an expedited manner, and eliminate as much contaminant mass as we could in a short time frame. The building was vacant and the new tenant wanted to move in relatively soon. Due to the tight time frame, and the previously submitted Remedial Action Options Report, we assumed the need for that level of detail would not be necessary.

- 2) The proposed treatment methods have not been demonstrated to be effective due to lack of post-treatment results from the groundwater injection. The soil samples obtained beneath the building sump before, and 14 days after mixing with Provectus IR actually displayed higher contaminant levels.

At the time of the submittal, results following the injection were not yet available, however since then, results demonstrate that the treatment method has proven to be effective for groundwater contamination. Recall that the overall objective of the project is to address the groundwater contamination. Further improvements are also anticipated over time.

The lack of improvement in the sub-sump soil between the March 10 and March 24 soil samples is due to the short time frame for reaction, and the limited time frame for contact of the Provectus IR chemical slurry with the unsaturated soil. The sump was filled with slurry, but had emptied completed within 14 days, meaning there was less than two weeks for soil and chemical to come into contact.

The observed increase from pre to post-treatment soil samples beneath the sump ranged from 3,160 mg/kg on March 10, to 10,800 mg/kg on March 24. Considering the need for significant dilutions to quantify these numbers, this increase is actually not all that significant, and repeated samples from soil with elevated concentrations may display significant variability.

- 3) The proposed sub-building treatment only addresses a limited area of impacts, without complete definition of the extent and degree of soil contamination, and there is limited information regarding the sub-building and sewer line contaminant mass / levels. Without defining a quantity of soil contamination beneath the building, it is difficult to approve a remedial approach.

We agree some additional definition of the utility corridor is warranted, and is addressed in the revised proposed scope of work above. We have also prepared the contaminant mass calculations to help assess where to focus remaining resources.

In general, the overall definition of the extent of contamination beneath and surrounding the building is adequate for remediation purposes. There are 13 laboratory soil samples that have been obtained from seven locations located beneath the 30 foot by 50-foot rectangular building. There are another seven borings / monitoring wells outside the building located within ten feet of the exterior wall, with another 13 laboratory soil samples from those locations.

Results plotted on Figure 1 demonstrate that there is quite a bit of information about the contamination beneath and surrounding the building.

- 4) The amount of material to be managed as hazardous waste has not been well defined, and could affect overall costs of soil management. A formal waste characterization should be conducted using DNR procedures.

Soil remaining in place is not classified as hazardous until excavated. A process for further evaluation of the soil, and a hazardous waste determination request is included in the proposed scope of work in Attachment B below.

- 5) Other approaches to the soil source mass reduction effort, such as excavation, should be evaluated to identify a preferred approach, using the selection process criteria of NR722.

The NR722 process was followed in the Fehr Graham January 24, 2014 Remedial Action Bid document. In the effort to save time, the formal NR722 process was not repeated for the proposed additional source soil removal proposal from March 2016.

With discovery of the high concentration of PCE in the soil beneath the building sump, reassessment of remedial options has been performed in Attachment B.

The following actions were identified by the DNR as needs prior to evaluation of further proposed remedial actions:

- 6) Provide an evaluation of the groundwater injection treatment that was completed in December 2015. Consider this evaluation in determining the amount of soil matrix contamination to be further defined below the water table.

The initial results following excavation have been recently provided in our June 7, 2016 submittal, and are quite favorable. The extent of contamination in soil and saturated soil appears adequately defined, possibly with the exception of areas adjacent to utility lines.

While we assume decreases in groundwater contaminant concentrations will continue, further saturated soil treatment beneath the former sump or utility lines at depth may be prudent while we have those areas available for treatment.

The objective of the approved and implemented remedial action plan is to knock down the contaminant hot spot levels such that groundwater concentrations display stable to declining levels over time. Complete removal of residual contamination, while desirable, is not going to be possible, nor is it being evaluated as a means to evaluate overall remediation success.

- 7) Delineate the extent and degree of soil matrix contamination beneath and immediately adjacent to the building that may present an ongoing source for groundwater and/or vapor contamination. Delineate volumes of hazardous versus non-hazardous wastes. Definition should extend to the water table and potentially below that depth.

Other than along the sanitary and water utility lines both inside and outside the building, where additional assessment of the soil chemistry is proposed, we believe the degree and extent of contamination has already been adequately defined for remedial purposes. The breakdown of contaminant mass prepared in this report helps to demonstrate areas of significant remaining contaminant mass.

Based on the existing soil boring information, we believe that the extent of the highly elevated PCE levels beneath the sump has been defined.

In the proposed additional scope of work, a method for delineation of excavated soil as hazardous and non-hazardous has been proposed.

- 8) Evaluate potential soil contamination along the sanitary sewer and water lines originating from the sump area in the building into North 64<sup>th</sup> Street.

A task to assess these concerns has been proposed.

- 9) Evaluate the vapor migration potential along the sanitary sewer and water lines.

Soil chemistry results along the utility laterals will be obtained, and assessments made of the potential for the observed concentrations to result in potential vapor migration issues. Planned removal and replacement of the site sewer and water laterals should help with this migration pathway of concern.

- 10) Conduct soil gas sampling along the Milwaukee Police Association Building at 6310 W. Bluemound Road to assess the potential for vapor intrusion for this building.

Available information from the recent groundwater sample results from monitoring well MW-2, located near the building west wall, plus historic soil sample results from boring GP-2 and GP-3 on the Milwaukee Police Association property indicate vapor migration is not a concern for this structure. Recent increases in the assumed attenuation factor for vapor movement from subslab to indoor air also lessens the likelihood that subslab vapor issues pose a problem for the Police Association building.

- 11) Sample all groundwater monitoring wells for chlorinated VOCs.

Per the approved Remedial Action Plan, this activity has already been completed on April 24 and 25, 2016. The information was provided in our June 7, 2016 report. The next sample event is scheduled for October 2016.

- 12) Submit a NR722 evaluation for the source soil contamination and any unaddressed vapor pathways.

Included in Attachment B below.

## **ATTACHMENT B**

### **NR 722 Remedial Action Alternatives Analysis with Hazardous Waste Determination**

#### **Area of Remediation**

Completed remedial injection efforts to date have focused on the area on the property extending south, east, and north of the drycleaner building.

Further source removal of contaminant hot spots will target remaining shallow soils located inside the building around the former sump and the interior sanitary sewer lateral, plus areas adjacent and beneath the outside water and sanitary sewer laterals. Testing will be performed to confirm the need to address all of these areas, and to facilitate soil disposal options.

Per NR722, three remediation options are discussed in the sections below, with a recommended remedial alternative.

#### **Remediation Goals**

As previously stated, the overall goals for remediation at the site will be the NR 140 groundwater standards (ES and PAL). Efforts will be made to significantly reduce the soil contaminant mass as a means to improve the groundwater chemistry. Regardless of the remediation method, elimination of all contamination in soil below the generic WDNR RCL's will not be possible due to depth to water, and the presence of the bulk of the contamination beneath the building.

These efforts will attempt to decrease the contaminant mass remaining present at the site, with the expectation that associated reductions in soil, groundwater, and vapor chemistry concentrations will follow. Monitoring of the groundwater chemistry over time will be necessary to demonstrate success.

In addition, a subslab vapor mitigation system will need to be installed at the site. The system will capture subslab vapors and vent them to the outside to protect building occupants.

Once remedial actions have removed the majority of accessible contamination, and groundwater contaminant levels are stable or declining over time, it will be possible to obtain case closure. A Geographic Information System (GIS) listing for residual soil and groundwater contamination will be necessary for this site, as well as a Maintenance Plan requiring the upkeep of the existing building / asphalt parking lot and continued operation and monitoring of the vapor mitigation system. Notification of remaining groundwater contamination that extends to off-site properties will also be required.

### Hazardous Waste Determination Criteria

The soil at the site, if left in place, is not a hazardous waste. If excavated, the soil is classified as a listed hazardous waste due to the source of contamination as a spill of drycleaning solvent. Disposal of hazardous waste can be very expensive.

However, per federal and WDNR regulations, the soil can be exempt from hazardous waste disposal requirements based on the contained-out criteria, which will allow excavated soil that meets certain chemical concentration limits to be landfilled as a solid waste at a local licensed subtitle D landfill. Current interpretation of the concentrations that constitute soil from a drycleaning facility be considered hazardous waste are the industrial direct contact soil concentrations of 153 mg/kg PCE, 8.8 mg/kg trichloroethene (TCE), and 2.0 mg/kg vinyl chloride.

However, disposal of soil at a subtitle D facility as non-hazardous waste will require approval from the landfill company. The landfill will require testing be performed on the soil to demonstrate the soil concentrations meet additional criteria, called the characteristic test.

Criteria for determining whether a material is characteristically hazardous are presented in Part 261 of Title 40 of the Code of Federal Regulations (40CFR 261). Criteria include an assessment of the toxicity, which is assessed by a laboratory using the toxicity characteristic leaching procedure (TCLP extraction), and then compared to federal standard concentrations.

For PCE, the TCLP limit in the leached extract from the soil is 0.7 milligrams per liter (mg/L), and the TCE limit is 0.5 mg/l. Because the TCLP extraction process utilizes a 20x dilution, if there is a concentration of total PCE of 14 mg/kg or less in the soil, and a TCE concentration of 10 mg/kg or less (20x the TCLP limit), the soil is by default expected to pass the TCLP criteria, and the soil is not considered a characteristically hazardous waste, and a landfill can accept the material without running the actual lab test. For determination purposes at this Property, if the soil contains 14 mg/kg or less total PCE or 10 mg/kg or less TCE, TCLP testing is not necessary, and the soil will be considered non-hazardous.

Based on these criteria, the lowest of the various chemical limits for hazardous waste apply. For this Property, soil that contains less than 14 mg/kg PCE and 8.81 mg/kg TCE will be considered solid waste, and can be discarded at a licensed subtitle D disposal facility. Soil containing total VOC results above these criteria will either require additional testing using the TCLP assessment, to see if the soil actually leaches VOCs above the threshold levels, or possibly chemical treatment to lower the contaminant concentrations below these threshold levels. A third alternative would be to classify soil that exceeds these threshold values as hazardous material upon excavation.

Using the criteria above, soil from beneath the sump floor at a depth of 5.5 feet below grade would be classified as a hazardous waste upon excavation. Soil from beneath the indoor and outdoor sewer lateral will be tested via soil borings and laboratory analysis of total VOCs to assess whether concentrations in the soil exceed these threshold values. If so, depending on the observed concentrations, TCLP testing may then be performed to

Self  
Certification  
Four + Miller  
+ Fee

verify that the total levels do, in fact, leach at levels that require handling as hazardous waste.

In summary, classification as a hazardous waste will be determined based on the following:

Compound	Hazardous Threshold (mg/kg)	Non-Hazardous Threshold (mg/kg)	Test with TCLP to Assess (mg/kg)
PCE	>153	<14	Between 14 and 153
TCE	>8.81	<8.81	NA
DCE	>2040	<2040	NA
VC	>2.0	<2.0	NA

### Soil Remedial Option: Soil Vapor Extraction

To address the remaining elevated unsaturated soil contamination, soil vapor extraction is an option. This remedial approach typically involves installation of a network of vertical or horizontal vapor extraction wells connected to a central header pipe and a vacuum blower. The blower will operate to remove soil vapors from the subsurface, withdrawing residual PCE contamination that is present within the vapors. At this site, since most soil contamination is present at the former sump, the system could consist of one extraction well advanced at the location of the former sump. In addition, if desired, a second extraction well could be installed outside using a drill rig, advanced to the bedrock surface. The wells would be piped to a blower, with vapors exhausted to the outside.

Extracted vapors would be discharged to the atmosphere. Extracted water and condensate would be treated prior to disposal. A WPDES permit for water disposal would be needed, or batch removal of recovered groundwater may prove possible. Based on subsurface contaminant concentrations, initially the recovered vapor concentrations would be high, and catalytic oxidation of the off gasses, and an air permit, may be necessary.

Vapor extraction is expected to have long term effectiveness in removal of some of the remaining contaminant mass from the subsurface. The mass will be transferred to the atmosphere, or combusted by a catalytic oxidizer.

The implementability of this approach is technically possible, and material are readily available for installation and operation. On-site construction and handling of the recovered vapor would be performed, unless it became necessary to use vapor phase carbon to capture recovered PCE vapors, in which case off-site hauling and disposal of spent carbon would prove necessary. Recovered water would either be hauled off site for batch treatment, or treated on-site using carbon. Spent carbon would require off-site disposal and regeneration.

There would be no threat to any endangered wildlife.

With this approach, redevelopment of the site maybe require delay until the active operation of the system has been terminated. The system will require some significant operational footprint, and will generate noise. The treatment equipment could be housed

in a trailer or add-on shed adjacent to the existing building, but it will make redevelopment more difficult, as there may be significant noise issues. In this residential neighborhood, noise control would be essential, and problematic.

Once the SVE / water recovery method has been completed, redevelopment could proceed with no more limitation than with any other potential remedy.

Greenhouse gasses and energy use would be elevated, as operation of the high horsepower motor for the vapor system would require significant electrical use. Once vapor chemistry concentrations drop below active vapor-phase treatment levels, vapors would be exhausted to the atmosphere without treatment.

Sensitive receptors for this method include adjacent residential property owners with potential noise, odor, and chemical vapor exposure considerations.

Handling of condensation and dewatering of the saturated formation can be expensive and have significant operation and maintenance issues. Removed water will need treatment, likely with an air stripper and carbon polish.

The duration required by this approach is difficult to estimate, but would likely require a minimum of two years of active intermittent vapor extraction and dewatering operations.

Closure is expected to be possible after it has been demonstrated the contaminant levels are stable or declining in the groundwater, and the recovered vapor chemistry has flat-lined, indicating further mass removal from the soil would not be significant.

### **Excavation and Landfilling Contaminated Soil**

This remedial approach involves excavation and removal of accessible more highly contaminated soil both outside and inside the building. Further testing is proposed to help evaluate locations where these measures could be completed, but at this time, indoor excavation and disposal of soil beneath the sump (2 tons) and connected sanitary sewer drain (30 tons) is expected. In addition, excavation of the sanitary sewer and water lateral outside the building to the edge of the sidewalk (40 tons) may prove beneficial.

Landfill disposal approval will be required, with further testing needed to demonstrate compliance with the proposed classification of soil as either hazardous waste or non-hazardous waste. It is expected soil beneath the sump will be classified as hazardous waste. If all excavated soil is classified as hazardous waste, this approach would be cost prohibitive.

A permit from the City of Wauwatosa will be needed to properly handle the sewer and water lateral replacements, both inside and outside the building. A licensed plumber will be needed to make final lateral connections and modifications.

Excavation and removal is expected to have long term effectiveness in removal of some of the remaining contaminant mass from the subsurface. Due to space limitations, excavation beneath the building will not be able to access soils greater than approximately eight feet below grade, as a mini-excavator will not likely be able to

extend to a greater depth. As shown on Table 1, removal of soil to a depth of eight feet below grade from these three areas could eliminate approximately 71 tons of soil containing roughly 33 pounds of PCE, or roughly 50% of the unsaturated soil contaminant mass. At the time of excavation, soil samples will be retained for laboratory evaluation of the chemistry of the remaining in place soil that will persist beneath the excavation limits.

The mass of PCE contamination will be transferred to a landfill, and not destroyed, but it will be in a controlled environment.

The implementability of this approach is technically possible, and material are readily available for installation and operation. Off-site disposal of the soil containing PCE would be performed.

There would be no threat to any endangered wildlife.

With this approach, redevelopment of the site could proceed in short order. Once the soil has been removed, backfill would be placed, and the floor restored. A vapor mitigation system would be installed to provide protection to building occupants from the subslab vapors.

Greenhouse gasses and energy use would be increased slightly due to the need for operation of the backhoe equipment, and hauling of an estimated three truck-loads of contaminated waste material to a nearby landfill, and one load of drummed hazardous waste soil to an out of state disposal facility.

Sensitive receptors for this method include adjacent residential property owners with potential disruptions due to the use of a backhoe and trucking of soil. This disruption would be short term, as the work would likely be completed within a few days.

Closure is expected to be possible after it has been demonstrated the contaminant levels are stable or declining in the groundwater.

The advantages of this approach include certain removal of contamination. Drawbacks include the inability to removal all unsaturated soil due to equipment limitations, and the current uncertainty regarding the classification of the soil as either hazardous or non-hazardous.

#### **In-Situ Chemical Treatment and Monitoring**

This remediation option has already been completed for treatment of the saturated soil and groundwater, and it has been demonstrated to be effective in saturated environments. However, for treatment of the vadose zone soil, treatment is more problematic, as contact time between the chemical and the contaminant in unsaturated soils can be limited by the inability to directly mix the materials.

Chemicals that typically utilize either relative rapid oxidation processes, to chemically combust contaminants of concern, or chemicals that bind and then enhance the

conditions to accelerate the degradation and reductive dechlorination of the contaminants are the two possible chemical treatment options for the unsaturated soils.

Either process can eliminate PCE, TCE, and associated degradation products, both beneath the building and wherever the chemicals contact the contaminants. Post-injection groundwater monitoring will be needed to demonstrate declining concentrations over time.

Although typically required for DERF remedial actions, a pilot test will not be performed at this site. The small size and relatively small quantity of material for injection makes completion of a pilot test redundant, as the full scale injection will be fairly similar to the scope of a pilot test injection.

Full scale injection would require approximately one to two days for completion, and will occur beneath the building indoors, and adjacent to the utility laterals, in areas where residual contamination is suspected to be present. Injection beneath the building floor will require use of a hand cart Geoprobe or other small stage drilling machine to advance a boring to the targeted depth. Injection will proceed from approximately five to 16 feet below grade, on estimated 5 to 10 foot spaced borings, depending on the field observations and ability of the formation to accept the injected material.

Depending on the chemicals used, the chemical reaction via injection is often not immediate, requiring some time for results to become apparent. After injection of the chemical treatment and during the remediation process, groundwater monitoring will be completed to assess the progress of the contaminant reduction. An estimated two years of post-treatment monitoring will be completed. Closure is expected to be possible after it has been demonstrated the contaminant levels are stable or declining in the groundwater.

The primary drawback to this remedial approach is some uncertainty regarding the ability of chemical treatment to come into contact with the highly contaminated soils, and the ability of the chemical reactions to reduce high levels of contamination in one treatment.

Chemical injection is expected to have long term effectiveness in removal of some of the remaining contaminant mass from the subsurface. The mass will be destroyed, either by chemical combustion or biological processes.

The implementability of this approach is technically possible, and material are readily available for installation and operation.

There would be no threat to any endangered wildlife.

Once the chemical injection has been completed, redevelopment could proceed with no more limitation than with any other potential remedy.

Increases in greenhouse gasses and energy use are minimal. Sensitive receptors for this method include adjacent residential property owners and utility lines, with potential for chemical migration and displaced vapor exposure considerations.

### **Recommended Remedial Option**

The recommended remedial option for the site involves soil excavation and removal of remaining contaminant mass. Proposed excavation areas include the indoor sump area and the indoor sanitary sewer lateral, plus outdoor excavation and replacement of the sanitary sewer lateral. Pre-excavation testing is proposed to verify the excavation needs at the outdoor lateral.

Upon soil removal, a contingency has been provided for the possible addition of a liquid chemical solution to help further diminish remaining PCE.

After excavation, the building and utility lateral will be restored. A subslab vapor mitigation system will be installed, with communication testing performed to demonstrate effectiveness. Once these actions have been completed, the building should be able to be occupied.

Continued groundwater monitoring, per the previously approved plan and schedule, will proceed, with the second post-injection groundwater sample event scheduled for October 2016.