FINAL PHOSter™ SYSTEM SOIL SAMPLING REPORT (September 2009 Sampling Event)

Site: SMS Instruments Site, Site # 1-52-026
Deer Park, Suffolk County, NY
Multi Site G
Operation, Maintenance & Monitoring
Work Assignment D004445-14.2A

Submitted to:
New York State Department of Environmental Conservation
625 Broadway,
Albany, New York 12233

Prepared for:
New York State Department of Environmental Conservation
625 Broadway,
Albany, New York 12233

Prepared by:
AECOM Technical Services Northeast, Inc.
300 Broadacres Drive,
Bloomfield, New Jersey 07003

January 20, 2010

AECOM Project No. 60135736.20

FINAL PHOSter™ SYSTEM SOIL SAMPLING REPORT (September 2009 Sampling Event)

Site: 1-52-026
SMS Instruments Site
Deer Park, Suffolk County, NY

Submitted to:
New York State Department of Environmental Conservation
625 Broadway,
Albany, New York 12233

Prepared for:
New York State Department of Environmental Conservation
625 Broadway,
Albany, New York 12233

Prepared by:
AECOM Technical Services Northeast, Inc.
300 Broadacres Drive,
Bloomfield, New Jersey 07003

January 20, 2010

AECOM Project No. 60135736.20

Author: _____

Title: _____

Date: _____

Reviewer: _____

Title: _____

Date: _____

Table of Contents

Figures

Tables

Appendices

1.0 INTRODUCTION

AECOM Technical Services Northeast, Inc (AECOM) has prepared this PHOSter™ System Soil Sampling Report for the SMS Instruments Inc., Site (Site) in the City of Deer Park, Suffolk County, New York. This work was performed for the New York State Department of Environmental Conservation (NYSDEC) under Work Assignment D004445-14.2A of the Superfund Standby Contract. The NYSDEC has determined that SMS Instruments, ID No. 1-52-026, is a Class 2 site that has been substantially remediated but requires continued operation, maintenance and monitoring (OM&M). A bioremediation system is the only remedial system that remains in operation at the site. This sampling report summarizes the SMS Instruments Site soil sampling activities that occurred since the transfer of the Site from the US Environmental Protection Agency (USEPA) to the NYSDEC in 2005.

1.1 Background Information and Site Chronology

The SMS Instruments Superfund site is located at 120 Marcus Boulevard in Deer Park, Suffolk County, New York (Figure 1). The site was listed on the National Priority List (NPL) in 1986. The Site consists of a 34,000 square foot building located on a 1.5-acre lot that is surrounded by other light industrial facilities. A recharge basin is located adjacent to the Site to the east. Facility operations occurred between 1967 and 1990 and primarily involved overhauling of military aircraft components. These activities consisted of cleaning, painting, degreasing, refurbishing, metal machining, and testing components. Other historic uses, under different tenants, included the manufacturing of wooden kitchen utensils. The building was unoccupied for the past several years but as of January 2, 2008, the building is used to store furniture.

Site contamination was first discovered in 1980 when the Suffolk County Department of Health Services sampled a leaching pool on the southern side of the facility. USEPA completed a remedial investigation/feasibility study (RI/FS) in 1989. Groundwater contaminants included volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and metals. The primary VOC contaminants in groundwater consisted of tetrachloroethene (PCE), trichloroethene (TCE), trans-1,2-dichloroethane, chlorobenzene, total xylenes, ethylbenzene, and 1,1-dichloroethane. SVOCs included naphthalene, 1,4-dichlorobenzene, 1,3-dichlorobenzene, and 1,2-dichlorobenzene. Two metals, chromium and lead, were also a concern for groundwater. Soil contaminants of concern included ethylbenzene, total xylenes, chlorobenzene, trans-1,2-dichloroethene, and PCE. Investigative and remedial activities at the Site have included pumping out the leaching pond and backfilling it, removal of an underground storage tank (which was used to store jet fuel), and operation of a soil vapor extraction system (SVE). The SVE system was operated from 1992 to 1994, near the former leaching pool and the former UST areas to remediate residual VOCs in soils. Wastewater was historically discharged into a leaching pool at the site, which, subsequently contaminated soils and groundwater beneath the site. In addition, the leaking UST also contaminated soils and groundwater beneath the site. A groundwater pump and treat (GW P&T) system, which included an air stripper to treat contaminated groundwater, was constructed and began operation in 1994.

Soil sampling conducted after the operation of the SVE system indicated that the soil remedy reduced VOC contamination and therefore reduced potential exposure to contaminated soil vapor. The groundwater contamination had decreased substantially since activation of the GW P&T system, and as a direct result of the successful SVE remedial action. After several years of operation, the influent

concentrations had decreased substantially and the GW P&T system was no longer seen as accelerating site cleanup. Furthermore, the GW P&T system was failing to achieve the ultimate groundwater cleanup goals (e.g., the maximum contaminant levels [MCLs]). Therefore, in July 2003, GeoTrans, on behalf of the USEPA, conducted a site visit to perform an evaluation of the active GW P&T system. The results of the evaluation were included in a Remedial System Evaluation (RSE) report (GeoTrans, 2003). The RSE report recommended conducting a pilot study on alternative technologies and to determine if an alternative technology should replace the GW P&T system. The RSE report indicated various alternative technologies were available for reducing mass of VOCs, including air sparging, bioaugmentation, and chemical oxidation.

Following acceptance of the RSE report, in May of 2004, the USEPA Remedial Action Branch sent a request for field support at the SMS Instruments Site. The request involved two phases: additional field characterization of a former UST area through use of a Geoprobe down to the water table, and a second phase to assess and implement additional remedial technologies to address remaining source areas, such as air sparging with SVE and/or bioremedial-enhancing injections. In an effort to field characterize the former UST area and obtain data needed for the selection of a pilot alternative approach, 25 soil borings were advanced and sampled, and SVE and air sparge wells were installed in August 2004 by ERT and the Response Engineering and Analytical Contract (REAC) contractor (Lockheed Martin Technology Services [Lockheed Martin]).

Based on an evaluation of the data generated by ERT/REAC, the USEPA Remedial Project Manager (RPM) and the USEPA Removal On-Scene Coordinator (OSC) concluded that a bioremedial – enhancing approach via gaseous injection to facilitate cometabolic degradation of the residual chlorinated chemicals of concern (COCs) contamination in groundwater would be the most appropriate and cost effective technology for the time frame of operation. In April of 2005, under the Emergency and Rapid Response Services (ERRS) contract, Earth Tech Northeast, Inc. (Earth Tech) procured a PHOSter™ system and the system was later installed and activated on site in May 2005. Further details of the PHOSter™ system are included in Section 2.1 of this report.

The USEPA operated the GW P&T system at the Site until July 15, 2005 when the Site was turned over to NYSDEC. Based on sampling conducted by CDM for the USEPA in June 2005 and effluent samples collected by Earth Tech in August 2005, Earth Tech determined that the GW P&T system was no longer removing significant quantities of contaminants, and VOC concentrations in the influent were below laboratory reporting limits (5 µg/L). In a letter to NYSDEC dated October 6, 2005, Earth Tech recommended that the GW P&T system be de-activated. NYSDEC concurred with this recommendation in a letter dated October 21, 2005.

1.1.1 USEPA/REAC Soil Boring Advancement and SVE/Air Sparge Well Installation Activities (August 2004)

In July 2004, EPA-ERT/REAC provided the necessary field support to characterize the remaining source area located off the southeast corner of the SMS Building, and preliminary cost projections to implement sparging/bioremediation operations. A Geoprobe was used to advance 25 soil borings to collect 46 subsurface soil samples, which were analyzed with a field gas chromatograph (GC) for benzene, toluene, ethylbenzene, and xylenes (BTEX). Three samples were also analyzed for total VOCs (method 8260B).

The highest BTEX/VOC concentrations were detected in samples collected in the vicinity of the drywell and groundwater extraction well EW-3. These soil samples were collected in the saturated zone (between 24 and 28 feet below ground surface [ft bgs]). The focus of the current remedial action is on this submerged contaminant zone. The highest concentrations of BTEX were found in the drywell sample collected at 24 ft bgs with a total concentration of 170,580 micrograms per kilogram (µg/kg). The highest VOC results were obtained from the drywell location at 24 feet bgs with a total VOC concentration of 408,100 µg/kg. Vadose zone and saturated zone soil sample data indicated that contamination was contained within the shallow saturated zone. Complete details of the soil boring event are included in the Site Investigation Report (Technical Memorandum, REAC / Lockheed Martin, August, 2005).

Following a review of these results, it was determined that bioremedial enhancement required further evaluation beyond the USEPA's Remedial Action Branch's required timeframe for transfer of the site to the NYSDEC. Therefore, in November 2004, USEPA's Removal Action Branch along with ERT/REAC were able to provide continual field support to install the necessary piping for the bioremediation system. However, it was determined that purchasing or rental of the bioremediation system was beyond the scope of their existing contract. Therefore, in May 2005, Earth Tech, EPA Region II ERRS contractor, procured and installed a PHOSter™ bioremediation system at the Site. Further details of the bioremediation system are included in Section 2.3 of this report.

The PHOSter™ system performance was evaluated in June 2006 with a soil sampling program designed to collect subsurface soil samples for chemical testing and methanotrophs. The results of this evaluation were presented in the Final PHOSter™ System Soil Sampling Report (June 2006 Sampling Event) (Earth Tech, October 2006). The report concluded that the PHOSter™ system was removing VOCs from the soil column; however, pockets of contamination still remained. The report recommended that the PHOSter™ system continue to operate for another six months at which time the performance would again be evaluated. A second system performance evaluation was performed in March 2007. These results documented a significant reduction in contaminant concentrations. The report recommended that the PHOSter™ system continue to operate for at least an additional six months. Modifications were made to the PHOSter™ system to focus the bioremediation amendment injections on the limited areas where soils had not met the cleanup objectives.

1.1.2 USEPA/Earth Tech Groundwater Pump And Treat System Evaluation Sampling (August 31, 2005)

In an effort to evaluate the current status of the GW P&T system, on August 31, 2005, three groundwater samples (including one field duplicate) were shipped to Mitkem Corporation for VOC analysis by USEPA Method 624, along with three air samples (also including one field duplicate), which were shipped to Con-Test Analytical Laboratory for total organic analysis.

Results of the GW P&T system evaluation sampling performed on August 31, 2005 indicated no contamination was being treated by the system, as no contaminants were detected in the influent. Therefore, on October 6, 2005 Earth Tech recommended the shut-down of the SMS groundwater pump and treatment plant. In a letter dated October 21, 2005, the NYSDEC approved the temporary shutdown of the groundwater treatment plant. The NYSDEC letter also indicated that groundwater sampling would

continue to determine if any significant rebound occurs. If no rebound was observed after a reasonable period of time, the treatment GW P&T system would be permanently shut down and dismantled.

1.1.3 Groundwater Pump and Treat System Shutdown and Dismantlement

Following the temporary shutdown of the GW P&T system in August 2005, two rounds of groundwater samples were collected: February 2006 and September 2006. These results were summarized in the Final Groundwater Sampling Report (Earth Tech, December 2006). No apparent rebound was noted in the monitoring well groundwater samples. One of the recommendations of this report was the demolition of the GW P&T system building. This report also recommended that the PHOSter™ system continue operations for a minimum of six additional months. A third groundwater sampling event was conducted in August 2007 after the decision was made to demolish the building.

A Dismantlement Plan was prepared and finalized in April 2007 (Earth Tech, 2007), which detailed the demolition of the treatment building. Several tasks were required to obtain the demolition permit from the City of Babylon, New York. These tasks included the termination of electrical and water service to the building. The electrical main to the treatment building was terminated on July 16, 2007 by a licensed electrical contractor, ADB Electric and Sons. The service was moved to a new “H” frame service to continue the PHOSter™ system operations. The potable water line to the building was capped on November 20, 2007 by a licensed plumber, Pro Mechanical. On November 2, 2007, Veolia ES Technical Solutions removed all waste from the treatment building including water treatment chemicals, test meter solutions and other wastes. The building was demolished in two phases. All piping and carbon units were dismantled in June 2007. Final building demolition and concrete foundation removal occurred in late December 2007.

2.0 PHOSter™ SYSTEM

2.1 Technology Description Selection Rationale

The Enhanced In-Situ Bioremediation Process is a biostimulation technology developed by the US Department of Energy (DOE) at the Westinghouse Savannah River Plant site in Aiken, S.C. DOE refers to their phosphate injection technology as PHOSter™. The process delivers a gaseous phase mixture of air, nutrients (triethylphosphate [TEP]), and methane (an alternative carbon source) to contaminated soils at the SMS site. These enhancements are delivered to groundwater via injection wells to stimulate and accelerate the growth of existing microbial populations, specifically methanotrophs. These methanotrophs are capable of direct aerobic and aerobic cometabolic bioremediation. The advantage of aerobic cometabolic bioremediation is that at low VOC concentrations (as at this site) there may not be an adequate carbon source available to support bacterial growth for direct aerobic biodegradation. This type of aerobic bacteria has the ability to metabolize methane and produce enzymes (soluble methane mono-oxygenase [sMMO]) capable of degrading chlorinated solvents and their degradation products to non-hazardous constituents. Furthermore, these methanotrophs typically adhere to soil grain surfaces and would be ideally located for the degradation of the remaining residual adsorbed contaminants. The primary components of the treatment system consist of injection wells, air injection equipment, groundwater monitoring wells, and soil vapor monitoring points. Figure 2 shows a plan view of the treatment area, the injection wells, and monitoring points. The injection wells are designed to deliver air, gaseous-phase nutrients, and methane to groundwater and the vadose zone in the underlying soils.

The PHOSter™ technology was chosen for this site for a number of reasons. Contaminant concentrations in the groundwater are at very low asymptotic levels and demonstrating that the GW P&T system was no longer capable of removing a sufficient mass of contamination to justify operation. A system of groundwater and vadose zone wells were already in place that would be suitable for economically installing this technology. Soil and groundwater sampling results indicated existing biological activity was slowly degrading the primary contaminants (chlorinated VOCs). The site geology and hydrogeology was also ideal for this technology. The PHOSter™ technology has demonstrated ability to stimulate bacterial activity, promote the destruction of the primary site COCs (chlorinated VOCs - PCE, TCE and dichlorobenzenes), provide a means to focus remediation on the submerged zone of residual contamination, and act as a polishing technology for the removal of low level contamination often encountered in the final stages of site remediation.

2.2 PHOSter™ System Overview

The initial SMS system consisted of two compressors capable of delivering 10 to 20 pounds per square inch (psi) and approximately 10 to 200 standard cubic feet per hour (scfh) to a pressure rated steel tank. Air from the main line is diverted to the injection wells. The monitoring wells and soil vapor monitoring points were installed as part of a proposed air sparging and vacuum extraction system that was never completed since the PHOSter™ injection system was subsequently implemented.

The SMS injection system consists of air, nutrient, and methane injection equipment, all housed in a mobile trailer. A compressor system provides the air source, and includes a condensate tank with a drain, an air line, coalescing filters and pressure regulators and valves. Methane and nitrous oxide provide the source of carbon and nitrogen, respectively. Both are provided in standard gas cylinders and

are piped into the main air line using regulators and flow meters. TEP, the phosphorus source, is stored as a liquid in a pressure-rated steel tank. Air from the main line is diverted through the tank to volatilize the TEP for subsurface delivery. The air, nitrous oxide, and TEP are injected continuously while the methane is injected on a pulsed schedule. The methane is closely monitored just prior to injecting into subsurface wells to ensure that the injection concentration does not exceed 4% by volume, thus avoiding the methane lower explosive limit (LEL) of 5%.

The gaseous phase bioremediation amendments will stimulate bacterial populations capable of direct aerobic and aerobic cometabolic bioremediation. The advantage of the aerobic cometabolic bioremediation is that at low VOC concentrations (as at this site) there may not be an adequate carbon source available to support bacterial growth for direct aerobic biodegradation. With the addition of an alternative carbon source (methane), the microbial population (methanotrophs) can multiply and produce an enzyme sMMO that degrades a number of VOCs to non-toxic end products. Furthermore, these methanotrophs typically adhere to soil grain surfaces and would be ideally located for the degradation of the remaining residual adsorbed contaminants.

2.3 Remedial System Monitoring and Sampling

Following the implementation of the PHOSter™ technology in May of 2005, several sampling events have been conducted at the SMS site. Sampling has included air, groundwater, and discrete saturated soil sampling to evaluate performance and overall remedial effectiveness. As previously discussed, soil and groundwater concentrations had reached an asymptotic condition under the ongoing GWP&T remedial action, so implementation of the PHOSter™ system was designed to continue the positive contaminant reduction trend that had been achieved to date.

Air samples are tested from on-site monitoring wells two times per month by Earth Tech staff scientists. The air is monitored for methane and CO_2 in percent with a CES-LANDTEC GEMTM 500 portable gas analyzer. A MultiRAE meter is used to analyze for CO, O_2, and H_2S. A MultiRAE PID is used to monitor for VOCs.

Soil samples were collected from varying depths and locations within the water-bearing zone and analyzed for the presence of methanotrophs. Methanotrophs are a group of bacteria that are considered ubiquitous in the environment (Hanson and Hanson, 1996), but are often a minor group within the natural subsurface bacterial populations. Table 1 presents the methanotrophs data for the soil samples: total methanotrophs; Type I methanotrophs; and Type II methanotrophs. The Type I methanotrophs appear best adapted to grow at low methane concentrations. The growth of some Type II methanotrophs is favored when methane levels are high, when combined nitrogen and oxygen levels are low, and when copper is substantially depleted in the growth media. The conditions in groundwater appear to favor the growth of the Type II methanotrophs and the synthesis of sMMO that is essential for the rapid degradation of TCE and some other low molecular-weight halogenated hydrocarbons (Hanson and Hanson, 1996). However, Type I methanotrophs can also produce sMMO. The expression of the sMMO enzyme is the important mechanism of methanotrophs. The enzyme breaks down a number of VOCs including the targeted compounds at this site.

As expected, methanotrophs were detected in all six soil samples. An abundant methanotrophs population (10^5 to 10^8 cells per gram) was reported for soil samples collected at the targeted shallower

depths (23.5 to 24.5 ft bgs). This methanotrophs population size is consistent with a successfully stimulated subsurface in the range that is conducive for VOC degradation. This coincides with the targeted amendment injection that was implemented after the June 2006 results were evaluated. After the June 2006 results were evaluated, several injection points were turned off and the remaining injection points were directed to focus on the three remaining hot spots: DW, SMS-12, and SMS-16. These microbial results indicate the successful stimulation of the methanotrophs in these targeted areas as indicated on Table 2 which shows all five methanotrophs data sets from June 2006, March 2007, January 2008, November 2008 and September 2009.

2.4 PHOSter™ System Sampling and Effectiveness Evaluation

Four soil sampling events have been conducted to evaluate the PHOSter™ system since 2005: June 2006, March 2007, January 2008, and November 2008. In June 2006, six soil borings were advanced and subsurface soil samples were collected for analysis of VOCs, SVOCs, phospholipid fatty acids (PLFA) and methanotrophs. The results were presented in the Final PHOSter™ System Soil Sampling Report dated October 2006. The results indicated that contaminant concentrations were decreasing; however, soil samples collected near the former dry well had contaminant concentrations exceeding applicable cleanup criteria. Based on the analytical results, a recommendation was made to continue the operation of the PHOSter™ system for an additional six months, at which time another round of soil samples would be collected and evaluated.

The second evaluation occurred in March 2007, when six soil borings were advanced and subsurface soil samples were collected for analysis of VOCs, PLFA and methanotrophs. The results were presented in the Final PHOSter™ System Soil Sampling Report dated June 2007. The results indicated that contaminant concentrations were decreasing; however, soil samples collected near the former dry well had contaminant concentrations that continued to exceed applicable cleanup criteria. Based on the analytical results, a recommendation was made to continue the operation of the PHOSter™ system for an additional six months, at which time another round of soil samples would be collected and evaluated.

The third evaluation occurred in January 2008, when six soil borings were advanced and subsurface soil samples were collected for analysis of VOCs, PLFA and methanotrophs. The results were presented in the Final PHOSter™ System Soil Sampling Report dated May 2008. When comparing the January 2008 data with the March 2007 data, the data indicated that total VOC contaminant concentrations increased significantly at borings SMS-12, SMS-16, SMS-16B and DW, while at borings SMS-12B and DWB there were significant decreases. The total VOC concentration exceeded the criterion at SMS-12, SMS-12B, SMS-16 and SMS-16B. The variation in concentrations between sampling rounds was attributed to the heterogeneous nature of the soil contaminant distribution.

The fourth evaluation occurred in November 2008, when six soil borings were advanced and subsurface soil samples were collected for analysis of VOCs, PLFA and methanotrophs. The results were presented in the Final PHOSter™ System Soil Sampling Report dated April 2009. When comparing the November 2008 data with the January 2008 data, the data indicated significant decreases in total VOC contaminant concentrations at borings SMS-12, SMS-12B, SMS-16 and SMS-16B. A minor decrease in concentration was noted at boring DWB while a slight increase was noted at boring DW. The total VOC concentration continued to exceed the criterion at SMS-12 and SMS-16.

2.5 Technology and Process Optimization

Based on the analytical results collected over the last four sampling events, the existing system was modified to better focus on the existing COCs and to optimize the system performance. Along with the modifications, continued operation of the system for an additional six month period was also recommended. System modifications included the replacement of the two old compressor units with a new rotary screw compressor and the elimination of the PHOSter™ aspect of the sparge technology. As previously discussed, the PHOSter™ technology was selected as an ideal technology for the remediation of chlorinated VOCs. However, based on the data collected over the last three sampling events, chlorinated VOCs are no longer an issue at this site, indicating that the PHOSter™ application effectively achieved its goal. The existing data from the site indicates that the primary COCs are now limited to aromatic hydrocarbons (BTEX and TMB compounds), which are readily biodegradable under standard aerobic conditions.

In consideration of this positive change in site conditions, remediation over the last operational period focused on dissolved oxygen enrichment through biosparging to drive the aerobic degradation process. This was accomplished through the controlled injection of ambient air into select wells using the same base equipment established for the PHOSter™ application. The primary technological change was the elimination of the gaseous nutrients (nitrous oxide, TEP and methane) that drove the cometabolic degradation process.

In addition to the technology modification, remediation during this most recent period focused strictly on the saturated zone (22-25 ft bgs) using select injection wells and biosparging to optimize dissolved oxygen concentrations in groundwater and facilitate aerobic biodegradation of the residual organic compounds. After the system modifications were completed, the system was operated with six sparge points: AS-2, AS-4, AS-5, AS-7, AS-8 and AS-10. The flow rate at each sparge point was set at 180 cubic feet per hours (CFH). Performance of this optimization process was evaluated as part of the fifth monitoring event, which occurred in September 2009 and is the subject of this report.

3.0 BIOSPARGE PERFORMANACE EVALUATION

Through the course of the six month biosparge operation period, routine monitoring was conducted to ensure continual system operation and to optimize performance. Routine monitoring included the evaluation of system and well head pressures and the periodic collection of field data to evaluate DO and ORP conditions.

Following six additional months of active biosparge remediation, the same six sampling locations were targeted to evaluate the current conditions regarding the residual VOCs located in the shallow saturated zone. A total of six soil borings were advanced over a two day period (September 15 and 16, 2009) to collect soil samples from varying depths for laboratory analyses. A total of six soil borings were advanced and sampled for evaluation purposes (SMS-12, SMS-12B, SMS-16, SMS-16B, DW and DWB). Samples were collected from depths ranging from 16 to 31 feet, with specific focus on the 22 – 25 ft bgs saturated zone. All six saturated soil samples were shipped to Mitkem Corporation for VOC analysis and Microbial Insights, Inc. for analysis of PLFA and methanotrophs. Although the PHOSter™ technology was no longer being utilized, the PLFA and methanotrophs analyses were continued to evaluate the relative change in biological characteristics.

3.1 Sample Numbers and Collection Points

Figure 2 is a site map of SMS Instruments which shows the locations of the soil sampling locations. Boring logs are in Appendix A. The Form 1s from the Mitkem Laboratory data package are included in Appendix B. The Microbial Insights laboratory data package is included in Appendix C. Every effort was made to collect soil samples from the same intervals from which samples were collected during the previous sampling efforts. Samples were usually collected at the capillary fringe/water table (19-20 feet below ground surface [ft bgs]), the targeted zone containing elevated residual VOCs (22-25 ft bgs), and at the bottom of the soil boring (29-30 ft bgs), below the targeted treatment zone.

3.2 Data Interpretation and Evaluation

3.2.1 Bioremediation Process Description

As previously indicated, biosparging is designed to maximize oxygen transfer to groundwater, while minimizing contaminant volatilization, which is a primary focus of a standard air sparge application. The goal of biosparging is to optimize aerobic biodegradation conditions through the controlled injection of air into groundwater. For this site, the transfer of the adsorbed contaminants to the dissolved phase appears to be a slow process based on the low VOC concentrations in groundwater. Therefore, the most effective cleanup technology at this stage in the site cleanup continues to be *in situ* bioremediation. Several types of data are used to evaluate biodegradation with the two primary data results being the microbial population and contaminant concentration, which are discussed in the following sections.

3.2.2 Microbial Data Results

Total biomass (PLFA) in soil was measured during each sampling event. The results are presented in Table 3. During the previous four sampling events, the samples were collected from the shallow saturated zone (22-25 ft bgs). As shown on Table 3, there has not been a significant change in total

biomass at any location (a significant change is defined as an order of magnitude increase or decrease in total biomass). During the five sampling events, the samples from the shallow saturated zone have all exhibited high biomass concentrations (greater than 10^7 cells per gram). The data also indicates that the change from PHOSter™ to biosparging had little effect on the existing biomass.

As shown on Table 2, the methanotrophs data indicate a significant change in population size from November 2008 to September 2009. The population size increased by one to two orders of magnitude in all six samples to 10^8 to 10^9 from 10^5 to 10^7 cells per gram over the previous two sampling events. The increase in methanotrophs is counter intuitive since methane is no longer being injected into the subsurface. The increase in population may be a result of anaerobic conditions existing below the water table despite the air injection.

3.2.3 VOC Data Results

Groundwater

The laboratory results from the November 2008 groundwater sampling event had indicated an overall decreasing trend in total VOC concentrations when compared to previous events. In all cases, VOC concentrations had been reduced to below detection or below the cleanup goals. The exception was at monitoring well MW-6S where concentrations of chlorinated and non-chlorinated benzene related aromatics were present at concentrations ranging from slightly below to slightly above the cleanup criteria. The details of the groundwater sampling event were documented in the Round 4 Groundwater Sampling Report, March 2009.

Soil

Eighteen saturated soil samples were collected and analyzed for VOCs during the September 2009 sampling event from locations and depths at which elevated concentrations of VOCs concentrations had been reported during the previous soil sampling events. Table 4 presents a summary of the detected VOCs results for the September 2009 soil sampling event along with the NYSDEC unrestricted use Soil Cleanup Objectives (SCOs) (6 NYCRR Part 375 Table 375-6.8a). The unrestricted use criteria are the most stringent of the residential, protection of groundwater, and ecological SCOs as identified in Table 375-6.8(b). The majority of the compounds detected are aromatics. These results are also summarized on Figure 3 (Summary of Total VOCs) and Figure 4 (Summary of Total BTEX). All VOCs were at concentrations below the NYSDEC SCOs.

The total VOC concentration SCO of 10,000 µg/kg was not exceeded in any of the 18 soil samples collected during the September 2009 sampling event. This follows the November 2008 event, where only two samples slightly exceeded the 10,000 µg/kg criterion. Total VOC concentrations for these two samples were 11,207 µg/kg (SMS-12, 23.5-24.5 ft bgs), and 10,338 µg/kg (SMS-16B, 23.5-24.5 ft bgs) and were collected from the soil borings in the area of the former underground storage tank (UST) shown on Figure 2. In both cases, the primary COCs were 1,2,4- and 1,3,5-trimethylbenzene. During the September 2009 sampling event, the total VOC concentrations at these two locations decreased by more than 50 percent to 5,740 µg/kg and 4,390 µg/kg, respectively. The total VOC concentration at SMS-12B have shown a consistent decrease in concentration during the past four sampling events from a high of 114,360 µg/kg in March 2007 to not detected during the September 2009 sampling event. The total VOC

concentration at SMS-16B has also shown a consistent decrease over the last three sampling events from a high of 13,900 µg/kg in January 2008 to 4,390 µg/kg in September 2009.

At location DWB, the total VOC concentration was 8,880 µg/kg (23.5 – 24.5 ft bgs) during the September 2009 sampling event; slightly lower than the 9,640 µg/kg (23.5 – 24.5 ft bgs) in November 2008. These concentrations are significantly lower than reported during March 2007 sampling event from this location (181,540 µg/kg). The total VOC concentration at location DW has been below the criterion for the past four sampling events.

BTEX compounds were not detected in any of the September 2009 samples. This continues the trend noted during previous sampling events of decreasing BTEX concentrations.

3.3 Comparsion of Data from the Five Sampling Events

Table 5 presents a comparison of the VOCs results for the five sampling events (June 2006, March 2007, January 2008, November 2008 and September 2009). The data is also summarized on Figure 3 (total VOCs) and Figure 4 (total BTEX). These data indicate a decreasing trend in the total VOCs concentrations in the soil at three locations as a result of ongoing remedial actions at the Site: SMS-12/SMS-12B, SMS-16/SMS-16B and DW/DWB. None of the samples collected during the September 2009 sampling event reported either individual compound exceedances or total VOC exceedances.

During previous sampling rounds, contamination has been limited to the 22 to 25 ft bgs interval. The data indicated that residual soil contamination was limited to three isolated pockets as shown on Figures 5 and 6. The general trend during the past five sampling rounds has indicated decreasing total VOC concentrations in soil as a results of the remedial actions undertaken at the Site. In the southern most area of DW/DWB, the total VOC concentration was as high as 181,540 µg/kg in March 2007. The total VOC concentration has been below the criterion during the last three sampling events, indicating a 95 percent decrease in concentration. In the area of SMS-16/SMS-16B, the concentrations have been trending down for the past three sampling events and were below the criterion during the September 2009 sampling event. The northernmost area near SMS-12/SMS-12B has also exhibited a downward trend in total VOC concentration for the last few sampling rounds. By November 2008 the concentration at SMS-12 was only slightly above the criterion while the concentration at SMS-12B was slightly below the criterion. The concentration at both locations was below the criterion during the September 2009 sampling event.

4.0 CONCLUSIONS AND RECOMMENDATIONS

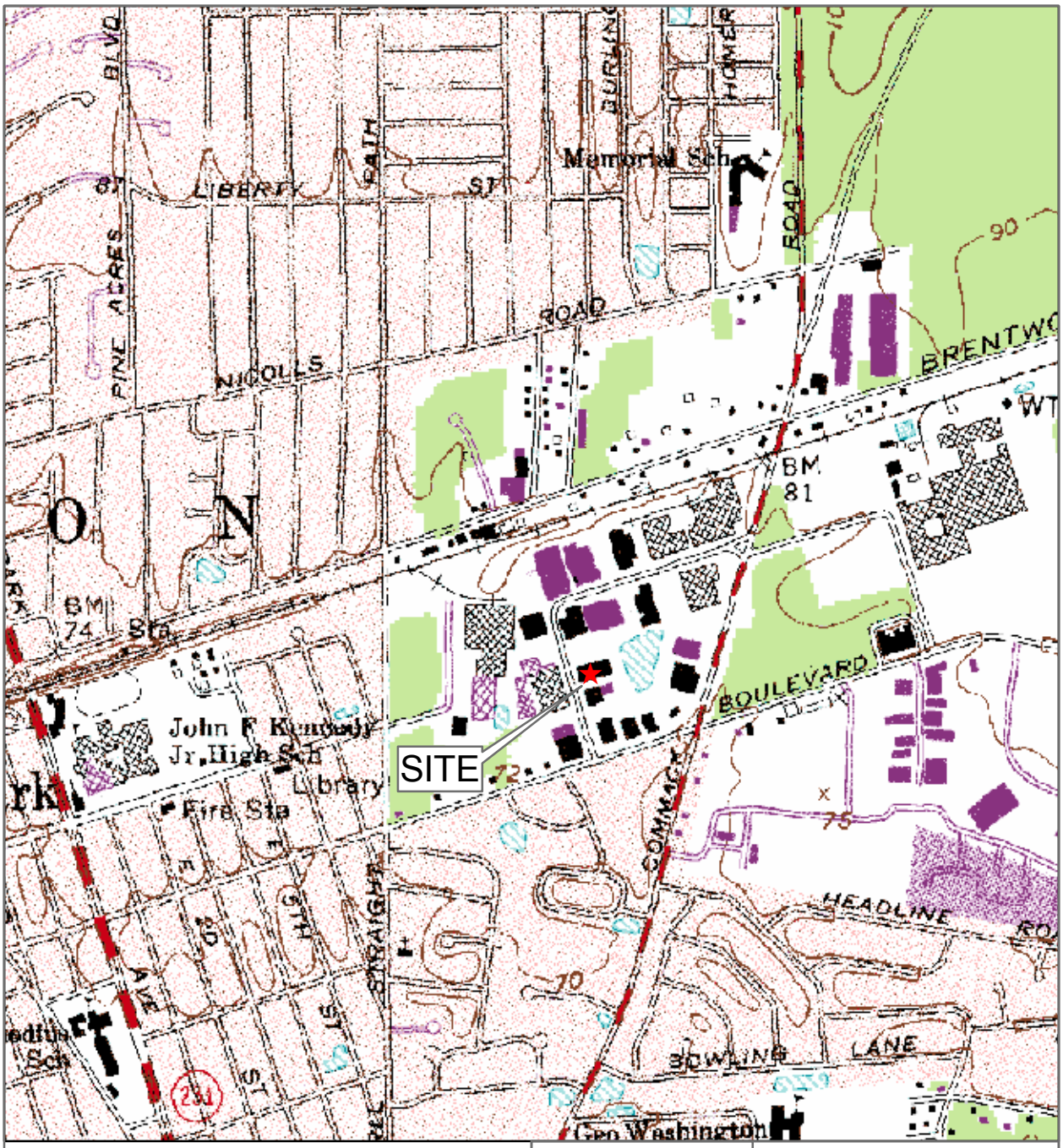
4.1 Conclusions

As presented in this report, the conversion from a PHOSter™ application to a biosparge application, and the focused approach using select injection wells, has resulted in the continual reduction in contaminant mass associated within the shallow saturated zone. The September 2009 results from all six sample locations showed no SCO exceedances. Specifically, no BTEX compounds were detected and total VOC concentrations were all below 10,000 µg/kg. Overall reductions of greater than 95 percent have been realized over the past five soil sampling events.

4.2 Recommendations

Based on the soil and groundwater results discussed above, AECOM recommend that biosparging be discontinued. Unless the biosparge system is reactivated, AECOM recommends no further soil sampling associated with the treatment system. The system will be left in place for the time being. The next five quarter groundwater monitoring and sampling event is currently scheduled for February 2010. If the groundwater sampling results for MW-6S indicates any rebound, the use of the biosparge system will be re-evaluated in the groundwater sampling report. If the results suggest no evidence of increased groundwater contamination, a recommendation to demobilize the existing system will be made.

FIGURES



N

0 162.5 325 650 Feet

AECOM

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SMS INSTRUMENTS
DEER PARK, NEW YORK

SITE LOCATION MAP

SMS Instruments

SMS-23
SMS-13
SMS-22
SMS-17
SMS-15
SMS-12
SMS-12B
SMS-24
SMS-10
SMS-19
AS-10
SVE-C
SMS-18
SMS-16
SMS-7
SVE-A
SMS-16B
AS-12
SMS-21
AS-11
SMS-20
SVE-B
AS-8
AS-9
SMS-8
SMS-6
SMS-1
SVE-D
AS-7
AS-6
DWB
AS-4
AS-5
SMS-2
EW-3
SVE-F
SMS-9
AS-1
SVE-E
MW-6S
SVE-H
SVE-G
MW-6D
MW-5
DW
SMS-5
AS-2
AS-3
SMS-3
SMS-4
SMS-14
SMS-11
JIM-MAR

20 0 20 40 Feet

LEGEND

- ○ Previous Borings
- ● SMS-16 New Soil Borings (each new location was offset by 1-2 ft from the previous location).
- △ Air Sparge and Soil Vapor Extraction Point
- ⊕ Monitoring Wells
- ⊕ Extraction Well

Prepared by : EARTH TECH

SUBMITTED BY : PK	MULTI SITE G - SMS INSTRUMENTS SITE SITE NO. 1-52-026		
DRAWN BY : VM	SOIL BORING LOCATION		
APPROVED BY : PK	DATE : NOVEMBER 2008	SCALE : AS SHOWN	DRAWING NO. : 2

N

SMS Instruments

SMS-12	Jun 2006	Mar 2007	Jan 2008	Nov 2008	Sep 2009
16-17	ND	–	–	–	
19-20	–	ND	7	ND	ND
23.5-24.5	144,493	344	77,063	11,207	5,740
29-30	406	ND	30	11	ND

SMS-12B	Mar 2007	Jan 2008	Nov 2008	Sep 2009
19-20	ND	ND	ND	ND
23.5-24.5	114,360	29,831	9,640	ND
29-30	ND	13	13	ND

SMS-15	Jun 2006
16.5-17.5	4
22-23	3
27-28	ND

SMS-16	Jun 2006	Mar 2007	Jan 2008	Nov 2008	Sep 2009
16.5-17.5	19	–	–	–	–
19-20	ND	147	8	4.3	ND
22.5-23.5	79,290	–	–	–	ND
23.5-24.5	–	222	74,943	5.5	ND
29-30	ND	ND	16	7.8	ND

SMS-10	Jun 2006
18-19	3,960
24-25	2,700
28.5-29.5	9

SMS-16B	Mar 2007	Jan 2008	Nov 2008	Sep 2009
19-20	ND	12	ND	ND
22.5-23.5	950	13,900	–	–
23.5-24.5	–	–	10,338	4,390
29-30	ND	20	9.4	ND

DWB	Mar 2007	Jan 2008	Nov 2008	Sep 2009
19-20	ND	3	ND	ND
23.5-24.5	–	–	9,640	8,880
24-25	181,540	229	–	–
29-30	ND	4	12	ND

SMS-21	Jun 2006
19-20	8
22-23	1,766
29-30	ND

DW	Jun 2006	Mar 2007	Jan 2008	Nov 2008	Sep 2009
19-20	140,241	18	ND	ND	ND
21.5-22.5	26,284	–	–	–	–
23.5-24.5	–	–	–	7,384	2,270
24-25	96,100	ND	6,237	–	–
29-30	–	2	10	13	ND
30-31	ND	–	–	–	–

SMS-23
SMS-13
SMS-22
SMS-17
SMS-15
SMS-12
SMS-12B
SMS-24
SMS-10
SMS-19
AS-10
SVE-C
SMS-7
SMS-18
SVE-A
AS-12
SMS-16
SMS-16B
SMS-21
SMS-20
AS-11
SVE-B
AS-8
SMS-8
AS-9
SMS-6
SMS-1
SVE-D
AS-7
AS-6
DWB
SMS-2
AS-4
EW-3
AS-5
SVE-F
SMS-9
AS-1
MW-6S
SVE-E
SVE-H
SVE-G
MW-6D
MW-5
DW
SMS-5
AS-2
AS-3
SMS-3
SMS-4
SMS-14
SMS-11
JIM-MAR

20 0 20 40 Feet

LEGEND

- ○ Previous Borings
- ● SMS-16 New Soil Borings (each new location was offset by 1-2 ft from the previous location).
- △ Air Sparge and Soil Vapor Extraction Point
- ⊕ Monitoring Wells
- ⊕ Extraction Well

All Concentration in µg/kg

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : VM

APPROVED BY : PK

MULTI SITE G - SMS INSTRUMENTS SITE
SITE NO. 1-52-026

SUMMARY OF VOCs IN SOIL

DATE : OCTOBER 2009

SCALE : AS SHOWN

DRAWING NO. : 3

SMS Instruments

N

SMS-12	2006	2007	JAN 2008	NOV 2008	SEP 2009
16-17	ND	-	-	-	-
19-20	-	ND	ND	ND	ND
23.5-24.5	3,800	ND	4,243	19	ND
29-30	ND	ND	ND	ND	ND

SMS-12B	2007	JAN 2008	NOV 2008	SEP 2009
19-20	ND	ND	ND	ND
23.5-24.5	1,200	52	ND	ND
29-30	ND	ND	ND	ND

SMS-16	2006	2007	JAN 2008	NOV 2008	SEP 2009
16.5-17.5	ND	-	-	-	-
19-20	-	ND	ND	ND	ND
22.5-23.5	15,100	-	-	-	-
23.5-24.5	-	ND	5,070	ND	ND
29-30	ND	ND	ND	ND	ND

SMS-16B	2007	JAN 2008	NOV 2008	SEP 2009
19-20	ND	ND	ND	ND
23.5-24.5	50	425	378.9	ND
29-30	ND	ND	ND	ND

DWB	2007	JAN 2008	NOV 2008	SEP 2009
19-20	ND	ND	ND	ND
23.5-24.5	-	-	22	ND
24-25	26,100	9	-	-
29-30	ND	ND	ND	ND

SMS-10	2006
18-19	ND
24-25	154
28.5-29.5	ND

SMS-15	2006
16.5-17.5	ND
22-23	ND
27-28	ND

SMS-21	2006
19-20	3
22-23	6
29-30	ND

DW	2006	2007	JAN 2008	NOV 2008	SEP 2009
19-20	20,400	ND	ND	ND	ND
21.5-22.5	3,538	-	-	-	-
23.5-24.5	-	-	-	27	ND
24-25	36,700	ND	686	-	-
29-30	-	ND	ND	ND	ND
30-31	ND	-	-	-	-

SMS-23
SMS-13
SMS-22
SMS-12
SMS-12B
SMS-24
SMS-10
SMS-19
SMS-15
SMS-17
SMS-18
AS-10
SVE-C
SMS-7
SVE-A
AS-12
SMS-16
SMS-16B
SMS-21
SMS-20
AS-11
SVE-B
AS-8
SMS-8
AS-9
SMS-6
SMS-1
SVE-D
AS-7
AS-6
DWB
AS-4
AS-5
EW-3
SMS-2
SVE-F
SMS-9
AS-1
SVE-E
MW-6S
SVE-H
SVE-G
MW-6D
MW-5
DW
SMS-5
AS-2
AS-3
SMS-3
SMS-4
SMS-14
JIM-MAR

20 0 20 40 Feet

LEGEND

- ○ Previous Borings
- ● SMS-16 New Soil Borings (each new location was offset by 1-2 ft from the previous location).
- △ Air Sparge and Soil Vapor Extraction Point
- ⊕ Monitoring Wells
- ⊕ Extraction Well

All Concentration in µg/kg

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : VM

APPROVED BY : PK

MULTI SITE G - SMS INSTRUMENTS SITE
SITE NO. 1-52-026

SUMMARY OF BTEX IN SOIL

DATE : OCTOBER 2009

SCALE : AS SHOWN

DRAWING NO. : 4

N

SMS Instruments

SMS-23
SMS-13
SMS-22
SMS-15
SMS-17
SMS-12
SMS
SMS-24
SMS-10
SMS-19
SMS-16
SMS-16B
AS-10
SVE-C
SMS-7
SMS-18
SVE-A
AS-12
SMS-21
SMS-20
AS-11
SVE-B
AS-8
AS-9
SMS-6
SVE-D
SMS-8
SMS-1
AS-7
AS-6
DWB
SMS-2
AS-4
EW-3
AS-5
SVE-F
SMS-9
AS-1
SVE-E
MW-6S
SVE-H
SVE-G
MW-6D
MW-5
DW
SMS-5
AS-2
AS-3
SMS-3
SMS-4
SMS-14
SMS-11

JIM-MAR

20 0 20 40 Feet

LEGEND

- Previous Borings
- SMS-16 — New Soil Borings (each new location was offset by 1-2 ft from the previous location).
- Air Sparge and Soil Vapor Extraction Point
- Monitoring Wells
- Extraction Well

10,000 — JUNE 2006

10,000 — MARCH 2007

10,000 — JANUARY 2008

10,000 — NOVEMBER 2008

10,000 — Concentration Isopleth in µg/kg Total VOCs RSCO is 10,000 µg/kg

* Total VOCs concentration did not exceed 10,000 ug/Kg in any sample from September 2009.

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : VM

APPROVED BY : PK

MULTI SITE G - SMS INSTRUMENTS SITE
SITE NO. 1-52-026

TOTAL VOCs ISOPLETH MAP

22.5-25.0 FT INTERVAL

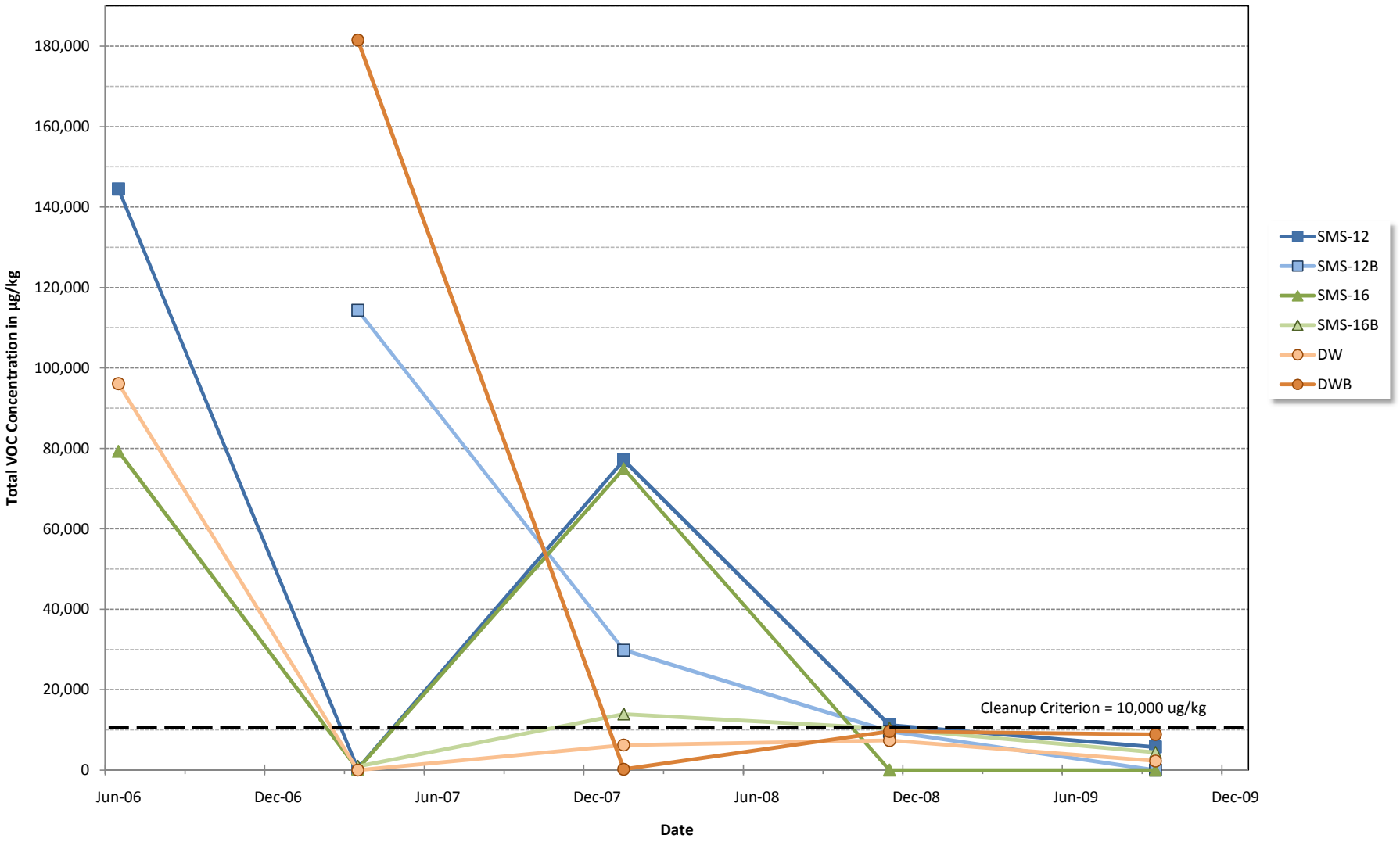
JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 & SEPTEMBER 2009

DATE : OCTOBER 2009

SCALE : AS SHOWN

DRAWING NO. : 5

FIGURE 6
TOTAL VOC CONCENTRATIONS IN SOIL (22 - 25 FT DEPTH INTERVAL)



TABLES

TABLE 1
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING, SEPTEMBER 2009
SUMMARY OF METHANOTROPHS DATA

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	12 23.5-24.5	12B 23.5-24.5	16 23.5-24.5	16B 23.5-24.5	DW 23.5-24.5	DWB 23.5-24.5
Sample Date	9/15/09	9/15/09	9/15/09	9/15/09	9/16/09	9/16/09
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5
Methanotrophs (total)	9.04E+08	8.43E+08	1.28E+09	8.49E+08	1.29E+09	1.20E+09

All sample units in cells/gram
Type I and II MOB data was not determined for the September 2009 data set.

TABLE 2
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
SUMMARY OF METHANOTROPHS DATA (2006, 2007 2008 AND 2009)

Boring Location	SMS-12	SMS-12	SMS-16	DW	DW	SMS-10
Sample ID	SMS-SB12-16-17	SMS-SB12-29-30	SMS-SB16-19-20	SMS-DW-19-20	SMS-DW-30-31	SMS-SB10-18-19
Sample Date	6/28/06	6/28/06	6/29/06	6/28/06	June 2006	6/28/06
Sample Depth (ft bgs)	16 - 17	29 - 30	19 - 20	19 - 20	30 - 31	18 - 19
Methanotrophs (total)	3.20E+07	7.37E+06	5.07E+06	2.90E+08	8.49E+05	3.77E+08
Type I MOB	1.56E+07	7.45E+05	1.46E+05	7.28E+07	2.52E+05	2.07E+08
Type II MOB	1.65E+07	6.62E+06	4.92E+06	2.17E+08	5.97E+05	1.70E+08

Boring Location	SMS-15	SMS-21
Sample ID	SMS-SB15-27-28	SMS-SB21-22-23
Sample Date	6/29/06	6/28/06
Sample Depth (ft bgs)	27 - 28	22 - 23
Methanotrophs (total)	7.27E+04	2.31E+08
Type I MOB	1.27E+04	1.26E+08
Type II MOB	6.00E+04	1.05E+08

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	SMS12235245	SMS12B235245	SMSSB16225235	SMSSB16B225235	SMSDW2425	SMSDWB2425
Sample Date	3/22/07	3/22/07	3/22/07	3/22/07	3/23/07	3/23/07
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	22.5 - 23.5	22.5 - 23.5	24 - 25	24 - 25
Methanotrophs (total)	2.65E+10	1.56E+10	4.67E+10	9.16E+10	7.57E+10	3.41E+10
Type I MOB	7.55E+08	8.91E+08	1.17E+10	6.20E+09	5.95E+09	3.31E+09
Type II MOB	2.58E+10	1.47E+10	4.55E+10	5.84E+10	6.97E+10	3.08E+10

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	SMS12235245	SMS12B235245	SMSSB16225235	SMSSB16B225235	SMSDW2425	SMSDWB2425
Sample Date	1/16/08	1/16/08	1/16/08	1/16/08	1/17/08	1/17/08
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	22.5 - 23.5	22.5-23.5	24 - 25	24 - 25
Methanotrophs (total)	2.31E+05	2.95E+07	2.65E+07	8.57E+06	1.28E+08	1.06E+08
Type I MOB	1.15E+05	1.59E+06	1.11E+06	6.88E+05	2.60E+06	2.75E+06
Type II MOB	1.15E+05	2.79E+07	2.54E+07	7.88E+06	1.26E+08	1.03E+08

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	12 23.5-24.5	12B 23.5-24.5	16 23.5-24.5	16B 23.5-24.5	DW 23.5-24.5	DWB 23.5-24.5
Sample Date	11/18/08	11/18/08	11/18/08	11/18/08	11/19/08	1/17/08
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5
Methanotrophs (total)	3.51E+06	5.95E+06	9.56E+06	1.66E+07	5.51E+07	1.27E+08
Type I MOB	7.85E+05	9.00E+05	6.14E+05	7.09E+06	9.52E+06	3.77E+07
Type II MOB	2.72E+06	5.05E+06	8.95E+06	9.55E+06	4.55E+07	8.83E+07

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	12 23.5-24.5	12B 23.5-24.5	16 23.5-24.5	16B 23.5-24.5	DW 23.5-24.5	DWB 23.5-24.5
Sample Date	9/15/09	9/15/09	9/15/09	9/15/09	9/16/09	9/16/09
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5
Methanotrophs (total)	9.04E+08	8.43E+08	1.28E+09	8.49E+08	1.29E+09	1.20E+09

All sample units in cells/gram
Type I and II MOB data was not determined for the September 2009 data set.

TABLE 3
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
SUMMARY OF PHOSPHOLIPID FATTY ACID DATA (2006, 2007 2008 AND 2009)

Boring Location	SMS-12	SMS-12	SMS-16	DW	DW	SMS-10
Sample ID	SMS-SB12-16-17	SMS-SB12-29-30	SMS-SB16-19-20	SMS-DW-19-20	SMS-DW-30-31	SMS-SB10-18-19
Sample Date	6/28/06	6/28/06	6/29/06	6/28/06	June 2006	6/28/06
Sample Depth (ft bgs)	16 - 17	29 - 30	19 - 20	19 - 20	30 - 31	18 - 19
Total biomass	3.30E+07	3.93E+06	3.12E+07	1.76E+08	2.17E+06	1.47E+08

Boring Location	SMS-15	SMS-21
Sample ID	SMS-SB15-27-28	SMS-SB21-22-23
Sample Date	6/29/06	6/28/06
Sample Depth (ft bgs)	27 - 28	22 - 23
Total biomass	2.44E+06	7.41E+07

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	SMS12235245	SMS12B235245	SMSSB16225235	SMSSB16B225235	SMSDW2425	SMSDWB2425
Sample Date	3/22/07	3/22/07	3/22/07	3/22/07	3/23/07	3/23/07
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	22.5 - 23.5	22.5 - 23.5	24 - 25	24 - 25
Total biomass	9.92E+07	4.05E+07	1.26E+08	1.35E+08	1.12E+08	1.33E+08

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	SMS12235245	SMS12B235245	SMSSB16225235	SMSSB16B225235	SMSDW2425	SMSDWB2425
Sample Date	1/16/08	1/16/08	1/16/08	1/16/08	1/17/08	1/17/08
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	22.5 - 23.5	22.5-23.5	24 - 25	24 - 25
Total biomass	5.58E+07	8.42E+07	1.58E+08	1.32E+08	1.12E+08	1.18E+08

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	12 23.5-24.5	12B 23.5-24.5	16 23.5-24.5	16B 23.5-24.5	DW 23.5-24.5	DWB 23.5-24.5
Sample Date	11/18/08	11/18/08	11/18/08	11/18/08	11/19/08	1/17/08
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5
Total biomass	1.16E+08	1.19E+08	4.33E+07	1.61E+08	1.62E+08	1.63E+08

Boring Location	SMS-12	SMS-12B	SMS-16	SMS-16B	DW	DWB
Sample ID	12 23.5-24.5	12B 23.5-24.5	16 23.5-24.5	16B 23.5-24.5	DW 23.5-24.5	DWB 23.5-24.5
Sample Date	9/15/09	9/15/09	9/15/09	9/15/09	9/16/09	9/16/09
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5	23.5 - 24.5
Total biomass	1.00E+08	1.54E+08	1.93E+08	1.72E+08	2.46E+08	1.49E+08

All sample units in cells/gram

TABLE 4
MULTI SITE G - SMS INSTRUMENTS (SITE# 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY (SEPTEMBER 2009)

Sample Location	NYSDEC	SMS-12	SMS-12	SMS-12	SMS-12B	SMS-12B	SMS-12B	SMS-16	SMS-16	SMS-16
Sample ID	Soil	SMS-12 19-20	SMS 12 23.5-24.5	SMS 12 29-30	SMS-12B 19-20	SMS12B 23.5-24.5	SMS12B 29-30	SMS-16 19-20	16 23.5-24.5	16 29-30
Lab ID	Cleanup	H1787-11	H1787-12	H1787-10	H1787-08	H1787-09	H1787-10	H1787-04	H1787-05	H1787-07
Sample Depth (ft bgs)	Objectives	19-20	23.5-24.5	29-30	19-20	23.5-24.5	29-30	19-20	23.5-24.5	29-30
Sample Date		9/15/09	9/15/09	9/15/09	9/15/09	9/15/09	9/15/09	9/15/09	9/15/09	9/15/09
1,1,2-Trichloroethane	NC	ND	3,700	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	310 J	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	ND	150 J	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	ND	1,100	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	ND	220 J	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	260 J	ND	ND	ND	ND	ND	ND	ND
Total BTEX		0	0	0	0	0	0	0	0	0
Total VOCs	<10,000	0	5,740	0	0	0	0	0	0	0
Total VOC TICs		0	189,000 NJ	315 J	0	222,000 NJ	0	0	254,900 NJ	12.5 NJ

Notes: NC - No official NYSDEC Remedial Program Soil Cleanup Objective
BOLD / Italics - exceeds the NYSDEC Remedial Program Soil Cleanup Objective
J - Estimated value
D - Diluted sample
ND - Not detected
All results in µg/kg
Data validation has NOT been performed on this data

TABLE 4
MULTI SITE G - SMS INSTRUMENTS (SITE# 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY (SEPTEMBER 2009)

Sample Location	NYSDEC	SMS-16B	SMS-16B	SMS-16B	DW	DW	DW	DWB	DWB	DWB
Sample ID	Soil	SMS-16B 19-20	16B 23.5-24.5	16B 29-30	DW 19-20	DW 23.5-24.5	DW 29-30	DWB 19-20	DWB 23.5-24.5	DWB 29-30
Lab ID	Cleanup	H1787-01	H1787-02	H1787-03	H1787-15	H1787-16	H1787-17	H1787-18	H1787-19	H1787-20
Sample Depth (ft bgs)	Objectives	19-20	23.5-24.5	29-30	19-20	23.5-24.5	29-30	19-20	23.5-24.5	29-30
Sample Date		9/15/09	9/15/09	9/15/09	9/16/09	9/16/09	9/16/09	9/16/09	9/16/09	9/16/09
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	ND	160 J	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	ND	1,300	ND	ND	150 J	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	ND	ND	ND	140 J	ND	ND	2,400	ND
n-Butylbenzene	12,000	ND	3,700	ND	ND	670	ND	ND	4,400	ND
sec-Butylbenzene	11,000	ND	690 J	ND	ND	ND	ND	ND	1,600	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	ND	ND	330 J	ND
Total BTEX		0	0	0	0	0	0	0	0	0
Total VOCs	<10,000	0	4,390	0	0	2,270	0	0	8,880	0
Total VOC TICs		3,130 J	745,000 NJ	149.8 NJ	348.8 J	203,300 NJ	0	0	458,000 NJ	0

Notes: NC - No official NYSDEC Remedial Program Soil Cleanup Objective
BOLD / Italics - exceeds the NYSDEC Remedial Program Soil Cleanup Objective
J - Estimated value
D - Diluted sample
ND - Not detected
All results in µg/kg
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-10	SMS-10	SMS-10	SMS-12	SMS-12	SMS-12
Sample ID	Unre-	SB101819	SB102425	SB285295	B121617	B121920	SB121920
Laboratory ID	strictive	E0901-10B	E0901-11B	E0901-12B	E0901-13B	F0378-01A	G0076-07A
Sample Date	Soil	6/28/06	6/28/06	6/28/06	6/28/06	3/22/07	1/16/08
Sample Depth (ft bgs)	Objective	18-19	24-25	28.5-29.5	16-17	19-20	19-20
Acetone	50	***320*** E	***230***	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	ND	7
Chloroform	370	ND	ND	2 J	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	4 J	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	4 J	ND	ND	ND	ND
Xylenes (total)	260	ND	150	ND	ND	ND	ND
Isopropylbenzene	NC	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	2,500 D	750 D	4 J	ND	ND	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	180	72	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	51	420 D	3 J	ND	ND	ND
sec-Butylbenzene	11,000	72	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	93	450 E	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	270 E	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	330 DJ	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	140	620 D	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	4 J	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	154	0	0	0	0
Total VOCs	<10,000	3,960	2,700	9	0	0	7
Total VOC TICs	NC	27,430 J	19,190 J	7,369 J	64 J	28,400 J	62 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-12	SMS-12	SMS-12	SMS-12	SMS-12	SMS-12
Sample ID	Unre-	SMS121920	SMS-12 19-20	B12235245	B12235245	SB12235245	SMS12235245
Laboratory ID	strictive	G2173-03A	H1787-11	E0901-14B	F0378-02A	G0076-08A	G2173-11A
Sample Date	Soil	11/18/08	9/15/09	6/28/06	3/22/07	1/16/08	11/18/08
Sample Depth (ft bgs)	Objective	19-20	19-20	23.5-24.5	23.5-24.5	23.5-24.5	23.5-24.5
Acetone	50	ND	ND	***3,500*** E	ND	20 J	***58***
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	93	11
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	550	ND
Xylenes (total)	260	ND	ND	***3,800*** D	ND	***3,600***	8
Isopropylbenzene	NC	ND	ND	ND	ND	2,100	200
n-Propylbenzene	3,900	ND	ND	***7,000*** D	ND	2,800 D	400 D
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	***50,000*** D	260	***19,000*** D	3,200 D
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	1,800 DJ	ND	610	130
1,2,4-Trimethylbenzene	3,600	ND	ND	***55,000*** D	ND	***30,000*** D	***4,400*** D
sec-Butylbenzene	11,000	ND	ND	4,400 D	ND	1,600	330 JD
4-Isopropyltoluene	NC	ND	ND	360 E	84	3,400 D	780 D
1,3-Dichlorobenzene	2,400	ND	ND	210	ND	1100	190
1,4-Dichlorobenzene	1,800	ND	ND	320 E	ND	***2,000***	300 JD
n-Butylbenzene	12,000	ND	ND	***18,000*** D	ND	9,000 D	1,200 D
1,2 Dichlorobenzene	1,100	ND	ND	98	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	450	ND
1,2,4-Trichlorobenzene	NC	ND	ND	2 J	ND	20 J	ND
Naphthalene	12,000	ND	ND	3 J	ND	720	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	3,800	0	4,243	19
Total VOCs	<10,000	0	0	***144,493***	344	***77,063***	***11,207***
Total VOC TICs	NC	1,076 NJ	0	24,647 J	11,180 J	122,200 J	74,700 NJ

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-12	SMS-12	SMS-12	SMS-12	SMS-12	SMS-12
Sample ID	Unre-	SMS 12 23.5-24.5	SB122930	B122930	SB122930	SMS122930	SMS 12 29-30
Laboratory ID	strictive	H1787-12	E0901-15B	F0378-03A	G0076-09A	G2173-12A	H1787-10
Sample Date	Soil	9/15/09	6/28/06	3/22/07	1/16/08	11/18/08	9/15/09
Sample Depth (ft bgs)	Objective	23.5-24.5	29-30	29-30	29-30	29-30	29-30
Acetone	50	ND	ND	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	11	ND
2-Butanone	120	ND	ND	ND	25	ND	ND
Chloroform	370	ND	3 J	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	4 J	ND	ND
1,1,2-Trichloroethane	NC	3,700	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NC	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	3 J	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	44	ND	ND	ND	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	260 J	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	310 J	72	ND	1 J	ND	ND
sec-Butylbenzene	11,000	220 J	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	40	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	150 J	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	1,100	240	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	4 J	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	4	0	0
Total VOCs	<10,000	5,740	406	0	30	11	0
Total VOC TICs	NC	189,000 NJ	1,182 J	ND	7 J	0	315 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-12B	SMS-12B	SMS-12B	SMS-12B	SMS-12B	SMS-12B
Sample ID	Unre-	B12B1920	SB12B1920	SMS12B1920	SMS-12B 19-20	B12B235245	SB12B235245
Laboratory ID	strictive	F0378-04A	G0076-10A	G2173-04A	H1787-08	F0378-05A	G0076-11A
Sample Date	Soil	3/22/07	1/16/08	11/18/08	9/15/09	3/22/07	1/16/08
Sample Depth (ft bgs)	Objective	19-20	19-20	19-20	19-20	23.5-24.5	23.5-24.5
Acetone	50	ND	ND	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	77
Bromodichloromethane	NC	ND	ND	ND	ND	ND	250
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	16,000 E
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	***1,200***	52 J
Isopropylbenzene	NC	ND	ND	ND	ND	2,300 D	300
n-Propylbenzene	3,900	ND	ND	ND	ND	***4,600*** D	720
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	ND	***32,000*** D	3,100 D
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	21 J
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	360
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	ND	***51,000*** D	3,300 D
sec-Butylbenzene	11,000	ND	ND	ND	ND	3,400 D	900
4-Isopropyltoluene	NC	ND	ND	ND	ND	4,700 D	1,600
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	120
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	100
n-Butylbenzene	12,000	ND	ND	ND	ND	***15,000*** D	2,400 D
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	460
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	ND	160	71
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	0	1,200	52
Total VOCs	<10,000	0	0	0	0	***114,360***	***29,831***
Total VOC TICs	NC	ND	8 J	44.1	0	37,700 J	20,000 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-12B	SMS-12B	SMS-12B	SMS-12B	SMS-12B	SMS-12B
Sample ID	Unre-	SMS12B235245	SMS12B 23.5-24.5	B12B2930	SB12B2930	SMS12B2930	SMS12B 29-30
Laboratory ID	strictive	G2173-13A	H1787-09	F0378-06A	G0076-12A	G2173-14A	H1787-10
Sample Date	Soil	11/18/08	9/15/09	3/22/07	1/16/08	11/18/08	9/15/09
Sample Depth (ft bgs)	Objective	23.5-24.5	23.5-24.5	29-30	29-30	29-30	29-30
Acetone	50	***81***	ND	ND	ND	ND	ND
Carbon Disulfide*	NC	4.9	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	13	ND
2-Butanone	120	ND	ND	ND	8	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	2 J	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NC	32	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	130	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	4,300 D	ND	ND	2 J	ND	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	120	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	2,200 D	ND	ND	1 J	ND	ND
sec-Butylbenzene	11,000	170	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	900 D	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	1,700 D	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	1.9 J	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	2	0	0
Total VOCs	<10,000	9,639.8	0	0	13	13	0
Total VOC TICs	NC	73,900 NJ	222,000 NJ	ND	346 J	0	0

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-15	SMS-15	SMS-15	SMS-16	SMS-16	SMS-16
Sample ID	Unre-	B15165175	B152223	B152728	B16165175	SB161920	B161920
Laboratory ID	strictive	E0901-19B	E0901-20B	E0901-22B	E0901-16B	E0901-21B	F0378-11A
Sample Date	Soil	6/28/06	6/28/06	6/28/06	6/29/06	6/29/06	3/22/07
Sample Depth (ft bgs)	Objective	16.5-17.5	22-23	27-28	16.5-17.5	19-20	19-20
Acetone	50	ND	ND	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	ND	ND
Chloroform	370	ND	ND	ND	2 J	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	26 J
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NC	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	4 J	ND	70
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	6	ND	51 J
sec-Butylbenzene	11,000	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	ND	ND	ND	7	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	4 JB	3 JB	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	0	0	0
Total VOCs	<10,000	4	3	0	19	0	147
Total VOC TICs	NC	ND	ND	ND	163 J	ND	42,000 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-16	SMS-16	SMS-16	SMS-16	SMS-16	SMS-16
Sample ID	Unre-	SB161920	SMS-16 19-20	SMS-16 19-20	SB1622.523.5	B16235245	SB16235245
Laboratory ID	strictive	G0076-04A	G2173-05A	H1787-04	E0901-17B	F0378-12A	G0076-05A
Sample Date	Soil	1/16/08	11/18/08	9/15/09	6/29/06	3/22/07	1/16/08
Sample Depth (ft bgs)	Objective	19-20	19-20	19-20	22.5-23.5	23.5-24.5	23.5-24.5
Acetone	50	ND	4.3 J	ND	***960***	47	***690***
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	7	ND	ND	ND	ND	***370***
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	300 J
Toluene	700	1 J	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	20,000 E
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	***2,100*** E	ND	570
Xylenes (total)	260	ND	ND	ND	***13,000*** D	ND	***4,500***
Isopropylbenzene	NC	ND	ND	ND	1,400 DJ	ND	660
n-Propylbenzene	3,900	ND	ND	ND	1,200 E	ND	1,200
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	93 J
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	***24,000*** D	120	***17,000*** D
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	660
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	***32,000*** D	55	***15,000*** D
sec-Butylbenzene	11,000	ND	ND	ND	1,000	ND	1,300
4-Isopropyltoluene	NC	ND	ND	ND	ND	ND	2,200
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	1,800 E	ND	***2,600***
n-Butylbenzene	12,000	ND	ND	ND	1,700 E	ND	5,700
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	130	ND	2,100
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	1	0	0	15,100	0	5,070
Total VOCs	<10,000	8	4.3	0	***79,290***	222	***74,943***
Total VOC TICs	NC	7 J	276 J	0	35,950 J	33,300 J	171,200 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-16	SMS-16	SMS-16	SMS-16	SMS-16	SMS-16
Sample ID	Unre-	16 23.5-24.5	16 23.5-24.5	SB162930	B162930	SB162930	16 29-30
Laboratory ID	strictive	G2173-16A	H1787-05	E0901-18B	F0378-13A	G0076-06A	G2173-17A
Sample Date	Soil	11/18/08	9/15/09	6/29/06	3/22/07	1/16/08	11/18/08
Sample Depth (ft bgs)	Objective	23.5-24.5	23.5-24.5	29-30	29-30	29-30	29-30
Acetone	50	ND	ND	ND	ND	ND	7.8
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	16	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NC	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	3.3 J	ND	ND	ND	ND	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	2.2 J	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	ND	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	0	0	0
Total VOCs	<10,000	5.5	0	0	0	16	7.8
Total VOC TICs	NC	472 NJ	254,900 NJ	ND	ND	114 J	264 NJ

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
All units in µg/kg
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-16	SMS-16B	SMS-16B	SMS-16B	SMS-16B	SMS-16B
Sample ID	Unre-	16 29-30	B16B1920	SB16B1920	SMS16B19-20	SMS16B19-20	B16B225235
Laboratory ID	strictive	H1787-07	F0378-07A	G0076-01A	G2173-06A	H1787-01	F0378-08A
Sample Date	Soil	9/15/09	3/22/07	1/16/08	11/18/08	9/15/09	3/22/07
Sample Depth (ft bgs)	Objective	29-30	19-20	19-20	19-20	19-20	22.5-23.5
Acetone	50	ND	ND	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	12	ND	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	ND	50 J
Isopropylbenzene	NC	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	ND	ND	480
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	ND	ND	300
sec-Butylbenzene	11,000	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	ND	ND	ND	ND	120
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	ND	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	0	0	50
Total VOCs	<10,000	0	0	12	0	0	950
Total VOC TICs	NC	12.5 NJ	8,120 J	5 J	0	3,130 J	104,500 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-16B	SMS-16B	SMS-16B	SMS-16B	SMS-16B	SMS-16B
Sample ID	Unre-	SB16B225235	16B 23.5-24.5	16B 23.5-24.5	B16B2930	SB16B2930	16B 29-30
Laboratory ID	strictive	G0076-02A	G2173-18A	H1787-02	F0378-09A	G0076-03A	G2173-19A
Sample Date	Soil	1/16/08	11/18/08	9/15/09	3/22/07	1/16/08	11/18/08
Sample Depth (ft bgs)	Objective	22.5-23.5	23.5-24.5	23.5-24.5	29-30	29-30	29-30
Acetone	50	ND	***78***	ND	ND	ND	2.9 J
Carbon Disulfide*	NC	ND	3.8 J	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	33 J	ND	ND	ND	18	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	30 J	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	27 J	9.9	ND	ND	2 J	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	45 J	59	ND	ND	ND	ND
Xylenes (total)	260	***380***	***310***	ND	ND	ND	ND
Isopropylbenzene	NC	85	110	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	190	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	***8,700*** D	4,700 D	ND	ND	ND	3.6 J
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	240	90	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	1,100	3,400 D	ND	ND	ND	2.9 J
sec-Butylbenzene	11,000	250	71	690 J	ND	ND	ND
4-Isopropyltoluene	NC	750	190	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	300	380 D	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	680	570 D	ND	ND	ND	ND
n-Butylbenzene	12,000	1,200	170	3,700	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	110	6.3 J	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	452	379	0	0	2	0
Total VOCs	<10,000	***13,930***	***10,338***	4,390	0	20	9.4
Total VOC TICs	NC	195,000 J	5,780 NJ	745,000 NJ	ND	857 J	321

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	SMS-16B	SMS-21	SMS-21	SMS-21	DW	DW
Sample ID	Unre-	16B 29-30	B211920	B212223	B212930	DW-1920	DW-1920
Laboratory ID	strictive	H1787-03	E0901-06B	E0901-07B	E0901-09B	E0901-01B	F0378-15A
Sample Date	Soil	9/15/09	6/28/06	6/28/06	6/28/06	6/28/06	3/23/07
Sample Depth (ft bgs)	Objective	29-30	19-20	22-23	29-30	19-20	19-20
Acetone	50	ND	ND	***110***	ND	***66***	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	ND	ND
Chloroform	370	ND	2 J	ND	ND	18 J	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	6	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	37	ND
Ethylbenzene	1,000	ND	ND	ND	ND	400	ND
Xylenes (total)	260	ND	3 J	ND	ND	***20,000*** D	ND
Isopropylbenzene	NC	ND	ND	ND	ND	210	ND
n-Propylbenzene	3,900	ND	ND	140	ND	280	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	300 DJ	ND	***34,000*** D	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	170 DJ	ND	***22,000*** D	ND
sec-Butylbenzene	11,000	ND	ND	190	ND	300	ND
4-Isopropyltoluene	NC	ND	ND	360 E	ND	1,000	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	***8,700*** D	ND
1,4-Dichlorobenzene	1,800	ND	3 J	ND	ND	***41,000*** D	ND
n-Butylbenzene	12,000	ND	ND	490 D	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	10,000 D	ND
Naphthalene	12,000	ND	ND	ND	ND	1,900 D	18 J
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	330	ND
Total BTEX	NC	0	3	6	0	20,400	0
Total VOCs	<10,000	0	8	1,766	0	***140,241***	18
Total VOC TICs	NC	149.8 NJ	ND	21,130 J	ND	63,300 J	2,270 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	DW	DW	DW	DW	DW	DW
Sample ID	Unre-	DW-1920	DW 19-20	DW 19-20	DW215225	DW-2425	DW-2425
Laboratory ID	strictive	G0076-17A	G2173-01A	H1787-15	E0901-03B	E0901-04B	F0378-16A
Sample Date	Soil	1/17/08	11/19/08	9/16/09	6/28/06	6/28/06	3/23/07
Sample Depth (ft bgs)	Objective	19-20	19-20	19-20	21.5-22.5	24-25	24-25
Acetone	50	ND	ND	ND	***70***	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	ND	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	2 J	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	8	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	130	***3,700***	ND
Xylenes (total)	260	ND	ND	ND	***3400*** D	***33,000***	ND
Isopropylbenzene	NC	ND	ND	ND	130	1,900	ND
n-Propylbenzene	3,900	ND	ND	ND	93	2,400	ND
2-Chlorotoluene	NC	ND	ND	ND	72	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	***9700*** D	***17,000***	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	600 J	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	***7800*** D	***30,000***	ND
sec-Butylbenzene	11,000	ND	ND	ND	100	1,800	ND
4-Isopropyltoluene	NC	ND	ND	ND	170	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	140	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	***4600*** D	***3,900***	ND
n-Butylbenzene	12,000	ND	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	69	1,800	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	3,538	36,700	0
Total VOCs	<10,000	0	0	0	***26,484***	***96,100***	0
Total VOC TICs	NC	83 J	0	348.8 J	17,426 J	950,800 J	474 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	DW	DW	DW	DW	DW	DW
Sample ID	Unre-	DW-2425	DW-23.5-24.5	DW-23.5-24.5	DW-2930	DW-2930	DW 29-30
Laboratory ID	strictive	G0076-18A	G2173-07A	H1787-16	F0378-17A	G0076-19A	G2173-08A
Sample Date	Soil	1/17/08	11/19/08	9/16/09	3/23/07	1/17/08	11/19/08
Sample Depth (ft bgs)	Objective	24-25	23.5-24.5	23.5-24.5	29-30	29-30	29-30
Acetone	50	ND	30	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	13
2-Butanone	120	ND	ND	ND	ND	8	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	2 J	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	56 J	ND	ND	ND	ND	ND
Xylenes (total)	260	***630***	27	ND	ND	ND	ND
Isopropylbenzene	NC	60	15 J	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	2,000	4,500 D	1,300	ND	ND	ND
4-Chlorotoluene	NC	94	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	100	240	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	1,100	130	160 J	2 J	ND	ND
sec-Butylbenzene	11,000	200	52	ND	ND	ND	ND
4-Isopropyltoluene	NC	410	220	140 J	ND	ND	ND
1,3-Dichlorobenzene	2,400	ND	270	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	440	***1,900 D***	ND	ND	ND	ND
n-Butylbenzene	12,000	990	ND	670	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	86	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	71 B	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	686	27	0	0	2	0
Total VOCs	<10,000	6,237	7,384	2,270	2	10	13
Total VOC TICs	NC	96,300 J	83,500 NJ	203,300 NJ	159 J	ND	ND

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	DW	DW	DWB	DWB	DWB	DWB
Sample ID	Unre-	DW 29-30	DW-3031	DWB-1920	DWB-1920	DWB 19-20	DWB 19-20
Laboratory ID	strictive	H1787-17	E0901-05B	F0378-18A	G0076-14A	G2137-02A	H1787-18
Sample Date	Soil	9/16/09	6/28/06	3/23/07	1/17/08	11/19/08	9/16/09
Sample Depth (ft bgs)	Objective	29-30	30-31	19-20	19-20	19-20	19-20
Acetone	50	ND	ND	ND	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	ND	ND	3 J	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	ND	ND	ND	ND	ND	ND
Xylenes (total)	260	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NC	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NC	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	ND	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	0	0	0	0	0	0
Total VOCs	<10,000	0	0	0	3	0	0
Total VOC TICs	NC	ND	ND	1,179 J	39 J	0	0

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	DWB	DWB	DWB	DWB	DWB	DWB
Sample ID	Unre-	DWB-2425	DWB-2425	DWB 23.5-24.5	DWB 23.5-24.5	DWB-2930	DWB-2930
Laboratory ID	strictive	F0378-19A	G0076-15A	G2173-09A	H1787-19	F0378-20A	G0076-16A
Sample Date	Soil	3/23/07	1/17/08	11/19/08	9/16/09	3/23/07	1/17/08
Sample Depth (ft bgs)	Objective	24-25	24-25	23.5 - 24.5	23.5 - 24.5	29-30	29-30
Acetone	50	ND	3 J	***67***	ND	ND	ND
Carbon Disulfide*	NC	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND	ND
2-Butanone	120	ND	6	ND	ND	ND	ND
Chloroform	370	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND
Trichloroethene	470	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND	1 J	ND	ND	ND	4 J
Bromodichloromethane	NC	ND	ND	ND	ND	ND	ND
Toluene	700	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,100	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	***3,100*** D	ND	ND	ND	ND	ND
Xylenes (total)	260	***23,000*** D	9	22	ND	ND	ND
Isopropylbenzene	NC	5,200 D	1 J	33	ND	ND	ND
n-Propylbenzene	3,900	***10,000*** D	ND	48	ND	ND	ND
2-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	***41,000*** D	75	4,400 D	150 J	ND	ND
4-Chlorotoluene	NC	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5,900	ND	3 J	54	330 J	ND	ND
1,2,4-Trimethylbenzene	3,600	***73,000*** D	76	***4,300*** D	ND	ND	ND
sec-Butylbenzene	11,000	2,200 E	5 J	83	1,600	ND	ND
4-Isopropyltoluene	NC	4,700 D	13	240	2,400	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND	33	ND	ND	ND
1,4-Dichlorobenzene	1,800	1,400	5 J	90	ND	ND	ND
n-Butylbenzene	12,000	***17,000*** D	29	270	4,400	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	940	3 JB	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND	ND	ND	ND	ND
Total BTEX	NC	26,100	9	22	0	0	0
Total VOCs	<10,000	***181,540***	229	9,640	8,880	0	4
Total VOC TICs	NC	9,660 J	7,080 J	9,430 NJ	458,000 NJ	51 J	7 J

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (Sept 2009)
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

TABLE 5
MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026)
PHOSTER SYSTEM SOIL SAMPLING
VOLATILE ORGANIC COMPOUNDS, DETECTIONS ONLY
COMPARISON OF JUNE 2006, MARCH 2007, JANUARY 2008, NOVEMBER 2008 and SEPTEMBER 2009 DATA

Sample Location	NYSDEC	DWB	DWB
Sample ID	Unre-	DWB 29-30	DWB 29-30
Laboratory ID	strictive	G2173-10A	H1787-20
Sample Date	Soil	11/19/08	9/16/09
Sample Depth (ft bgs)	Objective	29-30	29-30
Acetone	50	ND	ND
Carbon Disulfide*	NC	ND	ND
Methylene Chloride	50	12	ND
2-Butanone	120	ND	ND
Chloroform	370	ND	ND
1,1,1-Trichloroethane	680	ND	ND
Trichloroethene	470	ND	ND
1,2-Dichloropropane	NC	ND	ND
Bromodichloromethane	NC	ND	ND
Toluene	700	ND	ND
1,1,2-Trichloroethane	NC	ND	ND
Chlorobenzene	1,100	ND	ND
Ethylbenzene	1,000	ND	ND
Xylenes (total)	260	ND	ND
Isopropylbenzene	NC	ND	ND
n-Propylbenzene	3,900	ND	ND
2-Chlorotoluene	NC	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND
4-Chlorotoluene	NC	ND	ND
tert-Butylbenzene	5,900	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND
sec-Butylbenzene	11,000	ND	ND
4-Isopropyltoluene	NC	ND	ND
1,3-Dichlorobenzene	2,400	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND
n-Butylbenzene	12,000	ND	ND
1,2 Dichlorobenzene	1,100	ND	ND
1,2-Dibromo-3-chloropropane	NC	ND	ND
1,2,4-Trichlorobenzene	NC	ND	ND
Naphthalene	12,000	ND	ND
1,2,3-Trichlorobenzene	NC	ND	ND
Total BTEX	NC	0	0
Total VOCs	<10,000	12	0
Total VOC TICs	NC	0	0

Notes:
All units in µg/kg
Shaded columns are the latest sampling sampling data (S
Soil cleanup objectives taken from 6 NYCRR Part 375-6.8(a)
NC - No Soil Cleanup Objective
BOLD/ITALICS - exceeds the unrestricted Soil Cleanup Objective
J - Estimated value
E - Result exceeds the calibration range, estimated value
D - Diluted sample
Data validation has NOT been performed on this data

APPENDIX A

SOIL BORING LOGS
SEPTEMBER 2009 SOIL BORING EVENT

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: DW

PROJECT: SMS Instruments			PAGE 1 OF 2	
PROJECT No.: 95900	CONTRACTOR: LAWES		DATE:	9/16/09
LOCATION: Deer Park, NY	DRILLERS NAME:	Ernesto	ET REP.:	SC
WATER LEVELS	DESIGNATION OF DRILL RIG:	Geoprobe 66 DT		
DATE / TIME / DEPTH	SIZE AND TYPE OF EQUIPMENT:			
	REFERENCE ELEVATION:	DEPTH OF BOREHOLE:	30	
	THICKNESS OF OVERBURDEN:	DISPOSITION OF BOREHOLE:	grouted	

LABORATORY ANALYSES: VOCs, methanotrophs

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1		4.0	0.0	Asphalt, coarse gravel with coarse brown red sand
2			0	
3				
4			0	
5		0		
6			0	Coarse brown sand with gravel
7			0	
8			0	
9			0	Coarse light tan brown sand with gravel
10				
11		0.0	0.0	
12		3.0		
13			0.0	Medium, coarse sand with black/grey mottles with round gravel
14			0	
15				
16		0		
17				Coarse light tan sand
18		2.0	3.2	Light tan sand with rounded gravel
19			8.2	Dark grey coarse sand, slightly moist
20	09:00		100	**Collect sample DW-19-20**

Earth Tech | AECOM **DIRECT PUSH BORING LOG** **Boring No.: DW**

PROJECT: SMS Instruments

PROJECT No.: 95900 PAGE 2 OF 2

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
20				
21				
22			141	Light grey coarse sand with some rounded gravel with slight odor
23				Fine rounded gravel with light tan coarse sand
24	09:10		95	**Collect sample DW-23.5-24.5**
25			312	
26			1.2	Coarse light tan sand with some rounded gravel
27			1.7	
28			1.6	
29			1.6	Coarse reddish brown/grey gravel with coarse sand
30	09:15			**Collect sample DW-29-30**
31				End of boring
42				
33				
34				
35				
36				
37				
38				
39				
40				

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: DW B

PROJECT: SMS Instruments				PAGE 1 OF	2
PROJECT No.: 95900		CONTRACTOR: LAWES		DATE:	9/16/2009
LOCATION: Deer Park, NY		DRILLERS NAME:	Ernesto	ET REP.:	SC
WATER LEVELS		DESIGNATION OF DRILL RIG:	Geoprobe 66 DT		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT:		
			REFERENCE ELEVATION:	DEPTH OF BOREHOLE:	30
			THICKNESS OF OVERBURDEN:	DISPOSITION OF BOREHOLE:	

LABORATORY ANALYSES: VOCs, methanotrophs

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1			0	Dark brown/black coarse sand
2			0	Light brown medium sand with rounded gravel
3				Light tan medium sand with rounded gravel
4			0	
5				
6			0	
7				
8			0	Coarse pale tan sand with rounded gravel
9			0	
10			1	Reddish coarse sand with reddish rounded gravel
11		0		
12		4	0	Coarse tan sand with angular gravel
13				Light rounded gravel with traces of coarse sand
14			0	Coarse tan sand with rounded and angular gravel
15			0.0	
16		0		
17			0	Light grey saturated coarse sand with rounded gravel with red mottles
18			0	
19			0	
20	09:45		0	Saturated rounded gravel with coarse sand **collect sample DWB19-20**

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: DW B

PROJECT: SMS Instruments

PROJECT No.: 95900

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
20				
21		0		
22		4.0	115	Saturated dark grey coarse sand with gravel
23			321	Gravel with coarse and medium grey sand
24	09:55		500	Light grey coarse sand with gravel **collect sample DWB 23.5-24.5**
25			623	
26			0 1.7	
27			0	Coarse tan sand with rounded and angular gravel
28			1	
29			0	Coarse tan sand with large rounded gravel
30	10:05			**collect sample DWB 29-30**
31				End of boring
42				
33				
34				
35				
36				
37				
38				
39				
40				

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-12

PROJECT: SMS Instruments				PAGE 1 OF	2
PROJECT No.: 95900		CONTRACTOR: LAWES		DATE:	9/15/09
LOCATION: Deer Park, NY		DRILLERS NAME:	Ernesto	ET REP.:	SC
WATER LEVELS		DESIGNATION OF DRILL RIG:	Geoprobe 66 DT		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT:		
			REFERENCE ELEVATION:	DEPTH OF BOREHOLE:	30
			THICKNESS OF OVERBURDEN:	DISPOSITION OF BOREHOLE:	
LABORATORY ANALYSES: VOCs, methanotrophs					

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1		0	0	Asphalt angular large gravel, coarse medium brown sand
2			0	
3			0	Medium and coarse tan sand
4				
5		0		Medium reddish brown sand and rounded gravel
6			0	Medium, coarse tan sand with rounded angular gravel
7				
8				
9			0	
10		0		
11			0.0	
12			0.0	Pale tan/white medium and fine sand with medium rounded gravel
13			0	
14				
15			1.8	
16		0		
17			0	Pale tan coarse sand with rounded gravel with reddish mottles
18			2.7	
19			12	Saturated grey coarse sand with mixed gravel
20	13:20			**Collect sample SB12-19-20**

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-12

PROJECT: SMS Instruments

PROJECT No.: 95900

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
20				
21		0	34.0	
22			131	Medium coarse grey sand with gravel, saturated, black stain
23			151	Strong odor
24			210.0	Large grey gravel with coarse sand
25	13:35			**Collect sample SB12-23.5-24.5**
26			45.0	Saturated mixed sand with large angular gravel, light tan
27			1.9	
28			0	
29			0.0	**Collect sample SB12-29-30**
30	13:45			**Collect sample MS/MSD**
31				End of boring
42				
33				
34				
35				
36				
37				
38				
39				
40				

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-12 B

PROJECT: SMS Instruments				PAGE 1 OF	2
PROJECT No.: 95900		CONTRACTOR: LAWES		DATE:	9/15/09
LOCATION: Deer Park, NY		DRILLERS NAME:	Ernesto	ET REP.:	SC
WATER LEVELS		DESIGNATION OF DRILL RIG:	Geoprobe 66 DT		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT:		
			REFERENCE ELEVATION:	DEPTH OF BOREHOLE:	30
			THICKNESS OF OVERBURDEN:	DISPOSITION OF BOREHOLE:	
LABORATORY ANALYSES: VOCs, methanotrophs					

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1		5.0	0	Asphalt, large gravel with coarse dark brown sand
2				
3				
4				
5			0	
6				
7			0	Medium and coarse tan sand with large rounded gravel
8			0	
9			0.0	
10				
11			2.2	
12			11	Coarse pale tan sand with rounded gravel and reddish grey
13			25	Light tan coarse sand with rounded gravel
14				
15				
16		0	12.0	Coarse tan gravel with coarse sand
17		3.5		
18			7.5	
19			10.0	Gravel with coarse tan sand, saturated
20	11:50			**collect sample SB-12B-19-20**

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-12 B

PROJECT: SMS Instruments

PROJECT No.: 95900

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
20				
21		0		
22			112.0	Coarse grey fine sand with rounded gravel, with black stain and odor
23			201	
24			421.0	Rounded gravel, coarse sand, stained with odor
25	12:05			**collect sample SB-12B-23.5-24.5**
26			77	Saturated coarse tan sand with gravel
27			23.0	
28			1.5	
29			0	
30	12:10			**collect sample SB-12B-29-30**
31				End of boring
42				
33				
34				
35				
36				
37				
38				
39				
40				

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-16

PROJECT: SMS Instruments				PAGE 1 OF 2	
PROJECT No.: 95900		CONTRACTOR: LAWES		DATE:	9/15/09
LOCATION: Deer Park, NY		DRILLERS NAME:	Ernesto	ET REP.:	SC
WATER LEVELS		DESIGNATION OF DRILL RIG:	Geoprobe 66 DT		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT:		
			REFERENCE ELEVATION:	DEPTH OF BOREHOLE:	30
			THICKNESS OF OVERBURDEN:	DISPOSITION OF BOREHOLE:	
LABORATORY ANALYSES: VOCs, methanotrophs					

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1			0	Asphalt, gravel and dark brown coarse sand
2				
3				
4				
5		0		
6			0	Coarse light tan sand with angular gravel
7			0	
8			5	Reddish brown coarse sand with large angular and rounded gravel
9			1	Light grey coarse sand with angular gravel
10				
11				
12			8	Coarse pale tan sand with large rounded gravel
13			5 2	
14			0.0	
15		0		
16				
17				
18			2	Coarse pale tan sand with large rounded gravel
19			1.0	Coarse grey sand with large rounded gravel
20	11:00		1	**collect sample SB-16-19-20**

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-16

PROJECT: SMS Instruments

PROJECT No.: 95900

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
20				
21			100	
22		0.0		Stain and strong odor observed
23			78	Coarse light tan sand with small angular rounded gravel
24		1.5	55	**Collect sample SB-16-23.5-24.5**
25	11:10			**Collect duplicate sample SB-56**
26				Coarse light tan sand with small angular rounded gravel
27			7	
28			8.0	
29				**collect sample SB-16-29-30**
30	11:30	0.5	0.0	Large to medium rounded gravel with some coarse tan sand
31				End of boring
42				
33				
34				
35				
36				
37				
38				
39				
40				

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-16 B

PROJECT: SMS Instruments				PAGE 1 OF 3	
PROJECT No.: 95900		CONTRACTOR: LAWES		DATE:	9/15/09
LOCATION: Deer Park, NY		DRILLERS NAME:	Ernesto	ET REP.:	SC
WATER LEVELS		DESIGNATION OF DRILL RIG:	Geoprobe 66DT DT		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT:		
			REFERENCE ELEVATION:	DEPTH OF BOREHOLE:	30
			THICKNESS OF OVERBURDEN:	DISPOSITION OF BOREHOLE:	
LABORATORY ANALYSES: VOCs, methanotrophs					

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1				Asphalt, angular gravel with dark brown medium and coarse sand
2			0	
3				
4			0	
5			0	Coarse grey light tan sand with some rounded gravel
6			0	
7			0	
8				
9			0	Rounded/angular gravel with coarse tan sand
10				
11			0.7	
12				Angular coarse gravel with coarse tan sand
13			0	
14			0	Area of reddish grey with tan coarse sand and gravel
15				
16				Coarse tan sand with angular gravel
17		0.0		
18			1.7	Mottled reddish and black coarse sand and gravel
19			0	Greyish tan sand with large gravel, saturated
20	09:30		0	**collect sample SB-16B-19-20**

Earth Tech | AECOM

DIRECT PUSH BORING LOG

Boring No.: SB-16 B

PROJECT: SMS Instruments

PROJECT No.: 95900

Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
20				
		0		
21			329	Coarse black sand, saturated, with black stains
22			675	Coarse dark grey sand, with stains and strong odor
23	09:45		235	
24			150	**collect sample SB-16B-23.5-24.5**
25			78	Coarse rounded gravel tan with some coarse tan gravel
26				
27			2	Coarse tan gravel
28			1.7	Coarse tan saturated sand with some rounded gravel
29			0.6	
30	10:00		0.3	**collect sample SB-16B-29-30**
				End of boring
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

APPENDIX B

LABORATORY DATA PACKAGE (FORM 1s)
SEPTEMBER 2009 SAMPLING EVENT

MITKEM LABORATORIES

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

September 30, 2009

Earth Tech – AECOM
300 Broadacres Drive
Bloomfield, NJ 07003
Attn: Mr. Paul Kareth

RE: Client Project: SMS Instruments
Lab Work Order #: H1787

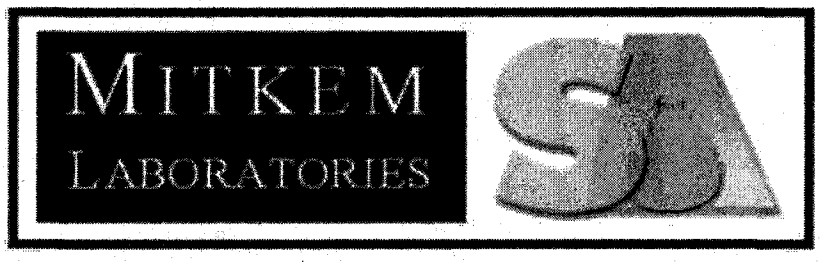
Dear Mr. Kareth:

Enclosed please find the data report of the required analyses for the samples associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

Shirley Ng
Project Manager



* Data Summary Pack *

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Identification and Analytical Requirements Summary

Project Name : SMS Instruments, 152026 **SDG :** H1787

Customer Sample ID	Laboratory Sample ID	Analytical Requirements				
		MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other
SB16B19-20	H1787-01	SW8260_LOW_S				
SB16B23.5-24.5	H1787-02	SW8260_MED_S				
SB16B29-30	H1787-03	SW8260_LOW_S				
SB16 19-20	H1787-04	SW8260_LOW_S				
SB16 23.5-24.5	H1787-05	SW8260_MED_S				
SB56	H1787-06	SW8260_MED_S				
SB16 29-30	H1787-07	SW8260_LOW_S				
SB12B19-20	H1787-08	SW8260_LOW_S				
SB12B23.5-24.5	H1787-09	SW8260_MED_S				
SB12B29-30	H1787-10	SW8260_LOW_S				
SB12-19-20	H1787-11	SW8260_LOW_S				
SB12-23.5-24.5	H1787-12	SW8260_MED_S				
SB12-29-30	H1787-13	SW8260_LOW_S				
FB091609	H1787-14	SW8260_W				
DW19-20	H1787-15	SW8260_LOW_S				
DW23.5-24.5	H1787-16	SW8260_MED_S				
DW29-30	H1787-17	SW8260_LOW_S				
DWB19-20	H1787-18	SW8260_LOW_S				
DWB23.5-24.5	H1787-19	SW8260_MED_S				
DWB-29-30	H1787-20	SW8260_LOW_S				

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : SMS Instruments, 152026 **SDG :** H1787

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8260_LOW_S					
H1787-01A	SL	9/15/2009	9/17/2009	NA	9/22/2009
H1787-03A	SL	9/15/2009	9/17/2009	NA	9/20/2009
H1787-04A	SL	9/15/2009	9/17/2009	NA	9/20/2009
H1787-07A	SL	9/15/2009	9/17/2009	NA	9/20/2009
H1787-08A	SL	9/15/2009	9/17/2009	NA	9/20/2009
H1787-10A	SL	9/15/2009	9/17/2009	NA	9/20/2009
H1787-11A	SL	9/15/2009	9/17/2009	NA	9/20/2009
H1787-13A	SL	9/15/2009	9/17/2009	NA	9/22/2009
H1787-13AMS	SL	9/15/2009	9/17/2009	NA	9/29/2009
H1787-13AMSD	SL	9/15/2009	9/17/2009	NA	9/29/2009
H1787-15A	SL	9/16/2009	9/17/2009	NA	9/20/2009
H1787-17A	SL	9/16/2009	9/17/2009	NA	9/20/2009
H1787-18A	SL	9/16/2009	9/17/2009	NA	9/20/2009
H1787-20A	SL	9/16/2009	9/17/2009	NA	9/20/2009
SW8260_MED_S					
H1787-02A	SL	9/15/2009	9/17/2009	9/24/2009	9/24/2009
H1787-05A	SL	9/15/2009	9/17/2009	9/24/2009	9/24/2009
H1787-06A	SL	9/15/2009	9/17/2009	9/24/2009	9/24/2009
H1787-09A	SL	9/15/2009	9/17/2009	9/24/2009	9/24/2009
H1787-12A	SL	9/15/2009	9/17/2009	9/24/2009	9/24/2009
H1787-16A	SL	9/16/2009	9/17/2009	9/24/2009	9/24/2009
H1787-19A	SL	9/16/2009	9/17/2009	9/26/2009	9/26/2009
SW8260_W					
H1787-14A	AQ	9/16/2009	9/17/2009	NA	9/25/2009

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : SMS Instruments, 152026 **SDG :** H1787

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
SW8260_LOW_S					
H1787-01A	SL	SW8260_LOW_S	NA	LOW	1
H1787-03A	SL	SW8260_LOW_S	NA	LOW	1
H1787-04A	SL	SW8260_LOW_S	NA	LOW	1
H1787-07A	SL	SW8260_LOW_S	NA	LOW	1
H1787-08A	SL	SW8260_LOW_S	NA	LOW	1
H1787-10A	SL	SW8260_LOW_S	NA	LOW	1
H1787-11A	SL	SW8260_LOW_S	NA	LOW	1
H1787-13A	SL	SW8260_LOW_S	NA	LOW	1
H1787-13AMS	SL	SW8260_LOW_S	NA	LOW	1
H1787-13AMSD	SL	SW8260_LOW_S	NA	LOW	1
H1787-15A	SL	SW8260_LOW_S	NA	LOW	1
H1787-17A	SL	SW8260_LOW_S	NA	LOW	1
H1787-18A	SL	SW8260_LOW_S	NA	LOW	1
H1787-20A	SL	SW8260_LOW_S	NA	LOW	1
SW8260_MED_S					
H1787-02A	SL	SW8260_MED_S	SW5035_MED_PR	MED	5
H1787-05A	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
H1787-06A	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
H1787-09A	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
H1787-12A	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
H1787-16A	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
H1787-19A	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
SW8260_W					
H1787-14A	AQ	SW8260_W	NA	LOW	1

Analytical Data Package for Earth Tech Northeast, Inc.

Client Project: SMS Instruments

SDG# SH1787

Mitkem Work Order ID: H1787

September 30, 2009

Prepared For:

Earth Tech – AECOM
300 Broadacres Drive
Bloomfield, NJ 07003
Attn: Mr. Paul Kareth

Prepared By:

Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Earth Tech Northeast, Inc.'s SMS Instruments project. Under this deliverable, analysis results are presented for nineteen soil and one aqueous samples that were received on September 17, 2009. Analyses were performed per specifications in the project's contract and chain of custody forms. Following the narrative is the Mitkem Work Order for cross-referencing sample client ID with laboratory sample ID.

The analyses were performed according to NYSDEC ASP protocols (2000update) and reported per NYSDEC ASP requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. Volatile Analysis:

Surrogate recovery: recoveries were within the QC limits with the exception of elevated recoveries of bromofluorobenzene in samples SB56, SB12-23.5-24.5 and DWB23.5-24.5. The spike recovery of toluene-d8 was also outside the QC limits in sample DWB23.5-24.5. Please note sample DWB23.5-24.5 is reported with medium level approach. The chromatogram for the low level analysis for this sample is included as supporting data at the end of the data package. The low level analysis result also had two surrogate recoveries outside the QC limits.

Lab control sample: spike recoveries were within the QC limits with the exception of slightly low recovery of total xylene in V6YLCSD. Please note due to analyst oversight, incorrect spike amount (5ppb) was used for V6YLCS and V6YLCSD. These two lab control samples had good recoveries.

Matrix spike/ matrix spike duplicate: duplicate analysis was performed on sample SB12-29-30. Spike recoveries were within the QC limits with the exception of acetone in both matrix spike and matrix spike duplicate. Replicate RPDs were within the QC limits.

Sample analysis: due to high concentration of target analytes, sample SB16B23.5-24.5 was initially analyzed by 5x dilution with medium level approach. Samples SB16 23.5-24.5, SB56, SB12B23.5-24.5, SB12-23.5-24.5, DW23.5-24.5 and DWB23.5-24.5 were all initially analyzed by medium level approach. No other unusual observation was made for the analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Shirley Ng
Project Manager
09/30/09

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16B19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-01A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9560.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.8	U
74-87-3	Chloromethane	5.8	U
75-01-4	Vinyl chloride	5.8	U
74-83-9	Bromomethane	5.8	U
75-00-3	Chloroethane	5.8	U
75-69-4	Trichlorofluoromethane	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
67-64-1	Acetone	5.8	U
74-88-4	Iodomethane	5.8	U
75-15-0	Carbon disulfide	5.8	U
75-09-2	Methylene chloride	5.8	U
156-60-5	trans-1,2-Dichloroethene	5.8	U
1634-04-4	Methyl tert-butyl ether	5.8	U
75-34-3	1,1-Dichloroethane	5.8	U
108-05-4	Vinyl acetate	5.8	U
78-93-3	2-Butanone	5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	U
594-20-7	2,2-Dichloropropane	5.8	U
74-97-5	Bromochloromethane	5.8	U
67-66-3	Chloroform	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
563-58-6	1,1-Dichloropropene	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
71-43-2	Benzene	5.8	U
79-01-6	Trichloroethene	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
74-95-3	Dibromomethane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
10061-01-5	cis-1,3-Dichloropropene	5.8	U
108-10-1	4-Methyl-2-pentanone	5.8	U
108-88-3	Toluene	5.8	U
10061-02-6	trans-1,3-Dichloropropene	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
142-28-9	1,3-Dichloropropane	5.8	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16B19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-01A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9560.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.8	U
591-78-6	2-Hexanone	5.8	U
124-48-1	Dibromochloromethane	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
108-90-7	Chlorobenzene	5.8	U
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U
100-41-4	Ethylbenzene	5.8	U
1330-20-7	m,p-Xylene	5.8	U
95-47-6	o-Xylene	5.8	U
1330-20-7	Xylene (Total)	5.8	U
100-42-5	Styrene	5.8	U
75-25-2	Bromoform	5.8	U
98-82-8	Isopropylbenzene	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
108-86-1	Bromobenzene	5.8	U
96-18-4	1,2,3-Trichloropropane	5.8	U
103-65-1	n-Propylbenzene	5.8	U
95-49-8	2-Chlorotoluene	5.8	U
108-67-8	1,3,5-Trimethylbenzene	5.8	U
106-43-4	4-Chlorotoluene	5.8	U
98-06-6	tert-Butylbenzene	5.8	U
95-63-6	1,2,4-Trimethylbenzene	5.8	U
135-98-8	sec-Butylbenzene	5.8	U
99-87-6	4-Isopropyltoluene	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
104-51-8	n-Butylbenzene	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
87-68-3	Hexachlorobutadiene	5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	U
91-20-3	Naphthalene	5.8	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB16B19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-01A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9560.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	15.324	330	J
02		Unknown-02	16.626	2800	J
	E96679€[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16B23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-02A

Sample wt/vol: 6.60 (g/mL) G Lab File ID: V6G9660.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 19 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1500	U
74-87-3	Chloromethane	1500	U
75-01-4	Vinyl chloride	1500	U
74-83-9	Bromomethane	1500	U
75-00-3	Chloroethane	1500	U
75-69-4	Trichlorofluoromethane	1500	U
75-35-4	1,1-Dichloroethene	1500	U
67-64-1	Acetone	1500	U
74-88-4	Iodomethane	1500	U
75-15-0	Carbon disulfide	1500	U
75-09-2	Methylene chloride	1500	U
156-60-5	trans-1,2-Dichloroethene	1500	U
1634-04-4	Methyl tert-butyl ether	1500	U
75-34-3	1,1-Dichloroethane	1500	U
108-05-4	Vinyl acetate	1500	U
78-93-3	2-Butanone	1500	U
156-59-2	cis-1,2-Dichloroethene	1500	U
594-20-7	2,2-Dichloropropane	1500	U
74-97-5	Bromochloromethane	1500	U
67-66-3	Chloroform	1500	U
71-55-6	1,1,1-Trichloroethane	1500	U
563-58-6	1,1-Dichloropropene	1500	U
56-23-5	Carbon tetrachloride	1500	U
107-06-2	1,2-Dichloroethane	1500	U
71-43-2	Benzene	1500	U
79-01-6	Trichloroethene	1500	U
78-87-5	1,2-Dichloropropane	1500	U
74-95-3	Dibromomethane	1500	U
75-27-4	Bromodichloromethane	1500	U
10061-01-5	cis-1,3-Dichloropropene	1500	U
108-10-1	4-Methyl-2-pentanone	1500	U
108-88-3	Toluene	1500	U
10061-02-6	trans-1,3-Dichloropropene	1500	U
79-00-5	1,1,2-Trichloroethane	1500	U
142-28-9	1,3-Dichloropropane	1500	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16B23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-02A

Sample wt/vol: 6.60 (g/mL) G Lab File ID: V6G9660.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 19 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	1500	U
591-78-6	2-Hexanone	1500	U
124-48-1	Dibromochloromethane	1500	U
106-93-4	1,2-Dibromoethane	1500	U
108-90-7	Chlorobenzene	1500	U
630-20-6	1,1,1,2-Tetrachloroethane	1500	U
100-41-4	Ethylbenzene	1500	U
1330-20-7	m,p-Xylene	1500	U
95-47-6	o-Xylene	1500	U
1330-20-7	Xylene (Total)	1500	U
100-42-5	Styrene	1500	U
75-25-2	Bromoform	1500	U
98-82-8	Isopropylbenzene	1500	U
79-34-5	1,1,2,2-Tetrachloroethane	1500	U
108-86-1	Bromobenzene	1500	U
96-18-4	1,2,3-Trichloropropane	1500	U
103-65-1	n-Propylbenzene	1500	U
95-49-8	2-Chlorotoluene	1500	U
108-67-8	1,3,5-Trimethylbenzene	1500	U
106-43-4	4-Chlorotoluene	1500	U
98-06-6	tert-Butylbenzene	1500	U
95-63-6	1,2,4-Trimethylbenzene	1500	U
135-98-8	sec-Butylbenzene	690	J
99-87-6	4-Isopropyltoluene	1500	U
541-73-1	1,3-Dichlorobenzene	1500	U
106-46-7	1,4-Dichlorobenzene	1500	U
104-51-8	n-Butylbenzene	3700	
95-50-1	1,2-Dichlorobenzene	1500	U
96-12-8	1,2-Dibromo-3-chloropropane	1500	U
120-82-1	1,2,4-Trichlorobenzene	1500	U
87-68-3	Hexachlorobutadiene	1500	U
87-61-6	1,2,3-Trichlorobenzene	1500	U
91-20-3	Naphthalene	1500	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB16B23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-02A

Sample wt/vol: 6.60 (g/mL) G Lab File ID: V6G9660.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 19 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	8.711	70000	J
02		Unknown-02	11.236	33000	J
03		Unknown-03	11.668	32000	J
04	17302-28-2	Nonane, 2,6-dimethyl-	12.027	40000	NJ
05	934-74-7	Benzene, 1-ethyl-3,5-dimethy	12.903	65000	NJ
06		Unknown-04	13.316	28000	J
07	1002-43-3	Undecane, 3-methyl-	13.979	27000	NJ
08		Unknown-05	14.308	35000	J
09		Unknown-06	14.959	75000	J
10		Unknown-07	15.111	100000	J
11		Unknown-08	15.598	110000	J
12		Unknown-09	16.175	130000	J
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16B29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-03A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9517.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.1	U
74-87-3	Chloromethane	6.1	U
75-01-4	Vinyl chloride	6.1	U
74-83-9	Bromomethane	6.1	U
75-00-3	Chloroethane	6.1	U
75-69-4	Trichlorofluoromethane	6.1	U
75-35-4	1,1-Dichloroethene	6.1	U
67-64-1	Acetone	6.1	U
74-88-4	Iodomethane	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethene	6.1	U
1634-04-4	Methyl tert-butyl ether	6.1	U
75-34-3	1,1-Dichloroethane	6.1	U
108-05-4	Vinyl acetate	6.1	U
78-93-3	2-Butanone	6.1	U
156-59-2	cis-1,2-Dichloroethene	6.1	U
594-20-7	2,2-Dichloropropane	6.1	U
74-97-5	Bromochloromethane	6.1	U
67-66-3	Chloroform	6.1	U
71-55-6	1,1,1-Trichloroethane	6.1	U
563-58-6	1,1-Dichloropropene	6.1	U
56-23-5	Carbon tetrachloride	6.1	U
107-06-2	1,2-Dichloroethane	6.1	U
71-43-2	Benzene	6.1	U
79-01-6	Trichloroethene	6.1	U
78-87-5	1,2-Dichloropropane	6.1	U
74-95-3	Dibromomethane	6.1	U
75-27-4	Bromodichloromethane	6.1	U
10061-01-5	cis-1,3-Dichloropropene	6.1	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	6.1	U
10061-02-6	trans-1,3-Dichloropropene	6.1	U
79-00-5	1,1,2-Trichloroethane	6.1	U
142-28-9	1,3-Dichloropropane	6.1	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16B29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-03A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9517.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	6.1	U
591-78-6	2-Hexanone	6.1	U
124-48-1	Dibromochloromethane	6.1	U
106-93-4	1,2-Dibromoethane	6.1	U
108-90-7	Chlorobenzene	6.1	U
630-20-6	1,1,1,2-Tetrachloroethane	6.1	U
100-41-4	Ethylbenzene	6.1	U
1330-20-7	m,p-Xylene	6.1	U
95-47-6	o-Xylene	6.1	U
1330-20-7	Xylene (Total)	6.1	U
100-42-5	Styrene	6.1	U
75-25-2	Bromoform	6.1	U
98-82-8	Isopropylbenzene	6.1	U
79-34-5	1,1,2,2-Tetrachloroethane	6.1	U
108-86-1	Bromobenzene	6.1	U
96-18-4	1,2,3-Trichloropropane	6.1	U
103-65-1	n-Propylbenzene	6.1	U
95-49-8	2-Chlorotoluene	6.1	U
108-67-8	1,3,5-Trimethylbenzene	6.1	U
106-43-4	4-Chlorotoluene	6.1	U
98-06-6	tert-Butylbenzene	6.1	U
95-63-6	1,2,4-Trimethylbenzene	6.1	U
135-98-8	sec-Butylbenzene	6.1	U
99-87-6	4-Isopropyltoluene	6.1	U
541-73-1	1,3-Dichlorobenzene	6.1	U
106-46-7	1,4-Dichlorobenzene	6.1	U
104-51-8	n-Butylbenzene	6.1	U
95-50-1	1,2-Dichlorobenzene	6.1	U
96-12-8	1,2-Dibromo-3-chloropropane	6.1	U
120-82-1	1,2,4-Trichlorobenzene	6.1	U
87-68-3	Hexachlorobutadiene	6.1	U
87-61-6	1,2,3-Trichlorobenzene	6.1	U
91-20-3	Naphthalene	6.1	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB16B29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-03A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9517.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	592-27-8	Heptane, 2-methyl-	7.267	9.1	NJ
02	111-65-9	Octane	7.967	7.0	NJ
03		Unknown-01	8.709	15	J
04	3073-66-3	Cyclohexane, 1,1,3-trimethyl	8.916	11	NJ
05		Unknown-02	9.214	7.0	J
06	111-65-9	Octane	9.269	11	NJ
07		Unknown-03	11.228	6.9	J
08		Unknown-04	12.025	8.8	J
09		Unknown-05	15.510	25	J
10		Unknown-06	16.173	49	J
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-04A

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G9518.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 19 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.7	U
74-87-3	Chloromethane	5.7	U
75-01-4	Vinyl chloride	5.7	U
74-83-9	Bromomethane	5.7	U
75-00-3	Chloroethane	5.7	U
75-69-4	Trichlorofluoromethane	5.7	U
75-35-4	1,1-Dichloroethene	5.7	U
67-64-1	Acetone	5.7	U
74-88-4	Iodomethane	5.7	U
75-15-0	Carbon disulfide	5.7	U
75-09-2	Methylene chloride	5.7	U
156-60-5	trans-1,2-Dichloroethene	5.7	U
1634-04-4	Methyl tert-butyl ether	5.7	U
75-34-3	1,1-Dichloroethane	5.7	U
108-05-4	Vinyl acetate	5.7	U
78-93-3	2-Butanone	5.7	U
156-59-2	cis-1,2-Dichloroethene	5.7	U
594-20-7	2,2-Dichloropropane	5.7	U
74-97-5	Bromochloromethane	5.7	U
67-66-3	Chloroform	5.7	U
71-55-6	1,1,1-Trichloroethane	5.7	U
563-58-6	1,1-Dichloropropene	5.7	U
56-23-5	Carbon tetrachloride	5.7	U
107-06-2	1,2-Dichloroethane	5.7	U
71-43-2	Benzene	5.7	U
79-01-6	Trichloroethene	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
74-95-3	Dibromomethane	5.7	U
75-27-4	Bromodichloromethane	5.7	U
10061-01-5	cis-1,3-Dichloropropene	5.7	U
108-10-1	4-Methyl-2-pentanone	5.7	U
108-88-3	Toluene	5.7	U
10061-02-6	trans-1,3-Dichloropropene	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
142-28-9	1,3-Dichloropropane	5.7	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-04A

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G9518.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 19 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.7	U
591-78-6	2-Hexanone	5.7	U
124-48-1	Dibromochloromethane	5.7	U
106-93-4	1,2-Dibromoethane	5.7	U
108-90-7	Chlorobenzene	5.7	U
630-20-6	1,1,1,2-Tetrachloroethane	5.7	U
100-41-4	Ethylbenzene	5.7	U
1330-20-7	m,p-Xylene	5.7	U
95-47-6	o-Xylene	5.7	U
1330-20-7	Xylene (Total)	5.7	U
100-42-5	Styrene	5.7	U
75-25-2	Bromoform	5.7	U
98-82-8	Isopropylbenzene	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
108-86-1	Bromobenzene	5.7	U
96-18-4	1,2,3-Trichloropropane	5.7	U
103-65-1	n-Propylbenzene	5.7	U
95-49-8	2-Chlorotoluene	5.7	U
108-67-8	1,3,5-Trimethylbenzene	5.7	U
106-43-4	4-Chlorotoluene	5.7	U
98-06-6	tert-Butylbenzene	5.7	U
95-63-6	1,2,4-Trimethylbenzene	5.7	U
135-98-8	sec-Butylbenzene	5.7	U
99-87-6	4-Isopropyltoluene	5.7	U
541-73-1	1,3-Dichlorobenzene	5.7	U
106-46-7	1,4-Dichlorobenzene	5.7	U
104-51-8	n-Butylbenzene	5.7	U
95-50-1	1,2-Dichlorobenzene	5.7	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	U
120-82-1	1,2,4-Trichlorobenzene	5.7	U
87-68-3	Hexachlorobutadiene	5.7	U
87-61-6	1,2,3-Trichlorobenzene	5.7	U
91-20-3	Naphthalene	5.7	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB16 19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-04A

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G9518.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 19 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-05A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9656.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 18 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	350	U
74-87-3	Chloromethane	350	U
75-01-4	Vinyl chloride	350	U
74-83-9	Bromomethane	350	U
75-00-3	Chloroethane	350	U
75-69-4	Trichlorofluoromethane	350	U
75-35-4	1,1-Dichloroethene	350	U
67-64-1	Acetone	350	U
74-88-4	Iodomethane	350	U
75-15-0	Carbon disulfide	350	U
75-09-2	Methylene chloride	350	U
156-60-5	trans-1,2-Dichloroethene	350	U
1634-04-4	Methyl tert-butyl ether	350	U
75-34-3	1,1-Dichloroethane	350	U
108-05-4	Vinyl acetate	350	U
78-93-3	2-Butanone	350	U
156-59-2	cis-1,2-Dichloroethene	350	U
594-20-7	2,2-Dichloropropane	350	U
74-97-5	Bromochloromethane	350	U
67-66-3	Chloroform	350	U
71-55-6	1,1,1-Trichloroethane	350	U
563-58-6	1,1-Dichloropropene	350	U
56-23-5	Carbon tetrachloride	350	U
107-06-2	1,2-Dichloroethane	350	U
71-43-2	Benzene	350	U
79-01-6	Trichloroethene	350	U
78-87-5	1,2-Dichloropropane	350	U
74-95-3	Dibromomethane	350	U
75-27-4	Bromodichloromethane	350	U
10061-01-5	cis-1,3-Dichloropropene	350	U
108-10-1	4-Methyl-2-pentanone	350	U
108-88-3	Toluene	350	U
10061-02-6	trans-1,3-Dichloropropene	350	U
79-00-5	1,1,2-Trichloroethane	350	U
142-28-9	1,3-Dichloropropane	350	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-05A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9656.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 18 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	350	U
591-78-6	2-Hexanone	350	U
124-48-1	Dibromochloromethane	350	U
106-93-4	1,2-Dibromoethane	350	U
108-90-7	Chlorobenzene	350	U
630-20-6	1,1,1,2-Tetrachloroethane	350	U
100-41-4	Ethylbenzene	350	U
1330-20-7	m,p-Xylene	350	U
95-47-6	o-Xylene	350	U
1330-20-7	Xylene (Total)	350	U
100-42-5	Styrene	350	U
75-25-2	Bromoform	350	U
98-82-8	Isopropylbenzene	350	U
79-34-5	1,1,2,2-Tetrachloroethane	350	U
108-86-1	Bromobenzene	350	U
96-18-4	1,2,3-Trichloropropane	350	U
103-65-1	n-Propylbenzene	350	U
95-49-8	2-Chlorotoluene	350	U
108-67-8	1,3,5-Trimethylbenzene	350	U
106-43-4	4-Chlorotoluene	350	U
98-06-6	tert-Butylbenzene	350	U
95-63-6	1,2,4-Trimethylbenzene	350	U
135-98-8	sec-Butylbenzene	350	U
99-87-6	4-Isopropyltoluene	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
104-51-8	n-Butylbenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U
96-12-8	1,2-Dibromo-3-chloropropane	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
87-61-6	1,2,3-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB16 23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-05A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9656.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 18 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.670	7900	J
02	17302-28-2	Nonane, 2,6-dimethyl-	12.029	11000	NJ
03		Unknown-02	12.291	7700	J
04		Unknown-03	13.130	18000	J
05		Unknown-04	13.319	9600	J
06		Unknown-05	13.465	16000	J
07		Unknown-06	13.781	9700	J
08		Unknown-07	13.879	11000	J
09		Unknown-08	13.982	15000	J
10		Unknown-09	14.335	13000	J
11	17301-23-4	Undecane, 2,6-dimethyl-	14.475	47000	NJ
12		Unknown-10	15.114	89000	J
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB56

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-06A

Sample wt/vol: 6.10 (g/mL) G Lab File ID: V6G9657.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	290	U
74-87-3	Chloromethane	290	U
75-01-4	Vinyl chloride	290	U
74-83-9	Bromomethane	290	U
75-00-3	Chloroethane	290	U
75-69-4	Trichlorofluoromethane	290	U
75-35-4	1,1-Dichloroethene	290	U
67-64-1	Acetone	290	U
74-88-4	Iodomethane	290	U
75-15-0	Carbon disulfide	290	U
75-09-2	Methylene chloride	290	U
156-60-5	trans-1,2-Dichloroethene	290	U
1634-04-4	Methyl tert-butyl ether	290	U
75-34-3	1,1-Dichloroethane	290	U
108-05-4	Vinyl acetate	290	U
78-93-3	2-Butanone	290	U
156-59-2	cis-1,2-Dichloroethene	290	U
594-20-7	2,2-Dichloropropane	290	U
74-97-5	Bromochloromethane	290	U
67-66-3	Chloroform	290	U
71-55-6	1,1,1-Trichloroethane	290	U
563-58-6	1,1-Dichloropropene	290	U
56-23-5	Carbon tetrachloride	290	U
107-06-2	1,2-Dichloroethane	290	U
71-43-2	Benzene	290	U
79-01-6	Trichloroethene	290	U
78-87-5	1,2-Dichloropropane	290	U
74-95-3	Dibromomethane	290	U
75-27-4	Bromodichloromethane	290	U
10061-01-5	cis-1,3-Dichloropropene	290	U
108-10-1	4-Methyl-2-pentanone	290	U
108-88-3	Toluene	290	U
10061-02-6	trans-1,3-Dichloropropene	290	U
79-00-5	1,1,2-Trichloroethane	290	U
142-28-9	1,3-Dichloropropane	290	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB56

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-06A

Sample wt/vol: 6.10 (g/mL) G Lab File ID: V6G9657.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	290	U
591-78-6	2-Hexanone	290	U
124-48-1	Dibromochloromethane	290	U
106-93-4	1,2-Dibromoethane	290	U
108-90-7	Chlorobenzene	290	U
630-20-6	1,1,1,2-Tetrachloroethane	290	U
100-41-4	Ethylbenzene	290	U
1330-20-7	m,p-Xylene	290	U
95-47-6	o-Xylene	290	U
1330-20-7	Xylene (Total)	290	U
100-42-5	Styrene	290	U
75-25-2	Bromoform	290	U
98-82-8	Isopropylbenzene	290	U
79-34-5	1,1,2,2-Tetrachloroethane	290	U
108-86-1	Bromobenzene	290	U
96-18-4	1,2,3-Trichloropropane	290	U
103-65-1	n-Propylbenzene	290	U
95-49-8	2-Chlorotoluene	290	U
108-67-8	1,3,5-Trimethylbenzene	3100	
106-43-4	4-Chlorotoluene	290	U
98-06-6	tert-Butylbenzene	290	U
95-63-6	1,2,4-Trimethylbenzene	1700	
135-98-8	sec-Butylbenzene	230	J
99-87-6	4-Isopropyltoluene	290	U
541-73-1	1,3-Dichlorobenzene	290	U
106-46-7	1,4-Dichlorobenzene	290	U
104-51-8	n-Butylbenzene	1300	
95-50-1	1,2-Dichlorobenzene	290	U
96-12-8	1,2-Dibromo-3-chloropropane	290	U
120-82-1	1,2,4-Trichlorobenzene	290	U
87-68-3	Hexachlorobutadiene	290	U
87-61-6	1,2,3-Trichlorobenzene	290	U
91-20-3	Naphthalene	290	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB56

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-06A

Sample wt/vol: 6.10 (g/mL) G Lab File ID: V6G9657.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.728	9100	J
02		Unknown-02	11.074	11000	J
03		Unknown-03	11.287	9600	J
04		Unknown-04	11.671	13000	J
05		Unknown-05	12.036	12000	J
06		Unknown-06	13.325	31000	J
07	1000152-47-3	trans-Decalin, 2-methyl-	13.636	14000	NJ
08	2958-76-1	Naphthalene, decahydro-2-met	13.879	24000	NJ
09		Unknown-07	14.311	8700	J
10		Unknown-08	14.475	9000	J
11		Unknown-09	14.962	15000	J
12		Unknown-10	15.029	21000	J
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-07A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9519.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 20 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.6	U
74-87-3	Chloromethane	5.6	U
75-01-4	Vinyl chloride	5.6	U
74-83-9	Bromomethane	5.6	U
75-00-3	Chloroethane	5.6	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
67-64-1	Acetone	5.6	U
74-88-4	Iodomethane	5.6	U
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
1634-04-4	Methyl tert-butyl ether	5.6	U
75-34-3	1,1-Dichloroethane	5.6	U
108-05-4	Vinyl acetate	5.6	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethene	5.6	U
594-20-7	2,2-Dichloropropane	5.6	U
74-97-5	Bromochloromethane	5.6	U
67-66-3	Chloroform	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
563-58-6	1,1-Dichloropropene	5.6	U
56-23-5	Carbon tetrachloride	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-43-2	Benzene	5.6	U
79-01-6	Trichloroethene	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
74-95-3	Dibromomethane	5.6	U
75-27-4	Bromodichloromethane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
142-28-9	1,3-Dichloropropane	5.6	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-07A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9519.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 20 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.6	U
591-78-6	2-Hexanone	5.6	U
124-48-1	Dibromochloromethane	5.6	U
106-93-4	1,2-Dibromoethane	5.6	U
108-90-7	Chlorobenzene	5.6	U
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U
100-41-4	Ethylbenzene	5.6	U
1330-20-7	m,p-Xylene	5.6	U
95-47-6	o-Xylene	5.6	U
1330-20-7	Xylene (Total)	5.6	U
100-42-5	Styrene	5.6	U
75-25-2	Bromoform	5.6	U
98-82-8	Isopropylbenzene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
108-86-1	Bromobenzene	5.6	U
96-18-4	1,2,3-Trichloropropane	5.6	U
103-65-1	n-Propylbenzene	5.6	U
95-49-8	2-Chlorotoluene	5.6	U
108-67-8	1,3,5-Trimethylbenzene	5.6	U
106-43-4	4-Chlorotoluene	5.6	U
98-06-6	tert-Butylbenzene	5.6	U
95-63-6	1,2,4-Trimethylbenzene	5.6	U
135-98-8	sec-Butylbenzene	5.6	U
99-87-6	4-Isopropyltoluene	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U
106-46-7	1,4-Dichlorobenzene	5.6	U
104-51-8	n-Butylbenzene	5.6	U
95-50-1	1,2-Dichlorobenzene	5.6	U
96-12-8	1,2-Dibromo-3-chloropropane	5.6	U
120-82-1	1,2,4-Trichlorobenzene	5.6	U
87-68-3	Hexachlorobutadiene	5.6	U
87-61-6	1,2,3-Trichlorobenzene	5.6	U
91-20-3	Naphthalene	5.6	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB16 29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-07A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9519.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 20 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	12.026	6.6	J
02	1636-39-1	1,1'-Bicyclopentyl	12.890	5.9	NJ
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12B19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-08A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9520.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.2	U
74-87-3	Chloromethane	5.2	U
75-01-4	Vinyl chloride	5.2	U
74-83-9	Bromomethane	5.2	U
75-00-3	Chloroethane	5.2	U
75-69-4	Trichlorofluoromethane	5.2	U
75-35-4	1,1-Dichloroethene	5.2	U
67-64-1	Acetone	5.2	U
74-88-4	Iodomethane	5.2	U
* 75-15-0	Carbon disulfide	5.2	U
75-09-2	Methylene chloride	5.2	U
156-60-5	trans-1,2-Dichloroethene	5.2	U
1634-04-4	Methyl tert-butyl ether	5.2	U
75-34-3	1,1-Dichloroethane	5.2	U
108-05-4	Vinyl acetate	5.2	U
78-93-3	2-Butanone	5.2	U
156-59-2	cis-1,2-Dichloroethene	5.2	U
594-20-7	2,2-Dichloropropane	5.2	U
74-97-5	Bromochloromethane	5.2	U
67-66-3	Chloroform	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
56-23-5	Carbon tetrachloride	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
71-43-2	Benzene	5.2	U
79-01-6	Trichloroethene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
74-95-3	Dibromomethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
10061-01-5	cis-1,3-Dichloropropene	5.2	U
108-10-1	4-Methyl-2-pentanone	5.2	U
108-88-3	Toluene	5.2	U
10061-02-6	trans-1,3-Dichloropropene	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12B19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-08A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9520.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.2	U
591-78-6	2-Hexanone	5.2	U
124-48-1	Dibromochloromethane	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
108-90-7	Chlorobenzene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
100-41-4	Ethylbenzene	5.2	U
1330-20-7	m,p-Xylene	5.2	U
95-47-6	o-Xylene	5.2	U
1330-20-7	Xylene (Total)	5.2	U
100-42-5	Styrene	5.2	U
75-25-2	Bromoform	5.2	U
98-82-8	Isopropylbenzene	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U
108-86-1	Bromobenzene	5.2	U
96-18-4	1,2,3-Trichloropropane	5.2	U
103-65-1	n-Propylbenzene	5.2	U
95-49-8	2-Chlorotoluene	5.2	U
108-67-8	1,3,5-Trimethylbenzene	5.2	U
106-43-4	4-Chlorotoluene	5.2	U
98-06-6	tert-Butylbenzene	5.2	U
95-63-6	1,2,4-Trimethylbenzene	5.2	U
135-98-8	sec-Butylbenzene	5.2	U
99-87-6	4-Isopropyltoluene	5.2	U
541-73-1	1,3-Dichlorobenzene	5.2	U
106-46-7	1,4-Dichlorobenzene	5.2	U
104-51-8	n-Butylbenzene	5.2	U
95-50-1	1,2-Dichlorobenzene	5.2	U
96-12-8	1,2-Dibromo-3-chloropropane	5.2	U
120-82-1	1,2,4-Trichlorobenzene	5.2	U
87-68-3	Hexachlorobutadiene	5.2	U
87-61-6	1,2,3-Trichlorobenzene	5.2	U
91-20-3	Naphthalene	5.2	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB12B19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-08A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9520.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12B23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-09A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9658.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	350	U
74-87-3	Chloromethane	350	U
75-01-4	Vinyl chloride	350	U
74-83-9	Bromomethane	350	U
75-00-3	Chloroethane	350	U
75-69-4	Trichlorofluoromethane	350	U
75-35-4	1,1-Dichloroethene	350	U
67-64-1	Acetone	350	U
74-88-4	Iodomethane	350	U
75-15-0	Carbon disulfide	350	U
75-09-2	Methylene chloride	350	U
156-60-5	trans-1,2-Dichloroethene	350	U
1634-04-4	Methyl tert-butyl ether	350	U
75-34-3	1,1-Dichloroethane	350	U
108-05-4	Vinyl acetate	350	U
78-93-3	2-Butanone	350	U
156-59-2	cis-1,2-Dichloroethene	350	U
594-20-7	2,2-Dichloropropane	350	U
74-97-5	Bromochloromethane	350	U
67-66-3	Chloroform	350	U
71-55-6	1,1,1-Trichloroethane	350	U
563-58-6	1,1-Dichloropropene	350	U
56-23-5	Carbon tetrachloride	350	U
107-06-2	1,2-Dichloroethane	350	U
71-43-2	Benzene	350	U
79-01-6	Trichloroethene	350	U
78-87-5	1,2-Dichloropropane	350	U
74-95-3	Dibromomethane	350	U
75-27-4	Bromodichloromethane	350	U
10061-01-5	cis-1,3-Dichloropropene	350	U
108-10-1	4-Methyl-2-pentanone	350	U
108-88-3	Toluene	350	U
10061-02-6	trans-1,3-Dichloropropene	350	U
79-00-5	1,1,2-Trichloroethane	350	U
142-28-9	1,3-Dichloropropane	350	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12B23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-09A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9658.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	350	U
591-78-6	2-Hexanone	350	U
124-48-1	Dibromochloromethane	350	U
106-93-4	1,2-Dibromoethane	350	U
108-90-7	Chlorobenzene	350	U
630-20-6	1,1,1,2-Tetrachloroethane	350	U
100-41-4	Ethylbenzene	350	U
1330-20-7	m,p-Xylene	350	U
95-47-6	o-Xylene	350	U
1330-20-7	Xylene (Total)	350	U
100-42-5	Styrene	350	U
75-25-2	Bromoform	350	U
98-82-8	Isopropylbenzene	350	U
79-34-5	1,1,2,2-Tetrachloroethane	350	U
108-86-1	Bromobenzene	350	U
96-18-4	1,2,3-Trichloropropane	350	U
103-65-1	n-Propylbenzene	350	U
95-49-8	2-Chlorotoluene	350	U
108-67-8	1,3,5-Trimethylbenzene	350	U
106-43-4	4-Chlorotoluene	350	U
98-06-6	tert-Butylbenzene	350	U
95-63-6	1,2,4-Trimethylbenzene	350	U
135-98-8	sec-Butylbenzene	350	U
99-87-6	4-Isopropyltoluene	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
104-51-8	n-Butylbenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U
96-12-8	1,2-Dibromo-3-chloropropane	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
87-61-6	1,2,3-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB12B23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-09A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G9658.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.667	7800	J
02	17302-28-2	Nonane, 2,6-dimethyl-	12.032	10000	NJ
03		Unknown-02	13.261	21000	J
04		Unknown-03	13.316	8100	J
05		Unknown-04	13.462	14000	J
06		Unknown-05	13.778	8300	J
07		Unknown-06	13.881	10000	J
08		Unknown-07	14.040	7800	J
09		Unknown-08	14.332	11000	J
10		Unknown-09	14.472	31000	J
11	1000245-49-5	3-Heptafluorobutyroxytrideca	14.903	11000	NJ
12		Unknown-10	15.116	82000	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12B29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-10A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9521.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.2	U
74-87-3	Chloromethane	6.2	U
75-01-4	Vinyl chloride	6.2	U
74-83-9	Bromomethane	6.2	U
75-00-3	Chloroethane	6.2	U
75-69-4	Trichlorofluoromethane	6.2	U
75-35-4	1,1-Dichloroethene	6.2	U
67-64-1	Acetone	6.2	U
74-88-4	Iodomethane	6.2	U
75-15-0	Carbon disulfide	6.2	U
75-09-2	Methylene chloride	6.2	U
156-60-5	trans-1,2-Dichloroethene	6.2	U
1634-04-4	Methyl tert-butyl ether	6.2	U
75-34-3	1,1-Dichloroethane	6.2	U
108-05-4	Vinyl acetate	6.2	U
78-93-3	2-Butanone	6.2	U
156-59-2	cis-1,2-Dichloroethene	6.2	U
594-20-7	2,2-Dichloropropane	6.2	U
74-97-5	Bromochloromethane	6.2	U
67-66-3	Chloroform	6.2	U
71-55-6	1,1,1-Trichloroethane	6.2	U
563-58-6	1,1-Dichloropropene	6.2	U
56-23-5	Carbon tetrachloride	6.2	U
107-06-2	1,2-Dichloroethane	6.2	U
71-43-2	Benzene	6.2	U
79-01-6	Trichloroethene	6.2	U
78-87-5	1,2-Dichloropropane	6.2	U
74-95-3	Dibromomethane	6.2	U
75-27-4	Bromodichloromethane	6.2	U
10061-01-5	cis-1,3-Dichloropropene	6.2	U
108-10-1	4-Methyl-2-pentanone	6.2	U
108-88-3	Toluene	6.2	U
10061-02-6	trans-1,3-Dichloropropene	6.2	U
79-00-5	1,1,2-Trichloroethane	6.2	U
142-28-9	1,3-Dichloropropane	6.2	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12B29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-10A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9521.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	6.2	U
591-78-6	2-Hexanone	6.2	U
124-48-1	Dibromochloromethane	6.2	U
106-93-4	1,2-Dibromoethane	6.2	U
108-90-7	Chlorobenzene	6.2	U
630-20-6	1,1,1,2-Tetrachloroethane	6.2	U
100-41-4	Ethylbenzene	6.2	U
1330-20-7	m,p-Xylene	6.2	U
95-47-6	o-Xylene	6.2	U
1330-20-7	Xylene (Total)	6.2	U
100-42-5	Styrene	6.2	U
75-25-2	Bromoform	6.2	U
98-82-8	Isopropylbenzene	6.2	U
79-34-5	1,1,2,2-Tetrachloroethane	6.2	U
108-86-1	Bromobenzene	6.2	U
96-18-4	1,2,3-Trichloropropane	6.2	U
103-65-1	n-Propylbenzene	6.2	U
95-49-8	2-Chlorotoluene	6.2	U
108-67-8	1,3,5-Trimethylbenzene	6.2	U
106-43-4	4-Chlorotoluene	6.2	U
98-06-6	tert-Butylbenzene	6.2	U
95-63-6	1,2,4-Trimethylbenzene	6.2	U
135-98-8	sec-Butylbenzene	6.2	U
99-87-6	4-Isopropyltoluene	6.2	U
541-73-1	1,3-Dichlorobenzene	6.2	U
106-46-7	1,4-Dichlorobenzene	6.2	U
104-51-8	n-Butylbenzene	6.2	U
95-50-1	1,2-Dichlorobenzene	6.2	U
96-12-8	1,2-Dibromo-3-chloropropane	6.2	U
120-82-1	1,2,4-Trichlorobenzene	6.2	U
87-68-3	Hexachlorobutadiene	6.2	U
87-61-6	1,2,3-Trichlorobenzene	6.2	U
91-20-3	Naphthalene	6.2	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB12B29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-10A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9521.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-11A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G9522.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.8	U
74-87-3	Chloromethane	5.8	U
75-01-4	Vinyl chloride	5.8	U
74-83-9	Bromomethane	5.8	U
75-00-3	Chloroethane	5.8	U
75-69-4	Trichlorofluoromethane	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
67-64-1	Acetone	5.8	U
74-88-4	Iodomethane	5.8	U
75-15-0	Carbon disulfide	5.8	U
75-09-2	Methylene chloride	5.8	U
156-60-5	trans-1,2-Dichloroethene	5.8	U
1634-04-4	Methyl tert-butyl ether	5.8	U
75-34-3	1,1-Dichloroethane	5.8	U
108-05-4	Vinyl acetate	5.8	U
78-93-3	2-Butanone	5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	U
594-20-7	2,2-Dichloropropane	5.8	U
74-97-5	Bromochloromethane	5.8	U
67-66-3	Chloroform	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
563-58-6	1,1-Dichloropropene	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
71-43-2	Benzene	5.8	U
79-01-6	Trichloroethene	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
74-95-3	Dibromomethane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
10061-01-5	cis-1,3-Dichloropropene	5.8	U
108-10-1	4-Methyl-2-pentanone	5.8	U
108-88-3	Toluene	5.8	U
10061-02-6	trans-1,3-Dichloropropene	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
142-28-9	1,3-Dichloropropane	5.8	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-11A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G9522.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.8	U
591-78-6	2-Hexanone	5.8	U
124-48-1	Dibromochloromethane	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
108-90-7	Chlorobenzene	5.8	U
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U
100-41-4	Ethylbenzene	5.8	U
1330-20-7	m,p-Xylene	5.8	U
95-47-6	o-Xylene	5.8	U
1330-20-7	Xylene (Total)	5.8	U
100-42-5	Styrene	5.8	U
75-25-2	Bromoform	5.8	U
98-82-8	Isopropylbenzene	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
108-86-1	Bromobenzene	5.8	U
96-18-4	1,2,3-Trichloropropane	5.8	U
103-65-1	n-Propylbenzene	5.8	U
95-49-8	2-Chlorotoluene	5.8	U
108-67-8	1,3,5-Trimethylbenzene	5.8	U
106-43-4	4-Chlorotoluene	5.8	U
98-06-6	tert-Butylbenzene	5.8	U
95-63-6	1,2,4-Trimethylbenzene	5.8	U
135-98-8	sec-Butylbenzene	5.8	U
99-87-6	4-Isopropyltoluene	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
104-51-8	n-Butylbenzene	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
87-68-3	Hexachlorobutadiene	5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	U
91-20-3	Naphthalene	5.8	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB12-19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-11A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G9522.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-12A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9659.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	320	U
74-87-3	Chloromethane	320	U
75-01-4	Vinyl chloride	320	U
74-83-9	Bromomethane	320	U
75-00-3	Chloroethane	320	U
75-69-4	Trichlorofluoromethane	320	U
75-35-4	1,1-Dichloroethene	320	U
67-64-1	Acetone	320	U
74-88-4	Iodomethane	320	U
75-15-0	Carbon disulfide	320	U
75-09-2	Methylene chloride	320	U
156-60-5	trans-1,2-Dichloroethene	320	U
1634-04-4	Methyl tert-butyl ether	320	U
75-34-3	1,1-Dichloroethane	320	U
108-05-4	Vinyl acetate	320	U
78-93-3	2-Butanone	320	U
156-59-2	cis-1,2-Dichloroethene	320	U
594-20-7	2,2-Dichloropropane	320	U
74-97-5	Bromochloromethane	320	U
67-66-3	Chloroform	320	U
71-55-6	1,1,1-Trichloroethane	320	U
563-58-6	1,1-Dichloropropene	320	U
56-23-5	Carbon tetrachloride	320	U
107-06-2	1,2-Dichloroethane	320	U
71-43-2	Benzene	320	U
79-01-6	Trichloroethene	320	U
78-87-5	1,2-Dichloropropane	320	U
74-95-3	Dibromomethane	320	U
75-27-4	Bromodichloromethane	320	U
10061-01-5	cis-1,3-Dichloropropene	320	U
108-10-1	4-Methyl-2-pentanone	320	U
108-88-3	Toluene	320	U
10061-02-6	trans-1,3-Dichloropropene	320	U
79-00-5	1,1,2-Trichloroethane	3700	
142-28-9	1,3-Dichloropropane	320	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-12A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9659.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	320	U
591-78-6	2-Hexanone	320	U
124-48-1	Dibromochloromethane	320	U
106-93-4	1,2-Dibromoethane	320	U
108-90-7	Chlorobenzene	320	U
630-20-6	1,1,1,2-Tetrachloroethane	320	U
100-41-4	Ethylbenzene	320	U
1330-20-7	m,p-Xylene	320	U
95-47-6	o-Xylene	320	U
1330-20-7	Xylene (Total)	320	U
100-42-5	Styrene	320	U
75-25-2	Bromoform	320	U
98-82-8	Isopropylbenzene	320	U
79-34-5	1,1,2,2-Tetrachloroethane	320	U
108-86-1	Bromobenzene	320	U
96-18-4	1,2,3-Trichloropropane	320	U
103-65-1	n-Propylbenzene	320	U
95-49-8	2-Chlorotoluene	320	U
108-67-8	1,3,5-Trimethylbenzene	320	U
106-43-4	4-Chlorotoluene	320	U
98-06-6	tert-Butylbenzene	260	J
95-63-6	1,2,4-Trimethylbenzene	310	J
135-98-8	sec-Butylbenzene	220	J
99-87-6	4-Isopropyltoluene	320	U
541-73-1	1,3-Dichlorobenzene	150	J
106-46-7	1,4-Dichlorobenzene	320	U
104-51-8	n-Butylbenzene	1100	
95-50-1	1,2-Dichlorobenzene	320	U
96-12-8	1,2-Dibromo-3-chloropropane	320	U
120-82-1	1,2,4-Trichlorobenzene	320	U
87-68-3	Hexachlorobutadiene	320	U
87-61-6	1,2,3-Trichlorobenzene	320	U
91-20-3	Naphthalene	320	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB12-23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-12A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9659.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.991	13000	J
02		Unknown-02	11.283	11000	J
03		Unknown-03	11.909	17000	J
04	17302-28-2	Nonane, 2,6-dimethyl-	12.037	14000	NJ
05		Unknown-04	12.298	10000	J
06		Unknown-05	13.320	39000	J
07		Unknown-06	13.467	10000	J
08	1002-43-3	Undecane, 3-methyl-	13.984	15000	NJ
09		Unknown-07	14.318	10000	J
10	17301-23-4	Undecane, 2,6-dimethyl-	14.476	11000	NJ
11		Unknown-08	14.963	19000	J
12		Unknown-09	15.115	20000	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9561.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.4	U
74-87-3	Chloromethane	6.4	U
75-01-4	Vinyl chloride	6.4	U
74-83-9	Bromomethane	6.4	U
75-00-3	Chloroethane	6.4	U
75-69-4	Trichlorofluoromethane	6.4	U
75-35-4	1,1-Dichloroethene	6.4	U
67-64-1	Acetone	6.4	U
74-88-4	Iodomethane	6.4	U
75-15-0	Carbon disulfide	6.4	U
75-09-2	Methylene chloride	6.4	U
156-60-5	trans-1,2-Dichloroethene	6.4	U
1634-04-4	Methyl tert-butyl ether	6.4	U
75-34-3	1,1-Dichloroethane	6.4	U
108-05-4	Vinyl acetate	6.4	U
78-93-3	2-Butanone	6.4	U
156-59-2	cis-1,2-Dichloroethene	6.4	U
594-20-7	2,2-Dichloropropane	6.4	U
74-97-5	Bromochloromethane	6.4	U
67-66-3	Chloroform	6.4	U
71-55-6	1,1,1-Trichloroethane	6.4	U
563-58-6	1,1-Dichloropropene	6.4	U
56-23-5	Carbon tetrachloride	6.4	U
107-06-2	1,2-Dichloroethane	6.4	U
71-43-2	Benzene	6.4	U
79-01-6	Trichloroethene	6.4	U
78-87-5	1,2-Dichloropropane	6.4	U
74-95-3	Dibromomethane	6.4	U
75-27-4	Bromodichloromethane	6.4	U
10061-01-5	cis-1,3-Dichloropropene	6.4	U
108-10-1	4-Methyl-2-pentanone	6.4	U
108-88-3	Toluene	6.4	U
10061-02-6	trans-1,3-Dichloropropene	6.4	U
79-00-5	1,1,2-Trichloroethane	6.4	U
142-28-9	1,3-Dichloropropane	6.4	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9561.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	6.4	U
591-78-6	2-Hexanone	6.4	U
124-48-1	Dibromochloromethane	6.4	U
106-93-4	1,2-Dibromoethane	6.4	U
108-90-7	Chlorobenzene	6.4	U
630-20-6	1,1,1,2-Tetrachloroethane	6.4	U
100-41-4	Ethylbenzene	6.4	U
1330-20-7	m,p-Xylene	6.4	U
95-47-6	o-Xylene	6.4	U
1330-20-7	Xylene (Total)	6.4	U
100-42-5	Styrene	6.4	U
75-25-2	Bromoform	6.4	U
98-82-8	Isopropylbenzene	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U
108-86-1	Bromobenzene	6.4	U
96-18-4	1,2,3-Trichloropropane	6.4	U
103-65-1	n-Propylbenzene	6.4	U
95-49-8	2-Chlorotoluene	6.4	U
108-67-8	1,3,5-Trimethylbenzene	6.4	U
106-43-4	4-Chlorotoluene	6.4	U
98-06-6	tert-Butylbenzene	6.4	U
95-63-6	1,2,4-Trimethylbenzene	6.4	U
135-98-8	sec-Butylbenzene	6.4	U
99-87-6	4-Isopropyltoluene	6.4	U
541-73-1	1,3-Dichlorobenzene	6.4	U
106-46-7	1,4-Dichlorobenzene	6.4	U
104-51-8	n-Butylbenzene	6.4	U
95-50-1	1,2-Dichlorobenzene	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.4	U
120-82-1	1,2,4-Trichlorobenzene	6.4	U
87-68-3	Hexachlorobutadiene	6.4	U
87-61-6	1,2,3-Trichlorobenzene	6.4	U
91-20-3	Naphthalene	6.4	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB12-29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9561.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	15.322	15	J
02		Unknown-02	16.624	300	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-29-30MS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13AMS

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V6G9784.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/29/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	46	
74-87-3	Chloromethane	52	
75-01-4	Vinyl chloride	51	
74-83-9	Bromomethane	57	
75-00-3	Chloroethane	56	
75-69-4	Trichlorofluoromethane	66	
75-35-4	1,1-Dichloroethene	51	
67-64-1	Acetone	96	
74-88-4	Iodomethane	53	
75-15-0	Carbon disulfide	51	
75-09-2	Methylene chloride	48	
156-60-5	trans-1,2-Dichloroethene	51	
1634-04-4	Methyl tert-butyl ether	48	
75-34-3	1,1-Dichloroethane	50	
108-05-4	Vinyl acetate	46	
78-93-3	2-Butanone	64	
156-59-2	cis-1,2-Dichloroethene	49	
594-20-7	2,2-Dichloropropane	52	
74-97-5	Bromochloromethane	51	
67-66-3	Chloroform	50	
71-55-6	1,1,1-Trichloroethane	52	
563-58-6	1,1-Dichloropropene	52	
56-23-5	Carbon tetrachloride	55	
107-06-2	1,2-Dichloroethane	51	
71-43-2	Benzene	49	
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	49	
74-95-3	Dibromomethane	50	
75-27-4	Bromodichloromethane	50	
10061-01-5	cis-1,3-Dichloropropene	50	
108-10-1	4-Methyl-2-pentanone	50	
108-88-3	Toluene	50	
10061-02-6	trans-1,3-Dichloropropene	50	
79-00-5	1,1,2-Trichloroethane	50	
142-28-9	1,3-Dichloropropane	52	

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-29-30MS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13AMS

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V6G9784.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/29/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	51	
591-78-6	2-Hexanone	65	
124-48-1	Dibromochloromethane	53	
106-93-4	1,2-Dibromoethane	53	
108-90-7	Chlorobenzene	49	
630-20-6	1,1,1,2-Tetrachloroethane	52	
100-41-4	Ethylbenzene	51	
1330-20-7	m,p-Xylene	100	
95-47-6	o-Xylene	52	
1330-20-7	Xylene (Total)	150	
100-42-5	Styrene	52	
75-25-2	Bromoform	54	
98-82-8	Isopropylbenzene	49	
79-34-5	1,1,2,2-Tetrachloroethane	51	
108-86-1	Bromobenzene	51	
96-18-4	1,2,3-Trichloropropane	56	
103-65-1	n-Propylbenzene	49	
95-49-8	2-Chlorotoluene	50	
108-67-8	1,3,5-Trimethylbenzene	47	
106-43-4	4-Chlorotoluene	49	
98-06-6	tert-Butylbenzene	47	
95-63-6	1,2,4-Trimethylbenzene	48	
135-98-8	sec-Butylbenzene	45	
99-87-6	4-Isopropyltoluene	45	
541-73-1	1,3-Dichlorobenzene	49	
106-46-7	1,4-Dichlorobenzene	47	
104-51-8	n-Butylbenzene	44	
95-50-1	1,2-Dichlorobenzene	48	
96-12-8	1,2-Dibromo-3-chloropropane	51	
120-82-1	1,2,4-Trichlorobenzene	45	
87-68-3	Hexachlorobutadiene	33	
87-61-6	1,2,3-Trichlorobenzene	45	
91-20-3	Naphthalene	49	

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-29-30MSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13AMSD

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V6G9785.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/29/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	51	
74-87-3	Chloromethane	55	
75-01-4	Vinyl chloride	51	
74-83-9	Bromomethane	63	
75-00-3	Chloroethane	59	
75-69-4	Trichlorofluoromethane	61	
75-35-4	1,1-Dichloroethene	57	
67-64-1	Acetone	100	
74-88-4	Iodomethane	57	
75-15-0	Carbon disulfide	56	
75-09-2	Methylene chloride	52	
156-60-5	trans-1,2-Dichloroethene	54	
1634-04-4	Methyl tert-butyl ether	52	
75-34-3	1,1-Dichloroethane	55	
108-05-4	Vinyl acetate	50	
78-93-3	2-Butanone	66	
156-59-2	cis-1,2-Dichloroethene	55	
594-20-7	2,2-Dichloropropane	58	
74-97-5	Bromochloromethane	55	
67-66-3	Chloroform	55	
71-55-6	1,1,1-Trichloroethane	59	
563-58-6	1,1-Dichloropropene	58	
56-23-5	Carbon tetrachloride	62	
107-06-2	1,2-Dichloroethane	54	
71-43-2	Benzene	54	
79-01-6	Trichloroethene	56	
78-87-5	1,2-Dichloropropane	53	
74-95-3	Dibromomethane	55	
75-27-4	Bromodichloromethane	54	
10061-01-5	cis-1,3-Dichloropropene	54	
108-10-1	4-Methyl-2-pentanone	54	
108-88-3	Toluene	55	
10061-02-6	trans-1,3-Dichloropropene	54	
79-00-5	1,1,2-Trichloroethane	54	
142-28-9	1,3-Dichloropropane	57	

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12-29-30MSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-13AMSD

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V6G9785.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 15 Date Analyzed: 09/29/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	57	
591-78-6	2-Hexanone	69	
124-48-1	Dibromochloromethane	59	
106-93-4	1,2-Dibromoethane	56	
108-90-7	Chlorobenzene	55	
630-20-6	1,1,1,2-Tetrachloroethane	57	
100-41-4	Ethylbenzene	57	
1330-20-7	m,p-Xylene	110	
95-47-6	o-Xylene	56	
1330-20-7	Xylene (Total)	170	
100-42-5	Styrene	57	
75-25-2	Bromoform	58	
98-82-8	Isopropylbenzene	56	
79-34-5	1,1,2,2-Tetrachloroethane	56	
108-86-1	Bromobenzene	56	
96-18-4	1,2,3-Trichloropropane	60	
103-65-1	n-Propylbenzene	55	
95-49-8	2-Chlorotoluene	56	
108-67-8	1,3,5-Trimethylbenzene	54	
106-43-4	4-Chlorotoluene	54	
98-06-6	tert-Butylbenzene	54	
95-63-6	1,2,4-Trimethylbenzene	54	
135-98-8	sec-Butylbenzene	52	
99-87-6	4-Isopropyltoluene	52	
541-73-1	1,3-Dichlorobenzene	54	
106-46-7	1,4-Dichlorobenzene	54	
104-51-8	n-Butylbenzene	51	
95-50-1	1,2-Dichlorobenzene	53	
96-12-8	1,2-Dibromo-3-chloropropane	57	
120-82-1	1,2,4-Trichlorobenzene	51	
87-68-3	Hexachlorobutadiene	38	
87-61-6	1,2,3-Trichlorobenzene	52	
91-20-3	Naphthalene	55	

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB091609

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H1787-14A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2L2639.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. Date Analyzed: 09/25/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
74-95-3	Dibromomethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB091609

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H1787-14A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2L2639.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. Date Analyzed: 09/25/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
108-86-1	Bromobenzene	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
103-65-1	n-Propylbenzene	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
99-87-6	4-Isopropyltoluene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
104-51-8	n-Butylbenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
91-20-3	Naphthalene	5.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB091609

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H1787-14A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2L2639.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. Date Analyzed: 09/25/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679€ [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-15A

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G9523.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.5	U
74-87-3	Chloromethane	5.5	U
75-01-4	Vinyl chloride	5.5	U
74-83-9	Bromomethane	5.5	U
75-00-3	Chloroethane	5.5	U
75-69-4	Trichlorofluoromethane	5.5	U
75-35-4	1,1-Dichloroethene	5.5	U
67-64-1	Acetone	5.5	U
74-88-4	Iodomethane	5.5	U
75-15-0	Carbon disulfide	5.5	U
75-09-2	Methylene chloride	5.5	U
156-60-5	trans-1,2-Dichloroethene	5.5	U
1634-04-4	Methyl tert-butyl ether	5.5	U
75-34-3	1,1-Dichloroethane	5.5	U
108-05-4	Vinyl acetate	5.5	U
78-93-3	2-Butanone	5.5	U
156-59-2	cis-1,2-Dichloroethene	5.5	U
594-20-7	2,2-Dichloropropane	5.5	U
74-97-5	Bromochloromethane	5.5	U
67-66-3	Chloroform	5.5	U
71-55-6	1,1,1-Trichloroethane	5.5	U
563-58-6	1,1-Dichloropropene	5.5	U
56-23-5	Carbon tetrachloride	5.5	U
107-06-2	1,2-Dichloroethane	5.5	U
71-43-2	Benzene	5.5	U
79-01-6	Trichloroethene	5.5	U
78-87-5	1,2-Dichloropropane	5.5	U
74-95-3	Dibromomethane	5.5	U
75-27-4	Bromodichloromethane	5.5	U
10061-01-5	cis-1,3-Dichloropropene	5.5	U
108-10-1	4-Methyl-2-pentanone	5.5	U
108-88-3	Toluene	5.5	U
10061-02-6	trans-1,3-Dichloropropene	5.5	U
79-00-5	1,1,2-Trichloroethane	5.5	U
142-28-9	1,3-Dichloropropane	5.5	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-15A

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G9523.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.5	U
591-78-6	2-Hexanone	5.5	U
124-48-1	Dibromochloromethane	5.5	U
106-93-4	1,2-Dibromoethane	5.5	U
108-90-7	Chlorobenzene	5.5	U
630-20-6	1,1,1,2-Tetrachloroethane	5.5	U
100-41-4	Ethylbenzene	5.5	U
1330-20-7	m,p-Xylene	5.5	U
95-47-6	o-Xylene	5.5	U
1330-20-7	Xylene (Total)	5.5	U
100-42-5	Styrene	5.5	U
75-25-2	Bromoform	5.5	U
98-82-8	Isopropylbenzene	5.5	U
79-34-5	1,1,2,2-Tetrachloroethane	5.5	U
108-86-1	Bromobenzene	5.5	U
96-18-4	1,2,3-Trichloropropane	5.5	U
103-65-1	n-Propylbenzene	5.5	U
95-49-8	2-Chlorotoluene	5.5	U
108-67-8	1,3,5-Trimethylbenzene	5.5	U
106-43-4	4-Chlorotoluene	5.5	U
98-06-6	tert-Butylbenzene	5.5	U
95-63-6	1,2,4-Trimethylbenzene	5.5	U
135-98-8	sec-Butylbenzene	5.5	U
99-87-6	4-Isopropyltoluene	5.5	U
541-73-1	1,3-Dichlorobenzene	5.5	U
106-46-7	1,4-Dichlorobenzene	5.5	U
104-51-8	n-Butylbenzene	5.5	U
95-50-1	1,2-Dichlorobenzene	5.5	U
96-12-8	1,2-Dibromo-3-chloropropane	5.5	U
120-82-1	1,2,4-Trichlorobenzene	5.5	U
87-68-3	Hexachlorobutadiene	5.5	U
87-61-6	1,2,3-Trichlorobenzene	5.5	U
91-20-3	Naphthalene	5.5	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-15A

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G9523.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	15.318	28	J
02		Unknown-02	15.379	7.8	J
03		Unknown-03	15.707	33	J
04		Unknown-04	15.902	280	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-16A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9655.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 13 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	290	U
74-87-3	Chloromethane	290	U
75-01-4	Vinyl chloride	290	U
74-83-9	Bromomethane	290	U
75-00-3	Chloroethane	290	U
75-69-4	Trichlorofluoromethane	290	U
75-35-4	1,1-Dichloroethene	290	U
67-64-1	Acetone	290	U
74-88-4	Iodomethane	290	U
75-15-0	Carbon disulfide	290	U
75-09-2	Methylene chloride	290	U
156-60-5	trans-1,2-Dichloroethene	290	U
1634-04-4	Methyl tert-butyl ether	290	U
75-34-3	1,1-Dichloroethane	290	U
108-05-4	Vinyl acetate	290	U
78-93-3	2-Butanone	290	U
156-59-2	cis-1,2-Dichloroethene	290	U
594-20-7	2,2-Dichloropropane	290	U
74-97-5	Bromochloromethane	290	U
67-66-3	Chloroform	290	U
71-55-6	1,1,1-Trichloroethane	290	U
563-58-6	1,1-Dichloropropene	290	U
56-23-5	Carbon tetrachloride	290	U
107-06-2	1,2-Dichloroethane	290	U
71-43-2	Benzene	290	U
79-01-6	Trichloroethene	290	U
78-87-5	1,2-Dichloropropane	290	U
74-95-3	Dibromomethane	290	U
75-27-4	Bromodichloromethane	290	U
10061-01-5	cis-1,3-Dichloropropene	290	U
108-10-1	4-Methyl-2-pentanone	290	U
108-88-3	Toluene	290	U
10061-02-6	trans-1,3-Dichloropropene	290	U
79-00-5	1,1,2-Trichloroethane	290	U
142-28-9	1,3-Dichloropropane	290	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-16A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9655.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 13 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	290	U
591-78-6	2-Hexanone	290	U
124-48-1	Dibromochloromethane	290	U
106-93-4	1,2-Dibromoethane	290	U
108-90-7	Chlorobenzene	290	U
630-20-6	1,1,1,2-Tetrachloroethane	290	U
100-41-4	Ethylbenzene	290	U
1330-20-7	m,p-Xylene	290	U
95-47-6	o-Xylene	290	U
1330-20-7	Xylene (Total)	290	U
100-42-5	Styrene	290	U
75-25-2	Bromoform	290	U
98-82-8	Isopropylbenzene	290	U
79-34-5	1,1,2,2-Tetrachloroethane	290	U
108-86-1	Bromobenzene	290	U
96-18-4	1,2,3-Trichloropropane	290	U
103-65-1	n-Propylbenzene	290	U
95-49-8	2-Chlorotoluene	290	U
108-67-8	1,3,5-Trimethylbenzene	1300	
106-43-4	4-Chlorotoluene	290	U
98-06-6	tert-Butylbenzene	290	U
95-63-6	1,2,4-Trimethylbenzene	160	J
135-98-8	sec-Butylbenzene	290	U
99-87-6	4-Isopropyltoluene	140	J
541-73-1	1,3-Dichlorobenzene	290	U
106-46-7	1,4-Dichlorobenzene	290	U
104-51-8	n-Butylbenzene	670	
95-50-1	1,2-Dichlorobenzene	290	U
96-12-8	1,2-Dibromo-3-chloropropane	290	U
120-82-1	1,2,4-Trichlorobenzene	290	U
87-68-3	Hexachlorobutadiene	290	U
87-61-6	1,2,3-Trichlorobenzene	290	U
91-20-3	Naphthalene	290	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-16A

Sample wt/vol: 5.60 (g/mL) G Lab File ID: V6G9655.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 13 Date Analyzed: 09/24/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	2216-30-0	Heptane, 2,5-dimethyl-	8.717	19000	NJ
02		Unknown-01	11.236	9100	J
03		Unknown-02	11.668	9300	J
04	2884-06-2	Nonane, 2,3-dimethyl-	12.033	12000	NJ
05		Unknown-03	13.262	15000	J
06		Unknown-04	13.322	9000	J
07		Unknown-05	13.785	8900	J
08		Unknown-06	13.888	11000	J
09	1002-43-3	Undecane, 3-methyl-	13.979	12000	NJ
10		Unknown-07	14.308	12000	J
11		Unknown-08	14.472	36000	J
12		Unknown-09	15.117	50000	J
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-17A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9524.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.3	U
74-87-3	Chloromethane	6.3	U
75-01-4	Vinyl chloride	6.3	U
74-83-9	Bromomethane	6.3	U
75-00-3	Chloroethane	6.3	U
75-69-4	Trichlorofluoromethane	6.3	U
75-35-4	1,1-Dichloroethene	6.3	U
67-64-1	Acetone	6.3	U
74-88-4	Iodomethane	6.3	U
75-15-0	Carbon disulfide	6.3	U
75-09-2	Methylene chloride	6.3	U
156-60-5	trans-1,2-Dichloroethene	6.3	U
1634-04-4	Methyl tert-butyl ether	6.3	U
75-34-3	1,1-Dichloroethane	6.3	U
108-05-4	Vinyl acetate	6.3	U
78-93-3	2-Butanone	6.3	U
156-59-2	cis-1,2-Dichloroethene	6.3	U
594-20-7	2,2-Dichloropropane	6.3	U
74-97-5	Bromochloromethane	6.3	U
67-66-3	Chloroform	6.3	U
71-55-6	1,1,1-Trichloroethane	6.3	U
563-58-6	1,1-Dichloropropene	6.3	U
56-23-5	Carbon tetrachloride	6.3	U
107-06-2	1,2-Dichloroethane	6.3	U
71-43-2	Benzene	6.3	U
79-01-6	Trichloroethene	6.3	U
78-87-5	1,2-Dichloropropane	6.3	U
74-95-3	Dibromomethane	6.3	U
75-27-4	Bromodichloromethane	6.3	U
10061-01-5	cis-1,3-Dichloropropene	6.3	U
108-10-1	4-Methyl-2-pentanone	6.3	U
108-88-3	Toluene	6.3	U
10061-02-6	trans-1,3-Dichloropropene	6.3	U
79-00-5	1,1,2-Trichloroethane	6.3	U
142-28-9	1,3-Dichloropropane	6.3	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-17A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9524.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	6.3	U
591-78-6	2-Hexanone	6.3	U
124-48-1	Dibromochloromethane	6.3	U
106-93-4	1,2-Dibromoethane	6.3	U
108-90-7	Chlorobenzene	6.3	U
630-20-6	1,1,1,2-Tetrachloroethane	6.3	U
100-41-4	Ethylbenzene	6.3	U
1330-20-7	m,p-Xylene	6.3	U
95-47-6	o-Xylene	6.3	U
1330-20-7	Xylene (Total)	6.3	U
100-42-5	Styrene	6.3	U
75-25-2	Bromoform	6.3	U
98-82-8	Isopropylbenzene	6.3	U
79-34-5	1,1,2,2-Tetrachloroethane	6.3	U
108-86-1	Bromobenzene	6.3	U
96-18-4	1,2,3-Trichloropropane	6.3	U
103-65-1	n-Propylbenzene	6.3	U
95-49-8	2-Chlorotoluene	6.3	U
108-67-8	1,3,5-Trimethylbenzene	6.3	U
106-43-4	4-Chlorotoluene	6.3	U
98-06-6	tert-Butylbenzene	6.3	U
95-63-6	1,2,4-Trimethylbenzene	6.3	U
135-98-8	sec-Butylbenzene	6.3	U
99-87-6	4-Isopropyltoluene	6.3	U
541-73-1	1,3-Dichlorobenzene	6.3	U
106-46-7	1,4-Dichlorobenzene	6.3	U
104-51-8	n-Butylbenzene	6.3	U
95-50-1	1,2-Dichlorobenzene	6.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.3	U
120-82-1	1,2,4-Trichlorobenzene	6.3	U
87-68-3	Hexachlorobutadiene	6.3	U
87-61-6	1,2,3-Trichlorobenzene	6.3	U
91-20-3	Naphthalene	6.3	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-17A

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V6G9524.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 17 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-18A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9525.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 13 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.2	U
74-87-3	Chloromethane	6.2	U
75-01-4	Vinyl chloride	6.2	U
74-83-9	Bromomethane	6.2	U
75-00-3	Chloroethane	6.2	U
75-69-4	Trichlorofluoromethane	6.2	U
75-35-4	1,1-Dichloroethene	6.2	U
67-64-1	Acetone	6.2	U
74-88-4	Iodomethane	6.2	U
75-15-0	Carbon disulfide	6.2	U
75-09-2	Methylene chloride	6.2	U
156-60-5	trans-1,2-Dichloroethene	6.2	U
1634-04-4	Methyl tert-butyl ether	6.2	U
75-34-3	1,1-Dichloroethane	6.2	U
108-05-4	Vinyl acetate	6.2	U
78-93-3	2-Butanone	6.2	U
156-59-2	cis-1,2-Dichloroethene	6.2	U
594-20-7	2,2-Dichloropropane	6.2	U
74-97-5	Bromochloromethane	6.2	U
67-66-3	Chloroform	6.2	U
71-55-6	1,1,1-Trichloroethane	6.2	U
563-58-6	1,1-Dichloropropene	6.2	U
56-23-5	Carbon tetrachloride	6.2	U
107-06-2	1,2-Dichloroethane	6.2	U
71-43-2	Benzene	6.2	U
79-01-6	Trichloroethene	6.2	U
78-87-5	1,2-Dichloropropane	6.2	U
74-95-3	Dibromomethane	6.2	U
75-27-4	Bromodichloromethane	6.2	U
10061-01-5	cis-1,3-Dichloropropene	6.2	U
108-10-1	4-Methyl-2-pentanone	6.2	U
108-88-3	Toluene	6.2	U
10061-02-6	trans-1,3-Dichloropropene	6.2	U
79-00-5	1,1,2-Trichloroethane	6.2	U
142-28-9	1,3-Dichloropropane	6.2	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-18A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9525.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 13 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	6.2	U
591-78-6	2-Hexanone	6.2	U
124-48-1	Dibromochloromethane	6.2	U
106-93-4	1,2-Dibromoethane	6.2	U
108-90-7	Chlorobenzene	6.2	U
630-20-6	1,1,1,2-Tetrachloroethane	6.2	U
100-41-4	Ethylbenzene	6.2	U
1330-20-7	m,p-Xylene	6.2	U
95-47-6	o-Xylene	6.2	U
1330-20-7	Xylene (Total)	6.2	U
100-42-5	Styrene	6.2	U
75-25-2	Bromoform	6.2	U
98-82-8	Isopropylbenzene	6.2	U
79-34-5	1,1,2,2-Tetrachloroethane	6.2	U
108-86-1	Bromobenzene	6.2	U
96-18-4	1,2,3-Trichloropropane	6.2	U
103-65-1	n-Propylbenzene	6.2	U
95-49-8	2-Chlorotoluene	6.2	U
108-67-8	1,3,5-Trimethylbenzene	6.2	U
106-43-4	4-Chlorotoluene	6.2	U
98-06-6	tert-Butylbenzene	6.2	U
95-63-6	1,2,4-Trimethylbenzene	6.2	U
135-98-8	sec-Butylbenzene	6.2	U
99-87-6	4-Isopropyltoluene	6.2	U
541-73-1	1,3-Dichlorobenzene	6.2	U
106-46-7	1,4-Dichlorobenzene	6.2	U
104-51-8	n-Butylbenzene	6.2	U
95-50-1	1,2-Dichlorobenzene	6.2	U
96-12-8	1,2-Dibromo-3-chloropropane	6.2	U
120-82-1	1,2,4-Trichlorobenzene	6.2	U
87-68-3	Hexachlorobutadiene	6.2	U
87-61-6	1,2,3-Trichlorobenzene	6.2	U
91-20-3	Naphthalene	6.2	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DWB19-20

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-18A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9525.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 13 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-19A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9730.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/26/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	370	U
74-87-3	Chloromethane	370	U
75-01-4	Vinyl chloride	370	U
74-83-9	Bromomethane	370	U
75-00-3	Chloroethane	370	U
75-69-4	Trichlorofluoromethane	370	U
75-35-4	1,1-Dichloroethene	370	U
67-64-1	Acetone	370	U
74-88-4	Iodomethane	370	U
75-15-0	Carbon disulfide	370	U
75-09-2	Methylene chloride	370	U
156-60-5	trans-1,2-Dichloroethene	370	U
1634-04-4	Methyl tert-butyl ether	370	U
75-34-3	1,1-Dichloroethane	370	U
108-05-4	Vinyl acetate	370	U
78-93-3	2-Butanone	370	U
156-59-2	cis-1,2-Dichloroethene	370	U
594-20-7	2,2-Dichloropropane	370	U
74-97-5	Bromochloromethane	370	U
67-66-3	Chloroform	370	U
71-55-6	1,1,1-Trichloroethane	370	U
563-58-6	1,1-Dichloropropene	370	U
56-23-5	Carbon tetrachloride	370	U
107-06-2	1,2-Dichloroethane	370	U
71-43-2	Benzene	370	U
79-01-6	Trichloroethene	370	U
78-87-5	1,2-Dichloropropane	370	U
74-95-3	Dibromomethane	370	U
75-27-4	Bromodichloromethane	370	U
10061-01-5	cis-1,3-Dichloropropene	370	U
108-10-1	4-Methyl-2-pentanone	370	U
108-88-3	Toluene	370	U
10061-02-6	trans-1,3-Dichloropropene	370	U
79-00-5	1,1,2-Trichloroethane	370	U
142-28-9	1,3-Dichloropropane	370	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-19A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9730.D

Level: (TRACE/LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/26/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	370	U
591-78-6	2-Hexanone	370	U
124-48-1	Dibromochloromethane	370	U
106-93-4	1,2-Dibromoethane	370	U
108-90-7	Chlorobenzene	370	U
630-20-6	1,1,1,2-Tetrachloroethane	370	U
100-41-4	Ethylbenzene	370	U
1330-20-7	m,p-Xylene	370	U
95-47-6	o-Xylene	370	U
1330-20-7	Xylene (Total)	370	U
100-42-5	Styrene	370	U
75-25-2	Bromoform	370	U
98-82-8	Isopropylbenzene	370	U
79-34-5	1,1,2,2-Tetrachloroethane	370	U
108-86-1	Bromobenzene	370	U
96-18-4	1,2,3-Trichloropropane	370	U
103-65-1	n-Propylbenzene	370	U
95-49-8	2-Chlorotoluene	370	U
108-67-8	1,3,5-Trimethylbenzene	150	J
106-43-4	4-Chlorotoluene	370	U
98-06-6	tert-Butylbenzene	330	J
95-63-6	1,2,4-Trimethylbenzene	370	U
135-98-8	sec-Butylbenzene	1600	
99-87-6	4-Isopropyltoluene	2400	
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
104-51-8	n-Butylbenzene	4400	
95-50-1	1,2-Dichlorobenzene	370	U
96-12-8	1,2-Dibromo-3-chloropropane	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
87-68-3	Hexachlorobutadiene	370	U
87-61-6	1,2,3-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DWB23.5-24.5

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-19A

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V6G9730.D

Level: (TRACE or LOW/MED) MED Date Received: 09/17/2009

% Moisture: not dec. 16 Date Analyzed: 09/26/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 5.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	638-04-0	Cyclohexane, 1,3-dimethyl-,	7.689	100000	NJ
02	1678-91-7	Cyclohexane, ethyl-	8.863	180000	NJ
03	2216-34-4	Octane, 4-methyl-	9.276	25000	NJ
04	2216-33-3	Octane, 3-methyl-	9.441	17000	NJ
05		Unknown-01	9.921	18000	J
06		Unknown-02	10.317	17000	J
07		Unknown-03	10.730	21000	J
08		Unknown-04	11.077	20000	J
09		Unknown-05	11.667	19000	J
10	493-02-7	Naphthalene, decahydro-, tra	12.902	23000	NJ
11		Unknown-06	15.025	18000	J
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB-29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-20A

Sample wt/vol: 4.30 (g/mL) G Lab File ID: V6G9526.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.8	U
74-87-3	Chloromethane	6.8	U
75-01-4	Vinyl chloride	6.8	U
74-83-9	Bromomethane	6.8	U
75-00-3	Chloroethane	6.8	U
75-69-4	Trichlorofluoromethane	6.8	U
75-35-4	1,1-Dichloroethene	6.8	U
67-64-1	Acetone	6.8	U
74-88-4	Iodomethane	6.8	U
75-15-0	Carbon disulfide	6.8	U
75-09-2	Methylene chloride	6.8	U
156-60-5	trans-1,2-Dichloroethene	6.8	U
1634-04-4	Methyl tert-butyl ether	6.8	U
75-34-3	1,1-Dichloroethane	6.8	U
108-05-4	Vinyl acetate	6.8	U
78-93-3	2-Butanone	6.8	U
156-59-2	cis-1,2-Dichloroethene	6.8	U
594-20-7	2,2-Dichloropropane	6.8	U
74-97-5	Bromochloromethane	6.8	U
67-66-3	Chloroform	6.8	U
71-55-6	1,1,1-Trichloroethane	6.8	U
563-58-6	1,1-Dichloropropene	6.8	U
56-23-5	Carbon tetrachloride	6.8	U
107-06-2	1,2-Dichloroethane	6.8	U
71-43-2	Benzene	6.8	U
79-01-6	Trichloroethene	6.8	U
78-87-5	1,2-Dichloropropane	6.8	U
74-95-3	Dibromomethane	6.8	U
75-27-4	Bromodichloromethane	6.8	U
10061-01-5	cis-1,3-Dichloropropene	6.8	U
108-10-1	4-Methyl-2-pentanone	6.8	U
108-88-3	Toluene	6.8	U
10061-02-6	trans-1,3-Dichloropropene	6.8	U
79-00-5	1,1,2-Trichloroethane	6.8	U
142-28-9	1,3-Dichloropropane	6.8	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB-29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-20A

Sample wt/vol: 4.30 (g/mL) G Lab File ID: V6G9526.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	6.8	U
591-78-6	2-Hexanone	6.8	U
124-48-1	Dibromochloromethane	6.8	U
106-93-4	1,2-Dibromoethane	6.8	U
108-90-7	Chlorobenzene	6.8	U
630-20-6	1,1,1,2-Tetrachloroethane	6.8	U
100-41-4	Ethylbenzene	6.8	U
1330-20-7	m,p-Xylene	6.8	U
95-47-6	o-Xylene	6.8	U
1330-20-7	Xylene (Total)	6.8	U
100-42-5	Styrene	6.8	U
75-25-2	Bromoform	6.8	U
98-82-8	Isopropylbenzene	6.8	U
79-34-5	1,1,2,2-Tetrachloroethane	6.8	U
108-86-1	Bromobenzene	6.8	U
96-18-4	1,2,3-Trichloropropane	6.8	U
103-65-1	n-Propylbenzene	6.8	U
95-49-8	2-Chlorotoluene	6.8	U
108-67-8	1,3,5-Trimethylbenzene	6.8	U
106-43-4	4-Chlorotoluene	6.8	U
98-06-6	tert-Butylbenzene	6.8	U
95-63-6	1,2,4-Trimethylbenzene	6.8	U
135-98-8	sec-Butylbenzene	6.8	U
99-87-6	4-Isopropyltoluene	6.8	U
541-73-1	1,3-Dichlorobenzene	6.8	U
106-46-7	1,4-Dichlorobenzene	6.8	U
104-51-8	n-Butylbenzene	6.8	U
95-50-1	1,2-Dichlorobenzene	6.8	U
96-12-8	1,2-Dibromo-3-chloropropane	6.8	U
120-82-1	1,2,4-Trichlorobenzene	6.8	U
87-68-3	Hexachlorobutadiene	6.8	U
87-61-6	1,2,3-Trichlorobenzene	6.8	U
91-20-3	Naphthalene	6.8	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DWB-29-30

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H1787 Mod. Ref No.: SDG No.: SH1787

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H1787-20A

Sample wt/vol: 4.30 (g/mL) G Lab File ID: V6G9526.D

Level: (TRACE or LOW/MED) LOW Date Received: 09/17/2009

% Moisture: not dec. 14 Date Analyzed: 09/20/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

APPENDIX C

MICROBIAL INSIGHTS DATA PACKAGE
SEPTEMBER 2009 SAMPLING EVENT

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Paul Kareth
AECOM Tech Services (Earth Tech)
300 Broad Acres Drive
Bloomfield, NJ 07003

Phone: (973) 338-6680

Fax: (973) 338-1052

Identifier: 037GI **Date Rec:** 09/17/2009 **Report Date:** 09/23/2009

Client Project #: 95900 **Client Project Name:** SMS

Purchase Order #:

Analysis Requested: CENSUS, PLFA

Comments:

Reviewed By:

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

Sample Information

Client Sample ID:		**SB 16B 23.5-24.5**	**SB 16 23.5-24.5**	**SB 12B 23.5-24.5**	**SB 12 23.5-24.5**	**DW 23.5-24.5**
Sample Date:		09/15/2009	09/15/2009	09/15/2009	09/15/2009	09/16/2009
Units:		cells/g	cells/g	cells/g	cells/g	cells/g
Analyst:		ab	ab	ab	ab	ab
Phylogenetic Group						
Methane Oxidizing Bacteria	MOB	**8.49E+08**	**1.28E+09**	**8.43E+08**	**9.04E+08**	**1.29E+09**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

Sample Information

Client Sample ID:	**DWB 23.5-24.5**
Sample Date:	09/16/2009
Units:	cells/g
Analyst:	ab

Phylogenetic Group

Methane Oxidizing Bacteria	MOB	**1.20E+09**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Paul Kareth
AECOM Tech Services (Earth Tech)
300 Broad Acres Drive
Bloomfield, NJ 07003

Phone: (973) 338-6680

Fax: (973) 338-1052

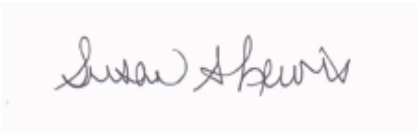
Identifier: 037GI **Date Rec:** 09/17/2009 **Report Date:** 09/29/2009

Client Project #: 95900 **Client Project Name:** SMS

Purchase Order #:

Analysis Requested: CENSUS, PLFA

Reviewed By:



MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

Sample Information

Client Sample ID:		**SB 16B 23.5-24.5**	**SB 16 23.5-24.5**	**SB 12B 23.5-24.5**	**SB 12 23.5-24.5**	**DW 23.5-24.5**
Sample Date:		09/15/2009	09/15/2009	09/15/2009	09/15/2009	09/16/2009
Units:		cells/g	cells/g	cells/g	cells/g	cells/g
Analyst:		ab	ab	ab	ab	ab
Phylogenetic Group						
Methane Oxidizing Bacteria	MOB	**8.49E+08**	**1.28E+09**	**8.43E+08**	**9.04E+08**	**1.29E+09**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

Sample Information

Client Sample ID:	**DWB 23.5-24.5**
Sample Date:	09/16/2009
Units:	cells/g
Analyst:	ab

Phylogenetic Group

Methane Oxidizing Bacteria	MOB	**1.20E+09**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

Sample Information

Sample Name:	**SB 16B 23.5-24.5**	**SB 16 23.5-24.5**	**SB 12B 23.5-24.5**	**SB 12 23.5-24.5**	**DW 23.5-24.5**
Sample Date:	09/15/2009	09/15/2009	09/15/2009	09/15/2009	09/16/2009
Sample Matrix:	Soil	Soil	Soil	Soil	Soil
Analyst:	MG	MG	MG	MG	MG

Biomass

Total Biomass (cells/g)	**1.72E+08**	**1.93E+08**	**1.54E+08**	**1.00E+08**	**2.46E+08**

Community Structure (% total PLFA)

Firmicutes (TerBrSats)	**12.92**	**13.69**	**13.52**	**12.35**	**13.26**
Proteobacteria (Monos)	**61.74**	**59.66**	**59.96**	**59.24**	**59.56**
Anaerobic metal reducers (BrMonos)	**1.63**	**1.89**	**1.61**	**1.40**	**1.79**
SRB/Actinomycetes (MidBrSats)	**1.62**	**1.59**	**2.03**	**1.97**	**2.25**
General (Nsats)	**21.33**	**22.33**	**22.00**	**24.35**	**22.34**
Eukaryotes (polyenoics)	**0.78**	**0.85**	**0.87**	**0.71**	**0.77**

Physiological Status (Proteobacteria only)

Slowed Growth	**1.05**	**0.91**	**0.75**	**0.74**	**1.00**
Decreased Permeability	**0.18**	**0.18**	**0.20**	**0.20**	**0.17**

Legend:
NA = Not Analyzed NS = Not Sampled

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

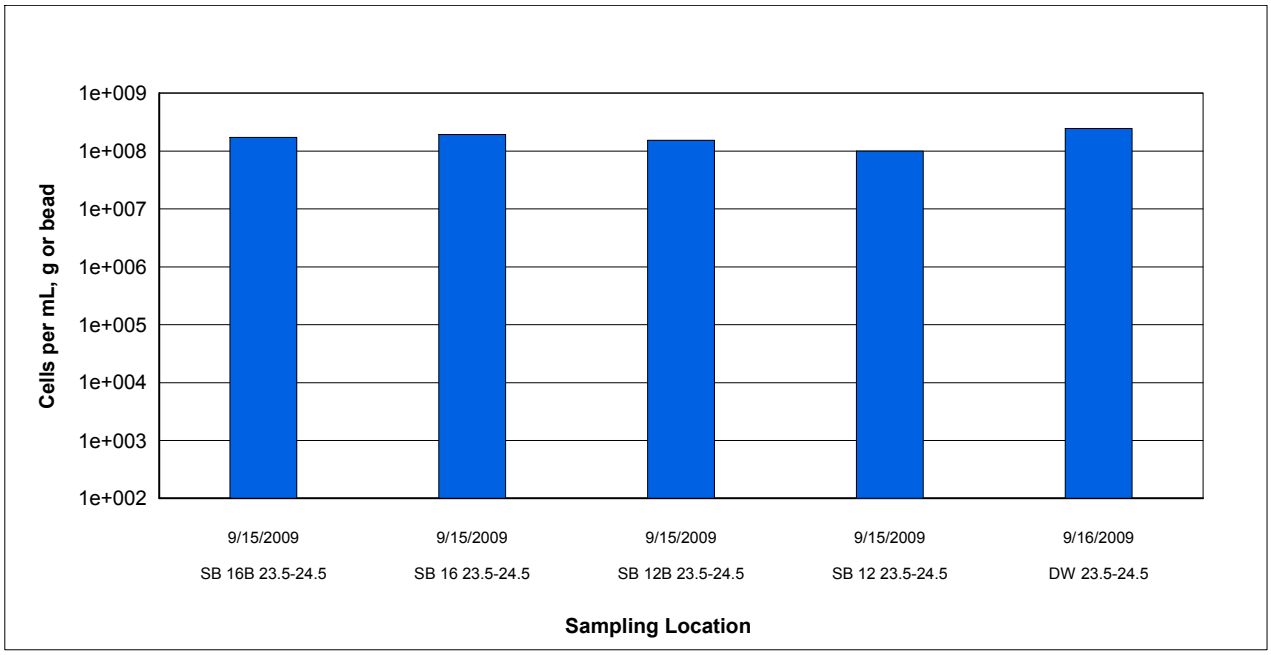


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass

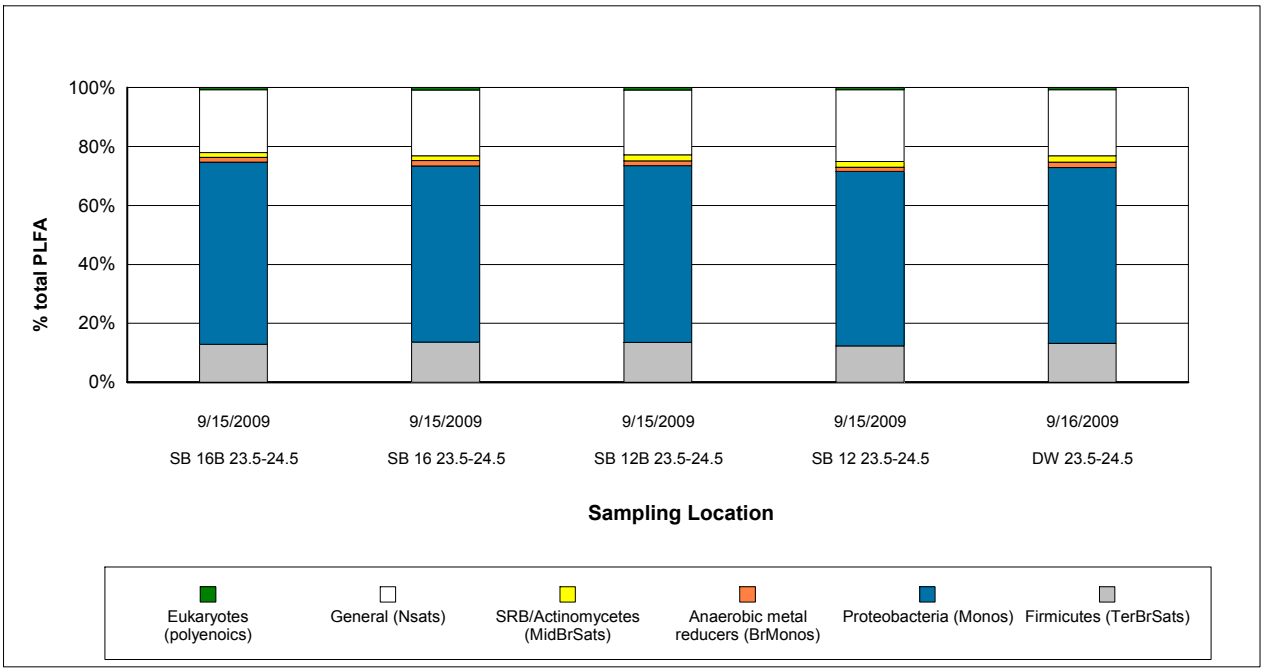


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

Sample Information

Sample Name:	**DWB 23.5-24.5**
Sample Date:	09/16/2009
Sample Matrix:	Soil
Analyst:	MG

Biomass

Total Biomass (cells/g)	**1.49E+08**

Community Structure (% total PLFA)

Firmicutes (TerBrSats)	**12.89**
Proteobacteria (Monos)	**62.10**
Anaerobic metal reducers (BrMonos)	**2.06**
SRB/Actinomycetes (MidBrSats)	**2.93**
General (Nsats)	**18.77**
Eukaryotes (polyenoics)	**1.26**

Physiological Status (Proteobacteria only)

Slowed Growth	**1.05**
Decreased Permeability	**0.19**

Legend:
NA = Not Analyzed NS = Not Sampled

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

PLFA

Client: **AECOM Tech Services (Earth Tech)**
Project: SMS

MI Project Number: **037GI**
Date Received: 09/17/2009

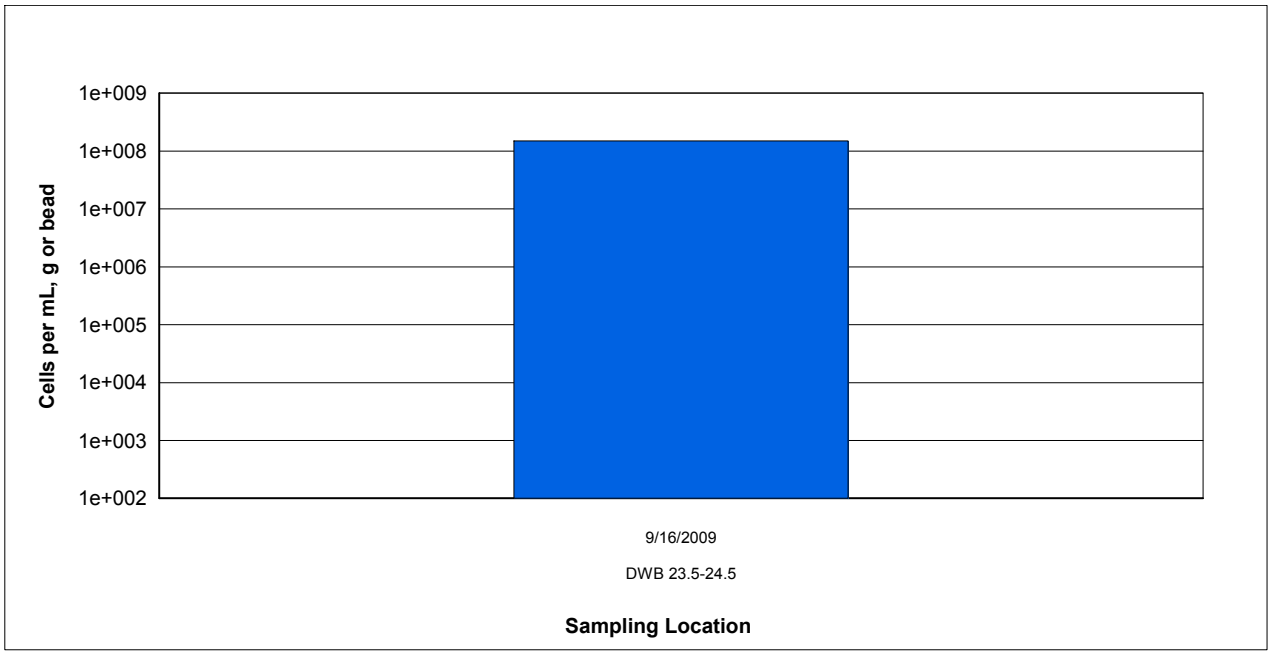


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass

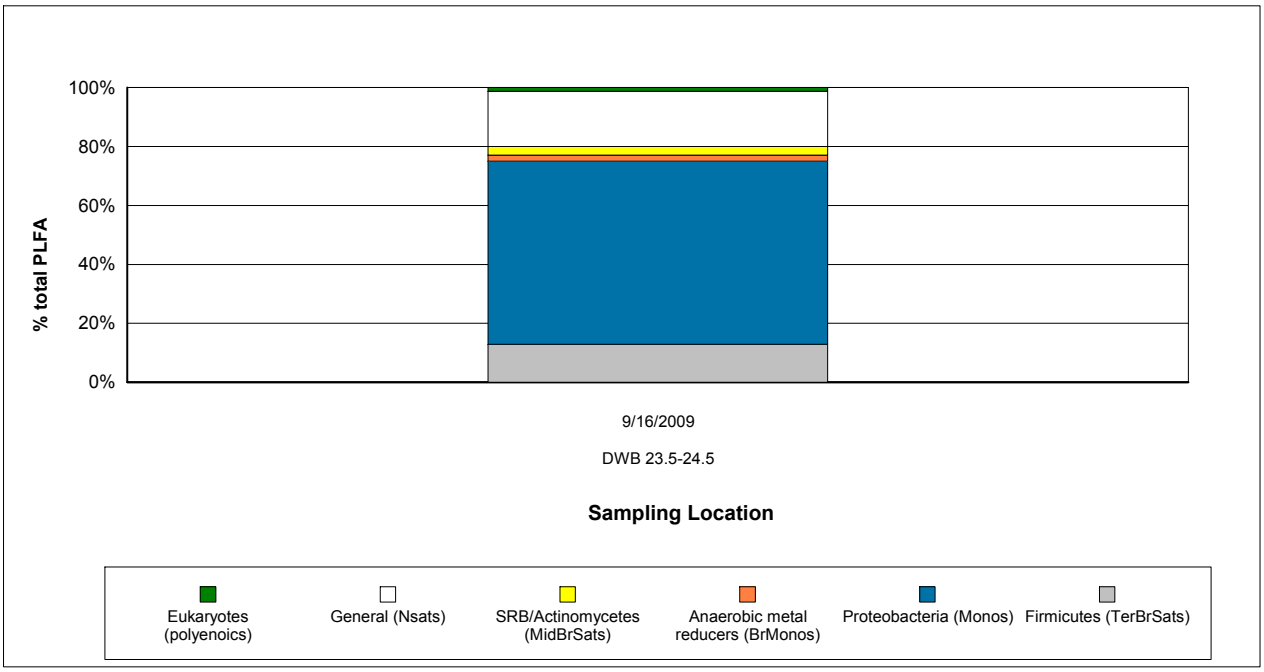


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Identifier: 037GI **Date Rec:** 09/17/2009 **Report Date:** 09/29/2009

Client Project #: 95900 **Client Project Name:** SMS

Purchase Order #:

Comments:

REPORT TO:

Reports will be provided to the contact(s) listed below. Parties other than the contact(s) listed below will require prior approval.

Name: Paul Kareth
Company: AECOM
Address: 300 Broadacres Drive
Bloomfield, NJ 07003

email: Paul.Kareth@aecom.com
Phone: (973) 338-6680
Fax: (973) 338-1052

Project Manager: Paul Kareth
Project Name: SMS
Project No.: 95900

INVOICE TO:

For Invoices **paid by a third party** it is imperative that contact information & corresponding reference No. be provided.

Name: Sarah Zhang
Company: AECOM
Address: 300 Broadacres Drive
Bloomfield, NJ 07003

email:
Phone: (973) 338-6680
Fax: (973) 338-1052

Purchase Order No.
Subcontract No.

microbialinsights
2340 Stock Creek Blvd.
Rockford, TN 37853-3044
phone (865) 573-8188
fax: (865) 573-8133
email: info@microbe.com
www.microbe.com

Please Check One:

☐ More samples to follow
☒ No Additional Samples

Saturday Delivery
Please see sampling protocol for instructions

Report Type: ☒ Standard (default) ☐ Comprehensive (15% surcharge) ☐ Historical (30% surcharge)

Please contact us prior to submitting samples regarding questions about the analyses you are requesting at (865) 573-8188 (8:00 am to 4:00 pm M-F). After these hours please call (865) 300-8053.

Sample Information											CENSUS: Please select the target organism/gene																								
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	PLFA	VFA	M/E/E	DGGE+SID	DGGE+SID		qDHC (Dehalococcoides)	DHC Functional genes	qDHB (Dehalobacter)	qDSM (Desulfuromonas)	qDSB (Desulfitobacterium)	qEBAC (Total)	qDSR (SRBs only)	qSRB/IRB	qMGN (methanogens)	qMOB (methanotrophs)	qDNF (Denitrifying)	qAOB (ammonia oxidizing)	qPM1 (MTBE aerobic)	qTOD (Intial PAHs aerobic)	qCAT (Intermediate PAHs aerobic)	qBSS (Toluen/Xylene Anaerobic)	qNAH (Napthalene aerobic)	add. qPCR:	add. qPCR:	add. qPCR:	RNA (Expression Option)*	Other:	Other:	Other:	Other:
031GI 1	SB 16B 23.5-24.5	9/15/09	0945	soil	X															X														
2	SB 16 23.5-24.5	9/15/09	1110		X															X												Sampled Mailed in 2 coolers			
3	SB 12B 23.5-24.5	9/15/09	1205		X															X														
4	SB 12 23.5-24.5	9/15/09	1335		X															X														
5	DW 23.5-24.5	9/16/09	0910		X															X														
6	DWB 23.5-24.5	9/16/09	0955		X															X														

Relinquished by: Sabyasachi Chatterjee Date: 9/16/09

Received by: My Nguyen Date 9/17/09 @ 9:30

In order for analysis to be completed correctly, it is vital that chain of custody is filled out correctly & that all relative information is provided. Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable. * additional cost and sample preservation are associated with RNA samples.