Report

Middle Mainland Remediation Area Remedial Approach South Charleston Facility South Charleston, West Virginia

Prepared for

Union Carbide Corporation

A Wholly Owned Subsidiary of The Dow Chemical Company

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CH2MHILL®

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Acronyms and Abbreviations

µg/kg	micrograms per kilogram
µg/L	micrograms per liter
AF	attenuation factor
bgs	below ground surface
CCR	*Current Conditions Report*
COPC	constituent of potential concern
CSM	conceptual site model
DCA	dichloroethane
DCE	dichloroethylene
ELCR	excess lifetime cancer risk
EU	exposure unit
facility	South Charleston Facility in South Charleston, West Virginia
HHRA	human health risk assessment
HI	hazard index
ISCO	in situ chemical oxidation
LTM	long-term monitoring
PCE	tetrachloroethene
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RSL	regional screening level
site	Middle Mainland Remediation Area
SVE	soil vapor extraction
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TCE	trichloroethene
UCC	Union Carbide Corporation
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

SECTION 1

Introduction

This Remedial Approach Report addresses the Middle Mainland Remediation Area of the Union Carbide Corporation (UCC) South Charleston Facility in South Charleston, West Virginia (hereafter referred to as the "facility"). This report has been prepared for UCC, a wholly owned subsidiary of The Dow Chemical Company. Figure 1-1 provides a facility overview and general location of the Middle Mainland Remediation Area. Environmental site investigations and remediation activities at the facility are managed in accordance with United States Environmental Protection Agency (USEPA) Region 3 and the Resource Conservation and Recovery Act (RCRA) Facility Lead Agreement, dated December 15, 1999.

The Middle Mainland Remediation Area (hereafter referred to as the "site") is one of 10 remediation areas identified at the facility to help organize and manage remediation activities. There are five remediation areas on the Mainland and five remediation areas on Blaine Island (Figure 1-1). The remediation area boundaries were established geographically to generally include distinct groundwater plumes and their source areas by following current facility features (e.g., roads, buildings, fences, etc.) to the extent possible. More information on the remediation areas is provided in the *Current Conditions Report* (CCR; CH2M HILL 2010a).

1.1 Purpose

The purpose of this report is to present:

- The conceptual site model (CSM) for the site
- A summary of the human health risk assessments (HHRAs) conducted at the site
- The site remedial action objectives (RAOs)
- The remedies that were evaluated, the recommended remedy, and approach for its implementation

1.2 Report Overview

This report is organized into four main sections:

- Section 1, *Introduction*
- Section 2, *Conceptual Site Model*: Presents the site history and CSM
- Section 3, *HHRA Summary*: Presents a summary of the HHRAs conducted at the site
- Section 4, *Remedy Evaluation*: Defines the RAOs, presents the remedial alternatives, and describes the selected remedy

SECTION 2

Conceptual Site Model

2.1 Site Background

The site is one of five remediation areas on the Mainland portion of the facility (Figure 1-1). It includes Buildings 301/303, 307, 323, and surrounding areas. Two solid waste management units (SWMUs) 18 and 19 also are located in the eastern portion of the site, near Building 301/303 (Figure 2-1). Based on historical operation maps included in the CCR (CH2M HILL 2010a), the site appears to have been used primarily for chemical mixing and shipping in the area now occupied by Building 301/303 and maintenance shops in the area now occupied by Building 307 (Figure 2-1). Relevant historical operations maps and photographs from the CCR are included in Appendix A for reference.

2.1.1 Building 301/303 and Vicinity

Building 303 is identified on a 1933 Sanborn map as a "Pyro Shipping Building" attached to a "Drum Warehouse." In 1957, based on historical operations maps, the area currently occupied by Building 301/303 was still being used for shipping. Facility engineering drawings referred to this area as the oil yard shipping area (CH2M HILL 2007). Oils handled in the oil yard shipping area included lubricant oil and hydrolube. Raw materials handled included ethylene, vinyl acetate, acetone, isopropanol, ethyl acrylate, and acrylic acid. Various grades of polymers, recovered vinyl acetate, and ethylene were the primary products (CH2M HILL 2007). The 1982 historical operations map indicates the area was used for chemical mixing. It is not known when operations in the area transitioned from shipping to chemical mixing, except that it occurred sometime between 1957 and 1982. In addition, a tank farm between Buildings 301/303 and 307 appears for the first time on a 1969 aerial photograph and is still present at the site. This tank farm, according to UCC personnel, has always been used for the chemical mixing operations.

Historical photographs and Sanborn maps of the Building 301/303 area show a long, rectangular building with a row of tanks and railroad tracks along the northern side of the building and railroad loading/unloading areas along the southern side. The tank and railroad areas north and south of the building later were designated as SWMU 18 (Chemical Mixing Loading/Unloading). The only other SWMU at the site is SWMU 19 (East of Chemical Mixing), which also was a loading/unloading area. Historical photographs show two buildings in the SWMU 19 area with railroad tracks along the southern side of the buildings. The historical Sanborn maps show only one building in the SWMU 19 area and refer to it as the "Receiving Dept."

The Building 301/303 area currently is used for shipping and is designated as the Chemical Mixing Unit. The building contains a drum storage area and small control rooms. The area surrounding the building is primarily paved with a rail loading rack south of the building, truck loading north of the building, and a tank farm to the west.

2.1.2 Building 307 and Vicinity

The 1930 historical operations map shows the area currently occupied by Building 307 was the Libby-Owens-Food Glass Company. The 1938 and 1943 aerial photographs show several railroad tracks in the Building 307 area and what appears to be piles of coal. The 1957, 1982, and 1990 historical operations maps indicate the area was used for maintenance shops.

Building 307 currently is used primarily for office and administrative-type work. It is not known when the operations in the area transitioned from maintenance shops to offices, except that it occurred in the early 2000s. A building survey completed in 2008 indicated there was one active maintenance shop in Building 307 (CH2M HILL 2009a). The area around Building 307 currently includes paved parking lots with grass to the south and railroad tracks running parallel to the facility boundary.

2.2 Geology and Hydrology

The facility-wide geology generally consists of the four units described below. More details on the facility-wide geology are provided in the CCR (CH2M HILL 2010a).

- Fill consisting primarily of reworked fine-grained soil, sand and silty-sand layers, and construction debris
- The upper fine-grained soil unit consisting primarily of silts and clays with lenses of silty- or clayey-sands
- The alluvium coarse-grained unit, consisting of coarse-grained soil (sand and gravel)
- Bedrock consisting of thinly bedded sandstone

For the site, Figures 2-1, 2-2, and 2-3 present the plan view and geologic cross sections that extend from west to east (A-A') and south to north (B-B'), respectively. No fill is apparent in the western portion of the site; fill in the eastern portion consists of a gravel layer that ranges from 1 to 15 feet thick. The upper fine-grained unit in the western portion of the site (borings D006 to PZ033) consists of a sandy silt layer that extends from the ground surface to approximately 20 feet below ground surface (bgs). Beneath the fill in the eastern portion of the site, the upper fine-grained unit consists of clays and silts that vary in thickness, as shown on the cross sections (Figures 2-2 and 2-3). The fine-grained unit extends deeper toward the Kanawha River (Figure 2-3). The alluvium coarse-grained unit consists of coarser-grained sand and extends from approximately 20 to 60 feet bgs and thins toward the Kanawha River. Bedrock at the facility typically is encountered at approximately 60 feet bgs.

Groundwater at the site occurs in perched zones within the upper fine-grained unit, and the water table occurs in the alluvium coarse-grained unit. Perched groundwater was encountered in boring DP056 at 16 feet bgs and in piezometer PZ030, which is screened from 17 to 27 feet bgs. The alluvial aquifer occurs at approximately 35 feet bgs. Groundwater occurs under unconfined conditions, with approximately 15 feet of unsaturated sand occurring above the water table at the site. The water table is relatively flat with groundwater gradients generally around 0.0093 foot per feet at the site (CH2M HILL 2010a). Groundwater flows toward the Kanawha River except during the rare

period when the Kanawha River is in flood stage. During flooding events, the river recharges portions of the alluvial aquifer near the river. Figure 2-4 show the potentiometric surface for the site based on groundwater elevation data collected in August 2011.

2.3 Nature and Extent of Contamination

The nature and extent of facility contamination initially was defined and reported during the Phase I and Phase II RCRA facility investigations that was conducted from 2002 through 2007, and summarized in the CCR (CH2M HILL 2010a). Additional investigative activities took place at the site in 2008 and 2009 during the *UCC South Charleston Facility Middle Mainland Remediation Area Pre-Design Investigation* (Appendix B).

2.3.1 Impacts to Soil

Four surface soil samples were collected from 0 to 2 feet bgs, and 72 subsurface soil samples were collected from 37 locations at the site or offsite to the south (Figure 2-1). Depths ranged from 1 to 40 feet bgs. Various metals, polychlorinated biphenyls, volatile organic compounds (VOCs), and semivolatile organic compounds (SVOCs) have been detected in soil samples collected at the site. Detected results were compared to the minimum, adjusted industrial soil regional screening levels (RSLs) (USEPA 2012a), based on a target risk equal to $1x10^{-6}$ and a target hazard index (HI) equal to 0.1, hereinafter referred to as industrial soil RSL, in Table 2-1 to understand which analytes were constituents of potential concern (COPCs). The following constituents were detected at concentrations greater than their respective industrial soil RSL:

- Metals: Arsenic
- SVOCs: Benzo(a)pyrene; bis(2-chloroethyl)ether; and dibenzo(a,h)anthracene
- VOCs: 1,2-Dichloroethane (1,2-DCA); benzene; chloroform; and trichloroethene (TCE)

1,2-DCA; benzene; and TCE were used to depict impacts at the site because of their relatively high concentrations in soil and groundwater and their occurrence over a relatively large area in comparison to other COPCs.

Based on the soil analytical results, it appears there are two source areas for the site. One source area is located south and east of Building 301/303, and the other source area is south of Building 307. These source areas are discussed below.

Building 301/303 and Vicinity

This source area is located primarily south and east of Building 301/303. The area beneath Building 301/303 could not be investigated; therefore, it is unknown whether the source area extends beneath the building. The source of COPCs south of Building 301/303 likely is related to various chemicals that were loaded and unloaded from rail cars in this area since 1933. The source of COPCs east of Building 301/303 is unknown but does not appear to be from current operations because of the depth of the impacts (at least 30 feet bgs). The following describes the extent of 1,2-DCA; benzene; and TCE in the vicinity of Building 301/303.

- **1,2-DCA:** The lateral extent of 1,2-DCA in soil is shown on Figure 2-5. The highest concentrations of 1,2-DCA in soil occur in the finer-grained soils (the clay/silt layer shown on Figure 2-2) adjacent to the southeastern portion of Building 301/303 (boring

2012). The 1,2-DCA concentrations at boring 2012 are 73,200 micrograms per kilogram (µg/kg) at 15 to 16 feet bgs and 30,000 µg/kg at 17 to 18 feet bgs. The concentrations of 1,2-DCA throughout the rest of this source area are less than 800 µg/kg.

- **Benzene:** The lateral extent of benzene in soil is shown on Figure 2-6. The highest concentrations of benzene (greater than 1,000 µg/kg) in soil occur in the deeper sand layer south of Building 301/303 (borings 2011 from 35 to 36 feet bgs and 3030 from 33 to 34 feet bgs) and west of Building 301/303 (boring 3037 from 30 to 31 feet bgs). Benzene concentrations in the overlying finer-grained soils generally are less than 500 µg/kg.
- **TCE:** The lateral extent of TCE in soil is shown on Figure 2-7. The highest concentrations of TCE (greater than 5,000 µg/kg) in soil occur in the finer-grained soils (Figures 2-2 and 2-3) south of Building 301/303 (borings 2011 at 11 to 12 feet bgs and 2012 at 15 to 16 feet bgs). Concentrations of TCE in the underlying sand layer were not detected. TCE is a degradation product of tetrachloroethene (PCE). PCE shows a lateral extent similar to TCE; however, the concentrations of PCE in soil generally are lower.

Building 307 and Vicinity

A second source area is southeast of Building 307 near the facility boundary and possibly offsite. The primary COPC in this area is TCE. The lateral extent of TCE in soil is shown on Figure 2-7. The highest concentration of TCE (25,100 µg/kg) in soil occurs in the sand layer immediately above the water table (32 to 33 feet bgs) on the southeastern corner of the parking area adjacent to Building 307 (boring 3026). Samples from adjacent borings had significantly lower concentrations (less than 1,200 µg/kg). PCE also shows a similar extent to TCE, but with lower concentrations for this area of the site.

The source for this area of the site appears to be related to the former rail lines rather than the maintenance activities in Building 307, since constituent concentrations in borings between Building 307 and boring 3026 are considerably lower. Currently, there is not a potential for active release since the rail lines are no longer present and Building 307 is not used for chemical handling or manufacturing.

2.3.2 Groundwater Plumes

Groundwater at the site has been characterized by 22 groundwater grab samples (collected between 2002 and 2009) and numerous groundwater samples collected from the six piezometers and three monitoring wells at the site. Piezometers PZ030 through PZ033 and all three monitoring wells were sampled during the 2011 facility-wide groundwater sampling (CH2M HILL 2012a). Detected results data from groundwater grab samples and the most recent round of data from piezometers and monitoring wells are provided in Table 2-2.

Various metals, VOCs, and SVOCs have been detected in groundwater samples collected at the site, but groundwater is not used as a potable source. Therefore, COPCs for groundwater were identified by comparing the detected results for groundwater to the facility pore water cleanup levels in Table 2-2. The pore water cleanup levels are presented in the *Pore Water Cleanup Levels and Groundwater Performance Criteria Report* (CH2M HILL 2009b) and were established to be protective of potential Kanawha River human and ecological receptors. The cleanup levels pertain only to VOCs. SVOCs have a tendency to

sorb to organic carbon; therefore, SVOCs were addressed by evaluating site-adjacent sediment, as discussed in the *Kanawha River Investigation Repor*t (CH2M HILL 2009c).

Five VOCs exceeded pore water cleanup levels: 1,2-DCA; benzene; ethylbenzene; toluene; and TCE. Ethylbenzene and toluene were only detected at concentrations above the pore water cleanup levels in one groundwater grab sample (3066); therefore, the three primary constituents detected in groundwater (1,2-DCA; benzene; and TCE) were used to depict the lateral extent of groundwater impacts at the site (Figures 2-8, 2-9, and 2-10).

In general, there appear to be two groundwater plumes, one extending from each source area toward the Kanawha River, consistent with groundwater flow. The groundwater plume near Building 301/303 also appears to extend slightly offsite to the south. Downgradient groundwater and pore water analytical results indicate the plumes do not discharge to the Kanawha River above the pore water cleanup levels (discussed further in Section 2.3.3).

- **1,2-DCA:** The extent of 1,2-DCA in groundwater is shown on Figure 2-8. The highest concentration of 1,2-DCA in groundwater occurs south of Building 301/303 in monitoring well PZ031 (screened at the top of the water table). The highest concentration of this constituent in groundwater is upgradient of the highest soil concentration (boring 2012), but is within the general area of the apparent source.
- **Benzene:** The extent of benzene in groundwater is shown on Figure 2-9. The highest concentration of benzene (6,260 micrograms per liter [µg/L]) occurs north of Building 301/303 in groundwater grab sample MP53, collected at the top of the water table in December 2004. The highest benzene concentration reported during the 2011 facility-wide groundwater sampling event was 1,220 µg/L in the sample collected from PZ031. The highest concentrations of benzene in groundwater correspond with the highest soil concentrations for benzene.
- **TCE:** The lateral extent of the TCE groundwater plumes is shown on Figure 2-10. The vertical extent of TCE in groundwater is shown on Figures 2-2 and 2-3. The plumes correspond to the high TCE soil concentrations found near the railroad loading/unloading area south of Building 301/303 and the area south of Building 307. PCE was only detected at two groundwater sample locations (one at each source area). Concentrations of TCE degradation products (cis-1,2-dichloroethylene [cis-1,2-DCE]; trans-1,2-DCE; and vinyl chloride) were detected in groundwater within and downgradient of the TCE plume, indicating TCE is being degraded. None of the TCE degradation products exceeded pore water cleanup levels (Table 2-3).

Groundwater Data Trends

Time series graphs of groundwater COPCs for five piezometers (PZ030, PZ031, PZ032, PZ033, and PZ044) and two monitoring wells (MW037 and MW038) are included in Appendix C. These graphs were qualitatively evaluated to determine if groundwater concentration trends are generally decreasing, increasing, or stable. Overall, the time series graphs show a stable or decreasing trend for the COPCs.

2.3.3 Kanawha River Pore Water

The following three potential exposure pathways were identified relative to groundwater discharge to the Kanawha River (CH2M HILL 2009c):

- Exposure, by direct contact, of benthic organisms to constituents in pore water
- Exposure, by direct contact, of pelagic organisms (invertebrates and fish) to constituents in the water column following venting of pore water to the river
- Exposure, by ingestion of fish, by recreational users of the Kanawha River to groundwater constituents that may discharge to the river and subsequently be taken up by fish within the water column

The pore water cleanup levels were established to be protective of all potential Kanawha River exposure pathways for human and ecological receptors. Eight pore water samples were collected in the Kanawha River Back Channel to evaluate if site groundwater is discharging to pore water above the cleanup levels; the detected results from these samples are compared to the pore water cleanup levels in Table 2-3. No constituents were detected at concentrations greater than their respective pore water cleanup level, which indicates the COPCs in site groundwater are not discharging to the Kanawha River pore water at concentrations above protective levels (CH2M HILL 2012b). Figure 2-8 through 2-10 include the results for pore water samples collected near the site.

SECTION 3

Human Health Risk Assessment Results

3.1 Soil and Groundwater HHRA

The *Human Health Risk Assessment for Soil and Groundwater* (hereafter referred to as soil and groundwater HHRA) (CH2M HILL 2009d) was completed to evaluate potential, direct contact exposures to soil and groundwater. The facility was separated into nine exposure units (EUs) to differentiate areas based on geographical locations, operational history, SWMU and area of concern boundaries, locations of existing samples, and acreage. It is assumed that each EU is an area where personnel may contact soil or shallow groundwater throughout the area during their activities. The site includes EUs 6 and 7 (Figure 3-1).

The groundwater and soil HHRA evaluated the following exposure pathways (CH2M HILL 2009d):

- Current and future industrial worker exposure to surface soil (0 to 2 feet bgs)
- Current and future construction worker exposure to surface (0 to 2 feet bgs) and subsurface (2 to 12 feet bgs) soil
- Current and future construction worker exposure to perched groundwater (less than 10 feet bgs)

Groundwater is not used as a potable source of water, and there are no plans to do so in the future. Instead, there is a restriction on using groundwater as a drinking water source for the facility; therefore, potable use is an incomplete exposure pathway that did not warrant evaluation. Exposure to groundwater was only evaluated for the construction worker potentially exposed to perched groundwater (less than 10 feet bgs) during short-term construction activities.

3.1.1 Soil

Exposure Unit 6

Building 307, the strip of land along the Kanawha River, and the strip of land along the facility boundary fall within EU 6. Two surface soil samples (EU6-SS01 and EU6-SS02) and nine subsurface soil samples from eight locations (2030, D001, D002, D003, D004, D005, D006, and D007) were included in the HHRA (CH2M HILL 2009d).

The potential cumulative excess lifetime cancer risk (ELCR) for the current and future industrial/construction workers is $3x10^{-5}$ for the 0- to 2-foot depth interval, which is within the USEPA risk management range of $1x10^{-6}$ to $1x10^{-4}$. The noncarcinogenic HI is less than 1 (0.1) for the 0- to 2-foot depth interval (CH2M HILL 2009d).

The potential cumulative ELCR for the current and future construction worker is $9x10^{-6}$ for the 2- to 12-foot depth interval, which also is within USEPA's risk management range. The noncarcinogenic HI for the construction worker exposed to subsurface soil is less than 1 (0.03) (CH2M HILL 2009d).

Exposure Unit 7

Building 301/303 and the surrounding area are within EU 7. Four surface soil samples collected at two locations (SCFW18-SO013 and EU7-SS01) and nine subsurface soil samples collected at eight locations (1018, 1019, 1020, 3027, 3033, 3034, 3035, and 3037) were included in the HHRA (CH2M HILL 2009d).

The potential cumulative ELCR for the current and future industrial/construction worker is $9x10^{-6}$ for the 0- to 2-foot depth interval, which is within the USEPA risk management range of $1x10^{-6}$ to $1x10^{-4}$. The noncarcinogenic HI is less than 1 (0.05) for the 0- to 2-foot depth interval (CH2M HILL 2009d).

The potential cumulative ELCR for the current and future construction worker is $4x10^{-6}$ for the 2- to 12-foot depth interval, which also is within USEPA's risk management range. The noncarcinogenic HI for the current and future construction worker exposed to subsurface soil is less than 1 (0.02) (CH2M HILL 2009d).

3.1.2 Groundwater

Site groundwater is not encountered at depths less than 10 feet bgs; therefore, the construction worker exposure pathway for groundwater is not complete at the site (CH2M HILL 2009d).

3.2 Vapor Intrusion HHRA

Investigation into potential secondary exposure to constituents in groundwater via the vapor intrusion pathway began in 2008 and has been completed at the site. Three occupied buildings (301/303, 307, and 323) were identified for evaluation at the site based on potential exposure from vapor intrusion. Subslab soil vapor, indoor air, and ambient air samples were collected at all three buildings. Risk estimates were calculated on a sample-by-sample basis and evaluated as the potential range of risks at each building, considering spatial and temporal variability.

3.2.1 Building 307

The carcinogenic risk estimates for indoor air at Building 307 ranged from $7x10^{-6}$ to $6x10^{-6}$ in 2008 and from $3x10^{-6}$ to $2x10^{-4}$ in 2009. Risks at two indoor air locations were greater than the USEPA risk management threshold of $1x10^{-4}$ in 2009. The estimated cumulative noncarcinogenic HIs were above 1 at several indoor air sample locations (CH2M HILL 2009a).

Naphthalene, PCE, and ethylbenzene were the main risk drivers in the 2008 and 2009 indoor air samples. Ethylbenzene and PCE were detected in the subslab soil vapor, but ethylbenzene was detected in an indoor air sample at a concentration almost 10 times higher than the co-located subslab soil vapor sample, thereby indicating an indoor source. Naphthalene was detected in only one subslab soil vapor sample, and the indoor concentrations were more than twice that of the reported subslab concentration, again indicating an indoor source (CH2M HILL 2009a).

Although the ELCRs and HIs for indoor air calculated using the subslab soil vapor results and a default subslab soil vapor-to-indoor air attenuation factor (AF) of 0.1 exceeded risk

thresholds, the location-specific AFs for subslab soil vapor-to-indoor air at Building 307 indicate an AF of 0.001 is more representative of actual conditions. Based on the subslab soil vapor-to-indoor air AFs calculated for PCE, the constituent with the highest concentrations in the subslab soil vapor, adjusted ELCRs and HIs were calculated using an AF of 0.001. The updated ELCRs and HIs did not exceed USEPA's risk management thresholds. No further evaluation of the vapor intrusion pathways was recommended for Building 307 in the *Updated Vapor Intrusion Risk Assessment Report* (CH2M HILL 2009a) which was reviewed by USEPA (USEPA 2010).

3.2.2 Building 301/303

The carcinogenic risk estimates for indoor air samples collected from Building 301/303 in December 2009 and July 2010 ranged from $4x10^{-6}$ to $2x10^{-5}$ and were within USEPA's risk management range.

Total carcinogenic risk estimates for subslab soil vapor samples collected in Building 301/303 were within USEPA's risk management range, except one sample where the total cancer risk estimate was $2x10^{-4}$. However, similar to Building 307, indoor air concentrations indicate the generic AF assumed in the subslab soil vapor risk estimates are overly conservative for this site. Risk estimates calculated using the site-specific AF of 0.001 are within or below USEPA's risk management range.

Noncancer HI estimates associated with indoor air and subslab soil vapor samples collected from Building 301/303 in 2009 and 2010 were below the threshold of 1. No further evaluation of the vapor intrusion pathway was recommended for Building 301/303 in the *2010 Vapor Intrusion Risk Assessment Report* (CH2M HILL 2010b), which was reviewed by USEPA (USEPA 2012b).

3.2.3 Building 323

The carcinogenic risk estimates for two indoor air samples at Building 323 are equal to $7x10^{-6}$. Subslab soil vapor risk estimates range from $2x10^{-5}$ to $3x10^{-5}$. Risks for both indoor air and subslab soil vapor are within USEPA's risk management range. With the exception of the noncancer HI estimate reported for subslab soil vapor sample SV1 (HI = 5), all HIs associated with Building 323 indoor air and subslab soil vapor samples were below the threshold of 1. As stated above, the subslab soil vapor HI estimates are likely overestimated because of application of the default AF and site-specific conditions indicate HIs are likely well below 1; therefore, no further evaluation of the vapor intrusion pathway was recommended for Building 323 (CH2M HILL 2012c).

3.3 Offsite Soil and Groundwater

Soil and groundwater data collected outside the facility boundary are compared to residential screening levels in Appendix D. Offsite data includes:

- Soil and groundwater grab samples (locations 4010 through 4015 and location 3023 for soil only) collected offsite in the railroad right-of-way during the *UCC South Charleston Facility Middle Mainland Remediation Area Pre-Design Investigation* (Appendix B)

- Offsite soil sample locations 2030 and EU6-SS02, which were evaluated for industrial and construction worker exposure scenarios in the soil and groundwater HHRA (see Section 3.1.1)
- Groundwater samples collected at two offsite piezometers (PZ043 and PZ044), located on the southern side of the Kanawha Turnpike

Screening levels used in the analytical data comparison for each medium, and the results of the comparisons, are detailed in the subsections below.

3.3.1 Soil

Offsite soil data were compared to the minimum, adjusted residential soil RSL (USEPA 2012a), based on a target risk equal to $1x10^{-6}$ and a target HI = 0.1 (Appendix D, Table D-1). TCE was detected above the residential soil RSL in the sample collected from 32 to 33 feet bgs at location 3023; however, residential receptors are not anticipated to be exposed to soil this deep. Additionally, two metals and six polynuclear aromatic hydrocarbons were detected at concentrations above the residential soil RSLs in the sample collected from 0 to 2 feet bgs at location EU6-SS02. Based on this screening comparison, there may be risk associated with residential exposure to the offsite surface soils in this area.

3.3.2 Groundwater

Analytical results from the groundwater grab samples and the most recent round of data from the offsite piezometers were compared to the following screening criteria:

- The maximum contaminant level (USEPA 2012a)
- The minimum adjusted tap water RSL, based on USEPA's November 2012 RSL table, a target risk = $1x10^{-6}$, and an HI = 0.1
- Vapor intrusion screening levels, based on USEPA vapor intrusion screening level calculator version 2.0, November 2012 RSLs, a residential exposure scenario, target risk = 1E-06, target HI = 0.1, and a regional-specific groundwater temperature of 19 degrees Celsius

Ten VOCs (1,1,2-trichloroethane; 1,2-DCA; 1,2-dichloropropane; p-dioxane; benzene; chloroform; tert-butyl methyl ether; TCE; and its degradation products cis-1,2-DCE and vinyl chloride) were detected at concentrations greater than one or more of the screening criteria. All 10 VOCs exceeded at least one screening criteria at location 4013. In addition, TCE exceeded the minimum adjusted tap water RSL and the residential vapor intrusion screening level at location 4010 and benzene exceeded the same two screening criteria in PZ044. Based on the comparison to screening criteria, there is the potential for risk to human receptors from exposure to constituents in groundwater at locations 4010, 4013, and PZ044[1] if it is used as a potable source of water or if occupied buildings are constructed.

[1] PZ044, which is upgradient of the site, is part of the underground storage tank monitoring program for the Exxon station south of MacCorkle Avenue (CH2M HILL 2003). The benzene detected in this monitoring well is not related to the site.

SECTION 4

Remedy Evaluation

This section presents the basis for selecting the remedy for the Middle Mainland Remediation Area.

4.1 Remedial Action Objectives

RAOs have been developed for the facility. These RAOs are established in accordance with the RCRA framework to be protective of human health and the environment, and were approved by USEPA in the *Pore Water Cleanup Levels and Groundwater Performance Criteria Report* (CH2M HILL 2009b). The following RAOs have been developed for the site based on the facility RAOs and site-specific conditions:

- Ensure groundwater does not discharge to pore water in the future with concentrations of COPCs above the pore water cleanup levels
- Prevent exposure pathways for human receptors to contaminated soil and groundwater
- Prevent exposure pathways for human receptors in areas where vapor intrusion may be a potential concern

4.2 Remediation Drivers

Based on the RAOs discussed above, the following factors are the primary remediation drivers for the site.

4.2.1 Soil

VOCs (primarily 1,2-DCA; benzene; and TCE) are present in soil and appear to be the source of the dissolved-phase groundwater plumes at the site. In addition, VOC impacts in soil (primarily PCE) may pose an unacceptable vapor intrusion risk if new occupied buildings are constructed at the site.

4.2.2 Groundwater

Concentrations of VOCs (primarily 1,2-DCA; benzene; and TCE) exceed their respective pore water cleanup levels in groundwater but are below the cleanup levels in pore water where the plumes would be expected to discharge in the Kanawha River. These data support the conclusions that VOCs in groundwater are attenuating to below cleanup levels before discharging to the Kanawha River.

VOC impacts in groundwater (both onsite and offsite) may pose an unacceptable risk to human health if groundwater is used as a potable source of water or if new occupied buildings are constructed.

4.3 Remedy Evaluation/Selection

Potential remedies selected for evaluation based on the RAOs in Section 4.1 are described in Section 4.3.1 and consist of institutional controls, long-term monitoring (LTM), and source removal or treatment. Containment remedies (e.g., pump and treatment) were not evaluated because pore water concentrations are below the cleanup levels and groundwater concentrations are stable or decreasing. For source treatment, soil vapor extraction (SVE) and in situ chemical oxidation (ISCO) were the only technologies selected for evaluation based on professional judgment considering the types of constituents present, nature and extent of the impacts, site geologic conditions, and current site infrastructure that limits access. A broad range of other remedial technologies was considered and screened out from further evaluation.

Technologies that were carried forward were evaluated using the USEPA threshold criteria and balancing criteria. In addition, green and sustainable remediation was qualitatively considered during the remedy evaluation and selection. The selected remedy for the site based on the remedy evaluation is presented in Section 4.3.3.

4.3.1 Remedial Alternatives

Alternative 1 – Long-Term Monitoring and Institutional Controls

- Monitor groundwater to assess changes in the extent of the groundwater plumes or groundwater concentrations over time.
- Implement institutional controls onsite and at affected offsite properties to:
  - Restrict land use to industrial/commercial.
  - Manage potential future contact with impacted soil.
  - Restrict movement of impacted soil.
  - Prohibit the use of groundwater for purposes other than monitoring or remediation.
  - Address potential vapor intrusion into new occupied buildings.

Alternative 2 – Source Excavation and Disposal

- Excavate accessible impacted soil and dispose in an RCRA Subtitle C or D landfill, dependent on waste characterization results. Structural stabilization (sheet piles) adjacent to the existing buildings or demolition of existing buildings may be required.
- Conduct LTM as described in Alternative 1.
- Implement institutional controls onsite and at affected offsite properties to:
  - Prohibit the use of groundwater for purposes other than monitoring or remediation.
  - Address potential vapor intrusion into new occupied buildings.

Alternative 3 – In Situ Chemical Oxidation via Soil Mixing

- Mix a chemical oxidant into accessible impacted soil using a large-diameter auger. Structural stabilization or demolition of buildings near source area may be required.
- Conduct LTM as described in Alternative 1.

- Implement institutional controls onsite and at affected offsite properties to:
  - Prohibit the use of groundwater for purposes other than monitoring or remediation.
  - Address potential vapor intrusion into new occupied buildings.

Alternative 4 – Soil Vapor Extraction

- Install SVE wells in impacted soil to remove VOCs from the vadose zone. Offgas treatment will be required and may vary in intensity depending on expected VOC concentrations. Hydraulic fracturing may be required in fine-grained soil to allow for adequate airflow.
- Conduct LTM as described in Alternative 1.
- Implement institutional controls onsite and at affected offsite properties to:
  - Prohibit the use of groundwater for purposes other than monitoring or remediation.
  - Address potential vapor intrusion into new occupied buildings.

4.3.2 Remedy Evaluation

Threshold Criteria

Each alternative discussed in Section 4.3.2 was evaluated using the USEPA threshold criteria, which is discussed below. In order for an alternative to be selected, it must meet the USEPA threshold criteria.

- **Protective of Human Health and the Environment**: All four alternatives meet this criterion. There are no current unacceptable risks to human health or the environment, and each alternative proposes institutional controls to prevent potential exposures in the future.
- **Achieve Media Cleanup Objectives:** The media cleanup objectives for the site consist of the RAOs presented in Section 4.1. All four alternatives meet the RAOs.
- **Control the Sources of Releases:** The releases that resulted in contamination at the site are related to historical operations and are not ongoing. The source areas that resulted from the historical releases are impacting groundwater; however, pore water concentrations are below the cleanup levels and groundwater concentrations are stable or decreasing. Because the groundwater plumes are stable, all four alternatives meet this criterion.

Balancing Criteria

All of the alternatives met the threshold criteria; therefore, the USEPA balancing criteria were used to further evaluate the alternatives. The five balancing criteria are summarized below.

- Long-term reliability and effectiveness: Considers the long-term reliability and effectiveness afforded by the technology. In addition, it considers the magnitude of risk that will remain at the site from residual contamination.

- Reduction of toxicity, mobility, or volume of wastes: Considers the ability of each technology to eliminate or reduce the toxicity, mobility, or volume of contaminated media at the site.
- Short-term effectiveness: Considers the risks to human health and the environment until RAOs are achieved.
- Implementability: Considers the degree of difficulty anticipated in implementing a particular technology under the technical constraints posed by the site.
- Cost: Considers the relative cost of a technology, including capital and long-term operations and maintenance.

A description of each of the technologies included in the remedial alternatives is provided in Table 4-1, along with a summary of the evaluation against the balancing criteria. Relative ratings (low, moderate, and high) are assigned to the first four criteria, with a rating of high being the most desirable.

Sustainability

Sustainable remediation considers the environmental and societal impacts of a remedy that are not necessarily considered in the threshold or balancing criteria. The sustainability metrics often are described in terms of resource use (e.g., fossil fuel consumption, water use, energy use, and land use) during implementation. Pollution from materials manufacturing, fuel consumption during transportation and equipment use, and electricity generation also is considered part of the environmental burden of a remedial technology.

Technologies that require use of heavy equipment or several miles of waste hauling over public roads (potentially causing an accident or damage to roads) are typically poor sustainability performers. Alternative 2 (source excavation and disposal) and Alternative 3 (ISCO via soil mixing) are poor sustainability performers. Technologies that require electricity or other fuel to power equipment for extended periods also perform poorly from a sustainability perspective; Alternative 4 (SVE) is an example of this type of technology. The more materials that a technology requires (e.g., well construction materials or treatment chemicals) also raises the environmental burden. Alternative 1 (LTM and institutional controls) is the best performer from a sustainability perspective because implementation would require the least amount of resources.

4.3.3 Remedy Selection

Alternative 1 (LTM and institutional controls) was selected as the remedy for the site. Alternative 1 meets all of the threshold criteria discussed in the previous section. Additional factors that contributed to its selection include the following:

- There are no current unacceptable risks from exposure to soil, groundwater, or vapor intrusion.
- Groundwater monitoring data demonstrate that constituent concentrations are stable or decreasing.
- Pore water concentrations are below the cleanup levels, indicating the groundwater plumes attenuate before discharging to the Kanawha River.

- Institutional controls for the onsite and offsite affected properties are necessary to control potential exposures regardless of the alternative because improvements in groundwater quality would not expect to be observed for some time under any of the alternatives.
- It is more sustainable than any of the other alternatives because it has minimal resource use (energy, waste generation, etc.) compared to the other alternatives.

The other remedial alternatives were eliminated primarily because potential exposures can be effectively controlled by institutional controls and because the soil impacts, although limited in extent, are difficult to access because of current infrastructure (buildings, tanks, and railroad tracks). Additional rationale for eliminating each alternative is discussed below.

Alternative 2

Alternative 2 (source excavation and disposal) requires either sheet piling or excessive overburden removal and subsequent backfilling for benching or sloping to reach the treatment depth (approximately 30 feet bgs); both methods for reaching the target depth are costly. Alternative 2 requires removing some facility infrastructure (e.g., the railroad tracks) and interrupting onsite activities for an extended period. It also is unknown whether the source area adjacent to Building 301/303 extends under the building; therefore, excavation may not fully remove the source area. The depth of the excavation and use of heavy equipment also poses a potential risk to workers implementing the remedy.

Alternative 3

Alternative 3 (ISCO via soil mixing) also requires removing facility infrastructure or installing sheet piling to protect adjacent buildings and interrupting onsite activities for an extended period. This alternative also does not address soil beneath Building 301/303 if soil is impacted beneath that building. Soil mixing technologies are capable of reaching the deeper impacted soil; however, crane operations have relatively high safety hazards to workers implementing the remedy. Chemicals used for oxidation also present safety hazards for workers handling them during remediation activities.

Alternative 4

Alternative 4 (SVE) will not disturb the site as much as Alternatives 2 and 3, but its effectiveness is highly dependent on subsurface homogeneity, and, as discussed in Section 2, soil impacts occur in both the sandy layers and silty and clayey layers. Soil fracturing may be required to effectively treat the finer-grained soil; however, this cannot be completed next to buildings or tanks because it may cause structural damage. Additionally, subsurface heterogeneity may cause short-circuiting through coarser-grained units and limit the effectiveness of the vacuum in the fine-grained units.

4.4 Approach for Implementing the Selected Remedy

The preferred remedy for the site consists of institutional controls and groundwater monitoring.

4.4.1 Institutional Controls

The institutional controls for onsite and offsite affected properties (Figure 4-1) will contain the following elements:

Onsite

- Prohibit use of groundwater for purposes other than monitoring or remediation.
- Restrict land use to commercial or industrial.
- Require incorporation of a vapor barrier or approved engineering controls into new occupied buildings to limit potential vapor exposure.
- Prohibit movement of soil outside the facility unless it taken to an appropriate treatment or disposal facility.
- Prohibit movement of soil to other areas of the facility unless it is determined that the soil is nonhazardous waste and that the detected constituent concentrations are below the current USEPA and West Virginia Department of Environmental Protection risk-based screening levels appropriate for the designated land use of the area receiving the soil.
- Require invasive earthwork to be conducted under proper supervision and using appropriate safety precautions.

Offsite Affected Properties

- Prohibit use of groundwater for purposes other than monitoring or remediation.
- Restrict land use to commercial or industrial.
- Prohibit movement of soil unless it is determined that the soil can be lawfully moved without posing a threat to the public health, safety, welfare, or the environment and that all such activities are in compliance with all applicable federal, state, and local requirements.
- Require incorporation of a vapor barrier or approved engineering controls into new occupied buildings to limit potential vapor exposure.

The institutional controls will be implemented after the Final Decision is issued by USEPA through environmental covenants pursuant to the Uniform Environmental Covenants Act, West Virginia Code Chapter 22, Article 22B. Institutional controls will be monitored in accordance with an inspection, maintenance, and monitoring plan to be written for the facility.

4.4.2 Groundwater Monitoring

Groundwater monitoring will be performed to assess changes in the extent of the groundwater plumes and groundwater concentrations over time. Eight monitoring locations (four new and four existing) are recommended for inclusion in an LTM program (Figure 4-1). The monitoring locations consist of sentinel wells and impacted wells. Sentinel wells have or are expected to have constituent concentrations that are below the pore water

cleanup levels. Impacted wells are monitoring wells that are within the groundwater plumes.

Impacted Wells

- PZ031 – This well has some of the highest constituent concentrations, so it will be monitored to evaluate constituent concentration trends closest to the source area near Building 301/303.
- New Well 1 – This well will be screened in the upper portion of the alluvial aquifer and located in the same area as the highest TCE concentration in soil (location 3026) to evaluate constituent concentration trends closest to the source area near Building 307.
- New Well 2 – This well will be screened in the upper portion of the alluvial aquifer and located adjacent to groundwater grab sample MP53 (collected in 2004), where the highest groundwater concentration of benzene was detected. The well will be monitored to evaluate constituent concentration trends at the downgradient edge of the benzene plume.
- New Well 3 – This well will be screened in the middle of the aquifer in the area of groundwater grab sample 3067 to evaluate constituent concentration trends at the downgradient edge of the 1,2-DCA and benzene plumes.

Sentinel Wells

- PZ032 – This well is downgradient of the highest TCE soil concentration, so it will be monitored to evaluate potential changes in the extent of the TCE plume.
- MW027 – This well is downgradient of the highest TCE concentration in the same area as PZ032, but is screened toward the bottom of the aquifer. MW027 will be monitored to evaluate potential vertical migration of the TCE plume.
- MW037 – This well is downgradient of the highest benzene and 1,2-DCA soil concentrations, so it will be monitored to evaluate potential changes in the extent of the benzene and 1,2-DCA plumes.
- New Well 4 – This well will be screened in the middle of the aquifer at a location north of PZ033 (between Building 307 and the Kanawha River) to evaluate potential changes in the extent of the TCE plume.

All monitoring wells will be sampled for VOCs. Groundwater monitoring will be incorporated into the facility groundwater monitoring program until an inspection, maintenance, and monitoring plan is written for the facility.

SECTION 5

References

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Tables

Table 2-1
Soil Sample Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location			1019								2011		2012		2029	2030		3023		3024	
Sample ID	Minimum Adjusted Industrial		1018-SO01-092706	1018-SO02-092706	1018-SO03-092706	1019-SO02-092806	1019-SO01-092806	1020-SO01-092706	1020-SO02-092706	1025-SO04-092706	1020-SO03-092706	2011-S01-012908	2011-S02-012908	2012-S001-080207	2012-S002-080207	2029-S001-081607	2030-S002-081607	2030-S001-081607	3023-SO01-050108	3023-SO01-050108FD	3024-SO01-042808	3024-SO02-042808
Sample Depth (ft)	Soil RSL		3 - 5	34 - 36	6 - 8	32 - 34	4 - 6	1 - 2	10 - 12	3 - 5	4 - 6	11 - 12	35 - 36	15 - 16	17 - 18	21 - 22	33 - 34	5 - 6	32 - 33	32 - 33	26 - 27	30 - 31
Sample Date			9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	1/29/2008	1/29/2008	8/2/2007	8/2/2007	8/16/2007	8/16/2007	8/16/2007	5/1/2008	5/1/2008	4/28/2008	4/28/2008
Analyte																					
Metals (MG/KG)																					
Arsenic	1.6	c	**4.13**	**5.1**	- -	**5.9**	**5.09**	**5.16**	**6.26**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Barium	19,000	n	**322**	**231**	- -	**80.6**	**253**	**96.6**	**109**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Cadmium	80	n	0.457 U	**0.596**	- -	0.41 U	0.464 U	0.434 U	0.459 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Chromium*	150,000	n	**14.5**	**19.6**	- -	**21.3**	**15.8**	**15.5**	**16.4**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead	800	n	**16.3**	**22**	- -	**9.21**	**15.1 L**	**11.6**	**12.6**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Mercury	4.3	n	0.279 U	0.287 U	- -	0.273 U	0.289 U	0.288 U	0.29 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Nickel	2,000	n	**17.1**	**25.4**	- -	**16.2**	**18.9**	**14.2**	**18.3**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Selenium	510	n	0.595 U	0.618 U	- -	2.76 U	0.57 U	0.582 U	0.589 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Silver	510	n	0.915 U	0.924 U	- -	0.82 U	0.927 U	0.867 U	0.917 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Organic Carbon by SW846-9060	--		- -	- -	**9730**	- -	- -	- -	- -	**53000**	**2090**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
PCBs (ug/kg)																						
Aroclor-1260	740	c	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/kg)																						
2,4-Dimethylphenol	1.20E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	**1400**	207 U	**R**	**R**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
2-Methylnaphthalene	220,000	n	199 U	202 U	- -	894 UL	391 UL	192 U	196 U	- -	- -	194 U	207 U	**611**	198 U	172 UL	**312 L**	197 UL	183 U	177 U	170 U	198 U
2-Methylphenol	3.10E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	**848**	207 U	**R**	**R**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
3-Methylphenol & 4-Methylphenol*	37,000	n	199 U	**292**	- -	894 UL	391 UL	192 U	196 U	- -	- -	**4500**	207 U	**R**	**R**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Acenaphthene	3.30E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Acenaphthene	3.30E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Acenaphthylene*	3.30E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Anthracene	1.70E+07	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Benzo (a) anthracene	2,100	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Benzo (a) pyrene	210	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Benzo (b) fluoranthene	2,100	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Benzo (g,h,i) perylene*	1.70E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Benzo(k)fluoranthene	21,000	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Bis (2-chloroethoxy) methane	180,000	n	199 U	202 U	- -	894 UL	391 UL	192 U	196 U	- -	- -	194 U	207 U	198 UL	198 UL	172 UL	184 UL	197 UL	183 UL	177 UL	170 UL	198 UL
Bis (2-chloroethyl) ether	1,000	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	**1410**	**2320**	**3460**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Bis (2-chloroisopropyl) ether*	22,000	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	**357**	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Bis (2-ethylhexyl) phthalate	120,000	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	**730**	207 U	**3740**	**25100**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Chrysene	210,000	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	**196**	177 U	170 U	198 U
Di-n-butylphthalate	6.20E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Di-n-octylphthalate	740,000	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Dibenzo (a,h) anthracene	210	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Dibenzofuran	100,000	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Dimethyl phthalate	4.90E+07	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	**1960**	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Fluoranthene	2.20E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	**352**	177 U	170 U	198 U
Fluorene	2.20E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Indeno (1,2,3-c,d) pyrene	2,100	c	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Isophorone	1.80E+06	c	199 U	202 U	- -	894 UL	391 UL	192 U	196 U	- -	- -	194 U	207 U	**69100**	**38900**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Naphthalene	18,000	c	199 U	202 U	- -	894 UL	391 UL	192 U	196 U	- -	- -	**305**	207 U	**2990**	198 U	172 U	**515**	197 U	183 U	177 U	170 U	198 U
Phenanthrene*	1.70E+07	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	**300**	177 U	170 U	198 U
Phenol	1.80E+07	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	**7380**	207 U	**R**	**R**	172 U	184 U	197 U	183 U	177 U	170 U	198 U
Pyrene	1.70E+06	n	199 U	202 U	- -	894 U	391 U	192 U	196 U	- -	- -	194 U	207 U	198 U	198 U	172 U	184 U	197 U	**335**	177 U	170 U	198 U
VOCs (ug/kg)																						
1,1,2-Trichloroethane	680	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	**72.5 K**	**47.4 K**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
1,2-Dichlorobenzene	980,000	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	4.88 U	5.19 U	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
1,2-Dichloroethane	2,200	c	6.51 U	5.91 U	- -	6.48 U	5.31 U	**9.88**	**102**	- -	- -	**585**	**691**	**73200**	**30800**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
1,2-Dichloropropane	4,700	c	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	**41.4**	- -	- -	**1510**	572 U	**1780 J**	**1460**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
1,4-Dichlorobenzene	12,000	c	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	4.88 U	5.19 U	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
1,4-Dioxane (p-Dioxane)	17,000	c	**R**	**R**	- -	**R**	**R**	**R**	**R**	- -	- -	**R**	**R**	**1750 L**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
2-Butanone	2.00E+07	n	32.5 U	29.5 U	- -	32.4 U	26.5 U	29.1 U	29.1 U	- -	- -	2580 U	2860 U	**4880 J**	**5960**	26.5 U	25.1 U	26.2 U	2570 U	2450 U	24.5 U	26.7 U
2-Hexanone	140,000	n	13 U	11.8 U	- -	13 U	10.6 U	11.6 U	11.6 U	- -	- -	1030 UJ	1140 UJ	**77.7**	**60.4**	10.6 U	10 U	10.5 U	1030 U	981 U	9.81 U	10.7 U
4-Methyl-2-pentanone	5.30E+06	n	**34.6**	**52.3**	- -	13 U	10.6 U	11.6 U	11.6 U	- -	- -	1030 U	1140 U	**56600**	**32700**	10.6 U	10 U	10.5 U	1030 U	981 U	9.81 U	10.7 U
Acetone	6.30E+07	n	130 U	118 U	- -	130 U	106 U	116 U	116 U	- -	- -	10300 U	11400 U	**225000**	**137000**	106 U	100 U	105 U	10300 U	9810 U	98.1 U	107 U
Benzene	5,400	c	**8.6**	**8.75**	- -	**198**	5.31 U	**9.87**	**34.5**	- -	- -	515 U	**9750**	**19.8**	**54.4**	5.29 U	**27.5**	5.24 U	514 U	491 U	4.9 U	5.34 U
Carbon disulfide	370,000	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	4.88 U	5.19 U	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
Carbon tetrachloride	3,000	c	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	4.88 U	5.19 U	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
Chlorobenzene	140,000	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	4.88 U	5.19 U	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
Chloroform	1,500	c	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	**4080**	572 U	**629 J**	**210 J**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
cis-1,2-Dichloroethylene	200,000	n	**49.5**	**53**	- -	6.48 U	5.31 U	5.82 U	**13.1**	- -	- -	**6970**	572 U	**894 J**	**594**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
Cyclohexanone	3.10E+08	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	27,000	c	**22.6**	5.91 U	- -	**99.9**	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	**5.77**	**5.68**	5.29 U	**432 J**	5.24 U	514 U	491 U	4.9 U	5.34 U
Methylene chloride	310,000	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	**539**	572 U	**250 J**	**101**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	5.34 U
Tetrachloroethene	41,000	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	**1640**	572 U	**846 J**	**1380**	5.29 U	5.02 U	5.24 U	514 U	491 U	4.9 U	**42.5**
Toluene	4.50E+06	n	**12.8**	**8.2**	- -	**14**	5.31 U	5.82 U	5.81 U	- -	- -	515 U	572 U	**29.6**	**12.5**	5.29 U	**136**	5.24 U	514 U	491 U	4.9 U	5.34 U
Trichloroethylene	2,000	n	6.51 U	5.91 U	- -	6.48 U	5.31 U	5.82 U	5.81 U	- -	- -	**5740**	572 U	**8860**	**2340**	5.29 U	5.02 U	5.24 U	**1150**	**890**	4.9 U	**592**
Vinyl chloride	1,700	c	**21.9**	**40**	- -	13 U	10.6 U	11.6 U	11.6 U	- -	- -	1030 U	1140 U	**47.9 K**	**17.7 K**	10.6 U	10 U	10.5 U	1030 U	981 U	9.81 U	10.7 U
VOCs, Total	--		**150**	**162.25**	- -	**334.8**	0 U	**19.75**	**191**	- -	- -	**21064**	**10441**	**374953.37**	**212771.18**	0 U	**1408.5**	0 U	**1150**	**890**	0 U	**634.5**
Xylenes, Total	270,000	n	13 U	11.8 U	- -	**22.9**	10.6 U	11.6 U	11.6 U	- -	- -	1030 U	1140 U	**11.1**	**28.1**	10.6 U	**813 J**	10.5 U	1030 U	981 U	9.81 U	10.7 U

Notes:
RSL = USEPA Regional Screening Level (RSL), November 2012, based on a target risk = 1E-06 and an HI = 0.1. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
*A surrogate analyte was used to assign a screening level to this constituent.
Chromium III was used as a surrogate for chromium
2,6-Dimethylphenol was used as a surrogate for 3- & 4-methylphenol
Acenaphthene was used as a surrogate for acenaphthylene
Pyrene was used as a surrogate for benzo(g,h,i)perylene
Bis(2-Chloro-1-methylethyl) ether was used as a surrogate for bis(2-chloroisopropyl) ether
Diethyl phthalate was used as a surrogate for dimethyl phthalate
Anthracene was used as a surrogate for phenanthrene.
n = RSL is based on non-cancer toxicity data
c = RSL is based on carcinogenic toxicity data
-- = not available
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated numerical
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
NV = Not Validated, for screening purposes only
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-1
Soil Sample Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		3025		3026		3027		3028			3030			3033						303
Sample ID	Minimum Adjusted Indus	3025-SO01-050108	3025-SO02-050108	3026-SO01-042808	3026-SO02-042808	3027-SO02-042808	3027-SO03-042808	3027-SO01-042808	3028-S001-043008	3028-S002-043008	3030-S001-043008	3030-S002-043008	3030-S003-043008	3033-SO03-041608	3033-SO04-041608	3033-SO05-041608	3033-SO06-041608	3033-SO01-041608	3033-SO02-041608	3034-S002-041708	3034-S002-041708D	
Sample Depth (ft)	Soil RSL	16 - 17	27 - 28	14 - 15	32 - 33	14 - 15	31 - 32	6 - 7	19 - 20	25 - 26	17 - 18	26 - 27	33.5 - 34	19 - 20	19 - 20	23 - 24	34.5 - 35.5	6.5 - 7.5	6.5 - 7.5	19.5 - 20.5	19.5 - 20.5	
Sample Date		5/1/2008	5/1/2008	4/28/2008	4/28/2008	4/28/2008	4/28/2008	4/28/2008	4/30/2008	4/30/2008	4/30/2008	4/30/2008	4/30/2008	4/16/2008	4/16/2008	4/16/2008	4/16/2008	4/16/2008	4/16/2008	4/17/2008	4/17/2008	
Analyte																						
Metals (MG/KG)																						
Arsenic	1.6	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Barium	19,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Cadmium	80	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Chromium*	150,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Lead	800	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Mercury	4.3	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Nickel	2,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Selenium	510	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Silver	510	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Total Organic Carbon by SW846-9060	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	1130 U	**2720**	1090 U	- -	1130 U	- -	**2870**	- -	**2680**	**1570**	**1400**	
PCBs (ug/kg)																						
Aroclor-1260	740	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
SVOCs (ug/kg)																						
2,4-Dimethylphenol	1.20E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
2-Methylnaphthalene	220,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 UL	188 UL	200 UL	182 UL	207 UL	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
2-Methylphenol	3.10E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
3-Methylphenol & 4-Methylphenol*	37,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Acenaphthene	3.30E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Acenaphthene	3.30E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Acenaphthylene*	3.30E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Anthracene	1.70E+07	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Benzo (a) anthracene	2,100	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Benzo (a) pyrene	210	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Benzo (b) fluoranthene	2,100	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Benzo (g,h,i) perylene*	1.70E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Benzo(k)fluoranthene	21,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U		
Bis (2-chloroethoxy) methane	180,000	189 UL	179 UL	193 UL	166 UL	198 UL	172 UL	194 UL	202 U	188 U	200 U	182 U	207 U	184 UL	- -	174 UL	- -	198 UL	- -	187 U	191 U	
Bis (2-chloroethyl) ether	1,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	**315**	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Bis (2-chloroisopropyl) ether*	22,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Bis (2-ethylhexyl) phthalate	120,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Chrysene	210,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Di-n-butylphthalate	6.20E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 UL	188 UL	200 UL	182 UL	207 UL	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Di-n-octylphthalate	740,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Dibenzo (a,h) anthracene	210	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Dibenzofuran	100,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Dimethyl phthalate	4.90E+07	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Fluoranthene	2.20E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Fluorene	2.20E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Indeno (1,2,3-c,d) pyrene	2,100	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Isophorone	1.80E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Naphthalene	18,000	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Phenanthrene*	1.70E+07	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Phenol	1.80E+07	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
Pyrene	1.70E+06	189 U	179 U	193 U	166 U	198 U	172 U	194 U	202 U	188 U	200 U	182 U	207 U	184 U	- -	174 U	- -	198 U	- -	187 U	191 U	
VOCs (ug/kg)																						
1,1,2-Trichloroethane	680	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	5.18 U	**36.6**	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
1,2-Dichlorobenzene	980,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
1,2-Dichloroethane	2,200	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	**37.2**	**47.6**	**48.6**	**704**	550 U	**9.39**	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
1,2-Dichloropropane	4,700	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	**17.5**	**11.4**	**15.1**	**13**	550 U	**9.99**	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
1,4-Dichlorobenzene	12,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
1,4-Dioxane (p-Dioxane)	17,000	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	187000 U	**R**	- -	**R**	- -	**R**	- -	**R**	**R**	
2-Butanone	2.00E+07	23.4 U	26.2 U	25.8 U	2340 U	25.2 U	23.7 U	25.5 U	28.3 U	31.6 U	25.9 U	31.6 U	2750 U	26.9 U	- -	30 U	- -	26.1 U	- -	26 U	28.2 U	
2-Hexanone	140,000	9.35 U	10.5 U	10.3 U	935 U	10.1 U	9.5 U	10.2 U	11.3 U	12.6 U	10.4 U	12.6 U	1100 U	10.8 U	- -	12 U	- -	10.5 U	- -	10.4 U	11.3 U	
4-Methyl-2-pentanone	5.30E+06	9.35 U	10.5 U	10.3 U	935 U	10.1 U	9.5 U	10.2 U	11.3 U	12.6 U	10.4 U	**1090 J**	1100 U	10.8 U	- -	12 U	- -	10.5 U	- -	10.4 U	11.3 U	
Acetone	6.30E+07	93.5 U	105 U	103 U	9350 U	101 U	95 U	102 U	113 U	126 U	104 U	126 U	11000 U	108 U	- -	120 U	- -	105 U	- -	104 U	113 U	
Benzene	5,400	4.67 U	5.24 U	5.15 U	468 U	**12.6**	**42.3**	5.09 U	**337 J**	**49.2**	**151**	**13.8**	**2530**	5.38 U	- -	6 U	- -	5.23 U	- -	**7.28**	**5.94**	
Carbon disulfide	370,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Carbon tetrachloride	3,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Chlorobenzene	140,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	**15**	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Chloroform	1,500	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	**19.9**	**7.3**	**12.7**	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
cis-1,2-Dichloroethylene	200,000	**64.6 L**	**61.5**	5.15 U	468 U	**8.23**	4.75 U	5.09 U	**89.6**	**24.2**	**65.7**	**7.26**	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	**8.86**	**7.45**	
Cyclohexanone	3.10E+08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	
Ethylbenzene	27,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	**11.6**	5.09 U	5.66 U	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Methylene chloride	310,000	4.67 U	5.24 U	5.15 U	468 U	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Tetrachloroethene	41,000	**21.6**	**101**	5.15 U	**2370**	5.04 U	4.75 U	5.09 U	5.66 U	6.32 U	**10.7**	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Toluene	4.50E+06	4.67 U	5.24 U	5.15 U	468 U	5.04 U	**11**	5.09 U	**24.3**	6.32 U	5.18 U	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Trichloroethylene	2,000	**30.2 L**	**136**	5.15 U	**25100**	**6.35**	4.75 U	5.09 U	**52.3**	**8.02**	**87.3**	6.31 U	550 U	5.38 U	- -	6 U	- -	5.23 U	- -	5.2 U	5.63 U	
Vinyl chloride	1,700	9.35 U	10.5 U	10.3 U	935 U	10.1 U	9.5 U	10.2 U	11.3 U	12.6 U	**18.7**	12.6 U	1100 U	10.8 U	- -	12 U	- -	10.5 U	- -	10.4 U	11.3 U	
VOCs, Total	--	**116.4**	**298.5**	0 U	**27470**	**27.18**	**64.9**	0 U	**577.8**	**147.72**	**424.8**	**1864.66**	**2530**	**19.38**	- -	0 U	- -	0 U	- -	**16.14**	**13.39**	
Xylenes, Total	270,000	9.35 U	10.5 U	10.3 U	935 U	10.1 U	9.5 U	10.2 U	11.3 U	12.6 U	10.4 U	12.6 U	1100 U	10.8 U	- -	12 U	- -	10.5 U	- -	10.4 U	11.3 U	

Notes:
RSL = USEPA Regional Screening Level (RSL), November 2012, base
*A surrogate analyte was used to assign a screening level to this constitu
Chromium III was used as a surrogate for chromium
2,6-Dimethylphenol was used as a surrogate for 3- & 4-methylphenol
Acenaphthene was used as a surrogate for acenaphthylene
Pyrene was used as a surrogate for benzo(g,h,i)perylene
Bis(2-Chloro-1-methylethyl) ether was used as a surrogate for bis(2-ch
Diethyl phthalate was used as a surrogate for dimethyl phthalate
Anthracene was used as a surrogate for phenanthrene.
n = RSL is based on non-cancer toxicity data
c = RSL is based on carcinogenic toxicity data
-- = not available
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated numerical
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
NV = Not Validated, for screening purposes only
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-1
Soil Sample Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		I4	3035			3036		3037			4010		4011	
Sample ID	Minimum Adjusted Indus	3034-S003-041708	3034-S001-041708	3035-S002-042208	3035-S001-042208	3036-S001-042208	3036-S002-042208	3037-S002-042208	3037-S003-042208	3037-S001-042208	4010-SO01-102909	4010-SO02-102909	4011-SO01-102809	4011-SO02-102809
Sample Depth (ft)	Soil RSL	27 - 28	4.5 - 5.5	19 - 20	7 - 8	17 - 18	22 - 23	16.5 - 17.5	30 - 31	9 - 10	15.5 - 16	25 - 25.5	14 - 14.5	23.5 - 24
Sample Date		4/17/2008	4/17/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	10/29/2009	10/29/2009	10/28/2009	10/28/2009
Analyte														
Metals (MG/KG)														
Arsenic	1.6	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Barium	19,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Cadmium	80	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Chromium*	150,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead	800	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Mercury	4.3	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Nickel	2,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Selenium	510	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Silver	510	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Organic Carbon by SW846-9060	--	**1380**	**4720**	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
PCBs (ug/kg)														
Aroclor-1260	740	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/kg)														
2,4-Dimethylphenol	1.20E+06	174 U	191 U	193 U	195 U	199 U	186 U	**812**	**492**	195 U	437 U	210 U	226 U	199 U
2-Methylnaphthalene	220,000	174 U	191 U	193 UL	195 UL	199 UL	186 UL	195 UL	179 UL	195 UL	437 U	210 U	226 U	199 U
2-Methylphenol	3.10E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
3-Methylphenol & 4-Methylphenol*	37,000	174 U	191 U	193 U	195 U	199 U	186 U	**221**	**200**	195 U	437 U	210 U	226 U	199 U
Acenaphthene	3.30E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	**459**	210 U	226 U	199 U
Acenaphthene	3.30E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	**459**	210 U	226 U	199 U
Acenaphthylene*	3.30E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Anthracene	1.70E+07	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Benzo (a) anthracene	2,100	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Benzo (a) pyrene	210	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Benzo (b) fluoranthene	2,100	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Benzo (g,h,i) perylene*	1.70E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Benzo(k)fluoranthene	21,000	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Bis (2-chloroethoxy) methane	180,000	**441**	191 U	193 UL	195 UL	199 UL	186 UL	195 UL	179 UL	195 UL	437 U	210 UJ	226 U	199 U
Bis (2-chloroethyl) ether	1,000	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Bis (2-chloroisopropyl) ether*	22,000	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Bis (2-ethylhexyl) phthalate	120,000	174 U	191 U	193 U	195 U	**440**	186 U	**55300**	**7060**	**17400**	437 U	210 U	226 U	199 U
Chrysene	210,000	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	**443**	210 U	226 U	199 U
Di-n-butylphthalate	6.20E+06	174 U	191 U	193 U	195 U	199 U	186 U	**2410**	**3840**	**783**	437 U	210 U	226 U	199 U
Di-n-octylphthalate	740,000	174 U	191 U	193 U	195 U	199 U	186 U	**775**	179 U	**352**	437 U	210 U	226 U	199 U
Dibenzo (a,h) anthracene	210	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Dibenzofuran	100,000	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Dimethyl phthalate	4.90E+07	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Fluoranthene	2.20E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	**1520**	210 U	226 U	199 U
Fluorene	2.20E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Indeno (1,2,3-c,d) pyrene	2,100	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Isophorone	1.80E+06	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Naphthalene	18,000	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Phenanthrene*	1.70E+07	174 U	191 U	193 U	195 U	199 U	186 U	**275**	179 U	195 U	**1500**	210 U	226 U	199 U
Phenol	1.80E+07	174 U	191 U	193 U	195 U	199 U	186 U	195 U	179 U	195 U	437 U	210 U	226 U	199 U
Pyrene	1.70E+06	174 U	191 U	193 U	195 U	199 U	186 U	**232**	179 U	195 U	**1080**	210 U	226 U	199 U
VOCs (ug/kg)														
1,1,2-Trichloroethane	680	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
1,2-Dichlorobenzene	980,000	548 U	**6.18**	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
1,2-Dichloroethane	2,200	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
1,2-Dichloropropane	4,700	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
1,4-Dichlorobenzene	12,000	548 U	**10.4**	4.95 U	5 U	5.51 U	4.78 U	**980**	**652**	**1390**	5.3 U	4.94 U	5.2 U	5.47 U
1,4-Dioxane (p-Dioxane)	17,000	186000 U	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	132 U	127 U	137 U	121 U
2-Butanone	2.00E+07	2740 U	27.4 U	24.7 U	25 U	27.5 U	23.9 U	2590 U	2430 U	2470 U	26.5 U	24.7 U	26 U	27.4 U
2-Hexanone	140,000	1100 U	11 U	9.89 U	9.99 U	11 U	9.56 U	1040 U	971 U	987 U	10.6 U	9.88 U	10.4 U	10.9 U
4-Methyl-2-pentanone	5.30E+06	**2160**	11 U	9.89 U	9.99 U	11 U	9.56 U	1040 U	971 U	987 U	10.6 U	9.88 U	10.4 U	10.9 U
Acetone	6.30E+07	11000 U	110 U	98.9 U	99.9 U	110 U	95.6 U	10400 U	9710 U	9870 U	106 U	98.8 U	104 U	109 U
Benzene	5,400	**668**	5.48 U	4.95 U	**7.18**	5.51 U	**15.3**	518 U	**1570**	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Carbon disulfide	370,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Carbon tetrachloride	3,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Chlorobenzene	140,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Chloroform	1,500	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
cis-1,2-Dichloroethylene	200,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Cyclohexanone	3.10E+08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	27,000	548 U	5.48 U	4.95 U	5 U	5.51 U	**5.36**	**3200 J**	**2600 J**	**2600 J**	5.3 U	4.94 U	5.2 U	5.47 U
Methylene chloride	310,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Tetrachloroethene	41,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Toluene	4.50E+06	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	**1290**	**1210**	494 U	5.3 U	4.94 U	5.2 U	5.47 U
Trichloroethylene	2,000	548 U	5.48 U	4.95 U	5 U	5.51 U	4.78 U	518 U	486 U	494 U	**12.5**	**111**	**17.3**	**28.3**
Vinyl chloride	1,700	1100 U	11 U	9.89 U	9.99 U	11 U	9.56 U	1040 U	971 U	987 U	10.6 U	9.88 U	10.4 U	10.9 U
VOCs, Total	--	**2828**	**16.58**	0 U	**7.18**	0 U	**20.66**	**9520**	**10052**	**11030**	**12.5**	**111**	**17.3**	**28.3**
Xylenes, Total	270,000	1100 U	11 U	9.89 U	9.99 U	11 U	9.56 U	**4050**	**4020**	**7040**	10.6 U	9.88 U	10.4 U	10.9 U

Notes:
RSL = USEPA Regional Screening Level (RSL), November 2012, base
*A surrogate analyte was used to assign a screening level to this constitu
Chromium III was used as a surrogate for chromium
2,6-Dimethylphenol was used as a surrogate for 3- & 4-methylphenol
Acenaphthene was used as a surrogate for acenaphthylene
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Bis(2-Chloro-1-methylethyl) ether was used as a surrogate for bis(2-ch
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Anthracene was used as a surrogate for phenanthrene.
n = RSL is based on non-cancer toxicity data
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J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated numerical
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
NV = Not Validated, for screening purposes only
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
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ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-1
Soil Sample Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		4012		4013			4014			4015		D005	D006	D007	DOWSC-10S	DOWSC-11S	DOWSC-12S	DOWSC-13S		DOWSC-14S			DOWSC-6S	DOWSC-8S	DOWSC-9S	EU6-SS01
Sample ID	Minimum Adjusted Indus	4012-SO01-102909	4012-SO02-102909	4013-SO01-102809	4013-SO02-102809	4014-SO01-102809	4014-SO01-102809-D	4014-SO02-102809	4015-SO01-102909	4015-SO02-102909	SCFM-D005-4	SCFM-D006-4	SCFM-D007-6	DOWSC-10S-01	DOWSC-11S-01	DOWSC-12S-01	DOWSC-13S-01	DOWSC-13S-02	DOWSC-14S-01	DOWSC-14S-02	DOWSC-6S-01	DOWSC-8S-01	DOWSC-9S-01	EU6-SS01-062309
Sample Depth (ft)	Soil RSL	14.5 - 15	27.5 - 28	12.5 - 13	27.5 - 28	11 - 11.5	11 - 11.5	26.5 - 27	13.5 - 14	27 - 27.5	4 - 4	4 - 4	6 - 6	1 - 3	1 - 2	1 - 3	1 - 3	6 - 8	1 - 3	6 - 8	1 - 3	1 - 3	1 - 3	1 - 3	0 - 2
Sample Date		10/29/2009	10/29/2009	10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009	10/29/2009	8/17/2004	8/17/2004	8/18/2004	5/2/2002	5/2/2002	5/3/2002	5/3/2002	5/3/2002	5/3/2002	5/3/2002	5/3/2002	5/2/2002	5/2/2002	5/2/2002	6/23/2009
Analyte																									
Metals (MG/KG)																									
Arsenic	1.6	- -	- -	- -	- -	- -	- -	- -	- -	- -	**1.58**	**5.43**	**3.16**	**3.54 J NV**	**13.9 NV**	**6.99 NV**	**3.99 J NV**	**4.43 J NV**	**7.78 NV**	**5.84 J NV**	**3.86 J NV**	**6.45 NV**	**6.08 NV**	**16**
Barium	19,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	**90.7**	**7360**	**121**	**166 NV**	**3870 NV**	**2820 NV**	**120 NV**	**260 NV**	**1920 NV**	**1990 NV**	**102 NV**	**20500 NV**	**3630 NV**	**973**
Cadmium	80	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.423 U	0.51 U	0.606 U	**0.335 J NV**	**1.53 J NV**	**1.35 J NV**	**0.19 J NV**	**0.248 J NV**	**0.592 NV**	**0.82 NV**	**0.211 J NV**	**11 J NV**	5.25 U NV	**2.77**
Chromium*	150,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	**11.1**	**11.5**	**21.4**	**14.7 NV**	**13.9 NV**	**14.7 NV**	**19.1 NV**	**19 NV**	**19.1 NV**	**6.08 NV**	**16.9 NV**	**13.1 NV**	**9.89 NV**	**10.2**
Lead	800	- -	- -	- -	- -	- -	- -	- -	- -	- -	**7.52**	**31.7**	**13.6**	**14.5 NV**	**40.3 NV**	**84.6 NV**	**12.5 NV**	**14 NV**	**33.6 NV**	**49 NV**	**11.4 NV**	**46.6 NV**	**35.9 NV**	**32.1**
Mercury	4.3	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.301 U	0.28 U	0.304 U	**0.022 J NV**	**0.0342 J NV**	**30.8 NV**	0.3 U NV	0.31 U NV	0.32 U NV	**0.122 J NV**	0.29 U NV	**0.0322 J NV**	**0.0896 J NV**	**0.31**
Nickel	2,000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	**19.1**
Selenium	510	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.24 U	**0.266**	0.252 U	**0.336 NV**	**0.915 NV**	**2.39 NV**	**0.437 NV**	**0.156 J NV**	**2.11 NV**	**0.853 NV**	**0.242 NV**	**0.622 NV**	**0.255 NV**	1.11 U
Silver	510	- -	- -	- -	- -	- -	- -	- -	- -	- -	1.69 U	2.04 U	2.42 U	2.3 U NV	2.21 U NV	**1.27 J NV**	2.25 U NV	2.38 U NV	2.34 U NV	2.36 U NV	2.12 U NV	2.37 U NV	2.1 U NV	0.761 U
Total Organic Carbon by SW846-9060	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
PCBs (ug/kg)																									
Aroclor-1260	740	- -	- -	- -	- -	- -	- -	- -	- -	- -	19.8 U	19.4 U	20.3 U	20 U NV	19 U NV	**27.4 NV**	20 U NV	20 U NV	21 U NV	**83.5 NV**	19 U NV	20 U NV	19 U NV	- -
SVOCs (ug/kg)																									
2,4-Dimethylphenol	1.20E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
2-Methylnaphthalene	220,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**246**	204 U	390 U NV	**145 J NV**	190 U NV	200 U NV	200 U NV	210 U NV	**210 J NV**	190 U NV	200 U NV	**153 J NV**	**185**
2-Methylphenol	3.10E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
3-Methylphenol & 4-Methylphenol*	37,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3660 U
Acenaphthene	3.30E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	**171 J NV**	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	59 U
Acenaphthene	3.30E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	**171 J NV**	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	59 U
Acenaphthylene*	3.30E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	59 U
Anthracene	1.70E+07	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	**284 NV**	190 U NV	200 U NV	200 U NV	210 U NV	**439 NV**	190 U NV	200 U NV	**148 J NV**	**62.5**
Benzo (a) anthracene	2,100	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**264**	204 U	**815 NV**	**843 NV**	**249 NV**	**140 J NV**	200 U NV	210 U NV	**1270 NV**	190 U NV	200 U NV	**597 NV**	**289**
Benzo (a) pyrene	210	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**365**	204 U	**846 NV**	**846 NV**	**342 NV**	**201 NV**	200 U NV	210 U NV	**1310 NV**	190 U NV	200 U NV	**726 NV**	**342**
Benzo (b) fluoranthene	2,100	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**554**	204 U	**1160 NV**	**1140 NV**	**541 NV**	**281 NV**	200 U NV	210 U NV	**2040 NV**	190 U NV	200 U NV	**1070 NV**	**458**
Benzo (g,h,i) perylene*	1.70E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**275**	204 U	**337 J NV**	**346 NV**	**182 J NV**	**101 J NV**	200 U NV	210 U NV	**483 NV**	190 U NV	200 U NV	**395 NV**	**216**
Benzo(k)fluoranthene	21,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**204**	204 U	**890 NV**	**733 NV**	**318 NV**	**200 NV**	200 U NV	210 U NV	**1380 NV**	190 U NV	200 U NV	**511 NV**	**330**
Bis (2-chloroethoxy) methane	180,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 UJ	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 UL
Bis (2-chloroethyl) ether	1,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Bis (2-chloroisopropyl) ether*	22,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Bis (2-ethylhexyl) phthalate	120,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	**179 J NV**	200 U NV	200 U NV	210 U NV	**280 J NV**	190 U NV	200 U NV	190 U NV	3660 U
Chrysene	210,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**359**	204 U	**1070 NV**	**962 NV**	**320 NV**	**281 NV**	200 U NV	210 U NV	**1410 NV**	190 U NV	200 U NV	**765 NV**	**430**
Di-n-butylphthalate	6.20E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Di-n-octylphthalate	740,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Dibenzo (a,h) anthracene	210	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	**95.7 J NV**	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	**91.1**
Dibenzofuran	100,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	**187 J NV**	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Dimethyl phthalate	4.90E+07	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Fluoranthene	2.20E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**334**	204 U	**2060 NV**	**1930 NV**	**637 NV**	**604 NV**	200 U NV	210 U NV	**2060 NV**	190 U NV	200 U NV	**1630 NV**	**674**
Fluorene	2.20E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	**201 NV**	190 U NV	200 U NV	200 U NV	210 U NV	**207 J NV**	190 U NV	200 U NV	190 U NV	59 U
Indeno (1,2,3-c,d) pyrene	2,100	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**223**	204 U	**314 J NV**	**335 NV**	**164 J NV**	200 U NV	200 U NV	210 U NV	**464 NV**	190 U NV	200 U NV	**321 NV**	**201**
Isophorone	1.80E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 UL
Naphthalene	18,000	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	12 U NV	**582 NV**	12 U NV	12 U NV	12 U NV	13 U NV	**216 J NV**	11 U NV	12 U NV	12 U NV	**110**
Phenanthrene*	1.70E+07	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**384**	204 U	**1390 NV**	**1560 NV**	**316 NV**	**436 NV**	200 U NV	210 U NV	**1580 NV**	190 U NV	200 U NV	**1320 NV**	**317**
Phenol	1.80E+07	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	192 U	204 U	390 U NV	190 U NV	190 U NV	200 U NV	200 U NV	210 U NV	400 U NV	190 U NV	200 U NV	190 U NV	3660 U
Pyrene	1.70E+06	202 U	193 U	234 U	203 U	412 U	464 U	202 U	191 U	199 U	192 U	**338**	204 U	**2710 NV**	**2210 NV**	**791 NV**	**462 NV**	200 U NV	210 U NV	**2790 NV**	190 U NV	200 U NV	**2010 NV**	**519**
VOCs (ug/kg)																									
1,1,2-Trichloroethane	680	4.79 U	6.25 U	5.25 U	**8.33**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	**0.755 J NV**	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
1,2-Dichlorobenzene	980,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
1,2-Dichloroethane	2,200	4.79 U	6.25 U	5.25 U	**103**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
1,2-Dichloropropane	4,700	4.79 U	6.25 U	5.25 U	**22.5**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
1,4-Dichlorobenzene	12,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
1,4-Dioxane (p-Dioxane)	17,000	123 U	117 U	142 U	123 U	125 U	141 U	122 U	116 U	121 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2220 U
2-Butanone	2.00E+07	23.9 U	31.3 U	26.3 U	25.2 U	26.9 U	28.1 U	30.7 U	27.3 U	22.4 U	10.4 U	15.6 U	11.2 U	120 U NV	110 U NV	**6.35 J NV**	**5.76 J NV**	**6.17 J NV**	130 U NV	120 U NV	110 U NV	120 U NV	120 U NV	24.9 U
2-Hexanone	140,000	9.57 U	12.5 U	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	10.4 U	15.6 U	11.2 U	12 U NV	11 U NV	12 U NV	12 U NV	12 U NV	13 U NV	12 U NV	11 U NV	12 U NV	12 U NV	9.96 U
4-Methyl-2-pentanone	5.30E+06	9.57 U	12.5 U	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	10.4 U	15.6 U	11.2 U	12 U NV	11 U NV	12 U NV	12 U NV	12 U NV	13 U NV	12 U NV	11 U NV	12 U NV	12 U NV	9.96 U
Acetone	6.30E+07	95.7 U	125 U	105 U	101 U	108 U	112 U	123 U	109 U	89.7 U	10.4 U	15.6 U	11.2 U	120 U NV	**10.1 J NV**	**20.1 J NV**	**36.2 J NV**	**19.2 J NV**	130 U NV	**26 J NV**	**16.2 J NV**	120 U NV	120 U NV	99.6 U
Benzene	5,400	4.79 U	6.25 U	5.25 U	**63.5**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Carbon disulfide	370,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	**0.823 J NV**	6.1 U NV	**1.52 J NV**	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Carbon tetrachloride	3,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	**0.961 J NV**	4.98 U
Chlorobenzene	140,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Chloroform	1,500	4.79 U	6.25 U	5.25 U	**8.58**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	**4.86 J NV**	4.98 U
cis-1,2-Dichloroethylene	200,000	4.79 U	6.25 U	5.25 U	**24.2**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	**62.3**	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Cyclohexanone	3.10E+08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	59 U NV	57 U NV	59 U NV	60 U NV	61 U NV	64 U NV	61 U NV	57 U NV	61 U NV	**1.85 NV**	- -
Ethylbenzene	27,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Methylene chloride	310,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	**2.56 J NV**	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	**1.2 J NV**	6.1 U NV	5.8 U NV	4.98 U
Tetrachloroethene	41,000	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	**484 J**	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	**6.92 NV**	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Toluene	4.50E+06	4.79 U	6.25 U	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	11.2 U	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	6.4 U NV	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Trichloroethylene	2,000	4.79 U	**9.71**	5.25 U	**30.3**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	10.4 U	15.6 U	**49.1**	5.9 U NV	5.7 U NV	5.9 U NV	6 U NV	6.1 U NV	**2.8 J NV**	6.1 U NV	5.7 U NV	6.1 U NV	5.8 U NV	4.98 U
Vinyl chloride	1,700	9.57 U	12.5 U	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	10.4 U	15.6 U	11.2 U	12 U NV	11 U NV	12 U NV	12 U NV	12 U NV	13 U NV	12 U NV	11 U NV	12 U NV	12 U NV	9.96 U
VOCs, Total	--	0 U	**9.71**	0 U	**260.41**	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**595.4**	0 U	**12.66**	**26.45**	**42.783**	**25.37**	**11.995**	**26**	**17.4**	0 U	**7.671**	0 U
Xylenes, Total	270,000	9.57 U	12.5 U	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	10.4 U	15.6 U	11.2 U	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	9.96 U

Notes:
RSL = USEPA Regional Screening Level (RSL), November 2012, base
*A surrogate analyte was used to assign a screening level to this constitu
Chromium III was used as a surrogate for chromium
2,6-Dimethylphenol was used as a surrogate for 3- & 4-methylphenol
Acenaphthene was used as a surrogate for acenaphthylene
Pyrene was used as a surrogate for benzo(g,h,i)perylene
Bis(2-Chloro-1-methylethyl) ether was used as a surrogate for bis(2-ch
Diethyl phthalate was used as a surrogate for dimethyl phthalate
Anthracene was used as a surrogate for phenanthrene.
n = RSL is based on non-cancer toxicity data
c = RSL is based on carcinogenic toxicity data
-- = not available
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated numerical
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
NV = Not Validated, for screening purposes only
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-1
Soil Sample Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		EU6-SS02	EU7-SS01	MW027	SCFW18-SO013			
Sample ID	Minimum Adjusted Indus	EU6-SS02-062609	EU7-SS01-062309	MW027-SO01-39-40-092806	SCFM01-A311	SCFM02-A311	SCFM02-A311DL	SCFM03-A311
Sample Depth (ft)	Soil RSL	0 - 2	0 - 1.5	39 - 40	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Sample Date		6/26/2009	6/23/2009	9/28/2006	6/27/2003	6/27/2003	6/27/2003	6/27/2003
Analyte								
Metals (MG/KG)								
Arsenic	1.6	**30.7**	**12.4**	**6.21**	**5.46**	**10.9**	- -	**6.64**
Barium	19,000	**2390**	**794**	**27.3**	**4280**	**553**	- -	**6210**
Cadmium	80	**6.27**	**2.5 K**	0.448 U	**2.86**	**73.3**	- -	**4.09**
Chromium*	150,000	**11.9 K**	**15.6 K**	**7.71**	**23.6**	**72.5**	- -	**24.2**
Lead	800	**166**	**42 K**	**7.17**	**84.3**	**539**	- -	**166**
Mercury	4.3	0.283 U	**1.68**	0.276 U	**0.56**	**1.01**	- -	**1.61**
Nickel	2,000	**13.3 K**	**19.7 K**	**6.22**	**20**	**76.2**	- -	**24.3**
Selenium	510	**2.62**	1.03 U	0.579 U	**0.37**	**0.6**	- -	**0.32**
Silver	510	0.832 U	**1.03**	0.896 U	2.07 U	2.32 U	- -	2.27 U
Total Organic Carbon by SW846-9060	--	- -	- -	- -	- -	- -	- -	- -
PCBs (ug/kg)								
Aroclor-1260	740	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/kg)								
2,4-Dimethylphenol	1.20E+06	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
2-Methylnaphthalene	220,000	**1890**	**144**	1900 UL	1720 U	191 U	- -	1910 U
2-Methylphenol	3.10E+06	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
3-Methylphenol & 4-Methylphenol*	37,000	1050 U	3450 U	1900 UL	1720 U	191 U	- -	1910 U
Acenaphthene	3.30E+06	**51.5**	31.6 U	1900 U	1720 U	191 U	- -	1910 U
Acenaphthene	3.30E+06	**51.5**	31.6 U	1900 U	1720 U	191 U	- -	1910 U
Acenaphthylene*	3.30E+06	**538**	**85.3**	1900 U	1720 U	191 U	- -	1910 U
Anthracene	1.70E+07	**340**	**67.6**	1900 U	1720 U	191 U	- -	1910 U
Benzo (a) anthracene	2,100	**1510**	**279**	1900 U	1720 U	191 U	- -	1910 U
Benzo (a) pyrene	210	**1740**	**340**	1900 U	1720 U	191 U	- -	1910 U
Benzo (b) fluoranthene	2,100	**2060**	**467**	1900 U	1720 U	191 U	- -	1910 U
Benzo (g,h,i) perylene*	1.70E+06	**1290**	**268**	1900 U	1720 U	191 U	- -	1910 U
Benzo(k)fluoranthene	21,000	**1900**	**390**	1900 U	1720 U	191 U	- -	1910 U
Bis (2-chloroethoxy) methane	180,000	1050 UL	3450 UL	1900 UL	1720 U	191 U	- -	1910 U
Bis (2-chloroethyl) ether	1,000	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
Bis (2-chloroisopropyl) ether*	22,000	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
Bis (2-ethylhexyl) phthalate	120,000	1050 U	3450 U	1900 U	**1890**	- -	**12500**	1910 U
Chrysene	210,000	**2140**	**422**	1900 U	1720 U	191 U	- -	1910 U
Di-n-butylphthalate	6.20E+06	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
Di-n-octylphthalate	740,000	1050 U	3450 U	1900 U	1720 U	**1090**	- -	1910 U
Dibenzo (a,h) anthracene	210	**448**	**123**	1900 U	1720 U	191 U	- -	1910 U
Dibenzofuran	100,000	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
Dimethyl phthalate	4.90E+07	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
Fluoranthene	2.20E+06	**2980**	**584**	1900 U	1720 U	191 U	- -	1910 U
Fluorene	2.20E+06	**117**	31.6 U	1900 U	1720 U	191 U	- -	1910 U
Indeno (1,2,3-c,d) pyrene	2,100	**1220**	**255**	1900 U	1720 U	191 U	- -	1910 U
Isophorone	1.80E+06	1050 UL	3450 UL	1900 UL	1720 U	191 U	- -	1910 U
Naphthalene	18,000	**1130**	**91.8**	1900 UL	1720 U	191 U	- -	1910 U
Phenanthrene*	1.70E+07	**2170**	**385**	1900 U	1720 U	191 U	- -	1910 U
Phenol	1.80E+07	1050 U	3450 U	1900 U	1720 U	191 U	- -	1910 U
Pyrene	1.70E+06	**2050**	**443**	1900 U	1720 U	191 U	- -	1910 U
VOCs (ug/kg)								
1,1,2-Trichloroethane	680	7.32 UJ	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
1,2-Dichlorobenzene	980,000	7.32 UJ	5.14 U	5980 U	1720 U	191 U	- -	1910 U
1,2-Dichloroethane	2,200	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
1,2-Dichloropropane	4,700	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
1,4-Dichlorobenzene	12,000	7.32 UJ	5.14 U	5980 U	1720 U	191 U	- -	1910 U
1,4-Dioxane (p-Dioxane)	17,000	634 U	2090 U	**R**	85.6 U	98.3 U	- -	111 U
2-Butanone	2.00E+07	36.6 U	25.7 U	29900 U	8.56 U	9.83 U	- -	11.1 U
2-Hexanone	140,000	14.6 UJ	10.3 U	12000 U	8.56 U	9.83 U	- -	11.1 U
4-Methyl-2-pentanone	5.30E+06	14.6 U	10.3 U	12000 U	8.56 U	9.83 U	- -	11.1 U
Acetone	6.30E+07	146 U	103 U	120000 U	8.56 U	9.83 U	- -	11.1 U
Benzene	5,400	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Carbon disulfide	370,000	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Carbon tetrachloride	3,000	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Chlorobenzene	140,000	7.32 UJ	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Chloroform	1,500	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
cis-1,2-Dichloroethylene	200,000	7.32 U	5.14 U	5980 U	- -	- -	- -	- -
Cyclohexanone	3.10E+08	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	27,000	7.32 UJ	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Methylene chloride	310,000	7.32 U	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Tetrachloroethene	41,000	7.32 UJ	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Toluene	4.50E+06	7.32 UJ	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Trichloroethylene	2,000	**11.8 L**	5.14 U	5980 U	4.28 U	4.92 U	- -	5.54 U
Vinyl chloride	1,700	14.6 U	10.3 U	12000 U	8.56 U	9.83 U	- -	11.1 U
VOCs, Total	--	**11.8**	0 U	0 U	0 U	0 U	- -	0 U
Xylenes, Total	270,000	14.6 UJ	10.3 U	12000 U	4.28 U	4.92 U	- -	5.54 U

Notes:
RSL = USEPA Regional Screening Level (RSL), November 2012, base
*A surrogate analyte was used to assign a screening level to this constitu
Chromium III was used as a surrogate for chromium
2,6-Dimethylphenol was used as a surrogate for 3- & 4-methylphenol
Acenaphthene was used as a surrogate for acenaphthylene
Pyrene was used as a surrogate for benzo(g,h,i)perylene
Bis(2-Chloro-1-methylethyl) ether was used as a surrogate for bis(2-ch
Diethyl phthalate was used as a surrogate for dimethyl phthalate
Anthracene was used as a surrogate for phenanthrene.
n = RSL is based on non-cancer toxicity data
c = RSL is based on carcinogenic toxicity data
-- = not available
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated numerical
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
NV = Not Validated, for screening purposes only
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-2
Groundwater Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		1018	1019	1020	3047		3048	3065	3066			3067	
Sample ID	Pore Water Clean-up Level	1018-GW-092706	1019-GW-092806	1020-GW-092706	3047-GW01-041808	3047-GW01-041808D	3048-GW01-041808	3065-GW01-121308	3066-GW01-121308	3066-GW02-121308	3066-GW02-121308D	3067-GW01-121208	3067-GW02-121208
Sample Depth (ft)		36 - 36	34 - 34	12 - 12	38 - 42	38 - 42	38 - 42	44 - 48	38 - 42	46 - 50	46 - 50	44 - 48	54 - 58
Sample Date		9/27/2006	9/28/2006	9/27/2006	4/18/2008	4/18/2008	4/18/2008	12/13/2008	12/13/2008	12/13/2008	12/13/2008	12/12/2008	12/12/2008
Analyte													
Metals (mg/L)													
Arsenic, dissolved	--	**0.157**	**0.156**	**0.0843**	- -	- -	- -	- -	- -	- -	- -	- -	- -
Barium, dissolved	--	**2.45**	**1.77**	**0.803**	- -	- -	- -	- -	- -	- -	- -	- -	- -
Cadmium, dissolved	--	0.005 U	**0.00588**	0.005 U	- -	- -	- -	- -	- -	- -	- -	- -	- -
Chromium, dissolved	--	**0.699**	**0.579**	**0.365**	- -	- -	- -	- -	- -	- -	- -	- -	- -
Iron, dissolved	--	**345**	**277**	**164**	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead, dissolved	--	**0.543**	**0.622**	**0.189**	- -	- -	- -	- -	- -	- -	- -	- -	- -
Mercury, dissolved	--	**0.000291**	**0.000415**	0.0002 U	- -	- -	- -	- -	- -	- -	- -	- -	- -
Nickel, dissolved	--	**0.631**	**0.56**	**0.387**	- -	- -	- -	- -	- -	- -	- -	- -	- -
Selenium, dissolved	--	0.05 U	**0.00757**	0.05 U	- -	- -	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/l)													
Bis (2-chloroethoxy) methane	--	**8.3**	5.15 U	**130**	- -	- -	- -	5.62 U	5.38 U	5.26 U	5 U	5.43 U	5.43 U
Bis (2-chloroethyl) ether	--	**71.8**	**17.5**	**89.4**	- -	- -	- -	5.62 U	**270**	5.26 U	5 U	**20.8**	5.43 U
Bis (2-chloroisopropyl) ether	--	**170**	5.15 U	**49.8**	- -	- -	- -	5.62 U	**26.4**	5.26 U	5 U	**46.4**	5.43 U
Bis (2-ethylhexyl) phthalate	--	5.21 U	5.15 U	6.02 U	- -	- -	- -	**104**	**34.7**	**147 L**	**48 J**	**93.1**	**6.24**
Di-n-octylphthalate	--	5.21 U	5.15 U	6.02 U	- -	- -	- -	5.62 U	5.38 U	5.26 U	5 U	5.43 U	5.43 U
Phenol	--	5.21 U	5.15 U	6.02 U	- -	- -	- -	5.62 U	**8.16**	5.26 U	5 U	**10.6**	5.43 U
VOCs (ug/L)													
1,1,2-Trichloroethane	--	1 U	1 U	1 U	1 U	1 U	**2.57**	1 U	1 U	1 U	1 U	**4.94**	**2.36**
1,1-Dichloroethene	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**1.14**	**1.12**
1,2-Dichloroethane	100	**50.5**	1 U	**3.13**	1 U	1 U	**2.2**	1 U	1 U	**20 L**	**27.4 J**	**769**	**24.3**
1,2-Dichloropropane	8300	**5.5**	1 U	1 U	1 U	1 U	**6.32**	1 U	1 U	1 U	1 U	**87.9**	**3.32**
1,4-Dioxane (p-Dioxane)	22740	**502 L**	**232 L**	**2130 L**	**R**	**R**	**R**	**1.16**	**238 L**	1.05 U	1 U	**198**	**1.99**
2-Butanone	--	10 U	10 U	10 U	10 UL	10 UL	10 UL	10 U	10 U	10 U	10 U	10 U	**11.7 K**
Acetone	--	25 U	25 U	25 U	25 UL	25 UL	25 UL	25 U	25 U	25 U	25 U	**31.4 K**	**63.1 K**
Benzene	130	**9.19**	**704**	**10.3**	1 U	1 U	1 U	1 U	**389**	**103 L**	**111**	**344**	**3.39**
Carbon disulfide	--	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	64	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	--	1 U	1 U	**2.93**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	--	**1.21**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**36.2**	1 U
1,2-Dichloroethene	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
cis-1,2-Dichloroethylene	590	**86.2**	**4.25**	**19.1**	1 U	1 U	1 U	1 U	**5.67**	**1.1**	**1.54**	**154**	**10.2**
Ethylbenzene	7	1 U	**1.69**	1 U	1 U	1 U	1 U	1 U	**10.5**	**9.3 L**	**9.62**	1 U	1 U
tert-Butyl Methyl Ether	--	- -	- -	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**32.7 K**	5 U
Tetrachloroethene	98	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	10	1 U	**4.14**	1 U	1 U	1 U	1 U	1 U	**14.1**	**10.2 L**	**11.3**	1 U	**1.14**
Trans-1,2-Dichloroethylene	970	**1.07**	1 U	**1.03**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethylene	47	**17.3**	1 U	**1.85**	1 U	1 U	1 U	1 U	1 U	**2.04**	**3.11**	**27.5**	**2.41**
Vinyl chloride	930	**63.7**	1 U	**6.15**	1 U	1 U	1 U	1 U	**5.64**	**1.06**	**1.22**	**27.2**	**3.82**
VOCs, Total	--	**736.67**	**946.08**	**2174.49**	0 U	0 U	**11.09**	**1.16**	**669.78**	**152.75**	**171.39**	**1713.98**	**128.85**
Xylenes, Total	67	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**6.87**	**6.05**	**6.2**	5 U	5 U

Notes:
Pore Water Clean-up Levels are presented in Pore Water Cleanup Levels and Groundwater Performance Criteria Report (CH2M HILL 2009b).
NA = Not analyzed or Not Available
B = The analyte was detected in the associated method and/or calibration blank.
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the
K = The analyte was positively identified, but the associated numerical value may be biased high.
L = The analyte was positively identified, but the associated numerical value may be biased low.
deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
S = The sample results are unvalidated and should be used for screening purposes only.
SU = The sample results are unvalidated and should be used for screening purposes only.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/l = Milligrams per Liter
ug/l = Micrograms per Liter
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-2
Groundwater Analytical Results - Middle Mainland Remediatio
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		4010	4011	4012	4013	4014		4015	D006	DP056	DP057	DP058	DP059	DP060	DP061		MP53
Sample ID	Pore Water Clean-up Level	4010-GW-102909	4011-GW-102809	4012-GW-102909	4013-GW-102809	4014-GW-102809	4014-GW-102809-D	4015-GW-102909	SCFM-D006	SCFM-A010	SCFM-A011	SCFM-A012	SCFM-A013	SCFM-A014	SCFM-A015	SCFM-A110	MP53
Sample Depth (ft)		36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	N/A	16 - 20	36 - 40	38 - 42	40 - 44	36 - 40	36 - 40	36 - 40	36 - 40
Sample Date		10/29/2009	10/28/2009	10/29/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009	8/17/2004	12/5/2002	12/9/2002	12/9/2002	12/6/2002	12/11/2002	12/10/2002	12/10/2002	12/2/2004
Analyte																	
Metals (mg/L)																	
Arsenic, dissolved	--	- -	- -	- -	- -	- -	- -	- -	**0.00165**	- -	- -	- -	**0.00887**	- -	**0.0014**	**0.00176**	- -
Barium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	**0.116**	- -	- -	- -	**0.277**	- -	**0.0595**	**0.0571**	- -
Cadmium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	0.01 U	- -	- -	- -	0.01 U	- -	0.01 U	0.01 U	- -
Chromium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	0.02 U	- -	- -	- -	0.02 U	- -	0.02 U	0.02 U	- -
Iron, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead, dissolved	--	- -	- -	- -	- -	- -	- -	- -	0.005 U	- -	- -	- -	0.1 U	- -	0.005 U	0.005 U	- -
Mercury, dissolved	--	- -	- -	- -	- -	- -	- -	- -	0.0002 U	- -	- -	- -	0.0002 U	- -	0.0002 U	0.0002 U	- -
Nickel, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	- -	0.04 U	0.04 U	- -
Selenium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	0.001 U	- -	- -	- -	**0.00567**	- -	**0.00627**	**0.00726**	- -
SVOCs (ug/l)																	
Bis (2-chloroethoxy) methane	--	6.02 UJ	11.1 UJ	5.56 UJ	10.2 UJ	10.8 UJ	10.8 UJ	5.43 UJ	5.41 U	5.62 U	6.1 U	**16.1**	**13**	**14.2**	7.35 U	7.04 U	25.8 SU
Bis (2-chloroethyl) ether	--	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	5.41 U	5.62 U	6.1 U	**7.81**	**114**	**542**	7.35 U	7.04 U	**850 S**
Bis (2-chloroisopropyl) ether	--	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	5.41 U	5.62 U	6.1 U	5.38 U	**278**	**11**	7.35 U	7.04 U	**36.4 S**
Bis (2-ethylhexyl) phthalate	--	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	5.41 U	**35.1**	**21.9**	**28.7**	6.85 U	6.02 U	7.35 U	7.04 U	25.8 SU
Di-n-octylphthalate	--	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	5.41 U	5.62 U	6.1 U	**13.1**	6.85 U	6.02 U	7.35 U	7.04 U	25.8 SU
Phenol	--	6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	5.41 U	5.62 U	6.1 U	5.38 U	6.85 U	6.02 U	7.35 U	7.04 U	25.8 SU
VOCs (ug/L)																	
1,1,2-Trichloroethane	--	1 U	1 U	1 U	**17.1**	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 SU
1,1-Dichloroethene	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 SU
1,2-Dichloroethane	100	1 U	1 U	1 U	**1280**	1 U	1 U	1 U	10 U	5 U	5 U	5 U	**25.5**	5 U	5 U	5 U	5 SU
1,2-Dichloropropane	8300	1 U	1 U	1 U	**290**	1 U	1 U	1 U	10 U	5 U	5 U	5 U	**5.09**	5 U	5 U	5 U	5 SU
1,4-Dioxane (p-Dioxane)	22740	1.2 U	2.22 U	1.11 U	**2.33**	2.15 U	2.15 U	1.09 U	- -	**114**	100 U	**710 J**	**278**	**709**	100 U	100 U	**260 S**
2-Butanone	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 SU
Acetone	--	25 U	25 U	25 U	25 U	25 U	25 U	25 U	10 U	10 U	**10**	**10.9**	10 U	10 U	10 U	10 U	10 SU
Benzene	130	1 U	1 U	1 U	**195**	1 U	1 U	1 U	10 U	5 U	5 U	**37.7**	**8.22**	**78.3**	5 U	5 U	**6260 S**
Carbon disulfide	--	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 SU
Chlorobenzene	64	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 SU
Chloroethane	--	1 U	1 U	1 U	**1.59**	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 SU
Chloroform	--	1 U	1 U	1 U	**200**	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 SU
1,2-Dichloroethene	--	- -	- -	- -	- -	- -	- -	- -	- -	5 U	5 U	5 U	**36.2**	**10.8**	5 U	5 U	5 SU
cis-1,2-Dichloroethylene	590	1 U	1 U	1 U	**431**	1 U	1 U	1 U	10 U	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**21 S**
tert-Butyl Methyl Ether	--	5 U	5 U	5 U	**33.2**	5 U	5 U	5 U	10 U	- -	- -	- -	- -	- -	- -	- -	- -
Tetrachloroethene	98	1 U	1 U	1 U	**1.22**	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 SU
Toluene	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**31.2 S**
Trans-1,2-Dichloroethylene	970	1 U	1 U	1 U	**1.26**	1 U	1 U	1 U	10 U	- -	- -	- -	- -	- -	- -	- -	- -
Trichloroethylene	47	**1.29**	1 U	1 U	**124**	1 U	1 U	1 U	10 U	5 U	5 U	5 U	**20.6**	5 U	5 U	5 U	5 SU
Vinyl chloride	930	1 U	1 U	1 U	**41.4**	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 SU
VOCs, Total	--	**1.29**	0 U	0 U	**2618.1**	0 U	0 U	0 U	0 U	**114**	**10**	**758.6**	**373.61**	**798.1**	0 U	0 U	**6587.9**
Xylenes, Total	67	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**15.7 S**

Notes:
Pore Water Clean-up Levels are presented in Pore Water Clea
NA = Not analyzed or Not Available
B = The analyte was detected in the associated method and/or
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the
K = The analyte was positively identified, but the associated nu
L = The analyte was positively identified, but the associated nu deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
S = The sample results are unvalidated and should be used for
SU = The sample results are unvalidated and should be used f
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/l = Milligrams per Liter
ug/l = Micrograms per Liter
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-2
Groundwater Analytical Results - Middle Mainland Remediatio
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		MW027		MW037	MW038		PZ030	PZ031	PZ032	PZ033	PZ043	PZ044
Sample ID	Pore Water Clean-up Level	MW027-GW-081411	MW027-GW-081411-D	MW037-GW-081411	MW038-GW-081511	MW038-GW-081511D	PZ030-GW-081511	PZ031-GW-081511	PZ032-GW-081411	PZ033-GW-081511	PZ043-GW-050207	PZ044-GW-101308
Sample Depth (ft)		49 - 59	49 - 59	29 - 39	31 - 41	31 - 41	17 - 27	27.4 - 37.4	32 - 42	29.9 - 39.9	25 - 35	N/A
Sample Date		8/14/2011	8/14/2011	8/14/2011	8/15/2011	8/15/2011	8/15/2011	8/15/2011	8/14/2011	8/15/2011	5/2/2007	10/13/2008
Analyte												
Metals (mg/L)												
Arsenic, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Barium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Cadmium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Chromium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Iron, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Mercury, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Nickel, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Selenium, dissolved	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/l)												
Bis (2-chloroethoxy) methane	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	6.25 U	5.1 U
Bis (2-chloroethyl) ether	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	6.25 U	5.1 U
Bis (2-chloroisopropyl) ether	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	6.25 U	5.1 U
Bis (2-ethylhexyl) phthalate	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	6.25 U	5.1 U
Di-n-octylphthalate	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	6.25 U	5.1 U
Phenol	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	6.25 U	5.1 U
VOCs (ug/L)												
1,1,2-Trichloroethane	--	1 U	1 U	2 U	1 U	1 U	1 U	**76.8**	1 U	1 U	1 U	1 U
1,1-Dichloroethene	25	1 U	1 U	2 U	1 U	1 U	1 U	25 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	100	1 U	1 U	**2.76**	1 U	1 U	1 U	**2610**	1 U	**1.65**	1 U	1 U
1,2-Dichloropropane	8300	1 U	1 U	2 U	1 U	1 U	1 U	**158**	**1.42**	1 U	1 U	1 U
1,4-Dioxane (p-Dioxane)	22740	100 U	100 U	**758 L**	**R**	**R**	**108 L**	2500 U	**R**	100 U	**R**	1.02 U
2-Butanone	--	10 U	10 U	20 U	10 U	10 U	10 U	250 U	10 U	10 U	10 U	10 U
Acetone	--	25 U	25 U	50 U	25 U	25 U	25 U	625 U	25 U	25 U	25 U	25 U
Benzene	130	**2.74**	**1.7**	**33.1**	**10.4 B**	**8.45 B**	**1.52 B**	**1220**	**5.4**	1 U	1 U	**2.8 J**
Carbon disulfide	--	1 U	1 U	2 U	1 U	1 U	1 U	25 U	**3.49**	1 U	1 U	1 U
Chlorobenzene	64	1 U	1 U	2 U	**3.46**	**1.53**	1 U	**51.5**	1 U	1 U	1 U	1 U
Chloroethane	--	1 U	1 U	2 U	1 U	1 U	1 U	25 U	1 U	1 U	1 U	1 U
Chloroform	--	1 U	1 U	2 U	1 U	1 U	1 U	**45.3**	1 U	1 U	1 U	1 U
1,2-Dichloroethene	--	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
cis-1,2-Dichloroethylene	590	1 U	1 U	**85.7**	**1.74**	**1.03**	1 U	**270**	**196**	**41.9**	1 U	1 U
Ethylbenzene	7	1 U	1 U	2 U	1 U	1 U	1 U	25 U	1 U	1 U	1 U	1 U
tert-Butyl Methyl Ether	--	**16.6**	**19**	10 U	5 U	5 U	5 U	125 U	5 U	5 U	5 U	5 U
Tetrachloroethene	98	1 U	1 U	2 U	1 U	1 U	1 U	25 U	1 U	**94.6**	1 U	1 U
Toluene	10	1 U	1 U	**2.5**	**1.79 B**	**1.6 B**	1 U	25 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethylene	970	1 U	1 U	2 U	1 U	1 U	1 U	25 U	**1.47**	1 U	1 U	1 U
Trichloroethylene	47	1 U	1 U	**6.29**	1 U	1 U	1 U	**76.9**	**28.6**	**153**	1 U	1 U
Vinyl chloride	930	1 U	1 U	**100**	1 U	1 U	1 U	**25.6**	**33.4**	1 U	1 U	1 U
VOCs, Total	--	**19.34**	**20.7**	**988.35**	**17.39**	**12.61**	**109.52**	**4534.1**	**269.78**	**291.15**	0 U	**2.8**
Xylenes, Total	67	5 U	5 U	10 U	5 U	5 U	5 U	125 U	5 U	5 U	5 U	5 U

Notes:
Pore Water Clean-up Levels are presented in Pore Water Clea
NA = Not analyzed or Not Available
B = The analyte was detected in the associated method and/or
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the
K = The analyte was positively identified, but the associated nu
L = The analyte was positively identified, but the associated nu deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
S = The sample results are unvalidated and should be used for
SU = The sample results are unvalidated and should be used f
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/l = Milligrams per Liter
ug/l = Micrograms per Liter
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table 2-3
Porewater Analytical Results - Middle Mainland Remediation Area
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		SCF-PW017	SCF-PW018	SCF-PW019		SCF-PW063	SCF-PW147	SCF-PW148		SCF-PW149
Sample ID	Pore Water	SCF-PW017-070609	SCF-PW018-070609	SCF-PW019-070709	SCF-PW019-070709D	SCF-PW063-120209	SCF-PW147-062811	SCF-PW148-062811	SCF-PW148-062811D	SCF-PW149-062811
Sample Depth (ft)	Clean-up Level	1 - 1	1 - 1	1 - 1	1 - 1	1 - 1	1 - 1	1 - 1	1 - 1	1 - 1
Sample Date		7/6/2009	7/6/2009	7/7/2009	7/7/2009	12/2/2009	6/28/2011	6/28/2011	6/28/2011	6/28/2011
Analyte										
VOCs (ug/l)										
1,2-Dichlorobenzene	14	2.5 U	1 U	1 U	1 U	1 U	1 U	**1.33**	**1.56**	1 U
1,2-Dichloroethane	100	2.5 U	**1.15**	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	71	2.5 U	1 U	1 U	1 U	1 U	1 U	**1.65**	**1.87**	1 U
1,4-Dichlorobenzene	15	2.5 U	1 U	1 U	1 U	1 U	1 U	**10.2**	**11.6**	1 U
1,4-Dioxane (p-Dioxane)	22740	**693 L**	**R**	**R**	**R**	**R**	100 U	100 U	100 U	**170 K**
Benzene	130	2.5 U	**1.18**	**1.2**	1 U	**11.8**	1 U	1 U	1 U	1 U
Carbon disulfide	--	2.5 U	**2.57**	1 U	1 U	1 U	1 U	1 U	1 U	1 UL
Chlorobenzene	64	2.5 U	1 U	1 U	1 U	1 U	1 U	**17.7**	**20.3**	1 U
cis-1,2-Dichloroethylene	590	2.5 U	1 U	1 U	1 U	1 U	1 U	**3.77**	**4.11**	1 U
Ethylbenzene	7	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	10	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	930	2.5 U	1 U	1 U	1 U	1 U	1 U	**2.89**	**3.07**	1 U
VOCs, Total	--	**693**	**4.9**	**1.2**	0 U	**11.8**	0 U	**37.54**	**42.51**	**170**
Xylenes, Total	67	12.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes:
Pore Water Clean-up Levels are presented in Pore Water Cleanup Levels and Groundwater Performance Criteria Report (CH2M HILL 2009b).
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate
K = The analyte was positively identified, but the associated numerical value may be biased high.
L = The analyte was positively identified, but the associated numerical value may be biased low.
deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
SU = The sample results are unvalidated and should be used for screening purposes only.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is
ug/l = Micrograms per Liter
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criter

TABLE 4-1
Remedial Technologies Screening
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Remedial Technology	Process Options	Description	Long-Term Reliability and Effectiveness	Reduction in Toxicity, Mobility, and Volume of Wastes	Short-Term Effectiveness	Implementability	Relative Cost	Screening Comment
Soil and Groundwater								
Institutional Controls								
Access and Use Restrictions	Institutional Controls	Institutional controls implemented for impacted areas to restrict property use and groundwater use.	Rating: Moderate Properly maintained institutional controls are highly effective for mitigating human exposure to impacts in the long term. However, institutional controls do not address potential exposure pathways related to groundwater discharge to the Kanawha River.	Rating: Low Institutional controls would not reduce concentrations in soil or groundwater; however, institutional controls prevent exposure pathways for human health from being completed.	Rating: High Institutional controls would prevent exposure pathways for human receptors to contaminated soil and groundwater. However, institutional controls will not address potential exposure pathways related to groundwater discharge to the Kanawha River.	Rating: High Institutional controls can be easily implemented at the site and offsite affect properties.	Capital: Low cost related to establishing the institutional controls. Operation & Maintenance: Low costs for inspecting compliance with the institutional controls.	Suitable to eliminate potentially completed exposure pathways for human health.
Monitoring								
Groundwater Monitoring	None	Groundwater monitoring to evaluate plume stability and protectiveness of the Kanawha River.	Rating: Moderate Groundwater monitoring is effective for assessing the stability of the groundwater plumes; however, does not address potentially completed exposure pathways for human health.	Rating: Low While monitoring does not actively remove constituent, it does provide indicators of constituent degradation, which is occurring at the site.	Rating: Low Groundwater monitoring is effective at assessing changes in site conditions; however, it will not remediate the site. Therefore, soil and groundwater conditions are not expected to improve for many years. During this time, there would be the potential for unacceptable risks related to exposure to groundwater. Risks for current and future soil exposure pathways are within the USEPA risk management range (see Section 3).	Rating: High Groundwater monitoring can be easily implemented at the site.	Capital: Low to moderate cost for establishing the monitoring program (e.g., installing additional wells). Operation & Maintenance: Low cost for sampling and reporting.	Monitoring the groundwater concentrations over time will be used to evaluate changes in groundwater conditions.
Excavation and Disposal								
Excavation and Disposal	Excavation and Offsite Disposal to RCRA Subtitle C or Subtitle D Landfill	Excavate accessible contaminated soil for disposal in a permitted landfill. Soil beneath existing buildings and infrastructure would not be removed.	Rating: Moderate Excavation is effective in the long-term as a remedial technology because it physically removes the source of the dissolved phase plumes from the site; however, excavation does not directly address potentially complete exposure pathways related to the groundwater plumes at the site.	Rating: High By physically removing the impacted soil, excavation as a technology effectively reduces the volume of contaminated soil; however, it is also unknown whether the source area extends under Building 301/303. Therefore, excavation may not fully remove the source area near Building 301/303. After the source is excavated, the groundwater plumes will continue to attenuate.	Rating: Moderate Excavation and offsite disposal is an effective short term remedy as it eliminates the potential for human receptors to be exposed to impacted soil. However, contaminated soil may extend beneath Building 301/303 which would not be removed so there would still be the potential for unacceptable risks related to future exposure to soil beneath Building 301/303. After the source is excavated, the groundwater plumes will continue to attenuate for many years. During this time, there would be the potential for unacceptable risks related to exposure to groundwater.	Rating: Low Access to the Building 301/303 source area is limited. There are rail lines and possibly other infrastructure that would need to be removed to excavate where the source area has been defined. The source area south of Building 307 is approximately 30 feet below ground surface, which would require sheet piling or an excessive amount of benching, sloping, or shoring to reach the target depth.	Capital: High cost for onsite work and disposal of contaminated soils. Operation & Maintenance: None.	The impacts in soil are limited in extent and relatively inaccessible for excavation because of current infrastructure and depth of contamination.

TABLE 4-1
Remedial Technologies Screening
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Remedial Technology	Process Options	Description	Long-Term Reliability and Effectiveness	Reduction in Toxicity, Mobility, and Volume of Wastes	Short-Term Effectiveness	Implementability	Relative Cost	Screening Comment
In Situ Treatment								
Chemical	Soil Mixing with Addition of Chemical Oxidant	Soil is mixing and treatment conducted in accessible areas. Soil beneath existing building and infrastructure would not be treated. Mixing would be conducted using large diameter augers (8 to 10 feet) with a chemical oxidant (persulfate or permanganate) to promote chemical oxidation of volatile organic compounds in the source area.	Rating: Moderate Soil mixing is an effective method to ensure adequate contact between the chemical oxidant and the impacted media is made. The chemical oxidant will destroy constituents on contact. The reactions are typically rapid, within days or weeks. Chemical oxidation, however, will not directly address potentially complete exposure pathways related to the groundwater plumes at the site.	Rating: Moderate The entire source must be delineated to ensure it is treated since the radius of influence does not extend beyond the actual mixing radius. It is unknown whether the source area extends under Building 301/303; therefore, the entire source area may not be removed. After the source is treated, the groundwater plumes will continue to attenuate.	Rating: Moderate Soil mixing with addition of chemical oxidant works rapidly to reduce contaminant concentrations eliminating the potential for human receptors to be exposed to impacted soil where chemical oxidation is conducted. However, contaminated soil may extend beneath Building 301/303 which would not be treated so there would still be the potential for unacceptable risks related to future exposure to soil beneath Building 301/303. After the source is remediated, the groundwater plumes will continue to attenuate for many years. During this time, there would be the potential for unacceptable risks related to exposure to groundwater.	Rating: Low Access to the Building 301/303 source area is limited. There are rail lines and possibly other infrastructure which would need to be removed to treat the source area. Additionally, because soil mixing disturbs the entire column of soil from surface to treatment depth, it could adversely affect the structure of adjacent buildings. If wet or slurry mixing is completed, the mixing area will not be useable for 6 months to 1 year unless stabilization activities are completed (e.g., mixing concrete into the top several feet of soil).	Capital: High Cost Operation & Maintenance: Low cost for performance monitoring, which will be required to ensure the chemical oxidant is uniformly distributed and has effectively treated the source.	The impacts in soil are limited in extent and relatively inaccessible because of current infrastructure and depth of contamination.
Physical	Soil Vapor Extraction	SVE technology involves applying a vacuum to the soil to induce the removal of volatile organic compounds from the vadose zone soil. Vapors extracted from the soils would be treated.	Rating: Low to Moderate SVE is effective at removing volatile organic compounds in coarse grained soils. Fine-grained soils may inhibit air flow and subsurface heterogeneity may require the use of multiple shorter screens to prevent short circuiting. SVE will not directly address potential complete exposure pathways related to the groundwater plumes at the site.	Rating: Moderate SVE will remove volatile organic compounds from soil; however, the fine-grained soil and access at the site may limit the amount of contamination that can be removed. Offgas treatment would be required as SVE transfers volatile organic compounds from the soil matrix to the vapor phase. After the source is treated, the groundwater plumes will continue to attenuate.	Rating: Low to Moderate SVE would require several years to remediate the impacted soil. Fine grained soils may inhibit air flow and reduce effectiveness. After the source is remediated, the groundwater plumes will continue to attenuate for many years. During this time, there would be the potential for unacceptable risks related to exposure to groundwater.	Rating: Low The vadose zone is comprised of lower permeability soils, which may hinder recovery of constituents through SVE. Soil fracturing may be required to improve secondary permeability in the vadose zone; however, fracturing cannot be performed near structures because of the potential for damaging them.	Capital: Moderate cost for designing and installing the system. Operation & Maintenance: Moderate cost. Costs may increase depending on the level of vapor treatment that is required.	Although this technology is less invasive and will not likely affect onsite activities, subsurface heterogeneity and fine-grained soils may hinder effectiveness of SVE.

SVE – soil vapor extraction
USEPA – United States Environmental Protection Agency

Figures

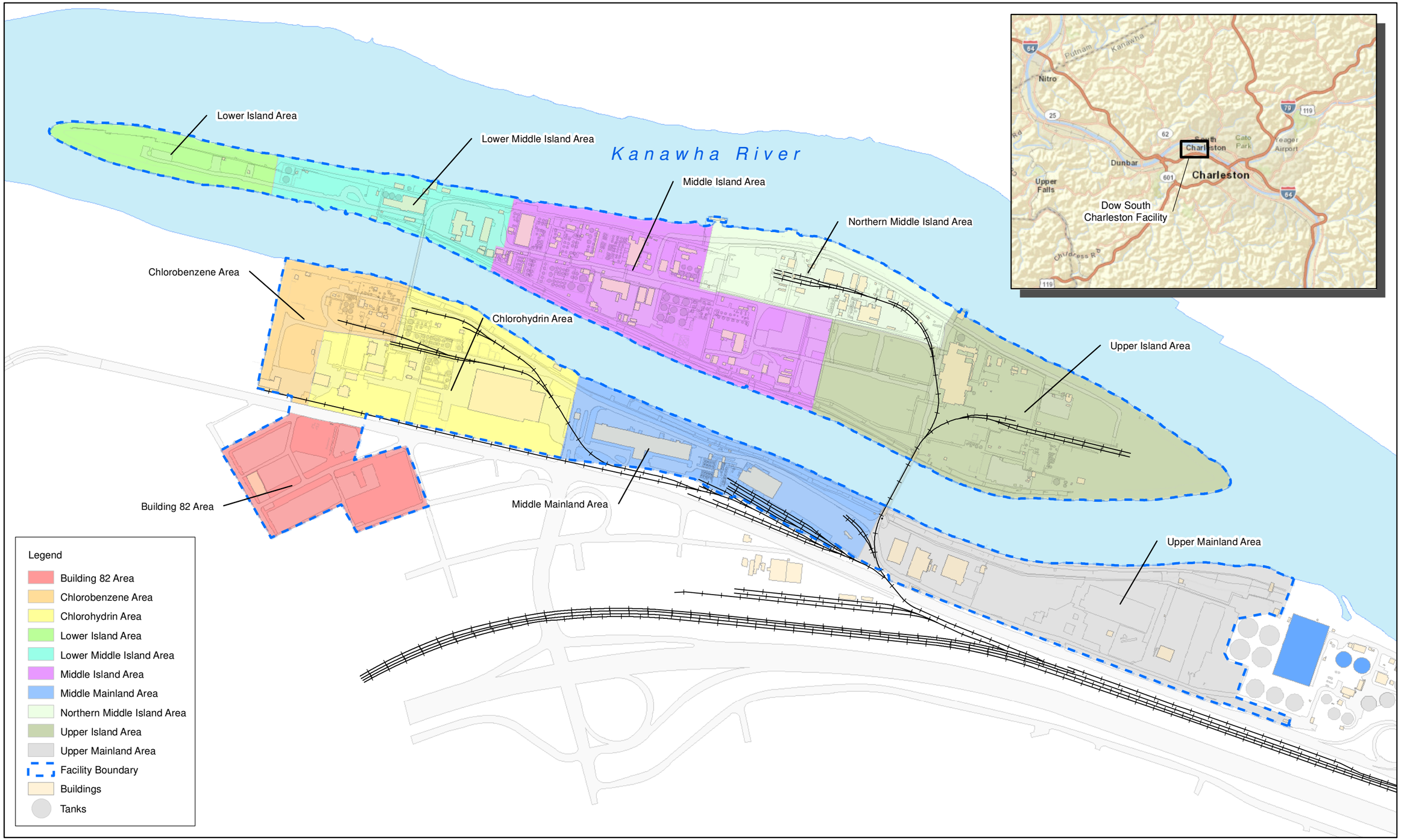


Figure 1-1
South Charleston Facility Remediation Areas
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility, South Charleston, West Virginia

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 01-01 - SOUTH CHARLESTON FACILITY REMEDIATION AREAS.MXD JHANSEN1 9/11/2012 3:12:13 PM

CH2MHILL

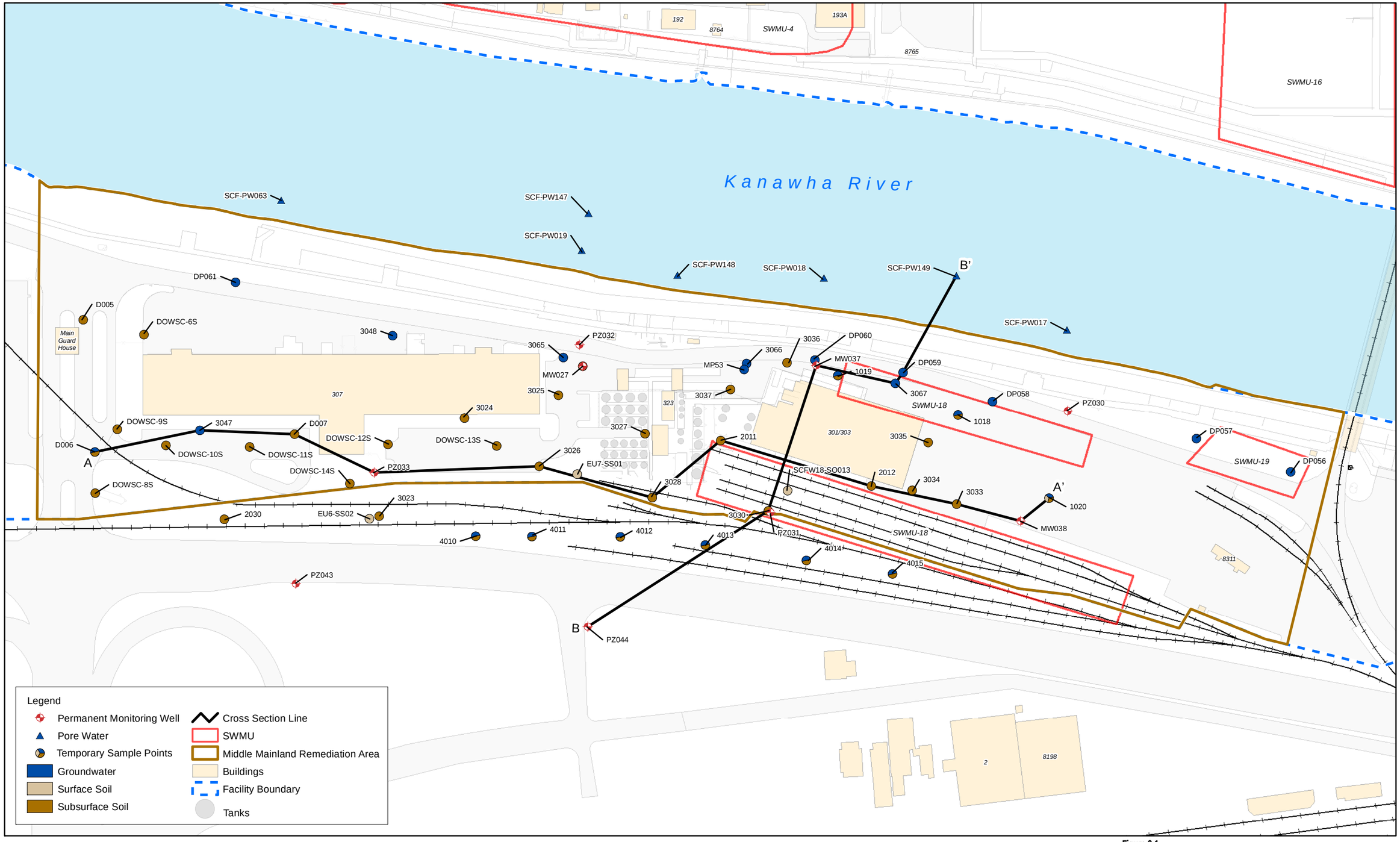
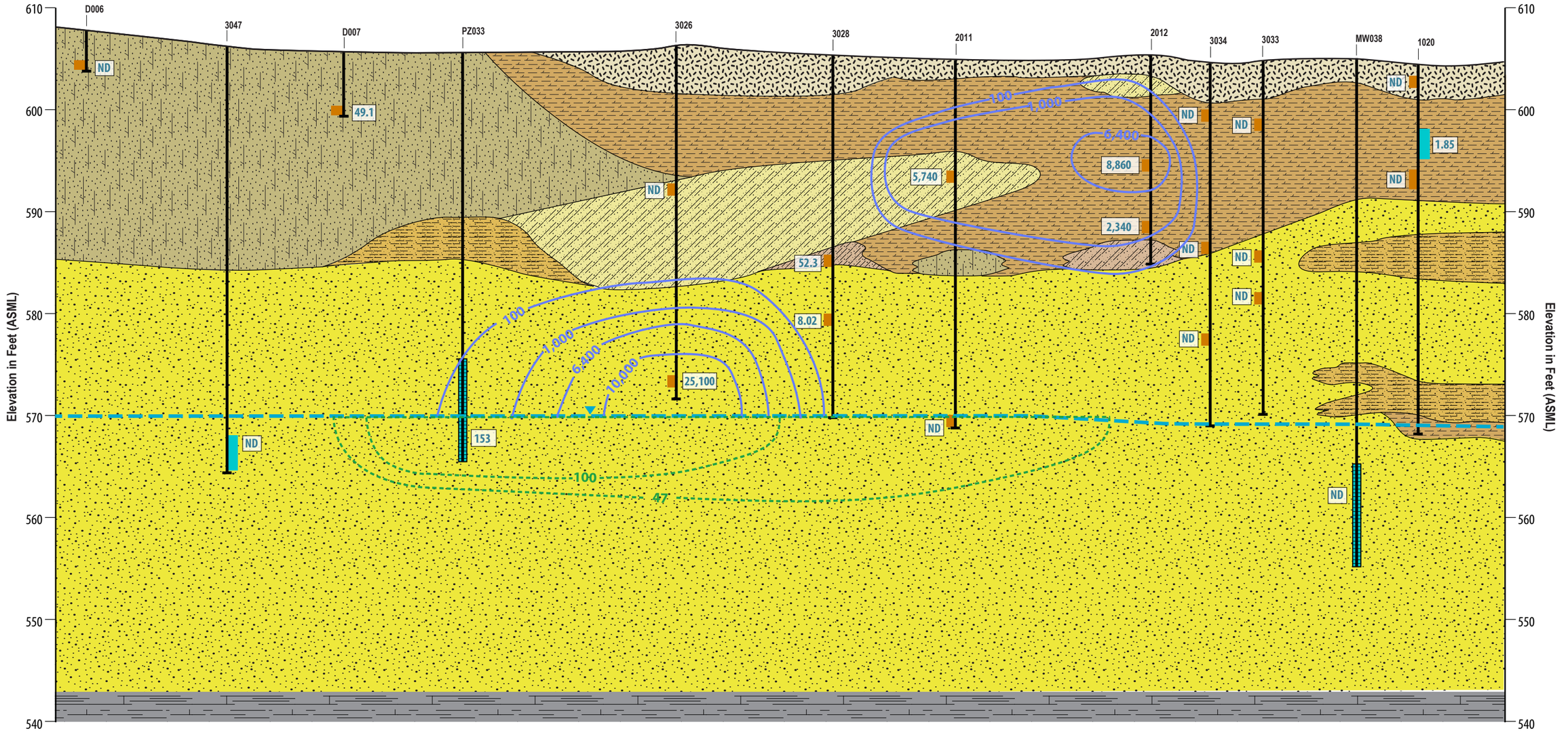


Figure 2-1
Sample Locations
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-01 - SAMPLE LOCATIONS.MXD JHANSEN1 10/4/2012 10:32:53 AM

West
A

East
A'



LEGEND

- Gravel
- Sand
- Sandy Clay
- Clayey Sand
- Silt/Clay
- Sandy Silt
- Silty Sand
- Bedrock
- Boring
- Well Screen
- August 2011 Groundwater Elevations
- Groundwater Sample (µg/kg)
- Soil Sample (µg/L)
- 30.3 TCE
- TCE Isocontour (soil, µg/kg)
- TCE Isocontour (groundwater, µg/L)

NOTES

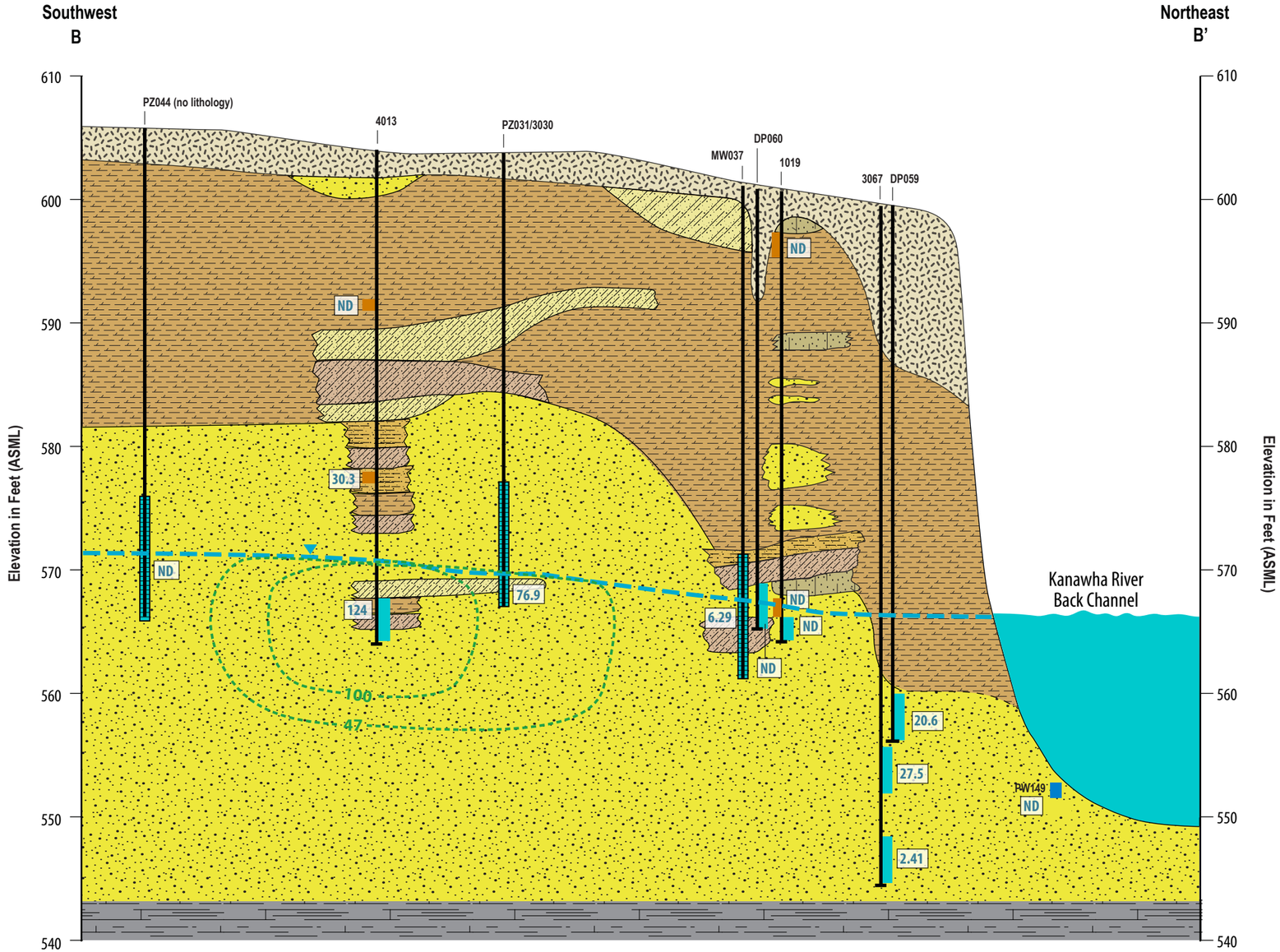
Regional screening level Industrial Soil for trichloroethene (TCE) is 6,400 µg/kg

Pore water screening level for TCE is 47 µg/L

ND - Non-detect

FIGURE 2-2
Cross Section A-A'
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL



LEGEND

- Gravel
- Sand
- Sandy Clay
- Clayey Sand
- Silt/Clay
- Sandy Silt
- Silty Sand
- Bedrock
- Boring
- Well Screen
- August 2011 Groundwater Elevations
- Groundwater Sample (µg/L)
- Soil Sample (µg/kg)
- Pore Water Sample (µg/L)
- 30.3 TCE
- TCE Isocontour (soil, µg/kg)
- TCE Isocontour (groundwater, µg/L)

NOTES

Regional screening level Industrial Soil for trichloroethene (TCE) is 6,400 µg/kg

Pore water screening level for TCE is 47 µg/L

ND - Non-detect

FIGURE 2-3
Cross Section B-B'
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL

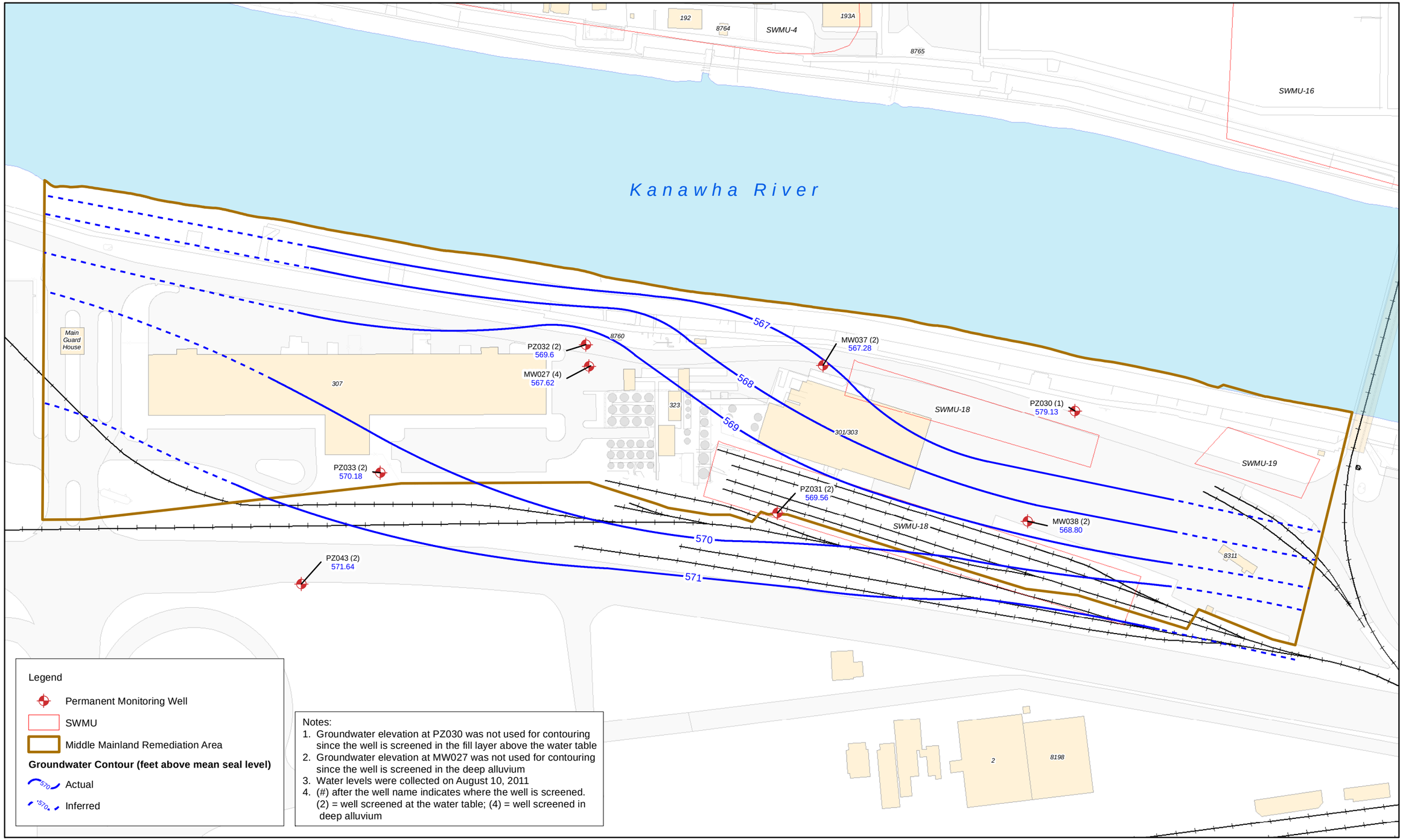
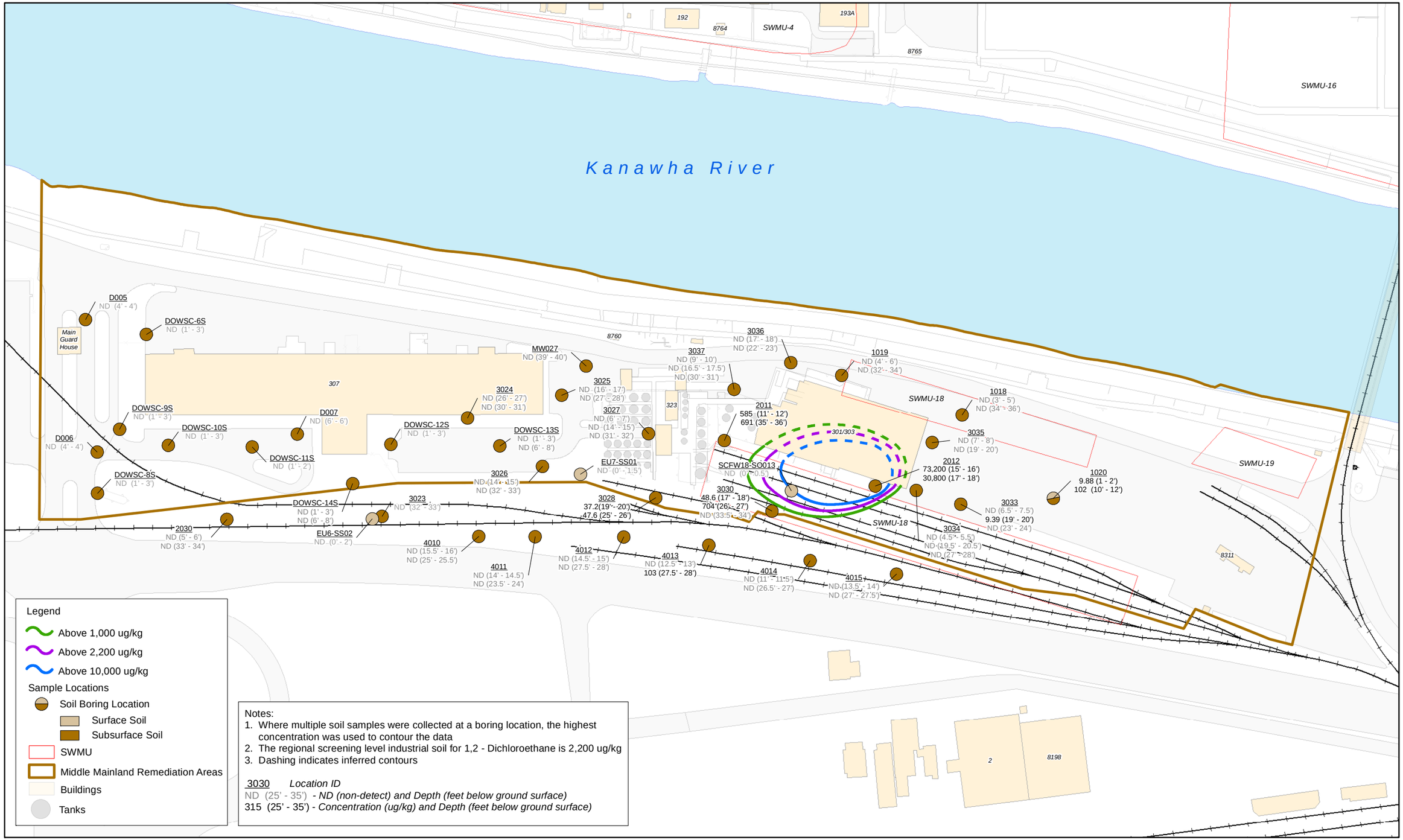


Figure 2-4
Potentiometric Surface Map
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-04 POTENTIOMETRIC SURFACE MAP.MXD JHANSEN1 9/11/2012 11:56:49 AM

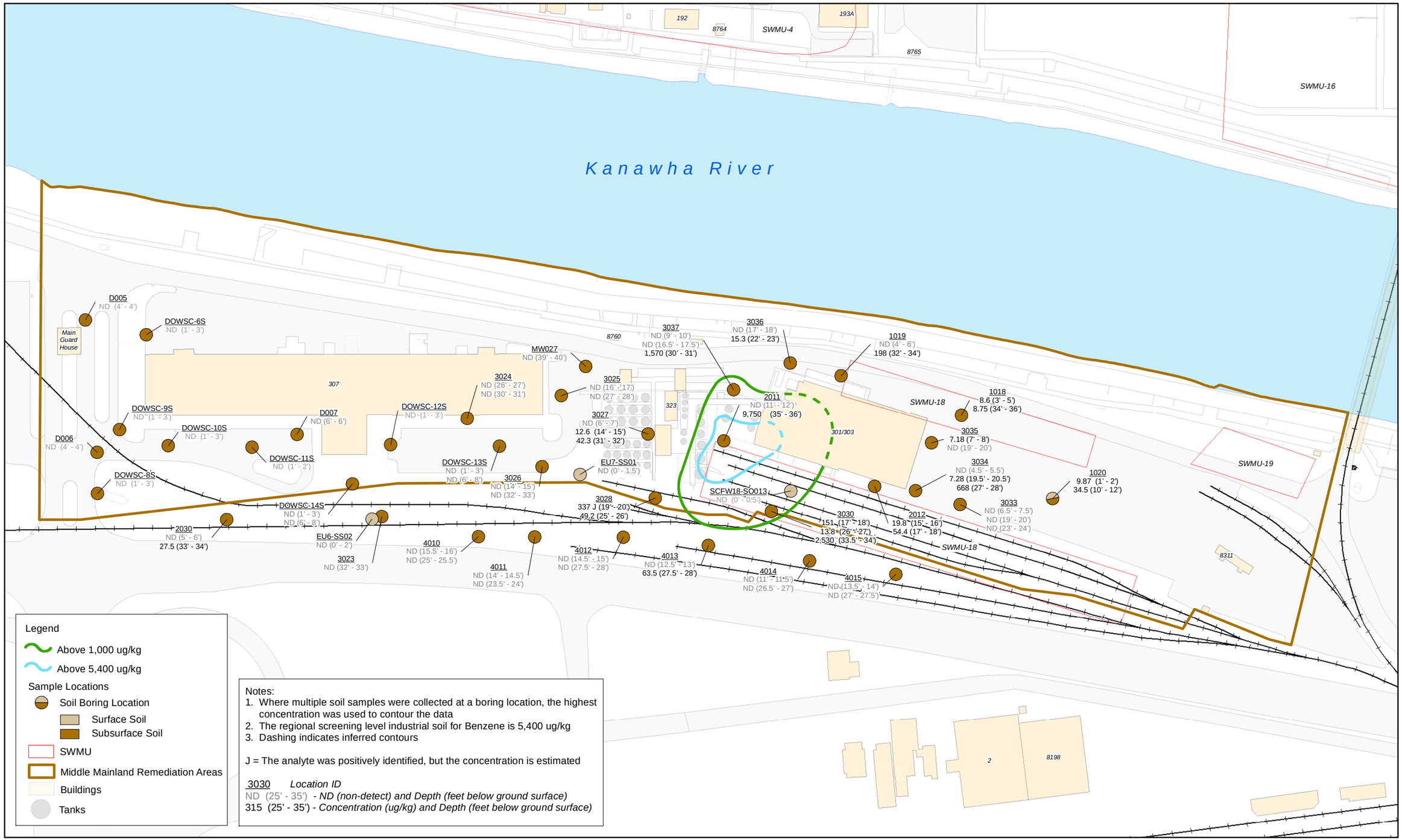


DRAFT

Figure 2-5
1,2 - Dichloroethane in Soil
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-05 - 1,2 DICHLOROETHANE IN SOIL.MXD JHANSEN1 10/4/2012 11:16:48 AM



DRAFT

Figure 2-6
Benzene in Soil
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-06 - BENZENE IN SOIL.MXD JHANSEN1 10/4/2012 11:16:12 AM

Kanawha River

SWMU-4
SWMU-16
SWMU-18
SWMU-19
Main Guard House
307
323
301/303
192
193A
8764
8765
8760
8311
2
8198

D005 ND (4' - 4')
DOWSC-6S ND (1' - 3')
DOWSC-9S ND (1' - 3')
DOWSC-10S ND (1' - 3')
D006 ND (4' - 4')
DOWSC-8S ND (1' - 3')
D007 49.1 (6' - 6')
DOWSC-11S ND (1' - 2')
DOWSC-12S ND (1' - 3')
DOWSC-13S ND (1' - 3') ND (6' - 8')
DOWSC-14S 2.3 J NV (1' - 3') ND (6' - 8')
2030 ND (5' - 6') ND (33' - 34')
3024 ND (26' - 27') 592 (30' - 31')
MW027 ND (39' - 40')
3025 30.2 L (16' - 17') 136 (27' - 28')
3026 ND (14' - 15') 25,100 (32' - 33')
EU7-SS01 ND (0' - 1.5')
EU6-SS02 ND (0' - 2')
3023 1,150 (32 - 33')
4010 12.5 (15.5' - 16') 111 (25' - 25.5')
4011 17.3 (14' - 14.5') 28.3 (23.5' - 24')
3027 ND (6' - 7') 6.35 (14' - 15') ND (31' - 32')
4012 ND (14.5' - 15') 9.71 (27.5' - 28')
4013 ND (12.5' - 13') 30.3 (27.5' - 28')
4014 ND (11' - 11.5') ND (26.5' - 27')
4015 ND (13.5' - 14') ND (27' - 27.5')
3028 52.3 (19' - 20') 8.02 (25' - 26')
3030 87.3 (17' - 18') ND (26' - 27') ND (33.5' - 34')
3037 ND (9' - 10') ND (16.5' - 17.5') ND (30' - 31')
3036 ND (17' - 18') ND (22' - 23')
2011 5,740 (11' - 12') ND (35' - 36')
2012 8,860 (15' - 16') 2,340 (17' - 18')
SCFW18-SO013 ND (0' - 0.5')
1019 ND (4' - 6') ND (32' - 34')
1018 ND (3' - 5') ND (34' - 36')
3035 ND (7' - 8') ND (19' - 20')
3034 ND (4.5' - 5.5') ND (19.5' - 20.5') ND (27' - 28')
1020 ND (1' - 2') ND (10' - 12')
3033 ND (6.5' - 7.5') ND (19' - 20') ND (23' - 24')

Legend
- Above 1,000 ug/kg
- Above 6,400 ug/kg
- Above 10,000 ug/kg

Sample Locations
- Soil Boring Location
- Surface Soil
- Subsurface Soil
- SWMU
- Middle Mainland Remediation Areas
- Buildings
- Tanks

Notes:
1. Where multiple soil samples were collected at a boring location, the highest concentration was used to contour the data
2. The regional screening level industrial soil for Trichlorothene is 6,400 ug/kg
3. Dashing indicates inferred contours

ND = Non-detect
NV = Not Validated
J = The analyte was positively identified, but the concentration is estimated
L = The analyte was positively identified, but the numerical value may be biased low

3030 *Location ID*
ND (25' - 35') - *ND (non-detect) and Depth (feet below ground surface)*
315 (25' - 35') - *Concentration (ug/kg) and Depth (feet below ground surface)*

N

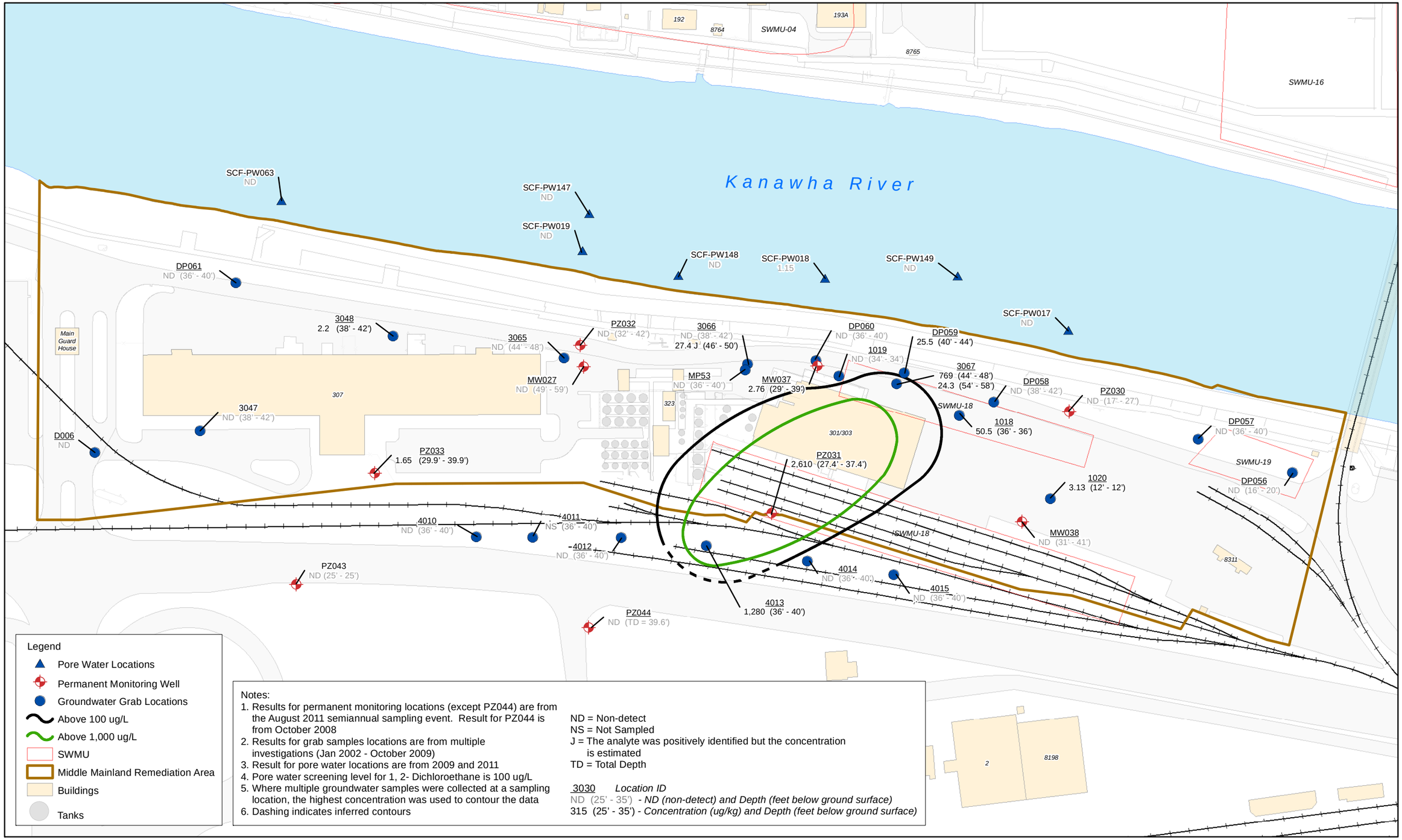
0 125 250
Feet

DRAFT

Figure 2-7
Trichloroethene in Soil
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-07 - TRICHLOROETHENE IN SOIL.MXD JHANSEN1 10/4/2012 11:15:20 AM



Legend

- Pore Water Locations
- Permanent Monitoring Well
- Groundwater Grab Locations
- Above 100 ug/L
- Above 1,000 ug/L
- SWMU
- Middle Mainland Remediation Area
- Buildings
- Tanks

Notes:

1. Results for permanent monitoring locations (except PZ044) are from the August 2011 semiannual sampling event. Result for PZ044 is from October 2008
2. Results for grab samples locations are from multiple investigations (Jan 2002 - October 2009)
3. Result for pore water locations are from 2009 and 2011
4. Pore water screening level for 1, 2- Dichloroethane is 100 ug/L
5. Where multiple groundwater samples were collected at a sampling location, the highest concentration was used to contour the data
6. Dashing indicates inferred contours

ND = Non-detect
NS = Not Sampled
J = The analyte was positively identified but the concentration is estimated
TD = Total Depth

3030 *Location ID*
ND (25' - 35') - *ND (non-detect) and Depth (feet below ground surface)*
315 (25' - 35') - *Concentration (ug/kg) and Depth (feet below ground surface)*

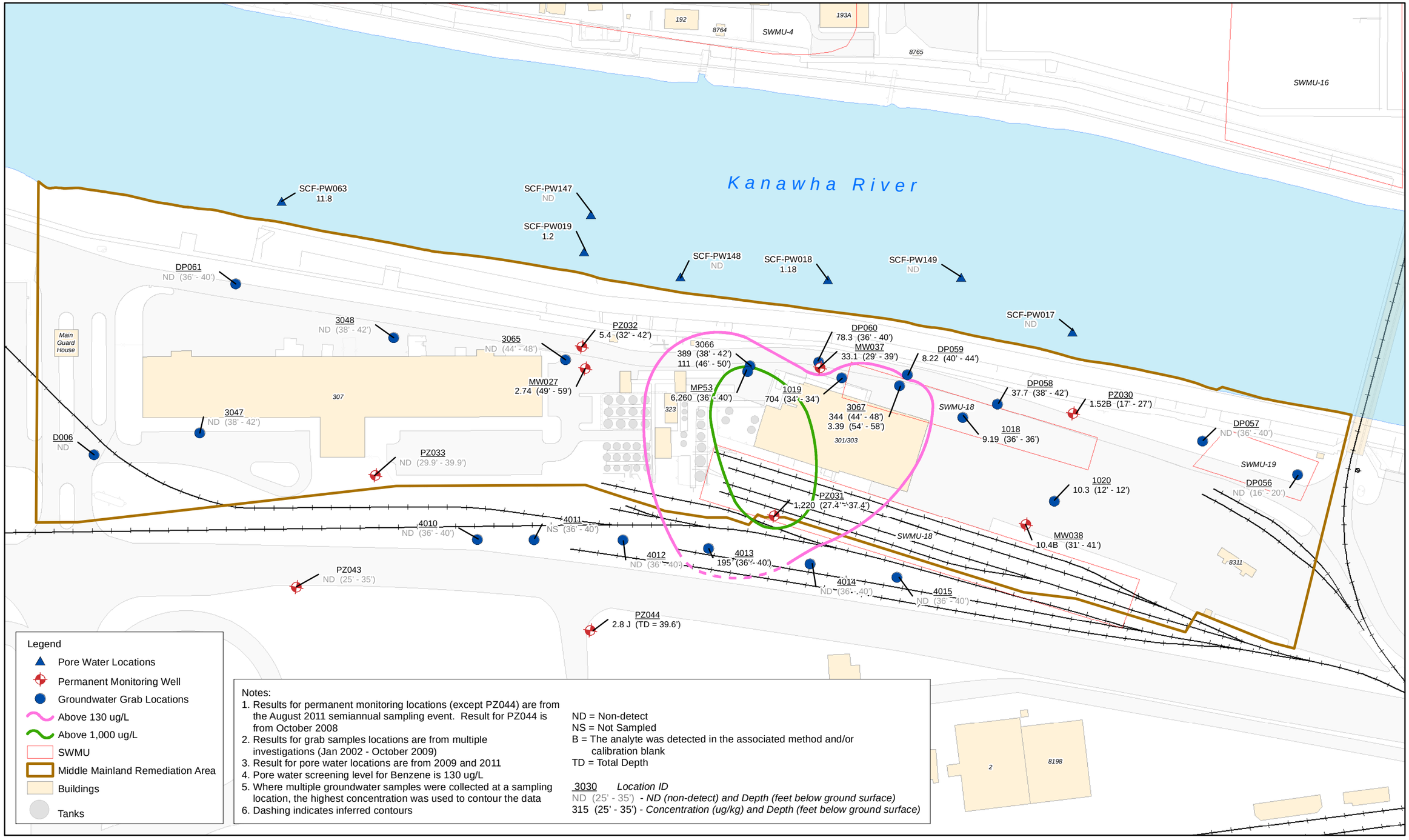
N

0 140 280

Feet

Figure 2-8
1,2 - Dichloroethane in Groundwater and Pore Water
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-08 - 1,2 - DICHLOROETHANE IN GROUNDWATER.MXD JHANSEN1 10/4/2012 11:29:54 AM



Legend

- Pore Water Locations
- Permanent Monitoring Well
- Groundwater Grab Locations
- Above 130 ug/L
- Above 1,000 ug/L
- SWMU
- Middle Mainland Remediation Area
- Buildings
- Tanks

Notes:

1. Results for permanent monitoring locations (except PZ044) are from the August 2011 semiannual sampling event. Result for PZ044 is from October 2008
2. Results for grab samples locations are from multiple investigations (Jan 2002 - October 2009)
3. Result for pore water locations are from 2009 and 2011
4. Pore water screening level for Benzene is 130 ug/L
5. Where multiple groundwater samples were collected at a sampling location, the highest concentration was used to contour the data
6. Dashing indicates inferred contours

ND = Non-detect
NS = Not Sampled
B = The analyte was detected in the associated method and/or calibration blank
TD = Total Depth

3030 *Location ID*
ND (25' - 35') - *ND (non-detect) and Depth (feet below ground surface)*
315 (25' - 35') - *Concentration (ug/kg) and Depth (feet below ground surface)*

N

0 140 280

Feet

Figure 2-9
Benzene in Groundwater and Pore Water
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-09 - BENZENE IN GROUNDWATER.MXD JHANSEN1 10/4/2012 11:50:14 AM

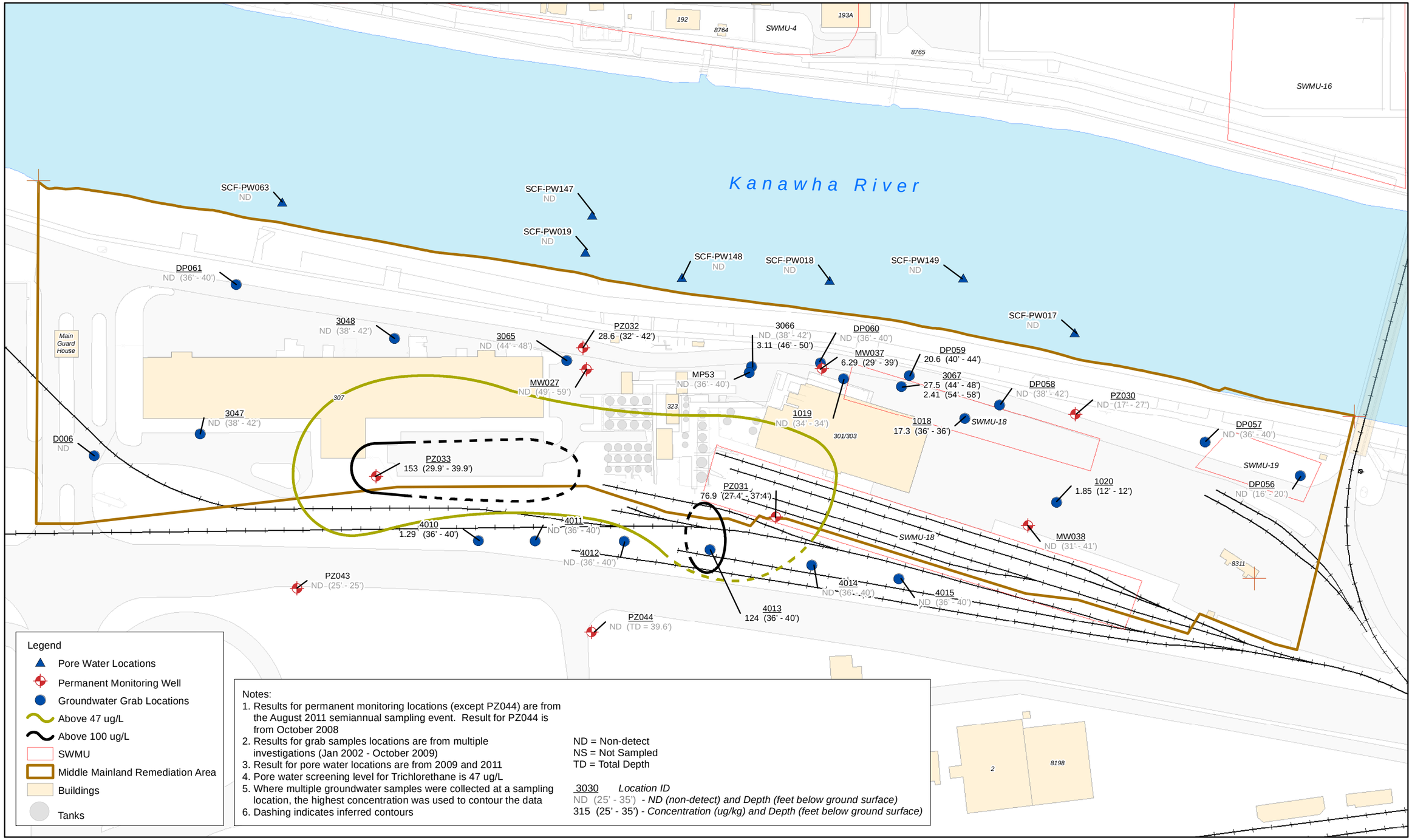
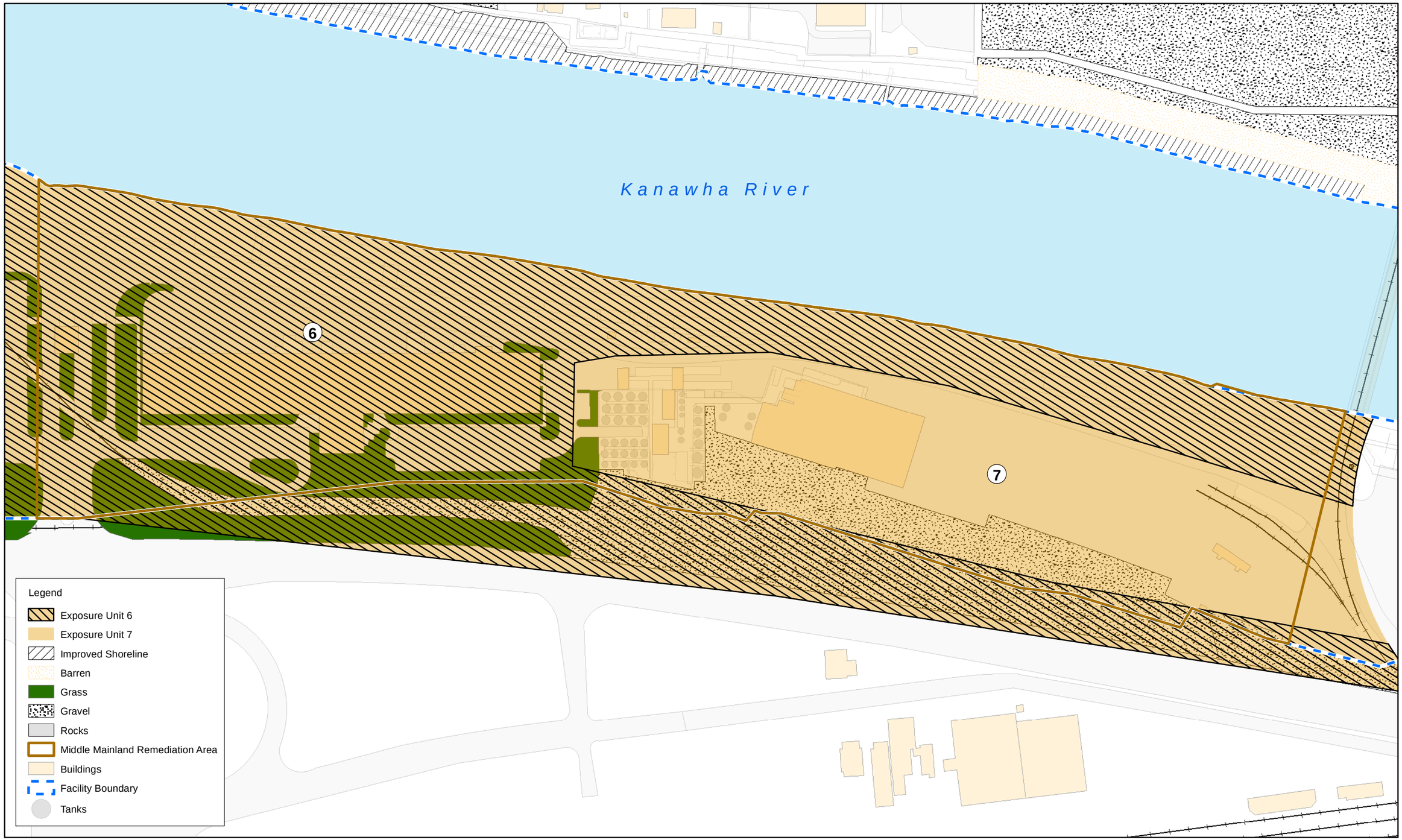


Figure 2-10
Trichloroethene in Groundwater and Pore Water
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 02-10 - TRICHLOROETHENE IN GROUNDWATER.MXD JHANSEN1 10/4/2012 12:10:05 PM



DRAFT

Figure 3-1
Human Health Risk Assessment Exposure Units
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

CH2MHILL

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 03-01- HUMAN HEALTH RISK ASSESSMENT EXPOSURE UNITS.MXD JHANSEN1 9/18/2012 4:56:55 PM

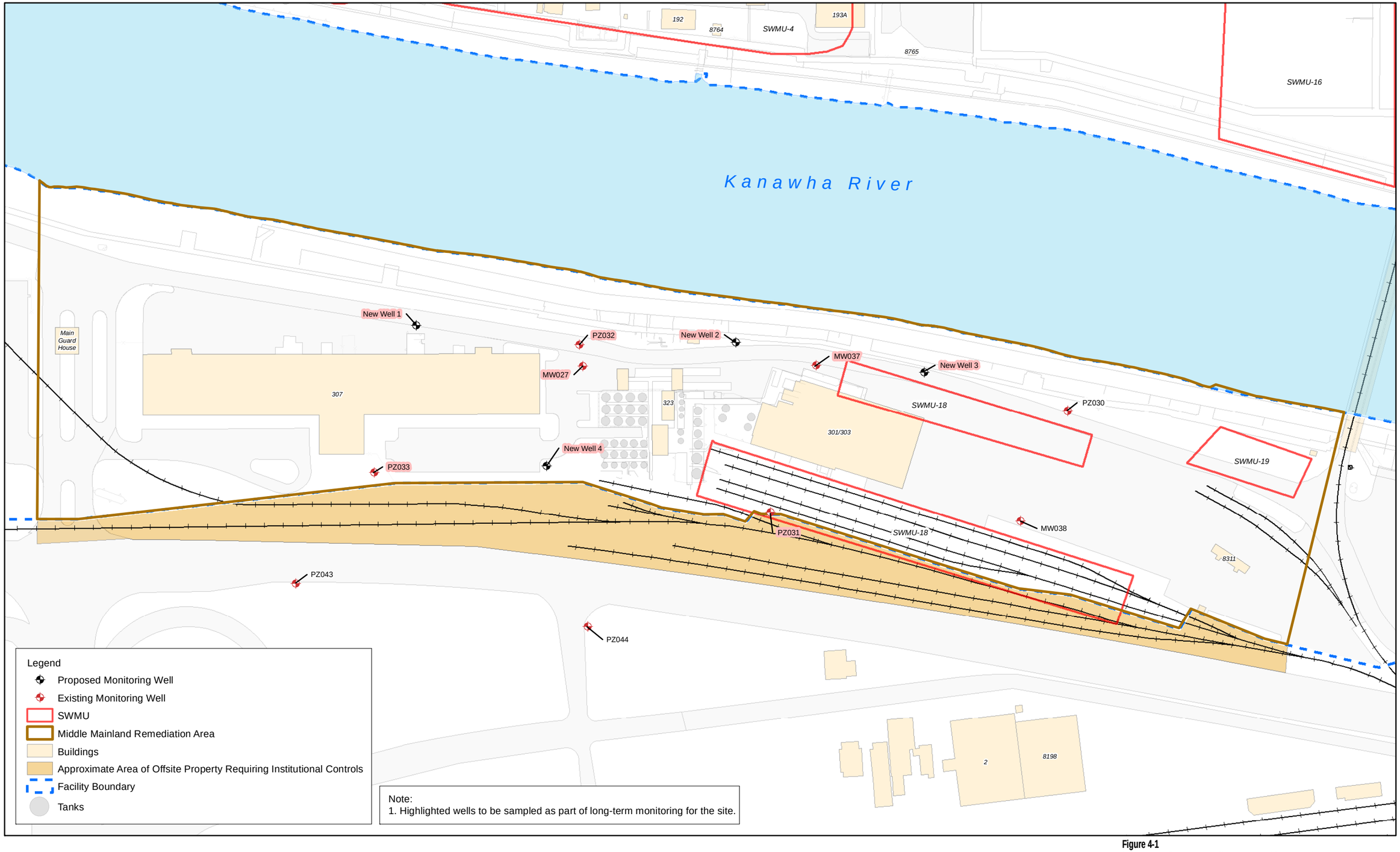


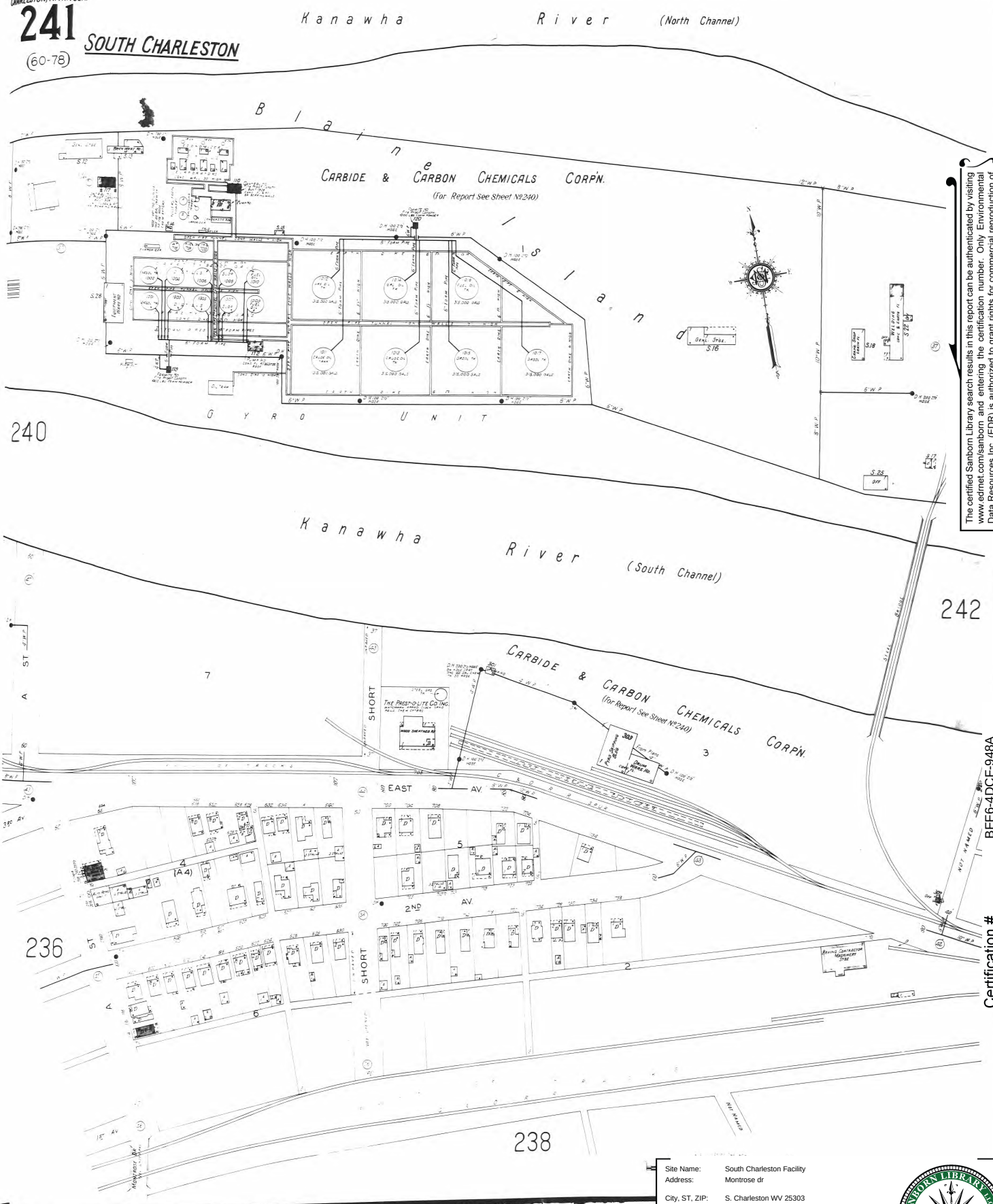
Figure 4-1
Institutional Controls and Groundwater Monitoring Locations
Middle Mainland Remediation Area Remedial Approach Report
UCC South Charleston Facility
South Charleston, West Virginia

E:\GIS\DOW\SOUTHCHARLESTON\REPORTS\437004_MIDDLEMAINLANDREMEDIALAPPROACHREPORT\MAPFILES\FIGURE 04-01 - INSTITUTIONAL CONTROLS AND GROUNDWATER MONITORING LOCATIONS.MXD JHANSEN1 2/19/2013 10:44:20 AM

Appendix A
Historical Site Maps and Aerial Photographs

241
(60-78)

SOUTH CHARLESTON



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Certification # BFF6-4DCF-948A

Site Name:	South Charleston Facility
Address:	Montrose dr
City, ST, ZIP:	S. Charleston WV 25303
Client:	CH2M Hill, Inc.
EDR Inquiry:	2159993.1s
Order Date:	3/3/2008 1:31:56 PM
Certification #	BFF6-4DCF-948A

Copyright: 1933

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UNION CARBIDE
BLAINE ISLAND
SOUTH CHARLESTON, WEST VIRGINIA

DRWN:	BJS	DATE:	8/21/01
CHKD:	DWB	DATE:	8/21/01
APPD:	DWB	DATE:	8/21/01
SCALE:	1"=500'		

KEY ENVIRONMENTAL INCORPORATED

UNION CARBIDE
BLAINE ISLAND
SOUTH CHARLESTON, WEST VIRGINIA

AERIAL PHOTOGRAPH
OCTOBER 16, 1938

DRAWING NUMBER
00-104
FIGURE B-1

REV #	DATE	DESCRIPTION	APPD
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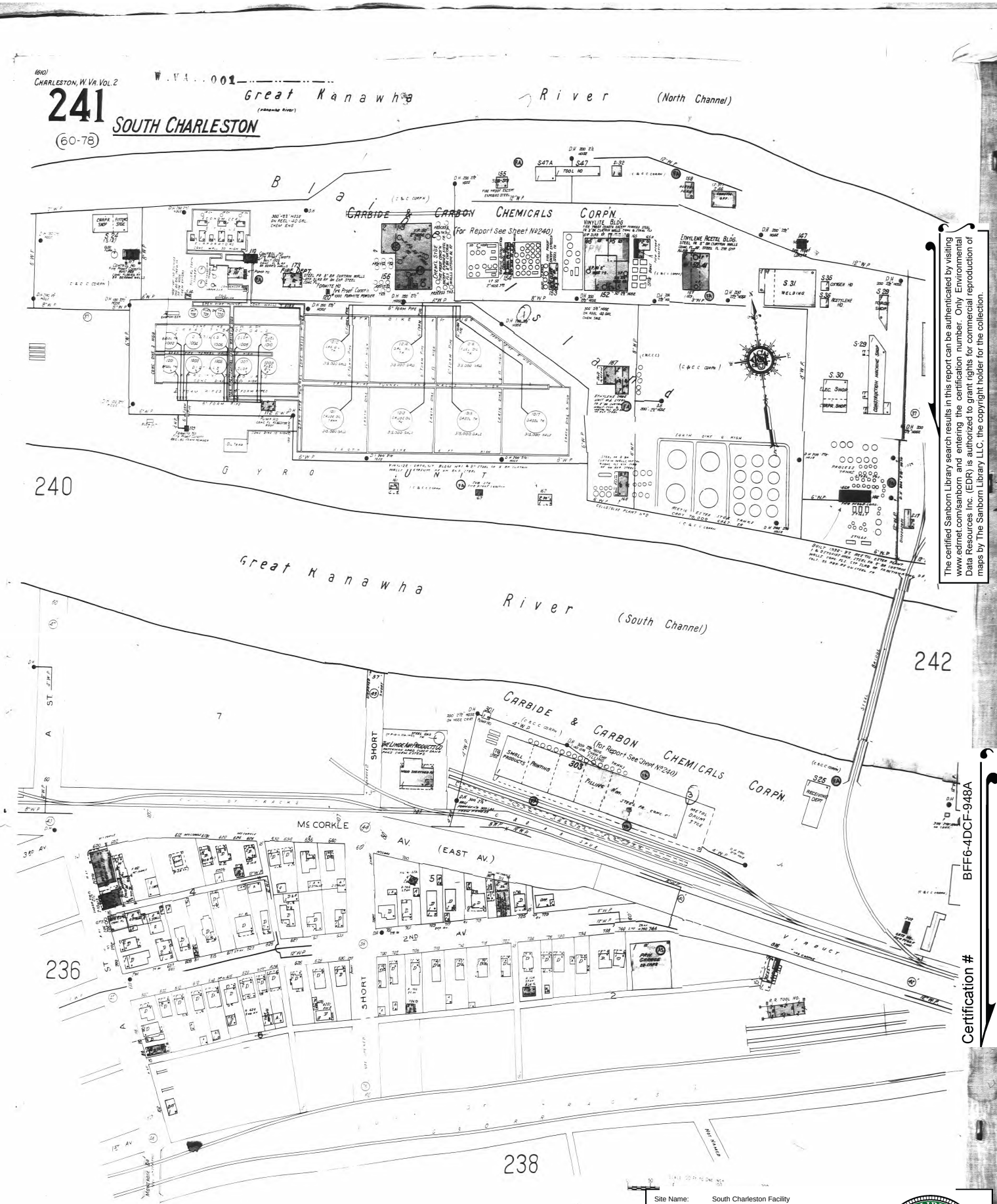
2			
3			

REFERENCE: AERIAL PHOTOGRAPH PROVIDED BY NAR.

ISSUE DATE:

ROSSLYN FARMS
INDUSTRIAL PARK
1200 ARCH ST., SUITE 200
CARNEGIE, PA 15106

EDITED BY: M | DATE: | MICH: ETF | VERSION: ACAD 14 | BJS C:\CAD\UNION CARBIDE\BLAINE ISLAND\FIG_PHOTO.DWG



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Site Name:	South Charleston Facility
Address:	Montrose dr
City, ST, ZIP:	S. Charleston WV 25303
Client:	CH2M Hill, Inc.
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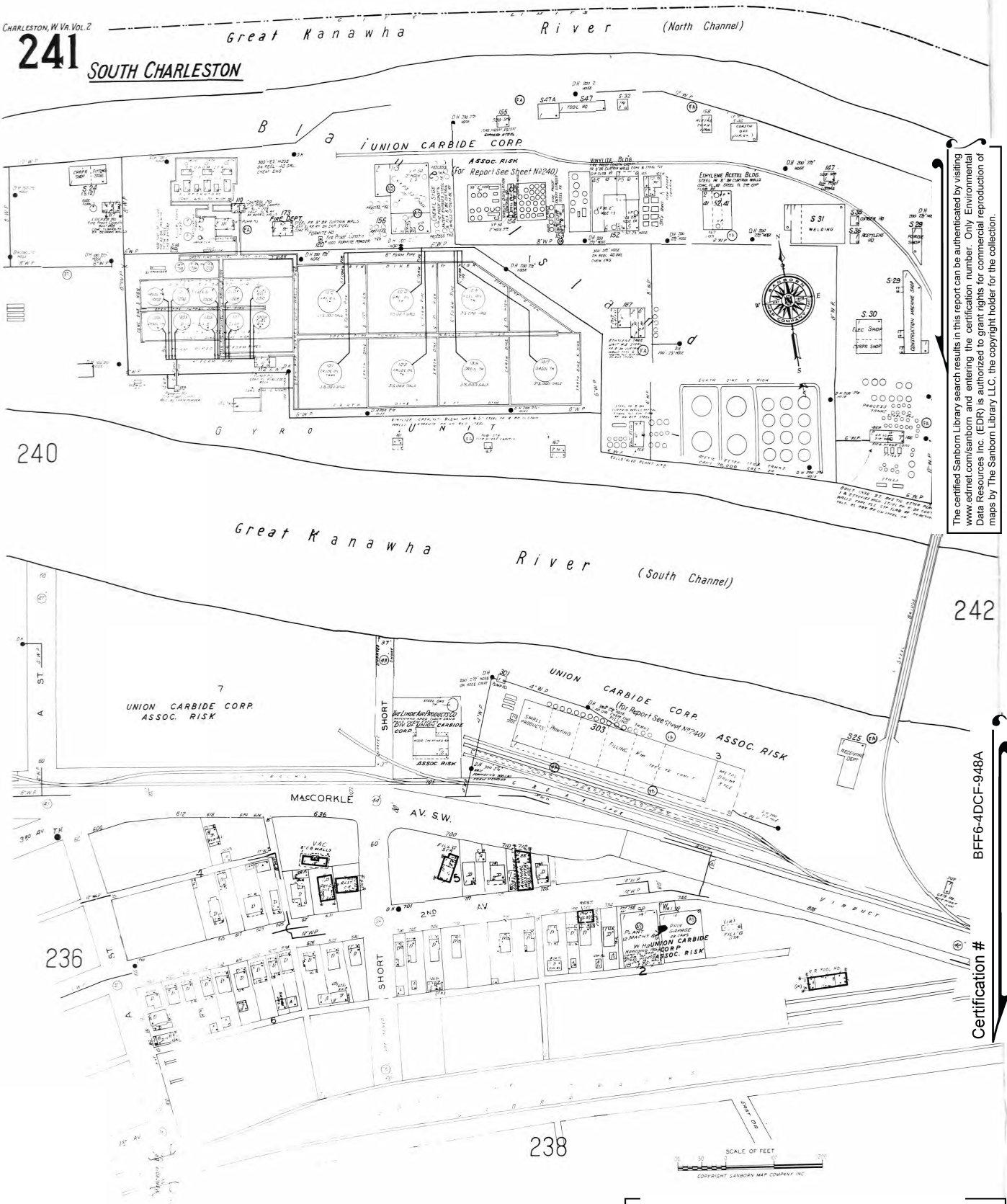

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Site Name:	South Charleston Facility
Address:	Montrose dr
City, ST, ZIP:	S. Charleston WV 25303
Client:	CH2M Hill, Inc.
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Certification #	BFF6-4DCF-948A

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CHKD: DWB	DATE: 8/21/01		
APPD: DWB	DATE: 8/21/01		
SCALE: 1"=500'			

UNION CARBIDE
BLAINE ISLAND
SOUTH CHARLESTON, WEST VIRGINIA

AERIAL PHOTOGRAPH
MAY 6, 1957

DRAWING NUMBER
00-104
FIGURE B-3

REV #	DATE	DESCRIPTION	APPD
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3			

REFERENCE: AERIAL PHOTOGRAPH PROVIDED BY USDA.

ISSUE DATE:

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CARNEGIE, PA 15106

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UNION CARBIDE
BLAINE ISLAND
SOUTH CHARLESTON, WEST VIRGINIA

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CHKD:	DWB	DATE:	8/21/01
APPD:	DWB	DATE:	8/21/01
SCALE:	1"=500'		

KEY ENVIRONMENTAL INCORPORATED

UNION CARBIDE
BLAINE ISLAND
SOUTH CHARLESTON, WEST VIRGINIA

AERIAL PHOTOGRAPH
OCTOBER 24, 1969

DRAWING NUMBER
00-104
FIGURE B-5

ISSUE DATE:

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CARNEGIE, PA 15106

REFERENCE: AERIAL PHOTOGRAPH PROVIDED BY USDA.

REV #	DATE	DESCRIPTION	APPD
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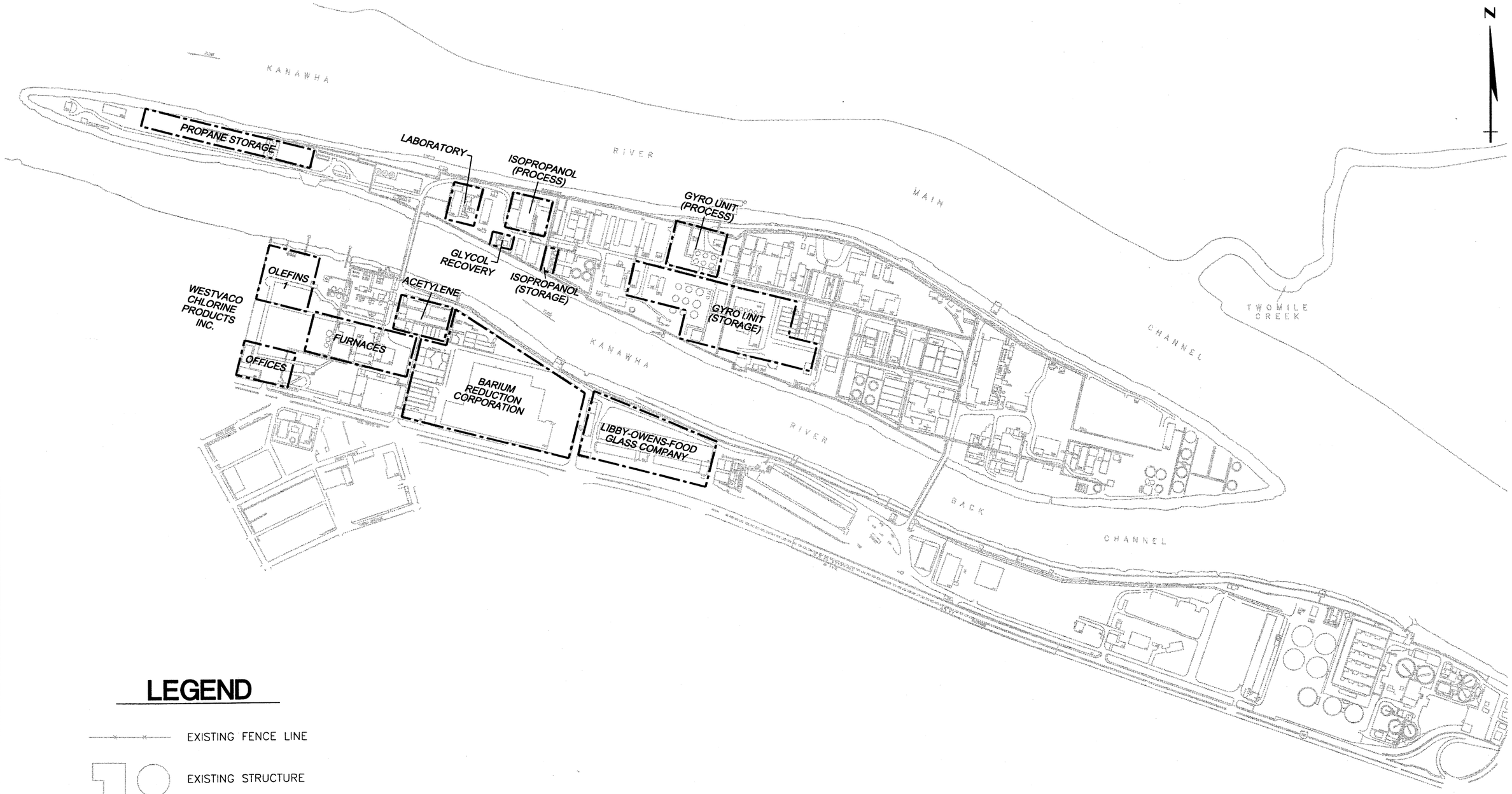

LEGEND

- EXISTING FENCE LINE
- EXISTING STRUCTURE
- EXISTING RAILROAD
- PAST PROCESS UNIT *(EARLY 1930's)*

0 250 500 1000 FEET

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

DRWN: BJS/ETF	DATE: 4/18/02	KEY ENVIRONMENTAL INCORPORATED	
CHKD: RJH	DATE: 4/18/02		
APPD: DWB	DATE: 4/18/02		
SCALE: AS SHOWN			

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

HISTORICAL OPERATIONS – 1930

DRAWING NUMBER 01-303
FIGURE 2-1A

REV #	DATE	DESCRIPTION	APPD
1			
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3			

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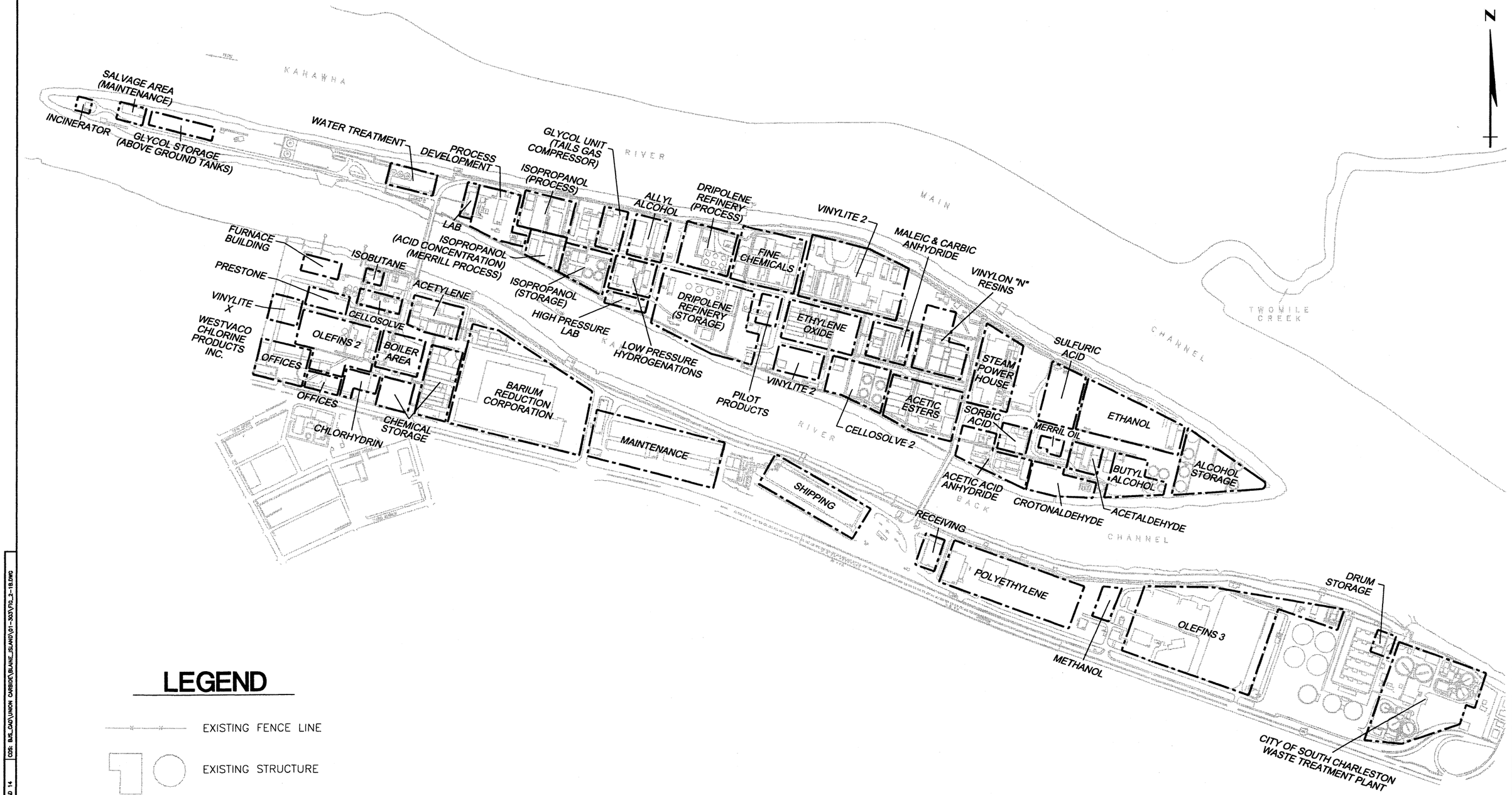
EDITED BY: N | DATE: | MACH: ETF | VERSION: ACAD 14 | CDS: BJS_CAD\UNION CARBIDE\BLAINE_ISLAND\01-303\FIG_2-1A.DWG



LEGEND

- EXISTING FENCE LINE
- EXISTING STRUCTURE
- EXISTING RAILROAD
- PAST PROCESS UNIT *(1957)*

0 250 500 1000 FEET

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

DRWN: BJS/ETF	DATE: 4/18/02	KEY ENVIRONMENTAL INCORPORATED	
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APPD: DWB	DATE: 4/18/02		
SCALE: AS SHOWN			

REV #	DATE	DESCRIPTION	APPD
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2			
3			

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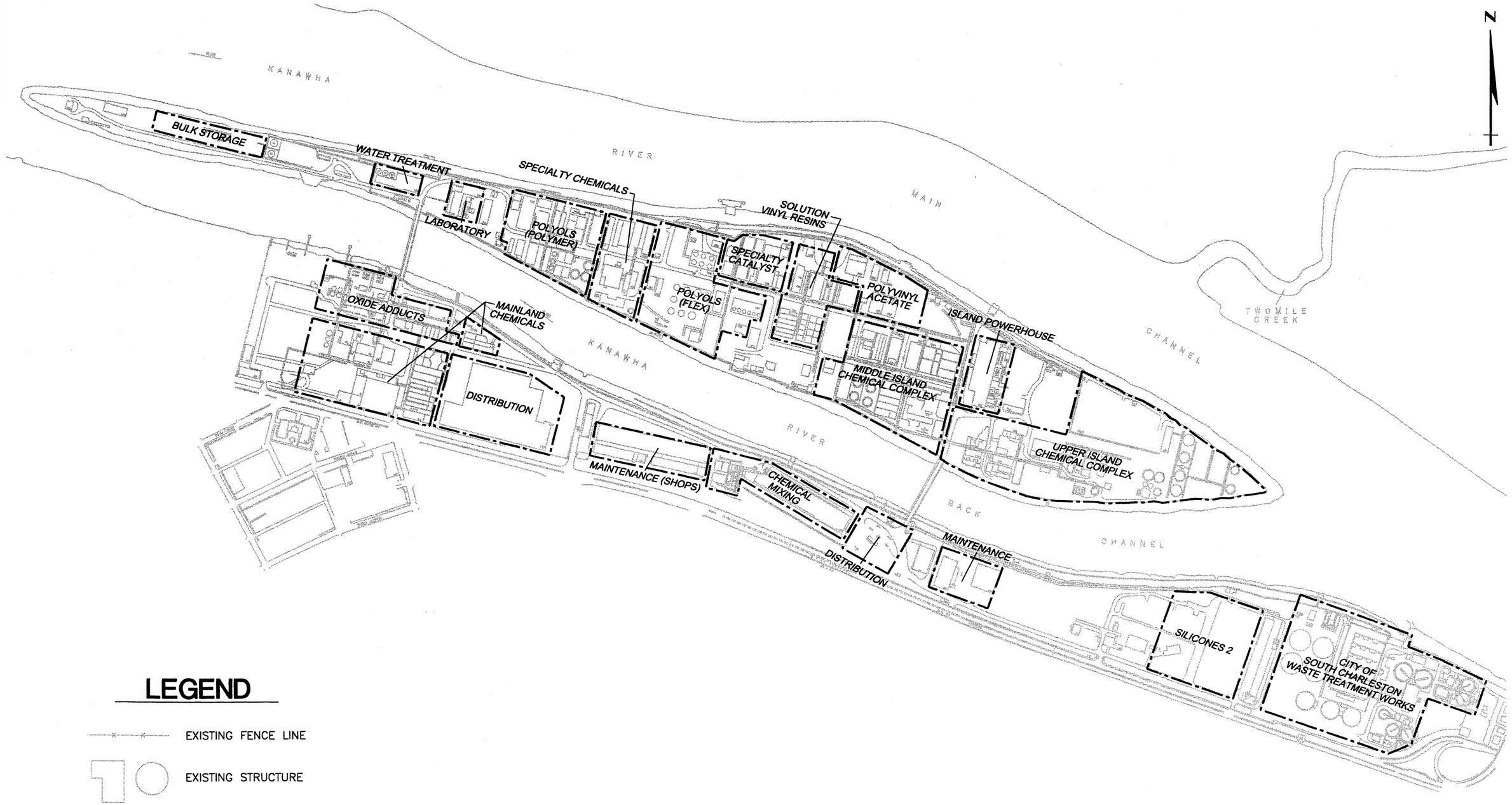
CARNEGIE, PA 15106

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

HISTORICAL OPERATIONS – 1957

DRAWING NUMBER 01-303
FIGURE 2-1B

EDITED BY: N | DATE: | MACH: ETF | VERSION: ACAD 14 | DGN: BJS_CAD\UNION CARBIDE\BLAINE_ISLAND\01-303\FIG_2-1B.DWG



LEGEND

- EXISTING FENCE LINE
- EXISTING STRUCTURE
- EXISTING RAILROAD
- PAST PROCESS UNIT *(1982)*

0 250 500 1000 FEET

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

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CHKD: RJH	DATE: 4/18/02		
APPD: DWB	DATE: 4/18/02		
SCALE: AS SHOWN			

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

HISTORICAL OPERATIONS – 1982

DRAWING NUMBER 01-303
FIGURE 2-1C

REV #	DATE	DESCRIPTION	APPD
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2			
3			

ISSUE DATE:

ROSSLYN FARMS INDUSTRIAL PARK
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CARNEGIE, PA 15106

EDITED BY: N DATE:
MACH: ETF
VERSION: ACAD 14
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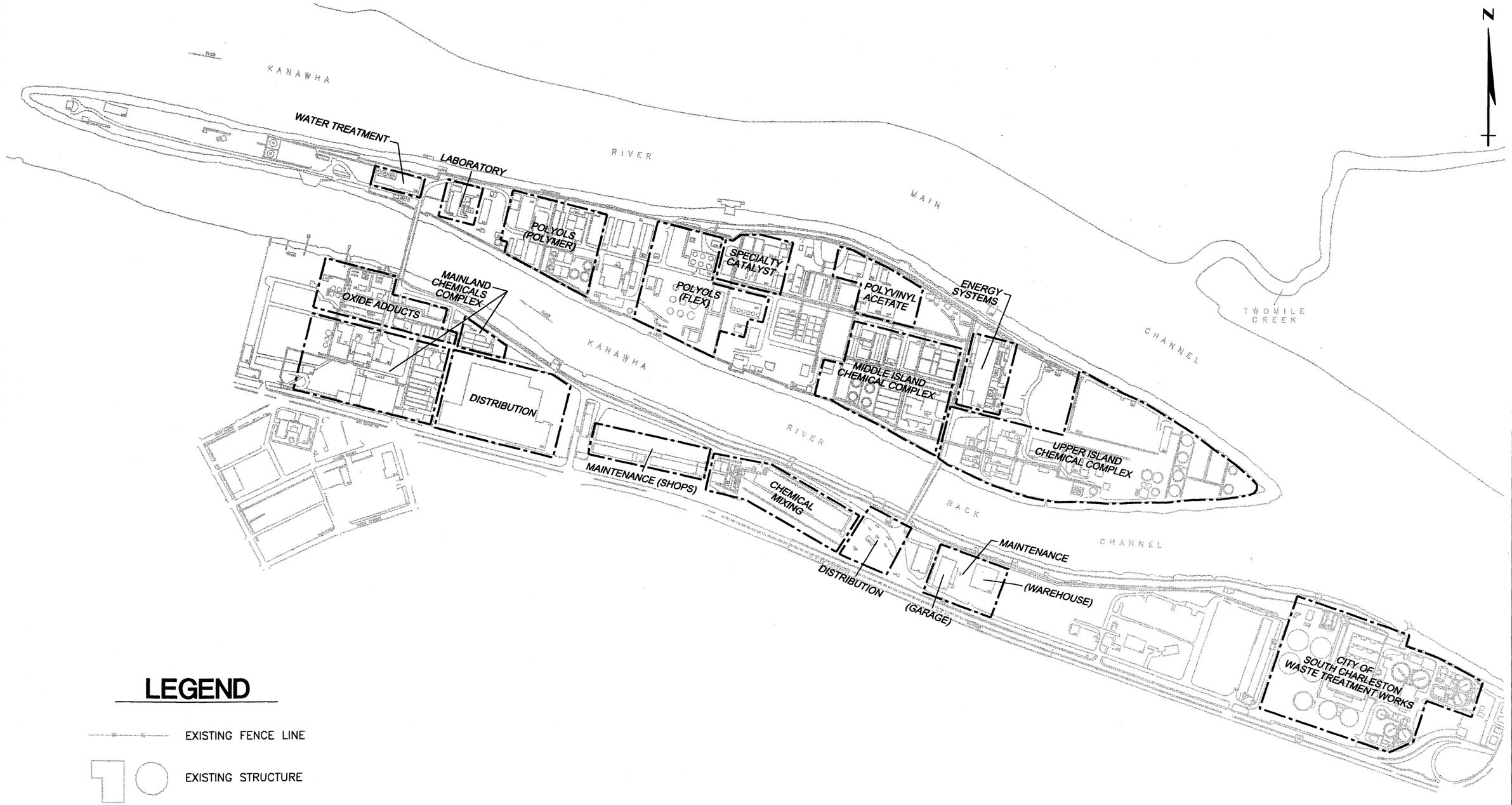

LEGEND

- EXISTING FENCE LINE
- EXISTING STRUCTURE
- EXISTING RAILROAD
- PAST PROCESS UNIT *(1990)*

0 250 500 1000 FEET

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

DRWN: BJS/ETF	DATE: 4/18/02	KEY ENVIRONMENTAL INCORPORATED	
CHKD: RJH	DATE: 4/18/02		
APPD: DWB	DATE: 4/18/02		
SCALE: AS SHOWN			

UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

HISTORICAL OPERATIONS – 1990

DRAWING NUMBER 01-303
FIGURE 2-1D

REV #	DATE	DESCRIPTION	APPD
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2			
3			

ISSUE DATE:

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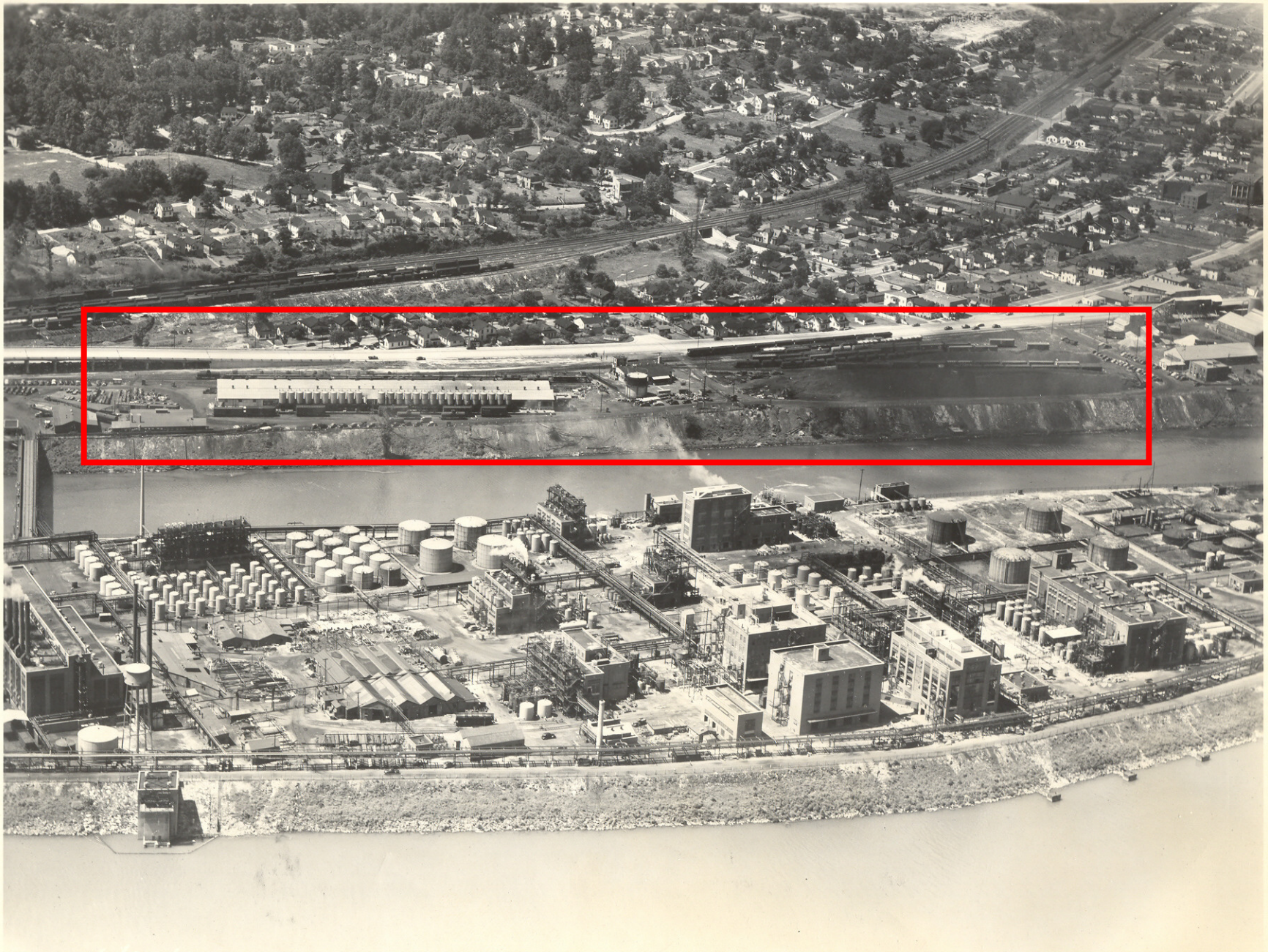
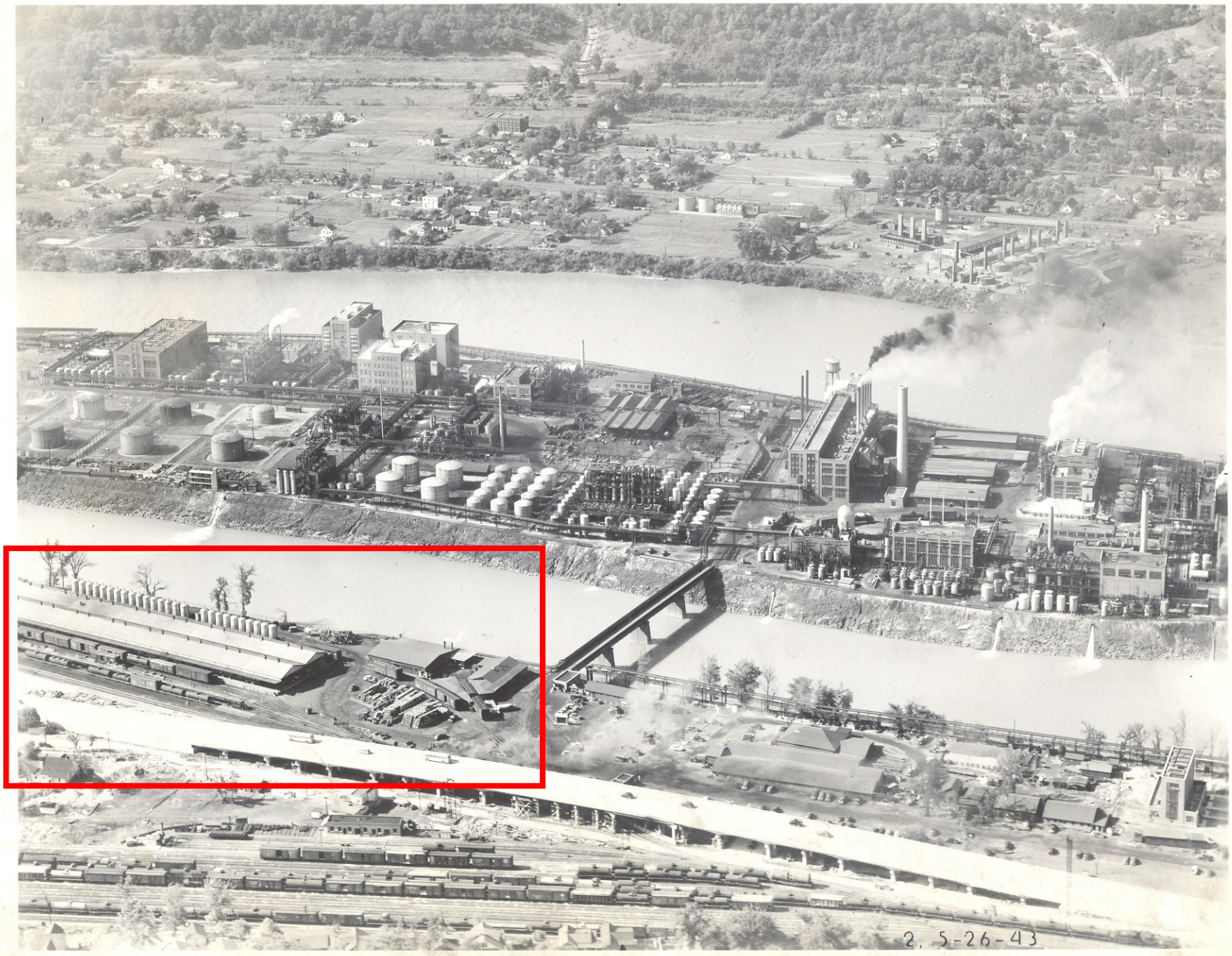
EDITED BY: N | DATE: | MACH: ETF | VERSION: ACAD 14 | CDS: BJS_CAD\UNION CARBIDE\BLAINE_ISLAND\01-303\FIG_2-1D.DWG

1943 Aerial Photograph
Facing south





1943 Aerial Photograph
Facing north

Appendix B

UCC South Charleston Facility Middle Mainland Remediation Area Pre-Design Investigation Technical Memorandum

UCC South Charleston Facility Middle Mainland Remediation Area Pre-design Investigation

PREPARED FOR: Union Carbide Corporation

PREPARED BY: CH2M HILL

DATE: March 29, 2010

Introduction

This technical memorandum documents pre-design investigation activities conducted in 2008 and 2009 for the Middle Mainland Remediation Area at the Union Carbide Corporation (UCC) South Charleston Facility (hereafter referred to as the "facility") in South Charleston, West Virginia. UCC is a Wholly Owned Subsidiary of The Dow Chemical Company (Dow). UCC is conducting Resource Conservation and Recovery Act (RCRA) Corrective Action at the facility in accordance with the U.S. Environmental Protection Agency (USEPA) Region 3 Facility Lead Agreement, dated December 15, 1999.

The Middle Mainland Remediation Area includes Buildings 301/303 and 307 (Figure 1). Building 301/303 is included in SWMU 18 (chemical mixing, loading and unloading area). SWMU 18 also includes a rail loading rack south of Building 301/303, a truck loading area north of Building 301/303, and a tank farm east of Building 301/303. Building 307 was historically used as a maintenance shop but is currently used for office and administrative-type work (CH2M HILL 2010).

The overall objective of this pre-design investigation was to obtain analytical data necessary to support remedy selection and design, including source area delineation and evaluation of source area leaching to groundwater.

Field Activities

This section presents sampling activities that were performed to address the investigation objectives. Table 1 is a summary of the samples collected, and Figure 1 shows the sampling locations. The sampling activities were conducted in April and May 2008 and in October 2009.

Subsurface Soil Sampling

Soil sampling was conducted at several locations throughout the Middle Mainland Remediation Area using direct push technology (DPT). Prior to conducting the DPT activities, subsurface utilities were cleared. Onsite utilities were cleared by a private utility clearance contractor (American Engineers) and offsite utilities were cleared by contacting Miss Utility of West Virginia.

In April and May 2008, twelve soil borings (3023 - 3028, 3030 and 3033- 3037) were installed at the facility by Subsurface, Inc. All of the soil borings were logged from the ground surface to the final depth of the boring. Where possible, soil samples were collected from the fine-grain unit, the alluvium coarse grain unit, and just above the water table. The sample was collected within each unit from the depth interval exhibiting the highest level of contamination based on visual observation and field screening; at a few locations high levels of contamination was exhibited at more than one depth interval for a unit so two samples were collected. The contamination level was evaluated in the field by relative staining, odor, and/or photo ionization detector (PID)/flame ionization detector (FID) readings. PID/FID readings and any evidence of staining and/or odor was recorded on the soil boring logs presented in Attachment 1. The soil samples were analyzed for facility target analyte list (TAL) volatile organic compounds (VOCs) using Method SW8260B and semivolatile organic compounds (SVOCs) using Method SW8270C.

In October 2009, an additional six borings (4010 through 4015) were installed on CSX Transportation, Inc. property south of the facility by Subsurface, Inc. All of the soil borings were logged from the ground surface to the final depth of the boring. Soil samples were collected from the fine-grain unit and the alluvium coarse grain unit. A sample was collected within each unit from the depth interval exhibiting the highest level of contamination based on visual observation and field screening. The contamination level was evaluated in the field by relative staining, odor, and/or PID readings. The soil samples were analyzed for facility TAL VOCs using Method SW8260B and SVOCs using Method SW8270C. The soil boring logs are presented in Attachment 1.

Geotechnical Soil Sampling

In April 2008, a soil sample was collected using a Shelby tube from boring 3030 within the fine-grain unit (12 to 15 feet bgs) for analysis of moisture content (D2216), permeability, and dry bulk density (D2937). Samples were also collected at borings 3030, 3033, and 3034 from the fine-grain unit, alluvium coarse grain, and just above the water table for geotechnical analysis. The samples from 3030 and 3033 were analyzed for total organic carbon (TOC), grain size distribution (ASTM-D422), dry bulk density (D2937), and specific gravity (D854). The samples collected from 3034 were only analyzed for TOC. The results from the geotechnical reports (Attachment 2) are provided in Table 2.

Groundwater Grab Sampling

In October 2009, groundwater grab samples were collected using a DPT discrete groundwater sampler from the six boring locations (4010 through 4015) on CSX Transportation, Inc. property. Groundwater grab samples were collected just below the water table and analyzed for facility TAL VOCs using Method SW8260B and SVOCs using Method SW8270C.

Soil Boring Abandonment

Upon completion of sampling activities, each DPT boring was backfilled from the bottom of the borehole to ground surface with hydrated bentonite chips. Asphalt/concrete patch was added to restore the locations to original conditions as needed.

Surveying

Boring locations were surveyed using a global positioning system (GPS) with sub-meter accuracy to establish horizontal coordinates for each boring.

Results

Soil

Figures 2 through 6 show the soil results for the COPCs for soil in the Middle Mainland [1,2-dichloropropane (1,2-DCP); 1,2-dichloroethane (1,2-DCA); Benzene; trichloroethene (TCE); cis-1,2-dichloroethene (1,2-DCE); and vinyl chloride]. The main COPCs detected in soil occurred at the highest concentrations in three areas of the Middle Mainland Remediation Area:

- Southeast corner of Building 301/303 (location 2012)
- East side of the tank farm adjacent to Building 301/303 (location 2011)
- South of the southeast corner of Building 307 (location 3026)

The main COPCs for soil near the southeast corner of Building 301/303 are 1,2-DCA (Figure 3) and TCE (Figure 5). The source of these COPCs could be the rail loading rack and possibly the tankers parked in the rail yard there.

The main COPCs for the soil east of the tank farm are benzene (Figure 4) and cis-1,2-DCE (Figure 6). The source of these COPCs could be the aboveground storage tanks or the product lines running between the tank farm and the chemical mixing area.

TCE is the main COPCs detected in the soil south of the southeast corner of Building 307 (Figure 5). Sampling location 3026 is located near the former rail spur that ran along the north side of MacCorkle Avenue. Because the TCE concentrations are higher near the rail spur than in the soil sampling locations closer to Building 307, one of the possible sources is that TCE could have been released from tankers parked on the rail spur.

Table 3 presents a summary of the detected analytical results for soil samples collected as part of the pre-design investigation compared to the adjusted industrial soil RSLs (USEPA 2009b). The RSLs based on noncarcinogenic effects were adjusted by dividing by 10 to account for exposure to multiple constituents. The RSLs based on carcinogenic effects were used as presented in the USEPA RSL table. The analytical data packages and the data quality evaluation memorandums are provided in Attachment 3.

Groundwater

Groundwater occurs in perched zones and in the alluvial aquifer in the Middle Mainland Remediation Area. The perched zones are located primarily within the top 20 feet bgs (within fill or the fine-grained unit), while the alluvial groundwater occurs approximately 35 feet bgs. Based on the potentiometric map in the Current Conditions Report (CH2M HILL 2010), groundwater in the alluvial aquifer for the Middle Mainland Remediation Area generally flows north toward the Kanawha River.

The main contaminants of potential concern (COPCs) for groundwater within the Middle Mainland Remediation Area include benzene; 1,2-dichloroethane (1,2-DCA); cis-1,2-dichloroethene (1,2-DCE); 1,2-dichloropropane (1,2-DCP); and vinyl chloride. 1,2-DCE and vinyl chloride appear to be degradation productions of TCE; the degradation has proceeded to the point where 1,2-DCE and vinyl chloride concentrations are similar to or exceed the TCE concentrations. The extent of COPCs in groundwater for the Middle Mainland Remediation Area is shown on Figures 7 through 12.

Well PZ-031, which is located in the rail yard loading area south of Building 301/303, contained the highest concentrations of most of the COPCs. Some of the COPCs detected in PZ-031 displayed decreasing concentration trends over time, including benzene and 1,2-DCA (CH2M HILL 2010). Concentrations of COPCs on CSX Transportation, Inc. property (south of the facility) are nondetect for the majority of the groundwater grab sample locations with the exception of 4013. COPC concentrations for 4013 are similar to or slightly lower than PZ-031.

Table 4 presents a summary of the detected analytical results for groundwater samples collected as part of the pre-design investigation compared to the USEPA maximum contaminant level (MCL; USEPA 2009a) or (if a MCL was not available) the adjusted USEPA tap water regional screening level (RSL; USEPA 2009b). The RSLs based on noncarcinogenic effects were adjusted by dividing by 10 to account for exposure to multiple constituents. The RSLs based on carcinogenic effects were used as presented in the USEPA RSL table. The laboratory data packages and the data quality evaluation memorandums are provided in Attachment 3.

References

CH2M HILL. 2010. *Current Conditions Report UCC South Charleston Facility South Charleston, West Virginia*. January.

U.S. Environmental Protection Agency (USEPA). 2009a. *National Primary Drinking Water Regulations*. EPA 816-F-09-004. Office of Water. May.

USEPA. 2009. *Regional Screening Levels for Chemical Contaminants at Superfund Sites*. May.

Tables

TABLE 1

Sample Summary

Middle Mainland Remediation Area Pre-design Investigation

UCC South Charleston Facility, South Charleston, West Virginia

Sample Location	Sample ID	Sample Depth (ft bgs)	Date Sampled	Analysis							
				VOCs	SVOCs	TOC	Grain Size	Moisture	Permeability	Bulk Density	Specific Gravity
Soil Samples											
3023	3023-SO01-050108	32 - 33	5/1/2008	X	X						
3024	3024-SO01-042808	26 - 27	4/28/2008	X	X						
3024	3024-SO02-042808	30 - 31	4/28/2008	X	X						
3025	3025-SO01-050108	16 - 17	5/1/2008	X	X						
3025	3025-SO02-050108	27 - 28	5/1/2008	X	X						
3026	3026-SO01-042808	14 - 15	4/28/2008	X	X						
3026	3026-SO02-042808	32 - 33	4/28/2008	X	X						
3027	3027-SO01-042808	6 - 7	4/28/2008	X	X						
3027	3027-SO02-042808	14 - 15	4/28/2008	X	X						
3027	3027-SO03-042808	31 - 32	4/28/2008	X	X						
3028	3028-S001-043008	19 - 20	4/30/2008	X	X						
3028	3028-S002-043008	25 - 26	4/30/2008	X	X						
3030	3030-S001-043008	17 - 18	4/30/2008	X	X	X	X			X	X
3030	3030-S002-043008	26 - 27	4/30/2008	X	X	X	X			X	X
3030	3030-S003-043008	33.5 - 34	4/30/2008	X	X	X	X			X	X
3030	Shelby Tube-3030	12-15	4/30/2008					X	X	X	
3033	3033-SO01-041608	6.5 - 7.5	4/16/2008	X	X						
3033	3033-SO02-041608	6.5 - 7.5	4/16/2008			X	X			X	X
3033	3033-SO03-041608	19 - 20	4/16/2008	X	X						
3033	3033-SO04-041608	19 - 20	4/16/2008			X	X			X	X
3033	3033-SO05-041608	23 - 24	4/16/2008	X	X						
3033	3033-SO06-041608	34.5 - 35.5	4/16/2008			X	X			X	X
3034	3034-S001-041708	4.5 - 5.5	4/17/2008	X	X	X					
3034	3034-S002-041708	19.5 - 20.5	4/17/2008	X	X	X					
3034	3034-S003-041708	27 - 28	4/17/2008	X	X	X					
3035	3035-S001-042208	7 - 8	4/22/2008	X	X						
3035	3035-S002-042208	19 - 20	4/22/2008	X	X						
3036	3036-S001-042208	17 - 18	4/22/2008	X	X						
3036	3036-S002-042208	22 - 23	4/22/2008	X	X						
3037	3037-S001-042208	9 - 10	4/22/2008	X	X						
3037	3037-S002-042208	16.5 - 17.5	4/22/2008	X	X						
3037	3037-S003-042208	30 - 31	4/22/2008	X	X						
4010	4010-SO01-102909	15.5 - 16	10/29/2009	X	X						
4010	4010-SO02-102909	25 - 25.5	10/29/2009	X	X						
4011	4011-SO01-102809	14 - 14.5	10/28/2009	X	X						
4011	4011-SO02-102809	23.5 - 24	10/28/2009	X	X						
4012	4012-SO01-102909	14.5 - 15	10/29/2009	X	X						
4012	4012-SO02-102909	27.5 - 28	10/29/2009	X	X						
4013	4013-SO01-102809	12.5 - 13	10/28/2009	X	X						
4013	4013-SO02-102809	27.5 - 28	10/28/2009	X	X						
4014	4014-SO01-102809	11 - 11.5	10/28/2009	X	X						
4014	4014-SO02-102809	26.5 - 27	10/28/2009	X	X						
4015	4015-SO01-102909	13.5 - 14	10/29/2009	X	X						
4015	4015-SO02-102909	27 - 27.5	10/29/2009	X	X						
Groundwater Samples											
4010	4010-GW-102909	36 - 40	10/29/2009	X	X						
4011	4011-GW-102809	36 - 40	10/28/2009	X	X						
4012	4012-GW-102909	36 - 40	10/29/2009	X	X						
4013	4013-GW-102809	36 - 40	10/28/2009	X	X						
4014	4014-GW-102809	36 - 40	10/28/2009	X	X						
4015	4015-GW-102909	36 - 40	10/29/2009	X	X						

Notes:

VOCs - Volatile Organic Compounds

SVOCs - Semivolatile Organic Compounds

ft bgs - feet/foot below ground surface

TABLE 2

Geotechnical and Hydraulic Conductivity Summary

Middle Mainland Remediation Area Pre-design Investigation

UCC South Charleston Facility, South Charleston, West Virginia

Sample Location	Sample ID	Sample Depth (ft bgs)	Sample Description	Total Organic Carbon (mg/kg)	Particle Size Analyses				Density	
					Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Bulk (pcf)	Dry (pcf)
3030	3030-Shelby Tube	12-15	--	--	--	--	--	--	127.1	104.3
3030	3030-SO01-043008	17-18	Clayey, Silt, Sand	<1130	0.0	22.2	43.4	34.4	120.5	93.9
3030	3030-SO02-043008	26-27	Silty, Sand	2720	0	77	14	9	109.2	99.2
3030	3030-SO03-043008	33.5-34	Sand	<1090	0.1	85.1	9.2	5.6	113.1	104.1
3033	3033-SO02-041608	6.5-7.5	Clayey, Sandy, Silt	<1130	0.0	35.0	41.5	23.5	127.2	105.4
3033	3033-SO04-041608	19-20	Sand	2870	0.0	77.6	13.0	9.4	95.2	85.5
3033	3033-SO06-041608	34.5-35.5	Sand	2680	0.4	81.2	8.5	9.9	109.9	96.6
3034	3034-S002-041708	19.5 - 20.5	--	1570	--	--	--	--	--	--
3034	3034-S002-041708D	19.5 - 20.5	--	1400	--	--	--	--	--	--
3034	3034-S003-041708	27 - 28	--	1380	--	--	--	--	--	--
3034	3034-S001-041708	4.5 - 5.5	--	4720	--	--	--	--	--	--

Notes:

% - percent

pcf - pounds per cubic foot

^{o}C - degrees Celsius

ft bgs - feet/foot below ground surface

cm/sec - centimeter per second

mg/kg - milligrams per kilogram

Specific Gravity at 20°C	Hydraulic Conductivity	
	Initial Moisture Content (%)	Permeability (k) (cm/sec)
--	22.6	1.20E-06
2.75	--	--
2.69	--	--
2.68	--	--
2.69	--	--
2.72	--	--
2.7	--	--
--	--	--
--	--	--
--	--	--
--	--	--

TABLE 3

Summary of Detected Results for 2008 and 2009 Soil Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location		3023		3024		3025		3026	
Sample ID		3023-SO01-050108	3023-SO01-050108FD	3024-SO01-042808	3024-SO02-042808	3025-SO01-050108	3025-SO02-050108	3026-SO01-042808	3026-SO02-042808
Sample Depth (ft)		32 - 33	32 - 33	26 - 27	30 - 31	16 - 17	27 - 28	14 - 15	32 - 33
Sample Date		5/1/2008	5/1/2008	4/28/2008	4/28/2008	5/1/2008	5/1/2008	4/28/2008	4/28/2008
Analyte	**Adjusted Industrial Soil RSL**								
SVOCs (ug/kg)									
2,4-Dimethylphenol	1200000	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
3,4-Methylphenol	NA	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Acenaphthene	3300000	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
bis(2-Chloroethoxy)methane	180000	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
bis(2-Chloroethyl)ether	900	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
bis(2-Ethylhexyl)phthalate	120000	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Chrysene	210000	**196**	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Di-n-butylphthalate	6200000	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Di-n-octylphthalate	NA	< 183	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Fluoranthene	2200000	**352**	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Phenanthrene	NA	**300**	< 177	< 170	< 198	< 189	< 179	< 193	< 166
Pyrene	1700000	**335**	< 177	< 170	< 198	< 189	< 179	< 193	< 166
VOCs (ug/kg)									
1,1,2-Trichloroethane	5500	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
1,2-Dichlorobenzene	1000000	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
1,2-Dichloroethane	2200	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
1,2-Dichloropropane	4700	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
1,4-Dichlorobenzene	13000	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
1,4-Dioxane	160000	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
4-Methyl-2-Pentanone	5200000	< 1030	< 981	< 9.81	< 10.7	< 9.35	< 10.5	< 10.3	< 935
Acetone	61000000	< 10300	< 9810	< 98.1	< 107	< 93.5	< 105	< 103	< 9350
Benzene	5600	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
Chlorobenzene	150000	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
Chloroform	1500	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
cis-1,2-Dichloroethene	1000000	< 514	< 491	< 4.9	< 5.34	**64.6 L**	**61.5**	< 5.15	< 468
Ethyl benzene	29000	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
Tetrachloroethene	2700	< 514	< 491	< 4.9	**42.5**	**21.6**	**101**	< 5.15	**2370**
Toluene	4600000	< 514	< 491	< 4.9	< 5.34	< 4.67	< 5.24	< 5.15	< 468
Trichloroethene	14000	**1150**	**890**	< 4.9	**592**	**30.2 L**	**136**	< 5.15	**25100**
Vinyl chloride	1700	< 1030	< 981	< 9.81	< 10.7	< 9.35	< 10.5	< 10.3	< 935
Xylenes, total	260000	< 1030	< 981	< 9.81	< 10.7	< 9.35	< 10.5	< 10.3	< 935

Notes:

NA = Not analyzed

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

mg/kg = Milligrams per Kilogram

ug/kg = Micrograms per Kilogram

Bold indicates the analyte was detected

Shading indicates the result exceeded the Adjusted Industrial Soil RSL

TABLE 3

Summary of Detected Results for 2008 and 2009 Soil Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location		3027			3028		3030		
Sample ID		3027-SO02-042808	3027-SO03-042808	3027-SO01-042808	3028-S001-043008	3028-S002-043008	3030-S001-043008	3030-S002-043008	3030-S003-043008
Sample Depth (ft)		14 - 15	31 - 32	6 - 7	19 - 20	25 - 26	17 - 18	26 - 27	33.5 - 34
Sample Date		4/28/2008	4/28/2008	4/28/2008	4/30/2008	4/30/2008	4/30/2008	4/30/2008	4/30/2008
Analyte	**Adjusted Industrial Soil RSL**								
SVOCs (ug/kg)									
2,4-Dimethylphenol	1200000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
3,4-Methylphenol	NA	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Acenaphthene	3300000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
bis(2-Chloroethoxy)methane	180000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
bis(2-Chloroethyl)ether	900	< 198	< 172	< 194	< 202	< 188	< 200	< 182	**315**
bis(2-Ethylhexyl)phthalate	120000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Chrysene	210000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Di-n-butylphthalate	6200000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Di-n-octylphthalate	NA	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Fluoranthene	2200000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Phenanthrene	NA	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
Pyrene	1700000	< 198	< 172	< 194	< 202	< 188	< 200	< 182	< 207
VOCs (ug/kg)									
1,1,2-Trichloroethane	5500	< 5.04	< 4.75	< 5.09	< 5.66	< 6.32	< 5.18	**36.6**	< 550
1,2-Dichlorobenzene	1000000	< 5.04	< 4.75	< 5.09	< 5.66	< 6.32	< 5.18	< 6.31	< 550
1,2-Dichloroethane	2200	< 5.04	< 4.75	< 5.09	**37.2**	**47.6**	**48.6**	**704**	< 550
1,2-Dichloropropane	4700	< 5.04	< 4.75	< 5.09	**17.5**	**11.4**	**15.1**	**13**	< 550
1,4-Dichlorobenzene	13000	< 5.04	< 4.75	< 5.09	< 5.66	< 6.32	< 5.18	< 6.31	< 550
1,4-Dioxane	160000	**R**	**R**	**R**	**R**	**R**	**R**	**R**	< 187000
4-Methyl-2-Pentanone	5200000	< 10.1	< 9.5	< 10.2	< 11.3	< 12.6	< 10.4	**1090 J**	< 1100
Acetone	61000000	< 101	< 95	< 102	< 113	< 126	< 104	< 126	< 11000
Benzene	5600	**12.6**	**42.3**	< 5.09	**337 J**	**49.2**	**151**	**13.8**	**2530**
Chlorobenzene	150000	< 5.04	< 4.75	< 5.09	< 5.66	< 6.32	**15**	< 6.31	< 550
Chloroform	1500	< 5.04	< 4.75	< 5.09	**19.9**	**7.3**	**12.7**	< 6.31	< 550
cis-1,2-Dichloroethene	1000000	**8.23**	< 4.75	< 5.09	**89.6**	**24.2**	**65.7**	**7.26**	< 550
Ethyl benzene	29000	< 5.04	**11.6**	< 5.09	< 5.66	< 6.32	< 5.18	< 6.31	< 550
Tetrachloroethene	2700	< 5.04	< 4.75	< 5.09	< 5.66	< 6.32	**10.7**	< 6.31	< 550
Toluene	4600000	< 5.04	**11**	< 5.09	**24.3**	< 6.32	< 5.18	< 6.31	< 550
Trichloroethene	14000	**6.35**	< 4.75	< 5.09	**52.3**	**8.02**	**87.3**	< 6.31	< 550
Vinyl chloride	1700	< 10.1	< 9.5	< 10.2	< 11.3	< 12.6	**18.7**	< 12.6	< 1100
Xylenes, total	260000	< 10.1	< 9.5	< 10.2	< 11.3	< 12.6	< 10.4	< 12.6	< 1100

Notes:
NA = Not analyzed

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded the Adjusted Industrial Soil RSL

TABLE 3

Summary of Detected Results for 2008 and 2009 Soil Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location		3033			3034			
Sample ID		3033-SO03-041608	3033-SO05-041608	3033-SO01-041608	3034-S002-041708	3034-S002-041708D	3034-S003-041708	3034-S001-041708
Sample Depth (ft)		19 - 20	23 - 24	6.5 - 7.5	19.5 - 20.5	19.5 - 20.5	27 - 28	4.5 - 5.5
Sample Date		4/16/2008	4/16/2008	4/16/2008	4/17/2008	4/17/2008	4/17/2008	4/17/2008
Analyte	**Adjusted Industrial Soil RSL**							
SVOCs (ug/kg)								
2,4-Dimethylphenol	1200000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
3,4-Methylphenol	NA	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Acenaphthene	3300000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
bis(2-Chloroethoxy)methane	180000	< 184	< 174	< 198	< 187	< 191	**441**	< 191
bis(2-Chloroethyl)ether	900	< 184	< 174	< 198	< 187	< 191	< 174	< 191
bis(2-Ethylhexyl)phthalate	120000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Chrysene	210000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Di-n-butylphthalate	6200000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Di-n-octylphthalate	NA	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Fluoranthene	2200000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Phenanthrene	NA	< 184	< 174	< 198	< 187	< 191	< 174	< 191
Pyrene	1700000	< 184	< 174	< 198	< 187	< 191	< 174	< 191
VOCs (ug/kg)								
1,1,2-Trichloroethane	5500	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
1,2-Dichlorobenzene	1000000	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	**6.18**
1,2-Dichloroethane	2200	**9.39**	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
1,2-Dichloropropane	4700	**9.99**	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
1,4-Dichlorobenzene	13000	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	**10.4**
1,4-Dioxane	160000	**R**	**R**	**R**	**R**	**R**	< 186000	**R**
4-Methyl-2-Pentanone	5200000	< 10.8	< 12	< 10.5	< 10.4	< 11.3	**2160**	< 11
Acetone	61000000	< 108	< 120	< 105	< 104	< 113	< 11000	< 110
Benzene	5600	< 5.38	< 6	< 5.23	**7.28**	**5.94**	**668**	< 5.48
Chlorobenzene	150000	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
Chloroform	1500	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
cis-1,2-Dichloroethene	1000000	< 5.38	< 6	< 5.23	**8.86**	**7.45**	< 548	< 5.48
Ethyl benzene	29000	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
Tetrachloroethene	2700	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
Toluene	4600000	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
Trichloroethene	14000	< 5.38	< 6	< 5.23	< 5.2	< 5.63	< 548	< 5.48
Vinyl chloride	1700	< 10.8	< 12	< 10.5	< 10.4	< 11.3	< 1100	< 11
Xylenes, total	260000	< 10.8	< 12	< 10.5	< 10.4	< 11.3	< 1100	< 11

Notes:
NA = Not analyzed

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded the Adjusted Industrial Soil RSL

TABLE 3

Summary of Detected Results for 2008 and 2009 Soil Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location		3035		3036		3037			4010	
Sample ID		3035-S002-042208	3035-S001-042208	3036-S001-042208	3036-S002-042208	3037-S002-042208	3037-S003-042208	3037-S001-042208	4010-SO01-102909	4010-SO02-102909
Sample Depth (ft)		19 - 20	7 - 8	17 - 18	22 - 23	16.5 - 17.5	30 - 31	9 - 10	15.5 - 16	25 - 25.5
Sample Date		4/22/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	10/29/2009	10/29/2009
Analyte	**Adjusted Industrial Soil RSL**									
SVOCs (ug/kg)										
2,4-Dimethylphenol	1200000	< 193	< 195	< 199	< 186	**812**	**492**	< 195	< 437	< 210
3,4-Methylphenol	NA	< 193	< 195	< 199	< 186	**221**	**200**	< 195	NA	NA
Acenaphthene	3300000	< 193	< 195	< 199	< 186	< 195	< 179	< 195	**459**	< 210
bis(2-Chloroethoxy)methane	180000	< 193	< 195	< 199	< 186	< 195	< 179	< 195	< 437	< 210
bis(2-Chloroethyl)ether	900	< 193	< 195	< 199	< 186	< 195	< 179	< 195	< 437	< 210
bis(2-Ethylhexyl)phthalate	120000	< 193	< 195	**440**	< 186	**55300**	**7060**	**17400**	< 437	< 210
Chrysene	210000	< 193	< 195	< 199	< 186	< 195	< 179	< 195	**443**	< 210
Di-n-butylphthalate	6200000	< 193	< 195	< 199	< 186	**2410**	**3840**	**783**	< 437	< 210
Di-n-octylphthalate	NA	< 193	< 195	< 199	< 186	**775**	< 179	**352**	< 437	< 210
Fluoranthene	2200000	< 193	< 195	< 199	< 186	< 195	< 179	< 195	**1520**	< 210
Phenanthrene	NA	< 193	< 195	< 199	< 186	**275**	< 179	< 195	**1500**	< 210
Pyrene	1700000	< 193	< 195	< 199	< 186	**232**	< 179	< 195	**1080**	< 210
VOCs (ug/kg)										
1,1,2-Trichloroethane	5500	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
1,2-Dichlorobenzene	1000000	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
1,2-Dichloroethane	2200	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
1,2-Dichloropropane	4700	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
1,4-Dichlorobenzene	13000	< 4.95	< 5	< 5.51	< 4.78	**980**	**652**	**1390**	< 5.3	< 4.94
1,4-Dioxane	160000	**R**	**R**	**R**	**R**	**R**	**R**	**R**	< 132	< 127
4-Methyl-2-Pentanone	5200000	< 9.89	< 9.99	< 11	< 9.56	< 1040	< 971	< 987	< 10.6	< 9.88
Acetone	61000000	< 98.9	< 99.9	< 110	< 95.6	< 10400	< 9710	< 9870	< 106	< 98.8
Benzene	5600	< 4.95	**7.18**	< 5.51	**15.3**	< 518	**1570**	< 494	< 5.3	< 4.94
Chlorobenzene	150000	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
Chloroform	1500	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
cis-1,2-Dichloroethene	1000000	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
Ethyl benzene	29000	< 4.95	< 5	< 5.51	**5.36**	**3200 J**	**2600 J**	**2600 J**	< 5.3	< 4.94
Tetrachloroethene	2700	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	< 5.3	< 4.94
Toluene	4600000	< 4.95	< 5	< 5.51	< 4.78	**1290**	**1210**	< 494	< 5.3	< 4.94
Trichloroethene	14000	< 4.95	< 5	< 5.51	< 4.78	< 518	< 486	< 494	**12.5**	**111**
Vinyl chloride	1700	< 9.89	< 9.99	< 11	< 9.56	< 1040	< 971	< 987	< 10.6	< 9.88
Xylenes, total	260000	< 9.89	< 9.99	< 11	< 9.56	**4050**	**4020**	**7040**	< 10.6	< 9.88

Notes:

NA = Not analyzed

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

mg/kg = Milligrams per Kilogram

ug/kg = Micrograms per Kilogram

Bold indicates the analyte was detected

Shading indicates the result exceeded the Adjusted Industrial Soil RSL

TABLE 3

Summary of Detected Results for 2008 and 2009 Soil Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location		4011		4012		4013		4014		
Sample ID		4011-SO01-102809	4011-SO02-102809	4012-SO01-102909	4012-SO02-102909	4013-SO01-102809	4013-SO02-102809	4014-SO01-102809	4014-SO01-102809-D	4014-SO02-102809
Sample Depth (ft)		14 - 14.5	23.5 - 24	14.5 - 15	27.5 - 28	12.5 - 13	27.5 - 28	11 - 11.5	11 - 11.5	26.5 - 27
Sample Date		10/28/2009	10/28/2009	10/29/2009	10/29/2009	10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/28/2009
Analyte	**Adjusted Industrial Soil RSL**									
SVOCs (ug/kg)										
2,4-Dimethylphenol	1200000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
3,4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	3300000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
bis(2-Chloroethoxy)methane	180000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
bis(2-Chloroethyl)ether	900	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
bis(2-Ethylhexyl)phthalate	120000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
Chrysene	210000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
Di-n-butylphthalate	6200000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
Di-n-octylphthalate	NA	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
Fluoranthene	2200000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
Phenanthrene	NA	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
Pyrene	1700000	< 226	< 199	< 202	< 193	< 234	< 203	< 412	< 464	< 202
VOCs (ug/kg)										
1,1,2-Trichloroethane	5500	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	**8.33**	< 5.38	< 5.62	< 6.13
1,2-Dichlorobenzene	1000000	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	< 5.05	< 5.38	< 5.62	< 6.13
1,2-Dichloroethane	2200	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	**103**	< 5.38	< 5.62	< 6.13
1,2-Dichloropropane	4700	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	**22.5**	< 5.38	< 5.62	< 6.13
1,4-Dichlorobenzene	13000	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	< 5.05	< 5.38	< 5.62	< 6.13
1,4-Dioxane	160000	< 137	< 121	< 123	< 117	< 142	< 123	< 125	< 141	< 122
4-Methyl-2-Pentanone	5200000	< 10.4	< 10.9	< 9.57	< 12.5	< 10.5	< 10.1	< 10.8	< 11.2	< 12.3
Acetone	61000000	< 104	< 109	< 95.7	< 125	< 105	< 101	< 108	< 112	< 123
Benzene	5600	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	**63.5**	< 5.38	< 5.62	< 6.13
Chlorobenzene	150000	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	< 5.05	< 5.38	< 5.62	< 6.13
Chloroform	1500	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	**8.58**	< 5.38	< 5.62	< 6.13
cis-1,2-Dichloroethene	1000000	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	**24.2**	< 5.38	< 5.62	< 6.13
Ethyl benzene	29000	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	< 5.05	< 5.38	< 5.62	< 6.13
Tetrachloroethene	2700	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	< 5.05	< 5.38	< 5.62	< 6.13
Toluene	4600000	< 5.2	< 5.47	< 4.79	< 6.25	< 5.25	< 5.05	< 5.38	< 5.62	< 6.13
Trichloroethene	14000	**17.3**	**28.3**	< 4.79	**9.71**	< 5.25	**30.3**	< 5.38	< 5.62	< 6.13
Vinyl chloride	1700	< 10.4	< 10.9	< 9.57	< 12.5	< 10.5	< 10.1	< 10.8	< 11.2	< 12.3
Xylenes, total	260000	< 10.4	< 10.9	< 9.57	< 12.5	< 10.5	< 10.1	< 10.8	< 11.2	< 12.3

Notes:
NA = Not analyzed

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded the Adjusted Industrial Soil RSL

TABLE 3

Summary of Detected Results for 2008 and 2009 Soil Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location		4015	
Sample ID		4015-SO01-102909	4015-SO02-102909
Sample Depth (ft)		13.5 - 14	27 - 27.5
Sample Date		10/29/2009	10/29/2009
Analyte	**Adjusted Industrial Soil RSL**		
SVOCs (ug/kg)			
2,4-Dimethylphenol	1200000	< 191	< 199
3,4-Methylphenol	NA	NA	NA
Acenaphthene	3300000	< 191	< 199
bis(2-Chloroethoxy)methane	180000	< 191	< 199
bis(2-Chloroethyl)ether	900	< 191	< 199
bis(2-Ethylhexyl)phthalate	120000	< 191	< 199
Chrysene	210000	< 191	< 199
Di-n-butylphthalate	6200000	< 191	< 199
Di-n-octylphthalate	NA	< 191	< 199
Fluoranthene	2200000	< 191	< 199
Phenanthrene	NA	< 191	< 199
Pyrene	1700000	< 191	< 199
VOCs (ug/kg)			
1,1,2-Trichloroethane	5500	< 5.47	< 4.48
1,2-Dichlorobenzene	1000000	< 5.47	< 4.48
1,2-Dichloroethane	2200	< 5.47	< 4.48
1,2-Dichloropropane	4700	< 5.47	< 4.48
1,4-Dichlorobenzene	13000	< 5.47	< 4.48
1,4-Dioxane	160000	< 116	< 121
4-Methyl-2-Pentanone	5200000	< 10.9	< 8.97
Acetone	61000000	< 109	< 89.7
Benzene	5600	< 5.47	< 4.48
Chlorobenzene	150000	< 5.47	< 4.48
Chloroform	1500	< 5.47	< 4.48
cis-1,2-Dichloroethene	1000000	< 5.47	< 4.48
Ethyl benzene	29000	< 5.47	< 4.48
Tetrachloroethene	2700	< 5.47	< 4.48
Toluene	4600000	< 5.47	< 4.48
Trichloroethene	14000	< 5.47	< 4.48
Vinyl chloride	1700	< 10.9	< 8.97
Xylenes, total	260000	< 10.9	< 8.97

Notes:
NA = Not analyzed

J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded the Adjusted Industrial Soil RSL

TABLE 4

Summary of Detected Results for 2009 Groundwater Samples
Middle Mainland Remediation Area Pre-design Investigation
UCC South Charleston Facility, South Charleston, West Virginia

Location			4010	4011	4012	4013	4014		4015
Sample ID			4010-GW-102909	4011-GW-102809	4012-GW-102909	4013-GW-102809	4014-GW-102809	4014-GW-102809-D	4015-GW-102909
Sample Depth (ft)			36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40
Sample Date			10/29/2009	10/28/2009	10/29/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009
Analyte	**Screening Level**	**Screening Level Source**							
SVOCs (ug/l)									
2,4-Dimethylphenol	73	Adjusted Tap Water RSL	< 6.02	< 11.1	**R**	< 10.2	< 10.8	< 10.8	< 5.43
2-Methylphenol	180	Adjusted Tap Water RSL	< 6.02	< 11.1	**R**	< 10.2	< 10.8	< 10.8	< 5.43
3,3'-Dichlorobenzidine	0.15	Adjusted Tap Water RSL	< 6.02	< 11.1	**R**	< 10.2	< 10.8	< 10.8	< 5.43
3-and 4-Methylphenol	--	--	< 12	< 22.2	**R**	< 20.4	< 21.5	< 21.5	< 10.9
3-Nitroaniline	1.1	Adjusted Tap Water RSL	< 30.1	< 55.6	**R**	< 51	< 53.8	< 53.8	< 27.2
4-Chloroaniline	1.2	Adjusted Tap Water RSL	< 24.1	< 44.4	**R**	< 40.8	< 43	< 43	< 21.7
VOCs (ug/l)									
1,1,2-Trichloroethane	5	MCL	< 1	< 1	< 1	**17.1**	< 1	< 1	< 1
1,2-Dichloroethane	5	MCL	< 1	< 1	< 1	**1280**	< 1	< 1	< 1
1,2-Dichloropropane	5	MCL	< 1	< 1	< 1	**290**	< 1	< 1	< 1
1,4-Dioxane	6.1	Adjusted Tap Water RSL	< 1.2	< 2.22	< 1.11	**2.33**	< 2.15	< 2.15	< 1.09
Benzene	5	MCL	< 1	< 1	< 1	**195**	< 1	< 1	< 1
Chloroethane	2100	Adjusted Tap Water RSL	< 1	< 1	< 1	**1.59**	< 1	< 1	< 1
Chloroform	0.19	Adjusted Tap Water RSL	< 1	< 1	< 1	**200**	< 1	< 1	< 1
cis-1,2-Dichloroethene	70	MCL	< 1	< 1	< 1	**431**	< 1	< 1	< 1
Methyl t-Butyl Ether	12	Adjusted Tap Water RSL	< 5	< 5	< 5	**33.2**	< 5	< 5	< 5
Tetrachloroethene	5	MCL	< 1	< 1	< 1	**1.22**	< 1	< 1	< 1
trans-1,2-Dichloroethene	100	MCL	< 1	< 1	< 1	**1.26**	< 1	< 1	< 1
Trichloroethene	5	MCL	**1.29**	< 1	< 1	**124**	< 1	< 1	< 1
Vinyl chloride	2	MCL	< 1	< 1	< 1	**41.4**	< 1	< 1	< 1

Notes:

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

ug/l = Micrograms per Liter

Bold indicates the analyte was detected

Shading indicates the result exceeded the screening level

Figures

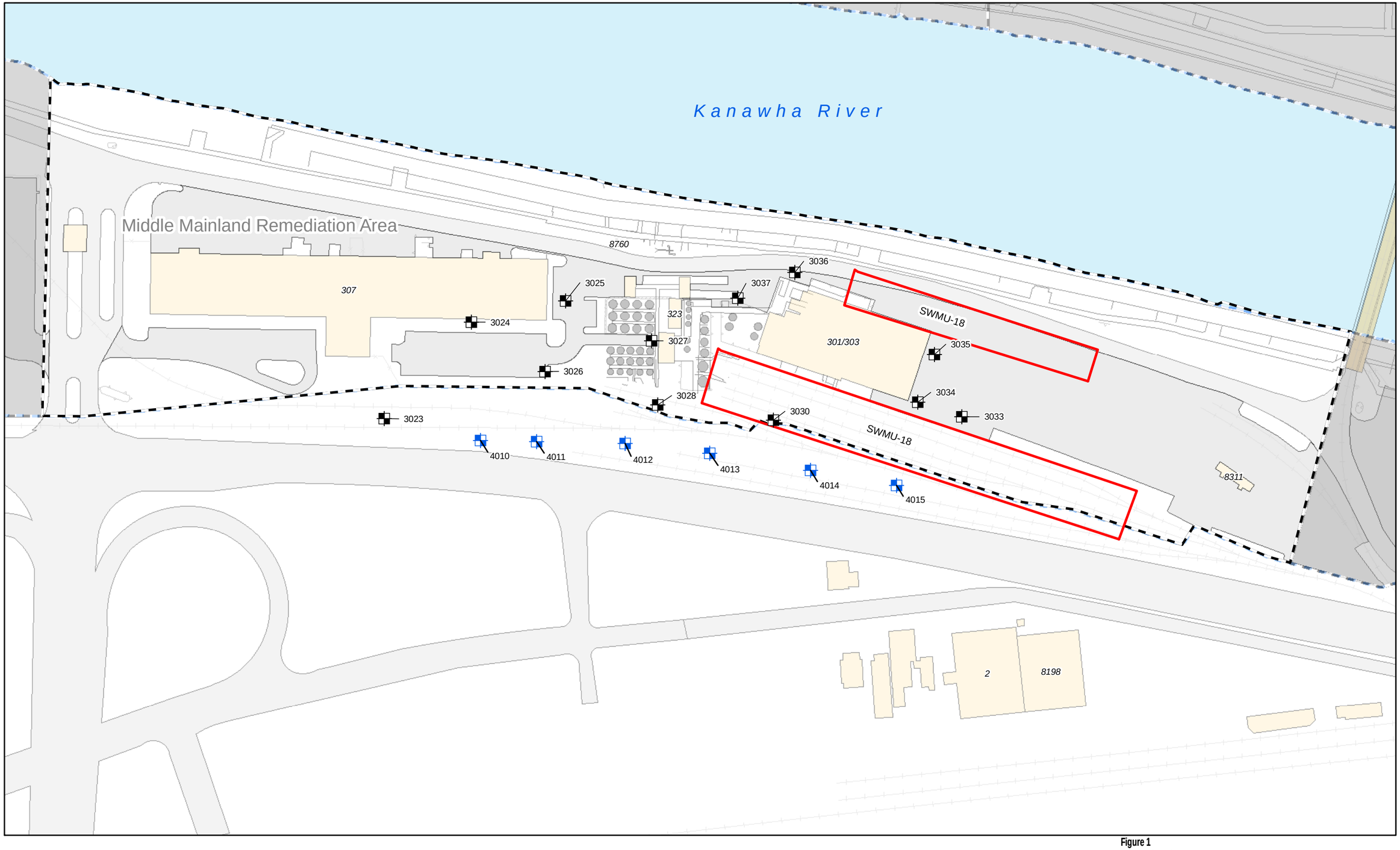
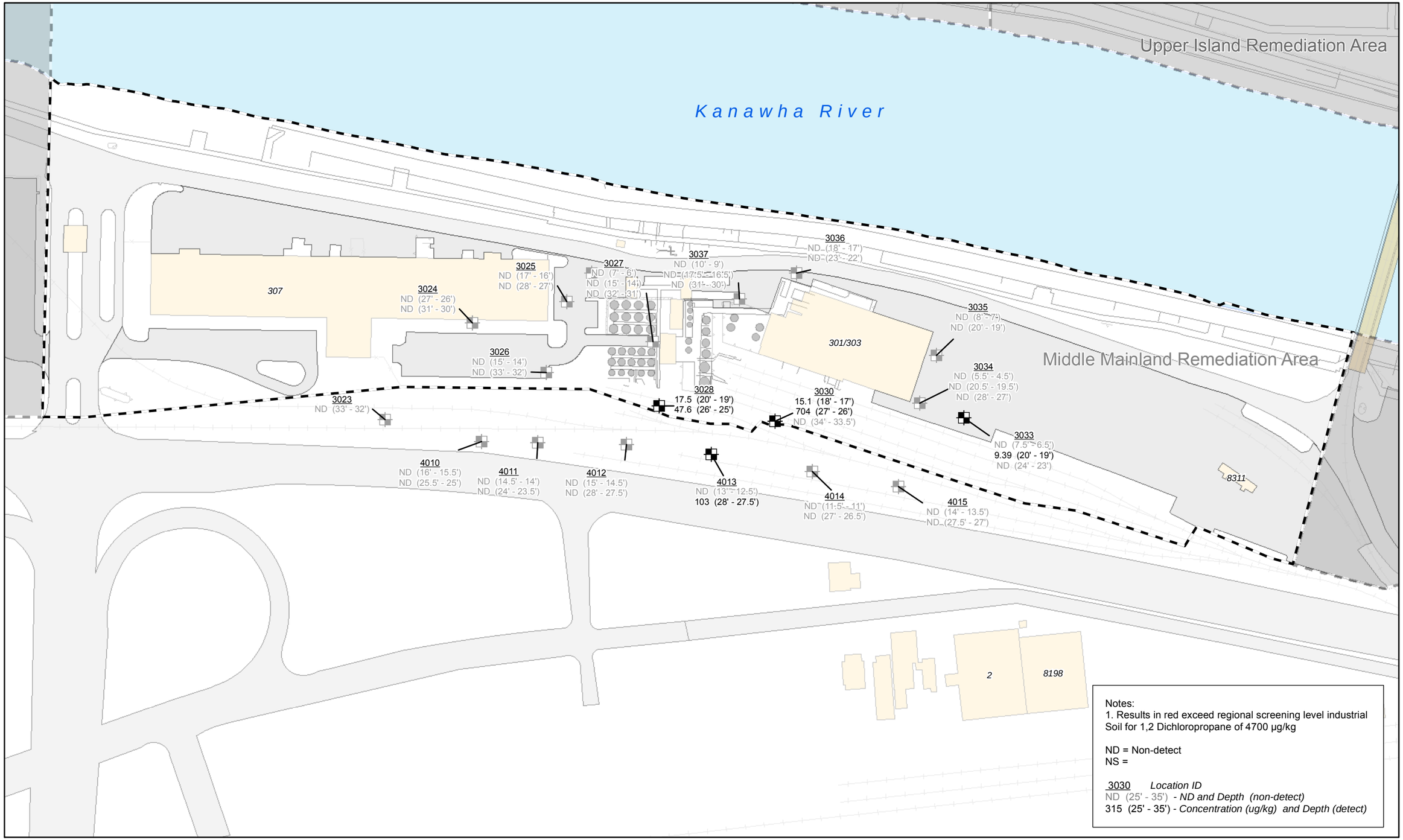


Figure 1
Sample Locations
UCC South Charleston Facility Middle Mainland Remediation Area Pre-design Investigation
South Charleston Facility
South Charleston, West Virginia

CH2MHILL

G-SCF-00381.MXD



Notes:
1. Results in red exceed regional screening level industrial Soil for 1,2 Dichloropropane of 4700 µg/kg

ND = Non-detect
NS =

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non-detect)*
315 (25' - 35') - *Concentration (ug/kg) and Depth (detect)*

N

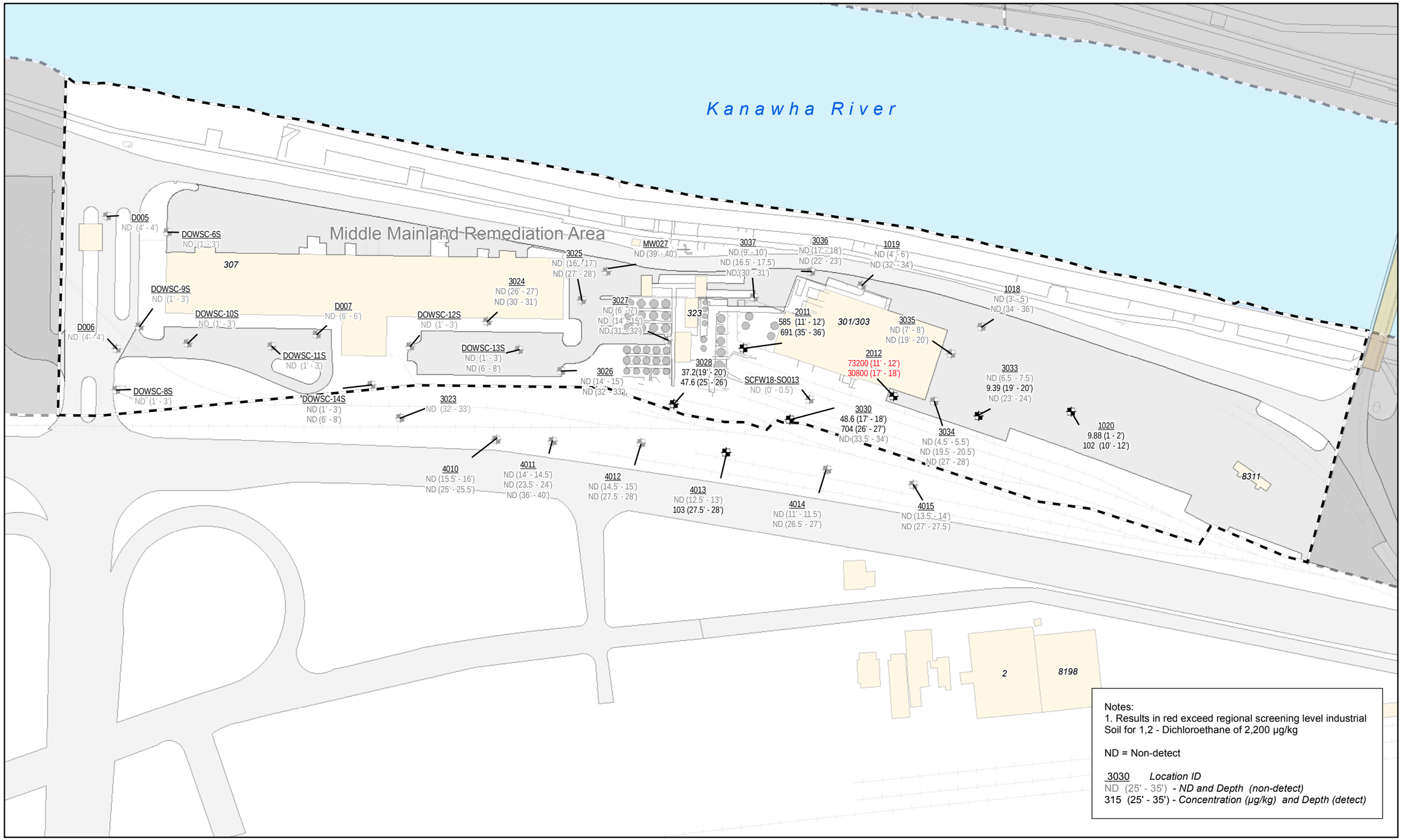
0 125 250
Feet

Soil Sample Locations - Detect
Soil Sample Location - ND
586 Buildings

Figure 2
1,2 Dichloropropane in Soil
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

G-SCF-00382.MXD

CH2MHILL



Notes:
1. Results in red exceed regional screening level industrial Soil for 1,2 - Dichloroethane of 2,200 µg/kg

ND = Non-detect

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non-detect)*
315 (25' - 35') - *Concentration (µg/kg) and Depth (detect)*

N

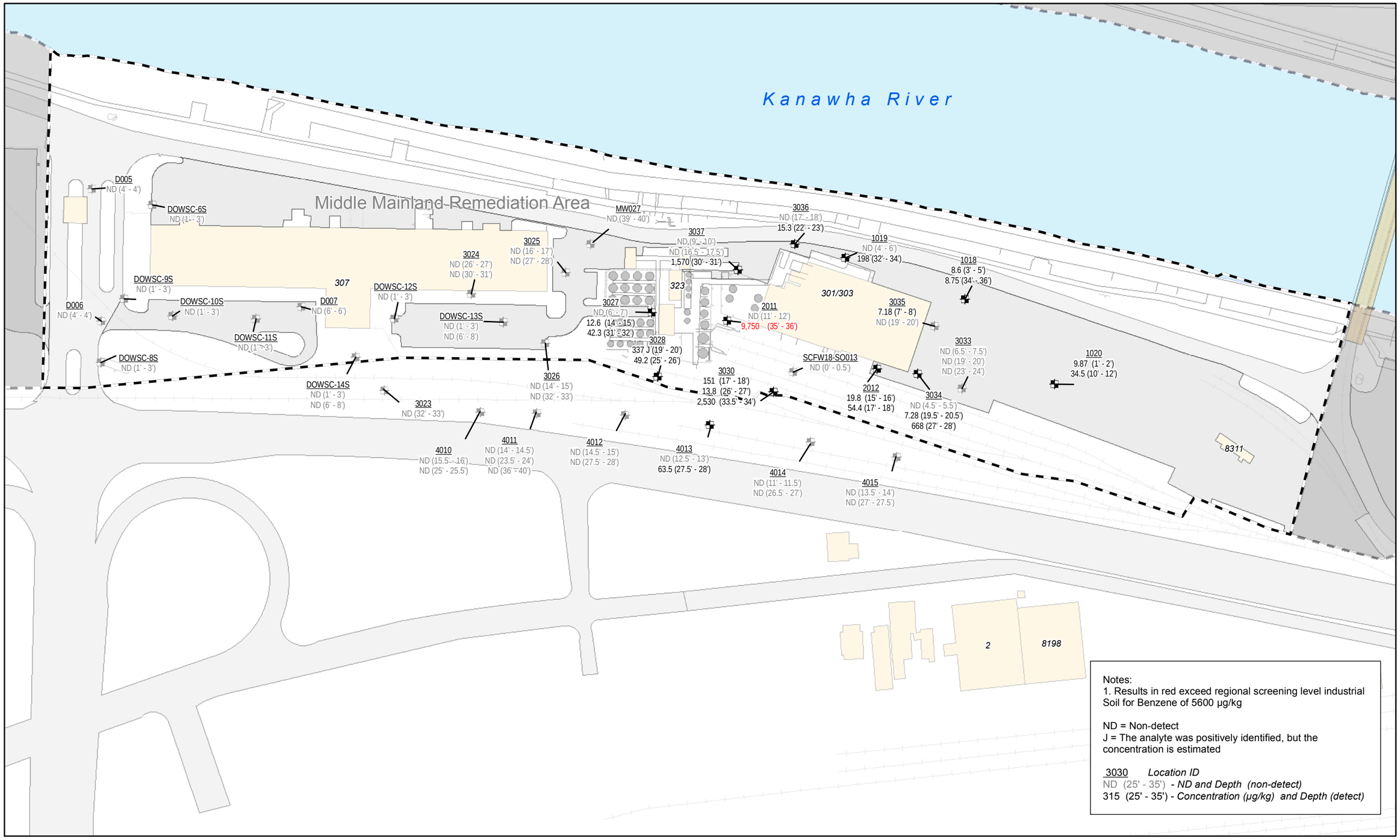
0 125 250
Feet

Soil Sample Locations - Detect 586 Buildings
Soil Sample Locations - ND

Figure 3
1,2-Dichloroethane in Soil
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

G-SCF-00383.MXD

CH2MHILL



Notes:
1. Results in red exceed regional screening level industrial Soil for Benzene of 5600 µg/kg

ND = Non-detect
J = The analyte was positively identified, but the concentration is estimated

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non-detect)*
315 (25' - 35') - *Concentration (µg/kg) and Depth (detect)*

N

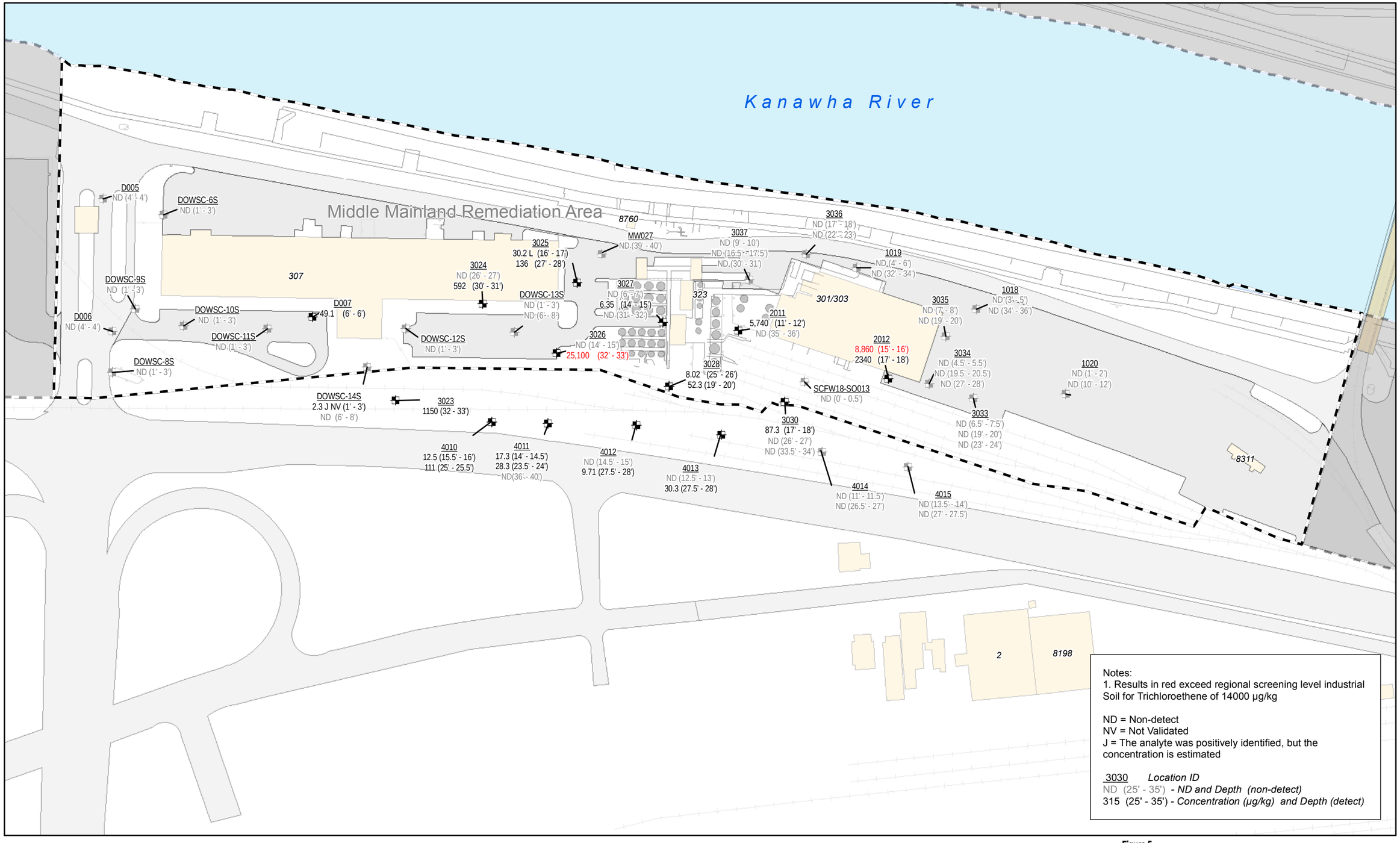
0 125 250
Feet

Soil Sample Locations - Detect 586 Buildings
Soil Sample Locations - ND

Figure 4
Benzene in Soil
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

G-SCF-00384.MXD

CH2MHILL



Notes:
1. Results in red exceed regional screening level industrial Soil for Trichloroethene of 14000 µg/kg

ND = Non-detect
NV = Not Validated
J = The analyte was positively identified, but the concentration is estimated

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non-detect)*
315 (25' - 35') - *Concentration (µg/kg) and Depth (detect)*

N

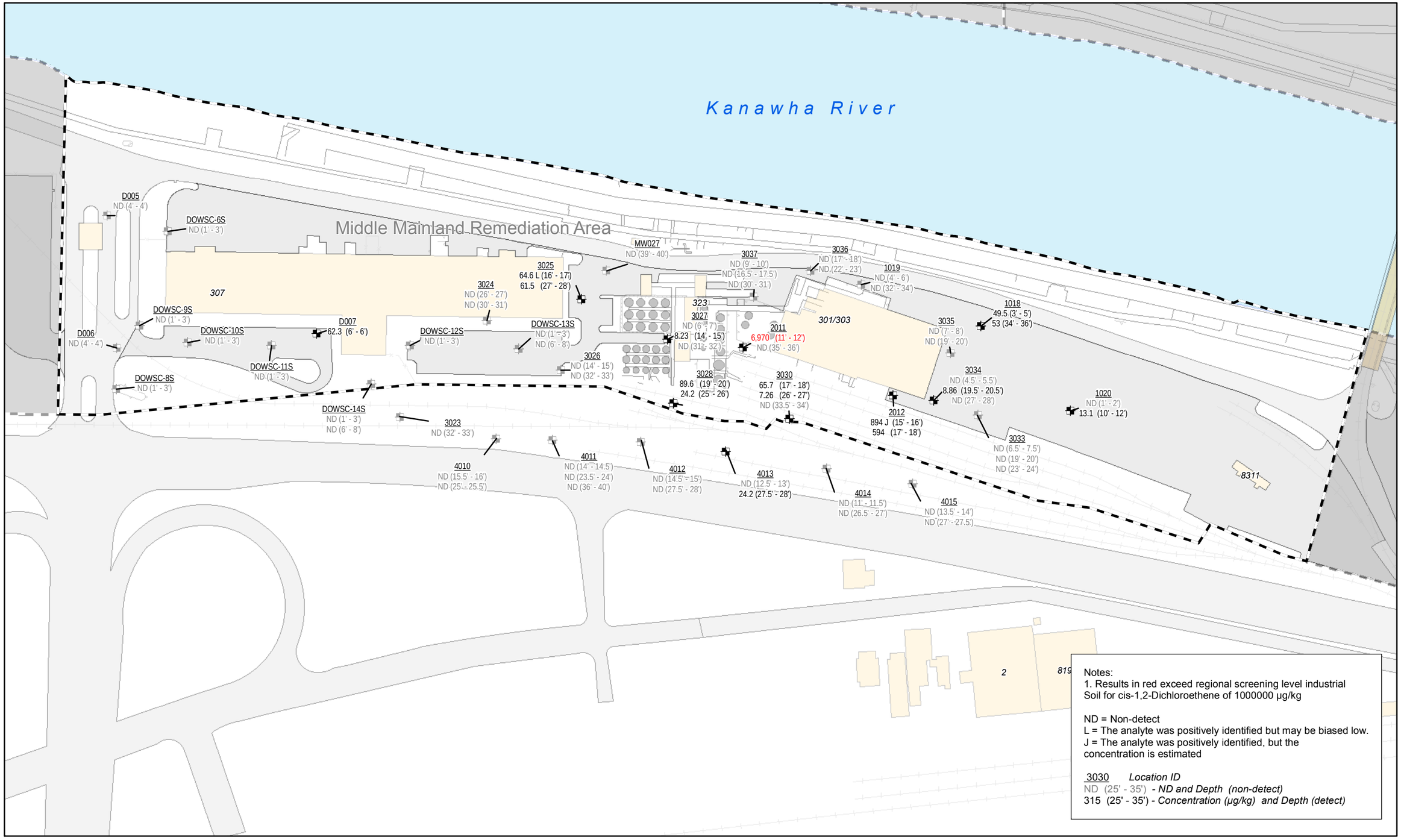
0 125 250
Feet

Soil Sample Locations - Detect 586 Buildings
Soil Sample Locations - ND

Figure 5
Trichloroethene in Soil
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

CH2MHILL

G-SCF-00385.MXD



Notes:
1. Results in red exceed regional screening level industrial Soil for cis-1,2-Dichloroethene of 1000000 µg/kg

ND = Non-detect
L = The analyte was positively identified but may be biased low.
J = The analyte was positively identified, but the concentration is estimated

3030 *Location ID*
ND (25' - 35') *- ND and Depth (non-detect)*
315 (25' - 35') *- Concentration (µg/kg) and Depth (detect)*

N

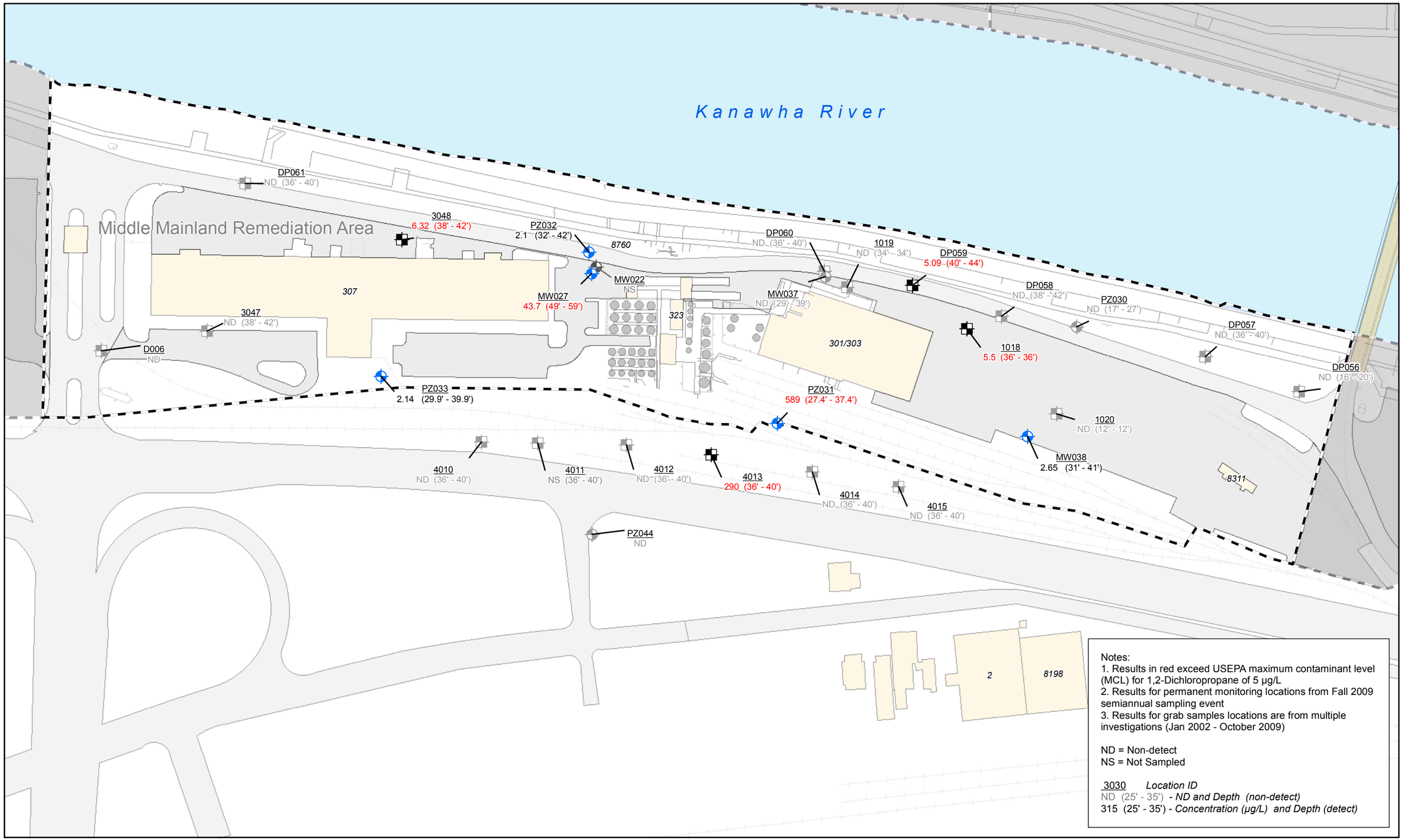
0 125 250
Feet

Soil Sample Locations - Detect 586 Buildings
Soil Sample Locations - ND

G-SCF-00386.MXD

Figure 6
cis-1,2-Dichloroethene in Soil
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

CH2MHILL



Notes:
1. Results in red exceed USEPA maximum contaminant level (MCL) for 1,2-Dichloropropane of 5 µg/L
2. Results for permanent monitoring locations from Fall 2009 semiannual sampling event
3. Results for grab samples locations are from multiple investigations (Jan 2002 - October 2009)

ND = Non-detect
NS = Not Sampled

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non-detect)*
315 (25' - 35') - *Concentration (µg/L) and Depth (detect)*

N
0 125 250
Feet

Permanent Monitoring Locations - Detect
Permanent Monitoring Locations - ND
Permanent Monitoring Locations - NS
Grab Sample Locations - Detect
Grab Sample Locations - ND
586 Buildings

Figure 7
1,2-Dichloropropane in Groundwater
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

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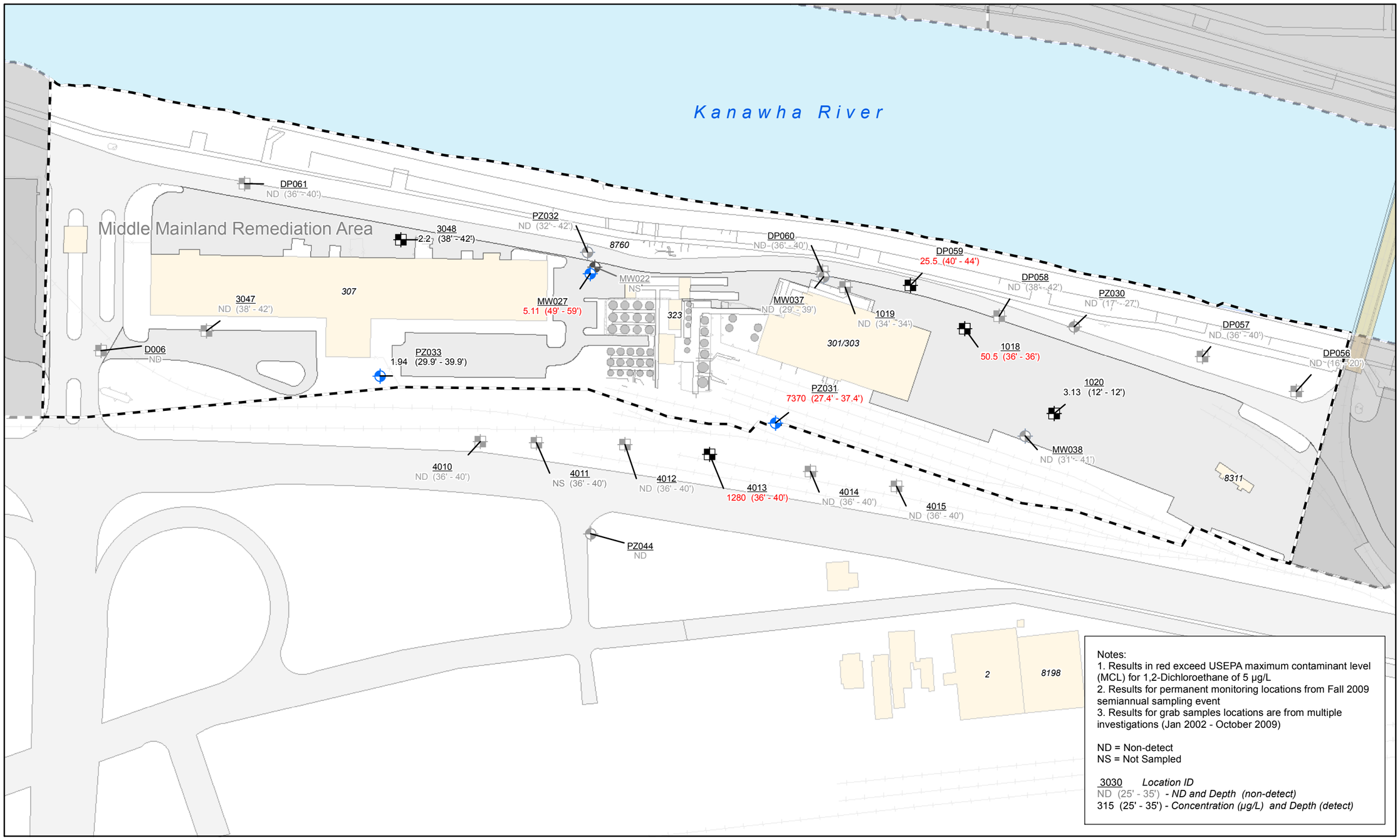
G-SCF-00387.MXD



G-SCF-00388.MXD

Figure 8
1,2 -Dichloroethane in Groundwater
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

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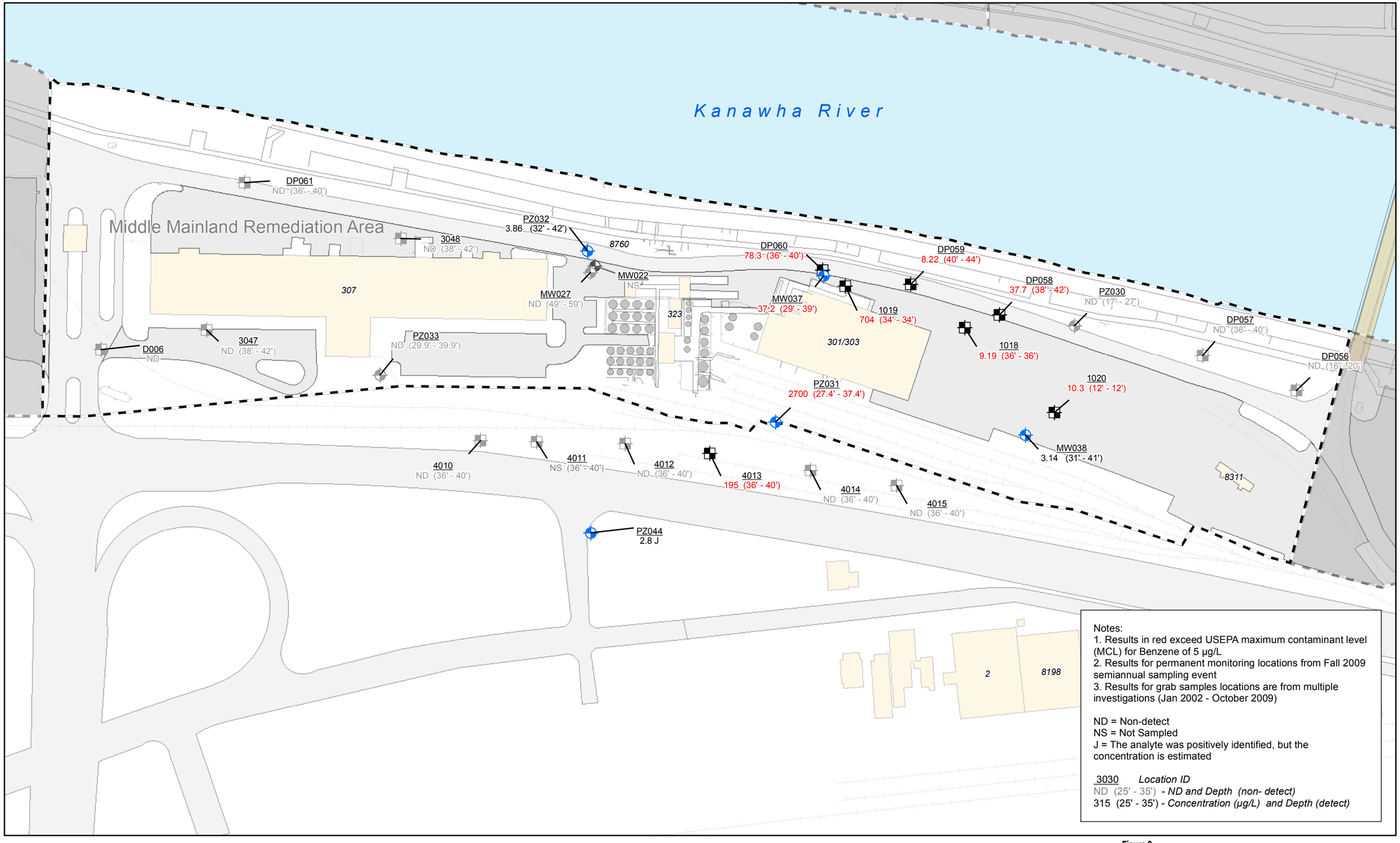

Notes:
1. Results in red exceed USEPA maximum contaminant level (MCL) for Benzene of 5 µg/L
2. Results for permanent monitoring locations from Fall 2009 semiannual sampling event
3. Results for grab samples locations are from multiple investigations (Jan 2002 - October 2009)

ND = Non-detect
NS = Not Sampled
J = The analyte was positively identified, but the concentration is estimated

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non- detect)*
315 (25' - 35') - *Concentration (µg/L) and Depth (detect)*

N

0 125 250
Feet

Permanent Monitoring Locations - Detect
Permanent Monitoring Locations - ND
Permanent Monitoring Locations - NS
Grab Sample Locations - Detect
Grab Sample Locations - ND
586 Buildings

Figure 9
Benzene in Groundwater
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

CH2MHILL

G-SCF-00389.MXD

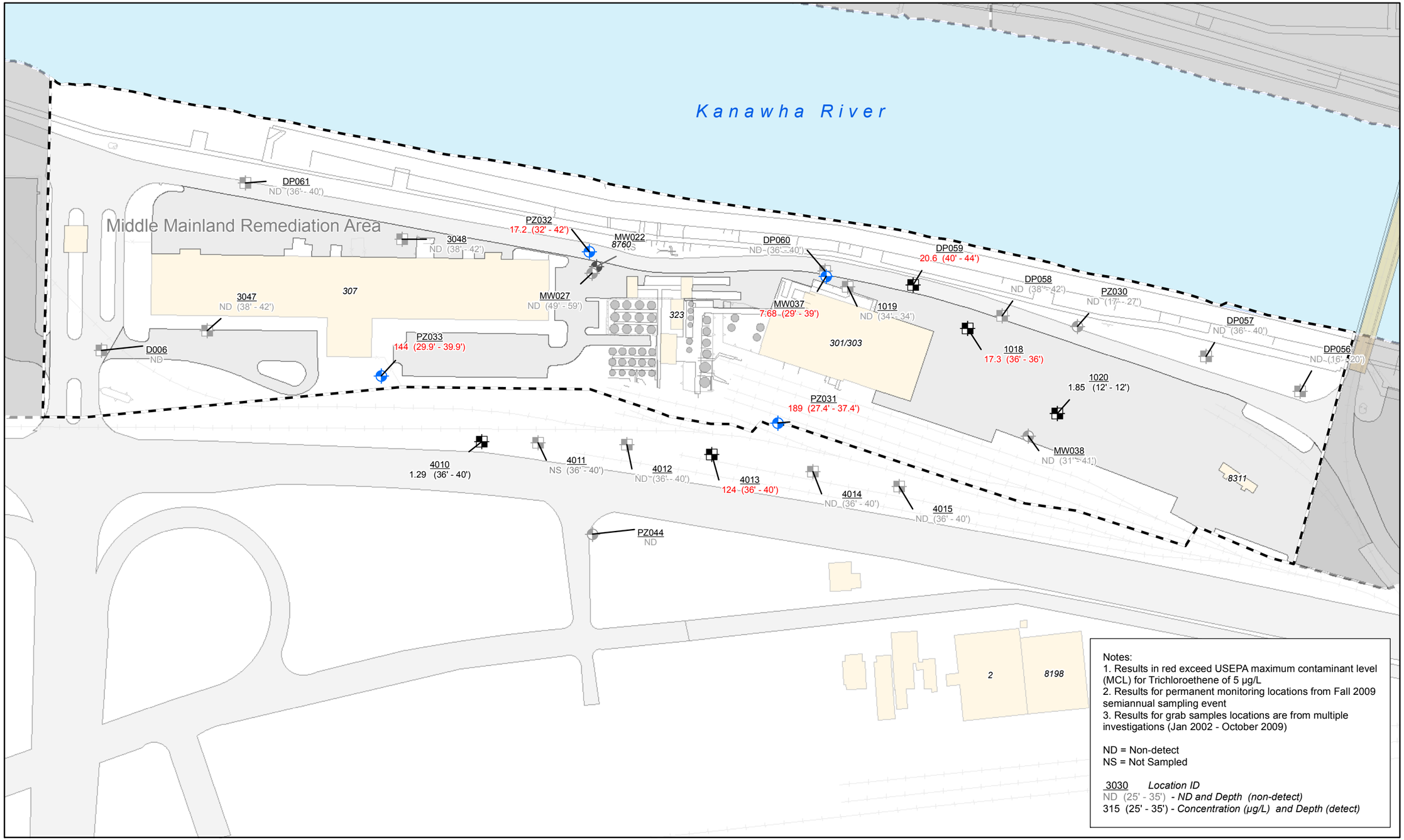

Figure 10
Trichloroethene in Groundwater
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

CH2MHILL

G-SCF-00390.MXD

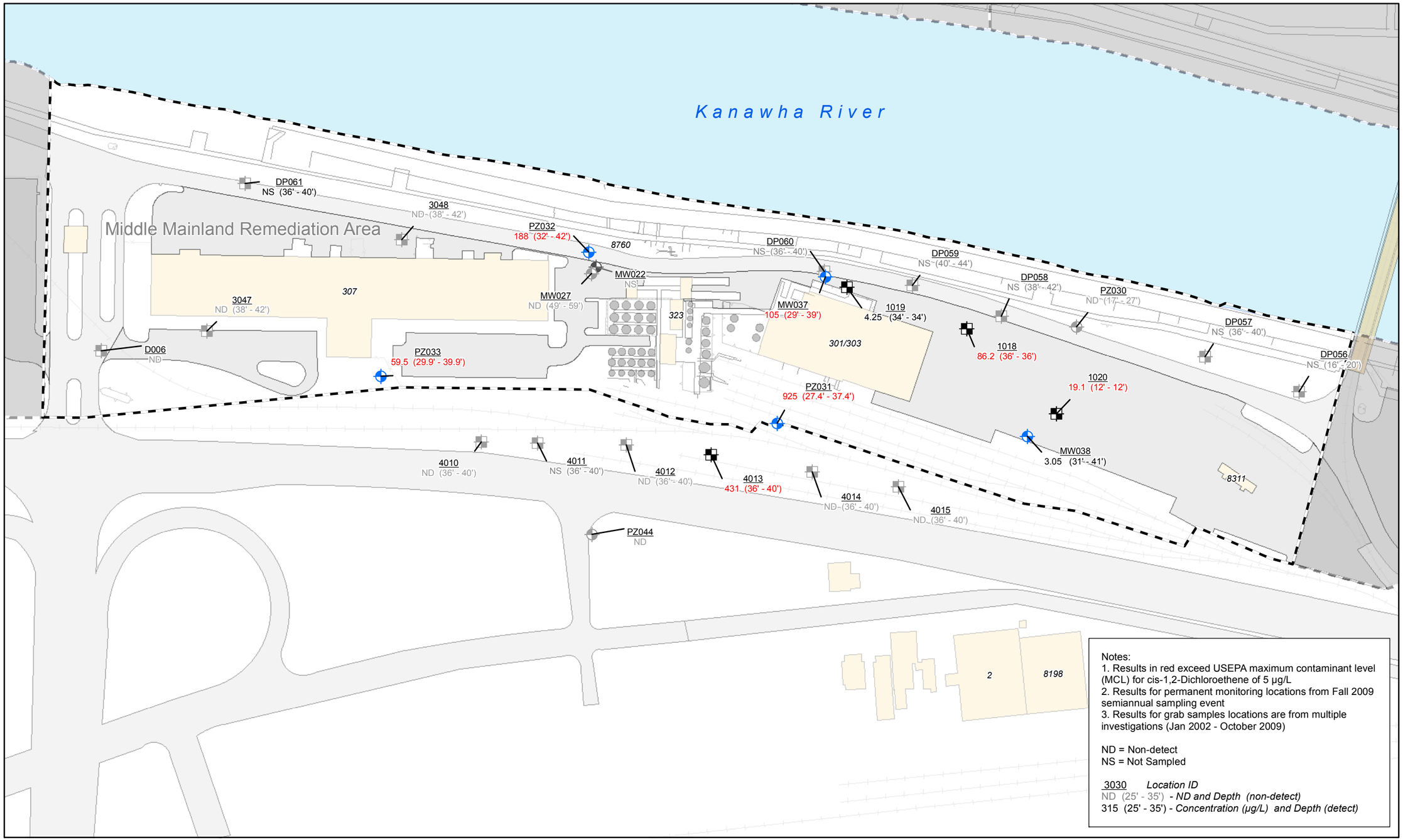

Figure 11
cis-1,2-Dichloroethene in Groundwater
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

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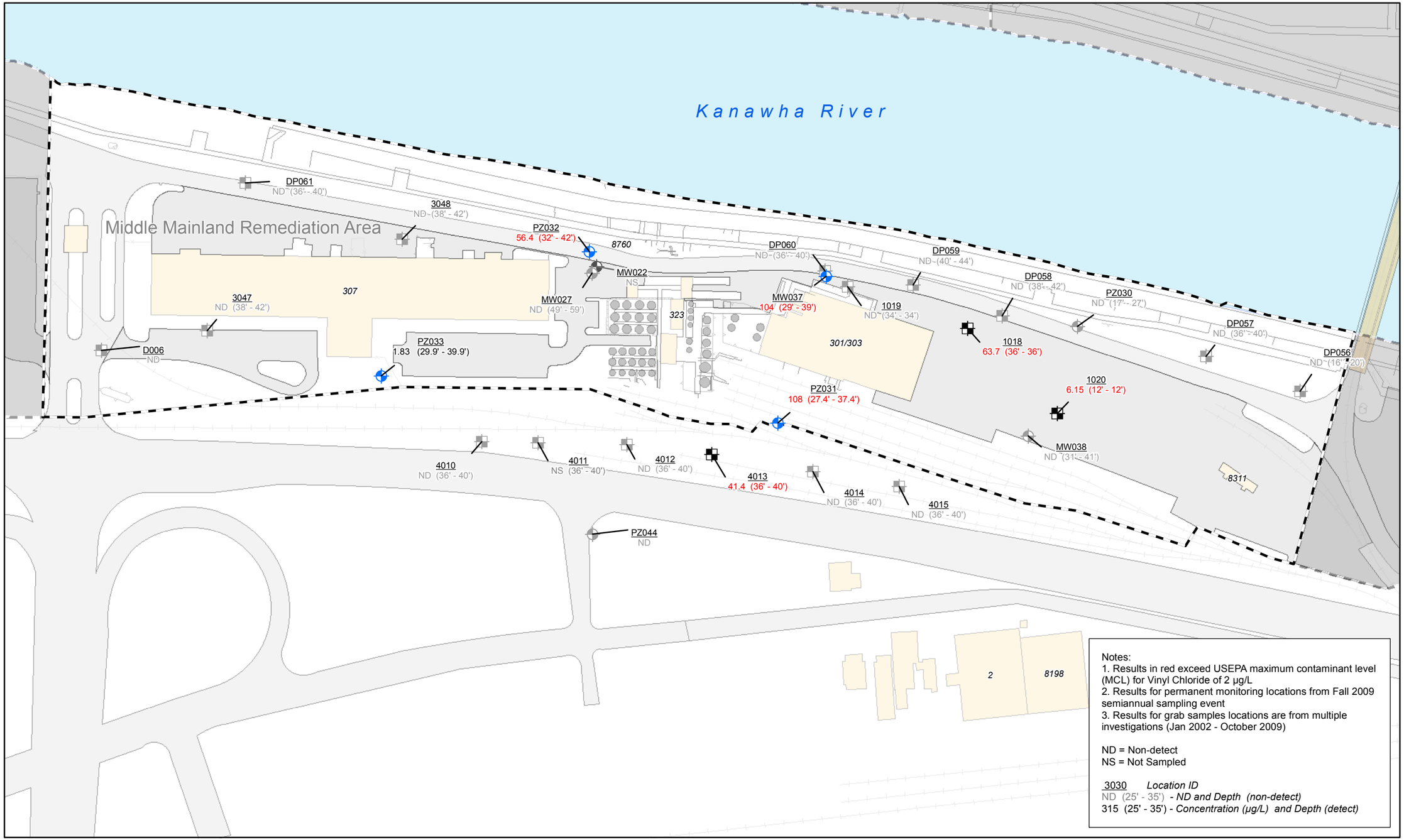
G-SCF-00391.MXD



Notes:
1. Results in red exceed USEPA maximum contaminant level (MCL) for Vinyl Chloride of 2 µg/L
2. Results for permanent monitoring locations from Fall 2009 semiannual sampling event
3. Results for grab samples locations are from multiple investigations (Jan 2002 - October 2009)

ND = Non-detect
NS = Not Sampled

3030 *Location ID*
ND (25' - 35') - *ND and Depth (non-detect)*
315 (25' - 35') - *Concentration (µg/L) and Depth (detect)*

N
0 125 250
Feet

Permanent Monitoring Locations - Detect
Permanent Monitoring Locations - ND
Permanent Monitoring Locations - NS
Grab Sample Locations - Detect
Grab Sample Locations - ND
586 Buildings

Figure 12
Vinyl Chloride in Groundwater
UCC South Charleston Facility Middle Mainland Remediation Area
Pre-design Investigation
South Charleston, West Virginia

G-SCF-00392.MXD

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Attachment 1
Boring Logs

PROJECT NUMBER:	BORING NUMBER:	
383505	3023	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 5/1/08 11:20 — END : 5/1/08 13:05 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Topsoil 0.0-0.5' - brown with grass			FID
				Gravel (GP) 0.5-3.0' - black, moist, poorly sorted, not native material		0	0
		5.0 5.0	MC			0	0
				Silty Clay (CL) 3.0-5.0' - brown, moist, semi-soft, reddish brown modeling		0	2
5	5.0					0	1
				Silty Clay (CL) 5.0-8.0' - Same as 3.0-5.0'		0	0
						0	0
		5.0 5.0	MC			0	0
				Sandy Clay (CL) 8.0-10.0' - brown, moist, semi-stiff, little silt		0	0
10	10.0					0	0
				Sandy Clay (CL) 10.0-14.5' - Same as 8.0-10.0'		0	0
						0	0
		5.0 5.0	MC			0	0
						0	0
15	15.0			**Clayey Sand (SC)** 14.5-15.0' - brown, soft, fine grained, poorly sorted		0	0
				Clayey Sand (SC) 15.0-16.0' - Same as 14.5-15.0'		0	0
				Sandy Clay (CL) 16.0-18.0' - brown, moist, soft, little silt		0	0
		5.0 5.0	MC			0	0
				Clayey Sand (SC) 18.0-19.5' - brown, moist, fine grained		0	0
20	20.0					0	0

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PROJECT NUMBER: 383505	BORING NUMBER: 3023 SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 5/1/08 11:20 — END : 5/1/08 13:05 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Sand (SP)** 19.5-20.0' - light brown, slightly moist, fine grained, poorly sorted		0	0
				Sand (SP) 20.0-22.0' - Same as 19.5-20.0'		0	0
		2.0 / 5.0	MC	22.0-25.0' - no recovery			
25	25.0						
		0.0 / 5.0	MC	25.0-30.0' - no recovery sample lost because sleeve stuck in sampler			at 25.0' - could not get sleeve out of sampler will have to do with 4' intervals
30	30.0						
		4.0 / 4.0	MC	**Sand (SP)** 30.0-33.0' - Same as 19-5-20.0' except little black staining		0	0
						0	Soil Sample: 3023-SO01-050108 taken at 32.0-33.0' for VOC and SVOC
						0	water at 33.0'
	34.0			**Sand (SP)** 33.0-34.0' - light brown, wet, fine to medium grained, poorly sorted		0	0 1
				Bottom of Boring at 34.0 ft below ground surface			
35						0	4
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3024	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/28/08 15:30 — END : 4/28/08 16:50 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Topsoil 0.0-1.0'		0	FID
				Silty Clay (CL) 1.0-5.0' - brown, slightly moist, stiff, compact		0	0
		5.0/5.0	MC			0	0
						0	0
5	5.0					0	0
				Silty Clay (CL) 5.0-10.0' - Same as 1.0-5.0' except little sand		0	1
		5.0/5.0	MC			0	0
						0	0
						0	0
10	10.0					0	0
				Silty Clay (CL) 10.0-12.5' - Same as 1.0-5.0'		0	0
		5.0/5.0	MC			0	0
				Sandy Clay (CL) 12.5-15.0' - brown, moist, soft, compact, little silt		0	0
						0	0
15	15.0					0	0
				Sandy Clay (CL) 15.0-17.5' - Same as 12.5-15.0'		0	0
						0	0
		3.0/5.0	MC	**Sand (SP)** 17.5-18.0' - brown, moist, fine grained, poorly sorted		0	
				18.0-20.0' - no recovery		0	
20	20.0					0	

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PROJECT NUMBER: 383505	BORING NUMBER: 3024 SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/28/08 15:30 — END : 4/28/08 16:50 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Sand (SP)** 20.0-23.0' - Same as 17.5-18.0'		0 0	0 0 0
		3.0 5.0	MC				0
				23.0-25.0' - no recovery			
25	25.0						
		3.0 5.0	MC	**Sand (SP)** 25.0-28.0' - light brown, moist, poorly sorted, orangish black staining at 26.0'		0 0 0	0 0 0 3024-SO01-042808 taken at 26.0-27.0' for VOC and SVOC
				28.0-30.0' - no recovery			
30	30.0						
		3.5 3.5	MC	**Silt (ML)** 30.0-30.5' - gray, soft, black staining **Sand (SP)** 30.5-33.5' - light reddish brown, moist, poorly sorted		0 0 0	3024-SO02-042808 taken at 30.0-31.0' for VOC and SVOC 8 4 2
	33.5			Bottom of Boring at 33.5 ft below ground surface			Hit refusal at 33.5' - medium grain SS chunk in shoe
35							
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3025	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 5/1/08 09:40 — END : 5/1/08 10:45 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Fill 0.0-3.0' - asphalt and gravel		FID 0	FID 0
		5.0 5.0	MC			0	0
						0	0
				Silt (ML) 3.0-5.0' - gray, slightly moist, soft, little clay		0	8
5	5.0					0	10
				Silt (ML) 5.0-7.0' - Same as 3.0-5.0'		0	10
						0	8
		5.0 5.0	MC	**Silty Clay (CL)** 7.0-10.0' - brown, moist, semi stiff, little sand		0	6
						0	4
10	10.0					0	4
				Silty Clay (CL) 10.0-13.0' - Same as 7.0-10.0'		0	2
						3	2
		3.0 5.0	MC			0	0
				13.0-15.0' - no recovery			0
15	15.0						
				Silty Clay (CL) 15.0-17.0' - Same as 7.0-10.0'		6.5	15
						12	25 3025-SO01-050108 MS/MSD taken at 16.0-17.0' for VOC and SVOC
		5.0 5.0	MC	**Sandy Clay (CL)** 17.0-19.0' - brown, moist, semi soft, little silt		8	18
						6	18
				Clayey Sand (SC) 19.0-20.0' - moist, soft, fine grained, poorly sorted		2	12
20	20.0						

PROJECT NUMBER:	BORING NUMBER:	
383505	3025	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 5/1/08 09:40 | END : 5/1/08 10:45 | LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Clayey Sand (SC)**			
				20.0-23.0' - Same as 19.0-20.0' except wet		0	4
						0	3
		5.0/5.0	MC			0	2
				Sand (SP)			
				23.0-25.0' - light brown, moist, fine grained, poorly sorted		0	1
25	25.0					0	1
				Sand (SP)			
				25.0-28.0' - Same as 23.0-25.0'		0	50
						0	60
		3.0/5.0	MC			0	3025-SO02-050108 taken at 27.0-28.0' for VOC and SVOC 200
				28.0-30.0' - no recovery			
30	30.0						
				30.0-32.0' - no recovery			End boring at 32' - hit refusal - SS chunk in shoe when pulled
		0.0/2.0	MC				
	32.0						
				Bottom of Boring at 32.0 ft below ground surface			
35							
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3026	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/28/08 10:10 — END : 4/28/08 11:55 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Topsoil 0.0-2.5' - brown			FID
		5.0 5.0	MC			0	0
				Gravelly Clay (CL) 2.5-5.0' - brown, moist, semi soft, loose		0	0
						0	0
5	5.0					0	0
				Clay (CL) 5.0-10.0' - light brown, moist, semi stiff, little silt, gray and black modeling		0	0
		5.0 5.0	MC			0	0
						0	0
						0	1
10	10.0					0	.8
				Clay (CL) 10.0-13.0' - Same as 5.0-10.0'		0	10
		5.0 5.0	MC			0	14
						0	
				Sandy Clay (CL) 13.0-15.0' - light brown, moist, soft, little silt, gray modeling		0	26
15	15.0					0.1	34 3026-SO01-042508 taken at 14.0-15.0' for VOC and SVOC
				Sandy Clay (CL) 15.0-20.0' - Same as 13.0-15.0'		0	14
		5.0 5.0	MC			0	
						0	8
						0	4
20	20.0					0	3

PROJECT NUMBER:	BORING NUMBER:	
383505	3026	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/28/08 10:10 — END : 4/28/08 11:55 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Sandy Clay (CL)** 20.0-24.0' - Same as 15.0-20.0'		0	0
						0	0
		5.0/5.0	MC			0	2
						0	0
				Sand (SP) 24.0-25.0' - light brown, moist, loose, fine grained, poorly sorted		0	0
25	25.0			**Sand (SP)** 25.0-28.0' - Same as 24.0-25.0'		0	0
						0	2
		3.0/5.0	MC			1	0
				28.0-30.0' - no recovery		1.2	0
30	30.0			**Sand (SP)** 30.0-33.0' - Same as 24.0-25.0'		0.5	0
						0.8	3
		4.0/5.0	MC			2.2	8 3026-SO02-042808 taken at 32.0-33.0' for VOC and SVOC
				Sand (SP) 33.0-34.0' - reddish brown, wet, fine to medium grained, poorly sorted		1.7	0 water at 33.0'
				34.0-35.0' - no recovery			
35	35.0			Bottom of Boring at 35.0 ft below ground surface			
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3027	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/28/08 13:50 — END : 4/28/08 15:00 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Fill 0.0-2.0' - asphalt		0	FID
						0	0
		5.0 5.0	MC	**Gravelly Clay (CL)** 2.0-5.0' - dark gray, moist, semi stiff, little silt		0	0
						0	5
5	5.0					0	12
				Clay (CL) 5.0-6.0' - light gray, moist, soft, little silt		0	88
				Silty Clay (CL) 6.0-10.0' - light brown, moist, semi stiff, little sand		0	3027-SO01-042808 taken at 6.0-7.0' for VOC and SVOC 210
		5.0 5.0	MC			0	147
						0	140
10	10.0					0	
				Silty Clay (CL) 10.0-12.0' - Same as 6.0-10.0'		0	160
						0	210
		5.0 5.0	MC	**Sandy Clay (CL)** 12.0-15.0' - brown, moist, semi stiff, fine grained		0	400
						0	1040
15	15.0					0	3027-SO02-042808 taken at 14.0-15.0' for VOC and SVOC
				Sandy Clay (CL) 15.0-17.5' - Same as 12.0-15.0'		0	480
						0	320
		5.0 5.0	MC	**Clayey Sand (SC)** 17.5-20.0' - reddish brown, slightly moist, fine grained, poorly sorted		0	600
20	20.0					0	800

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PROJECT NUMBER:	BORING NUMBER:	
383505	3027	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/28/08 13:50 — END : 4/28/08 15:00 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Clayey Sand (SC)** 20.0-22.5' - Same as 17.5-20.0'		0	400
						1.2	98
		4.0/5.0	MC	**Sand (SP)** 22.5-24.0' - light grayish brown, moist, poorly sorted, some silt		3	130
						2.7	600
				24.0-25.0' - no recovery			
25	25.0					0	
				Sand (SP) 25.0-28.0' - Same as 22.5-24.0' except some reddish orange and black staining		0	120
						2.1	160
		3.0/5.0	MC			3.5	180
				28.0-30.0' - no recovery			
30	30.0						
				Sand (SP) 30.0-35.0' - Same as 22.5-24.0' except some gravel at 32.0'		9.9	200
							3027-SO03-042808 taken at 31.0-32.0' for VOC and SVOC
						24	600
		5.0/5.0	MC			13	800
						9	750
							water at 34.0'
35	35.0					6	600
				Bottom of Boring at 35.0 ft below ground surface			
40							

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	3028	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/30/08 15:50 — END : 4/30/08 17:00 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Fill 0.0-2.0' - asphalt and gravel			FID
						0	0
		5.0 5.0		**Gravelly Clay (CL)** 2.0-4.0' - light and dark gray, moist, stiff, little silt		2	12
						3	14
				Silty Clay (CL) 4.0-5.0' - gray, wet, semi soft, little gravel			
5	5.0					0	20
				Silty Clay (CL) 5.0-8.5' - Same as 4.0-5.0'		0	22
						0	7
		5.0 5.0				0	6
				Sandy Clay (CL) 8.5-10.0' - brown, moist, semi stiff, some silt, gray modeling		0	6
10	10.0					0	6
				Sandy Clay (CL) 10.0-15.0' - Same as 8.5-10.0'		0	10
						0	4
		5.0 5.0				0.2	3
						0	2
15	15.0					0	2
				Sandy Clay (CL) 15.0-18.0' - Same as 8.5-10.0'		0	20
						0	50
		5.0 5.0				1.7	60
				Clayey Sand (SC) 18.0-20.0' - brown, moist, soft, poorly sorted		3.8	60
20	20.0					5	3028-SO01-043008 taken at 19.0-20.0' for VOC and SVOC 14

PROJECT NUMBER:	BORING NUMBER:	
383505	3028	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/30/08 15:50 — END : 4/30/08 17:00 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0	3.0 / 5.0		**Sand (SP)** 20.0-23.0' - light reddish brown, slightly moist, fine to medium grained, poorly sorted		14 15 20	200 600 800
				23.0-25.0' - no recovery			
25	25.0	2.0 / 5.0		**Sand (SP)** 25.0-28.0' - light reddish brown, moist, very fine to medium grained, poorly sorted, little gravel		16 12 8	3028-SO02-043008 taken at 25.0-26.0' for VOC and SVOC 800 400 600
				28.0-30.0' - no recovery			
30	30.0	4.0 / 5.0		**Sand (SP)** 30.0-33.0' - Same as 25.0-28.0'		12 15 18	400 400 600
				Sand (SP) 33.0-34.0' - light gray, wet, medium to fine grained, poorly sorted		20	water at 33.0' 600
				34.0-35.0' - no recovery			
35	35.0			Bottom of Boring at 35.0 ft below ground surface			
40							

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	3030	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/30/08 11:05 — END : 4/30/08 15:20 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
		3.0 / 5.0		**Fill** 0.0-2.0' - asphalt and gravel		0	No FID readings - battery needs charged
				Gravelly Clay (CL) 2.0-3.0' - dark gray, wet, soft		0	
				3.0-5.0' - no recovery		0	
5	5.0						
		5.0 / 5.0		**Gravelly Clay (CL)** 5.0-6.0' - Same as 2.0-3.0'		0	
				Clayey Silt (ML-CL) 6.0-9.0' - gray, damp, very soft, little sand		0	
						0	
						0	
						0	
10	10.0			**Silty Clay (CL)** 9.0-10.0' - brown, moist, semi stiff, little sand		0	
		5.0 / 5.0		**Silty Clay (CL)** 10.0-14.0' - Same as 9.0-10.0'		0	
						0	
						0	S____ take collected from 12.0-15.0'
						0	3030-SO01-043008 taken for TOC and sub geo at 13.0-14.0'
				Sandy Clay (CL) 14.0-15.0' - light reddish brown, moist, semi stiff, little silt, gray modeling		0	
15	15.0						
		5.0 / 5.0		**Sandy Clay (CL)** 15.0-17.0' - Same as 14.0-15.0'		0	
						0.5	
				Clayey Sand (SC) 17.0-18.5' - reddish brown, moist, soft, fine grained		3.9	3030-SO01-043008 taken for VOC and SVOC at 17.0-18.0'
				Sand (SP) 18.5-20.0' - light reddish brown, moist, fine grained, poorly sorted, some silt		1.7	
20	20.0					0.8	

PROJECT NUMBER:	BORING NUMBER:	
383505	3030	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/30/08 11:05 — END : 4/30/08 15:20 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0	3.0 / 5.0		**Sand (SP)** 20.0-23.0' - Same as 18.5-20.0'		1.7 5.2 4.1	3030-SO02-043008 taken for TOC and sub geo at 22.0-23.0'
				23.0-25.0' - no recovery			
25	25.0	3.0 / 5.0		**Sand (SP)** 25.0-28.0' - Same as 18.5-20.0'		1.4 10.6 9.8	3030-SO02-043008 taken for VOC and SVOC at 26.0-27.0'
				28.0-30.0' - no recovery			
30	30.0	4.0 / 5.0		**Gravelly Sand (SW-SP)** 30.0-31.5' - light gray, moist, coarse grained, poorly sorted		1.7	
				Sand (SP) 31.5-33.5' - reddish brown, wet, fine to medium grained, poorly sorted, large SS chunks at 33.5'		2 3	water at 31.5' 3030-SO03-043008 for TOC and sub geo at 32.5-33.5'
				Silt (ML) 33.5-34.0' - purplish gray, moist, high plasticity, little sand		9.6	3030-SO03-043008 for VOC and SVOC at 33.5-34.0'
35	35.0			34.0-35.0' - no recovery			
				Bottom of Boring at 35.0 ft below ground surface			
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3033	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/16/08 14:00 — END : 4/16/08 16:30 — LOGGER : J. Meyer/MKE

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
		3.5 / 5.0	DP-1	**Fill** 0.0-4.0' - sand with gravel, gray, hard, dry, well graded		1.8	FID 0
5	5.0			**Silt (ML)** 4.0-5.0' - brown, dry, hard		1.8	0
		4.5 / 5.0	DP-2	**Silt (ML)** 5.0-10.0' - Same as 4.0-5.0'		0.1	12
10	10.0					0.1	2
		3.0 / 5.0	DP-3	**Lean Clay (CL)** 10.0-15.0' - brown, moist to wet, soft, sand, some silt		0.1	0
15	15.0					0.1	0
		5.0 / 5.0	DP-4	**Lean Clay (CL)** 15.0-17.5' - Same as 10.0-15.0'		0	5
20	20.0			**Sand (SP)** 17.5-20.0' - brown, dry, medium to fine grained, medium		0.5	60

CH2MHILL

PROJECT NUMBER: 383505	BORING NUMBER: 3033	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 4/16/08 14:00 | END : 4/16/08 16:30 | LOGGER : J. Meyer/MKE

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0	2.5/5.0	DP-5	**Sand (SP)** 20.0-25.0' - Same as 17.5-20.0'		0.1 0.2	1700 600
25	25.0	4.0/5.0	DP-6	**Sand (SP)** 25.0-30.0' - Same as 20.0-25.0'		0	810
30	30.0	3.5/5.0	DP-7	**Sand (SP)** 30.0-35.0' - Same as 25.0-30.0'		0	0
35	35.0			Bottom of Boring at 35.0 ft below ground surface			
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3034	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/17/08 09:30 — END : 4/17/08 11:00 — LOGGER : J. Meyer/MKE

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
		4.5/5.0	DP-1	**Fill** 0.0-4.5' - Gravel (GW) fine to medium grain			FID
						1.6	10
5	5.0			**Lean Clay (CL)** 4.5-5.0' - gray, moist, silt, medium		0	360
		5.0/5.0	DP-2	**Silt (ML)** 5.0-10.0' - gray, moist, clay, medium		1.3	
							270
						1.3	230
10	10.0						
		3.0/5.0	DP-3	**Silt (ML)** 10.0-15.0' - Same as 5.0-10.0'		1.1	340
						1.2	150
15	15.0						
		4.0/5.0	DP-4	**Silt (ML)** 15.0-19.0' - Same as 10.0-15.0'		1.1	130
				Sand (SP) 19.0-20.0' - gray, dry, fine grained, medium		1.1	690
20	20.0						

CH2MHILL

PROJECT NUMBER: 383505	BORING NUMBER: 3034	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 4/17/08 09:30 | END : 4/17/08 11:00 | LOGGER : J. Meyer/MKE

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0	2.5 / 5.0	DP-5	**Sand (SP)** 20.0-25.0' - Same as 19.0-20.0' except medium to fine grained		2	2000
25	25.0	3.0 / 5.0	DP-6	**Sand (SP)** 25.0-30.0' - Same as 20.0-25.0'		0.8	3800
30	30.0	3.5 / 5.0	DP-7	**Sand (SP)** 30.0-35.0' - Same as 25.0-30.0' except orange from 33.0-34.0', carbon-like laminae through-out		0.8 0.1	110 1500
35	35.0			Bottom of Boring at 35.0 ft below ground surface			
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3035	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/22/08 10:05 — END : 4/22/08 11:30 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Fill 0.0-2.0' - asphalt and gravel		0	FID
						0	0
		5.0 5.0	MC	**Clay (CL)** 2.0-3.0' - light brown, dry, crumbly, little gravel		0	0
				Clay (CL) 3.0-5.0' - dark gray, moist, stiff, little silt		0	0
5	5.0					0	
				Clay (CL) 5.0-6.5' - Same as 3.0-5.0'		0	
							56
				Silty Clay (ML-CL) 6.5-9.0' - gray, moist, semi hard		0	
		5.0 5.0	MC			0	3035-SO01-042208 taken at 7.0-8.0' for VOC and SVOC
						0	75
				Gravelly Clay (CL) 9.0-10.0' - black, wet, loose			0
10	10.0					0	
				Silty Clay (ML-CL) 10.0-11.5' - Same as 6.5-9.0'		0	
							62
				Gravelly Clay (CL) 11.5-12.5' - dark gray, dry, loose		0	
		5.0 5.0	MC				55
				Sandy clay (CL) 12.5-14.8' - light reddish brown, semi stiff, little silt		0	
							32
							10
15	15.0						
				Sand (SP) 14.8-15.0' - dark brown, fine to medium grained, poorly sorted		0	
				Sandy Silt (ML) 15.0-17.0' - light brown, soft, some sand			115
						0	
		5.0 5.0	MC	**Sand (SP-SM)** 17.0-19.0' - light grayish brown, moist, medium grained, poorly sorted		0	80
							100
						0	
				Silty Sand (SP-SM) 19.0-20.0' - dark gray, moist, fine to medium grained, poorly sorted			210
20	20.0					0	

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	3035	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 4/22/08 10:05 | END : 4/22/08 11:30 | LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0	5.0 / 5.0	MC	**Sand (SP)** 20.0-23.0' - gray, wet, medium grained, poorly sorted		0 0 0	3035-SO02-042208 taken at 19.0-20.0' for VOC and SVOC 100
25	25.0			**Sand (SP)** 23.0-25.0' - light brown, moist, fine grained, poorly sorted		0	150 300
		5.0 / 5.0	MC	**Sand (SP)** 25.0-30.0' - brown, wet, medium to fine grained, poorly sorted		0 0 0 0	water at 25.0' 200 180 300 150
30	30.0			Bottom of Boring at 30.0 ft below ground surface			
35							
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3036	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/22/08 13:50 — END : 4/22/08 15:00 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Fill 0.0-3.0' - asphalt and gravel		0	FID 0
						0	0
		5.0 / 5.0	MC			0	0
				Sandy Clay (CL) 3.0-5.0' - brown, slightly moist, hard, little silt		0	0
5	5.0					0	0
				Sandy Clay (CL) 5.0-7.0' - Same as 3.0-5.0'		0	0
						0.1	0
		4.0 / 5.0	MC	**Brick dust** 7.0-7.5' - red, maybe old foundation		0	0
				Silty Clay (CL) 7.5-9.0' - brown, moist, semi soft, little sand		0	0
				9.0-10.0' - no recovery		0	0
10	10.0						
				Silty Clay (CL) 10.0-15.0' - Same as 7.5-9.0'		0	0
						0	0
		5.0 / 5.0	MC			0	0
						0	0
						0	0
15	15.0						
				Silty Clay (CL) 15.0-19.0' - Same as 10.0-15.0'		0	18
						1.8	21
		5.0 / 5.0	MC			2.2	3036-SO01-042208 take at 17.0-18.0' for VOC and SVOC 87
						2.4	62
				Sand (SP-SC) 19.0-20.0' - light gray, moist, fine to medium grained, poorly sorted		1.8	59
20	20.0						

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	3036	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 4/22/08 13:50 | END : 4/22/08 15:00 | LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Silty Sand (SP-SM)** 20.0-23.0' - light gray, damp, fine grained, poorly sorted		0.3	103
						5.5	320
		4.0/5.0	MC			6	3036-SO02-042208 take at 22.0-23.0' for VOC and SVOC
				Sand (SP) 23.0-24.0' - light gray, damp, fine to medium grained, poorly sorted, little silt		7.7	203 200
				24.0-25.0' - no recovery			
25	25.0					5.6	180
				Sand (SP) 25.0-30.0' - Same as 23.0-24.0'		2.3	210
						1.2	80
		5.0/5.0	MC			1.1	64
						0.8	50
30	30.0					1.2	55
				Bottom of Boring at 30.0 ft below ground surface			
35							
40							

PROJECT NUMBER:	BORING NUMBER:	
383505	3037	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 4/22/08 15:40 — END : 4/22/08 16:50 — LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Fill 0.0-2.0' - concrete and asphalt		FID 0	
						0	0
		5.0 5.0	MC	**Gravelly Clay (CL)** 2.0-3.0' - black, wet, loose		3.4	18
				Silty Clay (CL) 3.0-5.0' - light brownish gray, moist, semi stiff		4.4	21
5	5.0					3	33
		5.0 5.0	MC	**Silty Clay (CL)** 5.0-10.0' - Same as 3.0-5.0'		21	184
						18	600
						15	800
						13	600
10	10.0					33	3037-SO01-042208 at 9.0-10.0' for VOC and SVOC 710
		4.0 5.0	MC	**Silty Clay (CL)** 10.0-14.0' - Same as 5.0-10.0'		19.5	480
						1.8	200
						5.3	184
						7.7	84
				14.0-15.0' - no recovery			340
15	15.0					12.3	500
		5.0 5.0	MC	**Silty Clay (CL)** 15.0-16.5' - Same as 3.0-5.0'		22	300
				Silty Sand (SM) 16.5-17.5' - light gray, wet, medium grained, poorly sorted		23	600 3037-SO02-042208 taken at 16.5-17.5' for VOC and SVOC
				Sand (SP-SM) 17.5-19.5' - light brown, moist, medium grained, poorly sorted		33	800
						61	700
20	20.0					9	650

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	3037	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 4/22/08 15:40 | END : 4/22/08 16:50 | LOGGER : K. Olness/SDO

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Silt (ML)** 19.5-20.0' - light gray, moist, soft, some sand		7	500
				Silt (ML) 20.0-22.5' - Same as 19.5-20.0'		22	400
		4.0/5.0	MC				200
				Sand (SP-SM) 22.5-24.0' - dark gray, moist, fine to medium grained, poorly sorted, some silt		18	500
						20	
				24.0-25.0' - no recovery			300
25	25.0					7	400
				Sand (SP-SM) 25.0-30.0' - Same as 22.5-24.0'		33	100
						22	67
		5.0/5.0	MC				300
						18	200
						20	
							110
30	30.0					13.3	45
				Sand (SP-SM) 30.0-34.0' - Same as 22.5-24.0'		23	3037-SO03-042208 taken at 30.0-31.0' for VOC and SVOC
							700
						16	600
		4.0/5.0	MC				
						14	420
							water at 32.5'
						13	300
				no recovery			
35	35.0					9	250
				Bottom of Boring at 35.0 ft below ground surface			
40							

CH2MHILL

PROJECT NUMBER: 383505	BORING NUMBER: 4010	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 10/29/09 13:30 — END : 10/29/09 14:45 — LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Gravel (GW) 0.0-2.0' - dark gray, moist, some sand and silt, some organics (wood)		0	
						0	
		2.0 5.0	MC-1	2.0-5.0'			
5	5.0						
				Gravelly Clay (CL) 5.0-6.5' - brownish gray, wet, medium stiff		0	
				Silty Clay (CL) 6.5-10.0' - grayish brown, moist, very stiff		0	
		5.0 5.0	MC-2			0	
						0	
						0	
10	10.0						
				Silty Clay (CL) 10.0-13.0' - grayish brown, wet, soft		0	
						0	
		3.0 5.0	MC-3			0	
				13.0-15.0' - no recovery			
15	15.0						
				Silty Clay (CL) 15.0-17.5' - grayish brown, wet, soft		0	
						0	
		5.0 5.0	MC-4	**Gravelly Clay (CL)** 17.5-18.0' - grayish brown, wet, very soft		0	
				Silty Clay (CL) 18.0-20.0' - grayish brown, moist, medium stiff		0	
20	20.0					0	

PROJECT NUMBER:	BORING NUMBER:	
383505	4010	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 10/29/09 13:30 | END : 10/29/09 14:45 | LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Silty Clay (CL)** 20.0-21.0' - grayish brown, moist, medium stiff		0	
				Clay (CL) 21.0-23.0' - grayish brown, moist, medium stiff		0	
		5.0 5.0	MC-5			0	
				Silty Sand (SM) 23.0-24.0' - brown, moist, medium dense		0	
				Sand (SW) 24.0-25.0' - brown, moist, medium dense, fine grained, well graded		0	
25	25.0			**Silty Sand (SM)** 25.0-26.0' - brown, moist, medium dense		0	
				Sand (SW) 26.0-27.0' - brown, moist, medium dense, medium grained, well graded		0	
		3.0 5.0	MC-6	**Silty Sand (SM)** 27.0-28.0' - brown, moist, dense		0	
				28.0-30.0' - no recovery			
30	30.0			**Silty Sand (SM)** 30.0-32.5' - brown, moist, medium dense		0	
						0	
		2.5 5.0	MC-7			0	
				32.5-35.0' - no recovery			
35	35.0			**Sand (SW)** 35.0-35.5' - brown, wet, medium dense, medium grained, well graded		0	
				Clay (CL) 35.5-36.0' - brown, wet, soft		0	
		2.5 5.0	MC-8	**Sand (SW)** 36.0-37.5' - brown, wet, medium dense, medium grained, well graded		0	
				37.5-40.0' - no recovery			
40	40.0						
				Bottom of Boring at 40.0 ft below ground surface			

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	4011	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 10/28/09 14:40 — END : 10/28/09 15:55 — LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
		2.5 / 5.0	MC-1	**Gravelly Clay (CL)** 0.0-0.5' - brown, moist, very stiff **Clayey Gravel (GC)** 0.5-2.0' - black, moist **Clay (CL)** 2.0-2.5' - brownish gray, moist, very stiff 2.5-5.0' - no recovery		0 0 0	
5	5.0						
		5.0 / 5.0	MC-2	**Clay (CL)** 5.0-5.5' - brownish gray, moist, stiff **Gravelly Clay (CL)** 5.5-7.0' - dark gray, moist, medium stiff **Silty Clay (CL)** 7.0-9.0' - grayish brown, moist, medium stiff **Silty Clay (CL)** 9.0-10.0' - grayish brown, moist, stiff		0 0 0 0 0	
10	10.0						
		5.0 / 5.0	MC-3	**Silty Clay (CL)** 10.0-11.0' - grayish brown, moist, medium stiff **Silty Clay (CL)** 11.0-15.0' - grayish brown, moist, very stiff		0 0 0 0 0	
15	15.0						
		3.5 / 5.0	MC-4	**Silty Clay (CL)** 15.0-15.5' - grayish brown, moist, very stiff **Gravelly Clay (CL)** 15.5-16.5' - grayish brown, moist, medium stiff **Silty Clay (CL)** 16.5-18.5' - grayish brown, moist, very stiff 18.5-20.0' - no recovery		0 0 0 0	
20	20.0						
		4.0 / 5.0	MC-5	**Silty Clay (CL)** 20.0-22.0' - grayish brown, moist, medium stiff **Silty Sand (SM)** 22.0-23.0' - brown, moist, medium dense **Sand (SW)** 23.0-24.0' - brown, moist, medium dense, fine grained, well graded 24.0-25.0' - no recovery		0 0 0 0	
25	25.0						

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	4011	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 10/28/09 14:40 | END : 10/28/09 15:55 | LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	25.0			**Sand (SW)** 25.0-25.5' - brown, moist, medium dense, fine grained, well graded		0	
				Sandy Clay (CL) 25.5-26.0' - brown, moist, medium stiff		0	
		4.0/5.0	MC-6	**Sand (SW)** 26.0-28.0' - brown, moist, medium dense, fine grained, well graded		0	
				28.0-30.0' - no recovery		0	
30	30.0						
				Sand (SW) 30.0-30.5' - brown, moist, loose, fine grained, well graded		0	
				Clayey Sand (SC) 30.5-31.5' - brownish gray, moist, medium dense, little gravel		0	
		2.5/5.0	MC-7	**Sand (SW)** 31.5-32.5' - brown, moist, medium dense, medium grained, little gravel		0	
				32.5-35.0' - no recovery			
35	35.0						
				Sand (SW) 35.0-38.5' - grayish brown, wet, medium dense, medium grained, well graded		0	
		5.0/5.0	MC-8			0	
						0	
				Silty Clay (CL) 38.5-39.5' - yellowish gray, wet, medium stiff		0	
40	40.0			**Sand (SW)** 39.5-40.0' - light brown, wet, medium dense, medium grained, well graded		0	
				Bottom of Boring at 40.0 ft below ground surface			
45							
50							

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	4012	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 10/29/09 08:25 — END : 10/29/09 09:30 — LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
		3.0 / 5.0	MC-1	**Clayey Gravel (GC)** 0.0-2.5' - dark gray, moist		0	
						0	
				Sandy Clay (CL) 2.5-3.0' - dark gray, moist, medium stiff		0	
				3.0-5.0' - no recovery			
5	5.0						
		3.5 / 5.0	MC-2	**Sandy Clay (CL)** 5.0-6.5' - brownish gray, moist, medium stiff		0	
				Silty Clay (CL) 6.5-8.5' - grayish brown, moist, very stiff		0	
						0	
				8.5-10.0' - no recovery		0	
10	10.0						
		5.0 / 5.0	MC-3	**Silty Clay (CL)** 10.0-10.5' - brownish gray, moist, medium stiff		0	
				Silty Sand (SM) 10.5-11.0' - dark gray, wet, medium dense		0	
				Silty Clay (CL) 11.0-12.0' - grayish brown, moist, medium stiff, little sand		0	
				Silty Clay (CL) 12.0-15.0' - grayish brown, moist, very stiff		0	
15	15.0					0	
		5.0 / 5.0	MC-4	**Silty Clay (CL)** 15.0-15.5' - grayish brown, moist, very stiff		0	
				Silty Clay (CL) 15.5-17.0' - gray, moist, medium stiff		0	
				Silty Clay (CL) 17.0-18.0' - grayish brown, moist, very stiff		0	
				Silty Sand (SM) 18.0-18.5' - dark gray, wet, medium dense		0	
				Silty Clay (CL) 18.5-20.0' - grayish brown, moist, very stiff		0	
20	20.0						
		5.0 / 5.0	MC-5	**Silty Clay (CL)** 20.0-23.5' - grayish brown, moist, medium stiff, little sand		0	
						0	
						0	
						0	
				Clayey Sand (SC) 23.5-24.5' - brown, moist, medium dense		0	
25	25.0					0	

PROJECT NUMBER:	BORING NUMBER:	
383505	4012	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 10/29/09 08:25 | END : 10/29/09 09:30 | LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	25.0			**Sand (SW)** 24.5-25.0' - moist, medium dense, fine grained, well graded		0	
				Sand (SW) 25.0-25.5' - moist, medium dense, fine grained, well graded		0	
		3.5 5.0	MC-6	**Silty Clay (CL)** 25.5-27.0' - grayish brown, moist, medium stiff, little sand		0	
				Sand (SW) 27.0-28.5' - moist, medium dense, fine grained, well graded		0	
30	30.0			28.5-30.0' - no recovery			
				Sand (SW) 30.0-30.5' - brown, moist, medium dense, medium grained, well graded		0	
		2.0 5.0	MC-7	**Clayey Sand (SC)** 30.5-32.0' - brown, moist, dense		0	
				32.0-35.0' - no recovery			
35	35.0			**Sand (SW)** 35.0-35.5' - brown, moist, medium dense, medium grained, well graded		0	
				Sandy Clay (CL) 35.5-36.5' - brown, moist, soft		0	
		5.0 5.0	MC-8	**Sand (SW)** 36.5-37.5' - wet, loose, medium grained, well graded		0	
				Silty Clay (CL) 37.5-39.5' - grayish brown, moist, medium dense		0	
40	40.0			**Sand (SW)** 39.5-40.0' - wet, medium dense, medium grained, well graded		0	
				Bottom of Boring at 40.0 ft below ground surface			
45							
50							

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	4013	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 10/28/09 09:20 | END : 10/28/09 10:50 | LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
		3.0 / 5.0	MC-1	**Gravel (GM)** 0.0-2.5' - black with some red, moist, some silt and sand		0 0	
				Sand (SW) 2.5-3.0' - brown, moist, medium dense, medium grained, well graded		0	
5	5.0			3.5-5.0' - no recovery			
		5.0 / 5.0	MC-2	**Clay (CL)** 5.0-6.0' - dark gray, moist, medium stiff, some sand and little gravel		0	
				Silty Clay (CL) 6.0-10.0' - brownish gray, moist, stiff		0 0 0 0	
10	10.0						
		5.0 / 5.0	MC-3	**Clay (CL)** 10.0-11.0' - dark gray, moist, medium stiff		0	
				Silty Clay (CL) 11.0-15.0' - brownish gray, moist, stiff		0 0 0 0	
15	15.0						
		3.5 / 5.0	MC-4	**Sandy Clay (CL)** 15.0-17.0' - brownish gray, moist, medium stiff		0 0	
				Clayey Sand (SC) 17.0-18.5' - brown, moist, dense		0	
20	20.0			18.5-20.0' - no recovery			
		4.0 / 5.0	MC-5	**Clayey Sand (SC)** 20.0-20.5' - brown, moist, medium dense		0	
				Sandy Clay (CL) 20.5-22.0' - brownish gray, moist, medium stiff		0	
				Silty Sand (SM) 22.0-24.0' - brown, moist, medium dense		0 0	
25	25.0			24.0-25.0' - no recovery			

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
383505	4013	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 10/28/09 09:20 | END : 10/28/09 10:50 | LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	25.0	3.0 / 5.0	MC-6	**Clayey Sand (SC)** 25.0-26.0' - brownish gray, moist, medium dense		0	
				Silty Sand (SM) 26.0-27.0' - brown, moist, medium dense		0	
				Silty Sand (SM) 27.0-28.0' - brown, moist, medium dense, some gravel		0	
				28.0-30.0' - no recovery			
30	30.0	2.5 / 5.0	MC-7	**Clayey Sand (SC)** 30.0-31.0' - brownish gray, moist, dense, some gravel		0	
				Gravelly Sand (SW) 31.0-32.0' - yellowish orange, moist, medium dense, well graded		0	
				Gravelly Sand (SW) 32.0-32.5' - gray, wet, medium dense, well graded			
				32.5-33.0' - no recovery			
35	35.0	4.5 / 5.0	MC-8	**Gravelly Sand (SW)** 33.0-35.5' - gray, wet, medium dense, trace clay		0	
				Sandy Clay (CL) 33.5-37.0' - brown, moist, medium stiff		0	
				Silty Clay (CL) 37.0-38.0' - gray, moist, stiff		0	
				Clayey Sand (SC) 38.0-39.0' - yellowish orange, wet, dense		0	
40	40.0			**Sand (SW)** 39.0-39.5' - brown, wet, medium dense, well graded			
				39.5-40.0' - no recovery			
				Bottom of Boring at 40.0 ft below ground surface			
45							
50							

PROJECT NUMBER:	BORING NUMBER:	
383505	4014	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 10/28/09 12:30 — END : 10/28/09 13:50 — LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Silty Gravel (GM) 0.0-1.5' - black, moist		0	
				Clayey Gravel (GC) 1.5-2.0' - grayish brown, moist		0	
		2.5 5.0	MC-1	**Clayey Gravel (GC)** 2.0-2.5' - black, moist 2.5-5.0' - no recovery		0	
5	5.0						
				Sandy Clay (CL) 5.0-6.0' - dark gray, moist, soft		0	
		1.0 5.0	MC-2	6.0-10.0' - no recovery			
10	10.0						
				Silty Clay (CL) 10.0-11.5' - brown with some black, moist, soft		0	
				Clay (CL) 11.5-12.5' - gray, moist, stiff		0	
		3.0 5.0	MC-3	**Sandy Clay (CL)** 12.5-13.0' - brown, moist, stiff 13.0-15.0' - no recovery		0	
15	15.0						
				Silty Sand (SM) 15.0-15.5' - brown, moist, medium dense		0	
				Silty Clay (CL) 15.5-16.0' - brownish gray, moist, soft			
				Silty Clay (CL) 16.0-17.0' - brown, moist, stiff		0	
		4.0 5.0	MC-4	**Silty Clay (CL)** 17.0-17.5' - brown, moist, soft		0	
				Clayey Sand (SC) 17.5-19.0' - brown, moist, dense		0	
				19.0-20.0' - no recovery			
20	20.0						

CH2MHILL

PROJECT NUMBER: 383505	BORING NUMBER: 4014 SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation | LOCATION : South Charleston Facility

ELEVATION : | DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- | START : 10/28/09 12:30 | END : 10/28/09 13:50 | LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Silty Sand (SM)** 20.0-20.5' - brown, moist, medium dense		0	
				Clay (CL) 20.5-22.5' - brownish gray, moist, soft		0	
		4.5 5.0	MC-5	**Clayey Sand (SC)** 22.5-23.5' - brown, moist, dense		0	
				Sand (SW) 23.5-24.5' - brown, moist, loose, fine grained, well graded		0	
25	25.0			24.5-25.0' - no recovery		0	
				Sand (SW) 25.0-25.5' - brown, moist, loose, fine grained, well graded		0	
				Clayey Sand (SC) 25.5-26.5' - brown, moist, medium dense		0	
		3.0 5.0	MC-6	**Sand (SW)** 26.5-28.0' - brown, moist, loose, fine grained, well graded		0	
				28.0-30.0' - no recovery			
30	30.0						
				Sand (SW) 30.0-30.5' - brown, moist, loose, medium grained, well graded		0	
				Clay (CL) 30.5-31.0' - brownish gray, moist, soft		0	
		3.0 5.0	MC-7	**Clayey Sand (SC)** 31.0-33.0' - brown, moist, medium dense		0	
				33.0-35.0' - no recovery			
35	35.0						
				Sand (SW) 35.0-37.0' - grayish brown, wet, medium dense, medium grained, well graded		0	
						0	
		2.0 5.0	MC-8	37.0-40.0' - no recovery			
40	40.0						
				Bottom of Boring at 40.0 ft below ground surface			

PROJECT NUMBER:	BORING NUMBER:	
383505	4015	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 10/29/09 10:30 — END : 10/29/09 11:40 — LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
				Clayey Gravel (GC) 0.0-2.0' - dark gray, moist		0 0	
		2.5 5.0	MC-1	**Silty Clay (CL)** 2.0-2.5' - dark gray, moist, soft 2.5-5.0' - no recovery		0	
5	5.0						
		5.0 5.0	MC-2	**Silty Clay (CL)** 5.0-9.0' - grayish brown, moist, very stiff		0 0 0 0	
				Clay (CL) 9.0-10.0' - grayish brown, moist, medium stiff		0	
10	10.0						
		5.0 5.0	MC-3	**Silty Clay (CL)** 10.0-13.0' - grayish brown, moist, very stiff		0 0 0	
				Clay (CL) 13.0-15.0' - grayish brown, moist, medium stiff, little silt		0 0	
15	15.0						
		3.5 5.0	MC-4	**Silty Sand (SM)** 15.0-16.0' - brown, moist, medium dense		0	
				Silty Clay (CL) 16.0-18.0' - grayish brown, moist, medium stiff		0 0	
				Silty Sand (SM) 18.0-18.5' - brown, moist, medium dense 18.5-20.0' - no recovery		0	
20	20.0						

PROJECT NUMBER:	BORING NUMBER:	
383505	4015	SHEET 2 OF 2

SOIL BORING LOG

PROJECT : Mainland Pre Design Investigation — LOCATION : South Charleston Facility

ELEVATION : — DRILLING CONTRACTOR : Subsurface

DRILLING METHOD AND EQUIPMENT : AMS 9500 VTR

WATER LEVELS : --- — START : 10/29/09 10:30 — END : 10/29/09 11:40 — LOGGER : B. Wachter/SCH

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)	RECOVERY (ft)	SAMPLER (TYPE)	SOIL DESCRIPTION: DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	20.0			**Silty Sand (SM)** 20.0-22.0' - brown, moist, medium dense		0 0	
		3.0 5.0	MC-5	**Clay (CL)** 22.0-22.5' - grayish brown, moist, medium stiff **Sand (SW)** 22.5-23.0' - brown, moist, medium dense, fine grained, well graded 23.0-25.0' - no recovery		0	
25	25.0						
		2.5 5.0	MC-6	**Sand (SW)** 25.0-25.5' - brown, moist, medium dense, fine grained, well graded **Clayey Sand (SC)** 25.5-26.5' - brown, moist, dense **Sand (SW)** 26.5-27.5' - grayish brown, moist, medium dense, medium grained, well graded 27.5-30.0' - no recovery		0 0 0	
30	30.0						
		2.5 5.0	MC-7	**Sand (SW)** 30.0-30.5' - brown, moist, medium dense, medium grained, well graded **Clayey Sand (SC)** 30.5-31.5' - grayish brown, moist, dense **Silty Sand (SW)** 31.5-32.5' - brown, moist, medium dense 32.5-35.0' - no recovery		0 0 0	
35	35.0						
		3.0 5.0	MC-8	**Clayey Sand (SC)** 35.0-35.5' - grayish brown, wet, medium dense **Sand (SW)** 35.5-38.0' - wet, medium dense, medium grained, well graded 38.0-40.0' - no recovery		0 0 0	
40	40.0						
				Bottom of Boring at 40.0 ft below ground surface			

Attachment 2

Geotechnical Report

KEMRON
ENVIRONMENTAL SERVICES

1359-A Ellsworth Industrial Blvd • Atlanta, GA 30318 • TEL 404-636-0928 • FAX 404-636-7162

May 22, 2008

Kathy Albertson
Microbac Laboratories, Inc.
Ohio Valley Division
158 Starlite Drive
Marietta, Ohio 45750
(800) 373-4071

Re: Final Letter Report
South Charleston
Project #SE-0254

Dear Ms. Albertson:

Enclosed, please find the testing results for the South Charleston Geotechnical testing KEMRON recently completed. The following samples were received on April 17, 2008 and April 18, 2008 for testing:

- 3016-S003-041008
- 3016-S005-041008
- 3006-S002-041408
- 3002-S003-041508
- 3033-S004-041608
- 3003-S004-041508
- 3016-S004-041008
- 3006-S001-041408
- 3006-S003-041408
- 3033-S002-041608
- 3033-S006-041608
- 3016-S006-041208

This letter report includes a summary of the testing results, supporting laboratory data and the sample chain of custody. The following tests were completed for the samples referenced above:

- Solid Specific Gravity ASTM D 854
- Dry Bulk Density – ASTM D5057
- Hydraulic Conductivity – ASTM D5084
- Particle Size Analysis ASTM D422

KEMRON Environmental Services, Inc. appreciates this opportunity to provide laboratory services. If you have any questions, or require additional information, please contact me at (404) 636-0928.

Sincerely,

KEMRON Environmental Services, Inc.

Kelly M. Clemons
Program Manager

Attachments

SUMMARY DATA TABLES

SOUTH CHARLESTON GEOTECH
CH2MHILL

TABLE 1
SUMMARY OF TESTING

PARTICLE SIZE ANALYSIS - ASTM D422
DRY BULK DENSITY ASTM D2937
SPECIFIC GRAVITY - ASTM D854

SAMPLE ID	SAMPLE Description	Particle Size Analyses				Density Determination		Specific Gravity at 20C
		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Bulk (pcf)	Dry (pcf)	
3016-S004-041008	Sand	0.0	87.2	8.4	4.4	84.2	79.8	2.68
3002-S003-041508	Clayey,silty, sand	5.2	39.8	34.2	20.8	128.4	106.1	2.70
3006-S002-041408	Sand	0.0	84.5	10.2	5.3	89.9	84.2	2.68
3006-S003-041408	Sand	1.5	84.0	9.0	5.5	116.0	99.4	2.67
3033-S004-041608	Sand	0.0	77.6	13.0	9.4	95.2	85.5	2.72
3033-S006-041608	Sand	0.4	81.2	8.5	9.9	109.9	96.6	2.70
3016-S003-041008	Clayey, sandy, silt	0.0	23.3	49.2	27.5	126.5	105.1	2.71
3033-S002-041608	Clayey, sandy, silt	0.0	35.0	41.5	23.5	127.2	105.4	2.69
3006-S001-041408	Clayey,silty, sand	0.0	42.1	36.2	21.7	119.1	99.8	2.69
3016-S005-041008	Sand	0.0	81.1	11.1	7.8	127.4	108.1	2.71

SOUTH CHARLESTON GEOTECH

CH2MHILL

TABLE 2

FALLING HEAD PERMEABILITY TESTING RESULTS - ASTM D5084

SAMPLE #	HYDRAULIC CONDUCTIVITY			
	Initial Moisture Content (%)	Initial Bulk Density (lbs/ft^3)	Initial Dry Density (lbs/ft^3)	Permeability (k) (cm/sec)
3016-S006-041208	20.8	127.7	108.8	**6.40E-08**
3002-S004-041508	19.8	131.3	109.6	**1.10E-07**

CHAIN OF CUSTODY

COC No. A 79638

156 Starlite Drive
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Kemron Environmental Services, Inc.
South Charleston
Page 1 of 1

Company Name: CH2M Hill

Project Contact: Jeremy Meyer

Contact Phone #: 303-478-0717

Turn Around Requirements: Standard

Location: South Charleston, WV

Project ID: Dow - SCF
PO: 592987 PN: 367695.B5.FI

Sampler (print): Jeremy Meyer

Signature: Jeremy Meyer

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Grain Size	Dry Bulk Density	Specific Gravity	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
3016-S003-041008		X	4/10/08	1130	Soil	2		X	X	X		
3016-S004-041008		X		1145		2		X	X	X		
3016-S005-041008		X		1200		2		X	X	X		
3006-S001-041408		X	4/14/08	1210		2		X	X	X		
3006-S002-041408		X	4/14/08	1220		2		X	X	X		
3006-S003-041408		X	4/14/08	1230		2		X	X	X		
3002-S003-041508		X	4/15/08	1500		2		X	X	X		
3033-S002-041608		X	4/16/08	1515		2		X	X	X		
3033-S004-041608		X	4/16/08	1545		2		X	X	X		
3033-S006-041608		X	4/16/08	1610		1		X	X	X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Jeremy Meyer	4/16/08	1800	[signature]		4/17/08	1100	[signature]

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

COC No. A 81485

156 Starlite Drive
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Kemron Environmental Services, Inc.
South Charleston
Page 7 of 21

Company Name: H2M Hill

Project Contact: Jeremy Meyer

Contact Phone #: 303-478-0717

Turn Around Requirements: Standard

Location:

Project ID: P.O. 927090 PN: 367695.B5.FJ

Sampler (print): Jeremy Meyer

Signature: Jeremy Meyer

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	~~Porosity~~	Hydraulic Cond.	per Shane Lam	JMC 4/18/08	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
3002-S004-041508		X	04/15/08	1600	Soil			X	X				15-171
3016-S006-041208		X	04/12/08	1300	Soil			X					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Jeremy Meyer	4/17/08	1400			4/18/08	1248	[signature]

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page of

PHYSICAL PROPERTY DATA

PERMEABILITY ASTM D5084

SPECIMEN CONDITIONS

Page 1 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4816_PM
SAMPLE No.:	3002-S004-041508	EQUIPMENT No.:	3
TEST DATE:	2 May 2008		

MOISTURE CONTENT (Dry Basis)	***INITIAL***	***FINAL***
1. MOISTURE TIN NO.	3002-S004-041508	3002-S004-041508
2. WT MOISTURE TIN (tare weight)	0.00 ***g***	231.65 ***g***
3. WT WET SOIL + TARE	578.13 ***g***	796.10 ***g***
4. WT DRY SOIL + TARE	482.45 ***g***	714.10 ***g***
5. WT WATER, Ww	95.68 g	82.00 g
6. WT DRY SOIL, Ws	482.45 g	482.45 g
7. MOISTURE CONTENT, W	19.83 %	17.00 %

SOIL SPECIMEN DIMENSIONS				
TRIPLICATE	***DIAMETER***		***HEIGHT***	
ANALYSES	***INITIAL***	***FINAL***	***INITIAL***	***FINAL***
No. 1	***2.78 in.***	***2.79 in.***	***2.71 in.***	***2.69 in.***
No. 2	***2.80 in.***	***2.79 in.***	***2.72 in.***	***2.71 in.***
No. 3	***2.82 in.***	***2.82 in.***	***2.74 in.***	***2.72 in.***
Average	2.80 in.	2.80 in.	2.72 in.	2.71 in.

SPECIMEN CONDITIONS	***INITIAL***	***FINAL***
Specimen WT, Wo	***578.13 g***	***565.07 g***
Area, Ao	6.16 in^2	6.16 in^2
Volume, Vo	16.77 in^3	16.67 in^3
Bulk Unit Weight	131.3 lb/ft^3	129.2 lb/ft^3
Dry Unit Weight	109.6 lb/ft^3	110.4 lb/ft^3

PERMEABILITY ASTM D5084

BACK-PRESSURE SATURATION

Page 2 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4816_PM
SAMPLE No.:	3002-S004-041508	EQUIPMENT No.:	3
TEST DATE:	2 May 2008		

TEST	TIME	TESTED	TEST PRESSURES (psi)						
			APPLIED		PORE		PRESSURE CHANGE		
DATE	(military)	BY	CELL	BACK	SAT.	TEST	CELL	PORE	B-Value
05/02/08	17 : 35	SEM	7.0	5.0	5.6				
05/03/08	16 : 55	SEM	17.0	15.0	15.5	10.5	10.0	4.9	0.49
05/03/08	18 : 7	SEM	27.0	25.0	25.6	21.8	10.0	6.3	0.63
05/03/08	19 : 5	SEM	37.0	35.0	35.5	33.2	10.0	7.6	0.76
05/05/08	13 : 9	SEM	47.0	45.0	45.5	44.7	10.0	9.2	0.92
05/05/08	15 : 24	SEM	57.0	55.0	55.6	55.2	10.0	9.7	0.97
05/06/08	12 : 42	SEM	67.0	65.0	*	65.5	10.0	9.9	0.99
05/06/08	12 : 43	SEM	57.0	55.0	*	*	*	*	*

* Saturation check - no data available.

PERMEABILITY ASTM D5084

SPECIMEN CONSOLIDATION

Page 3 of 6

PROJECT:	South Charleston Geotech	SEM
PROJECT No.:	SE-0254	4816_PM
SAMPLE No.:	3002-S004-041508	3
TEST DATE:	2 May 2008	

CELL PRESSURE: 65 psi **BACK PRESSURE:** 55 psi **EFFECTIVE STRESS:** 10 psi

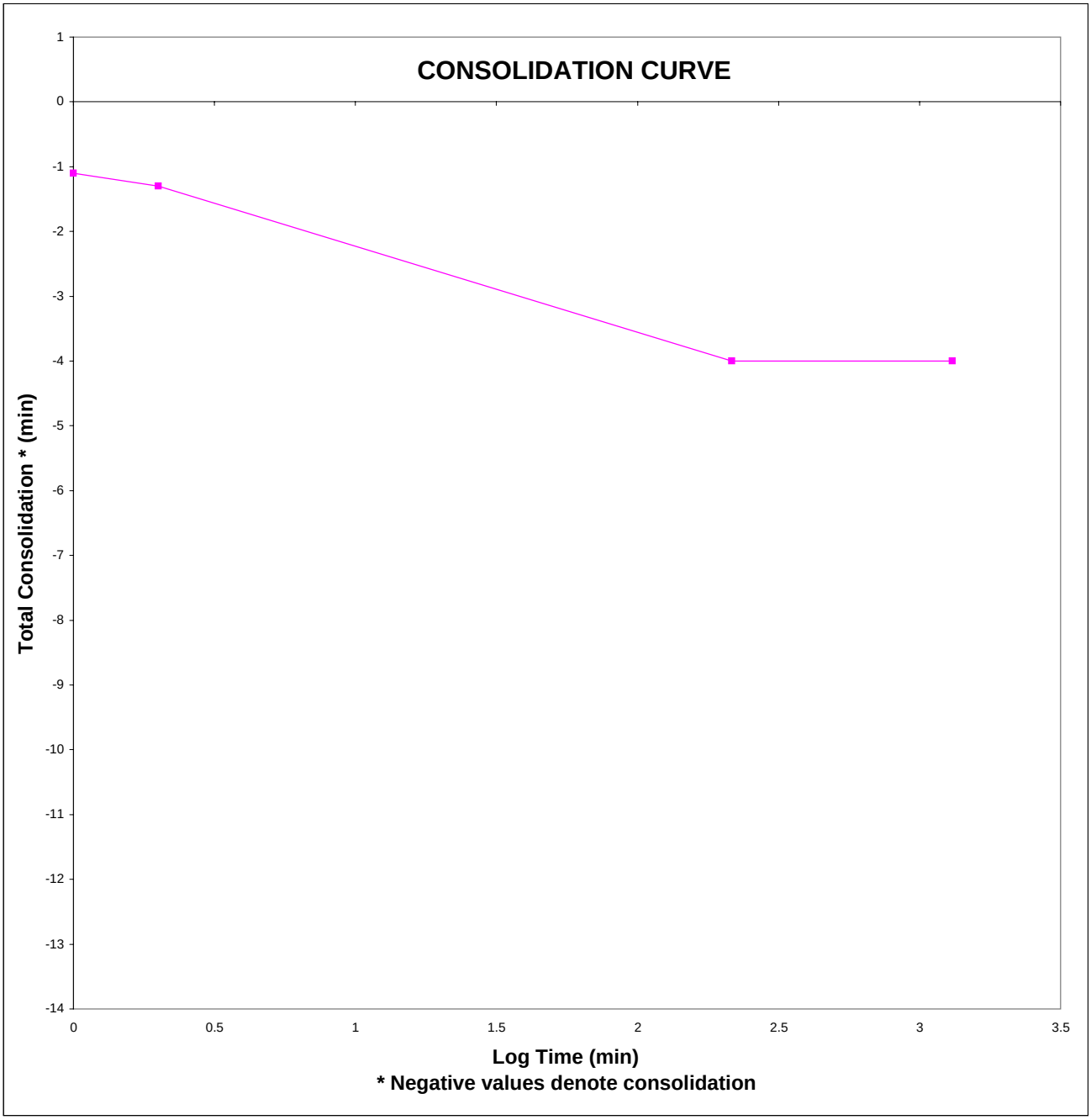
TEST DATE	*TESTED BY*	*TIME (Military)*	*ELAPSED TIME (minutes)*	*TOTAL TIME (minutes)*	*TOTAL TIME (Log)*	*SPECIMEN CONSOLIDATION (ML)*		
						READING		*ACTUAL*
						BOTTOM	*TOP*	*TOTAL (Ct)*
5 / 6 / 8	SEM	12 : 49				24.0	24.0	0.0
5 / 6 / 8	SEM	12 : 50	1	1	0.00	23.5	23.4	1.1
5 / 6 / 8	SEM	12 : 51	1	2	0.30	23.4	23.3	1.3
5 / 6 / 8	SEM	16 : 25	214	216	2.33	22.0	22.0	4.0
5 / 7 / 8	SEM	10 : 35	1090	1306	3.12	22.0	22.0	4.0

PERMEABILITY ASTM D5084

CONSOLIDATION CURVE

Page 4 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4816_PM
SAMPLE No.:	3002-S004-041508	EQUIPMENT No.:	3
TEST DATE:	2 May 2008		



PERMEABILITY ASTM D5084

TEST DATA

Page 5 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4816_PM
SAMPLE No.:	3002-S004-041508	EQUIPMENT No.:	3
TEST DATE:	2 May 2008		

DATE	TESTED BY	TIME (military)	ELAPSED TIME (minutes)	HYDRAULIC HEAD (cm)		TEMP. C°	GAUGE PRESSURE (psi)		
				INFLUENT	EFFLUENT		CELL	INFLUENT	EFFLUENT
5 / 7 / 8	SEM	12 : 28		0.0	24.0	20.0	65.0	55.0	55.0
5 / 8 / 8	SEM	11 : 55	1407	1.3	22.7	20.0	65.0	55.0	55.0
5 / 9 / 8	SEM	10 : 58	1383	2.4	21.6	20.0	65.0	55.0	55.0
5 / 9 / 8	SEM	15 : 54	RESET	0.0	24.0	20.0	65.0	55.0	55.0
5 / 12 / 8	SEM	11 : 29	4055	3.2	20.8	20.0	65.0	55.0	55.0
5 / 12 / 8	SEM	11 : 38	RESET	0.0	24.0	20.0	65.0	55.0	55.0
5 / 13 / 8	SEM	10 : 14	1356	1.1	22.9	20.0	65.0	55.0	55.0
5 / 14 / 8	SEM	10 : 43	1469	2.3	21.7	20.0	65.0	55.0	55.0
5 / 15 / 8	SEM	11 : 24	1481	3.3	20.7	20.0	65.0	55.0	55.0

PERMEABILITY ASTM D5084

TEST DATA (continued)

Page 6 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4816_PM
SAMPLE No.:	3002-S004-041508	EQUIPMENT No.:	3
TEST DATE:	2 May 2008		

ELAPSED TIME	*HYDRAULIC HEAD DIFFERENCE (cm)*		*EFFLUENT - INFLUENT*	*HYDRAULIC GRADIENT*	*HYDRAULIC CONDUCTIVITY (cm/sec)*	
(minutes)	*INFLUENT*	*EFFLUENT*	*RATIO*	*(cm/cm)*	*@ Temp.*	*@ 20° C*
RESET				3.470		
1407	1.3	1.3	1.00	3.094	1.18E-07	1.19E-07
1383	1.1	1.1	1.00	2.776	1.14E-07	1.14E-07
RESET				3.470		
4055	3.2	3.2	1.00	2.544	1.11E-07	1.11E-07
RESET				3.470		
1356	1.1	1.1	1.00	3.152	1.03E-07	1.03E-07
1469	1.2	1.2	1.00	2.805	1.15E-07	1.16E-07
1481	1.0	1.0	1.00	2.515	1.07E-07	1.07E-07

PERMEABILITY ASTM D5084

SUMMARY OF RESULTS

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4816_PM
SAMPLE No.:	3002-S004-041508	EQUIPMENT No.:	3
TEST DATE:	2 May 2008		

TESTING PARAMETER	INITIAL	FINAL
BULK UNIT WEIGHT	**131.3 lb/ft³**	**129.2 lb/ft³**
DRY UNIT WEIGHT	**109.6 lb/ft³**	**110.4 lb/ft³**
MOISTURE CONTENT	**19.8 %**	**17.0 %**
PERMEABILITY @ 20°C	**1.1E-07 cm/sec**	

PERMEABILITY ASTM D5084

SPECIMEN CONDITIONS

Page 1 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4817_PM
SAMPLE No.:	3016-S006-041208	EQUIPMENT No.:	5
TEST DATE:	2 May 2008		

MOISTURE CONTENT (Dry Basis)	***INITIAL***	***FINAL***
1. MOISTURE TIN NO.	3016-S006-041208	3016-S006-041208
2. WT MOISTURE TIN (tare weight)	0.00 ***g***	229.64 ***g***
3. WT WET SOIL + TARE	520.27 ***g***	746.80 ***g***
4. WT DRY SOIL + TARE	430.86 ***g***	660.50 ***g***
5. WT WATER, Ww	89.41 g	86.30 g
6. WT DRY SOIL, Ws	430.86 g	430.86 g
7. MOISTURE CONTENT, W	20.75 %	20.03 %

SOIL SPECIMEN DIMENSIONS				
TRIPLICATE	***DIAMETER***		***HEIGHT***	
ANALYSES	***INITIAL***	***FINAL***	***INITIAL***	***FINAL***
No. 1	***2.88 in.***	***2.86 in.***	***2.39 in.***	***2.38 in.***
No. 2	***2.86 in.***	***2.88 in.***	***2.39 in.***	***2.38 in.***
No. 3	***2.88 in.***	***2.89 in.***	***2.40 in.***	***2.39 in.***
Average	2.87 in.	2.88 in.	2.39 in.	2.38 in.

SPECIMEN CONDITIONS	***INITIAL***	***FINAL***
Specimen WT, Wo	***520.27 g***	***517.56 g***
Area, Ao	6.48 in^2	6.50 in^2
Volume, Vo	15.52 in^3	15.49 in^3
Bulk Unit Weight	127.7 lb/ft^3	127.3 lb/ft^3
Dry Unit Weight	105.8 lb/ft^3	106.0 lb/ft^3

PERMEABILITY ASTM D5084

BACK-PRESSURE SATURATION

Page 2 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4817_PM
SAMPLE No.:	3016-S006-041208	EQUIPMENT No.:	5
TEST DATE:	2 May 2008		

			TEST PRESSURES (psi)						
			APPLIED		PORE		PRESSURE CHANGE		
TEST DATE	TIME (military)	TESTED BY	CELL	BACK	SAT.	TEST	CELL	PORE	B-Value
05/06/08	14 : 2	SEM	7.0	5.0	5.7				
05/06/08	15 : 23	SEM	17.0	15.0	15.6	12.3	10.0	6.6	0.66
05/06/08	16 : 24	SEM	27.0	25.0	25.7	23.9	10.0	8.3	0.83
05/06/08	17 : 36	SEM	37.0	35.0	35.6	34.7	10.0	9.0	0.90
05/06/08	18 : 41	SEM	47.0	45.0	45.7	45.1	10.0	9.5	0.95
05/07/08	10 : 37	SEM	57.0	55.0	55.8	55.5	10.0	9.8	0.98
05/07/08	11 : 43	SEM	67.0	65.0	*	65.7	10.0	9.9	0.99
05/07/08	11 : 44	SEM	57.0	55.0	*	*	*	*	*

* Saturation check - no data available.

PERMEABILITY ASTM D5084

SPECIMEN CONSOLIDATION

Page 3 of 6

PROJECT:	South Charleston Geotech	SEM
PROJECT No.:	SE-0254	4817_PM
SAMPLE No.:	3016-S006-041208	5
TEST DATE:	2 May 2008	

CELL PRESSURE: 65 psi **BACK PRESSURE:** 55 psi **EFFECTIVE STRESS:** 10 psi

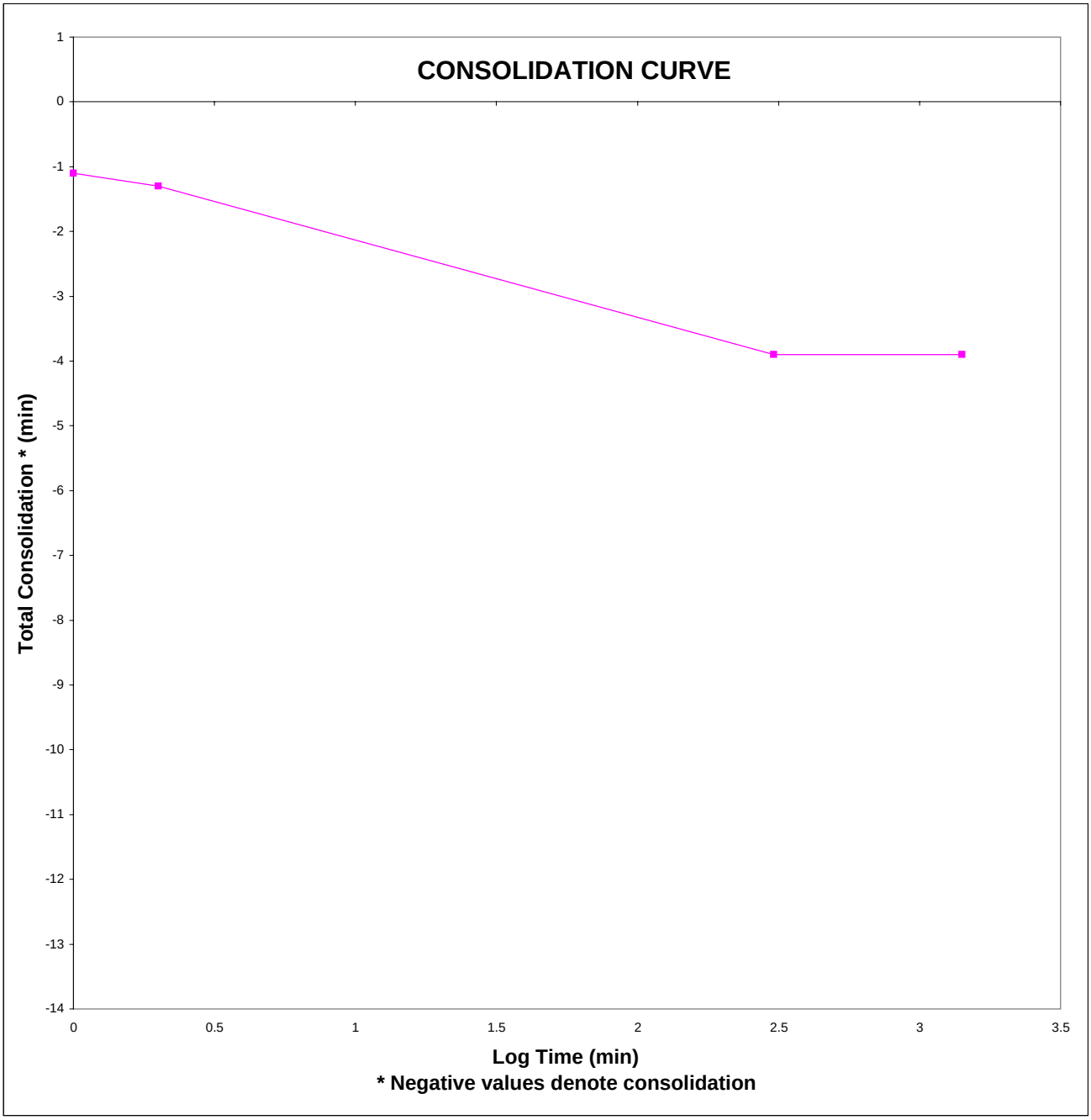
TEST DATE	*TESTED BY*	*TIME (Military)*	*ELAPSED TIME (minutes)*	*TOTAL TIME (minutes)*	*TOTAL TIME (Log)*	*SPECIMEN CONSOLIDATION (ML)*		
						READING		*ACTUAL*
						BOTTOM	*TOP*	*TOTAL (Ct)*
5 / 7 / 8	SEM	12 : 21				25.0	25.0	0.0
5 / 7 / 8	SEM	12 : 22	1	1	0.00	24.4	24.5	1.1
5 / 7 / 8	SEM	12 : 23	1	2	0.30	24.3	24.4	1.3
5 / 7 / 8	SEM	17 : 25	302	304	2.48	23.1	23.0	3.9
5 / 8 / 8	SEM	11 : 56	1111	1415	3.15	23.1	23.0	3.9

PERMEABILITY ASTM D5084

CONSOLIDATION CURVE

Page 4 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4817_PM
SAMPLE No.:	3016-S006-041208	EQUIPMENT No.:	5
TEST DATE:	2 May 2008		



PERMEABILITY ASTM D5084

TEST DATA

Page 5 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4817_PM
SAMPLE No.:	3016-S006-041208	EQUIPMENT No.:	5
TEST DATE:	2 May 2008		

DATE	TESTED BY	TIME (military)	ELAPSED TIME (minutes)	HYDRAULIC HEAD (cm)		TEMP. C°	GAUGE PRESSURE (psi)		
				INFLUENT	EFFLUENT		CELL	INFLUENT	EFFLUENT
5 / 8 / 8	SEM	12 : 2		0.0	25.0	20.0	65.0	55.0	55.0
5 / 9 / 8	SEM	10 : 56	1374	0.9	24.1	20.0	65.0	55.0	55.0
5 / 12 / 8	SEM	11 : 30	4354	3.3	21.7	20.0	65.0	55.0	55.0
5 / 12 / 8	SEM	11 : 40	RESET	0.0	25.0	20.0	65.0	55.0	55.0
5 / 14 / 8	SEM	10 : 44	2824	1.7	23.3	20.0	65.0	55.0	55.0
5 / 15 / 8	SEM	11 : 24	1480	2.5	22.5	20.0	65.0	55.0	55.0

PERMEABILITY ASTM D5084

TEST DATA (continued)

Page 6 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4817_PM
SAMPLE No.:	3016-S006-041208	EQUIPMENT No.:	5
TEST DATE:	2 May 2008		

ELAPSED TIME (minutes)	*HYDRAULIC HEAD DIFFERENCE (cm)*		*EFFLUENT - INFLUENT RATIO*	*HYDRAULIC GRADIENT (cm/cm)*	*HYDRAULIC CONDUCTIVITY (cm/sec)*	
	INFLUENT	*EFFLUENT*			*@ Temp.*	*@ 20° C*
RESET				4.112		
1374	0.9	0.9	1.00	3.816	6.59E-08	6.62E-08
4354	2.4	2.4	1.00	3.027	6.45E-08	6.48E-08
RESET				4.112		
2824	1.7	1.7	1.00	3.553	6.27E-08	6.30E-08
1480	0.8	0.8	1.00	3.290	6.30E-08	6.33E-08

PERMEABILITY ASTM D5084

SUMMARY OF RESULTS

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4817_PM
SAMPLE No.:	3016-S006-041208	EQUIPMENT No.:	5
TEST DATE:	2 May 2008		

TESTING PARAMETER	INITIAL	FINAL
BULK UNIT WEIGHT	**127.7 lb/ft³**	**127.3 lb/ft³**
DRY UNIT WEIGHT	**105.8 lb/ft³**	**106.0 lb/ft³**
MOISTURE CONTENT	**20.8 %**	**20.0 %**
PERMEABILITY @ 20°C	**6.4E-08 cm/sec**	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3016-S004-041008
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4800_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.78	g	26.78	g	26.78	g
3. WT OF MOLD + SOIL	304.60	g	304.87	g	304.29	g
4. WT OF WET SOIL, W	277.82	g	278.09	g	277.51	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	84.2	pcf	84.3	pcf	84.1	pcf
9. DRY DENSITY	79.9	pcf	79.9	pcf	79.7	pcf
AVERAGE BULK DENSITY	**84.2**	**pcf**				
AVERAGE DRY DENSITY	**79.8**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	70.24	g	66.13	g	65.48	g
3. WT WET SOIL + TARE	125.85	g	116.70	g	120.64	g
4. WT DRY SOIL + TARE	122.99	g	114.03	g	117.75	g
5. WT WATER, Ww	2.86	g	2.67	g	2.89	g
6. WT DRY SOIL, Ws	52.75	g	47.90	g	52.27	g
7. ASTM MOISTURE CONTENT, W	5.42	%	5.57	%	5.53	%
8. EPA MOISTURE CONTENT, W	5.14	%	5.28	%	5.24	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3016-S004-041008
SAMPLE DESCRIPT:	Sand
TESTING DATE:	04/26/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4800_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	227.95 g
WT WET SOIL + TARE	324.69 g
WT DRY SOIL + TARE	319.75 g
WT WATER, Ww	4.94 g
WT DRY SOIL, Ws	91.80 g
ASTM MOISTURE	5.38 %
EPA MOISTURE	5.11 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	99.8 %
#20	98.6 %
#40	80.3 %
#60	35.8 %
#140	15.2 %
#200	12.8 %

HYDROMETER ANALYSIS	
HYDROMETER No.	1
Wt OF DRY SOIL, Ws	11.79
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:30:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	14.0	8.5	0.0354	9.0
5	13.0	7.7	0.0222	8.2
15	11.5	6.2	0.0129	6.6
30	10.5	5.2	0.0092	5.5
60	10.0	4.7	0.0065	5.0
270	8.5	3.2	0.0031	3.4
1440	7.5	2.4	0.0013	2.6

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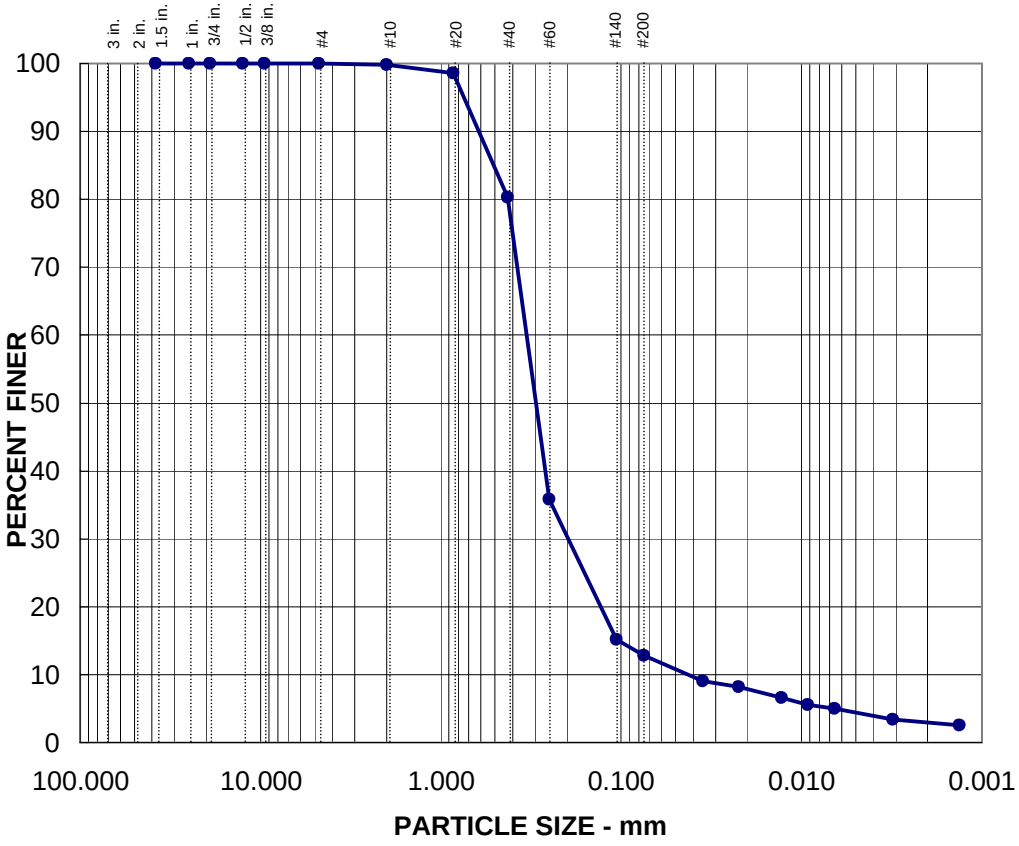
ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	87.2	8.4	4.4

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3016-S004-041008
Sample Description:	Sand
Testing Date:	04/26/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4800_GS
SAMPLE NO:	3016-S004-041008

SOLID SPECIFIC GRAVITY	
1. SAMPLE NUMBER	3016-S004-041008
2. FLASK NUMBER	3
3. TEMPERATURE	21.0 °C
4. WT. FLASK & WATER	160.47 g
5. WT. WATER, FLASK & SOIL	202.24 g
6. WT OF SOIL	41.77 g
7. CALIBRATION WATER & FLASK	358.05 g
8. DEAIRED SAMPLE	384.21 g
9. SPECIFIC GRAVITY	2.68
10. CORRECTION FACTOR K	0.9998
11. Gs @ 20 °C	2.68

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3002-S003-041508
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4801_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.81	g	26.81	g	26.81	g
3. WT OF MOLD + SOIL	450.29	g	449.78	g	451.04	g
4. WT OF WET SOIL, W	423.48	g	422.97	g	424.23	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	128.4	pcf	128.2	pcf	128.6	pcf
9. DRY DENSITY	106.2	pcf	106.7	pcf	105.5	pcf
AVERAGE BULK DENSITY	**128.4**	**pcf**				
AVERAGE DRY DENSITY	**106.1**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	69.21	g	84.82	g	66.35	g
3. WT WET SOIL + TARE	109.71	g	124.95	g	106.73	g
4. WT DRY SOIL + TARE	102.71	g	118.20	g	99.47	g
5. WT WATER, Ww	7.00	g	6.75	g	7.26	g
6. WT DRY SOIL, Ws	33.50	g	33.38	g	33.12	g
7. ASTM MOISTURE CONTENT, W	20.90	%	20.22	%	21.92	%
8. EPA MOISTURE CONTENT, W	17.28	%	16.82	%	17.98	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3002-S003-041508
SAMPLE DESCRIPT:	Clayey Silty Sand
TESTING DATE:	04/26/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4801_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	231.96 g
WT WET SOIL + TARE	302.57 g
WT DRY SOIL + TARE	290.56 g
WT WATER, Ww	12.01 g
WT DRY SOIL, Ws	58.60 g
ASTM MOISTURE	20.49 %
EPA MOISTURE	17.01 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	96.6 %
#4	94.8 %
#10	93.5 %
#20	92.8 %
#40	91.2 %
#60	86.5 %
#140	64.2 %
#200	55.0 %

HYDROMETER ANALYSIS	
HYDROMETER No.	2
Wt OF DRY SOIL, Ws	32.21
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:31:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	26.5	21.0	0.0327	35.1
5	25.0	19.7	0.0206	32.9
15	22.0	16.7	0.0121	27.9
30	20.0	14.7	0.0087	24.5
60	18.5	13.2	0.0062	22.0
270	16.0	10.7	0.0030	17.9
1440	14.0	8.9	0.0013	14.9

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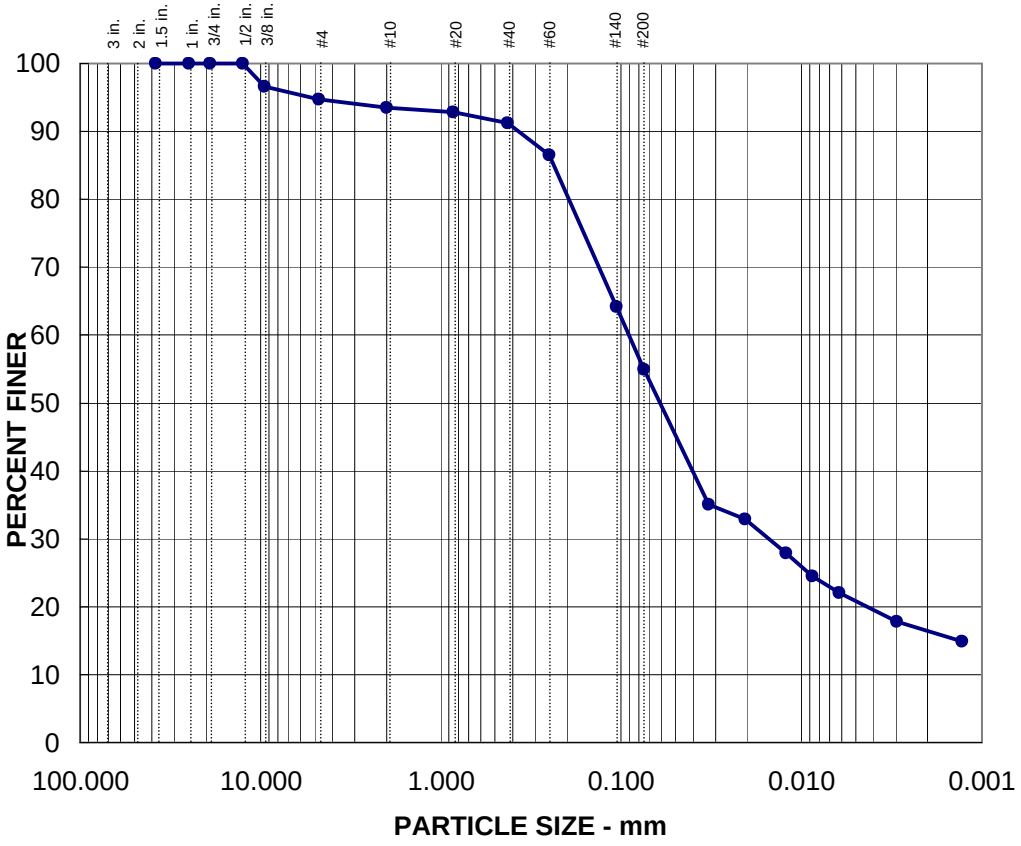
PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
5.2	39.8	34.2	20.8

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3002-S003-041508
Sample Description:	Clayey Silty Sand
Testing Date:	04/26/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4801_GS
SAMPLE NO:	3002-S003-041508

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3002-S003-041508	
2. FLASK NUMBER	4	
3. TEMPERATURE	22.0	°C
4. WT. FLASK & WATER	185.58	g
5. WT. WATER, FLASK & SOIL	226.82	g
6. WT OF SOIL	41.24	g
7. CALIBRATION WATER & FLASK	361.25	g
8. DEAIRED SAMPLE	387.23	g
9. SPECIFIC GRAVITY	2.70	
10. CORRECTION FACTOR K	0.9996	
11. Gs @ 20 °C	2.70	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3006-S002-041408
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4802_DEN1

UNIT WEIGHT (DENSITY)

1. SAMPLE NO.	A	B	C
2. WT OF MOLD (tare weight)	26.82 g	26.82 g	26.82 g
3. WT OF MOLD + SOIL	322.97 g	323.41 g	323.52 g
4. WT OF WET SOIL, W	296.15 g	296.59 g	296.70 g
5. DIAMETER OF SPECIMEN, D	2.00 in	2.00 in	2.00 in
6. HEIGHT OF SPECIMEN, H	4.00 in	4.00 in	4.00 in
7. VOLUME OF SPECIMEN	12.57 in^3	12.57 in^3	12.57 in^3
8. WET DENSITY	89.8 pcf	89.9 pcf	89.9 pcf
9. DRY DENSITY	84.1 pcf	84.3 pcf	84.2 pcf
AVERAGE BULK DENSITY	**89.9 pcf**		
AVERAGE DRY DENSITY	**84.2 pcf**		

MOISTURE CONTENT (Dry & Wet Basis)

1. MOISTURE TIN NO.	A	B	C
2. WT MOISTURE TIN (tare weight)	69.00 g	69.80 g	70.86 g
3. WT WET SOIL + TARE	112.30 g	121.58 g	121.00 g
4. WT DRY SOIL + TARE	109.56 g	118.32 g	117.82 g
5. WT WATER, Ww	2.74 g	3.26 g	3.18 g
6. WT DRY SOIL, Ws	40.56 g	48.52 g	46.96 g
7. ASTM MOISTURE CONTENT, W	6.76 %	6.72 %	6.77 %
8. EPA MOISTURE CONTENT, W	6.33 %	6.30 %	6.34 %

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3006-S002-041408
SAMPLE DESCRIPT:	Sand
TESTING DATE:	04/26/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4802_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	229.62 g
WT WET SOIL + TARE	321.15 g
WT DRY SOIL + TARE	315.42 g
WT WATER, Ww	5.73 g
WT DRY SOIL, Ws	85.80 g
ASTM MOISTURE	6.68 %
EPA MOISTURE	6.26 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	100.0 %
#20	99.7 %
#40	91.1 %
#60	46.2 %
#140	18.3 %
#200	15.5 %

HYDROMETER ANALYSIS	
HYDROMETER No.	3
Wt OF DRY SOIL, Ws	13.34
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:32:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	15.0	9.5	0.0352	10.8
5	14.0	8.7	0.0221	9.9
15	12.5	7.2	0.0129	8.2
30	11.5	6.2	0.0092	7.1
60	10.5	5.2	0.0065	5.9
270	9.0	3.7	0.0031	4.2
1440	8.0	2.9	0.0013	3.3

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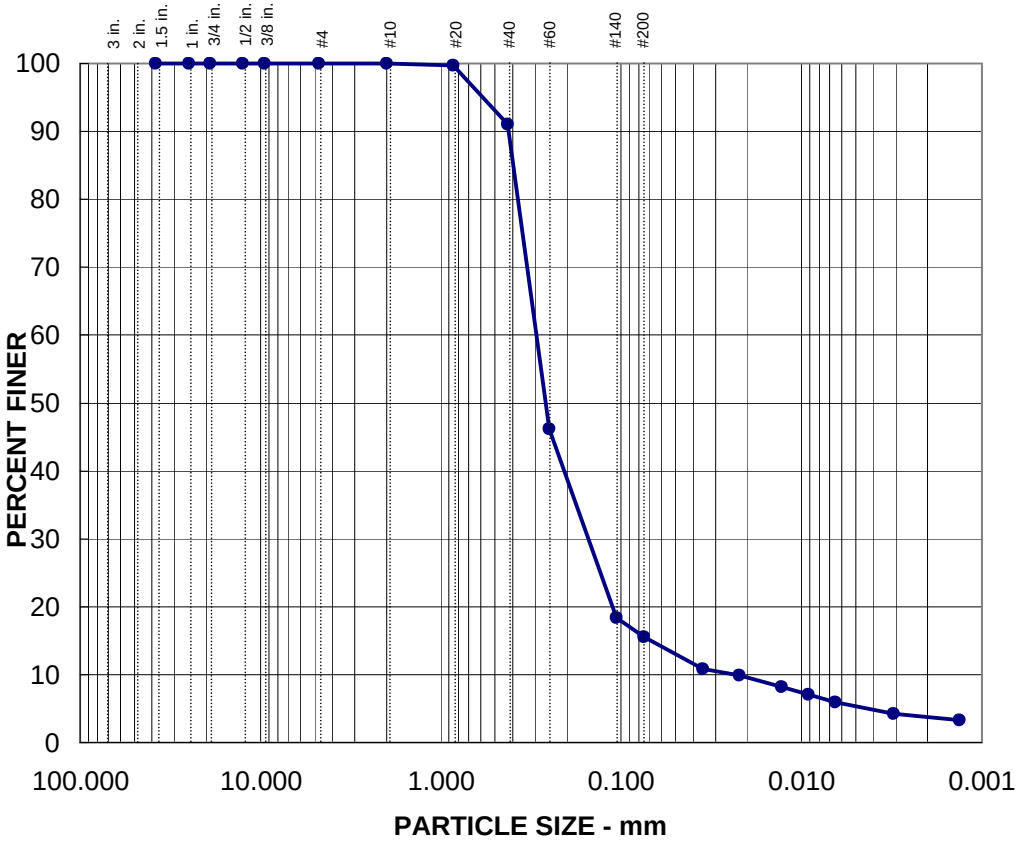
PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	84.5	10.2	5.3

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3006-S002-041408
Sample Description:	Sand
Testing Date:	04/26/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4802_GS
SAMPLE NO:	3006-S002-041408

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3006-S002-041408	
2. FLASK NUMBER	5	
3. TEMPERATURE	21.0	°C
4. WT. FLASK & WATER	184.09	g
5. WT. WATER, FLASK & SOIL	225.51	g
6. WT OF SOIL	41.42	g
7. CALIBRATION WATER & FLASK	359.94	g
8. DEAIRED SAMPLE	385.90	g
9. SPECIFIC GRAVITY	2.68	
10. CORRECTION FACTOR K	0.9998	
11. Gs @ 20 °C	2.68	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3006-S003-041408
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4803_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.83	g	26.83	g	26.83	g
3. WT OF MOLD + SOIL	409.16	g	409.47	g	409.91	g
4. WT OF WET SOIL, W	382.33	g	382.64	g	383.08	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	115.9	pcf	116.0	pcf	116.1	pcf
9. DRY DENSITY	99.2	pcf	99.4	pcf	99.6	pcf
AVERAGE BULK DENSITY	**116.0**	**pcf**				
AVERAGE DRY DENSITY	**99.4**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	55.49	g	87.20	g	53.11	g
3. WT WET SOIL + TARE	106.75	g	154.36	g	106.55	g
4. WT DRY SOIL + TARE	99.37	g	144.76	g	98.92	g
5. WT WATER, Ww	7.38	g	9.60	g	7.63	g
6. WT DRY SOIL, Ws	43.88	g	57.56	g	45.81	g
7. ASTM MOISTURE CONTENT, W	16.82	%	16.68	%	16.66	%
8. EPA MOISTURE CONTENT, W	14.40	%	14.29	%	14.28	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3006-S003-041408
SAMPLE DESCRIPT:	Sand
TESTING DATE:	04/26/08
TESTED BY:	SEM
TRACKING CODE:	4803-GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	231.17 g
WT WET SOIL + TARE	320.59 g
WT DRY SOIL + TARE	308.01 g
WT WATER, Ww	12.58 g
WT DRY SOIL, Ws	76.84 g
ASTM MOISTURE	16.37 %
EPA MOISTURE	14.07 %

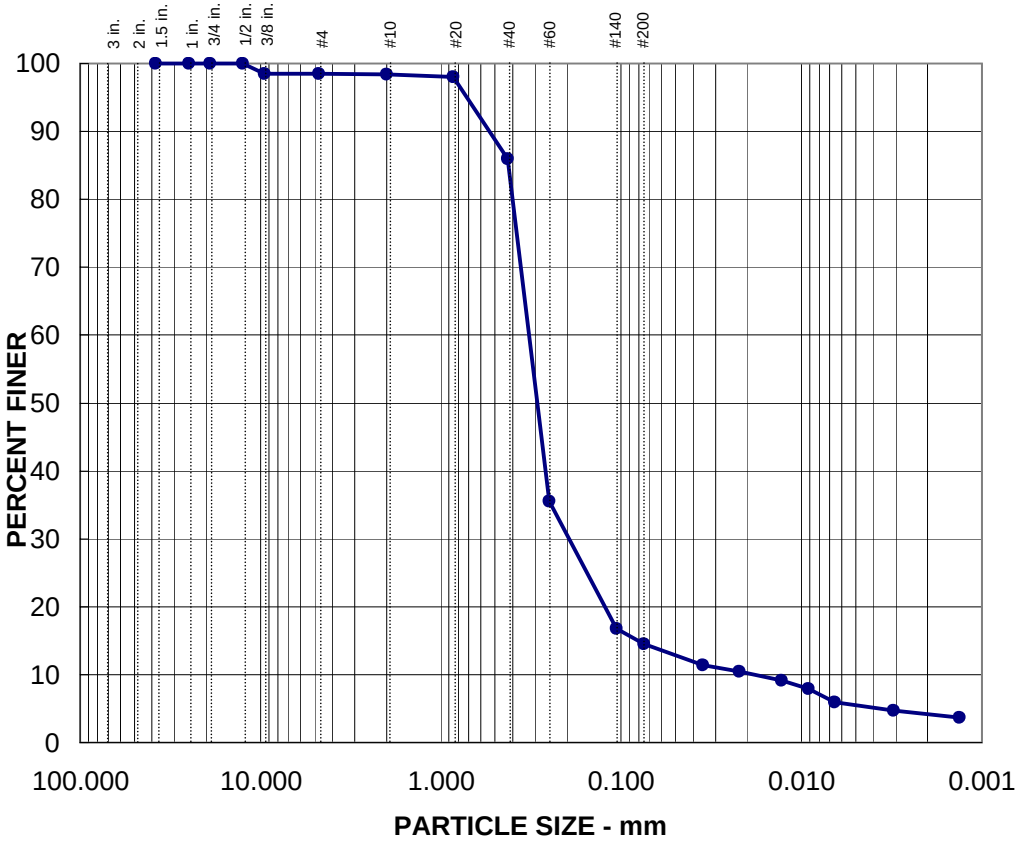
SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	98.5 %
#4	98.5 %
#10	98.4 %
#20	98.0 %
#40	85.9 %
#60	35.6 %
#140	16.8 %
#200	14.5 %

HYDROMETER ANALYSIS	
HYDROMETER No.	4
Wt OF DRY SOIL, Ws	11.18
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:33:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	14.5	9.0	0.0353	11.4
5	13.5	8.2	0.0222	10.4
15	12.5	7.2	0.0129	9.2
30	11.5	6.2	0.0092	7.9
60	10.0	4.7	0.0065	6.0
270	9.0	3.7	0.0031	4.7
1440	8.0	2.9	0.0013	3.7

KEMRON
ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
1.5	84.0	9.0	5.5

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3006-S003-041408
Sample Description:	Sand
Testing Date:	04/26/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4803_GS
SAMPLE NO:	3006-S003-041408

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3006-S003-041408	
2. FLASK NUMBER	6	
3. TEMPERATURE	21.0	°C
4. WT. FLASK & WATER	190.26	g
5. WT. WATER, FLASK & SOIL	231.52	g
6. WT OF SOIL	41.26	g
7. CALIBRATION WATER & FLASK	360.57	g
8. DEAIRED SAMPLE	386.39	g
9. SPECIFIC GRAVITY	2.67	
10. CORRECTION FACTOR K	0.9998	
11. Gs @ 20 °C	2.67	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3033-S004-041608
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4804_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.84	g	26.84	g	26.84	g
3. WT OF MOLD + SOIL	340.80	g	341.20	g	341.11	g
4. WT OF WET SOIL, W	313.96	g	314.36	g	314.27	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	95.2	pcf	95.3	pcf	95.3	pcf
9. DRY DENSITY	85.2	pcf	85.7	pcf	85.8	pcf
AVERAGE BULK DENSITY	**95.2**	**pcf**				
AVERAGE DRY DENSITY	**85.5**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	66.99	g	67.07	g	68.90	g
3. WT WET SOIL + TARE	121.02	g	120.26	g	130.89	g
4. WT DRY SOIL + TARE	115.34	g	114.89	g	124.70	g
5. WT WATER, Ww	5.68	g	5.37	g	6.19	g
6. WT DRY SOIL, Ws	48.35	g	47.82	g	55.80	g
7. ASTM MOISTURE CONTENT, W	11.75	%	11.23	%	11.09	%
8. EPA MOISTURE CONTENT, W	10.51	%	10.10	%	9.99	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3033-S004-041608
SAMPLE DESCRIPT:	Sand
TESTING DATE:	04/26/08
TESTED BY:	SEM
TRACKING CODE:	4804_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	232.25 g
WT WET SOIL + TARE	323.11 g
WT DRY SOIL + TARE	314.21 g
WT WATER, Ww	8.90 g
WT DRY SOIL, Ws	81.96 g
ASTM MOISTURE	10.86 %
EPA MOISTURE	9.80 %

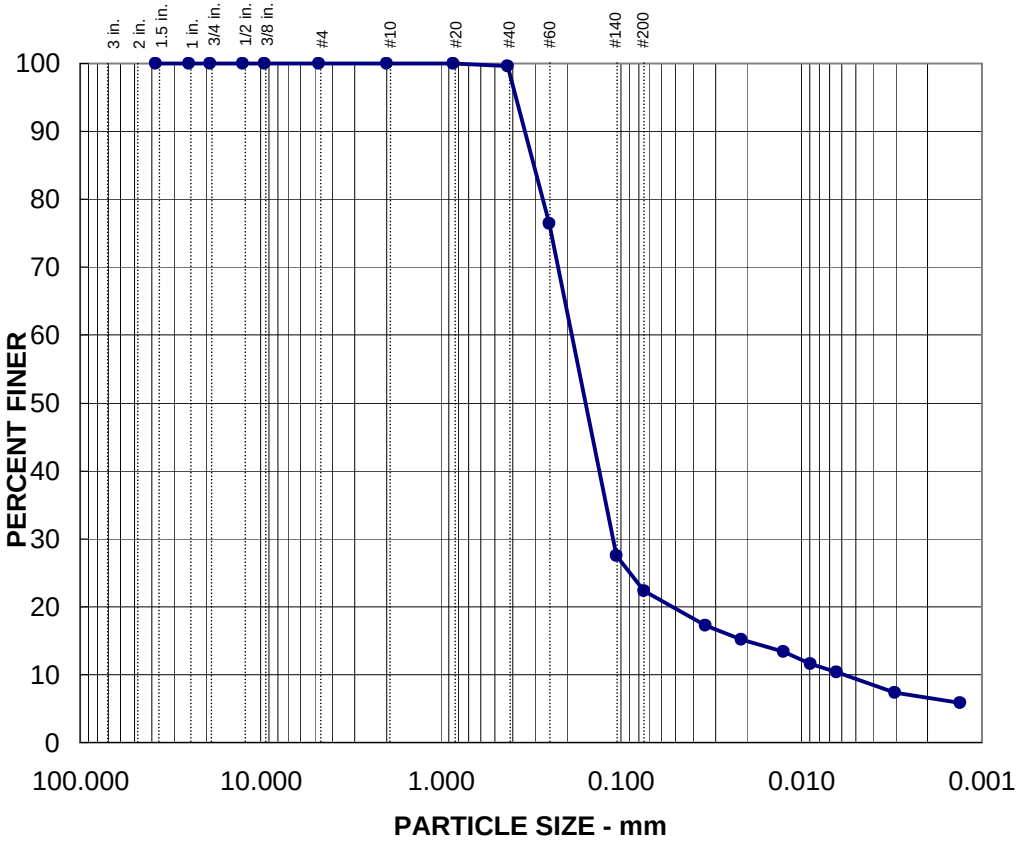
SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	100.0 %
#20	100.0 %
#40	99.6 %
#60	76.4 %
#140	27.6 %
#200	22.4 %

HYDROMETER ANALYSIS	
HYDROMETER No.	5
Wt OF DRY SOIL, Ws	18.33
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:34:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	20.0	14.5	0.0341	17.3
5	18.0	12.7	0.0216	15.2
15	16.5	11.2	0.0126	13.4
30	15.0	9.7	0.0090	11.6
60	14.0	8.7	0.0064	10.4
270	11.5	6.2	0.0031	7.4
1440	10.0	4.9	0.0013	5.9

KEMRON
ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	77.6	13.0	9.4

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3033-S004-041608
Sample Description:	Sand
Testing Date:	04/26/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4804_GS
SAMPLE NO:	3033-S004-041608

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3033-S004-041608	
2. FLASK NUMBER	1	
3. TEMPERATURE	21.0	°C
4. WT. FLASK & WATER	159.73	g
5. WT. WATER, FLASK & SOIL	200.58	g
6. WT OF SOIL	40.85	g
7. CALIBRATION WATER & FLASK	347.89	g
8. DEAIRED SAMPLE	373.72	g
9. SPECIFIC GRAVITY	2.72	
10. CORRECTION FACTOR K	0.9998	
11. Gs @ 20 °C	2.72	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3033-S006-041608
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4805_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	15.67	g	15.67	g	15.67	g
3. WT OF MOLD + SOIL	211.78	g	210.64	g	212.13	g
4. WT OF WET SOIL, W	196.11	g	194.97	g	196.46	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	2.16	in	2.16	in	2.16	in
7. VOLUME OF SPECIMEN	6.79	in^3	6.79	in^3	6.79	in^3
8. WET DENSITY	110.1	pcf	109.5	pcf	110.3	pcf
9. DRY DENSITY	96.6	pcf	96.3	pcf	96.9	pcf
AVERAGE BULK DENSITY	**109.9**	**pcf**				
AVERAGE DRY DENSITY	**96.6**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	67.03	g	66.36	g	87.22	g
3. WT WET SOIL + TARE	103.47	g	94.09	g	124.22	g
4. WT DRY SOIL + TARE	99.00	g	90.76	g	119.72	g
5. WT WATER, Ww	4.47	g	3.33	g	4.50	g
6. WT DRY SOIL, Ws	31.97	g	24.40	g	32.50	g
7. ASTM MOISTURE CONTENT, W	13.98	%	13.65	%	13.85	%
8. EPA MOISTURE CONTENT, W	12.27	%	12.01	%	12.16	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3033-S006-041608
SAMPLE DESCRIPT:	Sand
TESTING DATE:	04/28/08
TESTED BY:	SEM
TRACKING CODE:	4805_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	254.77 g
WT WET SOIL + TARE	332.38 g
WT DRY SOIL + TARE	322.76 g
WT WATER, Ww	9.62 g
WT DRY SOIL, Ws	67.99 g
ASTM MOISTURE	14.15 %
EPA MOISTURE	12.40 %

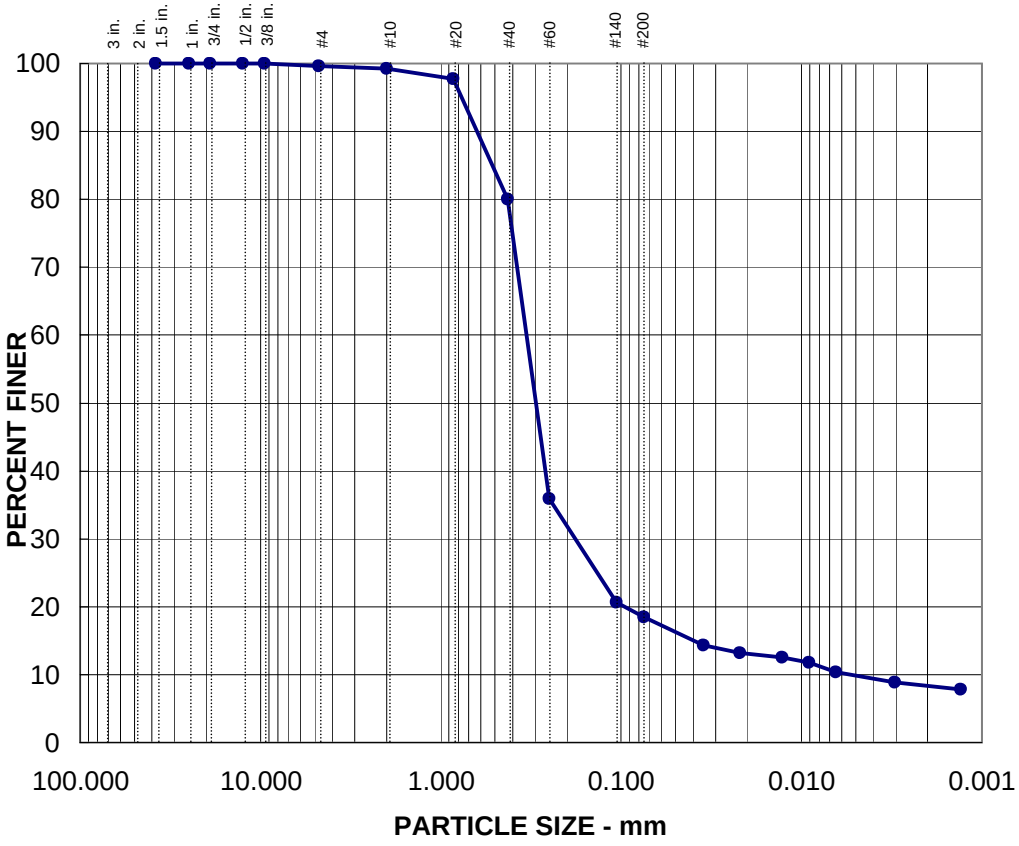
SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	99.6 %
#10	99.3 %
#20	97.7 %
#40	80.0 %
#60	35.9 %
#140	20.6 %
#200	18.4 %

HYDROMETER ANALYSIS	
HYDROMETER No.	6
Wt OF DRY SOIL, Ws	12.53
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:35:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	15.5	10.0	0.0351	14.4
5	14.5	9.2	0.0220	13.2
15	14.0	8.7	0.0128	12.5
30	13.5	8.2	0.0090	11.8
60	12.5	7.2	0.0064	10.3
270	11.5	6.2	0.0031	8.9
1440	10.5	5.4	0.0013	7.8

KEMRON
ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.4	81.2	8.5	9.9

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3033-S006-041608
Sample Description:	Sand
Testing Date:	04/28/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4805_GS
SAMPLE NO:	3033-S006-041608

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3033-S006-041608	
2. FLASK NUMBER	2	
3. TEMPERATURE	22.5	°C
4. WT. FLASK & WATER	164.81	g
5. WT. WATER, FLASK & SOIL	206.53	g
6. WT OF SOIL	41.72	g
7. CALIBRATION WATER & FLASK	351.33	g
8. DEAIRED SAMPLE	377.59	g
9. SPECIFIC GRAVITY	2.70	
10. CORRECTION FACTOR K	0.9993	
11. Gs @ 20 °C	2.70	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3016-S003-041008
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4806_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.81	g	26.81	g	26.81	g
3. WT OF MOLD + SOIL	444.33	g	444.34	g	443.84	g
4. WT OF WET SOIL, W	417.52	g	417.53	g	417.03	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	126.6	pcf	126.6	pcf	126.4	pcf
9. DRY DENSITY	105.2	pcf	105.2	pcf	105.0	pcf
AVERAGE BULK DENSITY	**126.5**	**pcf**				
AVERAGE DRY DENSITY	**105.1**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	69.20	g	68.91	g	70.75	g
3. WT WET SOIL + TARE	110.47	g	108.67	g	112.24	g
4. WT DRY SOIL + TARE	103.50	g	101.96	g	105.20	g
5. WT WATER, Ww	6.97	g	6.71	g	7.04	g
6. WT DRY SOIL, Ws	34.30	g	33.05	g	34.45	g
7. ASTM MOISTURE CONTENT, W	20.32	%	20.30	%	20.44	%
8. EPA MOISTURE CONTENT, W	16.89	%	16.88	%	16.97	%

SIEVE AND HYDROMETER ANALYSIS

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3016-S003-041008
SAMPLE DESCRIPT:	Clayey Silty Sand
TESTING DATE:	4/26/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4806_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	256.12 g
WT WET SOIL + TARE	317.65 g
WT DRY SOIL + TARE	307.23 g
WT WATER, Ww	10.42 g
WT DRY SOIL, Ws	51.11 g
ASTM MOISTURE	20.39 %
EPA MOISTURE	16.93 %

SIEVE NUMBER	CUMULATIVE WEIGHT RETAINED
1.5	0.00 g
1.0	0.00 g
0.75	0.00 g
0.5	0.00 g
0.375	0.00 g
#4	0.00 g
#10	0.03 g
#20	0.07 g
#40	0.14 g
#60	1.10 g
#140	7.76 g
#200	11.89 g

HYDROMETER ANALYSIS	
HYDROMETER No.	7
Wt OF DRY SOIL, Ws	39.22
DATE TESTING INITIATED	5/6/2008
TIME TESTING INITIATED	10:36

DATE	TIME	ELAPSED TIME (minutes)	TEMP. (oC)	HYDROMETER READINGS
5/6/2008	10:38	2	21.0	32.5
5/6/2008	10:41	5	21.0	28.5
5/6/2008	10:51	15	21.0	25.0
5/6/2008	11:06	30	21.0	23.0
5/6/2008	11:36	60	21.0	20.5
5/6/2008	15:06	270	21.0	17.5
5/7/2008	10:36	1440	22.0	15.0

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4806_GS
SAMPLE NO:	3016-S003-041008

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3016-S003-041008	
2. FLASK NUMBER	6	
3. TEMPERATURE	21.0	°C
4. WT. FLASK & WATER	170.45	g
5. WT. WATER, FLASK & SOIL	211.11	g
6. WT OF SOIL	40.66	g
7. CALIBRATION WATER & FLASK	360.57	g
8. DEAIRED SAMPLE	386.21	g
9. SPECIFIC GRAVITY	2.71	
10. CORRECTION FACTOR K	0.9998	
11. Gs @ 20 °C	2.71	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3033-S002-041608
TESTING DATE:	4/26/2008
TESTED BY:	SEM
TRACKING CODE:	4807_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.83	g	26.83	g	26.83	g
3. WT OF MOLD + SOIL	446.53	g	445.81	g	446.67	g
4. WT OF WET SOIL, W	419.70	g	418.98	g	419.84	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	127.2	pcf	127.0	pcf	127.3	pcf
9. DRY DENSITY	105.5	pcf	105.3	pcf	105.5	pcf
AVERAGE BULK DENSITY	**127.2**	**pcf**				
AVERAGE DRY DENSITY	**105.4**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	69.79	g	67.08	g	66.13	g
3. WT WET SOIL + TARE	130.59	g	127.76	g	126.72	g
4. WT DRY SOIL + TARE	120.22	g	117.37	g	116.34	g
5. WT WATER, Ww	10.37	g	10.39	g	10.38	g
6. WT DRY SOIL, Ws	50.43	g	50.29	g	50.21	g
7. ASTM MOISTURE CONTENT, W	20.56	%	20.66	%	20.67	%
8. EPA MOISTURE CONTENT, W	17.06	%	17.12	%	17.13	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3033-S002-041608
SAMPLE DESCRIPT:	Clayey Sandy Silt
TESTING DATE:	04/26/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4807_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	253.15 g
WT WET SOIL + TARE	313.94 g
WT DRY SOIL + TARE	303.54 g
WT WATER, Ww	10.40 g
WT DRY SOIL, Ws	50.39 g
ASTM MOISTURE	20.64 %
EPA MOISTURE	17.11 %

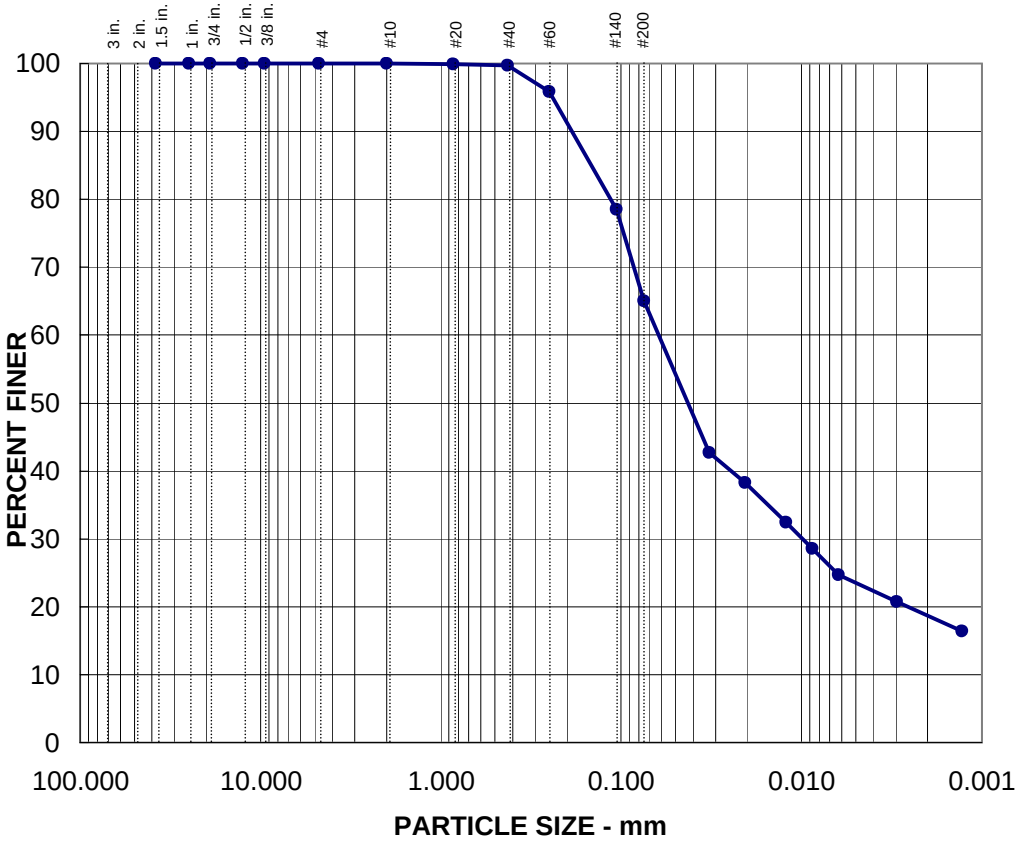
SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	100.0 %
#20	99.9 %
#40	99.7 %
#60	95.9 %
#140	78.5 %
#200	65.0 %

HYDROMETER ANALYSIS	
HYDROMETER No.	8
Wt OF DRY SOIL, Ws	32.75
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:37:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	27.5	22.0	0.0324	42.7
5	25.0	19.7	0.0206	38.3
15	22.0	16.7	0.0121	32.4
30	20.0	14.7	0.0087	28.5
60	18.0	12.7	0.0062	24.7
270	16.0	10.7	0.0030	20.8
1440	13.5	8.4	0.0013	16.4

KEMRON
ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	35.0	41.5	23.5

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3033-S002-041608
Sample Description:	Clayey Sandy Silt
Testing Date:	04/26/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4807_GS
SAMPLE NO:	3033-S002-041608

SOLID SPECIFIC GRAVITY	
1. SAMPLE NUMBER	3033-S002-041608
2. FLASK NUMBER	2
3. TEMPERATURE	21.0 °C
4. WT. FLASK & WATER	162.27 g
5. WT. WATER, FLASK & SOIL	204.72 g
6. WT OF SOIL	42.45 g
7. CALIBRATION WATER & FLASK	351.42 g
8. DEAIRED SAMPLE	378.07 g
9. SPECIFIC GRAVITY	2.69
10. CORRECTION FACTOR K	0.9998
11. Gs @ 20 °C	2.69

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3006-S001-041408
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4808_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.82	g	26.82	g	26.82	g
3. WT OF MOLD + SOIL	419.91	g	420.15	g	419.32	g
4. WT OF WET SOIL, W	393.09	g	393.33	g	392.50	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	119.2	pcf	119.2	pcf	119.0	pcf
9. DRY DENSITY	99.8	pcf	99.9	pcf	99.6	pcf
AVERAGE BULK DENSITY	**119.1**	**pcf**				
AVERAGE DRY DENSITY	**99.8**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	69.00	g	65.48	g	70.87	g
3. WT WET SOIL + TARE	110.09	g	105.98	g	110.46	g
4. WT DRY SOIL + TARE	103.41	g	99.41	g	104.01	g
5. WT WATER, Ww	6.68	g	6.57	g	6.45	g
6. WT DRY SOIL, Ws	34.41	g	33.93	g	33.14	g
7. ASTM MOISTURE CONTENT, W	19.41	%	19.36	%	19.46	%
8. EPA MOISTURE CONTENT, W	16.26	%	16.22	%	16.29	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3006-S001-041408
SAMPLE DESCRIPT:	Clayey Silty Sand
TESTING DATE:	04/28/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4808_GR

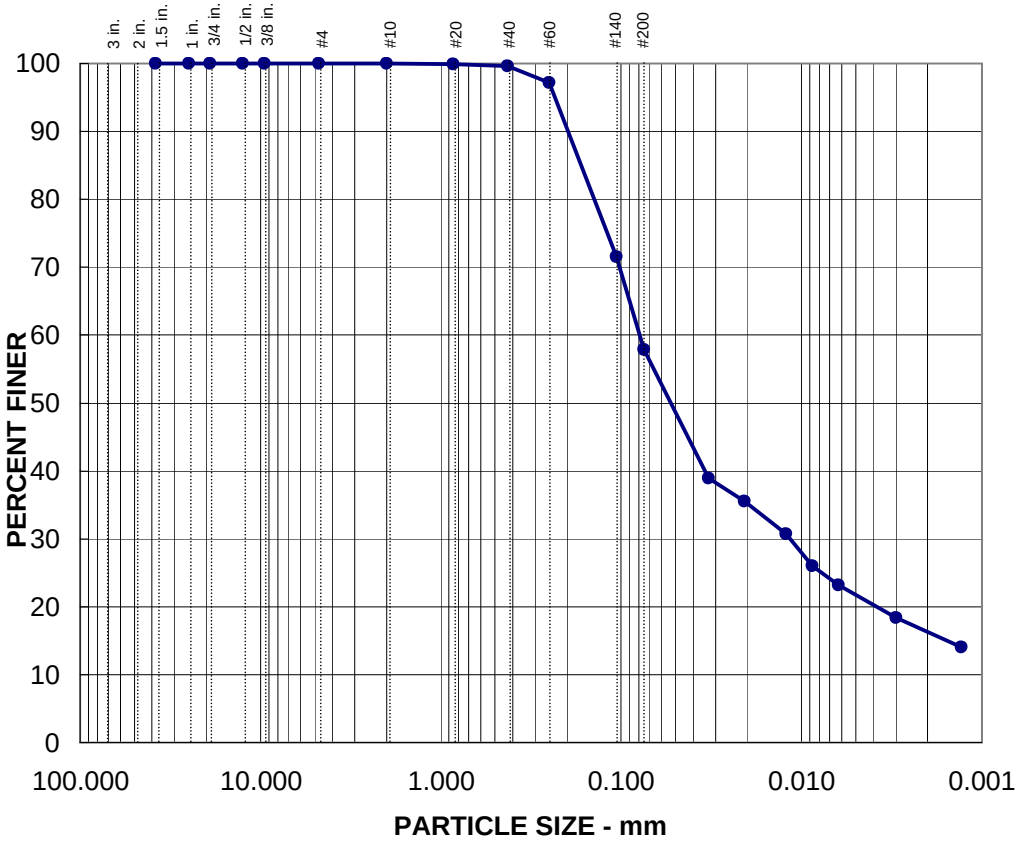
MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	253.16 g
WT WET SOIL + TARE	314.71 g
WT DRY SOIL + TARE	304.70 g
WT WATER, Ww	10.01 g
WT DRY SOIL, Ws	51.54 g
ASTM MOISTURE	19.42 %
EPA MOISTURE	16.26 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	100.0 %
#20	99.9 %
#40	99.6 %
#60	97.2 %
#140	71.5 %
#200	57.9 %

HYDROMETER ANALYSIS	
HYDROMETER No.	9
Wt OF DRY SOIL, Ws	29.85
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:38:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	26.0	20.5	0.0328	38.9
5	24.0	18.7	0.0208	35.5
15	21.5	16.2	0.0122	30.8
30	19.0	13.7	0.0088	26.0
60	17.5	12.2	0.0062	23.2
270	15.0	9.7	0.0030	18.4
1440	12.5	7.4	0.0013	14.1

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	42.1	36.2	21.7

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3006-S001-041408
Sample Description:	Clayey Silty Sand
Testing Date:	04/28/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4808_GS
SAMPLE NO:	3006-S001-041408

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3006-S001-041408	
2. FLASK NUMBER	3	
3. TEMPERATURE	21.0	°C
4. WT. FLASK & WATER	176.22	g
5. WT. WATER, FLASK & SOIL	216.84	g
6. WT OF SOIL	40.62	g
7. CALIBRATION WATER & FLASK	358.05	g
8. DEAIRED SAMPLE	383.59	g
9. SPECIFIC GRAVITY	2.69	
10. CORRECTION FACTOR K	0.9998	
11. Gs @ 20 °C	2.69	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3016-S005-041008
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4809_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.84	g	26.84	g	26.84	g
3. WT OF MOLD + SOIL	446.53	g	447.15	g	447.50	g
4. WT OF WET SOIL, W	419.69	g	420.31	g	420.66	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	127.2	pcf	127.4	pcf	127.5	pcf
9. DRY DENSITY	107.7	pcf	108.4	pcf	108.3	pcf
AVERAGE BULK DENSITY	**127.4**	**pcf**				
AVERAGE DRY DENSITY	**108.1**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	69.99	g	84.84	g	70.24	g
3. WT WET SOIL + TARE	110.98	g	125.76	g	118.70	g
4. WT DRY SOIL + TARE	104.70	g	119.64	g	111.38	g
5. WT WATER, Ww	6.28	g	6.12	g	7.32	g
6. WT DRY SOIL, Ws	34.71	g	34.80	g	41.14	g
7. ASTM MOISTURE CONTENT, W	18.09	%	17.59	%	17.79	%
8. EPA MOISTURE CONTENT, W	15.32	%	14.96	%	15.11	%

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3016-S005-041008
SAMPLE DESCRIPT:	Sand
TESTING DATE:	04/28/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4809_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	251.56 g
WT WET SOIL + TARE	342.89 g
WT DRY SOIL + TARE	328.92 g
WT WATER, Ww	13.97 g
WT DRY SOIL, Ws	77.36 g
ASTM MOISTURE	18.06 %
EPA MOISTURE	15.30 %

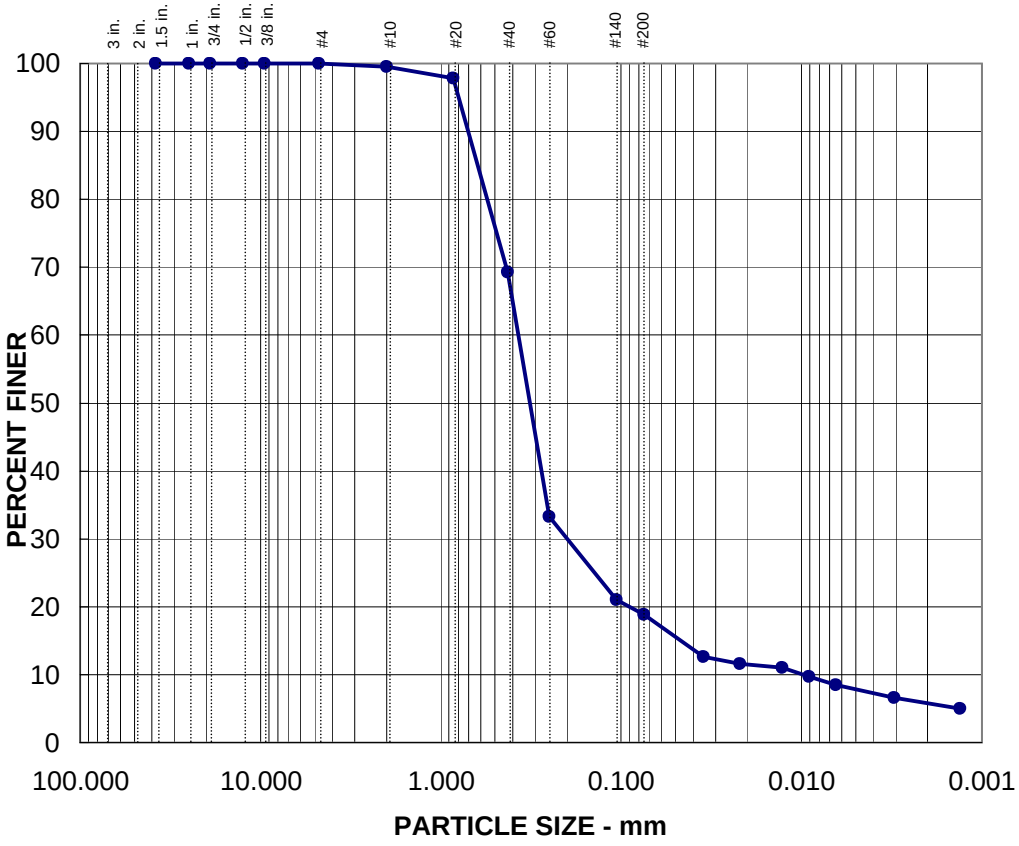
SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	99.5 %
#20	97.9 %
#40	69.2 %
#60	33.3 %
#140	21.0 %
#200	18.9 %

HYDROMETER ANALYSIS	
HYDROMETER No.	10
Wt OF DRY SOIL, Ws	14.59
DATE TESTING INITIATED	05/06/08
TIME TESTING INITIATED	10:39:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	15.5	10.0	0.0351	12.6
5	14.5	9.2	0.0220	11.6
15	14.0	8.7	0.0128	11.0
30	13.0	7.7	0.0091	9.7
60	12.0	6.7	0.0065	8.5
270	10.5	5.2	0.0031	6.6
1440	9.0	3.9	0.0013	5.0

KEMRON
ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	81.1	11.1	7.8

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3016-S005-041008
Sample Description:	Sand
Testing Date:	04/28/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	4/28/2008
TESTED BY:	SEM
TRACKING CODE:	4809_GS
SAMPLE NO:	3016-S005-041008

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3016-S005-041008	
2. FLASK NUMBER	1	
3. TEMPERATURE	21.5	°C
4. WT. FLASK & WATER	184.05	g
5. WT. WATER, FLASK & SOIL	224.75	g
6. WT OF SOIL	40.70	g
7. CALIBRATION WATER & FLASK	347.86	g
8. DEAIRED SAMPLE	373.57	g
9. SPECIFIC GRAVITY	2.71	
10. CORRECTION FACTOR K	0.9996	
11. Gs @ 20 °C	2.71	

KEMRON
ENVIRONMENTAL SERVICES

1359-A Ellsworth Industrial Blvd • Atlanta, GA 30318 • TEL 404-636-0928 • FAX 404-636-7162

May 23, 2008

Kathy Albertson
Microbac Laboratories, Inc.
Ohio Valley Division
158 Starlite Drive
Marietta, Ohio 45750
(800) 373-4071

Re: Final Letter Report
South Charleston
Project #SE-0254

Dear Ms. Albertson:

Enclosed, please find the testing results for the South Charleston Geotechnical testing KEMRON recently completed. The following samples were received on May 7, 2008 and May 8, 2008 for testing:

▪ 3030-S001-043008
▪ 3030-S002-043008
▪ 3030-S003-043008
▪ Shelby tube-3030

This letter report includes a summary of the testing results, supporting laboratory data and the sample chain of custody. The following tests were completed for the samples referenced above:

- Solid Specific Gravity ASTM D 854
- Dry Bulk Density – ASTM D5057
- Hydraulic Conductivity – ASTM D5084
- Particle Size Analysis ASTM D422

KEMRON Environmental Services, Inc. appreciates this opportunity to provide laboratory services. If you have any questions, or require additional information, please contact me at (404) 636-0928.

Sincerely,

KEMRON Environmental Services, Inc.

Kelly M. Clemons
Program Manager

Attachments

SUMMARY DATA TABLES

SOUTH CHARLESTON GEOTECH
CH2MHILL

TABLE 1
SUMMARY OF TESTING

PARTICLE SIZE ANALYSIS - ASTM D422
DRY BULK DENSITY ASTM D2937
SPECIFIC GRAVITY - ASTM D854

SAMPLE ID	SAMPLE Description	Particle Size Analyses				Density Determination		Specific Gravity at 20C
		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Bulk (pcf)	Dry (pcf)	
3030-S001-043008	Clayey, silt, sand	0.0	22.2	43.4	34.4	120.5	93.9	2.75
3030-S003-043008	Sand	0.1	85.1	9.2	5.6	113.1	104.1	2.68
3030-S002-043008	Silty, sand	0.0	77.0	14.0	9.0	109.2	99.2	2.69

SOUTH CHARLESTON GEOTECH

CH2MHILL

TABLE 4

FALLING HEAD PERMEABILITY TESTING RESULTS - ASTM D5084

SAMPLE #	HYDRAULIC CONDUCTIVITY			
	Initial Moisture Content (%)	Initial Bulk Density (lbs/ft^3)	Initial Dry Density (lbs/ft^3)	Permeability (k) (cm/sec)
Boring # 3030	22.6	127.1	104.3	**1.20E-06**

CHAIN OF CUSTODY

COC No. A 82096

156 Starlite Drive
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: CH2M HILL

Project Contact: Emil Filc

Contact Phone #: 937-220-2953

Turn Around Requirements: 14 DAY

Location: South Charleston, WV PO: 592987

Project ID: SCF Source Area Delineation #: 367695.B5.FI

Sampler (print): Kevin Olress

Signature:

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Grain size	Dry Bulk Density	Sp. Gravity	Permeability	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS Sample interval
3030-S001-043008			04/30/08	1150	Soil	2		X	X	X			13-14'
3030-S002-043008				1215		2		X	X	X			22-23'
3030-S003-043008				1240		2		X	X	X			32.5-33.5'
Shelby tube-3030				1445		1					X		12-15'

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	05/06/08	1300					
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:	
			Charlotte Hathaway	5/7/08	1100	no Shelby tube present.	

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Kemron Environmental Services, Inc. South Charleston

Page _____ of _____

PHYSICAL PROPERTY DATA

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S001-043008
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4818_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.82	g	26.82	g	26.82	g
3. WT OF MOLD + SOIL	423.76	g	424.61	g	424.33	g
4. WT OF WET SOIL, W	396.94	g	397.79	g	397.51	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	120.3	pcf	120.6	pcf	120.5	pcf
9. DRY DENSITY	93.9	pcf	93.6	pcf	94.1	pcf
AVERAGE BULK DENSITY	**120.5**	**pcf**				
AVERAGE DRY DENSITY	**93.9**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	70.75	g	68.93	g	70.01	g
3. WT WET SOIL + TARE	115.84	g	110.05	g	118.88	g
4. WT DRY SOIL + TARE	105.95	g	100.84	g	108.19	g
5. WT WATER, Ww	9.89	g	9.21	g	10.69	g
6. WT DRY SOIL, Ws	35.20	g	31.91	g	38.18	g
7. ASTM MOISTURE CONTENT, W	28.10	%	28.86	%	28.00	%
8. EPA MOISTURE CONTENT, W	21.93	%	22.40	%	21.87	%

SIEVE AND HYDROMETER ANALYSIS

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S001-043008
SAMPLE DESCRIPT:	Clayey Silt
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4818_GR

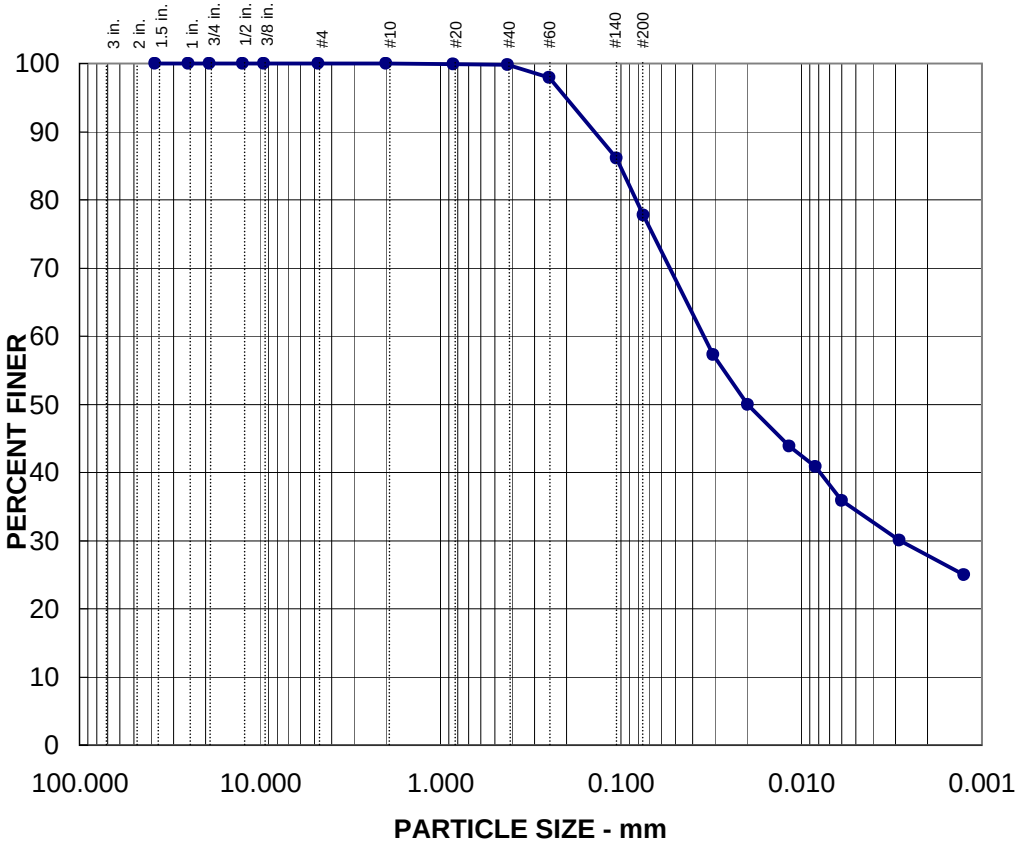
MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	209.04 g
WT WET SOIL + TARE	271.00 g
WT DRY SOIL + TARE	257.70 g
WT WATER, Ww	13.30 g
WT DRY SOIL, Ws	48.66 g
ASTM MOISTURE	27.33 %
EPA MOISTURE	21.47 %

SIEVE NUMBER	CUMULATIVE WEIGHT RETAINED
1.5	0.00 g
1.0	0.00 g
0.75	0.00 g
0.5	0.00 g
0.375	0.00 g
#4	0.00 g
#10	0.00 g
#20	0.04 g
#40	0.11 g
#60	0.99 g
#140	6.75 g
#200	10.81 g

HYDROMETER ANALYSIS	
HYDROMETER No.	3
Wt OF DRY SOIL, Ws	37.85
DATE TESTING INITIATED	5/12/2008
TIME TESTING INITIATED	10:32

DATE	TIME	ELAPSED TIME (minutes)	TEMP. (oC)	HYDROMETER READINGS
5/12/2008	10:34	2	21.5	34.0
5/12/2008	10:37	5	21.5	30.0
5/12/2008	10:47	15	21.5	27.0
5/12/2008	11:02	30	21.5	25.5
5/12/2008	11:32	60	21.5	23.0
5/12/2008	15:02	270	22.0	20.0
5/13/2008	10:39	1447	22.0	17.5

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	22.2	43.4	34.4

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3030-S001-043008
Sample Description:	Clayey Silt
Testing Date:	05/07/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S001-043008
SAMPLE DESCRIPT:	Clayey Silt
TESTING DATE:	05/07/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4818_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	209.04 g
WT WET SOIL + TARE	271.00 g
WT DRY SOIL + TARE	257.70 g
WT WATER, Ww	13.30 g
WT DRY SOIL, Ws	48.66 g
ASTM MOISTURE	27.33 %
EPA MOISTURE	21.47 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	100.0 %
#20	99.9 %
#40	99.8 %
#60	98.0 %
#140	86.1 %
#200	77.8 %

HYDROMETER ANALYSIS	
HYDROMETER No.	3
Wt OF DRY SOIL, Ws	37.85
DATE TESTING INITIATED	05/12/08
TIME TESTING INITIATED	10:32:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	34.0	28.5	0.0309	57.3
5	30.0	24.8	0.0198	49.9
15	27.0	21.8	0.0117	43.9
30	25.5	20.3	0.0083	40.9
60	23.0	17.8	0.0060	35.8
270	20.0	14.9	0.0029	30.0
1447	17.5	12.4	0.0013	25.0

KEMRON
ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4818_GS
SAMPLE NO:	3030-S001-043008

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3030-S001-043008	
2. FLASK NUMBER	1	
3. TEMPERATURE	21.5	°C
4. WT. FLASK & WATER	190.96	g
5. WT. WATER, FLASK & SOIL	231.01	g
6. WT OF SOIL	40.05	g
7. CALIBRATION WATER & FLASK	347.86	g
8. DEAIRED SAMPLE	373.37	g
9. SPECIFIC GRAVITY	2.75	
10. CORRECTION FACTOR K	0.9996	
11. Gs @ 20 °C	2.75	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S002-043008
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4819_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.82	g	26.82	g	26.82	g
3. WT OF MOLD + SOIL	388.35	g	386.36	g	386.01	g
4. WT OF WET SOIL, W	361.53	g	359.54	g	359.19	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	109.6	pcf	109.0	pcf	108.9	pcf
9. DRY DENSITY	99.8	pcf	98.8	pcf	99.0	pcf
AVERAGE BULK DENSITY	**109.2**	**pcf**				
AVERAGE DRY DENSITY	**99.2**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	69.81	g	69.10	g	64.49	g
3. WT WET SOIL + TARE	107.22	g	107.49	g	107.56	g
4. WT DRY SOIL + TARE	103.89	g	103.91	g	103.65	g
5. WT WATER, Ww	3.33	g	3.58	g	3.91	g
6. WT DRY SOIL, Ws	34.08	g	34.81	g	39.16	g
7. ASTM MOISTURE CONTENT, W	9.77	%	10.28	%	9.98	%
8. EPA MOISTURE CONTENT, W	8.90	%	9.33	%	9.08	%

SIEVE AND HYDROMETER ANALYSIS

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S002-043008
SAMPLE DESCRIPT:	Silty Sand
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4819_GR

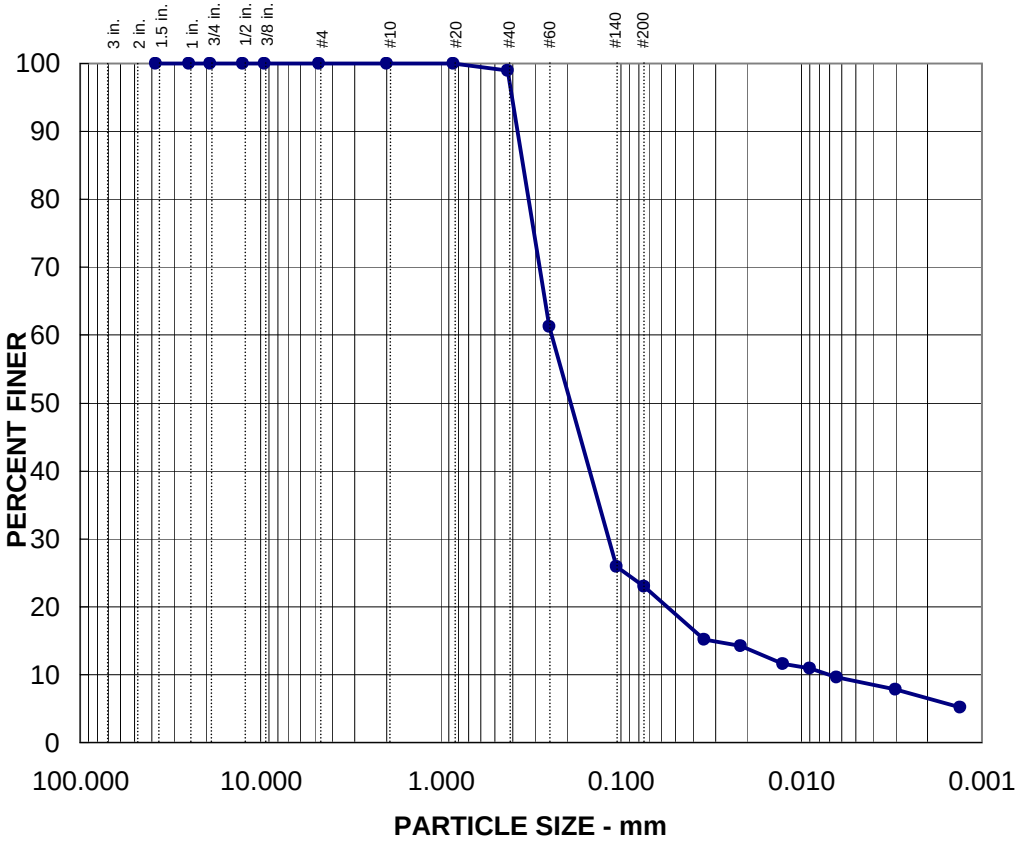
MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	232.17 g
WT WET SOIL + TARE	313.69 g
WT DRY SOIL + TARE	306.27 g
WT WATER, Ww	7.42 g
WT DRY SOIL, Ws	74.10 g
ASTM MOISTURE	10.01 %
EPA MOISTURE	9.10 %

SIEVE NUMBER	CUMULATIVE WEIGHT RETAINED
1.5	0.00 g
1.0	0.00 g
0.75	0.00 g
0.5	0.00 g
0.375	0.00 g
#4	0.00 g
#10	0.00 g
#20	0.01 g
#40	0.77 g
#60	28.71 g
#140	54.86 g
#200	57.03 g

HYDROMETER ANALYSIS	
HYDROMETER No.	2
Wt OF DRY SOIL, Ws	17.07
DATE TESTING INITIATED	5/12/2008
TIME TESTING INITIATED	10:31

DATE	TIME	ELAPSED TIME (minutes)	TEMP. (oC)	HYDROMETER READINGS
5/12/2008	10:33	2	21.5	17.0
5/12/2008	10:36	5	21.5	16.0
5/12/2008	10:46	15	21.5	14.0
5/12/2008	11:01	30	21.5	13.5
5/12/2008	11:31	60	21.5	12.5
5/12/2008	15:01	270	22.0	11.0
5/13/2008	10:38	1447	22.0	9.0

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.0	77.0	14.0	9.0

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3030-S002-043008
Sample Description:	Silty Sand
Testing Date:	05/07/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S002-043008
SAMPLE DESCRIPT:	Silty Sand
TESTING DATE:	05/07/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4819_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	232.17 g
WT WET SOIL + TARE	313.69 g
WT DRY SOIL + TARE	306.27 g
WT WATER, Ww	7.42 g
WT DRY SOIL, Ws	74.10 g
ASTM MOISTURE	10.01 %
EPA MOISTURE	9.10 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	100.0 %
#10	100.0 %
#20	100.0 %
#40	99.0 %
#60	61.3 %
#140	26.0 %
#200	23.0 %

HYDROMETER ANALYSIS	
HYDROMETER No.	2
Wt OF DRY SOIL, Ws	17.07
DATE TESTING INITIATED	05/12/08
TIME TESTING INITIATED	10:31:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	17.0	11.5	0.0347	15.2
5	16.0	10.8	0.0217	14.3
15	14.0	8.8	0.0127	11.6
30	13.5	8.3	0.0090	11.0
60	12.5	7.3	0.0064	9.6
270	11.0	5.9	0.0030	7.8
1447	9.0	3.9	0.0013	5.2

KEMRON
ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	5/7/2008
TESTED BY:	SEM
TRACKING CODE:	4819_GS
SAMPLE NO:	3030-S002-043008

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3030-S002-043008	
2. FLASK NUMBER	5	
3. TEMPERATURE	21.5	°C
4. WT. FLASK & WATER	183.79	g
5. WT. WATER, FLASK & SOIL	225.59	g
6. WT OF SOIL	41.80	g
7. CALIBRATION WATER & FLASK	359.91	g
8. DEAIRED SAMPLE	386.16	g
9. SPECIFIC GRAVITY	2.69	
10. CORRECTION FACTOR K	0.9996	
11. Gs @ 20 °C	2.69	

DENSITY DETERMINATION

DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S003-043008
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4820_DEN1

UNIT WEIGHT (DENSITY)						
1. SAMPLE NO.	A		B		C	
2. WT OF MOLD (tare weight)	26.82	g	26.82	g	26.82	g
3. WT OF MOLD + SOIL	400.75	g	397.89	g	400.96	g
4. WT OF WET SOIL, W	373.93	g	371.07	g	374.14	g
5. DIAMETER OF SPECIMEN, D	2.00	in	2.00	in	2.00	in
6. HEIGHT OF SPECIMEN, H	4.00	in	4.00	in	4.00	in
7. VOLUME OF SPECIMEN	12.57	in^3	12.57	in^3	12.57	in^3
8. WET DENSITY	113.4	pcf	112.5	pcf	113.4	pcf
9. DRY DENSITY	104.4	pcf	103.4	pcf	104.5	pcf
AVERAGE BULK DENSITY	**113.1**	**pcf**				
AVERAGE DRY DENSITY	**104.1**	**pcf**				

MOISTURE CONTENT (Dry & Wet Basis)						
1. MOISTURE TIN NO.	A		B		C	
2. WT MOISTURE TIN (tare weight)	65.01	g	69.21	g	66.14	g
3. WT WET SOIL + TARE	109.37	g	108.23	g	101.45	g
4. WT DRY SOIL + TARE	105.86	g	105.06	g	98.68	g
5. WT WATER, Ww	3.51	g	3.17	g	2.77	g
6. WT DRY SOIL, Ws	40.85	g	35.85	g	32.54	g
7. ASTM MOISTURE CONTENT, W	8.59	%	8.84	%	8.51	%
8. EPA MOISTURE CONTENT, W	7.91	%	8.12	%	7.84	%

SIEVE AND HYDROMETER ANALYSIS

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S003-043008
SAMPLE DESCRIPT:	Silty Sand
TESTING DATE:	5/7/2008
TESTED BY:	SEM/CJH
TRACKING CODE:	4820_GR

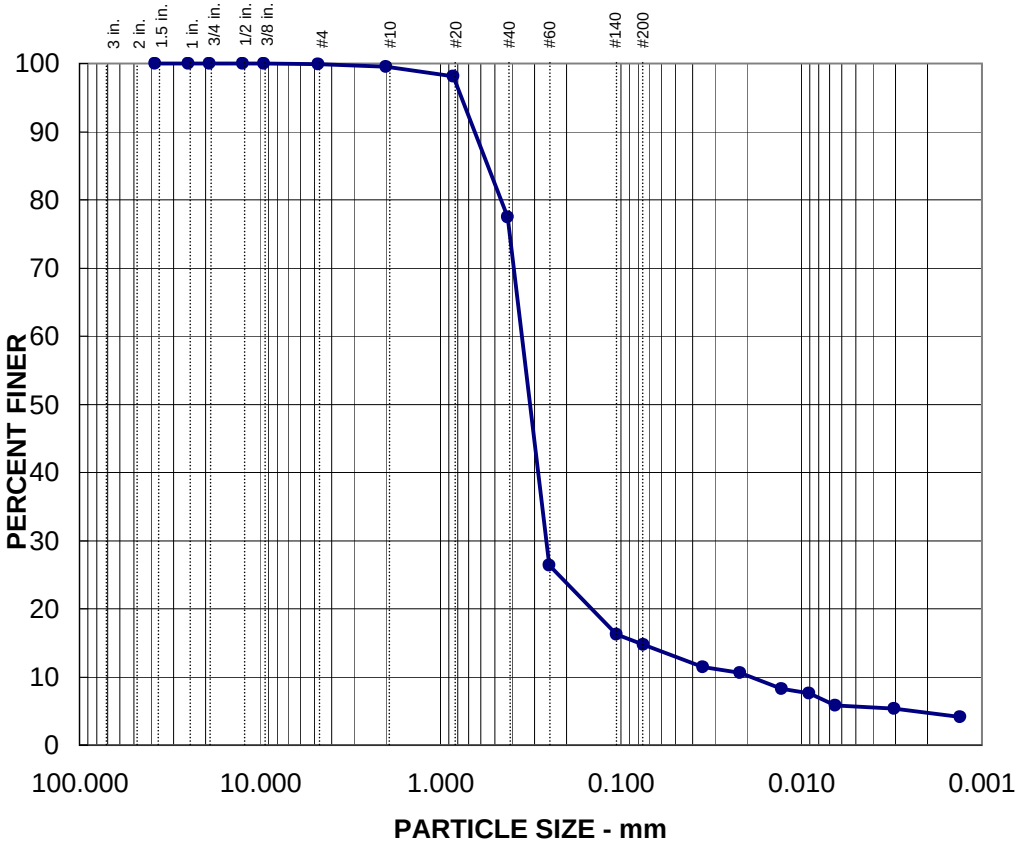
MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	239.65 g
WT WET SOIL + TARE	327.69 g
WT DRY SOIL + TARE	320.49 g
WT WATER, Ww	7.20 g
WT DRY SOIL, Ws	80.84 g
ASTM MOISTURE	8.91 %
EPA MOISTURE	8.18 %

SIEVE NUMBER	CUMULATIVE WEIGHT RETAINED
1.5	0.00 g
1.0	0.00 g
0.75	0.00 g
0.5	0.00 g
0.375	0.00 g
#4	0.08 g
#10	0.38 g
#20	1.50 g
#40	18.23 g
#60	59.51 g
#140	67.68 g
#200	68.89 g

HYDROMETER ANALYSIS	
HYDROMETER No.	1
Wt OF DRY SOIL, Ws	11.95
DATE TESTING INITIATED	5/12/2008
TIME TESTING INITIATED	10:30

DATE	TIME	ELAPSED TIME (minutes)	TEMP. (oC)	HYDROMETER READINGS
5/12/2008	10:32	2	21.5	15.0
5/12/2008	10:35	5	21.5	14.0
5/12/2008	10:45	15	21.5	12.0
5/12/2008	11:00	30	21.5	11.5
5/12/2008	11:30	60	21.5	10.0
5/12/2008	15:00	270	22.0	9.5
5/13/2008	10:37	1447	22.0	8.5

PARTICLE SIZE DISTRIBUTION TEST REPORT



% GRAVEL	% SAND	% SILT	% CLAY
0.1	85.1	9.2	5.6

SAMPLE INFORMATION	
Project Name:	South Charleston Geotech
Project Number:	SE-0254
Sample ID:	3030-S003-043008
Sample Description:	Silty Sand
Testing Date:	05/07/08

SAMPLE CLASSIFICATION	
Liquid Limit:	
Plastic Limit:	
Plasticity Index:	
USCS Classification	
Classification	
AASHTO Classification	
Classification	
Group Index	
DESCRIPTION:	

KEMRON ENVIRONMENTAL SERVICES

PARTICLE SIZE DISTRIBUTION DATA REPORT

REPORT FORM
ASTM D422

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
SAMPLE No.:	3030-S003-043008
SAMPLE DESCRIPT:	Silty Sand
TESTING DATE:	05/07/08
TESTED BY:	SEM/CJH
TRACKING CODE:	4820_GR

MOISTURE CONTENT (DRY AND WET BASIS)	
TARE WEIGHT	239.65 g
WT WET SOIL + TARE	327.69 g
WT DRY SOIL + TARE	320.49 g
WT WATER, Ww	7.20 g
WT DRY SOIL, Ws	80.84 g
ASTM MOISTURE	8.91 %
EPA MOISTURE	8.18 %

SIEVE NUMBER	PERCENT PASSING
1.5	100.0 %
1.0	100.0 %
0.75	100.0 %
0.5	100.0 %
0.375	100.0 %
#4	99.9 %
#10	99.5 %
#20	98.1 %
#40	77.4 %
#60	26.4 %
#140	16.3 %
#200	14.8 %

HYDROMETER ANALYSIS	
HYDROMETER No.	1
Wt OF DRY SOIL, Ws	11.95
DATE TESTING INITIATED	05/12/08
TIME TESTING INITIATED	10:30:00 AM

ELAPSED TIME (minutes)	ACTUAL READING	CORRECTED READING	DIAMETER (mm)	PERCENT FINER (%)
2	15.0	9.5	0.0352	11.5
5	14.0	8.8	0.0220	10.7
15	12.0	6.8	0.0128	8.2
30	11.5	6.3	0.0091	7.6
60	10.0	4.8	0.0065	5.8
270	9.5	4.4	0.0030	5.3
1447	8.5	3.4	0.0013	4.1

KEMRON
ENVIRONMENTAL SERVICES

SOLID SPECIFIC GRAVITY

ASTM D 854
DATA SHEET

PROJECT:	South Charleston Geotech
PROJECT No.:	SE-0254
TESTING DATE:	5/7/2008
TESTED BY:	SEM
TRACKING CODE:	4820_GS
SAMPLE NO:	3030-S003-043008

SOLID SPECIFIC GRAVITY		
1. SAMPLE NUMBER	3030-S003-043008	
2. FLASK NUMBER	4	
3. TEMPERATURE	21.0	°C
4. WT. FLASK & WATER	190.16	g
5. WT. WATER, FLASK & SOIL	231.67	g
6. WT OF SOIL	41.51	g
7. CALIBRATION WATER & FLASK	361.31	g
8. DEAIRED SAMPLE	387.36	g
9. SPECIFIC GRAVITY	2.68	
10. CORRECTION FACTOR K	0.9998	
11. Gs @ 20 °C	2.68	

PERMEABILITY ASTM D5084

SPECIMEN CONDITIONS

Page 1 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4824_PM
SAMPLE No.:	Boring # 3030	EQUIPMENT No.:	2
TEST DATE:	9 May 2008		

MOISTURE CONTENT (Dry Basis)	***INITIAL***	***FINAL***
1. MOISTURE TIN NO.	Boring # 3030	Boring # 3030
2. WT MOISTURE TIN (tare weight)	0.00 ***g***	231.99 ***g***
3. WT WET SOIL + TARE	629.90 ***g***	862.80 ***g***
4. WT DRY SOIL + TARE	513.61 ***g***	745.60 ***g***
5. WT WATER, Ww	116.29 g	117.20 g
6. WT DRY SOIL, Ws	513.61 g	513.61 g
7. MOISTURE CONTENT, W	22.64 %	22.82 %

SOIL SPECIMEN DIMENSIONS				
TRIPLICATE	***DIAMETER***		***HEIGHT***	
ANALYSES	***INITIAL***	***FINAL***	***INITIAL***	***FINAL***
No. 1	***2.85 in.***	***2.85 in.***	***2.91 in.***	***2.91 in.***
No. 2	***2.86 in.***	***2.85 in.***	***2.92 in.***	***2.91 in.***
No. 3	***2.87 in.***	***2.86 in.***	***2.93 in.***	***2.92 in.***
Average	2.86 in.	2.85 in.	2.92 in.	2.91 in.

SPECIMEN CONDITIONS	***INITIAL***	***FINAL***
Specimen WT, Wo	***629.90 g***	***630.80 g***
Area, Ao	6.42 in^2	6.39 in^2
Volume, Vo	18.76 in^3	18.63 in^3
Bulk Unit Weight	127.9 lb/ft^3	129.0 lb/ft^3
Dry Unit Weight	104.3 lb/ft^3	105.0 lb/ft^3

PERMEABILITY ASTM D5084

BACK-PRESSURE SATURATION

Page 2 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4824_PM
SAMPLE No.:	Boring # 3030	EQUIPMENT No.:	2
TEST DATE:	9 May 2008		

TEST	TIME	TESTED	TEST PRESSURES (psi)						
			APPLIED		PORE		PRESSURE CHANGE		
DATE	(military)	BY	CELL	BACK	SAT.	TEST	CELL	PORE	B-Value
05/09/08	15 : 17	SEM	7.0	5.0	5.6				
05/09/08	16 : 32	SEM	17.0	15.0	15.6	9.8	10.0	4.2	0.42
05/09/08	17 : 25	SEM	27.0	25.0	25.7	22.2	10.0	6.6	0.66
05/12/08	11 : 32	SEM	37.0	35.0	35.5	35.2	10.0	9.5	0.95
05/12/08	12 : 26	SEM	47.0	45.0	45.4	45.2	10.0	9.7	0.97
05/12/08	13 : 45	SEM	57.0	55.0	55.5	55.2	10.0	9.8	0.98
05/12/08	15 : 9	SEM	67.0	65.0	*	65.4	10.0	9.9	0.99
05/12/08	15 : 10	SEM	57.0	58.0	*	*	*	*	*

* Saturation check - no data available.

PERMEABILITY ASTM D5084

SPECIMEN CONSOLIDATION

Page 3 of 6

PROJECT:	South Charleston Geotech	SEM
PROJECT No.:	SE-0254	4824_PM
SAMPLE No.:	Boring # 3030	2
TEST DATE:	9 May 2008	

CELL PRESSURE: 65 psi **BACK PRESSURE:** 55 psi **EFFECTIVE STRESS:** 10 psi

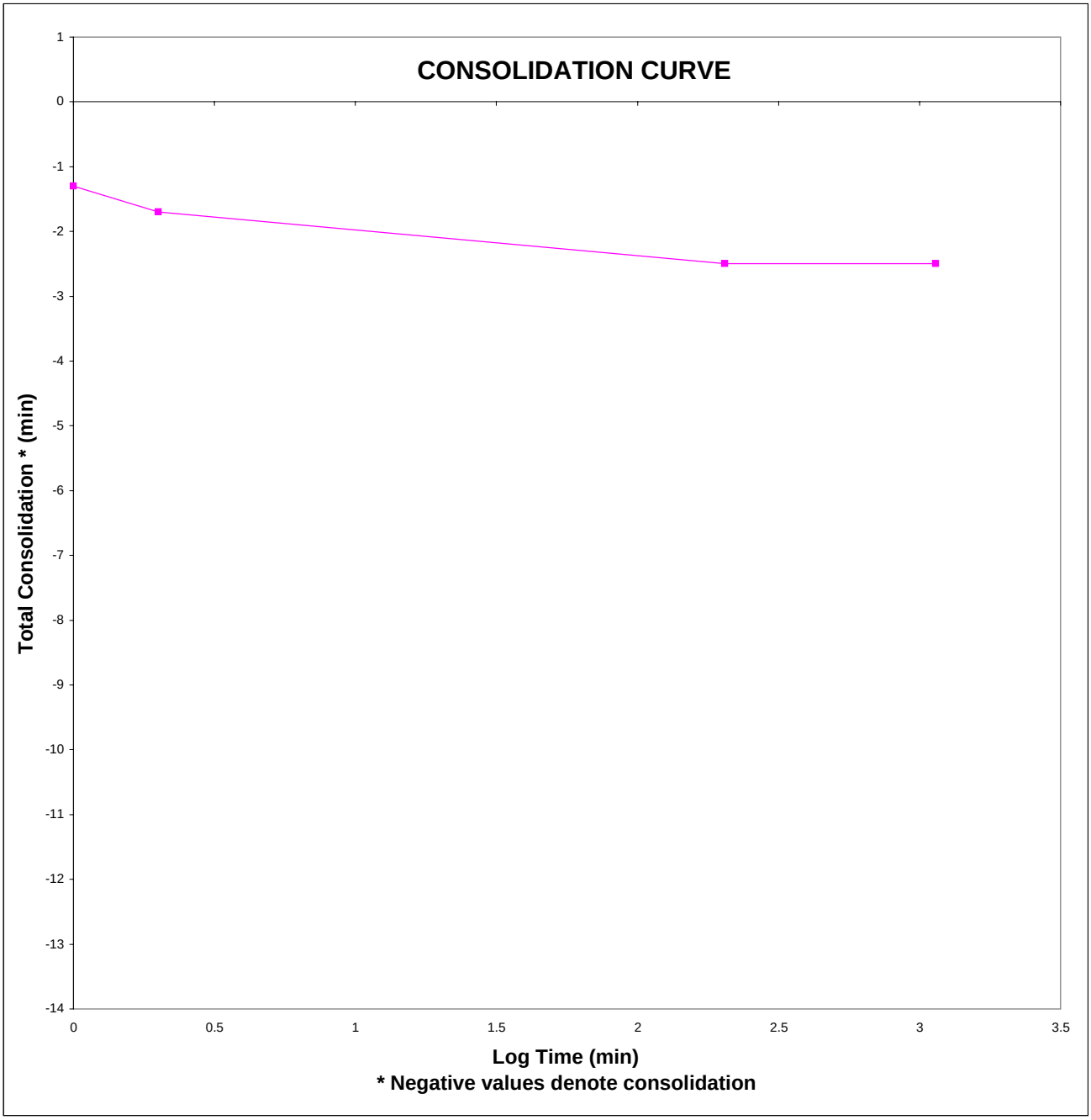
TEST DATE	*TESTED BY*	*TIME (Military)*	*ELAPSED TIME (minutes)*	*TOTAL TIME (minutes)*	*TOTAL TIME (Log)*	*SPECIMEN CONSOLIDATION (ML)*		
						READING		*ACTUAL*
						BOTTOM	*TOP*	*TOTAL (Ct)*
5 / 12 / 8	SEM	15 : 15				24.0	24.0	0.0
5 / 12 / 8	SEM	15 : 16	1	1	0.00	23.4	23.3	1.3
5 / 12 / 8	SEM	15 : 17	1	2	0.30	23.2	23.1	1.7
5 / 12 / 8	SEM	18 : 39	202	204	2.31	22.8	22.7	2.5
5 / 13 / 8	SEM	10 : 15	936	1140	3.06	22.8	22.7	2.5

PERMEABILITY ASTM D5084

CONSOLIDATION CURVE

Page 4 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4824_PM
SAMPLE No.:	Boring # 3030	EQUIPMENT No.:	2
TEST DATE:	9 May 2008		



PERMEABILITY ASTM D5084

TEST DATA

Page 5 of 6

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4824_PM
SAMPLE No.:	Boring # 3030	EQUIPMENT No.:	2
TEST DATE:	9 May 2008		

DATE	TESTED BY	TIME (military)	ELAPSED TIME (minutes)	HYDRAULIC HEAD (cm)		TEMP. C°	GAUGE PRESSURE (psi)		
				INFLUENT	EFFLUENT		CELL	INFLUENT	EFFLUENT
5 / 15 / 8	SEM	12 : 41		0.0	24.0	20.0	65.0	55.0	55.0
5 / 15 / 8	SEM	15 : 29	168	1.5	22.5	20.0	65.0	55.0	55.0
5 / 15 / 8	SEM	16 : 52	83	2.2	21.8	20.0	65.0	55.0	55.0
5 / 16 / 8	SEM	8 : 42	950	7.3	16.7	20.0	65.0	55.0	55.0
5 / 16 / 8	SEM	17 : 43	541	8.9	15.1	20.0	65.0	55.0	55.0

PERMEABILITY ASTM D5084

TEST DATA (continued)

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4824_PM
SAMPLE No.:	Boring # 3030	EQUIPMENT No.:	2
TEST DATE:	9 May 2008		

ELAPSED TIME (minutes)	HYDRAULIC HEAD DIFFERENCE (cm) INFLUENT	EFFLUENT	EFFLUENT - INFLUENT RATIO	HYDRAULIC GRADIENT (cm/cm)	HYDRAULIC CONDUCTIVITY (cm/sec) @ Temp.	@ 20° C
RESET				3.236		
168	1.5	1.5	1.00	2.831	1.19E-06	1.19E-06
83	0.7	0.7	1.00	2.643	1.24E-06	1.25E-06
950	5.1	5.1	1.00	1.267	1.15E-06	1.16E-06
541	1.6	1.6	1.00	0.836	1.15E-06	1.15E-06

PERMEABILITY ASTM D5084

SUMMARY OF RESULTS

PROJECT:	South Charleston Geotech	TESTED BY:	SEM
PROJECT No.:	SE-0254	TRACKING CODE:	4824_PM
SAMPLE No.:	Boring # 3030	EQUIPMENT No.:	2
TEST DATE:	9 May 2008		

TESTING PARAMETER	INITIAL	FINAL
BULK UNIT WEIGHT	**127.9 lb/ft³**	**129.0 lb/ft³**
DRY UNIT WEIGHT	**104.3 lb/ft³**	**105.0 lb/ft³**
MOISTURE CONTENT	**22.6 %**	**22.8 %**
PERMEABILITY @ 20°C	**1.2E-06 cm/sec**	

Attachment 3

Analytical Data Packages and Data Quality Evaluation Memorandums

Quick Facts

Microbac®

Look closer. Go further. Do more.

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DUNS#: 048192892

Incorporated in the State of PA -- May 1, 1969

Employees Corporate-Wide: 467

Facilities Corporate –Wide: 18 Divisions, 28 locations across 15 states

Please note these administrative changes for our Ohio Valley Division laboratory in Marietta, OH (formerly KEMRON Environmental Services, Inc.) , in particular the address, which is a revised routing of remittances on our invoices. All invoices dated April 1, 2008 or later will reflect this change, and will be highlighted with an attention-getting sticker during our transition. Please adjust your records to ensure proper routing of payments.

Microbac®

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Laboratory Report Number: L08040508

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box bleow at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

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This report was reviewed on May 12, 2008.

Kathy Albertson

Kathy Albertson - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories.

This report was certified on May 12, 2008.

David E. Vandenberg

David Vandenberg - Managing Director

Accrediting authority: Department of Environmental Protection (West Virginia) ID:037
This report contains a total of 210 pages.

Look closer. Go further. Do more.

Microbac REPORT L08040508
PREPARED FOR CH2MHILL, Inc
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L08040508

CHAIN OF CUSTODY: The chain of custody number was 79701.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 1 degree C.

SAMPLE MANAGEMENT: All samples received were intact.

L08040508-01	TB04
L08040508-02	3001-S001-041608
L08040508-03	3033-S001-041608
L08040508-04	3033-S003-041608
L08040508-05	3033-S002-041608
L08040508-06	3033-S004-041608
L08040508-07	3033-S005-041608
L08040508-08	3033-S006-041608

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 21-APR-08

Kathy Albertson

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Microbac Laboratories Inc.
GC/MS VOLATILE ORGANICS

Microbac Login No: L08040508

METHOD

Preparation: SW-846 5030B, 5035

Analysis: SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Samples collected via 5035 preserved by freezing. Sample preparation preceeded normally.

CALIBRATION

Initial Calibration: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: Vinyl acetate was below the lower control limit in the water alternate source analyzed 04/17/08 on HPMS-14. 2-Butanone and acetone exceeded the upper control limits and vinyl acetate was below the lower control limit in the soil alternate source analyzed 04/17/08 on HPMS-9. All other acceptance criteria were met.

Continuing Calibration and Tune: Chloromethane exceeded the upper control limit and vinyl acetate was below the lower control limit in the water CCV analyzed 04/25/08 on HPMS-14. Vinyl acetate was below the lower control limit in the soil CCV analyzed 04/28/08 on HPMS-9. Bromomethane, carbon tetrachloride, and vinyl acetate exceeded the upper control limits in the soil CCV analyzed 04/29/08 on HPMS-9. All other acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: The % recovery for 1,4-dioxane was below the lower advisory limit and the RPD for 1,4-dioxane exceeded the upper advisory limit in the water LCS/LCSD analyzed 04/25/08 on HPMS-14. All other acceptance criteria were met.

Matrix Spike: The MS/MSD results were not associated with this sample delivery group (SDG), due to insufficient volume of sample. The laboratory included an LCS and LCS duplicate in the preparation batch in lieu of the NELAC prescribed MS/MSD. Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Manual Integration Reason Codes

Microbac laboratory management has identified four general cases with valid reasons supporting the use of manual integration techniques.

Reason #1: Data System Fails to Select Correct Peak
In some cases the chromatography system selects and integrates the ”wrong peak”. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.
This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds.
This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

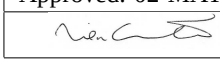
Reason #4: System Establishes Incorrect Baseline
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous
Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: TMB

Approved: 02-MAY-08



LABORATORY REPORT

L08040508

05/05/08 13:45

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
TB04	L08040508-01	8260B	1	17-APR-08
3001-S001-041608	L08040508-02	8260B	1	17-APR-08
3033-S001-041608	L08040508-03	8260B	1	17-APR-08
3033-S003-041608	L08040508-04	8260B	1	17-APR-08
3033-S005-041608	L08040508-07	8260B	1	17-APR-08

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-01**
Client ID: **TB04**
Matrix: **Water**
Workgroup Number: **WG269475**
Collect Date: **04/16/2008 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **SMH**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS14**
Prep Date: **04/25/2008 13:43**
Cal Date: **04/17/2008 14:38**
Run Date: **04/25/2008 13:43**
File ID: **14M05358**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	101	76	114	
4-Bromofluorobenzene	94.9	86	115	
Dibromofluoromethane	98.8	85	115	
Toluene-d8	101	88	110	

U Not detected at or above the reporting limit

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-02**
Client ID: **3001-S001-041608**
Matrix: **Soil**
Workgroup Number: **WG269647**
Collect Date: **04/16/2008 10:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/28/2008 14:37**
Cal Date: **04/17/2008 16:47**
Run Date: **04/28/2008 14:37**
File ID: **9M61407**
Percent Solid: **80.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.44	0.544
1,1,2,2-Tetrachloroethane	79-34-5		U	5.44	0.544
1,1,2-Trichloroethane	79-00-5		U	5.44	0.544
1,1-Dichloroethane	75-34-3		U	5.44	1.09
1,1-Dichloroethene	75-35-4		U	5.44	0.544
1,2,4-Trichlorobenzene	120-82-1		U	5.44	0.544
1,2-Dichlorobenzene	95-50-1		U	5.44	0.544
1,2-Dichloroethane	107-06-2		U	5.44	0.544
1,2-Dichloropropane	78-87-5		U	5.44	0.544
1,3-Dichlorobenzene	541-73-1		U	5.44	0.544
1,4-Dichlorobenzene	106-46-7		U	5.44	0.544
1,4-Dioxane	123-91-1		U	1850	54.4
2-Butanone	78-93-3		U	27.2	2.72
2-Hexanone	591-78-6		U	10.9	2.72
4-Methyl-2-pentanone	108-10-1		U	10.9	2.72
Acetone	67-64-1		U	109	5.44
Acrylonitrile	107-13-1		U	109	2.72
Benzene	71-43-2		U	5.44	0.544
Bromodichloromethane	75-27-4		U	5.44	0.544
Bromoform	75-25-2		U	5.44	0.544
Bromomethane	74-83-9		U	10.9	1.09
Carbon disulfide	75-15-0		U	5.44	0.544
Carbon tetrachloride	56-23-5		U	5.44	0.544
Chlorobenzene	108-90-7		U	5.44	0.544
Dibromochloromethane	124-48-1		U	5.44	0.544
Chloroethane	75-00-3		U	10.9	1.09
Chloroform	67-66-3		U	5.44	0.544
Chloromethane	74-87-3		U	10.9	2.17
cis-1,2-Dichloroethene	156-59-2		U	5.44	0.544
cis-1,3-Dichloropropene	10061-01-5		U	5.44	0.544
Ethylbenzene	100-41-4		U	5.44	0.544
Methylene chloride	75-09-2		U	5.44	1.09
Methyltert-butyl ether	1634-04-4		U	10.9	0.544
Styrene	100-42-5		U	5.44	0.544
Tetrachloroethene	127-18-4		U	5.44	0.544
Toluene	108-88-3		U	5.44	0.544
trans-1,2-Dichloroethene	156-60-5		U	5.44	0.544
trans-1,3-Dichloropropene	10061-02-6		U	5.44	0.544
Trichloroethene	79-01-6		U	5.44	0.544
Vinyl acetate	108-05-4		U	10.9	1.09
Vinyl chloride	75-01-4		U	10.9	1.09
Xylenes	1330-20-7		U	10.9	0.544

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	83.9	70	121	
4-Bromofluorobenzene	90.6	59	113	
Dibromofluoromethane	90.2	65	135	
Toluene-d8	91.2	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-03**
Client ID: **3033-S001-041608**
Matrix: **Soil**
Workgroup Number: **WG269776**
Collect Date: **04/16/2008 15:10**
Sample Tag: **02**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/29/2008 11:07**
Cal Date: **04/17/2008 16:47**
Run Date: **04/29/2008 11:07**
File ID: **9M61435**
Percent Solid: **82.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.23	0.523
1,1,2,2-Tetrachloroethane	79-34-5		U	5.23	0.523
1,1,2-Trichloroethane	79-00-5		U	5.23	0.523
1,1-Dichloroethane	75-34-3		U	5.23	1.05
1,1-Dichloroethene	75-35-4		U	5.23	0.523
1,2,4-Trichlorobenzene	120-82-1		U	5.23	0.523
1,2-Dichlorobenzene	95-50-1		U	5.23	0.523
1,2-Dichloroethane	107-06-2		U	5.23	0.523
1,2-Dichloropropane	78-87-5		U	5.23	0.523
1,3-Dichlorobenzene	541-73-1		U	5.23	0.523
1,4-Dichlorobenzene	106-46-7		U	5.23	0.523
1,4-Dioxane	123-91-1		U	1780	52.3
2-Butanone	78-93-3		U	26.1	2.61
2-Hexanone	591-78-6		U	10.5	2.61
4-Methyl-2-pentanone	108-10-1		U	10.5	2.61
Acetone	67-64-1		U	105	5.23
Acrylonitrile	107-13-1		U	105	2.61
Benzene	71-43-2		U	5.23	0.523
Bromodichloromethane	75-27-4		U	5.23	0.523
Bromoform	75-25-2		U	5.23	0.523
Bromomethane	74-83-9		U	10.5	1.05
Carbon disulfide	75-15-0		U	5.23	0.523
Carbon tetrachloride	56-23-5		U	5.23	0.523
Chlorobenzene	108-90-7		U	5.23	0.523
Dibromochloromethane	124-48-1		U	5.23	0.523
Chloroethane	75-00-3		U	10.5	1.05
Chloroform	67-66-3		U	5.23	0.523
Chloromethane	74-87-3		U	10.5	2.09
cis-1,2-Dichloroethene	156-59-2		U	5.23	0.523
cis-1,3-Dichloropropene	10061-01-5		U	5.23	0.523
Ethylbenzene	100-41-4		U	5.23	0.523
Methylene chloride	75-09-2		U	5.23	1.05
Methyltert-butyl ether	1634-04-4		U	10.5	0.523
Styrene	100-42-5		U	5.23	0.523
Tetrachloroethene	127-18-4		U	5.23	0.523
Toluene	108-88-3		U	5.23	0.523
trans-1,2-Dichloroethene	156-60-5		U	5.23	0.523
trans-1,3-Dichloropropene	10061-02-6		U	5.23	0.523
Trichloroethene	79-01-6		U	5.23	0.523
Vinyl acetate	108-05-4		U	10.5	1.05
Vinyl chloride	75-01-4		U	10.5	1.05
Xylenes	1330-20-7		U	10.5	0.523

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	99.8	70	121	
4-Bromofluorobenzene	91.7	59	113	
Dibromofluoromethane	102	65	135	
Toluene-d8	94.8	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-04**
Client ID: **3033-S003-041608**
Matrix: **Soil**
Workgroup Number: **WG269647**
Collect Date: **04/16/2008 15:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/28/2008 15:40**
Cal Date: **04/17/2008 16:47**
Run Date: **04/28/2008 15:40**
File ID: **9M61409**
Percent Solid: **88.3**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.38	0.538
1,1,2,2-Tetrachloroethane	79-34-5		U	5.38	0.538
1,1,2-Trichloroethane	79-00-5		U	5.38	0.538
1,1-Dichloroethane	75-34-3		U	5.38	1.08
1,1-Dichloroethene	75-35-4		U	5.38	0.538
1,2,4-Trichlorobenzene	120-82-1		U	5.38	0.538
1,2-Dichlorobenzene	95-50-1		U	5.38	0.538
1,2-Dichloroethane	107-06-2	9.39		5.38	0.538
1,2-Dichloropropane	78-87-5	9.99		5.38	0.538
1,3-Dichlorobenzene	541-73-1		U	5.38	0.538
1,4-Dichlorobenzene	106-46-7		U	5.38	0.538
1,4-Dioxane	123-91-1		U	1830	53.8
2-Butanone	78-93-3		U	26.9	2.69
2-Hexanone	591-78-6		U	10.8	2.69
4-Methyl-2-pentanone	108-10-1		U	10.8	2.69
Acetone	67-64-1		U	108	5.38
Acrylonitrile	107-13-1		U	108	2.69
Benzene	71-43-2		U	5.38	0.538
Bromodichloromethane	75-27-4		U	5.38	0.538
Bromoform	75-25-2		U	5.38	0.538
Bromomethane	74-83-9		U	10.8	1.08
Carbon disulfide	75-15-0		U	5.38	0.538
Carbon tetrachloride	56-23-5		U	5.38	0.538
Chlorobenzene	108-90-7		U	5.38	0.538
Dibromochloromethane	124-48-1		U	5.38	0.538
Chloroethane	75-00-3		U	10.8	1.08
Chloroform	67-66-3		U	5.38	0.538
Chloromethane	74-87-3		U	10.8	2.15
cis-1,2-Dichloroethene	156-59-2		U	5.38	0.538
cis-1,3-Dichloropropene	10061-01-5		U	5.38	0.538
Ethylbenzene	100-41-4		U	5.38	0.538
Methylene chloride	75-09-2		U	5.38	1.08
Methyltert-butyl ether	1634-04-4		U	10.8	0.538
Styrene	100-42-5		U	5.38	0.538
Tetrachloroethene	127-18-4		U	5.38	0.538
Toluene	108-88-3		U	5.38	0.538
trans-1,2-Dichloroethene	156-60-5		U	5.38	0.538
trans-1,3-Dichloropropene	10061-02-6		U	5.38	0.538
Trichloroethene	79-01-6		U	5.38	0.538
Vinyl acetate	108-05-4		U	10.8	1.08
Vinyl chloride	75-01-4		U	10.8	1.08
Xylenes	1330-20-7		U	10.8	0.538

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	88.5	70	121	
4-Bromofluorobenzene	92.1	59	113	
Dibromofluoromethane	92.8	65	135	
Toluene-d8	92.2	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-07**
Client ID: **3033-S005-041608**
Matrix: **Soil**
Workgroup Number: **WG269647**
Collect Date: **04/16/2008 16:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/28/2008 17:45**
Cal Date: **04/17/2008 16:47**
Run Date: **04/28/2008 17:45**
File ID: **9M61413**
Percent Solid: **90.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	6.00	0.600
1,1,2,2-Tetrachloroethane	79-34-5		U	6.00	0.600
1,1,2-Trichloroethane	79-00-5		U	6.00	0.600
1,1-Dichloroethane	75-34-3		U	6.00	1.20
1,1-Dichloroethene	75-35-4		U	6.00	0.600
1,2,4-Trichlorobenzene	120-82-1		U	6.00	0.600
1,2-Dichlorobenzene	95-50-1		U	6.00	0.600
1,2-Dichloroethane	107-06-2		U	6.00	0.600
1,2-Dichloropropane	78-87-5		U	6.00	0.600
1,3-Dichlorobenzene	541-73-1		U	6.00	0.600
1,4-Dichlorobenzene	106-46-7		U	6.00	0.600
1,4-Dioxane	123-91-1		U	2040	60.0
2-Butanone	78-93-3		U	30.0	3.00
2-Hexanone	591-78-6		U	12.0	3.00
4-Methyl-2-pentanone	108-10-1		U	12.0	3.00
Acetone	67-64-1		U	120	6.00
Acrylonitrile	107-13-1		U	120	3.00
Benzene	71-43-2		U	6.00	0.600
Bromodichloromethane	75-27-4		U	6.00	0.600
Bromoform	75-25-2		U	6.00	0.600
Bromomethane	74-83-9		U	12.0	1.20
Carbon disulfide	75-15-0		U	6.00	0.600
Carbon tetrachloride	56-23-5		U	6.00	0.600
Chlorobenzene	108-90-7		U	6.00	0.600
Dibromochloromethane	124-48-1		U	6.00	0.600
Chloroethane	75-00-3		U	12.0	1.20
Chloroform	67-66-3		U	6.00	0.600
Chloromethane	74-87-3		U	12.0	2.40
cis-1,2-Dichloroethene	156-59-2		U	6.00	0.600
cis-1,3-Dichloropropene	10061-01-5		U	6.00	0.600
Ethylbenzene	100-41-4		U	6.00	0.600
Methylene chloride	75-09-2		U	6.00	1.20
Methyltert-butyl ether	1634-04-4		U	12.0	0.600
Styrene	100-42-5		U	6.00	0.600
Tetrachloroethene	127-18-4		U	6.00	0.600
Toluene	108-88-3		U	6.00	0.600
trans-1,2-Dichloroethene	156-60-5		U	6.00	0.600
trans-1,3-Dichloropropene	10061-02-6		U	6.00	0.600
Trichloroethene	79-01-6		U	6.00	0.600
Vinyl acetate	108-05-4		U	12.0	1.20
Vinyl chloride	75-01-4		U	12.0	1.20
Xylenes	1330-20-7		U	12.0	0.600

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	82.9	70	121	
4-Bromofluorobenzene	86.6	59	113	
Dibromofluoromethane	88.7	65	135	
Toluene-d8	89.2	86	138	

U Not detected at or above the reporting limit

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

VOA Preparation/Preservation and Extraction Log

Analyst: MRT Date Prepared/Preserved: 4-17-08 Method: 8260

Sample #	Fraction ID	Date Collected	Time Collected	Time Preserved	Tare Wt. (g)	Total Wt. (g)	Sample Wt. (g)	Water Vol. (mL)	Methanol Vol. (mL)	Comments	Team Notified
LCS 04 0508-02	A	4-16-08	1050	1740	NA	NA	5.71	5	–	5, 6 MRT 4-17-08	
	B						5.53	5	–		
	C		1				5.48	–	10		
-03	A		1510				5.71	5	–		
	B						5.80	5	–		
	C		1				5.74	–	10		
-04	A		1540				5.96	5	–		
	B						5.02	5	–		
	C		1				5.02	–	10		
-07	A		1600				4.62	5	–		
	B						4.52	5	–		
	C		1				5.60	–	10		

MRT 4-18-08

Comments:
1 = improperly sealed cap
2 = preserved out of hold (past 48 hours from time of collection)
3 = effervesced
4 = preserved with NaHSO4 (sodium bisulfate)
5 = preserved by freezing
6 = preserved in field

Methanol (Manufacturer, Lot #) B+J CV646

NaHSO4 (Manufacturer, Lot #) _____

Reviewed by: _____

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS14 Dataset: 041708
Analyst1: SMH Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 50305035B SOP: PAT01 Rev: 10

Maintenance Log ID: 23732

Internal Standard: STD25629 Surrogate Standard: STD25507
CCV: STD25681 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG268568

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	14M05100	BLANK 1412	NA	1	1		04/17/08 06:31
2	14M05101	BLANK 1413	NA	1	1		04/17/08 07:02
3	14M05104	WG268583-01 50ng BFB STD 8260	NA	1	1	STD25539	04/17/08 09:06
4	14M05106	WG268583-02 0.3ug/L STD 8260	NA	1	1	STD25741	04/17/08 09:59
5	14M05107	WG268583-03 0.4ug/L STD 8260	NA	1	1	STD25741	04/17/08 10:31
6	14M05108	WG268583-04 1.0ug/L STD 8260	NA	1	1	STD25741	04/17/08 11:01
7	14M05109	WG268583-05 2.0ug/L STD 8260	NA	1	1	STD25741	04/17/08 11:32
8	14M05110	WG268583-06 5.0ug/L STD 8260	NA	1	1	STD25741	04/17/08 12:03
9	14M05111	WG268583-07 20.0ug/L STD 8260	NA	1	1	STD25741	04/17/08 12:33
10	14M05112	WG268583-08 50.0ug/L STD 8260	NA	1	1	STD25741	04/17/08 13:05
11	14M05113	WG268583-09 100ug/L STD 8260	NA	1	1	STD25741	04/17/08 13:36
12	14M05114	WG268583-10 200ug/L STD 8260	NA	1	1	STD25741	04/17/08 14:07
13	14M05115	WG268583-11 300ug/L STD 8260	NA	1	1	STD25741	04/17/08 14:38
14	14M05116	SYSTEM BLANK	NA	1	1		04/17/08 15:36
15	14M05117	SYSTEM BLANK	NA	1	1		04/17/08 16:07
16	14M05118	SYSTEM BLANK	NA	1	1		04/17/08 17:02
17	14M05119	WG268583-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25665	04/17/08 17:34

Approved: April 22, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 041708
Analyst1: CMS Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23774

Internal Standard: STD25538 Surrogate Standard: STD25548
CCV: STD25741 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG268631

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61189	BFB STD CHK	NA	7	1	STD25539	04/17/08 07:18
2	9M61190	BFB STD CHK	NA	7	1	STD25539	04/17/08 07:37
3	9M61191	BFB STD CHK	NA	7	1	STD25539	04/17/08 08:41
4	9M61192	BFB STD CHK	NA	7	1	STD25539	04/17/08 09:08
5	9M61193	BFB STD CHK	NA	7	1	STD25539	04/17/08 09:19
6	9M61194	BFB STD CHK	NA	7	1	STD25539	04/17/08 09:56
7	9M61195	STD	NA	7	1		04/17/08 10:28
8	9M61196	BLANK 1365	NA	7	1		04/17/08 11:03
9	9M61197	BFB STD CHK	NA	7	1	STD25539	04/17/08 11:31
10	9M61198	BFB STD CHK	NA	7	1	STD25539	04/17/08 11:47
11	9M61199	WG268631-01 BFB 50ng STD 8260	NA	7	1	STD25539	04/17/08 12:08
12	9M61200	WG268631-02 0.50ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 12:34
13	9M61201	WG268631-03 1ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 13:06
14	9M61202	WG268631-04 2ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 13:39
15	9M61203	WG268631-05 5ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 14:10
16	9M61204	WG268631-06 20ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 14:41
17	9M61205	WG268631-07 50ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 15:12
18	9M61206	WG268631-08 100ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 15:43
19	9M61207	WG268631-09 200ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 16:14
20	9M61208	WG268631-10 300ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 16:47
21	9M61209	SYSTEM BLANK	NA	7	1		04/17/08 17:17
22	9M61210	SYSTEM BLANK	NA	7	1		04/17/08 17:49
23	9M61211	WG268631-11 20ug/Kg ALT SRC STD 826	NA	7	1	STD25665	04/17/08 18:20

Approved: April 21, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS14 Dataset: 042508
Analyst1: SMH Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 21899

Internal Standard: STD25629 Surrogate Standard: STD26057
CCV: STD25836 LCS: STD25838 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269475

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	14M05350	WG269474-01 50ng BFB STD 8260	NA	1	1	STD25339	04/25/08 09:24
2	14M05351	WG269474-02 50ug/L STD 8260	NA	1	1	STD25836	04/25/08 09:47
3	14M05352	WG269475-01 VBLK0425 BLANK 8260	NA	1	1		04/25/08 10:19
4	14M05353	WG269475-01 VBLK0425 BLANK 8260	NA	1	1		04/25/08 10:50
5	14M05354	WG269475-02 20ug/L LCS STD 8260	NA	1	1		04/25/08 11:38
6	14M05355	WG269475-03 20ug/L LCSD STD 8260	NA	1	1		04/25/08 12:09
7	14M05356	L08040478-12 A 826-SPE	<	1	1		04/25/08 12:40
8	14M05357	L08040478-11 A 826-SPE	<	1	1		04/25/08 13:11
9	14M05358	L08040508-01 A 826-SPE	<	1	1		04/25/08 13:43
10	14M05359	L08040509-01 A 826-SPE	<	1	1		04/25/08 14:14
11	14M05360	L08040470-01 A 826-SPE	<	1	1		04/25/08 14:45
12	14M05361	L08040478-03 A 10X 826-SPE	<	1	10		04/25/08 15:16
13	14M05362	L08040478-05 A 10X 826-SPE	<	1	10		04/25/08 15:48
14	14M05363	L08040478-07 A 10X 826-SPE	<	1	10		04/25/08 16:19
15	14M05364	L08040478-09 A 10X 826-SPE	<	1	10		04/25/08 16:50
16	14M05365	L08040509-02 A 10X 826-SPE	<	1	10		04/25/08 17:21
17	14M05366	L08040509-04 A 10X 826-SPE	<	1	10		04/25/08 17:52
18	14M05367	L08040509-06 A 10X 826-SPE	<	1	10		04/25/08 18:23
19	14M05368	L08040509-08 A 10X 826-SPE	<	1	10		04/25/08 18:54
20	14M05369	L08040470-02 A 826-SPE	<	1	1		04/25/08 19:26
21	14M05370	L08040470-03 A 826-SPE	<	1	1		04/25/08 19:56
22	14M05371	L08040470-04 A 826-SPE	<	1	1		04/25/08 20:28
23	14M05372	L08040470-05 A 826-SPE	<	1	1		04/25/08 20:59
24	14M05373	L08040470-06 A 826-SPE	<	1	1		04/25/08 21:29
25	14M05374	SYSTEM BLANK	NA	1	1		04/25/08 22:00
26	14M05375	SYSTEM CHECK	NA	1	1		04/25/08 22:31

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X			
File ID: 14M05352				
12	X	200	Over Calibration Range	ACE; 4-M-2-PENT; SS CONF

Approved: May 01, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS14 Dataset: 042508
Analyst1: SMH Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 21899

Internal Standard: STD25629 Surrogate Standard: STD26057
CCV: STD25836 LCS: STD25838 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269475

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 14M05361				
13	X		Analyzed too dilute	
File ID: 14M05362				
	DNR			
14	X	2	Analyzed too dilute	
File ID: 14M05363				
	DNR			
15	X		Analyzed too dilute	
File ID: 14M05364				
	DNR			
16	X		Analyzed too dilute	
File ID: 14M05365				
	DNR			
18	X		Analyzed too dilute	
File ID: 14M05367				
	DNR			
20	X	20	Over Calibration Range	ACE
File ID: 14M05369				
21	X	20	Over Calibration Range	ACE
File ID: 14M05370				
24	X		Missed Tune	
File ID: 14M05373				

Approved: May 01, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 042808
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23905

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD25940 MS/MSD: STD25940

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269647

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61397	SYSTEM BLANK	NA	7	1		04/28/08 08:54
2	9M61398	SYSTEM BLANK	NA	7	1		04/28/08 09:48
3	9M61399	WG269645-01 50ng BFB STD 8260	NA	7	1	STD25539	04/28/08 10:23
4	9M61400	WG269645-02 50ug/Kg CCV STD 8260	NA	7	1	STD25998	04/28/08 10:49
5	9M61401	WG269647-01 VBLK0428 BLANK STD 826	NA	7	1		04/28/08 11:25
6	9M61402	WG269647-02 20ug/Kg LCS STD 8260	NA	7	1	STD25940	04/28/08 11:57
7	9M61403	L08040468-02 A 826-SPE	NA	7	1		04/28/08 12:28
8	9M61404	L08040468-04 A 826-SPE	NA	7	1		04/28/08 13:00
9	9M61405	SYSTEM BLANK	NA	7	1		04/28/08 13:32
10	9M61406	WG269647-02 20ug/Kg LCS STD 8260	NA	7	1	STD25940	04/28/08 14:05
11	9M61407	L08040508-02 A 826-SPE	NA	7	1		04/28/08 14:37
12	9M61408	L08040508-03 A 826-SPE	NA	7	1		04/28/08 15:09
13	9M61409	L08040508-04 A 826-SPE	NA	7	1		04/28/08 15:40
14	9M61410	L08040524-13 A 826-SPE	NA	7	1		04/28/08 16:11
15	9M61411	L08040524-14 A MS 826-SPE	NA	7	1	STD25940	04/28/08 16:42
16	9M61412	L08040524-15 A MSD 826-SPE	NA	7	1	STD25940	04/28/08 17:13
17	9M61413	L08040508-07 A 826-SPE	NA	7	1		04/28/08 17:45
18	9M61414	L08040524-19 A 826-SPE	NA	7	1		04/28/08 18:17
19	9M61415	L08040524-20 A 826-SPE	NA	7	1		04/28/08 18:48
20	9M61416	L08040580-03 A 826-SPE	NA	7	1		04/28/08 19:19
21	9M61417	L08040580-07 A 826-SPE	NA	7	1		04/28/08 19:51
22	9M61418	L08040557-01 A 826-SPE	NA	7	1		04/28/08 20:22
23	9M61419	L08040557-02 A 826-SPE	NA	7	1		04/28/08 20:54
24	9M61420	L08040552-02 A 826-SPE	NA	7	1		04/28/08 21:26
25	9M61421	L08040552-04 A 826-SPE	NA	7	1		04/28/08 21:57
26	9M61422	L08040552-06 A 826-SPE	NA	7	1		04/28/08 22:29
27	9M61423	SYSTEM BLANK	NA	7	1		04/28/08 23:01
28	9M61424	SYSTEM BLANK	NA	7	1		04/28/08 23:32
29	9M61425	L08040317-06 B 826-SPE	NA	7	1		04/29/08 00:04
30	9M61426	L08040317-07 B 826-SPE	NA	7	1		04/29/08 00:36

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: April 30, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 042808
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23905

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD25940 MS/MSD: STD25940

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269647

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
6	X			
File ID: 9M61402				
	First few gases were low. Do not report.			
9				
File ID: 9M61405				
	DNR.			
12	X	1	Internal standard and surrogate standard failure	
File ID: 9M61408				
18	X	1	Internal standard failure	
File ID: 9M61414				
22	X	1	Internal standard and surrogate standard failure	
File ID: 9M61418				
	vial error, possibly leaked.			
23	X	1	Internal standard failure	
File ID: 9M61419				
	Vial error, possibly leaked.			
26	X	1	Missed Tune	
File ID: 9M61422				
	Do not report.			

Approved: April 30, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 042908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23922

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD25940 MS/MSD: STD25940

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269776

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61428	SYSTEM BLANK	NA	7	1		04/29/08 07:27
2	9M61429	SYSTEM BLANK	NA	7	1		04/29/08 07:59
3	9M61430	WG269774-01 50ng BFB STD 8260	NA	7	1	STD25539	04/29/08 08:35
4	9M61431	WG269774-02 50ug/Kg SOIL STD 8260	NA	7	1	STD25998	04/29/08 09:01
5	9M61432	WG269776-01 VBLK0429 BLANK STD 826	NA	7	1		04/29/08 09:32
6	9M61433	WG269776-02 20ug/Kg LCS STD 8260	NA	7	1	STD25940	04/29/08 10:04
7	9M61434	WG269776-03 20ug/Kg LCSDUP STD 826	NA	7	1	STD25940	04/29/08 10:35
8	9M61435	L08040508-03 B 826-SPE	NA	7	1		04/29/08 11:07
9	9M61436	L08040552-06 B 826-SPE	NA	7	1		04/29/08 11:39
10	9M61437	L08040557-01 B 826-SPE	NA	7	1		04/29/08 12:10
11	9M61438	L08040557-02 B 826-SPE	NA	7	1		04/29/08 12:42
12	9M61439	L08040557-03 A 826-SPE	NA	7	1		04/29/08 13:14
13	9M61440	L08040524-19 B 826-SPE	NA	7	1		04/29/08 13:46
14	9M61441	L08040593-01 A 826-SPE	NA	7	1		04/29/08 14:18
15	9M61442	L08040593-03 A 826-SPE	NA	7	1		04/29/08 14:50
16	9M61443	L08040593-04 A 826-SPE	NA	7	1		04/29/08 15:22
17	9M61444	L08040593-07 A 826-SPE	NA	7	1		04/29/08 15:53
18	9M61445	L08040593-15 A 826-SPE	NA	7	1		04/29/08 16:25
19	9M61446	L08040593-17 A 826-SPE	NA	7	1		04/29/08 16:56
20	9M61447	L08040616-01 8260	NA	10	1		04/29/08 17:28
21	9M61448	L08040593-09 A 826-SPE	NA	7	1		04/29/08 17:59
22	9M61449	L08040593-10 A MS 826-SPE	NA	7	1	STD25940	04/29/08 18:30
23	9M61450	L08040593-11 A MSD 826-SPE	NA	7	1	STD25940	04/29/08 19:01
24	9M61451	SYSTEM BLANK	NA	7	1		04/29/08 19:32
25	9M61452	SYSTEM BLANK	NA	7	1		04/29/08 20:04
26	9M61453	SYSTEM BLANK	NA	7	1		04/29/08 20:35
27	9M61454	SYSTEM BLANK	NA	7	1		04/29/08 21:06

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
File ID: 9M61428				
	DNR			

Approved: May 01, 2008

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 042908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23922

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD25940 MS/MSD: STD25940

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269776

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
File ID: 9M61429				
	DNR.			
15	X	1		
File ID: 9M61442				
	Vial leaked. Do not report.			

Approved: May 01, 2008

Microbac Laboratories Inc.

Data Checklist

Date: 17-APR-2008
Analyst: SMH
Analyst: NA
Method: 8260
Instrument: HPMS14
Curve Workgroup: NA
Runlog ID: 21673
Analytical Workgroups: WG268583

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Excel Spreadsheets	X
Case Narrative	X
Narrative Summary	NA
Results Reporting/Data Qualifiers	X
Client Data Package Assembly	X
Check for Completeness	X
Primary Reviewer	SMH
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the resonableness of the results	X

Primary Reviewer:
22-APR-2008

Secondary Reviewer:
22-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-22-2008 17:24:11

Microbac Laboratories Inc.

Data Checklist

Date: 17-APR-2008
Analyst: CMS
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 21725
Analytical Workgroups: WG268631

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	BA
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
21-APR-2008
Tiffany Bailey

Secondary Reviewer:
21-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-21-2008 16:00:56

Microbac Laboratories Inc.

Data Checklist

Date: 25-APR-2008
Analyst: SMH
Analyst: NA
Method: 8260
Instrument: HPMS14
Curve Workgroup: NA
Runlog ID: 21899
Analytical Workgroups: WG269475

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	X
Excel Spreadsheets	X
Case Narrative	X
Narrative Summary	NA
Results Reporting/Data Qualifiers	X
Client Data Package Assembly	X
Check for Completeness	X
Primary Reviewer	SMH
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the resonableness of the results	X

Primary Reviewer:
29-APR-2008

Secondary Reviewer:
01-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-01-2008 13:33:48

Microbac Laboratories Inc.

Data Checklist

Date: 28-APR-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 21892
Analytical Workgroups: WG269647

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
29-APR-2008
Tiffany Bailey

Secondary Reviewer:
30-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-30-2008 08:18:05

Microbac Laboratories Inc.

Data Checklist

Date: 29-APR-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 21917
Analytical Workgroups: WG269776

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
30-APR-2008
Tiffany Bailey

Secondary Reviewer:
01-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-01-2008 08:33:26

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG269776

Login Number: L08040508

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3033-S001-041608	04/16/08	04/17/08	04/29/08	14	12.8	04/29/08	14	12.8	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**

***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1081708
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG269647

Login Number: L08040508

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3033-S003-041608	04/16/08	04/17/08	04/28/08	14	12.0	04/28/08	14	12.0	
3001-S001-041608	04/16/08	04/17/08	04/28/08	14	12.2	04/28/08	14	12.2	
3033-S005-041608	04/16/08	04/17/08	04/28/08	14	12.1	04/28/08	14	12.1	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1081708
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG269475

Login Number: L08040508

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
TB04	04/16/08	04/17/08	04/25/08	14	9.57	04/25/08	14	9.57	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**

***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1081708
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040508
Instrument Id: HPMS14
Workgroup (AAB#): WG269475

Method: 8260
CAL ID: HPMS14-17-APR-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08040508-01	1.00	01	101	98.8	94.9	101
WG269475-01	1.00	01	102	99.4	95.6	101
WG269475-02	1.00	01	97.1	97.2	93.1	98.2
WG269475-03	1.00	01	96.0	95.9	93.4	99.0

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	76	-	114
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1081707
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040508
Instrument Id: HPMS9
Workgroup (AAB#): WG269776

Method: 8260
CAL ID: HPMS9-17-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08040508-03	1.00	02	99.8	102	91.7	94.8
WG269776-01	1.00	01	98.6	101	91.0	92.8
WG269776-02	1.00	01	89.0	93.9	87.4	88.2
WG269776-03	1.00	01	96.9	100	92.8	95.8

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1081707
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040508
Instrument Id: HPMS9
Workgroup (AAB#): WG269647

Method: 8260
CAL ID: HPMS9-17-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08040508-02	1.00	01	83.9	90.2	90.6	91.2
L08040508-04	1.00	01	88.5	92.8	92.1	92.2
L08040508-07	1.00	01	82.9	88.7	86.6	89.2
WG269647-01	1.00	01	93.3	94.0	89.6	87.7
WG269647-02	1.00	01	90.2	93.7	92.3	94.5

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1081707
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040508
Work Group: WG269475
Blank File ID: 14M05353
Blank Sample ID: WG269475-01
Prep Date: 04/25/08 10:50
Instrument ID: HPMS14
Analyzed Date: 04/25/08 10:50
Method: 8260B
Analyst: SMH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269475-02	14M05354	04/25/08 11:38	01
LCS2	WG269475-03	14M05355	04/25/08 12:09	01
TB04	L08040508-01	14M05358	04/25/08 13:43	01

Report Name: BLANK_SUMMARY
PDF File ID: 1084146
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L08040508	Work Group:	WG269647
Blank File ID:	9M61401	Blank Sample ID:	WG269647-01
Prep Date:	04/28/08 11:25	Instrument ID:	HPMS9
Analyzed Date:	04/28/08 11:25	Method:	8260B
Analyst:	TMB		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269647-02	9M61406	04/28/08 14:05	01
3001-S001-041608	L08040508-02	9M61407	04/28/08 14:37	01
3033-S003-041608	L08040508-04	9M61409	04/28/08 15:40	01
3033-S005-041608	L08040508-07	9M61413	04/28/08 17:45	01

Report Name: BLANK_SUMMARY
PDF File ID: 1084146
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L08040508	Work Group:	WG269776
Blank File ID:	9M61432	Blank Sample ID:	WG269776-01
Prep Date:	04/29/08 09:32	Instrument ID:	HPMS9
Analyzed Date:	04/29/08 09:32	Method:	8260B
Analyst:	TMB		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269776-02	9M61433	04/29/08 10:04	01
LCS2	WG269776-03	9M61434	04/29/08 10:35	01
3033-S001-041608	L08040508-03	9M61435	04/29/08 11:07	02

Report Name: BLANK_SUMMARY
PDF File ID: 1084146
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040508 Prep Date:04/25/08 10:50 Sample ID:WG269475-01
Instrument ID:HPMS14 Run Date:04/25/08 10:50 Prep Method:5030B
File ID:14M05353 Analyst:SMH Method:8260B
Workgroup (AAB#):WG269475 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS14-17-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	1.00	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	1.00	1	U
1,1,2-Trichloroethane	0.250	1.00	1.00	1	U
1,1-Dichloroethane	0.125	1.00	1.00	1	U
1,1-Dichloroethene	0.500	1.00	1.00	1	U
1,2,4-Trichlorobenzene	0.200	1.00	1.00	1	U
1,2-Dichlorobenzene	0.125	1.00	1.00	1	U
1,2-Dichloroethane	0.250	1.00	1.00	1	U
1,2-Dichloropropane	0.200	1.00	1.00	1	U
1,3-Dichlorobenzene	0.250	1.00	1.00	1	U
1,4-Dichlorobenzene	0.125	1.00	1.00	1	U
1,4-Dioxane	50.0	100	100	1	U
2-Butanone	2.50	10.0	10.0	1	U
2-Hexanone	2.50	5.00	5.00	1	U
4-Methyl-2-pentanone	2.50	5.00	5.00	1	U
Acetone	2.50	25.0	25.0	1	U
Acrylonitrile	2.50	10.0	10.0	1	U
Benzene	0.125	1.00	1.00	1	U
Bromodichloromethane	0.250	1.00	1.00	1	U
Bromoform	0.500	1.00	1.00	1	U
Bromomethane	0.500	1.00	1.00	1	U
Carbon disulfide	0.500	1.00	1.00	1	U
Carbon tetrachloride	0.250	1.00	1.00	1	U
Chlorobenzene	0.125	1.00	1.00	1	U
Chlorodibromomethane	0.250	1.00	1.00	1	U
Chloroethane	0.500	1.00	1.00	1	U
Chloroform	0.125	1.00	1.00	1	U
Chloromethane	0.250	1.00	1.00	1	U
cis-1,2-Dichloroethene	0.250	1.00	1.00	1	U
cis-1,3-Dichloropropene	0.250	1.00	1.00	1	U
Ethylbenzene	0.250	1.00	1.00	1	U
Methyl t-butyl ether (MTBE)	0.500	5.00	5.00	1	U
Methylene chloride	0.250	5.00	5.00	1	U
Styrene	0.125	1.00	1.00	1	U
Tetrachloroethene	0.250	1.00	1.00	1	U
Toluene	0.250	1.00	1.00	1	U
trans-1,2-Dichloroethene	0.250	1.00	1.00	1	U
trans-1,3-Dichloropropene	0.500	1.00	1.00	1	U
Trichloroethene	0.250	1.00	1.00	1	U
Vinyl acetate	2.50	10.0	10.0	1	U
Vinyl chloride	0.250	1.00	1.00	1	U
Xylenes	0.500	5.00	5.00	1	U

Report Name:BLANK
PDF ID: 1084147
02-MAY-2008 11:57

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08040508 Prep Date: 04/25/08 10:50 Sample ID: WG269475-01
Instrument ID: HPMS14 Run Date: 04/25/08 10:50 Prep Method: 5030B
File ID: 14M05353 Analyst: SMH Method: 8260B
Workgroup (AAB#): WG269475 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS14-17-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	102	76 - 114	PASS
4-Bromofluorobenzene	95.6	86 - 115	PASS
Dibromofluoromethane	99.4	85 - 115	PASS
Toluene-d8	101	88 - 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1084147
02-MAY-2008 11:57

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040508 Prep Date:04/28/08 11:25 Sample ID:WG269647-01
Instrument ID:HPMS9 Run Date:04/28/08 11:25 Prep Method:5030B
File ID:9M61401 Analyst:TMB Method:8260B
Workgroup (AAB#):WG269647 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS9-17-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
PDF ID: 1084147
02-MAY-2008 11:57

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08040508 Prep Date: 04/28/08 11:25 Sample ID: WG269647-01
Instrument ID: HPMS9 Run Date: 04/28/08 11:25 Prep Method: 5030B
File ID: 9M61401 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269647 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-17-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	93.3	70 - 121	PASS
4-Bromofluorobenzene	89.6	59 - 113	PASS
Dibromofluoromethane	94.0	65 - 135	PASS
Toluene-d8	87.7	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1084147
02-MAY-2008 11:57

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040508 Prep Date:04/29/08 09:32 Sample ID:WG269776-01
Instrument ID:HPMS9 Run Date:04/29/08 09:32 Prep Method:5030B
File ID:9M61432 Analyst:TMB Method:8260B
Workgroup (AAB#):WG269776 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS9-17-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
PDF ID: 1084147
02-MAY-2008 11:57

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08040508 Prep Date: 04/29/08 09:32 Sample ID: WG269776-01
Instrument ID: HPMS9 Run Date: 04/29/08 09:32 Prep Method: 5030B
File ID: 9M61432 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269776 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-17-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	98.6	70 - 121	PASS
4-Bromofluorobenzene	91.0	59 - 113	PASS
Dibromofluoromethane	101	65 - 135	PASS
Toluene-d8	92.8	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1084147
02-MAY-2008 11:57

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Run Date: 04/28/2008 Sample ID: WG269647-02
Instrument ID: HPMS9 Run Time: 14:05 Prep Method: 5030B
File ID: 9M61406 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269647 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS9-17-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	22.9	115	68 - 130	
1,1,2,2-Tetrachloroethane	20.0	19.7	98.3	59 - 140	
1,1,2-Trichloroethane	20.0	20.8	104	62 - 127	
1,1-Dichloroethane	20.0	22.3	111	73 - 125	
1,1-Dichloroethene	20.0	21.3	107	65 - 136	
1,2,4-Trichlorobenzene	20.0	21.2	106	65 - 131	
1,2-Dichlorobenzene	20.0	20.5	103	74 - 120	
1,2-Dichloroethane	20.0	20.8	104	72 - 137	
1,2-Dichloropropane	20.0	22.4	112	71 - 120	
1,3-Dichlorobenzene	20.0	20.5	102	72 - 124	
1,4-Dichlorobenzene	20.0	19.9	99.3	72 - 125	
1,4-Dioxane	200	215	107	50 - 150	
2-Butanone	20.0	25.4	127	40 - 135	
2-Hexanone	20.0	21.9	109	50 - 140	
4-Methyl-2-pentanone	20.0	24.2	121	50 - 140	
Acetone	20.0	24.3	121	40 - 141	
Acrylonitrile	20.0	23.1	116	60 - 140	
Benzene	20.0	22.4	112	73 - 126	
Bromodichloromethane	20.0	23.2	116	72 - 128	
Bromoform	20.0	21.3	106	60 - 137	
Bromomethane	20.0	23.1	116	45 - 141	
Carbon disulfide	20.0	19.8	99.1	65 - 135	
Carbon tetrachloride	20.0	22.3	112	67 - 133	
Chlorobenzene	20.0	21.5	107	75 - 123	
Dibromochloromethane	20.0	20.2	101	66 - 130	
Chloroethane	20.0	20.6	103	41 - 141	
Chloroform	20.0	21.6	108	72 - 124	
Chloromethane	20.0	17.3	86.6	51 - 129	
cis-1,2-Dichloroethene	20.0	22.4	112	67 - 125	
cis-1,3-Dichloropropene	20.0	23.0	115	72 - 126	
Ethylbenzene	20.0	22.0	110	74 - 127	
Methylene chloride	20.0	20.5	102	63 - 137	
Methyltert-butyl ether	20.0	23.4	117	50 - 135	
Styrene	20.0	19.7	98.4	74 - 128	
Tetrachloroethene	20.0	21.4	107	67 - 139	
Toluene	20.0	21.9	110	71 - 127	
trans-1,2-Dichloroethene	20.0	21.2	106	66 - 134	
trans-1,3-Dichloropropene	20.0	19.8	99.1	65 - 127	
Trichloroethene	20.0	22.6	113	77 - 124	
Vinyl acetate	20.0	16.7	83.4	55 - 130	
Vinyl chloride	20.0	19.4	96.9	58 - 126	

LCS - Modified 03/06/2008
PDF File ID: 1079374
Report generated: 04/29/2008 14:54

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Run Date: 04/28/2008 Sample ID: WG269647-02
Instrument ID: HPMS9 Run Time: 14:05 Prep Method: 5030B
File ID: 9M61406 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269647 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS9-17-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	66.5	111	75 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	90.2	70 - 121	PASS
4-Bromofluorobenzene	92.3	59 - 113	PASS
Dibromofluoromethane	93.7	65 - 135	PASS
Toluene-d8	94.5	86 - 138	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1079374
Report generated: 04/29/2008 14:54

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Analyst: SMH Prep Method: 5030B
Instrument ID: HPMS14 Matrix: Water Method: 8260B
Workgroup (AAB#): WG269475 Units: ug/L
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG269475-02 LCS File ID: 14M05354 Run Date: 04/25/2008 11:38
Sample ID: WG269475-03 LCS2 File ID: 14M05355 Run Date: 04/25/2008 12:09

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	20.3	102	20.0	19.7	98.4	3.14	67 - 132	20	
1,1,2,2-Tetrachloroethane	20.0	18.9	94.6	20.0	19.0	95.1	0.498	63 - 128	20	
1,1,2-Trichloroethane	20.0	20.0	99.9	20.0	20.3	102	1.78	70 - 125	20	
1,1-Dichloroethane	20.0	20.9	105	20.0	20.3	101	3.05	67 - 133	20	
1,1-Dichloroethene	20.0	18.9	94.3	20.0	18.0	90.1	4.58	68 - 130	20	
1,2,4-Trichlorobenzene	20.0	20.1	100	20.0	20.3	101	0.973	65 - 134	20	
1,2-Dichlorobenzene	20.0	20.9	104	20.0	20.7	104	0.628	71 - 122	20	
1,2-Dichloroethane	20.0	19.8	99.0	20.0	19.2	95.9	3.21	69 - 132	20	
1,2-Dichloropropane	20.0	19.9	99.3	20.0	19.5	97.5	1.80	75 - 125	20	
1,3-Dichlorobenzene	20.0	21.3	106	20.0	21.1	105	0.885	75 - 124	20	
1,4-Dichlorobenzene	20.0	20.6	103	20.0	20.5	102	0.508	74 - 123	20	
1,4-Dioxane	200	130	65.2	200	162	81.2	21.9	70 - 130	20	*#
2-Butanone	20.0	19.8	99.1	20.0	19.5	97.7	1.36	49 - 136	20	
2-Hexanone	20.0	18.3	91.7	20.0	18.5	92.6	0.953	65 - 135	20	
4-Methyl-2-pentanone	20.0	19.0	95.0	20.0	19.0	95.1	0.0437	58 - 134	20	
Acetone	20.0	21.8	109	20.0	23.0	115	5.36	30 - 135	20	
Acrylonitrile	20.0	19.9	99.6	20.0	19.8	99.0	0.645	60 - 135	20	
Benzene	20.0	20.9	105	20.0	20.6	103	1.75	81 - 122	20	
Bromodichloromethane	20.0	21.4	107	20.0	20.8	104	2.77	76 - 121	20	
Bromoform	20.0	18.5	92.5	20.0	18.7	93.7	1.30	69 - 128	20	
Bromomethane	20.0	20.7	103	20.0	20.8	104	0.557	53 - 141	20	
Carbon disulfide	20.0	18.1	90.7	20.0	17.6	88.2	2.85	70 - 130	20	
Carbon tetrachloride	20.0	20.6	103	20.0	19.8	99.2	3.62	66 - 138	20	
Chlorobenzene	20.0	21.3	106	20.0	21.1	106	0.824	81 - 122	20	
Chlorodibromomethane	20.0	21.1	106	20.0	21.2	106	0.449	66 - 133	20	
Chloroethane	20.0	19.9	99.5	20.0	19.2	95.8	3.75	58 - 133	20	
Chloroform	20.0	21.3	106	20.0	20.6	103	3.22	69 - 128	20	
Chloromethane	20.0	20.1	100	20.0	20.3	101	0.879	56 - 131	20	
cis-1,2-Dichloroethene	20.0	22.0	110	20.0	21.6	108	1.68	72 - 126	20	
cis-1,3-Dichloropropene	20.0	19.3	96.6	20.0	19.1	95.3	1.42	69 - 131	20	
Ethylbenzene	20.0	22.3	112	20.0	21.9	110	1.89	73 - 127	20	
Methyl t-butyl ether (MTBE)	20.0	21.6	108	20.0	21.1	106	2.21	65 - 123	20	
Methylene chloride	20.0	20.1	101	20.0	19.8	99.0	1.55	63 - 137	20	
Styrene	20.0	19.3	96.7	20.0	19.0	95.1	1.70	65 - 134	20	
Tetrachloroethene	20.0	22.7	113	20.0	22.2	111	2.06	66 - 128	20	
Toluene	20.0	21.8	109	20.0	21.5	107	1.37	77 - 122	20	
trans-1,2-Dichloroethene	20.0	19.5	97.4	20.0	19.0	94.8	2.76	63 - 137	20	
trans-1,3-Dichloropropene	20.0	19.3	96.4	20.0	19.2	96.0	0.438	59 - 135	20	
Trichloroethene	20.0	20.0	99.8	20.0	19.5	97.3	2.54	70 - 127	20	
Vinyl acetate	20.0	18.8	93.8	20.0	18.5	92.4	1.57	65 - 130	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1079805
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Analyst: SMH Prep Method: 5030B
Instrument ID: HPMS14 Matrix: Water Method: 8260B
Workgroup (AAB#): WG269475 Units: ug/L
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG269475-02 LCS File ID: 14M05354 Run Date: 04/25/2008 11:38
Sample ID: WG269475-03 LCS2 File ID: 14M05355 Run Date: 04/25/2008 12:09

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	19.9	99.5	20.0	18.9	94.7	5.00	50 - 134	20	
Xylenes	60.0	64.8	108	60.0	63.6	106	1.84	75 - 120	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	97.2	95.9	85 - 115	PASS
1,2-Dichloroethane-d4	97.1	96.0	76 - 114	PASS
Toluene-d8	98.2	99.0	88 - 110	PASS
4-Bromofluorobenzene	93.1	93.4	86 - 115	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1079805
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Analyst: TMB Prep Method: 5030B
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG269776 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG269776-02 LCS File ID: 9M61433 Run Date: 04/29/2008 10:04
Sample ID: WG269776-03 LCS2 File ID: 9M61434 Run Date: 04/29/2008 10:35

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	21.6	108	20.0	24.7	124	13.7	68 - 130	30	
1,1,2,2-Tetrachloroethane	20.0	19.1	95.6	20.0	21.1	106	10.0	59 - 140	30	
1,1,2-Trichloroethane	20.0	20.1	100	20.0	22.9	115	13.2	62 - 127	30	
1,1-Dichloroethane	20.0	21.0	105	20.0	23.6	118	11.8	73 - 125	30	
1,1-Dichloroethene	20.0	19.7	98.6	20.0	22.3	112	12.3	65 - 136	30	
1,2,4-Trichlorobenzene	20.0	19.4	96.9	20.0	21.3	107	9.52	65 - 131	30	
1,2-Dichlorobenzene	20.0	19.7	98.4	20.0	21.7	109	10.0	74 - 120	30	
1,2-Dichloroethane	20.0	20.4	102	20.0	23.1	115	12.1	72 - 137	30	
1,2-Dichloropropane	20.0	20.6	103	20.0	23.5	118	13.2	71 - 120	30	
1,3-Dichlorobenzene	20.0	19.8	99.2	20.0	21.6	108	8.61	72 - 124	30	
1,4-Dichlorobenzene	20.0	19.3	96.4	20.0	20.8	104	7.38	72 - 125	30	
1,4-Dioxane	200	200	99.9	200	228	114	13.0	50 - 150	30	
2-Butanone	20.0	23.3	117	20.0	25.6	128	9.35	40 - 135	30	
2-Hexanone	20.0	19.0	94.8	20.0	21.1	105	10.5	50 - 140	30	
4-Methyl-2-pentanone	20.0	20.5	102	20.0	23.7	118	14.5	50 - 140	30	
Acetone	20.0	21.8	109	20.0	25.0	125	13.5	40 - 141	30	
Acrylonitrile	20.0	20.9	104	20.0	23.5	118	12.0	60 - 140	30	
Benzene	20.0	21.1	106	20.0	23.6	118	10.9	73 - 126	30	
Bromodichloromethane	20.0	21.9	110	20.0	24.7	123	11.8	72 - 128	30	
Bromoform	20.0	20.3	101	20.0	23.2	116	13.5	60 - 137	30	
Bromomethane	20.0	21.7	108	20.0	24.0	120	10.2	45 - 141	30	
Carbon disulfide	20.0	18.3	91.5	20.0	20.8	104	13.0	65 - 135	30	
Carbon tetrachloride	20.0	21.4	107	20.0	24.6	123	13.7	67 - 133	30	
Chlorobenzene	20.0	19.8	99.1	20.0	22.3	111	11.6	75 - 123	30	
Dibromochloromethane	20.0	19.4	97.0	20.0	22.2	111	13.3	66 - 130	30	
Chloroethane	20.0	18.0	90.2	20.0	20.1	101	10.8	41 - 141	30	
Chloroform	20.0	20.6	103	20.0	23.3	117	12.4	72 - 124	30	
Chloromethane	20.0	15.1	75.5	20.0	16.8	84.1	10.8	51 - 129	30	
cis-1,2-Dichloroethene	20.0	21.2	106	20.0	23.7	119	11.4	67 - 125	30	
cis-1,3-Dichloropropene	20.0	21.1	106	20.0	24.1	120	12.9	72 - 126	30	
Ethylbenzene	20.0	20.2	101	20.0	22.5	112	10.9	74 - 127	30	
Methylene chloride	20.0	19.5	97.5	20.0	22.0	110	12.1	63 - 137	30	
Methyltert-butyl ether	20.0	20.8	104	20.0	23.4	117	11.9	50 - 135	30	
Styrene	20.0	18.0	90.2	20.0	20.2	101	11.4	74 - 128	30	
Tetrachloroethene	20.0	19.7	98.5	20.0	22.7	114	14.1	67 - 139	30	
Toluene	20.0	20.1	100	20.0	22.8	114	12.8	71 - 127	30	
trans-1,2-Dichloroethene	20.0	20.1	100	20.0	22.4	112	11.0	66 - 134	30	
trans-1,3-Dichloropropene	20.0	18.7	93.3	20.0	20.8	104	10.8	65 - 127	30	
Trichloroethene	20.0	21.0	105	20.0	23.6	118	11.8	77 - 124	30	
Vinyl acetate	20.0	13.8	68.8	20.0	16.0	80.2	15.3	55 - 130	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1079805
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Analyst: TMB Prep Method: 5030B
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG269776 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG269776-02 LCS File ID: 9M61433 Run Date: 04/29/2008 10:04
Sample ID: WG269776-03 LCS2 File ID: 9M61434 Run Date: 04/29/2008 10:35

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	17.9	89.3	20.0	19.9	99.3	10.6	58 - 126	30	
Xylenes	60.0	61.1	102	60.0	69.7	116	13.1	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	93.9	100	65 - 135	PASS
1,2-Dichloroethane-d4	89.0	96.9	70 - 121	PASS
Toluene-d8	88.2	95.8	86 - 138	PASS
4-Bromofluorobenzene	87.4	92.8	59 - 113	PASS

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1079805
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040508
Instrument: HPMS14
Analyst: SMH
Workgroup: WG268583

Tune ID: WG268583-01
Run Date: 04/17/2008
Run Time: 09:06
File ID: 14M05104
Cal ID: HPMS14-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	21.4	7095	PASS
75.0	95.0	30.0	60.0	55.0	18232	PASS
95.0	95.0	100	100	100	33173	PASS
96.0	95.0	5.00	9.00	6.94	2303	PASS
173	174	0	2.00	0.859	200	PASS
174	95.0	50.0	100	70.2	23290	PASS
175	174	5.00	9.00	7.44	1733	PASS
176	174	95.0	101	95.2	22178	PASS
177	176	5.00	9.00	6.60	1463	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG268583-02	STD	01	04/17/2008 09:59	
WG268583-03	STD	01	04/17/2008 10:31	
WG268583-04	STD	01	04/17/2008 11:01	
WG268583-05	STD	01	04/17/2008 11:32	
WG268583-06	STD	01	04/17/2008 12:03	
WG268583-07	STD	01	04/17/2008 12:33	
WG268583-08	STD-CCV	01	04/17/2008 13:05	
WG268583-09	STD	01	04/17/2008 13:36	
WG268583-10	STD	01	04/17/2008 14:07	
WG268583-11	STD	01	04/17/2008 14:38	
WG268583-12	SSCV	01	04/17/2008 17:34	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084150
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040508
Instrument: HPMS14
Analyst: SMH
Workgroup: WG269474

Tune ID: WG269474-01
Run Date: 04/25/2008
Run Time: 09:24
File ID: 14M05350
Cal ID: HPMS14-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	20.0	6918	PASS
75.0	95.0	30.0	60.0	52.2	18038	PASS
95.0	95.0	100	100	100	34531	PASS
96.0	95.0	5.00	9.00	6.35	2192	PASS
173	174	0	2.00	0.924	231	PASS
174	95.0	50.0	100	72.4	24989	PASS
175	174	5.00	9.00	7.20	1799	PASS
176	174	95.0	101	97.2	24296	PASS
177	176	5.00	9.00	6.85	1665	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269474-02	CCV	01	04/25/2008 09:47	
WG269475-01	BLANK	01	04/25/2008 10:50	
WG269475-02	LCS	01	04/25/2008 11:38	
WG269475-03	LCS2	01	04/25/2008 12:09	
L08040508-01	TB04	01	04/25/2008 13:43	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084150
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040508
Instrument: HPMS9
Analyst: CMS
Workgroup: WG268631

Tune ID: WG268631-01
Run Date: 04/17/2008
Run Time: 12:08
File ID: 9M61199
Cal ID: HPMS9-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	25.7	6334	PASS
75.0	95.0	30.0	60.0	57.5	14179	PASS
95.0	95.0	100	100	100	24647	PASS
96.0	95.0	5.00	9.00	7.37	1816	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	61.1	15069	PASS
175	174	5.00	9.00	7.68	1157	PASS
176	174	95.0	101	95.7	14419	PASS
177	176	5.00	9.00	6.58	949	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG268631-02	STD-S	01	04/17/2008 12:34	
WG268631-03	STD-S	01	04/17/2008 13:06	
WG268631-04	STD-S	01	04/17/2008 13:39	
WG268631-05	STD-S	01	04/17/2008 14:10	
WG268631-07	STD-CCV-S	01	04/17/2008 15:12	
WG268631-08	STD-S	01	04/17/2008 15:43	
WG268631-09	STD-S	01	04/17/2008 16:14	
WG268631-10	STD-S	01	04/17/2008 16:47	
WG268631-11	SSCV-S	01	04/17/2008 18:20	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040508
Instrument: HPMS9
Analyst: TMB
Workgroup: WG269645

Tune ID: WG269645-01
Run Date: 04/28/2008
Run Time: 10:23
File ID: 9M61399
Cal ID: HPMS9-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	25.1	6758	PASS
75.0	95.0	30.0	60.0	56.3	15149	PASS
95.0	95.0	100	100	100	26890	PASS
96.0	95.0	5.00	9.00	6.92	1860	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	60.2	16181	PASS
175	174	5.00	9.00	7.87	1274	PASS
176	174	95.0	101	95.7	15487	PASS
177	176	5.00	9.00	6.92	1072	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269645-02	CCV-S	01	04/28/2008 10:49	
WG269647-01	BLANK	01	04/28/2008 11:25	
WG269647-02	LCS	01	04/28/2008 14:05	
L08040508-02	3001-S001-041608	01	04/28/2008 14:37	
L08040508-04	3033-S003-041608	01	04/28/2008 15:40	
WG269647-03	REF	01	04/28/2008 16:11	
WG269647-04	MS	01	04/28/2008 16:42	
WG269647-05	MSD	01	04/28/2008 17:13	
L08040508-07	3033-S005-041608	01	04/28/2008 17:45	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084150
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040508
Instrument: HPMS9
Analyst: TMB
Workgroup: WG269774

Tune ID: WG269774-01
Run Date: 04/29/2008
Run Time: 08:35
File ID: 9M61430
Cal ID: HPMS9-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	24.7	6985	PASS
75.0	95.0	30.0	60.0	57.4	16192	PASS
95.0	95.0	100	100	100	28226	PASS
96.0	95.0	5.00	9.00	7.05	1991	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	63.6	17943	PASS
175	174	5.00	9.00	6.88	1235	PASS
176	174	95.0	101	97.4	17481	PASS
177	176	5.00	9.00	6.45	1128	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269774-02	CCV-S	01	04/29/2008 09:01	
WG269776-01	BLANK	01	04/29/2008 09:32	
WG269776-02	LCS	01	04/29/2008 10:04	
WG269776-03	LCS2	01	04/29/2008 10:35	
L08040508-03	3033-S001-041608	02	04/29/2008 11:07	
WG269776-04	REF	01	04/29/2008 17:59	
WG269776-05	MS	01	04/29/2008 18:30	
WG269776-06	MSD	01	04/29/2008 19:01	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508 **Instrument ID:** HPMS14

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 14:38

ICAL Workgroup: WG268583 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.4351	17.5		
1,2-Dichloropropane	CCC	0.2530	10.4		
Chloroform	CCC	0.5341	7.37		
Ethylbenzene	CCC	0.5258	12.5		
Toluene	CCC	1.386	11.2		
Vinyl Chloride	CCC	0.2377	17.4		1.00
1,1,2,2-Tetrachloroethane	SPCC	0.4379	12.4		
1,1-Dichloroethane	SPCC	0.4976	9.00		
Bromoform	SPCC	0.1653	16.2	1.00	
Chlorobenzene	SPCC	0.9191	8.50		
Chloromethane	SPCC	0.2462	12.2		
1,1,1-Trichloroethane		0.4971	15.7		
1,1,2-Trichloroethane		0.2166	10.6		
1,2,4-Trichlorobenzene		0.9446	13.7		
1,2-Dichlorobenzene		1.264	11.2		
1,2-Dichloroethane		0.4032	10.1		
1,3-Dichlorobenzene		1.421	9.81		
1,4-Dichlorobenzene		1.464	9.30		
1,4-Dioxane		0.001000	9.29		
2-Butanone		0.05477	4.20		
2-Hexanone		0.1084	6.05		
4-Methyl-2-Pentanone		0.04603	13.8		
Acetone		0.04182	10.5		
Acrylonitrile		0.04966	8.06		
Benzene		0.9883	9.90		
Bromodichloromethane		0.3804	9.92		
Bromomethane		0.1398	20.8		1.00
Carbon Disulfide		0.8299	4.81		
Carbon Tetrachloride		0.4347	17.9		1.00
Chloroethane		0.1786	10.7		
Dibromochloromethane		0.2977	11.9		
Methyl Tert Butyl Ether		0.5425	5.40		
Methylene Chloride		0.2754	20.1		
Styrene		0.9910	18.7		1.00
Tetrachloroethene		0.3476	14.9		
Trichloroethene		0.2483	15.2		
Vinyl Acetate		0.2801	5.83		
cis-1,2-Dichloroethene		0.2574	13.3		
cis-1,3-Dichloropropene		0.3710	16.2		1.00
m-,p-Xylene		0.6427	12.8		
o-Xylene		0.6000	17.6		1.00
trans-1,2-Dichloroethene		0.2405	15.4		1.00
trans-1,3-Dichloropropene		0.4633	13.9		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508
Analytical Method: 8260B
ICAL Workgroup: WG268583

Instrument ID: HPMS14
Initial Calibration Date: 17-APR-08 14:38
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

ICAL Workgroup: WG268631 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.4308	11.2		
1,2-Dichloropropane	CCC	0.2537	8.93		
Chloroform	CCC	0.4821	6.76		
Ethylbenzene	CCC	0.5482	8.50		
Toluene	CCC	1.681	8.17		
Vinyl Chloride	CCC	0.1742	12.1		
1,1,2,2-Tetrachloroethane	SPCC	0.8466	8.47		
1,1-Dichloroethane	SPCC	0.4944	7.33		
Bromoform	SPCC	0.1694	14.6		0.999
Chlorobenzene	SPCC	0.9896	5.01		
Chloromethane	SPCC	0.2571	12.4		
1,1,1-Trichloroethane		0.4050	12.5		
1,1,2-Trichloroethane		0.3115	8.25		
1,2,4-Trichlorobenzene		0.8931	7.12		
1,2-Dichlorobenzene		1.288	6.08		
1,2-Dichloroethane		0.4153	5.50		
1,3-Dichlorobenzene		1.409	7.17		
1,4-Dichlorobenzene		1.481	5.92		
1,4-Dioxane		0.002150	13.1		
2-Butanone		0.1096	4.80		
2-Hexanone		0.2519	5.38		
4-Methyl-2-Pentanone		0.08192	5.14		
Acetone		0.08792	30.5	0.999	
Acrylonitrile		0.08242	9.68		
Benzene		1.022	8.16		
Bromodichloromethane		0.3300	11.5		
Bromomethane		0.1009	8.05		
Carbon Disulfide		0.8435	8.48		
Carbon Tetrachloride		0.3054	15.1		
Chloroethane		0.1601	7.60		
Dibromochloromethane		0.2933	15.7		
Methyl Tert Butyl Ether		0.6831	12.2		
Methylene Chloride		0.2693	13.1		
Styrene		1.015	16.9		
Tetrachloroethene		0.2947	9.76		
Trichloroethene		0.2140	6.94		
Vinyl Acetate		0.4649	4.86		
cis-1,2-Dichloroethene		0.2530	6.50		
cis-1,3-Dichloropropene		0.3807	14.2		
m-,p-Xylene		0.6407	12.1		
o-Xylene		0.6109	13.3		
trans-1,2-Dichloroethene		0.2463	7.77		
trans-1,3-Dichloropropene		0.6106	15.1		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508
Analytical Method: 8260B
ICAL Workgroup: WG268631

Instrument ID: HPMS9
Initial Calibration Date: 17-APR-08 16:47
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS14

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 14:38

Column ID: F

Analyte	WG268583-02			WG268583-03			WG268583-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2053.00000	0.2751	1.00	7927.00000	0.4215
1,2-Dichloropropane	NA	NA	NA	0.400	1700.00000	0.2278	1.00	5531.00000	0.2941
Chloroform	0.300	2893.00000	0.5045	0.400	3820.00000	0.5119	1.00	9783.00000	0.5202
Ethylbenzene	NA	NA	NA	0.400	2276.00000	0.4176	1.00	6943.00000	0.5071
Toluene	NA	NA	NA	0.400	6349.00000	1.165	1.00	17637.0000	1.288
Vinyl Chloride	NA	NA	NA	NA	NA	NA	1.00	5147.00000	0.2737
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1630.00000	0.5395	1.00	3418.00000	0.4485
1,1-Dichloroethane	NA	NA	NA	0.400	3288.00000	0.4406	1.00	8806.00000	0.4682
Bromoform	NA	NA	NA	NA	NA	NA	1.00	2051.00000	0.1498
Chlorobenzene	NA	NA	NA	0.400	5059.00000	0.9282	1.00	12002.0000	0.8766
Chloromethane	NA	NA	NA	0.400	1583.00000	0.2121	1.00	4106.00000	0.2183
1,1,1-Trichloroethane	NA	NA	NA	0.400	2565.00000	0.3437	1.00	8936.00000	0.4752
1,1,2-Trichloroethane	NA	NA	NA	0.400	1338.00000	0.2455	1.00	3129.00000	0.2285
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	3431.00000	1.136	1.00	6569.00000	0.8619
1,2-Dichlorobenzene	0.300	3053.00000	1.331	0.400	4365.00000	1.445	1.00	8612.00000	1.130
1,2-Dichloroethane	NA	NA	NA	0.400	3091.00000	0.4142	1.00	8671.00000	0.4611
1,3-Dichlorobenzene	NA	NA	NA	0.400	4468.00000	1.479	1.00	9839.00000	1.291
1,4-Dichlorobenzene	0.300	3527.00000	1.537	0.400	4936.00000	1.634	1.00	10345.0000	1.357
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	6321.00000	0.8470	1.00	17736.0000	0.9431
Bromodichloromethane	NA	NA	NA	0.400	2874.00000	0.3851	1.00	6681.00000	0.3552
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	1763.00000	0.09370
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	14055.0000	0.7473
Carbon Tetrachloride	NA	NA	NA	0.400	2025.00000	0.2714	1.00	7890.00000	0.4195
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	2990.00000	0.1590
Dibromochloromethane	NA	NA	NA	0.400	1580.00000	0.2899	1.00	3766.00000	0.2751
Methyl Tert Butyl Ether	NA	NA	NA	0.400	3683.00000	0.4935	1.00	10076.0000	0.5358
Methylene Chloride	NA	NA	NA	0.400	2975.00000	0.3987	1.00	5914.00000	0.3145
Styrene	NA	NA	NA	0.400	4160.00000	0.7633	1.00	10935.0000	0.7986
Tetrachloroethene	NA	NA	NA	0.400	1368.00000	0.2510	1.00	4345.00000	0.3173
Trichloroethene	NA	NA	NA	0.400	1377.00000	0.1845	1.00	4180.00000	0.2223
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	1578.00000	0.2115	1.00	4478.00000	0.2381
cis-1,3-Dichloropropene	NA	NA	NA	0.400	2380.00000	0.3189	1.00	5954.00000	0.3166
m-,p-Xylene	NA	NA	NA	0.800	5655.00000	0.5188	2.00	16398.0000	0.5988
o-Xylene	NA	NA	NA	0.400	2487.00000	0.4563	1.00	7107.00000	0.5191
trans-1,2-Dichloroethene	NA	NA	NA	0.400	1298.00000	0.1739	1.00	4131.00000	0.2197

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS14

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 14:38

Column ID: F

Analyte	WG268583-05			WG268583-06			WG268583-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	14224.0000	0.3756	5.00	47775.0000	0.4862	20.0	205155.000	0.4961
1,2-Dichloropropane	2.00	7769.00000	0.2052	5.00	25811.0000	0.2627	20.0	108119.000	0.2615
Chloroform	2.00	17314.0000	0.4572	5.00	57067.0000	0.5808	20.0	238238.000	0.5762
Ethylbenzene	2.00	12201.0000	0.4407	5.00	40904.0000	0.5724	20.0	177916.000	0.5805
Toluene	2.00	32554.0000	1.176	5.00	110014.000	1.540	20.0	467003.000	1.524
Vinyl Chloride	2.00	10588.0000	0.2796	5.00	25430.0000	0.2588	20.0	96046.0000	0.2323
1,1,2,2-Tetrachloroethane	2.00	5156.00000	0.3379	5.00	16824.0000	0.4301	20.0	74862.0000	0.4466
1,1-Dichloroethane	2.00	16433.0000	0.4340	5.00	53908.0000	0.5486	20.0	225853.000	0.5462
Bromoform	2.00	3131.00000	0.1131	5.00	11472.0000	0.1605	20.0	55341.0000	0.1806
Chlorobenzene	2.00	20878.0000	0.7541	5.00	70357.0000	0.9846	20.0	301461.000	0.9837
Chloromethane	2.00	9634.00000	0.2544	5.00	23741.0000	0.2416	20.0	94098.0000	0.2276
1,1,1-Trichloroethane	2.00	16316.0000	0.4309	5.00	55388.0000	0.5637	20.0	236422.000	0.5718
1,1,2-Trichloroethane	2.00	4641.00000	0.1676	5.00	16153.0000	0.2261	20.0	69514.0000	0.2268
1,2,4-Trichlorobenzene	2.00	10638.0000	0.6971	5.00	34924.0000	0.8927	20.0	162058.000	0.9669
1,2-Dichlorobenzene	2.00	14581.0000	0.9555	5.00	49949.0000	1.277	20.0	220599.000	1.316
1,2-Dichloroethane	2.00	13503.0000	0.3566	5.00	43429.0000	0.4420	20.0	178154.000	0.4308
1,3-Dichlorobenzene	2.00	17155.0000	1.124	5.00	57975.0000	1.482	20.0	251162.000	1.499
1,4-Dichlorobenzene	2.00	17609.0000	1.154	5.00	58793.0000	1.503	20.0	251562.000	1.501
1,4-Dioxane	50.0	838.000000	0.0009000	100	1703.00000	0.0009000	150	2968.00000	0.001000
2-Butanone	2.00	2204.00000	0.05820	5.00	5529.00000	0.05630	20.0	23111.0000	0.05590
2-Hexanone	NA	NA	NA	5.00	6954.00000	0.09730	20.0	33668.0000	0.1099
4-Methyl-2-Pentanone	2.00	1312.00000	0.03460	5.00	3928.00000	0.04000	20.0	19386.0000	0.04690
Acetone	NA	NA	NA	5.00	4669.00000	0.04750	20.0	18939.0000	0.04580
Acrylonitrile	2.00	1590.00000	0.04200	5.00	4726.00000	0.04810	20.0	21940.0000	0.05310
Benzene	2.00	31766.0000	0.8389	5.00	104057.000	1.059	20.0	439324.000	1.063
Bromodichloromethane	2.00	11247.0000	0.2970	5.00	38968.0000	0.3966	20.0	170197.000	0.4116
Bromomethane	2.00	4428.00000	0.1169	5.00	12451.0000	0.1267	20.0	60112.0000	0.1454
Carbon Disulfide	2.00	31409.0000	0.8294	5.00	81200.0000	0.8264	20.0	342728.000	0.8289
Carbon Tetrachloride	2.00	14580.0000	0.3850	5.00	48857.0000	0.4972	20.0	210865.000	0.5100
Chloroethane	2.00	7904.00000	0.2087	5.00	19377.0000	0.1972	20.0	77102.0000	0.1865
Dibromochloromethane	2.00	6192.00000	0.2237	5.00	21530.0000	0.3013	20.0	100368.000	0.3275
Methyl Tert Butyl Ether	2.00	20399.0000	0.5387	5.00	54856.0000	0.5583	20.0	237113.000	0.5734
Methylene Chloride	2.00	9242.00000	0.2441	5.00	25880.0000	0.2634	20.0	104854.000	0.2536
Styrene	2.00	20783.0000	0.7507	5.00	75486.0000	1.056	20.0	344445.000	1.124
Tetrachloroethene	2.00	8411.00000	0.3038	5.00	27974.0000	0.3915	20.0	119896.000	0.3912
Trichloroethene	2.00	7863.00000	0.2076	5.00	25881.0000	0.2634	20.0	114716.000	0.2774
Vinyl Acetate	2.00	10245.0000	0.2705	5.00	26371.0000	0.2684	20.0	126784.000	0.3066
cis-1,2-Dichloroethene	2.00	7753.00000	0.2047	5.00	26918.0000	0.2740	20.0	116610.000	0.2820
cis-1,3-Dichloropropene	2.00	10290.0000	0.2717	5.00	37276.0000	0.3794	20.0	175234.000	0.4238
m-,p-Xylene	4.00	29602.0000	0.5346	10.0	99915.0000	0.6992	40.0	437079.000	0.7131
o-Xylene	2.00	12535.0000	0.4528	5.00	46691.0000	0.6534	20.0	207906.000	0.6784
trans-1,2-Dichloroethene	2.00	7661.00000	0.2023	5.00	25215.0000	0.2566	20.0	110024.000	0.2661

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INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS14

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 14:38

Column ID: F

Analyte	WG268583-08			WG268583-09			WG268583-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	522127.000	0.4839	100	1051569.00	0.4765	200	2173164.00	0.4660
1,2-Dichloropropane	50.0	278940.000	0.2585	100	567535.000	0.2572	200	1196745.00	0.2566
Chloroform	50.0	597603.000	0.5538	100	1214307.00	0.5502	200	2573743.00	0.5520
Ethylbenzene	50.0	467794.000	0.5791	100	979864.000	0.5794	200	2015717.00	0.5299
Toluene	50.0	1210691.00	1.499	100	2525803.00	1.494	200	5343403.00	1.405
Vinyl Chloride	50.0	225308.000	0.2088	100	382119.000	0.1732	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	200456.000	0.4391	100	415275.000	0.4257	200	924550.000	0.4361
1,1-Dichloroethane	50.0	562022.000	0.5209	100	1128557.00	0.5114	200	2382299.00	0.5109
Bromoform	50.0	148149.000	0.1834	100	312427.000	0.1847	200	702496.000	0.1847
Chlorobenzene	50.0	783950.000	0.9705	100	1627556.00	0.9624	200	3396852.00	0.8929
Chloromethane	50.0	260914.000	0.2418	100	596631.000	0.2704	200	1416334.00	0.3037
1,1,1-Trichloroethane	50.0	591251.000	0.5480	100	1177291.00	0.5335	200	2377387.00	0.5098
1,1,2-Trichloroethane	50.0	176579.000	0.2186	100	358702.000	0.2121	200	788641.000	0.2073
1,2,4-Trichlorobenzene	50.0	448829.000	0.9832	100	992765.000	1.018	200	2123137.00	1.002
1,2-Dichlorobenzene	50.0	590092.000	1.293	100	1280811.00	1.313	200	2784839.00	1.314
1,2-Dichloroethane	50.0	430307.000	0.3988	100	818414.000	0.3709	200	1637329.00	0.3511
1,3-Dichlorobenzene	50.0	674129.000	1.477	100	1468956.00	1.506	200	3195318.00	1.507
1,4-Dichlorobenzene	50.0	675638.000	1.480	100	1471944.00	1.509	200	3184503.00	1.502
1,4-Dioxane	200	4378.00000	0.001000	400	9327.00000	0.001100	NA	NA	NA
2-Butanone	50.0	59560.0000	0.05520	100	114222.000	0.05180	200	249717.000	0.05360
2-Hexanone	50.0	93139.0000	0.1153	100	182949.000	0.1082	200	400416.000	0.1053
4-Methyl-2-Pentanone	50.0	53712.0000	0.04980	100	106208.000	0.04810	200	241191.000	0.05170
Acetone	50.0	46168.0000	0.04280	100	85695.0000	0.03880	200	187140.000	0.04010
Acrylonitrile	50.0	57316.0000	0.05310	100	111600.000	0.05060	200	244896.000	0.05250
Benzene	50.0	1128074.00	1.046	100	2332500.00	1.057	200	4910663.00	1.053
Bromodichloromethane	50.0	437503.000	0.4055	100	871801.000	0.3950	200	1852756.00	0.3973
Bromomethane	50.0	167797.000	0.1555	100	357061.000	0.1618	200	833344.000	0.1787
Carbon Disulfide	50.0	934803.000	0.8663	100	1875885.00	0.8500	200	4016072.00	0.8613
Carbon Tetrachloride	50.0	520951.000	0.4828	100	1026506.00	0.4651	200	2082852.00	0.4467
Chloroethane	50.0	185383.000	0.1718	100	361840.000	0.1640	200	761054.000	0.1632
Dibromochloromethane	50.0	266191.000	0.3295	100	543588.000	0.3214	200	1191801.00	0.3133
Methyl Tert Butyl Ether	50.0	632087.000	0.5858	100	1164513.00	0.5277	200	2455503.00	0.5266
Methylene Chloride	50.0	258851.000	0.2399	100	532750.000	0.2414	200	1152655.00	0.2472
Styrene	50.0	922680.000	1.142	100	1974661.00	1.168	200	4279295.00	1.125
Tetrachloroethene	50.0	311515.000	0.3856	100	643148.000	0.3803	200	1370313.00	0.3602
Trichloroethene	50.0	297413.000	0.2756	100	614256.000	0.2783	200	1292728.00	0.2772
Vinyl Acetate	50.0	317771.000	0.2945	100	595145.000	0.2697	200	1262522.00	0.2708
cis-1,2-Dichloroethene	50.0	297561.000	0.2758	100	623514.000	0.2825	200	1354090.00	0.2904
cis-1,3-Dichloropropene	50.0	454616.000	0.4213	100	919362.000	0.4166	200	1958538.00	0.4200
m-,p-Xylene	100	1153601.00	0.7141	200	2410986.00	0.7128	400	4945264.00	0.6500
o-Xylene	50.0	552398.000	0.6838	100	1174957.00	0.6948	200	2514766.00	0.6610
trans-1,2-Dichloroethene	50.0	285146.000	0.2643	100	592513.000	0.2685	200	1272084.00	0.2728

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INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS14

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 14:38

Column ID: F

Analyte	WG268583-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	16041.0000	0.001100
2-Butanone	300	385756.000	0.05240
2-Hexanone	300	625161.000	0.1141
4-Methyl-2-Pentanone	300	376233.000	0.05110
Acetone	300	264237.000	0.03590
Acrylonitrile	300	354733.000	0.04820
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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Analytical Method: 8260B
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Analyte	WG268583-02			WG268583-03			WG268583-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	0.400	2204.00000	0.4044	1.00	5904.00000	0.4312

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INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8260B
Instrument ID: HPMS14
Initial Calibration Date: 17-APR-08 14:38
Column ID: F

Analyte	WG268583-05			WG268583-06			WG268583-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	9606.00000	0.3470	5.00	35778.0000	0.5007	20.0	163484.000	0.5334

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Analytical Method: 8260B
Instrument ID: HPMS14
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Column ID: F

Analyte	WG268583-08			WG268583-09			WG268583-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	421485.000	0.5218	100	841027.000	0.4973	200	1790381.00	0.4706

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INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8260B

Instrument ID: HPMS14
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Analyte	WG268583-11		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-02			WG268631-03			WG268631-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	1.00	6164.00000	0.4041	2.00	11376.0000	0.3716
1,2-Dichloropropane	NA	NA	NA	1.00	3558.00000	0.2332	2.00	6740.00000	0.2202
Chloroform	NA	NA	NA	1.00	7310.00000	0.4792	2.00	13154.0000	0.4297
Ethylbenzene	NA	NA	NA	1.00	4743.00000	0.5115	2.00	8828.00000	0.4815
Toluene	0.500	7164.00000	1.496	1.00	15715.0000	1.695	2.00	27814.0000	1.517
Vinyl Chloride	NA	NA	NA	1.00	3022.00000	0.1981	2.00	5428.00000	0.1773
1,1,2,2-Tetrachloroethane	NA	NA	NA	1.00	3721.00000	0.8793	2.00	6424.00000	0.7623
1,1-Dichloroethane	NA	NA	NA	1.00	7265.00000	0.4762	2.00	13560.0000	0.4429
Bromoform	NA	NA	NA	NA	NA	NA	2.00	2400.00000	0.1309
Chlorobenzene	NA	NA	NA	1.00	9412.00000	1.015	2.00	16877.0000	0.9205
Chloromethane	NA	NA	NA	1.00	4879.00000	0.3198	2.00	7661.00000	0.2502
1,1,1-Trichloroethane	NA	NA	NA	1.00	5452.00000	0.3574	2.00	10410.0000	0.3400
1,1,2-Trichloroethane	NA	NA	NA	1.00	3056.00000	0.3295	2.00	5141.00000	0.2804
1,2,4-Trichlorobenzene	NA	NA	NA	1.00	3767.00000	0.8902	2.00	6763.00000	0.8025
1,2-Dichlorobenzene	NA	NA	NA	1.00	5389.00000	1.274	2.00	9896.00000	1.174
1,2-Dichloroethane	NA	NA	NA	1.00	6256.00000	0.4101	2.00	12244.0000	0.3999
1,3-Dichlorobenzene	NA	NA	NA	1.00	6109.00000	1.444	2.00	10436.0000	1.238
1,4-Dichlorobenzene	NA	NA	NA	1.00	6752.00000	1.596	2.00	12093.0000	1.435
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.500	7129.00000	0.8865	1.00	16946.0000	1.111	2.00	29204.0000	0.9539
Bromodichloromethane	NA	NA	NA	1.00	4634.00000	0.3038	2.00	8248.00000	0.2694
Bromomethane	NA	NA	NA	1.00	1411.00000	0.09250	2.00	2766.00000	0.09040
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	1.00	4113.00000	0.2696	2.00	7564.00000	0.2471
Chloroethane	NA	NA	NA	1.00	2130.00000	0.1396	2.00	4662.00000	0.1523
Dibromochloromethane	NA	NA	NA	NA	NA	NA	2.00	4036.00000	0.2201
Methyl Tert Butyl Ether	NA	NA	NA	1.00	9771.00000	0.6405	2.00	16611.0000	0.5426
Methylene Chloride	NA	NA	NA	NA	NA	NA	2.00	9891.00000	0.3231
Styrene	NA	NA	NA	NA	NA	NA	2.00	13591.0000	0.7413
Tetrachloroethene	NA	NA	NA	1.00	2610.00000	0.2815	2.00	4531.00000	0.2471
Trichloroethene	NA	NA	NA	1.00	3097.00000	0.2030	2.00	6065.00000	0.1981
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	1.00	3776.00000	0.2475	2.00	6993.00000	0.2284
cis-1,3-Dichloropropene	NA	NA	NA	1.00	5057.00000	0.3315	2.00	9396.00000	0.3069
m-,p-Xylene	1.00	4876.00000	0.5092	2.00	12030.0000	0.6486	4.00	20923.0000	0.5706
o-Xylene	NA	NA	NA	1.00	4948.00000	0.5336	2.00	9150.00000	0.4990
trans-1,2-Dichloroethene	NA	NA	NA	1.00	3597.00000	0.2358	2.00	6705.00000	0.2190

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-05			WG268631-07			WG268631-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	5.00	28807.0000	0.3917	50.0	371908.000	0.4679	100	756767.000	0.4935
1,2-Dichloropropane	5.00	19367.0000	0.2633	50.0	210421.000	0.2647	100	431899.000	0.2816
Chloroform	5.00	35643.0000	0.4846	50.0	401995.000	0.5057	100	804783.000	0.5248
Ethylbenzene	5.00	24274.0000	0.5521	50.0	276519.000	0.5772	100	555457.000	0.6128
Toluene	5.00	73800.0000	1.679	50.0	847174.000	1.768	100	1709617.00	1.886
Vinyl Chloride	5.00	13906.0000	0.1891	50.0	127412.000	0.1603	100	223916.000	0.1460
1,1,2,2-Tetrachloroethane	5.00	19827.0000	0.9636	50.0	181891.000	0.8141	100	366524.000	0.8633
1,1-Dichloroethane	5.00	35568.0000	0.4836	50.0	411826.000	0.5181	100	840925.000	0.5483
Bromoform	5.00	7164.00000	0.1630	50.0	87315.0000	0.1823	100	178156.000	0.1966
Chlorobenzene	5.00	44864.0000	1.021	50.0	477665.000	0.9970	100	948429.000	1.046
Chloromethane	5.00	19061.0000	0.2592	50.0	192236.000	0.2418	100	361177.000	0.2355
1,1,1-Trichloroethane	5.00	28976.0000	0.3940	50.0	355225.000	0.4469	100	721546.000	0.4705
1,1,2-Trichloroethane	5.00	15237.0000	0.3466	50.0	146173.000	0.3051	100	290923.000	0.3210
1,2,4-Trichlorobenzene	5.00	17638.0000	0.8572	50.0	201092.000	0.9000	100	421974.000	0.9939
1,2-Dichlorobenzene	5.00	28414.0000	1.381	50.0	289634.000	1.296	100	580044.000	1.366
1,2-Dichloroethane	5.00	32489.0000	0.4418	50.0	334245.000	0.4205	100	671351.000	0.4378
1,3-Dichlorobenzene	5.00	30407.0000	1.478	50.0	320118.000	1.433	100	643394.000	1.515
1,4-Dichlorobenzene	5.00	31770.0000	1.544	50.0	322936.000	1.445	100	642920.000	1.514
1,4-Dioxane	100	2732.00000	0.001900	200	6289.00000	0.002000	400	15307.0000	0.002500
2-Butanone	5.00	8698.00000	0.1183	50.0	83283.0000	0.1048	100	168223.000	0.1097
2-Hexanone	5.00	10173.0000	0.2314	50.0	117860.000	0.2460	100	240562.000	0.2654
4-Methyl-2-Pentanone	5.00	5511.00000	0.07490	50.0	65315.0000	0.08220	100	132146.000	0.08620
Acetone	5.00	9981.00000	0.1357	50.0	60165.0000	0.07570	100	122472.000	0.07990
Acrylonitrile	5.00	5158.00000	0.07010	50.0	66363.0000	0.08350	100	138915.000	0.09060
Benzene	5.00	75524.0000	1.027	50.0	846160.000	1.065	100	1708554.00	1.114
Bromodichloromethane	5.00	24701.0000	0.3359	50.0	281326.000	0.3539	100	577865.000	0.3768
Bromomethane	5.00	7344.00000	0.09990	50.0	83581.0000	0.1051	100	170017.000	0.1109
Carbon Disulfide	5.00	54182.0000	0.7367	50.0	692117.000	0.8707	100	1362813.00	0.8886
Carbon Tetrachloride	5.00	20434.0000	0.2778	50.0	273210.000	0.3437	100	550763.000	0.3591
Chloroethane	5.00	12511.0000	0.1701	50.0	129117.000	0.1624	100	263180.000	0.1716
Dibromochloromethane	5.00	12358.0000	0.2811	50.0	151188.000	0.3156	100	308276.000	0.3401
Methyl Tert Butyl Ether	5.00	50058.0000	0.6806	50.0	566702.000	0.7129	100	1174033.00	0.7655
Methylene Chloride	5.00	20800.0000	0.2828	50.0	198329.000	0.2495	100	397436.000	0.2592
Styrene	5.00	42608.0000	0.9692	50.0	530890.000	1.108	100	1074720.00	1.186
Tetrachloroethene	5.00	12903.0000	0.2935	50.0	147462.000	0.3078	100	300941.000	0.3320
Trichloroethene	5.00	15153.0000	0.2060	50.0	179699.000	0.2261	100	363129.000	0.2368
Vinyl Acetate	5.00	32309.0000	0.4393	50.0	356450.000	0.4484	100	762953.000	0.4975
cis-1,2-Dichloroethene	5.00	18454.0000	0.2509	50.0	209566.000	0.2636	100	425356.000	0.2774
cis-1,3-Dichloropropene	5.00	27563.0000	0.3748	50.0	329375.000	0.4144	100	690865.000	0.4505
m-,p-Xylene	10.0	58668.0000	0.6672	100	668946.000	0.6981	200	1338906.00	0.7386
o-Xylene	5.00	26728.0000	0.6080	50.0	318395.000	0.6646	100	645799.000	0.7125
trans-1,2-Dichloroethene	5.00	17606.0000	0.2394	50.0	207190.000	0.2606	100	418607.000	0.2730

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-09			WG268631-10		
	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	200	1482160.00	0.4561	NA	NA	NA
1,2-Dichloropropane	200	841200.000	0.2589	NA	NA	NA
Chloroform	200	1523449.00	0.4688	NA	NA	NA
Ethylbenzene	200	1038873.00	0.5539	NA	NA	NA
Toluene	200	3241132.00	1.728	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	200	705472.000	0.7967	NA	NA	NA
1,1-Dichloroethane	200	1615953.00	0.4973	NA	NA	NA
Bromoform	200	326531.000	0.1741	NA	NA	NA
Chlorobenzene	200	1759526.00	0.9381	NA	NA	NA
Chloromethane	200	767907.000	0.2363	NA	NA	NA
1,1,1-Trichloroethane	200	1368164.00	0.4210	NA	NA	NA
1,1,2-Trichloroethane	200	536546.000	0.2861	NA	NA	NA
1,2,4-Trichlorobenzene	200	810146.000	0.9149	NA	NA	NA
1,2-Dichlorobenzene	200	1094654.00	1.236	NA	NA	NA
1,2-Dichloroethane	200	1240928.00	0.3819	NA	NA	NA
1,3-Dichlorobenzene	200	1191133.00	1.345	NA	NA	NA
1,4-Dichlorobenzene	200	1196621.00	1.351	NA	NA	NA
1,4-Dioxane	NA	NA	NA	600	21335.0000	0.002200
2-Butanone	200	345004.000	0.1062	300	533852.000	0.1091
2-Hexanone	200	489690.000	0.2611	300	721236.000	0.2556
4-Methyl-2-Pentanone	200	268202.000	0.08250	300	410355.000	0.08380
Acetone	200	242775.000	0.07470	300	360267.000	0.07360
Acrylonitrile	200	285650.000	0.08790	300	391679.000	0.08000
Benzene	200	3244591.00	0.9984	NA	NA	NA
Bromodichloromethane	200	1105431.00	0.3402	NA	NA	NA
Bromomethane	200	345434.000	0.1063	NA	NA	NA
Carbon Disulfide	200	2852727.00	0.8779	NA	NA	NA
Carbon Tetrachloride	200	1088171.00	0.3349	NA	NA	NA
Chloroethane	200	535117.000	0.1647	NA	NA	NA
Dibromochloromethane	200	580586.000	0.3095	NA	NA	NA
Methyl Tert Butyl Ether	200	2459088.00	0.7567	NA	NA	NA
Methylene Chloride	200	754125.000	0.2321	NA	NA	NA
Styrene	200	2005477.00	1.069	NA	NA	NA
Tetrachloroethene	200	574159.000	0.3061	NA	NA	NA
Trichloroethene	200	694931.000	0.2138	NA	NA	NA
Vinyl Acetate	200	1520769.00	0.4680	300	2307147.00	0.4713
cis-1,2-Dichloroethene	200	813167.000	0.2502	NA	NA	NA
cis-1,3-Dichloropropene	200	1319006.00	0.4059	NA	NA	NA
m-,p-Xylene	400	2446850.00	0.6523	NA	NA	NA
o-Xylene	200	1214635.00	0.6476	NA	NA	NA
trans-1,2-Dichloroethene	200	812569.000	0.2500	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8260B
Instrument ID: HPMS9
Initial Calibration Date: 17-APR-08 16:47
Column ID: F

Analyte	WG268631-02			WG268631-03			WG268631-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	1.00	4596.00000	0.4956	2.00	9204.00000	0.5020

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8260B
Instrument ID: HPMS9
Initial Calibration Date: 17-APR-08 16:47
Column ID: F

Analyte	WG268631-05			WG268631-07			WG268631-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	5.00	27601.0000	0.6278	50.0	321446.000	0.6709	100	652363.000	0.7198

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-09			WG268631-10		
	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	200	1214460.00	0.6475	NA	NA	NA

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 04/17/2008 Sample ID: WG268583-12
Instrument ID: HPMS14 Run Time: 17:34 Method: 8260B
File ID: 14M05119 Analyst: SMH QC Key: DOWWV2006
ICal Workgroup: WG268583 Cal ID: HPMS14 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	19.8	ug/L	0.480	1.10	25	
1,2-Dichloropropane	CCC	20.0	20.9	ug/L	0.264	4.40	25	
Chloroform	CCC	20.0	21.6	ug/L	0.578	8.20	25	
Ethylbenzene	CCC	20.0	22.9	ug/L	0.603	14.6	25	
Toluene	CCC	20.0	22.9	ug/L	1.59	14.4	25	
Vinyl Chloride	CCC	20.0	19.6	ug/L	0.228	1.80	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	19.5	ug/L	0.427	2.60	25	
1,1-Dichloroethane	SPCC	20.0	22.3	ug/L	0.554	11.3	25	
Bromoform	SPCC	20.0	17.8	ug/L	0.161	10.8	25	
Chlorobenzene	SPCC	20.0	22.0	ug/L	1.01	9.90	25	
Chloromethane	SPCC	20.0	19.0	ug/L	0.234	5.20	25	
1,1,1-Trichloroethane		20.0	20.2	ug/L	0.559	0.900	25	
1,1,2-Trichloroethane		20.0	20.4	ug/L	0.221	2.20	25	
1,2,4-Trichlorobenzene		20.0	20.6	ug/L	0.974	3.20	25	
1,2-Dichlorobenzene		20.0	21.2	ug/L	1.34	6.20	25	
1,2-Dichloroethane		20.0	19.2	ug/L	0.387	4.00	25	
1,3-Dichlorobenzene		20.0	21.9	ug/L	1.55	9.40	25	
1,4-Dichlorobenzene		20.0	21.1	ug/L	1.54	5.30	25	
1,4-Dioxane		200	153	ug/L	0.00100	23.4	25	
2-Butanone		20.0	19.5	ug/L	0.0535	2.40	25	
2-Hexanone		20.0	18.2	ug/L	0.0985	9.00	25	
4-Methyl-2-Pentanone		20.0	18.9	ug/L	0.0435	5.60	25	
Acetone		20.0	19.6	ug/L	0.0409	2.20	25	
Acrylonitrile		20.0	19.5	ug/L	0.0484	2.60	25	
Benzene		20.0	22.3	ug/L	1.10	11.4	25	
Bromodichloromethane		20.0	21.4	ug/L	0.408	7.20	25	
Bromomethane		20.0	19.0	ug/L	0.139	4.90	25	
Carbon Disulfide		20.0	18.3	ug/L	0.761	8.30	25	
Carbon Tetrachloride		20.0	20.2	ug/L	0.492	1.20	25	
Dibromochloromethane		20.0	20.8	ug/L	0.310	4.10	25	
Chloroethane		20.0	21.5	ug/L	0.192	7.50	25	
cis-1,2-Dichloroethene		20.0	23.4	ug/L	0.301	16.8	25	
cis-1,3-Dichloropropene		20.0	19.4	ug/L	0.401	3.10	25	
Methyl Tert Butyl Ether		20.0	20.9	ug/L	0.567	4.40	25	
Methylene Chloride		20.0	21.3	ug/L	0.261	6.60	25	
Styrene		20.0	20.0	ug/L	1.16	0.200	25	
Tetrachloroethene		20.0	23.2	ug/L	0.403	16.0	25	
trans-1,2-Dichloroethene		20.0	20.6	ug/L	0.271	3.20	25	
trans-1,3-Dichloropropene		20.0	18.9	ug/L	0.437	5.70	25	
Trichloroethene		20.0	20.9	ug/L	0.288	4.70	25	
Vinyl Acetate		20.0	11.8	ug/L	0.166	40.8	25	*
Xylenes		60.0	66.6	ug/L	0.727	11.1	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 04/17/2008 Sample ID: WG268583-12
Instrument ID: HPMS14 Run Time: 17:34 Method: 8260B
File ID: 14M05119 Analyst: SMH QC Key: DOWWV2006
ICal Workgroup: WG268583 Cal ID: HPMS14 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
o-Xylene		20.0	20.5	ug/L	0.711	2.40	25	
1,2-Dichloroethene		40.0	44.0	ug/L	0.286	10.0	25	
m-,p-Xylene		40.0	46.2	ug/L	0.742	15.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 04/17/2008 Sample ID: WG268631-11
Instrument ID: HPMS9 Run Time: 18:20 Method: 8260B
File ID: 9M61211 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG268631 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	22.0	ug/kg	0.479	9.90	25	
1,2-Dichloropropane	CCC	20.0	22.2	ug/kg	0.284	11.0	25	
Chloroform	CCC	20.0	22.3	ug/kg	0.544	11.5	25	
Ethylbenzene	CCC	20.0	22.3	ug/kg	0.620	11.7	25	
Toluene	CCC	20.0	22.0	ug/kg	1.86	9.80	25	
Vinyl Chloride	CCC	20.0	21.3	ug/kg	0.187	6.40	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	21.6	ug/kg	0.915	7.90	25	
1,1-Dichloroethane	SPCC	20.0	22.5	ug/kg	0.562	12.3	25	
Bromoform	SPCC	20.0	21.8	ug/kg	0.186	8.90	25	
Chlorobenzene	SPCC	20.0	21.7	ug/kg	1.08	8.60	25	
Chloromethane	SPCC	20.0	21.1	ug/kg	0.272	5.30	25	
1,1,1-Trichloroethane		20.0	22.6	ug/kg	0.465	12.8	25	
1,1,2-Trichloroethane		20.0	21.9	ug/kg	0.341	9.50	25	
1,2,4-Trichlorobenzene		20.0	20.7	ug/kg	0.924	3.30	25	
1,2-Dichlorobenzene		20.0	21.4	ug/kg	1.38	7.10	25	
1,2-Dichloroethane		20.0	21.7	ug/kg	0.455	8.70	25	
1,3-Dichlorobenzene		20.0	21.3	ug/kg	1.51	6.60	25	
1,4-Dichlorobenzene		20.0	20.3	ug/kg	1.51	1.70	25	
1,4-Dioxane		200	228	ug/kg	0.00320	14.1	25	
2-Butanone		20.0	26.2	ug/kg	0.144	31.1	25	*
2-Hexanone		20.0	22.8	ug/kg	0.285	14.0	25	
4-Methyl-2-Pentanone		20.0	23.3	ug/kg	0.0957	16.3	25	
Acetone		20.0	25.3	ug/kg	0.109	26.7	25	*
Acrylonitrile		20.0	23.7	ug/kg	0.0984	18.6	25	
Benzene		20.0	22.3	ug/kg	1.15	11.5	25	
Bromodichloromethane		20.0	22.6	ug/kg	0.377	13.1	25	
Bromomethane		20.0	21.9	ug/kg	0.112	9.60	25	
Carbon Disulfide		20.0	18.2	ug/kg	0.784	8.80	25	
Carbon Tetrachloride		20.0	22.2	ug/kg	0.345	11.1	25	
Dibromochloromethane		20.0	21.3	ug/kg	0.315	6.30	25	
Chloroethane		20.0	22.0	ug/kg	0.178	10.0	25	
cis-1,2-Dichloroethene		20.0	22.6	ug/kg	0.289	13.1	25	
cis-1,3-Dichloropropene		20.0	22.2	ug/kg	0.426	10.8	25	
Methylene Chloride		20.0	20.2	ug/kg	0.272	1.20	25	
Methyl Tert Butyl Ether		20.0	22.4	ug/kg	0.774	12.0	25	
Styrene		20.0	20.0	ug/kg	1.13	0.100	25	
Tetrachloroethene		20.0	21.8	ug/kg	0.324	8.90	25	
trans-1,2-Dichloroethene		20.0	21.5	ug/kg	0.270	7.70	25	
trans-1,3-Dichloropropene		20.0	20.0	ug/kg	0.618	0.200	25	
Trichloroethene		20.0	22.3	ug/kg	0.241	11.3	25	
Vinyl Acetate		20.0	12.8	ug/kg	0.298	35.9	25	*
Xylenes		60.0	67.7	ug/kg	0.714	12.9	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 04/17/2008 Sample ID: WG268631-11
Instrument ID: HPMS9 Run Time: 18:20 Method: 8260B
File ID: 9M61211 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG268631 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
m-,p-Xylene		40.0	45.5	ug/kg	0.739	13.6	25	
o-Xylene		20.0	22.3	ug/kg	0.689	11.4	25	
1,2-Dichloroethene		40.0	44.2	ug/kg	0.279	10.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1084149
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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/25/2008 Sample ID: WG269474-02

Instrument ID: HPMS14 Run Time: 09:47 Method: 8260B

File ID: 14M05351 Analyst: SMH QC Key: DOWWV2006

Workgroup (AAB#): WG269475 Cal ID: HPMS14 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	46.7	ug/L	0.452	6.56	20	
1,2-Dichloropropane	CCC	50.0	48.8	ug/L	0.247	2.35	20	
Chloroform	CCC	50.0	51.6	ug/L	0.551	3.24	20	
Ethylbenzene	CCC	50.0	56.5	ug/L	0.594	12.9	20	
Toluene	CCC	50.0	55.4	ug/L	1.54	10.7	20	
Vinyl Chloride	CCC	50.0	54.5	ug/L	0.224	8.92	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	47.0	ug/L	0.412	5.95	20	
1,1-Dichloroethane	SPCC	50.0	51.4	ug/L	0.511	2.71	20	
Bromoform	SPCC	50.0	49.8	ug/L	0.183	0.383	20	
Chlorobenzene	SPCC	50.0	53.8	ug/L	0.989	7.63	20	
Chloromethane	SPCC	50.0	60.2	ug/L	0.297	20.4	20	*
1,1,1-Trichloroethane		50.0	50.3	ug/L	0.551	0.696	20	
1,1,2-Trichloroethane		50.0	49.6	ug/L	0.215	0.759	20	
1,2,4-Trichlorobenzene		50.0	53.4	ug/L	1.01	6.73	20	
1,2-Dichlorobenzene		50.0	52.7	ug/L	1.33	5.38	20	
1,2-Dichloroethane		50.0	48.5	ug/L	0.391	3.00	20	
1,3-Dichlorobenzene		50.0	54.3	ug/L	1.54	8.65	20	
1,4-Dichlorobenzene		50.0	52.8	ug/L	1.54	5.52	20	
1,4-Dioxane		200	194	ug/L	0.000900	2.95	20	
2-Butanone		50.0	44.4	ug/L	0.0487	11.1	20	
2-Hexanone		50.0	47.3	ug/L	0.103	5.40	20	
4-Methyl-2-Pentanone		50.0	48.6	ug/L	0.0447	2.81	20	
Acetone		50.0	54.0	ug/L	0.0452	8.03	20	
Acrylonitrile		50.0	48.0	ug/L	0.0477	3.91	20	
Benzene		50.0	52.1	ug/L	1.03	4.20	20	
Bromodichloromethane		50.0	52.4	ug/L	0.398	4.73	20	
Bromomethane		50.0	56.8	ug/L	0.176	13.6	20	
Carbon Disulfide		50.0	47.6	ug/L	0.789	4.89	20	
Carbon Tetrachloride		50.0	51.0	ug/L	0.488	1.96	20	
Dibromochloromethane		50.0	54.5	ug/L	0.324	8.91	20	
Chloroethane		50.0	49.2	ug/L	0.176	1.61	20	
cis-1,2-Dichloroethene		50.0	53.6	ug/L	0.276	7.12	20	
cis-1,3-Dichloropropene		50.0	50.0	ug/L	0.417	0.0106	20	
Methyl Tert Butyl Ether		50.0	49.9	ug/L	0.541	0.277	20	
Methylene Chloride		50.0	47.9	ug/L	0.235	4.23	20	
Styrene		50.0	49.2	ug/L	1.15	1.67	20	
Tetrachloroethene		50.0	57.6	ug/L	0.401	15.2	20	
trans-1,2-Dichloroethene		50.0	49.1	ug/L	0.261	1.72	20	
trans-1,3-Dichloropropene		50.0	54.4	ug/L	0.504	8.83	20	
Trichloroethene		50.0	50.0	ug/L	0.277	0.0304	20	
Vinyl Acetate		50.0	27.0	ug/L	0.151	46.0	20	*
Xylenes		150	164	ug/L	0.715	9.47	20	

CCV - Modified 03/05/2008

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/25/2008 Sample ID: WG269474-02

Instrument ID: HPMS14 Run Time: 09:47 Method: 8260B

File ID: 14M05351 Analyst: SMH QC Key: DOWWV2006

Workgroup (AAB#): WG269475 Cal ID: HPMS14 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	103	ug/L	0.268	2.70	20	
m-,p-Xylene		100	115	ug/L	0.736	14.6	20	
o-Xylene		50.0	49.7	ug/L	0.694	0.690	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1084151
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/28/2008 Sample ID: WG269645-02

Instrument ID: HPMS9 Run Time: 10:49 Method: 8260B

File ID: 9M61400 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269647 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	49.4	ug/kg	0.430	1.29	20	
1,2-Dichloropropane	CCC	50.0	50.1	ug/kg	0.257	0.282	20	
Chloroform	CCC	50.0	49.4	ug/kg	0.482	1.28	20	
Ethylbenzene	CCC	50.0	48.2	ug/kg	0.535	3.63	20	
Toluene	CCC	50.0	47.8	ug/kg	1.62	4.38	20	
Vinyl Chloride	CCC	50.0	43.9	ug/kg	0.154	12.1	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	43.6	ug/kg	0.739	12.9	20	
1,1-Dichloroethane	SPCC	50.0	49.2	ug/kg	0.492	1.62	20	
Bromoform	SPCC	50.0	52.8	ug/kg	0.180	5.69	20	
Chlorobenzene	SPCC	50.0	46.7	ug/kg	0.928	6.66	20	
Chloromethane	SPCC	50.0	40.7	ug/kg	0.210	18.5	20	
1,1,1-Trichloroethane		50.0	53.9	ug/kg	0.445	7.87	20	
1,1,2-Trichloroethane		50.0	45.7	ug/kg	0.285	8.52	20	
1,2,4-Trichlorobenzene		50.0	46.4	ug/kg	0.830	7.22	20	
1,2-Dichlorobenzene		50.0	45.7	ug/kg	1.18	8.54	20	
1,2-Dichloroethane		50.0	48.0	ug/kg	0.401	4.05	20	
1,3-Dichlorobenzene		50.0	46.0	ug/kg	1.30	8.01	20	
1,4-Dichlorobenzene		50.0	44.3	ug/kg	1.31	11.3	20	
1,4-Dioxane		200	237	ug/kg	0.00250	18.6	20	
2-Butanone		50.0	56.2	ug/kg	0.123	12.3	20	
2-Hexanone		50.0	52.7	ug/kg	0.264	5.45	20	
4-Methyl-2-Pentanone		50.0	58.0	ug/kg	0.0954	16.0	20	
Acetone		50.0	56.3	ug/kg	0.0887	12.5	20	
Acrylonitrile		50.0	56.0	ug/kg	0.0929	11.9	20	
Benzene		50.0	49.3	ug/kg	1.02	1.47	20	
Bromodichloromethane		50.0	52.8	ug/kg	0.352	5.52	20	
Bromomethane		50.0	50.2	ug/kg	0.102	0.388	20	
Carbon Disulfide		50.0	52.7	ug/kg	0.907	5.49	20	
Carbon Tetrachloride		50.0	54.7	ug/kg	0.340	9.37	20	
Dibromochloromethane		50.0	50.5	ug/kg	0.299	0.932	20	
Chloroethane		50.0	49.3	ug/kg	0.159	1.34	20	
cis-1,2-Dichloroethene		50.0	49.7	ug/kg	0.254	0.559	20	
cis-1,3-Dichloropropene		50.0	53.7	ug/kg	0.413	7.40	20	
Methylene Chloride		50.0	44.2	ug/kg	0.237	11.6	20	
Methyl Tert Butyl Ether		50.0	57.1	ug/kg	0.790	14.3	20	
Styrene		50.0	42.7	ug/kg	1.01	14.6	20	
Tetrachloroethene		50.0	48.3	ug/kg	0.287	3.49	20	
trans-1,2-Dichloroethene		50.0	49.0	ug/kg	0.245	2.08	20	
trans-1,3-Dichloropropene		50.0	50.9	ug/kg	0.630	1.76	20	
Trichloroethene		50.0	51.5	ug/kg	0.222	2.94	20	
Vinyl Acetate		50.0	24.7	ug/kg	0.230	50.6	20	*
Xylenes		150	147	ug/kg	0.622	2.01	20	

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Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/28/2008 Sample ID: WG269645-02

Instrument ID: HPMS9 Run Time: 10:49 Method: 8260B

File ID: 9M61400 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269647 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	98.7	ug/kg	0.249	1.32	20	
m-,p-Xylene		100	98.0	ug/kg	0.637	2.02	20	
o-Xylene		50.0	49.0	ug/kg	0.607	1.99	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1084151
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/29/2008 Sample ID: WG269774-02

Instrument ID: HPMS9 Run Time: 09:01 Method: 8260B

File ID: 9M61431 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269776 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	53.8	ug/kg	0.469	7.56	20	
1,2-Dichloropropane	CCC	50.0	55.3	ug/kg	0.283	10.5	20	
Chloroform	CCC	50.0	55.0	ug/kg	0.537	10.1	20	
Ethylbenzene	CCC	50.0	53.4	ug/kg	0.593	6.80	20	
Toluene	CCC	50.0	52.5	ug/kg	1.78	4.91	20	
Vinyl Chloride	CCC	50.0	53.8	ug/kg	0.189	7.57	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	46.9	ug/kg	0.796	6.14	20	
1,1-Dichloroethane	SPCC	50.0	55.5	ug/kg	0.556	11.1	20	
Bromoform	SPCC	50.0	57.9	ug/kg	0.198	15.8	20	
Chlorobenzene	SPCC	50.0	51.4	ug/kg	1.02	2.81	20	
Chloromethane	SPCC	50.0	49.4	ug/kg	0.255	1.17	20	
1,1,1-Trichloroethane		50.0	59.4	ug/kg	0.490	18.8	20	
1,1,2-Trichloroethane		50.0	49.7	ug/kg	0.310	0.530	20	
1,2,4-Trichlorobenzene		50.0	50.1	ug/kg	0.896	0.121	20	
1,2-Dichlorobenzene		50.0	49.6	ug/kg	1.28	0.762	20	
1,2-Dichloroethane		50.0	53.1	ug/kg	0.444	6.26	20	
1,3-Dichlorobenzene		50.0	51.1	ug/kg	1.45	2.12	20	
1,4-Dichlorobenzene		50.0	48.9	ug/kg	1.45	2.14	20	
1,4-Dioxane		200	217	ug/kg	0.00230	8.43	20	
2-Butanone		50.0	44.9	ug/kg	0.0986	10.3	20	
2-Hexanone		50.0	45.1	ug/kg	0.226	9.71	20	
4-Methyl-2-Pentanone		50.0	49.2	ug/kg	0.0810	1.52	20	
Acetone		50.0	47.9	ug/kg	0.0764	4.25	20	
Acrylonitrile		50.0	50.4	ug/kg	0.0836	0.801	20	
Benzene		50.0	54.8	ug/kg	1.13	9.53	20	
Bromodichloromethane		50.0	59.0	ug/kg	0.394	18.0	20	
Bromomethane		50.0	61.3	ug/kg	0.125	22.6	20	*
Carbon Disulfide		50.0	53.5	ug/kg	0.920	6.96	20	
Carbon Tetrachloride		50.0	61.6	ug/kg	0.383	23.3	20	*
Dibromochloromethane		50.0	55.6	ug/kg	0.329	11.2	20	
Chloroethane		50.0	57.4	ug/kg	0.185	14.8	20	
cis-1,2-Dichloroethene		50.0	54.7	ug/kg	0.279	9.44	20	
cis-1,3-Dichloropropene		50.0	59.3	ug/kg	0.457	18.6	20	
Methylene Chloride		50.0	49.4	ug/kg	0.266	1.12	20	
Methyl Tert Butyl Ether		50.0	56.2	ug/kg	0.777	12.4	20	
Styrene		50.0	47.1	ug/kg	1.11	5.82	20	
Tetrachloroethene		50.0	53.7	ug/kg	0.320	7.47	20	
trans-1,2-Dichloroethene		50.0	54.9	ug/kg	0.275	9.71	20	
trans-1,3-Dichloropropene		50.0	54.2	ug/kg	0.671	8.38	20	
Trichloroethene		50.0	56.6	ug/kg	0.245	13.2	20	
Vinyl Acetate		50.0	64.7	ug/kg	0.602	29.4	20	*
Xylenes		150	161	ug/kg	0.682	7.56	20	

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/29/2008 Sample ID: WG269774-02

Instrument ID: HPMS9 Run Time: 09:01 Method: 8260B

File ID: 9M61431 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269776 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	110	ug/kg	0.277	9.58	20	
m-,p-Xylene		100	108	ug/kg	0.700	7.68	20	
o-Xylene		50.0	53.7	ug/kg	0.664	7.32	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1084151
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040508
Instrument ID:HPMS14
Workgroup (AAB#):WG269475

ICAL CCV Number:WG268583-08
CAL ID: HPMS14-17-APR-08
Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268583-08	NA	NA	228241	403893	539507
Upper Limit	NA	NA	456482	807786	1079014
Lower Limit	NA	NA	114121	201947	269754
L08040508-01	1.00	01	181784	333752	467565
WG269475-01	1.00	01	186386	342334	476161
WG269475-02	1.00	01	206338	379774	512442
WG269475-03	1.00	01	207162	382904	521101

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1081706
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040508
Instrument ID:HPMS9
Workgroup (AAB#):WG269647

ICAL CCV Number:WG268631-07
CAL ID: HPMS9-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268631-07	NA	NA	223427	479092	794901
Upper Limit	NA	NA	446854	958184	1589802
Lower Limit	NA	NA	111714	239546	397451
L08040508-02	1.00	01	242364	548787	883029
L08040508-04	1.00	01	230282	516926	825794
L08040508-07	1.00	01	262309	573624	905942
WG269647-01	1.00	01	277804	599325	931592
WG269647-02	1.00	01	264224	553919	867896

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1081706
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040508
Instrument ID:HPMS9
Workgroup (AAB#):WG269776

ICAL CCV Number:WG268631-07
CAL ID: HPMS9-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268631-07	NA	NA	223427	479092	794901
Upper Limit	NA	NA	446854	958184	1589802
Lower Limit	NA	NA	111714	239546	397451
L08040508-03	1.00	02	234477	496774	769557
WG269776-01	1.00	01	251182	528986	815947
WG269776-02	1.00	01	236211	509694	790520
WG269776-03	1.00	01	250008	523015	811539

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1081706
Report generated 05/02/2008 11:57

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040508
Instrument ID:HPMS14
Workgroup (AAB#):WG269475

ICAL CCV Number:WG268583-08
CAL ID: HPMS14-17-APR-08
Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268583-08	NA	NA	17.24	14.45	10.84
Upper Limit	NA	NA	17.74	14.95	11.34
Lower Limit	NA	NA	16.74	13.95	10.34
L08040508-01	1.00	01	17.242	14.454	10.836
WG269475-01	1.00	01	17.242	14.454	10.836
WG269475-02	1.00	01	17.242	14.444	10.836
WG269475-03	1.00	01	17.242	14.454	10.836

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084152
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040508
Instrument ID:HPMS9
Workgroup (AAB#):WG269647

ICAL CCV Number:WG268631-07
CAL ID: HPMS9-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268631-07	NA	NA	15.21	12.23	8.38
Upper Limit	NA	NA	15.71	12.73	8.88
Lower Limit	NA	NA	14.71	11.73	7.88
L08040508-02	1.00	01	15.21	12.23	8.39
L08040508-04	1.00	01	15.21	12.23	8.39
L08040508-07	1.00	01	15.21	12.23	8.39
WG269647-01	1.00	01	15.2	12.23	8.38
WG269647-02	1.00	01	15.21	12.23	8.38

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084152
Report generated: 05/02/2008 11:57

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040508
Instrument ID:HPMS9
Workgroup (AAB#):WG269776

ICAL CCV Number:WG268631-07
CAL ID: HPMS9-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268631-07	NA	NA	15.21	12.23	8.38
Upper Limit	NA	NA	15.71	12.73	8.88
Lower Limit	NA	NA	14.71	11.73	7.88
L08040508-03	1.00	02	15.2	12.23	8.39
WG269776-01	1.00	01	15.2	12.23	8.39
WG269776-02	1.00	01	15.2	12.23	8.39
WG269776-03	1.00	01	15.21	12.23	8.38

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084152
Report generated: 05/02/2008 11:57

2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data

Microbac Laboratories Inc.
GC/MS SEMIVOLATILE ORGANICS

Microbac Login No: L08040508

METHOD

Preparation: Soils - SW-846 3545; Waters - SW-846 3510C or 3520C

Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: The LCS yielded a recovery for bis(2-chloroethoxy)methane that was below the lower acceptance limit. All other acceptance criteria were met.

Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: Sample 02 yielded a recovery for 2-fluorobiphenyl that was below the lower acceptance limit. All other acceptance criteria were met.

Samples: All acceptance criteria were met.

Manual Integration Reason Codes

Microbac laboratory management has identified four general cases with valid reasons supporting the use of manual integration techniques.

Reason #1: Data System Fails to Select Correct Peak
In some cases the chromatography system selects and integrates the ”wrong peak”. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.
This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds.
This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous
Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: MES

Approved: 05-MAY-08

LABORATORY REPORT

L08040508

05/05/08 13:45

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3001-S001-041608	L08040508-02	8270C	1	17-APR-08
3033-S001-041608	L08040508-03	8270C	1	17-APR-08
3033-S003-041608	L08040508-04	8270C	1	17-APR-08
3033-S005-041608	L08040508-07	8270C	1	17-APR-08

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-02**
Client ID: **3001-S001-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 10:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **04/25/2008 17:58**
Run Date: **04/30/2008 21:02**
File ID: **4M42573**
Percent Solid: **80.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	198	98.8
2,4,6-Trichlorophenol	88-06-2		U	198	98.8
2,4-Dichlorophenol	120-83-2		U	198	98.8
2,4-Dimethylphenol	105-67-9		U	198	98.8
2,4-Dinitrophenol	51-28-5		U	988	493
2,4-Dinitrotoluene	121-14-2		U	198	98.8
2,6-Dinitrotoluene	606-20-2		U	198	98.8
2-Chloronaphthalene	91-58-7		U	198	98.8
2-Chlorophenol	95-57-8		U	198	98.8
2-Methylnaphthalene	91-57-6		U	198	98.8
2-Methylphenol	95-48-7		U	198	98.8
2-Nitroaniline	88-74-4		U	988	493
2-Nitrophenol	88-75-5		U	198	98.8
3,3'-Dichlorobenzidine	91-94-1		U	395	198
3-,4-Methylphenol	106-44-5		U	198	98.8
3-Nitroaniline	99-09-2		U	988	493
4,6-Dinitro-2-methylphenol	534-52-1		U	988	493
4-Bromophenyl phenyl ether	101-55-3		U	198	98.8
4-Chloro-3-methylphenol	59-50-7		U	198	98.8
4-Chloroaniline	106-47-8		U	198	98.8
4-Chlorophenyl phenyl ether	7005-72-3		U	198	98.8
4-Nitroaniline	100-01-6		U	988	493
4-Nitrophenol	100-02-7		U	988	493
Acenaphthene	83-32-9		U	198	98.8
Acenaphthylene	208-96-8		U	198	98.8
Anthracene	120-12-7		U	198	98.8
Benzo(a)anthracene	56-55-3		U	198	98.8
Benzo(a)pyrene	50-32-8		U	198	98.8
Benzo(b)fluoranthene	205-99-2		U	198	98.8
Benzo(g,h,i)Perylene	191-24-2		U	198	98.8
Benzo(k)fluoranthene	207-08-9		U	198	98.8
Bis(2-Chloroethoxy)Methane	111-91-1		U	198	98.8
Bis(2-Chloroethyl)ether	111-44-4		U	198	98.8
bis(2-Chloroisopropyl)ether	39638-32-9		U	198	98.8
bis(2-Ethylhexyl)phthalate	117-81-7		U	198	98.8
Butyl benzyl phthalate	85-68-7		U	198	98.8
Carbazole	86-74-8		U	198	98.8
Chrysene	218-01-9		U	198	98.8
Dibenz(a,h)anthracene	53-70-3		U	198	98.8
Dibenzofuran	132-64-9		U	198	98.8
Diethyl phthalate	84-66-2		U	198	98.8
Dimethyl phthalate	131-11-3		U	198	98.8
Di-N-Butylphthalate	84-74-2		U	198	98.8
Di-n-octyl phthalate	117-84-0		U	198	98.8
Fluoranthene	206-44-0		U	198	98.8
Fluorene	86-73-7		U	198	98.8
Hexachlorobenzene	118-74-1		U	198	98.8
Hexachlorobutadiene	87-68-3		U	198	98.8

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-02**
Client ID: **3001-S001-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 10:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **04/25/2008 17:58**
Run Date: **04/30/2008 21:02**
File ID: **4M42573**
Percent Solid: **80.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	198	98.8
Hexachloroethane	67-72-1		U	198	98.8
Indeno(1,2,3-cd)pyrene	193-39-5		U	198	98.8
Isophorone	78-59-1		U	198	98.8
Naphthalene	91-20-3		U	198	98.8
Nitrobenzene	98-95-3		U	198	98.8
N-Nitrosodiphenylamine	86-30-6		U	198	98.8
N-Nitrosodipropylamine	621-64-7		U	198	98.8
Pentachlorophenol	87-86-5		U	988	493
Phenanthrene	85-01-8		U	198	98.8
Phenol	108-95-2		U	198	98.8
Pyrene	129-00-0		U	198	98.8

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	57.3	19	122	
2-Fluorobiphenyl	19.4	30	115	*
2-Fluorophenol	54.3	25	121	
Nitrobenzene-d5	52.7	23	120	
p-Terphenyl-d14	36.3	18	137	
Phenol-d5	56.8	24	113	

U Not detected at or above the reporting limit
***** Surrogate or spike compound out of range

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-03**
Client ID: **3033-S001-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 15:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 21:29**
File ID: **4M42601**
Percent Solid: **82.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	198	99.2
2,4,6-Trichlorophenol	88-06-2		U	198	99.2
2,4-Dichlorophenol	120-83-2		U	198	99.2
2,4-Dimethylphenol	105-67-9		U	198	99.2
2,4-Dinitrophenol	51-28-5		U	992	495
2,4-Dinitrotoluene	121-14-2		U	198	99.2
2,6-Dinitrotoluene	606-20-2		U	198	99.2
2-Chloronaphthalene	91-58-7		U	198	99.2
2-Chlorophenol	95-57-8		U	198	99.2
2-Methylnaphthalene	91-57-6		U	198	99.2
2-Methylphenol	95-48-7		U	198	99.2
2-Nitroaniline	88-74-4		U	992	495
2-Nitrophenol	88-75-5		U	198	99.2
3,3'-Dichlorobenzidine	91-94-1		U	397	198
3-,4-Methylphenol	106-44-5		U	198	99.2
3-Nitroaniline	99-09-2		U	992	495
4,6-Dinitro-2-methylphenol	534-52-1		U	992	495
4-Bromophenyl phenyl ether	101-55-3		U	198	99.2
4-Chloro-3-methylphenol	59-50-7		U	198	99.2
4-Chloroaniline	106-47-8		U	198	99.2
4-Chlorophenyl phenyl ether	7005-72-3		U	198	99.2
4-Nitroaniline	100-01-6		U	992	495
4-Nitrophenol	100-02-7		U	992	495
Acenaphthene	83-32-9		U	198	99.2
Acenaphthylene	208-96-8		U	198	99.2
Anthracene	120-12-7		U	198	99.2
Benzo(a)anthracene	56-55-3		U	198	99.2
Benzo(a)pyrene	50-32-8		U	198	99.2
Benzo(b)fluoranthene	205-99-2		U	198	99.2
Benzo(g,h,i)Perylene	191-24-2		U	198	99.2
Benzo(k)fluoranthene	207-08-9		U	198	99.2
Bis(2-Chloroethoxy)Methane	111-91-1		U	198	99.2
Bis(2-Chloroethyl)ether	111-44-4		U	198	99.2
bis(2-Chloroisopropyl)ether	39638-32-9		U	198	99.2
bis(2-Ethylhexyl)phthalate	117-81-7		U	198	99.2
Butyl benzyl phthalate	85-68-7		U	198	99.2
Carbazole	86-74-8		U	198	99.2
Chrysene	218-01-9		U	198	99.2
Dibenz(a,h)anthracene	53-70-3		U	198	99.2
Dibenzofuran	132-64-9		U	198	99.2
Diethyl phthalate	84-66-2		U	198	99.2
Dimethyl phthalate	131-11-3		U	198	99.2
Di-N-Butylphthalate	84-74-2		U	198	99.2
Di-n-octyl phthalate	117-84-0		U	198	99.2
Fluoranthene	206-44-0		U	198	99.2
Fluorene	86-73-7		U	198	99.2
Hexachlorobenzene	118-74-1		U	198	99.2
Hexachlorobutadiene	87-68-3		U	198	99.2

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-03**
Client ID: **3033-S001-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 15:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 21:29**
File ID: **4M42601**
Percent Solid: **82.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	198	99.2
Hexachloroethane	67-72-1		U	198	99.2
Indeno(1,2,3-cd)pyrene	193-39-5		U	198	99.2
Isophorone	78-59-1		U	198	99.2
Naphthalene	91-20-3		U	198	99.2
Nitrobenzene	98-95-3		U	198	99.2
N-Nitrosodiphenylamine	86-30-6		U	198	99.2
N-Nitrosodipropylamine	621-64-7		U	198	99.2
Pentachlorophenol	87-86-5		U	992	495
Phenanthrene	85-01-8		U	198	99.2
Phenol	108-95-2		U	198	99.2
Pyrene	129-00-0		U	198	99.2

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	62.0	19	122	
2-Fluorobiphenyl	48.0	30	115	
2-Fluorophenol	58.6	25	121	
Nitrobenzene-d5	57.5	23	120	
p-Terphenyl-d14	90.7	18	137	
Phenol-d5	63.3	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-04**
Client ID: **3033-S003-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 15:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 22:02**
File ID: **4M42602**
Percent Solid: **88.3**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	184	92.2
2,4,6-Trichlorophenol	88-06-2		U	184	92.2
2,4-Dichlorophenol	120-83-2		U	184	92.2
2,4-Dimethylphenol	105-67-9		U	184	92.2
2,4-Dinitrophenol	51-28-5		U	922	460
2,4-Dinitrotoluene	121-14-2		U	184	92.2
2,6-Dinitrotoluene	606-20-2		U	184	92.2
2-Chloronaphthalene	91-58-7		U	184	92.2
2-Chlorophenol	95-57-8		U	184	92.2
2-Methylnaphthalene	91-57-6		U	184	92.2
2-Methylphenol	95-48-7		U	184	92.2
2-Nitroaniline	88-74-4		U	922	460
2-Nitrophenol	88-75-5		U	184	92.2
3,3'-Dichlorobenzidine	91-94-1		U	369	184
3-,4-Methylphenol	106-44-5		U	184	92.2
3-Nitroaniline	99-09-2		U	922	460
4,6-Dinitro-2-methylphenol	534-52-1		U	922	460
4-Bromophenyl phenyl ether	101-55-3		U	184	92.2
4-Chloro-3-methylphenol	59-50-7		U	184	92.2
4-Chloroaniline	106-47-8		U	184	92.2
4-Chlorophenyl phenyl ether	7005-72-3		U	184	92.2
4-Nitroaniline	100-01-6		U	922	460
4-Nitrophenol	100-02-7		U	922	460
Acenaphthene	83-32-9		U	184	92.2
Acenaphthylene	208-96-8		U	184	92.2
Anthracene	120-12-7		U	184	92.2
Benzo(a)anthracene	56-55-3		U	184	92.2
Benzo(a)pyrene	50-32-8		U	184	92.2
Benzo(b)fluoranthene	205-99-2		U	184	92.2
Benzo(g,h,i)Perylene	191-24-2		U	184	92.2
Benzo(k)fluoranthene	207-08-9		U	184	92.2
Bis(2-Chloroethoxy)Methane	111-91-1		U	184	92.2
Bis(2-Chloroethyl)ether	111-44-4		U	184	92.2
bis(2-Chloroisopropyl)ether	39638-32-9		U	184	92.2
bis(2-Ethylhexyl)phthalate	117-81-7		U	184	92.2
Butyl benzyl phthalate	85-68-7		U	184	92.2
Carbazole	86-74-8		U	184	92.2
Chrysene	218-01-9		U	184	92.2
Dibenz(a,h)anthracene	53-70-3		U	184	92.2
Dibenzofuran	132-64-9		U	184	92.2
Diethyl phthalate	84-66-2		U	184	92.2
Dimethyl phthalate	131-11-3		U	184	92.2
Di-N-Butylphthalate	84-74-2		U	184	92.2
Di-n-octyl phthalate	117-84-0		U	184	92.2
Fluoranthene	206-44-0		U	184	92.2
Fluorene	86-73-7		U	184	92.2
Hexachlorobenzene	118-74-1		U	184	92.2
Hexachlorobutadiene	87-68-3		U	184	92.2

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-04**
Client ID: **3033-S003-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 15:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 22:02**
File ID: **4M42602**
Percent Solid: **88.3**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	184	92.2
Hexachloroethane	67-72-1		U	184	92.2
Indeno(1,2,3-cd)pyrene	193-39-5		U	184	92.2
Isophorone	78-59-1		U	184	92.2
Naphthalene	91-20-3		U	184	92.2
Nitrobenzene	98-95-3		U	184	92.2
N-Nitrosodiphenylamine	86-30-6		U	184	92.2
N-Nitrosodipropylamine	621-64-7		U	184	92.2
Pentachlorophenol	87-86-5		U	922	460
Phenanthrene	85-01-8		U	184	92.2
Phenol	108-95-2		U	184	92.2
Pyrene	129-00-0		U	184	92.2

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	65.8	19	122	
2-Fluorobiphenyl	70.4	30	115	
2-Fluorophenol	61.2	25	121	
Nitrobenzene-d5	66.9	23	120	
p-Terphenyl-d14	96.6	18	137	
Phenol-d5	66.9	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-07**
Client ID: **3033-S005-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 16:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 22:33**
File ID: **4M42603**
Percent Solid: **90.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	174	87.2
2,4,6-Trichlorophenol	88-06-2		U	174	87.2
2,4-Dichlorophenol	120-83-2		U	174	87.2
2,4-Dimethylphenol	105-67-9		U	174	87.2
2,4-Dinitrophenol	51-28-5		U	872	435
2,4-Dinitrotoluene	121-14-2		U	174	87.2
2,6-Dinitrotoluene	606-20-2		U	174	87.2
2-Chloronaphthalene	91-58-7		U	174	87.2
2-Chlorophenol	95-57-8		U	174	87.2
2-Methylnaphthalene	91-57-6		U	174	87.2
2-Methylphenol	95-48-7		U	174	87.2
2-Nitroaniline	88-74-4		U	872	435
2-Nitrophenol	88-75-5		U	174	87.2
3,3'-Dichlorobenzidine	91-94-1		U	349	174
3-,4-Methylphenol	106-44-5		U	174	87.2
3-Nitroaniline	99-09-2		U	872	435
4,6-Dinitro-2-methylphenol	534-52-1		U	872	435
4-Bromophenyl phenyl ether	101-55-3		U	174	87.2
4-Chloro-3-methylphenol	59-50-7		U	174	87.2
4-Chloroaniline	106-47-8		U	174	87.2
4-Chlorophenyl phenyl ether	7005-72-3		U	174	87.2
4-Nitroaniline	100-01-6		U	872	435
4-Nitrophenol	100-02-7		U	872	435
Acenaphthene	83-32-9		U	174	87.2
Acenaphthylene	208-96-8		U	174	87.2
Anthracene	120-12-7		U	174	87.2
Benzo(a)anthracene	56-55-3		U	174	87.2
Benzo(a)pyrene	50-32-8		U	174	87.2
Benzo(b)fluoranthene	205-99-2		U	174	87.2
Benzo(g,h,i)Perylene	191-24-2		U	174	87.2
Benzo(k)fluoranthene	207-08-9		U	174	87.2
Bis(2-Chloroethoxy)Methane	111-91-1		U	174	87.2
Bis(2-Chloroethyl)ether	111-44-4		U	174	87.2
bis(2-Chloroisopropyl)ether	39638-32-9		U	174	87.2
bis(2-Ethylhexyl)phthalate	117-81-7		U	174	87.2
Butyl benzyl phthalate	85-68-7		U	174	87.2
Carbazole	86-74-8		U	174	87.2
Chrysene	218-01-9		U	174	87.2
Dibenz(a,h)anthracene	53-70-3		U	174	87.2
Dibenzofuran	132-64-9		U	174	87.2
Diethyl phthalate	84-66-2		U	174	87.2
Dimethyl phthalate	131-11-3		U	174	87.2
Di-N-Butylphthalate	84-74-2		U	174	87.2
Di-n-octyl phthalate	117-84-0		U	174	87.2
Fluoranthene	206-44-0		U	174	87.2
Fluorene	86-73-7		U	174	87.2
Hexachlorobenzene	118-74-1		U	174	87.2
Hexachlorobutadiene	87-68-3		U	174	87.2

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-07**
Client ID: **3033-S005-041608**
Matrix: **Soil**
Workgroup Number: **WG270019**
Collect Date: **04/16/2008 16:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/18/2008 09:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 22:33**
File ID: **4M42603**
Percent Solid: **90.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	174	87.2
Hexachloroethane	67-72-1		U	174	87.2
Indeno(1,2,3-cd)pyrene	193-39-5		U	174	87.2
Isophorone	78-59-1		U	174	87.2
Naphthalene	91-20-3		U	174	87.2
Nitrobenzene	98-95-3		U	174	87.2
N-Nitrosodiphenylamine	86-30-6		U	174	87.2
N-Nitrosodipropylamine	621-64-7		U	174	87.2
Pentachlorophenol	87-86-5		U	872	435
Phenanthrene	85-01-8		U	174	87.2
Phenol	108-95-2		U	174	87.2
Pyrene	129-00-0		U	174	87.2

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	63.8	19	122	
2-Fluorobiphenyl	56.8	30	115	
2-Fluorophenol	62.0	25	121	
Nitrobenzene-d5	64.5	23	120	
p-Terphenyl-d14	78.1	18	137	
Phenol-d5	67.1	24	113	

U Not detected at or above the reporting limit

2.2.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:

	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:

	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:

	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

R1427457

Sample Extract Log Sheet

Microbac

Parameter: BNA Soil SOP #: EXASE01 Revision #: 6
Extraction Analyst(s): CPD TV/KD Analyst(s): CPD
Date/Time Extracted: 4-18-08/0900 Date TV/KD: 4-18-08
Spike/Surrogate Analyst: CPD Witness: CAH
Surrogate #: STD25376 Earliest Hold Date: 4/29
Spike #: A = STD25009 Spike #: B = —

Extraction Work Group WG 268687
WG269100

Extract Relinquished By: CSH
Extract Received By & Date: mg 4/21/08

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank					20.00g	500µL		1mL	T				WG 268687-02
2	LCS					1		500µL		C				WG 1-03
3	04-0467-04	827-SPE				20.52g				C				
4	04-0468-02					20.84g				T				
5	-04					20.26g				C				
6	-06					20.19g				T				
7	04-0484-02					20.84g				C				
8	-03					20.14g				C				
9	-04					20.69g				C				
10	-05					20.73g				C				
11	-06					20.28g				O				
12	-07					20.96g				C				
13	04-0504-01					20.53g				C				
14	04-0507-07	827-SPE1				20.31g				C				
15	-08 Ref					20.53g				C				WG 268687-01
16	-09 MS					20.19g		500µL		C				WG 1-04
17	-10 MSD					20.51g		1		O				WG 1-05
18	04-0508-02	827-SPE				20.74g				C				
19	-03					20.17g				C				
20	-04					20.27g				C				
21	-07					20.98g				C				
22	04-0513-01					20.14g				C				
23														
24							CPD 4-18-08							

Methylene Chloride Lot #: G09E23
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Sand Lot #: E36618
Reagent: DE Lot #: 601466
Reagent: — Lot #: —
Acid: 1% Acetic Lot #: RGT72380
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: COA12940

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545	✓				
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Christine Davis Date: 4-19-08

QC 5

Extraction Notes For Volume # 298 Page # 29

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 042508
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23885

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269488

Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments: Pentachlorophenol 15-120.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42443	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 09:40
2	4M42444	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 10:03
3	4M42445	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 10:41
4	4M42446	WG269488-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 10:59
5	4M42447	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:03
6	4M42448	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:18
7	4M42449	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:48
8	4M42450	WG269488-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 13:06
9	4M42451	WG269488-03 3 PPM MEGAMIX STD	1	1	STD25568	04/25/08 13:44
10	4M42452	WG269488-04 10 PPM MEGAMIX STD	1	1	STD25568	04/25/08 14:17
11	4M42453	WG269488-05 15 PPM MEGAMIX STD	1	1	STD25568	04/25/08 14:49
12	4M42454	WG269488-09 120 PPM MEGAMIX STD	1	1	STD25568	04/25/08 15:21
13	4M42455	WG269488-08 100 PPM MEGAMIX STD	1	1	STD25568	04/25/08 15:52
14	4M42456	WG269488-07 80 PPM MEGAMIX STD	1	1	STD25568	04/25/08 16:24
15	4M42457	WG269488-06 25 PPM MEGAMIX STD	1	1	STD25568	04/25/08 16:56
16	4M42458	WG269488-05 15 PPM MEGAMIX STD	1	1	STD25568	04/25/08 17:27
17	4M42459	WG269488-02 50 PPM MEGAMIX STD	1	1	STD25568	04/25/08 17:58
18	4M42460	WG269488-10 50PPM BNA ALT SOURCE	1	1	STD24887	04/25/08 18:30
19	4M42461	WG269488-11 50PPM A9 ALT SOURCE	1	1	STD24013	04/25/08 19:01

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed.			
2				
	RR, DFTPP failed. Retuned MS.			
4				
	Several compounds low-running a curve.			
5				
	RR, DFTPP failed. Quicktune.			
6				
	RR, DFTPP failed. Retuned MS.			
8				
	Do not report.			
11				

Page: 1 Approved: 28-APR-08

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 042508

Analyst1: MES Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23885

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269488

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Do not report.

 Approved: 28-APR-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 043008
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23939

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG270019,WG268781,WG268626,WG269721
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42549	WG269913-01 50PPM DFTPP STD	1	1	STD25193	04/30/08 08:53
2	4M42550	WG269913-01 50PPM DFTPP STD	1	1	STD25193	04/30/08 09:08
3	4M42551	WG269913-01 50PPM DFTPP STD	1	1	STD25193	04/30/08 09:37
4	4M42552	WG269913-02 50PPM MEGAMIX STD	1	1	STD25568	04/30/08 09:55
5	4M42553	L08040431-03 D1 10X	1	10		04/30/08 10:26
6	4M42554	L08040400-03 SOIL	7	1		04/30/08 10:58
7	4M42555	L08040485-03	1	1		04/30/08 11:30
8	4M42556	L08040485-04	1	1		04/30/08 12:01
9	4M42557	WG268687-02 BLANK EP0298 PG29	7	1		04/30/08 12:33
10	4M42558	WG268687-03 LCS EP0298 PG29	7	1		04/30/08 13:04
11	4M42559	WG268462-01 L08040430-01 SOIL	7	1		04/30/08 13:36
12	4M42560	WG268462-04 L08040430-02 MS SOIL	7	1		04/30/08 14:08
13	4M42561	WG268462-05 L08040430-03 MSD SOIL	7	1		04/30/08 14:40
14	4M42562	L08040430-04 SOIL	7	1		04/30/08 15:12
15	4M42563	L08040430-05 SOIL	7	1		04/30/08 15:44
16	4M42564	L08040430-09 SOIL	7	1		04/30/08 16:15
17	4M42565	L08040430-10 SOIL	7	1		04/30/08 16:47
18	4M42566	L08040430-11 SOIL	7	1		04/30/08 17:19
19	4M42567	L08040484-02 SOIL	7	1		04/30/08 17:51
20	4M42568	L08040484-03 SOIL	7	1		04/30/08 18:23
21	4M42569	L08040484-04 SOIL	7	1		04/30/08 18:54
22	4M42570	L08040484-05 SOIL	7	1		04/30/08 19:26
23	4M42571	L08040484-06 SOIL	7	1		04/30/08 19:59
24	4M42572	L08040484-07 SOIL	7	1		04/30/08 20:30
25	4M42573	L08040508-02 SOIL	7	1		04/30/08 21:02
26	4M42574	BAKE OUT	7	1		04/30/08 21:35
27	4M42575	BAKE OUT	7	1		04/30/08 22:06

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed. Quicktune.			
2				
	RR, DFTPP failed. Retune MS.			
4				

Page: 1 Approved: 01-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 043008
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23939

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270019,WG268781,WG268626,WG269721

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	Benzoic acid is >40% low.			
7	X	5	Over Calibration Range	21
8	X	5	Over Calibration Range	13,21
	tbp is low. Sample is out of hold.			
19	X	1	Internal standard failure	
	PRY is low.			
24				
	FBP is low. Sample is out of hold.			
25				
	FBP is low. Sample is out of hold.			

Page: 2 Approved: 01-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050108
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23966

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG270019, WG270218
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments: 4M42576 thru 4M42586 Not reported.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42576	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 08:53
2	4M42577	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 09:07
3	4M42578	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 09:53
4	4M42579	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 10:11
5	4M42580	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 10:43
6	4M42581	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 11:48
7	4M42582	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 12:03
8	4M42583	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 12:28
9	4M42584	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 12:46
10	4M42585	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:21
11	4M42586	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:35
12	4M42587	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:58
13	4M42588	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 14:16
14	4M42589	WG270026-03 3 PPM MEGAMIX STD	1	1	STD25568	05/01/08 15:12
15	4M42590	WG270026-04 10 PPM MEGAMIX STD	1	1	STD25568	05/01/08 15:44
16	4M42591	WG270026-05 15 PPM MEGAMIX STD	1	1	STD25568	05/01/08 16:15
17	4M42592	WG270026-06 25 PPM MEGAMIX STD	1	1	STD25568	05/01/08 16:46
18	4M42593	WG270026-07 80 PPM MEGAMIX STD	1	1	STD25568	05/01/08 17:17
19	4M42594	WG270026-08 100 PPM MEGAMIX STD	1	1	STD25568	05/01/08 17:48
20	4M42595	WG270026-09 120 PPM MEGAMIX STD	1	1	STD25568	05/01/08 18:20
21	4M42596	WG270026-10 50PPM BNA ALT SOURCE	1	1	STD24887	05/01/08 18:52
22	4M42597	WG270026-11 50PPM A9 ALT SOURCE	1	1	STD24013	05/01/08 19:23
23	4M42598	WG269996-02 BLANK EP0298 PG131	7	1		05/01/08 19:55
24	4M42599	WG269996-03 LCS EP0298 PG131	7	1		05/01/08 20:26
25	4M42600	L08040484-02 SOIL	7	1		05/01/08 20:57
26	4M42601	L08040508-03 SOIL	7	1		05/01/08 21:29
27	4M42602	L08040508-04 SOIL	7	1		05/01/08 22:02
28	4M42603	L08040508-07 SOIL	7	1		05/01/08 22:33
29	4M42604	L08040557-01 SOIL	7	1		05/01/08 23:05
30	4M42605	L08040557-02 SOIL	7	1		05/01/08 23:37
31	4M42606	L08040557-03 SOIL	7	1		05/02/08 00:09
32	4M42607	L08040557-04 SOIL	7	1		05/02/08 00:41
33	4M42608	L08040687-17 SOIL	7	1		05/02/08 01:12
34	4M42609	BAKE OUT	7	1		05/02/08 01:43
35	4M42610	BAKE OUT	7	1		05/02/08 02:15

Page: 1 Approved: 02-MAY-08

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050108

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23966

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270019, WG270218

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: 02-MAY-08

Microbac Laboratories Inc.

Data Checklist

Date: 25-APR-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21868
Analytical Workgroups: WG269488-CURVE

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	NA
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
28-APR-2008

Secondary Reviewer:
28-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-28-2008 14:17:39

Microbac Laboratories Inc.

Data Checklist

Date: 30-APR-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21935
Analytical Workgroups: L08040431,L08040485,L08040400,L08040430,L08040484,L08040508

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
01-MAY-2008

Secondary Reviewer:
01-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-01-2008 10:20:52

Microbac Laboratories Inc.

Data Checklist

Date: 01-MAY-2008
Analyst: CAA
Analyst: MES
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21969
Analytical Workgroups: L08040484, L08040508, L040557, L08040687

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
02-MAY-2008

Secondary Reviewer:
02-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-02-2008 14:58:31

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG270019

Login Number: L08040508

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3001-S001-041608	04/16/08	04/17/08	04/18/08	14	1.92	04/30/08	40	12.5	
3033-S003-041608	04/16/08	04/17/08	04/18/08	14	1.72	05/01/08	40	13.5	
3033-S005-041608	04/16/08	04/17/08	04/18/08	14	1.71	05/01/08	40	13.6	
3033-S001-041608	04/16/08	04/17/08	04/18/08	14	1.74	05/01/08	40	13.5	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1084940
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040508
Instrument Id: HPMS4
Workgroup (AAB#): WG270019

Method: 8270
CAL ID: HPMS4-25-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L08040508-02	1.00	01	57.3	19.4	54.3	52.7	36.3	56.8
WG268687-02	1.00	02	68.5	63.0	57.2	57.6	105	60.7
WG268687-03	1.00	02	83.1	51.4	48.3	46.2	104	52.0

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1081934
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040508
Instrument Id: HPMS4
Workgroup (AAB#): WG270019

Method: 8270
CAL ID: HPMS4-01-MAY-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L08040508-03	1.00	01	62.0	48.0	58.6	57.5	90.7	63.3
L08040508-04	1.00	01	65.8	70.4	61.2	66.9	96.6	66.9
L08040508-07	1.00	01	63.8	56.8	62.0	64.5	78.1	67.1

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1081934
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040508
Work Group: WG270019
Blank File ID: 4M42557
Blank Sample ID: WG268687-02
Prep Date: 04/18/08 09:00
Instrument ID: HPMS4
Analyzed Date: 04/30/08 12:33
Method: 8270C
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG268687-03	4M42558	04/30/08 13:04	02
3001-S001-041608	L08040508-02	4M42573	04/30/08 21:02	01
3033-S001-041608	L08040508-03	4M42601	05/01/08 21:29	01
3033-S003-041608	L08040508-04	4M42602	05/01/08 22:02	01
3033-S005-041608	L08040508-07	4M42603	05/01/08 22:33	01

Report Name: BLANK_SUMMARY
PDF File ID: 1084941
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040508 Prep Date:04/18/08 09:00 Sample ID:WG268687-02
Instrument ID:HPMS4 Run Date:04/30/08 12:33 Prep Method:3545
File ID:4M42557 Analyst:MES Method:8270C
Workgroup (AAB#):WG270019 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-25-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U
Dimethyl phthalate	82.5	165	165	1	U

Report Name:BLANK
PDF ID: 1081932
02-MAY-2008 16:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040508 Prep Date:04/18/08 09:00 Sample ID:WG268687-02
Instrument ID:HPMS4 Run Date:04/30/08 12:33 Prep Method:3545
File ID:4M42557 Analyst:MES Method:8270C
Workgroup (AAB#):WG270019 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-25-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	68.5	19	-	122	PASS
2-Fluorobiphenyl	63.0	30	-	115	PASS
2-Fluorophenol	57.2	25	-	121	PASS
Nitrobenzene-d5	57.6	23	-	120	PASS
p-Terphenyl-d14	105	18	-	137	PASS
Phenol-d5	60.7	24	-	113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1081932
02-MAY-2008 16:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Run Date: 04/30/2008 Sample ID: WG268687-03
Instrument ID: HPMS4 Run Time: 13:04 Prep Method: 3545
File ID: 4M42558 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270019 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS4-25-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
2,4,5-Trichlorophenol	2500	1460	58.3	49 - 125	
2,4,6-Trichlorophenol	2500	1340	53.5	43 - 125	
2,4-Dichlorophenol	2500	1270	51.0	45 - 125	
2,4-Dimethylphenol	2500	1280	51.3	32 - 125	
2,4-Dinitrophenol	2500	2160	86.6	25 - 132	
2,4-Dinitrotoluene	2500	2330	93.0	48 - 125	
2,6-Dinitrotoluene	2500	1760	70.6	48 - 125	
2-Chloronaphthalene	2500	1140	45.5	45 - 125	
2-Chlorophenol	2500	1310	52.4	44 - 125	
2-Methylnaphthalene	2500	1250	50.1	47 - 125	
2-Methylphenol	2500	1290	51.5	40 - 125	
2-Nitroaniline	2500	1590	63.7	44 - 125	
2-Nitrophenol	2500	1370	54.9	42 - 125	
3,3'-Dichlorobenzidine	2500	2450	97.8	20 - 128	
3-,4-Methylphenol	2500	1470	58.9	50 - 120	
3-Nitroaniline	2500	2000	80.0	27 - 125	
4,6-Dinitro-2-methylphenol	2500	2280	91.3	29 - 137	
4-Bromophenyl phenyl ether	2500	1450	57.9	46 - 125	
4-Chloro-3-methylphenol	2500	1330	53.0	46 - 125	
4-Chloroaniline	2500	1110	44.4	20 - 120	
4-Chlorophenyl phenyl ether	2500	1450	57.9	47 - 125	
4-Nitroaniline	2500	2150	86.0	34 - 125	
4-Nitrophenol	2500	2140	85.6	25 - 138	
Acenaphthene	2500	1360	54.4	46 - 125	
Acenaphthylene	2500	1360	54.4	44 - 125	
Anthracene	2500	2040	81.6	53 - 125	
Benzo(a)anthracene	2500	2660	106	52 - 125	
Benzo(a)pyrene	2500	2690	107	50 - 125	
Benzo(b)fluoranthene	2500	2540	102	45 - 125	
Benzo(g,h,i)Perylene	2500	2700	108	38 - 126	
Benzo(k)fluoranthene	2500	2540	102	45 - 125	
Bis(2-Chloroethoxy)Methane	2500	923	36.9	43 - 125	*
Bis(2-Chloroethyl)ether	2500	1240	49.5	38 - 125	
bis(2-Chloroisopropyl)ether	2500	1350	54.1	25 - 125	
bis(2-Ethylhexyl)phthalate	2500	2810	112	47 - 127	
Butyl benzyl phthalate	2500	2940	118	49 - 125	
Carbazole	2500	2300	91.8	40 - 135	
Chrysene	2500	2700	108	53 - 125	
Dibenz(a,h)anthracene	2500	2730	109	41 - 125	
Dibenzofuran	2500	1460	58.5	51 - 125	
Diethyl phthalate	2500	2010	80.3	50 - 125	

LCS - Modified 03/06/2008
PDF File ID: 1081933
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Run Date: 04/30/2008 Sample ID: WG268687-03
Instrument ID: HPMS4 Run Time: 13:04 Prep Method: 3545
File ID: 4M42558 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270019 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS4-25-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Dimethyl phthalate	2500	1720	68.7	49 - 125	
Di-N-Butylphthalate	2500	2300	92.1	56 - 125	
Di-n-octyl phthalate	2500	2840	114	41 - 132	
Fluoranthene	2500	2370	95.0	54 - 125	
Fluorene	2500	1580	63.2	49 - 125	
Hexachlorobenzene	2500	1890	75.4	47 - 125	
Hexachlorobutadiene	2500	1250	50.0	40 - 125	
Hexachlorocyclopentadiene	2500	869	34.8	10 - 150	
Hexachloroethane	2500	1250	50.1	34 - 125	
Indeno(1,2,3-cd)pyrene	2500	2710	108	38 - 125	
Isophorone	2500	1250	50.1	43 - 125	
Naphthalene	2500	1240	49.5	40 - 125	
Nitrobenzene	2500	1150	46.0	41 - 125	
N-Nitrosodiphenylamine	2500	1670	66.7	49 - 125	
N-Nitrosodipropylamine	2500	1190	47.6	40 - 125	
Pentachlorophenol	2500	2880	115	25 - 125	
Phenanthrene	2500	1980	79.4	50 - 125	
Phenol	2500	1250	50.0	39 - 125	
Pyrene	2500	2740	110	46 - 125	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	83.1	19 - 122	PASS
2-Fluorobiphenyl	51.4	30 - 115	PASS
2-Fluorophenol	48.3	25 - 121	PASS
Nitrobenzene-d5	46.2	23 - 120	PASS
p-Terphenyl-d14	104	18 - 137	PASS
Phenol-d5	52.0	24 - 113	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1081933
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040508
Instrument: HPMS4
Analyst: MES
Workgroup: WG269488

Tune ID: WG269488-01
Run Date: 04/25/2008
Run Time: 12:48
File ID: 4M42449
Cal ID: HPMS4-25-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	41.9	97350	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	42.1	97861	PASS
70.0	69.0	0	2.00	0.526	515	PASS
127	198	40.0	60.0	53.1	123453	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	232426	PASS
199	198	5.00	9.00	6.82	15862	PASS
275	198	10.0	30.0	23.5	54573	PASS
365	198	1.00	100	2.51	5829	PASS
441	443	0.0100	100	47.3	17794	PASS
442	198	40.0	100	83.0	192893	PASS
443	442	17.0	23.0	19.5	37637	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269488-03	STD	01	04/25/2008 13:44	
WG269488-04	STD	01	04/25/2008 14:17	
WG269488-09	STD	01	04/25/2008 15:21	
WG269488-08	STD	01	04/25/2008 15:52	
WG269488-07	STD	01	04/25/2008 16:24	
WG269488-06	STD	01	04/25/2008 16:56	
WG269488-05	STD	01	04/25/2008 17:27	
WG269488-02	STD-CCV	01	04/25/2008 17:58	
WG269488-10	SSCV	01	04/25/2008 18:30	
WG269488-11	SSCV	01	04/25/2008 19:01	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084944
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040508
Instrument: HPMS4
Analyst: MES
Workgroup: WG269913

Tune ID: WG269913-01
Run Date: 04/30/2008
Run Time: 09:37
File ID: 4M42551
Cal ID: HPMS4-25-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	38.2	87032	PASS
68.0	69.0	0	2.00	0.284	220	PASS
69.0	198	0	100	33.9	77378	PASS
70.0	69.0	0	2.00	0.553	428	PASS
127	198	40.0	60.0	50.4	114864	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	228010	PASS
199	198	5.00	9.00	6.85	15620	PASS
275	198	10.0	30.0	25.3	57752	PASS
365	198	1.00	100	3.05	6959	PASS
441	443	0.0100	100	83.5	34538	PASS
442	198	40.0	100	93.7	213674	PASS
443	442	17.0	23.0	19.4	41376	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269913-02	CCV	01	04/30/2008 09:55	
WG268687-02	BLANK	02	04/30/2008 12:33	
WG268687-03	LCS	02	04/30/2008 13:04	
L08040508-02	3001-S001-041608	01	04/30/2008 21:02	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084944
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040508
Instrument: HPMS4
Analyst: MES
Workgroup: WG270026

Tune ID: WG270026-01
Run Date: 05/01/2008
Run Time: 13:58
File ID: 4M42587
Cal ID: HPMS4-01-MAY-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	39.8	42258	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	40.1	42557	PASS
70.0	69.0	0	2.00	0.573	244	PASS
127	198	40.0	60.0	51.3	54544	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	106253	PASS
199	198	5.00	9.00	6.43	6833	PASS
275	198	10.0	30.0	24.1	25616	PASS
365	198	1.00	100	2.87	3049	PASS
441	443	0.0100	100	86.1	14807	PASS
442	198	40.0	100	83.5	88757	PASS
443	442	17.0	23.0	19.4	17190	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270026-02	STD-CCV	01	05/01/2008 14:16	
WG270026-03	STD	01	05/01/2008 15:12	
WG270026-04	STD	01	05/01/2008 15:44	
WG270026-05	STD	01	05/01/2008 16:15	
WG270026-06	STD	01	05/01/2008 16:46	
WG270026-07	STD	01	05/01/2008 17:17	
WG270026-08	STD	01	05/01/2008 17:48	
WG270026-09	STD	01	05/01/2008 18:20	
WG270026-10	SSCV	01	05/01/2008 18:52	
WG270026-11	SSCV	01	05/01/2008 19:23	
L08040508-03	3033-S001-041608	01	05/01/2008 21:29	
L08040508-04	3033-S003-041608	01	05/01/2008 22:02	
L08040508-07	3033-S005-041608	01	05/01/2008 22:33	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084944
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

ICAL Workgroup: WG269488 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.3757	3.82		
2,4-Dichlorophenol	CCC	0.2932	3.21		
2-Nitrophenol	CCC	0.2002	6.96		
4-Chloro-3-Methylphenol	CCC	0.2891	3.12		
Acenaphthene	CCC	1.183	1.37		
Benzo[a]pyrene	CCC	1.256	4.73		
Di-n-Octyl Phthalate	CCC	1.658	5.17		
Fluoranthene	CCC	1.273	4.10		
Hexachlorobutadiene	CCC	0.1688	2.09		
Pentachlorophenol	CCC	0.1115	25.4	0.997	
Phenol	CCC	1.582	3.59		
n-Nitrosodiphenylamine	CCC	0.7414	4.67		
2,4-Dinitrophenol	SPCC	0.09042	53.9	0.999	
4-Nitrophenol	SPCC	0.2226	6.90		
Hexachlorocyclopentadiene	SPCC	0.1766	35.3	0.998	
n-Nitrosodipropylamine	SPCC	0.8014	4.62		
2,4,5-Trichlorophenol		0.3980	5.01		
2,4-Dimethylphenol		0.3286	2.95		
2,4-Dinitrotoluene		0.4036	5.58		
2,6-Dinitrotoluene		0.3269	2.85		
2-Chloronaphthalene		1.353	2.46		
2-Chlorophenol		1.450	2.60		
2-Methylnaphthalene		0.7118	2.13		
2-Methylphenol		1.055	2.93		
2-Nitroaniline		0.3027	4.45		
3,3'-Dichlorobenzidine		0.4276	4.43		
3-,4-Methylphenol		1.415	2.77		
3-Nitroaniline		0.3406	3.82		
4,6-Dinitro-2-Methylphenol		0.1171	23.9	0.998	
4-Bromophenyl Phenyl Ether		0.2418	3.90		
4-Chloroaniline		0.4394	2.65		
4-Chlorophenyl Phenyl Ether		0.6459	3.51		
4-Nitroaniline		0.3623	3.40		
Acenaphthylene		1.897	2.82		
Anthracene		1.279	4.51		
Benzo[a]anthracene		1.252	4.10		
Benzo[b]fluoranthene		1.421	5.78		
Benzo[ghi]perylene		1.180	5.69		
Benzo[k]fluoranthene		1.227	7.72		
Butyl Benzyl Phthalate		0.6304	8.29		
Carbazole		1.121	4.64		
Chrysene		1.192	4.04		
Di-n-Butyl Phthalate		1.478	5.89		
Dibenz[ah]anthracene		1.198	6.39		
Dibenzofuran		1.621	3.47		

INT_CAL - Modified 03/06/2008

PDF File ID: 1084942

Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58
ICAL Workgroup: WG269488 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.356	3.30		
Dimethylphthalate		1.309	2.95		
Fluorene		1.393	2.66		
Hexachlorobenzene		0.2603	3.80		
Hexachloroethane		0.5619	4.01		
Indeno[1,2,3-cd]pyrene		1.402	6.53		
Isophorone		0.5570	3.43		
Naphthalene		1.043	2.68		
Nitrobenzene		0.3180	3.76		
Phenanthrene		1.271	4.68		
Pyrene		1.326	4.91		
bis(2-Chloroethoxy)methane		0.4839	4.22		
bis(2-Chloroethyl)ether		0.8847	4.37		
bis(2-Chloroisopropyl)ether		1.934	5.26		
bis(2-Ethylhexyl)phthalate		0.9065	5.02		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

ICAL Workgroup: WG270026 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.3588	6.13		
2,4-Dichlorophenol	CCC	0.2962	4.39		
2-Nitrophenol	CCC	0.2044	5.80		
4-Chloro-3-Methylphenol	CCC	0.2984	2.41		
Acenaphthene	CCC	1.185	2.88		
Benzo[a]pyrene	CCC	1.246	5.32		
Di-n-Octyl Phthalate	CCC	1.631	6.55		
Fluoranthene	CCC	1.267	4.25		
Hexachlorobutadiene	CCC	0.1622	4.25		
Pentachlorophenol	CCC	0.1190	20.7	0.997	
Phenol	CCC	1.653	1.98		
n-Nitrosodiphenylamine	CCC	0.7417	3.76		
2,4-Dinitrophenol	SPCC	0.1473	33.6	0.998	
4-Nitrophenol	SPCC	0.2498	5.07		
Hexachlorocyclopentadiene	SPCC	0.1921	33.9	0.999	
n-Nitrosodipropylamine	SPCC	0.8873	2.89		
2,4,5-Trichlorophenol		0.3851	5.16		
2,4-Dimethylphenol		0.3403	2.18		
2,4-Dinitrotoluene		0.4093	6.22		
2,6-Dinitrotoluene		0.3244	3.55		
2-Chloronaphthalene		1.356	1.97		
2-Chlorophenol		1.491	2.86		
2-Methylnaphthalene		0.7034	2.42		
2-Methylphenol		1.084	2.03		
2-Nitroaniline		0.3246	3.80		
3,3'-Dichlorobenzidine		0.4463	4.24		
3-,4-Methylphenol		1.450	2.53		
3-Nitroaniline		0.3563	1.89		
4,6-Dinitro-2-Methylphenol		0.1550	13.5		
4-Bromophenyl Phenyl Ether		0.2243	4.85		
4-Chloroaniline		0.4693	2.39		
4-Chlorophenyl Phenyl Ether		0.6379	3.20		
4-Nitroaniline		0.3869	2.35		
Acenaphthylene		1.894	1.93		
Anthracene		1.255	3.77		
Benzo[a]anthracene		1.254	3.53		
Benzo[b]fluoranthene		1.433	5.35		
Benzo[ghi]perylene		1.216	5.82		
Benzo[k]fluoranthene		1.213	7.39		
Butyl Benzyl Phthalate		0.6538	6.52		
Carbazole		1.161	3.58		
Chrysene		1.199	3.81		
Di-n-Butyl Phthalate		1.432	3.45		
Dibenz[ah]anthracene		1.229	5.70		
Dibenzofuran		1.647	2.16		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

ICAL Workgroup: WG270026 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.320	1.55		
Dimethylphthalate		1.300	1.87		
Fluorene		1.388	2.37		
Hexachlorobenzene		0.2428	5.37		
Hexachloroethane		0.5953	1.75		
Indeno[1,2,3-cd]pyrene		1.439	5.44		
Isophorone		0.5440	2.44		
Naphthalene		1.075	1.63		
Nitrobenzene		0.3357	2.21		
Phenanthrene		1.248	4.04		
Pyrene		1.368	4.55		
bis(2-Chloroethoxy)methane		0.5007	2.28		
bis(2-Chloroethyl)ether		0.8929	3.12		
bis(2-Chloroisopropyl)ether		1.955	4.71		
bis(2-Ethylhexyl)phthalate		0.9064	5.57		

R = Correlation coefficient; 0.995 minimum

R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 25-APR-08 17:58
Column ID: F

Analyte	WG269488-02			WG269488-03			WG269488-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	494496.000	0.3792	3.00	24262.0000	0.3465	10.0	80724.0000	0.3639
2,4-Dichlorophenol	50.0	662419.000	0.2923	3.00	33315.0000	0.2733	10.0	112989.000	0.2904
2-Nitrophenol	50.0	465357.000	0.2053	3.00	20702.0000	0.1698	10.0	75462.0000	0.1939
4-Chloro-3-Methylphenol	50.0	648121.000	0.2860	3.00	34000.0000	0.2789	10.0	113795.000	0.2924
Acenaphthene	50.0	1542554.00	1.183	3.00	82671.0000	1.181	10.0	263048.000	1.186
Benzo[a]pyrene	50.0	2522928.00	1.387	3.00	127146.000	1.195	10.0	414990.000	1.203
Di-n-Octyl Phthalate	50.0	3302805.00	1.816	3.00	173160.000	1.627	10.0	564704.000	1.637
Fluoranthene	50.0	2682620.00	1.175	3.00	139047.000	1.268	10.0	461151.000	1.298
Hexachlorobutadiene	50.0	379544.000	0.1675	3.00	20131.0000	0.1651	10.0	65291.0000	0.1678
Pentachlorophenol	50.0	237706.000	0.1041	NA	NA	NA	NA	NA	NA
Phenol	50.0	880503.000	1.545	3.00	47163.0000	1.538	10.0	156888.000	1.602
n-Nitrosodiphenylamine	50.0	1534832.00	0.6721	3.00	82373.0000	0.7510	10.0	268116.000	0.7545
2,4-Dinitrophenol	50.0	119598.000	0.09170	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	283846.000	0.2177	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	260861.000	0.2001	3.00	4333.00000	0.06190	10.0	28857.0000	0.1301
n-Nitrosodipropylamine	50.0	442703.000	0.7770	3.00	24330.0000	0.7935	10.0	80548.0000	0.8227
2,4,5-Trichlorophenol	50.0	522374.000	0.4006	3.00	24790.0000	0.3541	10.0	86023.0000	0.3878
2,4-Dimethylphenol	50.0	733902.000	0.3238	3.00	40007.0000	0.3282	10.0	130721.000	0.3359
2,4-Dinitrotoluene	50.0	540156.000	0.4143	3.00	24838.0000	0.3547	10.0	89173.0000	0.4020
2,6-Dinitrotoluene	50.0	426862.000	0.3274	3.00	21886.0000	0.3126	10.0	72411.0000	0.3265
2-Chloronaphthalene	50.0	1750756.00	1.343	3.00	94798.0000	1.354	10.0	307609.000	1.387
2-Chlorophenol	50.0	810329.000	1.422	3.00	43090.0000	1.405	10.0	141435.000	1.445
2-Methylnaphthalene	50.0	1600381.00	0.7062	3.00	85848.0000	0.7042	10.0	279470.000	0.7182
2-Methylphenol	50.0	587446.000	1.031	3.00	31359.0000	1.023	10.0	103528.000	1.057
2-Nitroaniline	50.0	390775.000	0.2997	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	50.0	899579.000	0.4567	3.00	51410.0000	0.4501	10.0	149224.000	0.4024
3-,4-Methylphenol	50.0	785462.000	1.379	3.00	42346.0000	1.381	10.0	136933.000	1.399
3-Nitroaniline	50.0	437904.000	0.3358	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	254210.000	0.1113	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	502978.000	0.2202	3.00	26662.0000	0.2431	10.0	86329.0000	0.2429
4-Chloroaniline	50.0	991431.000	0.4375	3.00	51675.0000	0.4239	10.0	168391.000	0.4327
4-Chlorophenyl Phenyl Ether	50.0	837814.000	0.6425	3.00	45465.0000	0.6494	10.0	148653.000	0.6702
4-Nitroaniline	50.0	464930.000	0.3566	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	2467163.00	1.892	3.00	129917.000	1.856	10.0	428300.000	1.931
Anthracene	50.0	2678604.00	1.173	3.00	142373.000	1.298	10.0	465002.000	1.309
Benzo[a]anthracene	50.0	2684540.00	1.363	3.00	140785.000	1.233	10.0	455520.000	1.228
Benzo[b]fluoranthene	50.0	2874895.00	1.581	3.00	140360.000	1.319	10.0	481676.000	1.396
Benzo[ghi]perylene	50.0	2383135.00	1.310	3.00	115888.000	1.089	10.0	384645.000	1.115
Benzo[k]fluoranthene	50.0	2538045.00	1.396	3.00	118930.000	1.118	10.0	428122.000	1.241
Butyl Benzyl Phthalate	50.0	1332505.00	0.6765	3.00	75183.0000	0.6583	10.0	245306.000	0.6615
Carbazole	50.0	2391012.00	1.047	3.00	123755.000	1.128	10.0	374030.000	1.053
Chrysene	50.0	2546066.00	1.293	3.00	135820.000	1.189	10.0	435115.000	1.173

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INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 25-APR-08 17:58
Column ID: F

Analyte	WG269488-02			WG269488-03			WG269488-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	3104807.00	1.360	3.00	165750.000	1.511	10.0	542404.000	1.526
Dibenz[ah]anthracene	50.0	2424854.00	1.333	3.00	114552.000	1.077	10.0	389095.000	1.128
Dibenzofuran	50.0	2093301.00	1.605	3.00	114597.000	1.637	10.0	369887.000	1.668
Diethylphthalate	50.0	1753144.00	1.345	3.00	93940.0000	1.342	10.0	308148.000	1.389
Dimethylphthalate	50.0	1690806.00	1.297	3.00	91144.0000	1.302	10.0	297110.000	1.340
Fluorene	50.0	1809739.00	1.388	3.00	96155.0000	1.373	10.0	317218.000	1.430
Hexachlorobenzene	50.0	542527.000	0.2376	3.00	28383.0000	0.2588	10.0	93280.0000	0.2625
Hexachloroethane	50.0	318711.000	0.5594	3.00	16022.0000	0.5225	10.0	53794.0000	0.5494
Indeno[1,2,3-cd]pyrene	50.0	2840135.00	1.562	3.00	133861.000	1.258	10.0	454158.000	1.317
Isophorone	50.0	1241764.00	0.5479	3.00	66827.0000	0.5482	10.0	218534.000	0.5616
Naphthalene	50.0	2327738.00	1.027	3.00	127039.000	1.042	10.0	412231.000	1.059
Nitrobenzene	50.0	708081.000	0.3124	3.00	37781.0000	0.3099	10.0	124502.000	0.3200
Phenanthrene	50.0	2643872.00	1.158	3.00	144883.000	1.321	10.0	461244.000	1.298
Pyrene	50.0	2852973.00	1.448	3.00	150267.000	1.316	10.0	494202.000	1.333
bis(2-Chloroethoxy)methane	50.0	1073801.00	0.4738	3.00	59351.0000	0.4869	10.0	192448.000	0.4946
bis(2-Chloroethyl)ether	50.0	490092.000	0.8602	3.00	26994.0000	0.8804	10.0	88239.0000	0.9012
bis(2-Chloroisopropyl)ether	50.0	1063139.00	1.866	3.00	59110.0000	1.928	10.0	193526.000	1.977
bis(2-Ethylhexyl)phthalate	50.0	1924661.00	0.9771	3.00	103259.000	0.9041	10.0	337874.000	0.9111

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INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-05			WG269488-06			WG269488-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	138786.000	0.3748	25.0	276041.000	0.3915	80.0	834211.000	0.3840
2,4-Dichlorophenol	15.0	190065.000	0.2977	25.0	376669.000	0.3050	80.0	1108467.00	0.2958
2-Nitrophenol	15.0	136358.000	0.2136	25.0	263694.000	0.2135	80.0	762362.000	0.2035
4-Chloro-3-Methylphenol	15.0	188202.000	0.2948	25.0	378940.000	0.3068	80.0	1061613.00	0.2833
Acenaphthene	15.0	437050.000	1.180	25.0	859712.000	1.219	80.0	2547186.00	1.173
Benzo[a]pyrene	15.0	708555.000	1.247	25.0	1377676.00	1.267	80.0	4245910.00	1.242
Di-n-Octyl Phthalate	15.0	948430.000	1.669	25.0	1908169.00	1.755	80.0	5401863.00	1.580
Fluoranthene	15.0	776040.000	1.327	25.0	1496593.00	1.345	80.0	4407944.00	1.269
Hexachlorobutadiene	15.0	111513.000	0.1747	25.0	214207.000	0.1734	80.0	629763.000	0.1681
Pentachlorophenol	15.0	38066.0000	0.06510	25.0	108821.000	0.09780	80.0	442525.000	0.1274
Phenol	15.0	255155.000	1.599	25.0	525594.000	1.707	80.0	1442035.00	1.539
n-Nitrosodiphenylamine	15.0	447981.000	0.7658	25.0	880282.000	0.7909	80.0	2553507.00	0.7352
2,4-Dinitrophenol	15.0	2796.00000	0.007500	25.0	43270.0000	0.06140	80.0	260830.000	0.1201
4-Nitrophenol	15.0	72232.0000	0.1950	25.0	163286.000	0.2316	80.0	486239.000	0.2238
Hexachlorocyclopentadiene	15.0	50055.0000	0.1352	25.0	133180.000	0.1889	80.0	484961.000	0.2232
n-Nitrosodipropylamine	15.0	132199.000	0.8282	25.0	268712.000	0.8727	80.0	719111.000	0.7675
2,4,5-Trichlorophenol	15.0	147940.000	0.3995	25.0	295315.000	0.4189	80.0	884201.000	0.4070
2,4-Dimethylphenol	15.0	215313.000	0.3373	25.0	425207.000	0.3443	80.0	1204496.00	0.3215
2,4-Dinitrotoluene	15.0	153747.000	0.4152	25.0	305360.000	0.4331	80.0	886588.000	0.4081
2,6-Dinitrotoluene	15.0	122088.000	0.3297	25.0	243545.000	0.3455	80.0	704187.000	0.3241
2-Chloronaphthalene	15.0	509549.000	1.376	25.0	990092.000	1.404	80.0	2880399.00	1.326
2-Chlorophenol	15.0	235402.000	1.475	25.0	468806.000	1.523	80.0	1334419.00	1.424
2-Methylnaphthalene	15.0	465093.000	0.7286	25.0	911758.000	0.7382	80.0	2627047.00	0.7011
2-Methylphenol	15.0	171314.000	1.073	25.0	343441.000	1.115	80.0	963837.000	1.029
2-Nitroaniline	15.0	112422.000	0.3036	25.0	231767.000	0.3287	80.0	634760.000	0.2922
3,3'-Dichlorobenzidine	15.0	258861.000	0.4225	25.0	508797.000	0.4366	80.0	1512796.00	0.4103
3-,4-Methylphenol	15.0	231506.000	1.450	25.0	458501.000	1.489	80.0	1297038.00	1.384
3-Nitroaniline	15.0	117460.000	0.3172	25.0	247130.000	0.3505	80.0	744383.000	0.3426
4,6-Dinitro-2-Methylphenol	15.0	39559.0000	0.06760	25.0	120685.000	0.1084	80.0	476471.000	0.1372
4-Bromophenyl Phenyl Ether	15.0	145219.000	0.2482	25.0	280238.000	0.2518	80.0	841113.000	0.2422
4-Chloroaniline	15.0	279563.000	0.4379	25.0	574011.000	0.4648	80.0	1652270.00	0.4410
4-Chlorophenyl Phenyl Ether	15.0	247039.000	0.6671	25.0	473052.000	0.6710	80.0	1379014.00	0.6348
4-Nitroaniline	15.0	135809.000	0.3667	25.0	271185.000	0.3847	80.0	771705.000	0.3552
Acenaphthylene	15.0	714361.000	1.929	25.0	1409242.00	1.999	80.0	4073119.00	1.875
Anthracene	15.0	777416.000	1.329	25.0	1510817.00	1.358	80.0	4405509.00	1.269
Benzo[a]anthracene	15.0	770714.000	1.258	25.0	1497086.00	1.285	80.0	4457989.00	1.209
Benzo[b]fluoranthene	15.0	813016.000	1.431	25.0	1570064.00	1.444	80.0	4612743.00	1.349
Benzo[ghi]perylene	15.0	656794.000	1.156	25.0	1288239.00	1.185	80.0	4038223.00	1.181
Benzo[k]fluoranthene	15.0	731348.000	1.287	25.0	1407657.00	1.295	80.0	3938843.00	1.152
Butyl Benzyl Phthalate	15.0	407567.000	0.6653	25.0	789412.000	0.6775	80.0	2127175.00	0.5770
Carbazole	15.0	660416.000	1.129	25.0	1346779.00	1.210	80.0	3964181.00	1.141
Chrysene	15.0	741297.000	1.210	25.0	1414399.00	1.214	80.0	4259809.00	1.155

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 25-APR-08 17:58
Column ID: F

Analyte	WG269488-05			WG269488-06			WG269488-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	912352.000	1.560	25.0	1793849.00	1.612	80.0	4991198.00	1.437
Dibenz[ah]anthracene	15.0	666243.000	1.172	25.0	1320449.00	1.214	80.0	4140177.00	1.211
Dibenzofuran	15.0	618729.000	1.671	25.0	1198536.00	1.700	80.0	3437742.00	1.582
Diethylphthalate	15.0	516753.000	1.395	25.0	1009617.00	1.432	80.0	2858495.00	1.316
Dimethylphthalate	15.0	496277.000	1.340	25.0	968363.000	1.374	80.0	2774726.00	1.277
Fluorene	15.0	527241.000	1.424	25.0	1023268.00	1.451	80.0	2970053.00	1.367
Hexachlorobenzene	15.0	156350.000	0.2673	25.0	299942.000	0.2695	80.0	908675.000	0.2616
Hexachloroethane	15.0	90894.0000	0.5694	25.0	185082.000	0.6011	80.0	522302.000	0.5575
Indeno[1,2,3-cd]pyrene	15.0	778273.000	1.369	25.0	1542102.00	1.418	80.0	4837231.00	1.415
Isophorone	15.0	360418.000	0.5646	25.0	740001.000	0.5992	80.0	2025253.00	0.5405
Naphthalene	15.0	685178.000	1.073	25.0	1344525.00	1.089	80.0	3816463.00	1.019
Nitrobenzene	15.0	208843.000	0.3272	25.0	423892.000	0.3432	80.0	1157112.00	0.3088
Phenanthrene	15.0	771721.000	1.319	25.0	1487055.00	1.336	80.0	4334200.00	1.248
Pyrene	15.0	827389.000	1.351	25.0	1596493.00	1.370	80.0	4653312.00	1.262
bis(2-Chloroethoxy)methane	15.0	318312.000	0.4986	25.0	644199.000	0.5216	80.0	1744624.00	0.4656
bis(2-Chloroethyl)ether	15.0	144771.000	0.9070	25.0	296045.000	0.9614	80.0	788194.000	0.8412
bis(2-Chloroisopropyl)ether	15.0	317579.000	1.990	25.0	659225.000	2.141	80.0	1710483.00	1.826
bis(2-Ethylhexyl)phthalate	15.0	562136.000	0.9176	25.0	1118826.00	0.9602	80.0	3150386.00	0.8545

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-08			WG269488-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	1003168.00	0.3805	120	1161327.00	0.3853
2,4-Dichlorophenol	100	1328276.00	0.2911	120	1553197.00	0.2999
2-Nitrophenol	100	913889.000	0.2003	120	1045976.00	0.2020
4-Chloro-3-Methylphenol	100	1282960.00	0.2812	120	1498554.00	0.2894
Acenaphthene	100	3071758.00	1.165	120	3541019.00	1.175
Benzo[a]pyrene	100	5083799.00	1.239	120	5959205.00	1.269
Di-n-Octyl Phthalate	100	6485019.00	1.580	120	7508187.00	1.598
Fluoranthene	100	5252522.00	1.253	120	5996507.00	1.254
Hexachlorobutadiene	100	753224.000	0.1651	120	873502.000	0.1687
Pentachlorophenol	100	554561.000	0.1323	120	679243.000	0.1421
Phenol	100	1753464.00	1.547	120	2023485.00	1.581
n-Nitrosodiphenylamine	100	3050150.00	0.7276	120	3508776.00	0.7339
2,4-Dinitrophenol	100	341439.000	0.1295	120	398603.000	0.1323
4-Nitrophenol	100	601205.000	0.2280	120	721621.000	0.2394
Hexachlorocyclopentadiene	100	606477.000	0.2300	120	733106.000	0.2432
n-Nitrosodipropylamine	100	868144.000	0.7661	120	1003503.00	0.7838
2,4,5-Trichlorophenol	100	1068820.00	0.4054	120	1238871.00	0.4110
2,4-Dimethylphenol	100	1443589.00	0.3164	120	1662478.00	0.3210
2,4-Dinitrotoluene	100	1051102.00	0.3987	120	1214083.00	0.4028
2,6-Dinitrotoluene	100	845463.000	0.3207	120	989789.000	0.3284
2-Chloronaphthalene	100	3471278.00	1.317	120	3971317.00	1.318
2-Chlorophenol	100	1625704.00	1.435	120	1882023.00	1.470
2-Methylnaphthalene	100	3163595.00	0.6933	120	3650415.00	0.7049
2-Methylphenol	100	1179546.00	1.041	120	1368405.00	1.069
2-Nitroaniline	100	771934.000	0.2928	120	901979.000	0.2993
3,3'-Dichlorobenzidine	100	1835611.00	0.4166	120	2140411.00	0.4258
3-,4-Methylphenol	100	1593904.00	1.407	120	1832913.00	1.432
3-Nitroaniline	100	907452.000	0.3442	120	1064333.00	0.3531
4,6-Dinitro-2-Methylphenol	100	579386.000	0.1382	120	669746.000	0.1401
4-Bromophenyl Phenyl Ether	100	1008182.00	0.2405	120	1172631.00	0.2453
4-Chloroaniline	100	1991343.00	0.4364	120	2285107.00	0.4413
4-Chlorophenyl Phenyl Ether	100	1628177.00	0.6175	120	1852454.00	0.6146
4-Nitroaniline	100	922294.000	0.3498	120	1087743.00	0.3609
Acenaphthylene	100	4844651.00	1.837	120	5594816.00	1.856
Anthracene	100	5207876.00	1.242	120	5992913.00	1.254
Benzo[a]anthracene	100	5318555.00	1.207	120	6212584.00	1.236
Benzo[b]fluoranthene	100	6054125.00	1.475	120	6461793.00	1.376
Benzo[ghi]perylene	100	4857728.00	1.184	120	5720757.00	1.218
Benzo[k]fluoranthene	100	4798670.00	1.169	120	5427406.00	1.155
Butyl Benzyl Phthalate	100	2495685.00	0.5665	120	2818324.00	0.5607
Carbazole	100	4707111.00	1.123	120	5436131.00	1.137
Chrysene	100	5055767.00	1.148	120	5787507.00	1.151

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-08			WG269488-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	5910026.00	1.410	120	6735520.00	1.409
Dibenz[ah]anthracene	100	4951626.00	1.206	120	5824167.00	1.240
Dibenzofuran	100	4082486.00	1.548	120	4694791.00	1.558
Diethylphthalate	100	3445179.00	1.307	120	3984372.00	1.322
Dimethylphthalate	100	3331312.00	1.264	120	3847264.00	1.277
Fluorene	100	3557799.00	1.349	120	4110096.00	1.364
Hexachlorobenzene	100	1088665.00	0.2597	120	1269074.00	0.2655
Hexachloroethane	100	633394.000	0.5589	120	738437.000	0.5768
Indeno[1,2,3-cd]pyrene	100	5824082.00	1.419	120	6853818.00	1.459
Isophorone	100	2471352.00	0.5416	120	2859245.00	0.5521
Naphthalene	100	4618882.00	1.012	120	5298960.00	1.023
Nitrobenzene	100	1412602.00	0.3096	120	1620981.00	0.3130
Phenanthrene	100	5187765.00	1.238	120	5970142.00	1.249
Pyrene	100	5568797.00	1.264	120	6343650.00	1.262
bis(2-Chloroethoxy)methane	100	2109893.00	0.4624	120	2422256.00	0.4678
bis(2-Chloroethyl)ether	100	962827.000	0.8497	120	1122070.00	0.8764
bis(2-Chloroisopropyl)ether	100	2095859.00	1.850	120	2431355.00	1.899
bis(2-Ethylhexyl)phthalate	100	3774687.00	0.8568	120	4375077.00	0.8704

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-02			WG270026-03			WG270026-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	213896.000	0.3594	3.00	9658.00000	0.3162	10.0	37176.0000	0.3372
2,4-Dichlorophenol	50.0	303612.000	0.2951	3.00	14450.0000	0.2704	10.0	55274.0000	0.2881
2-Nitrophenol	50.0	214221.000	0.2082	3.00	9663.00000	0.1808	10.0	36906.0000	0.1923
4-Chloro-3-Methylphenol	50.0	314036.000	0.3052	3.00	15363.0000	0.2875	10.0	55370.0000	0.2886
Acenaphthene	50.0	700740.000	1.178	3.00	34202.0000	1.120	10.0	127870.000	1.160
Benzo[a]pyrene	50.0	1063055.00	1.386	3.00	51746.0000	1.160	10.0	200911.000	1.201
Di-n-Octyl Phthalate	50.0	1445487.00	1.885	3.00	69888.0000	1.567	10.0	265511.000	1.587
Fluoranthene	50.0	1166672.00	1.152	3.00	59807.0000	1.260	10.0	221245.000	1.263
Hexachlorobutadiene	50.0	160849.000	0.1563	3.00	8055.00000	0.1507	10.0	31114.0000	0.1622
Pentachlorophenol	50.0	111604.000	0.1102	NA	NA	NA	NA	NA	NA
Phenol	50.0	433066.000	1.667	3.00	21975.0000	1.626	10.0	79484.0000	1.639
n-Nitrosodiphenylamine	50.0	694371.000	0.6856	3.00	34390.0000	0.7243	10.0	130230.000	0.7433
2,4-Dinitrophenol	50.0	85650.0000	0.1439	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	152557.000	0.2563	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	130310.000	0.2190	3.00	2242.00000	0.07340	10.0	14488.0000	0.1314
n-Nitrosodipropylamine	50.0	234796.000	0.9038	3.00	12093.0000	0.8949	10.0	42389.0000	0.8739
2,4,5-Trichlorophenol	50.0	231094.000	0.3883	3.00	10635.0000	0.3482	10.0	40488.0000	0.3672
2,4-Dimethylphenol	50.0	352554.000	0.3427	3.00	17512.0000	0.3277	10.0	64944.0000	0.3385
2,4-Dinitrotoluene	50.0	248146.000	0.4170	3.00	10715.0000	0.3508	10.0	43832.0000	0.3976
2,6-Dinitrotoluene	50.0	192581.000	0.3236	3.00	9105.00000	0.2981	10.0	35485.0000	0.3219
2-Chloronaphthalene	50.0	793211.000	1.333	3.00	40953.0000	1.341	10.0	149574.000	1.357
2-Chlorophenol	50.0	384841.000	1.481	3.00	19019.0000	1.408	10.0	71548.0000	1.475
2-Methylnaphthalene	50.0	715732.000	0.6957	3.00	36208.0000	0.6776	10.0	132472.000	0.6904
2-Methylphenol	50.0	282682.000	1.088	3.00	14107.0000	1.044	10.0	51876.0000	1.070
2-Nitroaniline	50.0	201691.000	0.3389	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	50.0	399640.000	0.4819	3.00	21879.0000	0.4616	10.0	77754.0000	0.4395
3-,4-Methylphenol	50.0	378839.000	1.458	3.00	18625.0000	1.378	10.0	69585.0000	1.435
3-Nitroaniline	50.0	209857.000	0.3526	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	141369.000	0.1396	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	205389.000	0.2028	3.00	10248.0000	0.2158	10.0	39426.0000	0.2250
4-Chloroaniline	50.0	485133.000	0.4715	3.00	23840.0000	0.4461	10.0	89078.0000	0.4642
4-Chlorophenyl Phenyl Ether	50.0	370004.000	0.6217	3.00	18515.0000	0.6062	10.0	70851.0000	0.6427
4-Nitroaniline	50.0	232425.000	0.3906	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	1115522.00	1.875	3.00	56108.0000	1.837	10.0	207526.000	1.882
Anthracene	50.0	1174602.00	1.160	3.00	58613.0000	1.235	10.0	220977.000	1.261
Benzo[a]anthracene	50.0	1122413.00	1.354	3.00	58630.0000	1.237	10.0	216124.000	1.222
Benzo[b]fluoranthene	50.0	1226825.00	1.600	3.00	62477.0000	1.401	10.0	231857.000	1.386
Benzo[ghi]perylene	50.0	1037410.00	1.353	3.00	49281.0000	1.105	10.0	196037.000	1.172
Benzo[k]fluoranthene	50.0	1057128.00	1.379	3.00	51197.0000	1.148	10.0	202960.000	1.213
Butyl Benzyl Phthalate	50.0	615514.000	0.7423	3.00	31102.0000	0.6562	10.0	114990.000	0.6499
Carbazole	50.0	1098814.00	1.085	3.00	54974.0000	1.158	10.0	197844.000	1.129
Chrysene	50.0	1075576.00	1.297	3.00	55168.0000	1.164	10.0	207637.000	1.174

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-08 18:20
Column ID: F

Analyte	WG270026-02			WG270026-03			WG270026-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	1372456.00	1.355	3.00	65506.0000	1.380	10.0	248048.000	1.416
Dibenz[ah]anthracene	50.0	1040721.00	1.357	3.00	50233.0000	1.126	10.0	193942.000	1.160
Dibenzofuran	50.0	964865.000	1.621	3.00	50162.0000	1.642	10.0	182957.000	1.660
Diethylphthalate	50.0	779228.000	1.309	3.00	39751.0000	1.302	10.0	145296.000	1.318
Dimethylphthalate	50.0	766532.000	1.288	3.00	38800.0000	1.270	10.0	144282.000	1.309
Fluorene	50.0	810170.000	1.361	3.00	41216.0000	1.350	10.0	151427.000	1.374
Hexachlorobenzene	50.0	220339.000	0.2176	3.00	11084.0000	0.2334	10.0	42445.0000	0.2423
Hexachloroethane	50.0	155507.000	0.5986	3.00	7747.00000	0.5733	10.0	28827.0000	0.5943
Indeno[1,2,3-cd]pyrene	50.0	1218831.00	1.589	3.00	59442.0000	1.333	10.0	228209.000	1.364
Isophorone	50.0	575324.000	0.5592	3.00	28381.0000	0.5311	10.0	101861.000	0.5309
Naphthalene	50.0	1094999.00	1.064	3.00	56991.0000	1.067	10.0	205019.000	1.069
Nitrobenzene	50.0	353230.000	0.3433	3.00	17890.0000	0.3348	10.0	63888.0000	0.3330
Phenanthrene	50.0	1156019.00	1.142	3.00	58725.0000	1.237	10.0	219575.000	1.253
Pyrene	50.0	1247953.00	1.505	3.00	62334.0000	1.315	10.0	237233.000	1.341
bis(2-Chloroethoxy)methane	50.0	523968.000	0.5093	3.00	27390.0000	0.5125	10.0	95419.0000	0.4973
bis(2-Chloroethyl)ether	50.0	238876.000	0.9195	3.00	12143.0000	0.8986	10.0	43374.0000	0.8942
bis(2-Chloroisopropyl)ether	50.0	532416.000	2.049	3.00	27487.0000	2.034	10.0	94773.0000	1.954
bis(2-Ethylhexyl)phthalate	50.0	846687.000	1.021	3.00	42789.0000	0.9028	10.0	154954.000	0.8758

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-05			WG270026-06			WG270026-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	57373.0000	0.3582	25.0	161608.000	0.3736	80.0	410109.000	0.3749
2,4-Dichlorophenol	15.0	82505.0000	0.2965	25.0	227916.000	0.3114	80.0	558306.000	0.3001
2-Nitrophenol	15.0	57305.0000	0.2059	25.0	156849.000	0.2143	80.0	387173.000	0.2081
4-Chloro-3-Methylphenol	15.0	84367.0000	0.3031	25.0	223392.000	0.3052	80.0	548629.000	0.2949
Acenaphthene	15.0	189721.000	1.185	25.0	528961.000	1.223	80.0	1314341.00	1.201
Benzo[a]pyrene	15.0	292158.000	1.224	25.0	859582.000	1.256	80.0	2124611.00	1.232
Di-n-Octyl Phthalate	15.0	388336.000	1.628	25.0	1083533.00	1.584	80.0	2670591.00	1.548
Fluoranthene	15.0	325362.000	1.294	25.0	925148.000	1.341	80.0	2247918.00	1.270
Hexachlorobutadiene	15.0	45219.0000	0.1625	25.0	126752.000	0.1732	80.0	306557.000	0.1648
Pentachlorophenol	15.0	19495.0000	0.07750	25.0	77043.0000	0.1116	80.0	237196.000	0.1340
Phenol	15.0	119795.000	1.699	25.0	309383.000	1.691	80.0	746208.000	1.600
n-Nitrosodiphenylamine	15.0	192983.000	0.7673	25.0	535227.000	0.7755	80.0	1306154.00	0.7380
2,4-Dinitrophenol	15.0	9899.00000	0.06180	25.0	53746.0000	0.1242	80.0	190683.000	0.1743
4-Nitrophenol	15.0	37265.0000	0.2327	25.0	104297.000	0.2411	80.0	265917.000	0.2431
Hexachlorocyclopentadiene	15.0	24701.0000	0.1542	25.0	94480.0000	0.2184	80.0	268121.000	0.2451
n-Nitrosodipropylamine	15.0	65600.0000	0.9302	25.0	163680.000	0.8944	80.0	393892.000	0.8443
2,4,5-Trichlorophenol	15.0	60593.0000	0.3783	25.0	172988.000	0.3999	80.0	433004.000	0.3958
2,4-Dimethylphenol	15.0	96018.0000	0.3450	25.0	257308.000	0.3516	80.0	620635.000	0.3336
2,4-Dinitrotoluene	15.0	66390.0000	0.4145	25.0	186327.000	0.4307	80.0	460002.000	0.4205
2,6-Dinitrotoluene	15.0	52199.0000	0.3259	25.0	144999.000	0.3352	80.0	358894.000	0.3280
2-Chloronaphthalene	15.0	219832.000	1.372	25.0	611038.000	1.413	80.0	1477136.00	1.350
2-Chlorophenol	15.0	106500.000	1.510	25.0	281781.000	1.540	80.0	686300.000	1.471
2-Methylnaphthalene	15.0	198076.000	0.7117	25.0	533827.000	0.7294	80.0	1309509.00	0.7039
2-Methylphenol	15.0	76621.0000	1.086	25.0	203494.000	1.112	80.0	498712.000	1.069
2-Nitroaniline	15.0	54078.0000	0.3376	25.0	137071.000	0.3169	80.0	337875.000	0.3088
3,3'-Dichlorobenzidine	15.0	108305.000	0.4309	25.0	326029.000	0.4580	80.0	782664.000	0.4297
3-,4-Methylphenol	15.0	103719.000	1.471	25.0	272863.000	1.491	80.0	664697.000	1.425
3-Nitroaniline	15.0	55519.0000	0.3466	25.0	153515.000	0.3549	80.0	389825.000	0.3563
4,6-Dinitro-2-Methylphenol	15.0	30842.0000	0.1226	25.0	105490.000	0.1529	80.0	293051.000	0.1656
4-Bromophenyl Phenyl Ether	15.0	57370.0000	0.2281	25.0	164649.000	0.2386	80.0	400854.000	0.2265
4-Chloroaniline	15.0	132889.000	0.4775	25.0	353564.000	0.4831	80.0	869969.000	0.4676
4-Chlorophenyl Phenyl Ether	15.0	103892.000	0.6486	25.0	290877.000	0.6724	80.0	708165.000	0.6473
4-Nitroaniline	15.0	59667.0000	0.3725	25.0	173218.000	0.4004	80.0	421116.000	0.3849
Acenaphthylene	15.0	308590.000	1.927	25.0	847050.000	1.958	80.0	2073166.00	1.895
Anthracene	15.0	324639.000	1.291	25.0	911660.000	1.321	80.0	2212043.00	1.250
Benzo[a]anthracene	15.0	314944.000	1.253	25.0	906430.000	1.273	80.0	2226123.00	1.222
Benzo[b]fluoranthene	15.0	328239.000	1.376	25.0	963914.000	1.409	80.0	2530262.00	1.467
Benzo[ghi]perylene	15.0	284789.000	1.194	25.0	849718.000	1.242	80.0	2088490.00	1.211
Benzo[k]fluoranthene	15.0	268226.000	1.124	25.0	773851.000	1.131	80.0	2007308.00	1.164
Butyl Benzyl Phthalate	15.0	170877.000	0.6799	25.0	461465.000	0.6482	80.0	1108649.00	0.6087
Carbazole	15.0	290310.000	1.154	25.0	844699.000	1.224	80.0	2062029.00	1.165
Chrysene	15.0	305943.000	1.217	25.0	870053.000	1.222	80.0	2122067.00	1.165

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-08 18:20
Column ID: F

Analyte	WG270026-05			WG270026-06			WG270026-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	375484.000	1.493	25.0	1032640.00	1.496	80.0	2524280.00	1.426
Dibenz[ah]anthracene	15.0	287666.000	1.206	25.0	856309.000	1.252	80.0	2118876.00	1.228
Dibenzofuran	15.0	270269.000	1.687	25.0	738548.000	1.707	80.0	1775249.00	1.623
Diethylphthalate	15.0	215347.000	1.344	25.0	587611.000	1.358	80.0	1435508.00	1.312
Dimethylphthalate	15.0	211038.000	1.318	25.0	581700.000	1.345	80.0	1413921.00	1.292
Fluorene	15.0	225807.000	1.410	25.0	628019.000	1.452	80.0	1521889.00	1.391
Hexachlorobenzene	15.0	61194.0000	0.2433	25.0	179303.000	0.2598	80.0	435758.000	0.2462
Hexachloroethane	15.0	42676.0000	0.6051	25.0	110175.000	0.6021	80.0	274039.000	0.5874
Indeno[1,2,3-cd]pyrene	15.0	336237.000	1.409	25.0	995201.000	1.455	80.0	2474832.00	1.435
Isophorone	15.0	156964.000	0.5640	25.0	399195.000	0.5455	80.0	983542.000	0.5287
Naphthalene	15.0	304035.000	1.093	25.0	810399.000	1.107	80.0	1966338.00	1.057
Nitrobenzene	15.0	96776.0000	0.3477	25.0	246316.000	0.3366	80.0	601558.000	0.3234
Phenanthrene	15.0	325361.000	1.294	25.0	902996.000	1.308	80.0	2191416.00	1.238
Pyrene	15.0	350219.000	1.394	25.0	985403.000	1.384	80.0	2393241.00	1.314
bis(2-Chloroethoxy)methane	15.0	142693.000	0.5127	25.0	369937.000	0.5055	80.0	893452.000	0.4803
bis(2-Chloroethyl)ether	15.0	65918.0000	0.9347	25.0	162267.000	0.8867	80.0	394748.000	0.8461
bis(2-Chloroisopropyl)ether	15.0	145603.000	2.065	25.0	350578.000	1.916	80.0	844098.000	1.809
bis(2-Ethylhexyl)phthalate	15.0	233093.000	0.9275	25.0	634439.000	0.8912	80.0	1567419.00	0.8606

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-08			WG270026-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	447858.000	0.3697	120	643690.000	0.3815
2,4-Dichlorophenol	100	618048.000	0.2973	120	882977.000	0.3104
2-Nitrophenol	100	436005.000	0.2097	120	613171.000	0.2156
4-Chloro-3-Methylphenol	100	625012.000	0.3006	120	858638.000	0.3019
Acenaphthene	100	1445655.00	1.193	120	2063246.00	1.223
Benzo[a]pyrene	100	2233225.00	1.234	120	3274407.00	1.275
Di-n-Octyl Phthalate	100	2957962.00	1.635	120	4137987.00	1.612
Fluoranthene	100	2399644.00	1.259	120	3471315.00	1.295
Hexachlorobutadiene	100	332769.000	0.1601	120	478165.000	0.1681
Pentachlorophenol	100	260266.000	0.1365	120	387183.000	0.1444
Phenol	100	856657.000	1.653	120	1169326.00	1.653
n-Nitrosodiphenylamine	100	1420595.00	0.7453	120	2022769.00	0.7544
2,4-Dinitrophenol	100	222143.000	0.1834	120	330526.000	0.1959
4-Nitrophenol	100	320994.000	0.2650	120	439441.000	0.2605
Hexachlorocyclopentadiene	100	295135.000	0.2436	120	425111.000	0.2520
n-Nitrosodipropylamine	100	460426.000	0.8883	120	614434.000	0.8688
2,4,5-Trichlorophenol	100	475425.000	0.3924	120	692229.000	0.4103
2,4-Dimethylphenol	100	703802.000	0.3385	120	980909.000	0.3449
2,4-Dinitrotoluene	100	507795.000	0.4192	120	715156.000	0.4239
2,6-Dinitrotoluene	100	398822.000	0.3292	120	561974.000	0.3331
2-Chloronaphthalene	100	1610245.00	1.329	120	2283628.00	1.354
2-Chlorophenol	100	778848.000	1.503	120	1087390.00	1.538
2-Methylnaphthalene	100	1449004.00	0.6969	120	2053060.00	0.7218
2-Methylphenol	100	567586.000	1.095	120	781322.000	1.105
2-Nitroaniline	100	398379.000	0.3288	120	534374.000	0.3167
3,3'-Dichlorobenzidine	100	830270.000	0.4303	120	1205729.00	0.4388
3-,4-Methylphenol	100	757389.000	1.461	120	1049176.00	1.484
3-Nitroaniline	100	438292.000	0.3618	120	616809.000	0.3656
4,6-Dinitro-2-Methylphenol	100	328692.000	0.1724	120	474464.000	0.1769
4-Bromophenyl Phenyl Ether	100	428386.000	0.2247	120	623995.000	0.2327
4-Chloroaniline	100	973744.000	0.4684	120	1354510.00	0.4762
4-Chlorophenyl Phenyl Ether	100	754413.000	0.6227	120	1082359.00	0.6416
4-Nitroaniline	100	466595.000	0.3851	120	654736.000	0.3881
Acenaphthylene	100	2270577.00	1.874	120	3210161.00	1.903
Anthracene	100	2380422.00	1.249	120	3422728.00	1.277
Benzo[a]anthracene	100	2356284.00	1.221	120	3438911.00	1.252
Benzo[b]fluoranthene	100	2472693.00	1.367	120	3743306.00	1.458
Benzo[ghi]perylene	100	2188227.00	1.209	120	3194506.00	1.244
Benzo[k]fluoranthene	100	2314600.00	1.279	120	3259773.00	1.270
Butyl Benzyl Phthalate	100	1218920.00	0.6317	120	1685704.00	0.6135
Carbazole	100	2245331.00	1.178	120	3198016.00	1.193
Chrysene	100	2257031.00	1.170	120	3249287.00	1.183

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040508 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-08			WG270026-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	2762453.00	1.449	120	3855498.00	1.438
Dibenz[ah]anthracene	100	2234944.00	1.235	120	3253472.00	1.267
Dibenzofuran	100	1945135.00	1.606	120	2743594.00	1.626
Diethylphthalate	100	1579825.00	1.304	120	2212035.00	1.311
Dimethylphthalate	100	1543449.00	1.274	120	2198254.00	1.303
Fluorene	100	1655932.00	1.367	120	2363407.00	1.401
Hexachlorobenzene	100	466141.000	0.2446	120	684926.000	0.2554
Hexachloroethane	100	311853.000	0.6016	120	424057.000	0.5996
Indeno[1,2,3-cd]pyrene	100	2602910.00	1.438	120	3818123.00	1.487
Isophorone	100	1141843.00	0.5492	120	1544513.00	0.5430
Naphthalene	100	2206391.00	1.061	120	3080519.00	1.083
Nitrobenzene	100	696846.000	0.3352	120	942356.000	0.3313
Phenanthrene	100	2369275.00	1.243	120	3402926.00	1.269
Pyrene	100	2583901.00	1.339	120	3718540.00	1.353
bis(2-Chloroethoxy)methane	100	1031581.00	0.4962	120	1398653.00	0.4918
bis(2-Chloroethyl)ether	100	464881.000	0.8969	120	612765.000	0.8664
bis(2-Chloroisopropyl)ether	100	1014370.00	1.957	120	1313850.00	1.858
bis(2-Ethylhexyl)phthalate	100	1725473.00	0.8942	120	2411629.00	0.8776

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 04/25/2008 Sample ID: WG269488-10
Instrument ID: HPMS4 Run Time: 18:30 Method: 8270C
File ID: 4M42460 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269488 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50600	ug/L	0.380	1.20	25	
2,4-Dichlorophenol	CCC	50000	48600	ug/L	0.285	2.70	25	
2-Nitrophenol	CCC	50000	54700	ug/L	0.219	9.40	25	
Benzo[a]pyrene	CCC	50000	55400	ug/L	1.39	10.9	25	
Di-n-Octyl Phthalate	CCC	50000	54300	ug/L	1.80	8.50	25	
Fluoranthene	CCC	50000	56700	ug/L	1.45	13.5	25	
Hexachlorobutadiene	CCC	50000	54200	ug/L	0.183	8.40	25	
Pentachlorophenol	CCC	50000	59000	ug/L	0.146	18.0	25	
Phenol	CCC	50000	49900	ug/L	1.58	0.200	25	
2,4-Dinitrophenol	SPCC	50000	52500	ug/L	0.111	5.00	25	
4-Nitrophenol	SPCC	50000	52200	ug/L	0.232	4.40	25	
Hexachlorocyclopentadiene	SPCC	50000	48600	ug/L	0.212	2.90	25	
2,4,5-Trichlorophenol		50000	51600	ug/L	0.411	3.20	25	
2,4-Dinitrotoluene		50000	55400	ug/L	0.448	10.9	25	
2,6-Dinitrotoluene		50000	53100	ug/L	0.347	6.20	25	
2-Chloronaphthalene		50000	44900	ug/L	1.21	10.3	25	
2-Chlorophenol		50000	48700	ug/L	1.41	2.60	25	
2-Methylnaphthalene		50000	52500	ug/L	0.747	5.00	25	
4,6-Dinitro-2-Methylphenol		50000	54300	ug/L	0.137	8.70	25	
4-Chloroaniline		50000	49700	ug/L	0.436	0.700	25	
4-Chlorophenyl Phenyl Ether		50000	48500	ug/L	0.627	2.90	25	
Anthracene		50000	56300	ug/L	1.44	12.6	25	
Benzo[a]anthracene		50000	53200	ug/L	1.33	6.40	25	
Benzo[b]fluoranthene		50000	50600	ug/L	1.44	1.10	25	
Benzo[k]fluoranthene		50000	52000	ug/L	1.30	4.00	25	
bis(2-Chloroethoxy)methane		50000	39900	ug/L	0.386	20.2	25	
bis(2-Chloroisopropyl)ether		50000	51500	ug/L	1.99	3.00	25	
bis(2-Ethylhexyl)phthalate		50000	52400	ug/L	0.950	4.80	25	
Butyl Benzyl Phthalate		50000	54400	ug/L	0.686	8.90	25	
Carbazole		50000	49900	ug/L	1.12	0.200	25	
Chrysene		50000	53200	ug/L	1.27	6.40	25	
Dibenz[ah]anthracene		50000	54300	ug/L	1.30	8.70	25	
Dibenzofuran		50000	52300	ug/L	1.69	4.50	25	
Hexachlorobenzene		50000	52400	ug/L	0.273	4.80	25	
Hexachloroethane		50000	53100	ug/L	0.597	6.20	25	
Isophorone		50000	58200	ug/L	0.649	16.5	25	
Naphthalene		50000	52700	ug/L	1.10	5.40	25	
Nitrobenzene		50000	52800	ug/L	0.336	5.60	25	
Phenanthrene		50000	54600	ug/L	1.39	9.20	25	
Pyrene		50000	54200	ug/L	1.44	8.50	25	

* Exceeds %D Limit

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Version 1.5 PDF File ID: 1084943
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 04/25/2008 Sample ID: WG269488-11
Instrument ID: HPMS4 Run Time: 19:01 Method: 8270C
File ID: 4M42461 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269488 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	50800	ug/L	0.435	1.70	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Version 1.5 PDF File ID: 1084943
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 05/01/2008 Sample ID: WG270026-10
Instrument ID: HPMS4 Run Time: 18:52 Method: 8270C
File ID: 4M42596 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	52600	ug/L	0.377	5.10	25	
2,4-Dichlorophenol	CCC	50000	49800	ug/L	0.295	0.400	25	
2-Nitrophenol	CCC	50000	51400	ug/L	0.210	2.80	25	
Benzo[a]pyrene	CCC	50000	55900	ug/L	1.39	11.8	25	
Di-n-Octyl Phthalate	CCC	50000	52000	ug/L	1.70	4.10	25	
Fluoranthene	CCC	50000	57100	ug/L	1.45	14.2	25	
Hexachlorobutadiene	CCC	50000	56700	ug/L	0.184	13.5	25	
Pentachlorophenol	CCC	50000	61600	ug/L	0.160	23.1	25	
Phenol	CCC	50000	48100	ug/L	1.59	3.80	25	
2,4-Dinitrophenol	SPCC	50000	55600	ug/L	0.183	11.1	25	
4-Nitrophenol	SPCC	50000	49200	ug/L	0.246	1.60	25	
Hexachlorocyclopentadiene	SPCC	50000	51700	ug/L	0.243	3.40	25	
2,4,5-Trichlorophenol		50000	53400	ug/L	0.411	6.70	25	
2,4-Dinitrotoluene		50000	56400	ug/L	0.461	12.7	25	
2,6-Dinitrotoluene		50000	53700	ug/L	0.348	7.30	25	
2-Chloronaphthalene		50000	45400	ug/L	1.23	9.10	25	
2-Chlorophenol		50000	48100	ug/L	1.43	3.90	25	
2-Methylnaphthalene		50000	53200	ug/L	0.749	6.40	25	
3,3'-Dichlorobenzidine		50000	44200	ug/L	0.395	11.6	25	
4,6-Dinitro-2-Methylphenol		50000	58800	ug/L	0.182	17.5	25	
4-Chloroaniline		50000	52300	ug/L	0.491	4.70	25	
4-Chlorophenyl Phenyl Ether		50000	49600	ug/L	0.633	0.700	25	
Anthracene		50000	56600	ug/L	1.42	13.1	25	
Benzo[a]anthracene		50000	53500	ug/L	1.34	6.90	25	
Benzo[b]fluoranthene		50000	54000	ug/L	1.55	8.10	25	
Benzo[k]fluoranthene		50000	54300	ug/L	1.32	8.50	25	
bis(2-Chloroethoxy)methane		50000	38200	ug/L	0.383	23.6	25	
bis(2-Chloroisopropyl)ether		50000	47100	ug/L	1.84	5.80	25	
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.916	1.10	25	
Butyl Benzyl Phthalate		50000	52700	ug/L	0.689	5.40	25	
Carbazole		50000	55300	ug/L	1.28	10.6	25	
Chrysene		50000	53500	ug/L	1.28	6.90	25	
Dibenz[ah]anthracene		50000	55400	ug/L	1.36	10.8	25	
Dibenzofuran		50000	53400	ug/L	1.76	6.80	25	
Hexachlorobenzene		50000	54800	ug/L	0.266	9.70	25	
Hexachloroethane		50000	51100	ug/L	0.608	2.20	25	
Isophorone		50000	56600	ug/L	0.616	13.2	25	
Naphthalene		50000	52800	ug/L	1.14	5.70	25	
Nitrobenzene		50000	50400	ug/L	0.338	0.800	25	
Phenanthrene		50000	54600	ug/L	1.36	9.30	25	
Pyrene		50000	54700	ug/L	1.50	9.40	25	

* Exceeds %D Limit

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040508 Run Date: 05/01/2008 Sample ID: WG270026-11
Instrument ID: HPMS4 Run Time: 19:23 Method: 8270C
File ID: 4M42597 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	62400	ug/L	0.557	24.8	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1084943
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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/30/2008 Sample ID: WG269913-02

Instrument ID: HPMS4 Run Time: 09:55 Method: 8270C

File ID: 4M42552 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG270019 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	47300	ug/L	0.355	5.48	20	
2,4-Dichlorophenol	CCC	50000	51400	ug/L	0.301	2.76	20	
2-Nitrophenol	CCC	50000	51100	ug/L	0.205	2.22	20	
4-Chloro-3-Methylphenol	CCC	50000	48600	ug/L	0.281	2.83	20	
Acenaphthene	CCC	50000	49600	ug/L	1.17	0.896	20	
Benzo[a]pyrene	CCC	50000	54700	ug/L	1.38	9.49	20	
Di-n-Octyl Phthalate	CCC	50000	57300	ug/L	1.90	14.6	20	
Fluoranthene	CCC	50000	45900	ug/L	1.17	8.26	20	
Hexachlorobutadiene	CCC	50000	49100	ug/L	0.166	1.88	20	
n-Nitrosodiphenylamine	CCC	50000	47700	ug/L	0.707	4.68	20	
Pentachlorophenol	CCC	50000	50400	ug/L	0.120	0.770	20	
Phenol	CCC	50000	45600	ug/L	1.44	8.85	20	
1,4-Dichlorobenzene	CCC	50000	48600	ug/L	1.58	2.89	25	
2,4-Dinitrophenol	SPCC	50000	54800	ug/L	0.118	9.67	25	
4-Nitrophenol	SPCC	50000	44400	ug/L	0.198	11.3	25	
Hexachlorocyclopentadiene	SPCC	50000	47200	ug/L	0.205	5.70	25	
n-Nitrosodipropylamine	SPCC	50000	45200	ug/L	0.725	9.54	25	
2,4,5-Trichlorophenol		50000	47500	ug/L	0.378	5.05	25	
2,4-Dimethylphenol		50000	48900	ug/L	0.322	2.14	25	
2,4-Dinitrotoluene		50000	51200	ug/L	0.414	2.45	25	
2,6-Dinitrotoluene		50000	49700	ug/L	0.325	0.607	25	
2-Chloronaphthalene		50000	49100	ug/L	1.33	1.79	25	
2-Chlorophenol		50000	49900	ug/L	1.45	0.109	25	
2-Methylnaphthalene		50000	49700	ug/L	0.708	0.537	25	
2-Methylphenol		50000	47700	ug/L	1.01	4.56	25	
2-Nitroaniline		50000	46500	ug/L	0.281	7.09	25	
3,3'-Dichlorobenzidine		50000	53100	ug/L	0.454	6.17	25	
3-,4-Methylphenol		50000	47900	ug/L	1.35	4.29	25	
3-Nitroaniline		50000	47800	ug/L	0.326	4.42	25	
4,6-Dinitro-2-Methylphenol		50000	50600	ug/L	0.126	1.23	25	
4-Bromophenyl Phenyl Ether		50000	44600	ug/L	0.215	10.9	25	
4-Chloroaniline		50000	51500	ug/L	0.452	2.94	25	
4-Chlorophenyl Phenyl Ether		50000	48700	ug/L	0.629	2.67	25	
4-Nitroaniline		50000	47500	ug/L	0.344	4.99	25	
Acenaphthylene		50000	48700	ug/L	1.85	2.51	25	
Anthracene		50000	44900	ug/L	1.15	10.2	25	
Benzo[a]anthracene		50000	54300	ug/L	1.36	8.62	25	
Benzo[b]fluoranthene		50000	55000	ug/L	1.56	10.0	25	
Benzo[ghi]perylene		50000	55000	ug/L	1.30	10.1	25	
Benzo[k]fluoranthene		50000	50900	ug/L	1.27	1.75	25	
bis(2-Chloroethoxy)methane		50000	47900	ug/L	0.464	4.18	25	
bis(2-Chloroethyl)ether		50000	47600	ug/L	0.843	4.72	25	

CCV - Modified 03/05/2008

PDF File ID: 1084945

Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040508 Run Date: 04/30/2008 Sample ID: WG269913-02
Instrument ID: HPMS4 Run Time: 09:55 Method: 8270C
File ID: 4M42552 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG270019 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroisopropyl)ether		50000	51200	ug/L	1.98	2.37	25	
bis(2-Ethylhexyl)phthalate		50000	56400	ug/L	1.02	12.9	25	
Butyl Benzyl Phthalate		50000	57000	ug/L	0.718	14.0	25	
Carbazole		50000	48600	ug/L	1.09	2.88	25	
Chrysene		50000	54200	ug/L	1.29	8.34	25	
Dibenz[ah]anthracene		50000	56100	ug/L	1.34	12.2	25	
Dibenzofuran		50000	49600	ug/L	1.61	0.731	25	
Diethylphthalate		50000	48300	ug/L	1.31	3.43	25	
Dimethylphthalate		50000	49300	ug/L	1.29	1.31	25	
Di-n-Butyl Phthalate		50000	47000	ug/L	1.39	5.91	25	
Fluorene		50000	49400	ug/L	1.38	1.17	25	
Hexachlorobenzene		50000	45100	ug/L	0.235	9.82	25	
Hexachloroethane		50000	50100	ug/L	0.563	0.113	25	
Indeno[1,2,3-cd]pyrene		50000	55700	ug/L	1.56	11.5	25	
Isophorone		50000	45700	ug/L	0.509	8.54	25	
Naphthalene		50000	50400	ug/L	1.05	0.824	25	
Nitrobenzene		50000	46000	ug/L	0.293	7.93	25	
Phenanthrene		50000	45000	ug/L	1.14	10.1	25	
Pyrene		50000	55700	ug/L	1.48	11.5	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1084945
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040508
Instrument ID:HPMS4
Workgroup (AAB#):WG270019

ICAL CCV Number:WG269488-02
CAL ID: HPMS4-25-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269488-02	NA	NA	455816	1043139	1575756	1813000	1454981	1827024
Upper Limit	NA	NA	911632	2086278	3151512	3626000	2909962	3654048
Lower Limit	NA	NA	227908	521570	787878	906500	727491	913512
L08040508-02	1.00	01	325273	741975	1008412	1274744	850346	1216751
WG268687-02	1.00	02	402209	941958	1316144	1573377	1200047	1559858
WG268687-03	1.00	02	413932	988723	1404807	1768295	1268896	1632214

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1084946
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040508 ICAL CCV Number:WG270026-02
Instrument ID:HPMS4 CAL ID: HPMS4-01-MAY-08
Workgroup (AAB#):WG270019 Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG270026-02	NA	NA	207840	476090	663378	823046	613487	810191
Upper Limit	NA	NA	415680	952180	1326756	1646092	1226974	1620382
Lower Limit	NA	NA	103920	238045	331689	411523	306744	405096
L08040508-03	1.00	01	177652	402090	571063	703215	531211	684545
L08040508-04	1.00	01	170087	388623	546969	672319	504614	652767
L08040508-07	1.00	01	172461	388849	551580	681742	512501	665499

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1084946
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040508
Instrument ID:HPMS4
Workgroup (AAB#):WG270019

ICAL CCV Number:WG269488-02
CAL ID: HPMS4-25-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269488-02	NA	NA	7.8	11.16	15.52	9.25	17.76	12.71
Upper Limit	NA	NA	8.3	11.66	16.02	9.75	18.26	13.21
Lower Limit	NA	NA	7.3	10.66	15.02	8.75	17.26	12.21
L08040508-02	1.00	01	7.79	11.15	15.52	9.24	17.75	12.71
WG268687-02	1.00	02	7.79	11.15	15.51	9.24	17.74	12.7
WG268687-03	1.00	02	7.79	11.15	15.52	9.24	17.75	12.71

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084947
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040508 ICAL CCV Number:WG270026-02
Instrument ID:HPMS4 CAL ID: HPMS4-01-MAY-08
Workgroup (AAB#):WG270019 Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG270026-02	NA	NA	7.72	11.09	15.44	9.19	17.63	12.65
Upper Limit	NA	NA	8.22	11.59	15.94	9.69	18.13	13.15
Lower Limit	NA	NA	7.22	10.59	14.94	8.69	17.13	12.15
L08040508-03	1.00	01	7.73	11.1	15.44	9.19	17.63	12.65
L08040508-04	1.00	01	7.73	11.1	15.44	9.18	17.63	12.65
L08040508-07	1.00	01	7.73	11.09	15.44	9.18	17.63	12.65

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084947
Report generated: 05/02/2008 16:24

2.3 General Chemistry Data

2.3.1 Percent Solids Data

2.3.1.1 Raw Data

Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:	
WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

% Moisture = 100 - % Solids from 1.0 calculation

Wg269025

PERCENT SOLIDS

SOP K0003 Rev: 9 Balance: OHAUS EP2102/Other

Sample	Empty Pan WT 1	WET WT2	DRY WT 3A	WET WT 3B	DRY WT 3C
04-508-02	1.28	25.85	21.07		
03	1.27	26.57	22.13		
04	1.28	24.90	22.14		
05	1.28	37.69	31.54		
06	1.29	18.02	16.10		
07	1.23	16.66	15.15		
08	1.27	23.62	20.69		
04-430-06	1.26	18.25	15.45		
07	1.27	19.11	17.92		
08	1.24	20.71	18.16		
04-469-02	1.27	19.89	17.83		
04	1.28	23.87	20.94		
05	1.29	19.33	18.65		
07	1.27	18.71	16.47		
04-524-01	1.27	17.12	15.21		
09	1.22	38.60	34.10		
11	1.27	22.84	19.68		
13, 14, 15	1.27	24.96	21.89		
17	1.24	19.67	19.18		
20	1.26	25.23	22.42		
Duplicate: 04-524-09	1.26	33.07	29.16		

04-432 (1, 3)

Analyst: Tammy Mavis

ADT (on): 4/21/08 @ 1345

ADT (off): 4/22/0906 dr

ADT (off): _____

DCN#75062

Approved: April 24, 2008

Microbac Laboratories Inc.

PERCENT SOLID REPORT

Workgroup (AAB#):WG269025 Run Date:04/21/2008

Method:D2216-90 Run Time:13:45

Analyst:TMM

SAMPLE NUMBER	Pan WT.	Int WT.	Fnl WT.	% Solid	% Moist	UNITS
L08040430-06	1.260	18.25	15.45	83.52		%
L08040430-07	1.270	19.11	17.92	93.33		%
L08040430-08	1.240	20.71	18.16	86.90		%
L08040432-01	1.270	19.89	17.83	88.94		%
L08040432-03	1.270	19.89	17.83	88.94		%
L08040469-02	1.270	19.89	17.83	88.94		%
L08040469-04	1.280	23.87	20.94	87.03		%
L08040469-05	1.290	19.33	18.65	96.23		%
L08040469-07	1.270	18.71	16.47	87.16		%
L08040508-02	1.280	25.85	21.07	80.55		%
L08040508-03	1.270	26.57	22.13	82.45		%
L08040508-04	1.280	24.90	22.14	88.31		%
L08040508-05	1.280	37.69	31.54	83.11		%
L08040508-06	1.290	18.02	16.10	88.52		%
L08040508-07	1.230	16.66	15.15	90.21		%
L08040508-08	1.270	23.62	20.69	86.89		%
L08040524-01	1.270	17.12	15.21	87.95		%
L08040524-09	1.220	38.60	34.10	87.96		%
L08040524-11	1.270	22.84	19.68	85.35		%
L08040524-13	1.270	24.96	21.89	87.04		%
L08040524-14	1.270	24.96	21.89	87.04		%
L08040524-15	1.270	24.96	21.89	87.04		%
L08040524-17	1.240	19.67	19.18	97.34		%
L08040524-20	1.260	25.23	22.42	88.28		%
WG269025-01	1.220	38.60	34.10	87.96	12.04	%
WG269025-02	1.260	33.07	29.16	87.71	12.29	%

PERCENT_SOLID - Modified 03/06/2008

Report generated 04/22/2008 09:46

Microbac

Approved: April 24, 2008

2.3.2 Total Organic Carbon Data

2.3.2.1 Summary Data

KEMRON Login No.: L08040508

METHOD

Analysis: Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)

Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

There were no technical difficulties.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst:

Created:

Approved: April 30, 2008

LABORATORY REPORT

L08040508

05/05/08 13:45

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3033-S002-041608	L08040508-05	LYDKHN	1	17-APR-08
3033-S004-041608	L08040508-06	LYDKHN	1	17-APR-08
3033-S006-041608	L08040508-08	LYDKHN	1	17-APR-08

Microbac Laboratories Inc.

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-05**
Client ID: **3033-S002-041608**
Matrix: **Soil**
Workgroup Number: **WG269715**
Collect Date: **04/16/2008 15:15**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **LYDKHN**
Analytical Method: **LYDKHN**
Analyst: **DIH**
Dilution: **1**
Units: **mg/kg**

Instrument: **TOC-VWP**
Prep Date: **04/28/2008 11:41**
Cal Date: **11/09/2007 14:27**
Run Date: **04/28/2008 11:41**
File ID: **TC04-28-2008.16**
Percent Solid: **83.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon		**2680**		**1200**	**602**

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-06**
Client ID: **3033-S004-041608**
Matrix: **Soil**
Workgroup Number: **WG269715**
Collect Date: **04/16/2008 15:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **LYDKHN**
Analytical Method: **LYDKHN**
Analyst: **DIH**
Dilution: **1**
Units: **mg/kg**

Instrument: **TOC-VWP**
Prep Date: **04/28/2008 11:52**
Cal Date: **11/09/2007 14:27**
Run Date: **04/28/2008 11:52**
File ID: **TC04-28-2008.17**
Percent Solid: **88.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon			U	1130	565

U Not detected at or above the reporting limit

Microbac Laboratories Inc.

Report Number: **L08040508**
Report Date : **May 5, 2008**

Sample Number: **L08040508-08**
Client ID: **3033-S006-041608**
Matrix: **Soil**
Workgroup Number: **WG269715**
Collect Date: **04/16/2008 16:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **LYDKHN**
Analytical Method: **LYDKHN**
Analyst: **DIH**
Dilution: **1**
Units: **mg/kg**

Instrument: **TOC-VWP**
Prep Date: **04/28/2008 12:02**
Cal Date: **11/09/2007 14:27**
Run Date: **04/28/2008 12:02**
File ID: **TC04-28-2008.18**
Percent Solid: **86.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon		**2870**		**1150**	**575**

2.3.2.2 QC Summary Data

Total Organic Carbon Example Calculations
(Direct Readout Parameter)

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 28-APR-2008
Analyst: DIH
Analyst: NA
Method: TOC
Instrument: TOC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG269715

Calibration/Linearity	4/4/2008
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DR
Comments	

Primary Reviewer:
29-APR-2008

Secondary Reviewer:
29-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-29-2008 15:59:43

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: LYDKHN AAB#: WG269715

Login Number: L08040508

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3033-S002-041608	04/16/08	04/17/08	04/28/08	28	11.9	04/28/08	28	11.9	
3033-S004-041608	04/16/08	04/17/08	04/28/08	28	11.8	04/28/08	28	11.8	
3033-S006-041608	04/16/08	04/17/08	04/28/08	28	11.8	04/28/08	28	11.8	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1079161
Report generated 04/29/2008 12:59

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040508
Work Group: WG269715
Blank File ID: TC04-28-2008.03
Blank Sample ID: WG269715-01
Prep Date: 04/28/08 09:30
Instrument ID: TOC-VWP
Analyzed Date: 04/28/08 09:30
Method: LYDKHN
Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
3033-S002-041608	L08040508-05	TC04-28-2008.16	04/28/08 11:41	01
3033-S004-041608	L08040508-06	TC04-28-2008.17	04/28/08 11:52	01
3033-S006-041608	L08040508-08	TC04-28-2008.18	04/28/08 12:02	01
DUP	WG269715-05	TC04-28-2008.19	04/28/08 12:10	01
LCS	WG269715-02	TC04-28-2008.21	04/28/08 13:22	01
LCS2	WG269715-03	TC04-28-2008.22	04/28/08 13:31	01

Report Name: BLANK_SUMMARY
PDF File ID: 1079162
Report generated 04/29/2008 12:59

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040508 Prep Date:04/28/08 09:30 Sample ID:WG269715-01
Instrument ID:TOC-VWP Run Date:04/28/08 09:30 Prep Method:LYDKHN
File ID:TC04-28-2008.03 Analyst:DIH Method:LYDKHN
Workgroup (AAB#):WG269715 Matrix:Soil Units:mg/kg
Contract #: Cal ID:TOC-VW-09-NOV-07

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Total Organic Carbon	500	1000	1000	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1079163
29-APR-2008 12:59

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040508 Analyst: DIH Prep Method: LYDKHN
Instrument ID: TOC-VWP Matrix: Soil Method: LYDKHN
Workgroup (AAB#): WG269715 Units: mg/kg
QC Key: DOWWV2006 Lot #: STD23302

Sample ID: WG269715-02 LCS File ID: TC04-28-2008.21 Run Date: 04/28/2008 13:22
Sample ID: WG269715-03 LCS2 File ID: TC04-28-2008.22 Run Date: 04/28/2008 13:31

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	8150	9600	118	8150	9910	122	3.14	70 - 140	50	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1079164
Report generated: 04/29/2008 12:59

2.3.2.3 Raw Data

KEMRON ENVIRONMENTAL SERVICES

Curve

Total Organic Carbon (Soil)

Calibration curve: STD 19511

LCS (TOC): ICV STD 8380

CCV (TOC): _____

MS (TOC): _____

Daily dilution: _____

☑ Lloyd Kahn Method

☐ Other: _____

SOP: K 5310 Rev. 7

Instrument: Shimadza TOC-VWP/SSM-5000A

DAILY CHECK

☑ drain reservoir filled sufficient gas

☑ waste container tubing connections

Position	Sample ID	Weight (mg)
1	40000	
2	20000	
3	10000	
4	4000	
5	1200	
6	800	
7	ICV 8380	13.5.3
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Position	Sample ID	Weight (mg)
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

Analyst: Joanna Roberts Date: 11/9/07 Time: _____

DCN#71810

Joanna Roberts

Approved: November 20, 2007

	Analy	Sample Name	Result	Status	Date / Time
1	SSM-	TC CURVE		Compl	11/09/2007 02:27:13 PM
2	SSM-	ICV 8380	SSM-TC:8811ppm	Compl	11/09/2007 02:46:52 PM

Approved: November 20, 2007

Instr.Information

System	TOCVW SSM
Detector	Wet Chemical

Cal. Curve

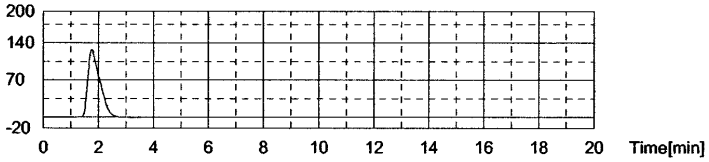
Sample Name:	TC CURVE
Sample ID:	Untitled
Cal. Curve:	SOILCURVE-11-9-2007.2007_11_09_13_40_07.cal
Status	Completed

Type	Anal.	Density
Standard	SSM-TC	

AbsC: 4000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	383.3	383.3	4000ug	100.0mg	********		11/09/2007 01:52:39 PM

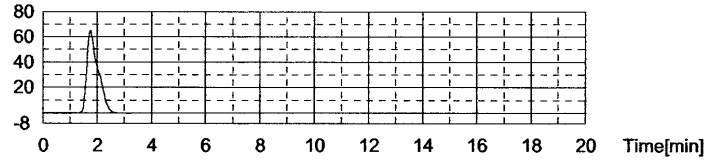
Mean Area 383.3
Mean CNV 383.3



AbsC: 2000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	188.2	188.2	2000ug	50.00mg	********		11/09/2007 01:57:51 PM

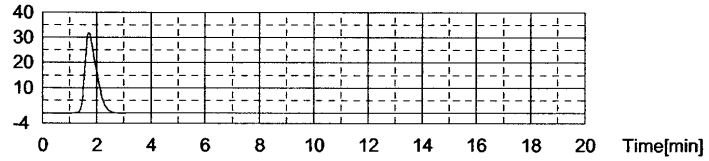
Mean Area 188.2
Mean CNV 188.2



AbsC: 1000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	94.16	94.16	1000ug	25.00mg	********		11/09/2007 02:03:10 PM

Mean Area 94.16
Mean CNV 94.16

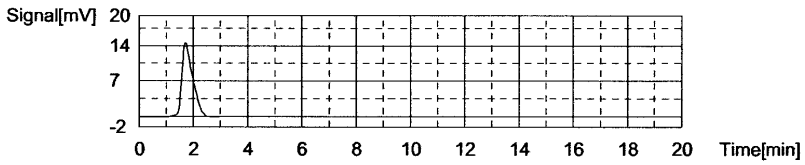


AbsC: 400.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	40.88	40.88	400.0ug	10.00mg	********		11/09/2007 02:10:48 PM

Approved: November 20, 2007

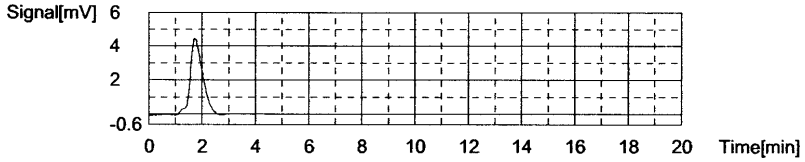
Mean Area 40.88
Mean CNV 40.88



AbsC: 120.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	14.64	14.64	120.0ug	3.000mg	*******		11/09/2007 02:19:31 PM

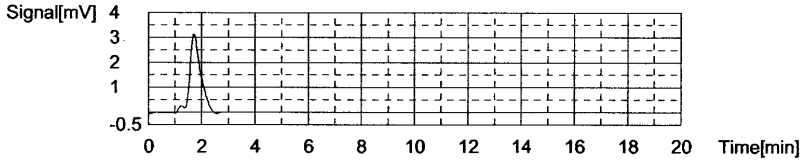
Mean Area 14.64
Mean CNV 14.64



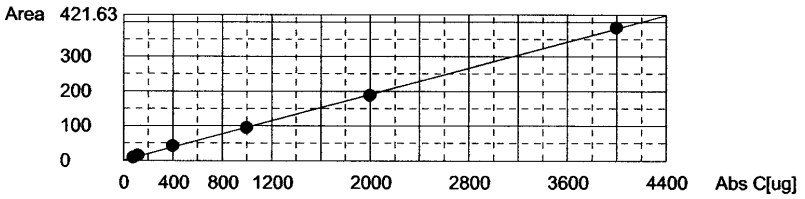
AbsC: 80.00ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	8.934	8.934	80.00ug	2.000mg	*******		11/09/2007 02:27:13 PM

Mean Area 8.934
Mean CNV 8.934



Slope: 0.09501
Intercept 1.338
r^2 0.999766
Zero Shift No



Sample

Sample Name: ICV 8380
Sample ID: Untitled
Origin: SOILCURVE-11-9-2007.cal
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:8811ppm

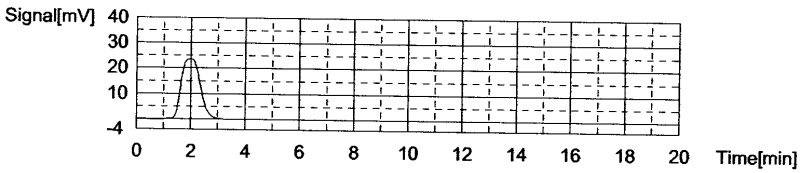
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	114.6	114.6	1192ug	8811ppm	135.3mg	135uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	11/09/2007 02:46:52 PM

Approved: November 20, 2007

Mean Area	114.6
Mean CNV	114.6
Mean Conc.	8811ppm



Approved: November 20, 2007

269715

KEMRON ENVIRONMENTAL SERVICES

Total Organic Carbon (Soil)

Calibration curve: 11/9/07
CCV (TOC): STD 23498
Daily dilution: = 40000

LCS (TOC): STD 23302
MS (TOC): = 8150 mg/kg

☑ Lloyd Kahn Method
☐ Other: _____

SOP: K 5310 Rev. 7
Instrument: Shimadza TOC-VWP/SSM-5000A

DAILY CHECK

☑ drain reservoir filled
☑ sufficient gas

☑ waste container
☑ tubing connections

Position	Sample ID	Weight (mg)
1	CCV	100
2	CCB	100
3	BLK	219.3
4	LCS	147.5
5	LCSDUP	164.8
6	04-430-06	414.1
7	07	442.4
8	08	456.4
9	04-557-01	311.8
10	02	394.5
11	03	556.4
12	04	426.7
13	CCV	100
14	CCB	100
15	04-484-08	679.7
16	04-508-05	643.0
17	06	402.7
18	08	378.5
19	DUP ↓	508.8
20	MS ↓	187.9
21	RR LCS	206.3
22	RR LCSDUP	116.3
23	CCV	100
24	CCB	100
25		

Position	Sample ID	Weight (mg)
26		
27		
28		
29		
30		
31		
32		
33		
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50		

Analyst: Deanna Roberts Date: 4/28/08 Time: _____

DCN#75151

Deanna Roberts
Approved: April 29, 2008

TOTAL SOIL WET WEIGHTS

LCS (8150 mg/kg) std 23302

	ADT	SAMPLE	WEIGHT (mg)	COMMENTS
	BIK	dun 4/28/0812	219.3	✓
	LCS		147.5	✓
	LCSDUP		164.8	✓
	04-430-06		414.1	✓
	07		442.4	✓
	08		456.4	✓
	04-557-01		311.8	✓
	02		394.5	✓
	03		556.4	✓
	04		426.7	✓
	04-484-08		679.7	✓
	04-508-05		643.0	✓
	06		402.7	✓
	08		378.5	✓
	DUP		508.8	✓
	MS		MS 170.0/197.9	✓
RR	LCS		206.3	✓
	LCSDUP	↓	116.3	

Approved: April 29, 2008

	Analysis	Sample Name	Result	Status	Date / Time
1	SSM-T	CCV 40000	SSM-TC:37581ppm	Comple	04/28/2008 09:17:29 AM
2	SSM-T	CCB	!!Error!! SSM-TC:-140.8ppm	Comple	04/28/2008 09:25:27 AM
3	SSM-T	WG269715-01 BLANK	SSM-TC:174.3ppm	Comple	04/28/2008 09:30:09 AM
4	SSM-T	WG269715-02 LCS	SSM-TC:12249ppm	Comple	04/28/2008 09:43:48 AM
5	SSM-T	WG269715-03 LCSDUP	SSM-TC:11417ppm	Comple	04/28/2008 09:52:46 AM
6	SSM-T	L08040430-06	SSM-TC:1898ppm	Comple	04/28/2008 09:58:42 AM
7	SSM-T	L08040430-07	SSM-TC:734.2ppm	Comple	04/28/2008 10:04:14 AM
8	SSM-T	L08040430-08	SSM-TC:650.8ppm	Comple	04/28/2008 10:11:50 AM
9	SSM-T	L08040557-01	SSM-TC:3972ppm	Comple	04/28/2008 10:23:51 AM
10	SSM-T	L08040557-02	SSM-TC:1366ppm	Comple	04/28/2008 10:32:12 AM
11	SSM-T	L08040557-03	SSM-TC:1197ppm	Comple	04/28/2008 10:40:21 AM
12	SSM-T	L08040557-04	SSM-TC:1298ppm	Comple	04/28/2008 10:47:27 AM
13	SSM-T	CCV 40000	SSM-TC:42896ppm	Comple	04/28/2008 11:09:27 AM
14	SSM-T	CCB	!!Error!! SSM-TC:-140.8ppm	Comple	04/28/2008 11:16:13 AM
15	SSM-T	L08040484-08	SSM-TC:4444ppm	Comple	04/28/2008 11:32:14 AM
16	SSM-T	L08040508-05	SSM-TC:2226ppm	Comple	04/28/2008 11:41:22 AM
17	SSM-T	L08040508-06	SSM-TC:303.6ppm	Comple	04/28/2008 11:52:14 AM
18	SSM-T	L08040508-08	SSM-TC:2496ppm	Comple	04/28/2008 12:02:56 PM
19	SSM-T	WG269715-05 DUP	SSM-TC:2015ppm	Comple	04/28/2008 12:10:10 PM
20	SSM-T	WG269715-06 MS	SSM-TC:12209ppm	Comple	04/28/2008 01:11:26 PM
21	SSM-T	WG269715-02 LCS	SSM-TC:9600ppm	Comple	04/28/2008 01:22:20 PM
22	SSM-T	WG269715-03 LCSDUP	SSM-TC:9906ppm	Comple	04/28/2008 01:31:07 PM
23	SSM-T	CCV 40000	SSM-TC:40570ppm	Comple	04/28/2008 01:43:00 PM
24	SSM-T	CCB	!!Error!! SSM-TC:-140.8ppm	Comple	04/28/2008 02:32:45 PM

Approved: April 29, 2008

Instr.Information

System TOCVW SSM
Detector Wet Chemical

Sample

Sample Name: CCV 40000
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

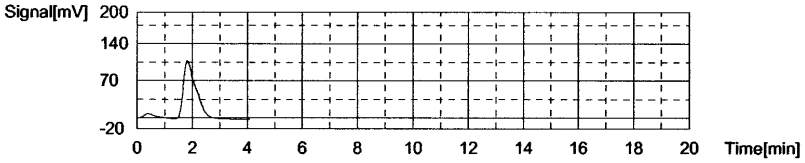
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:37581ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	358.4	358.4	3758ug	37581ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:17:29 AM

Mean Area 358.4
Mean CNV 358.4
Mean Conc. 37581ppm



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

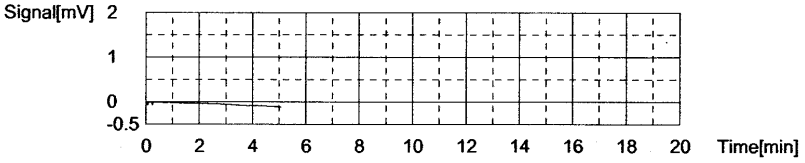
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	!!Error!! SSM-TC:-140.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-14.08ug	-140.8ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:25:27 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -140.8ppm



Approved: April 29, 2008

Sample

Sample Name: WG269715-01 BLANK
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

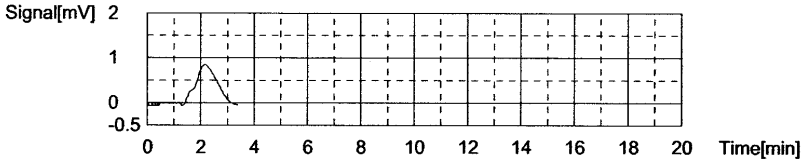
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:174.3ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	4.970	4.970	38.23ug	174.3ppm	219.3mg	219uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:30:09 AM

Mean Area 4.970
Mean CNV 4.970
Mean Conc. 174.3ppm



Sample

Sample Name: WG269715-02 LCS
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

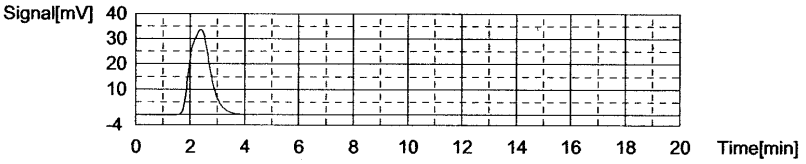
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:12249ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	173.0	173.0	1807ug	12249ppm	147.5mg	147uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:43:48 AM

Mean Area 173.0
Mean CNV 173.0
Mean Conc. 12249ppm



Sample

Sample Name: WG269715-03 LCSDUP
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Approved: April 29, 2008

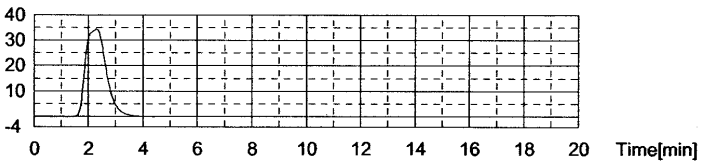
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:11417ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	180.1	180.1	1881ug	11417ppm	164.8mg	164uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:52:46 AM

Mean Area 180.1
Mean CNV 180.1
Mean Conc. 11417ppm



Sample

Sample Name: L08040430-06
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

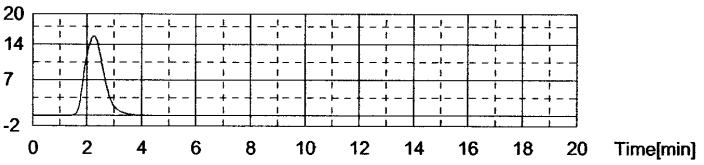
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1898ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	76.01	76.01	785.9ug	1898ppm	414.1mg	414uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:58:42 AM

Mean Area 76.01
Mean CNV 76.01
Mean Conc. 1898ppm



Sample

Sample Name: L08040430-07
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:734.2ppm

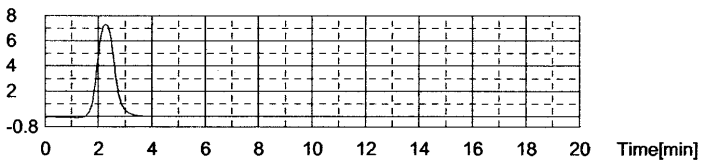
1. Det

Anal.: SSM-TC

Approved: April 29, 2008

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	32.20	32.20	324.8ug	734.2ppm	442.4mg	442uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:04:14 AM

Mean Area 32.20
Mean CNV 32.20
Mean Conc. 734.2ppm



Sample

Sample Name: L08040430-08
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

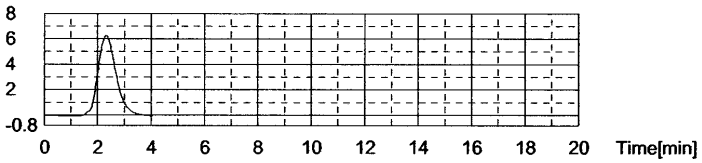
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:650.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	29.56	29.56	297.0ug	650.8ppm	456.4mg	456uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:11:50 AM

Mean Area 29.56
Mean CNV 29.56
Mean Conc. 650.8ppm



Sample

Sample Name: L08040557-01
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:3972ppm

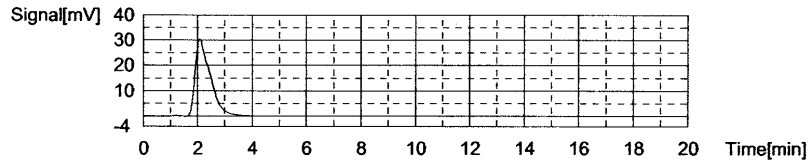
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	119.0	119.0	1238ug	3972ppm	311.8mg	311uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:23:51 AM

Approved: April 29, 2008

Mean Area 119.0
Mean CNV 119.0
Mean Conc. 3972ppm



Sample

Sample Name: L08040557-02
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

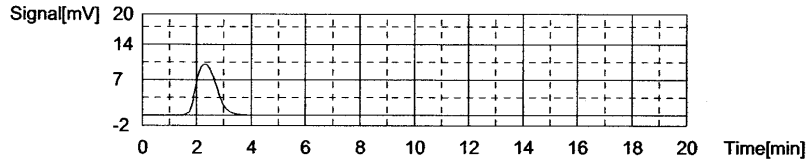
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1366ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	52.54	52.54	538.9ug	1366ppm	394.5mg	394uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:32:12 AM

Mean Area 52.54
Mean CNV 52.54
Mean Conc. 1366ppm



Sample

Sample Name: L08040557-03
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1197ppm

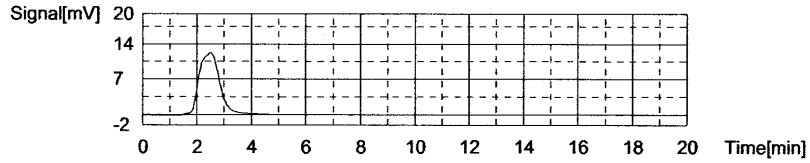
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	64.60	64.60	665.8ug	1197ppm	556.4mg	556uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:40:21 AM

Approved: April 29, 2008

Mean Area 64.60
Mean CNV 64.60
Mean Conc. 1197ppm



Sample

Sample Name: L08040557-04
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

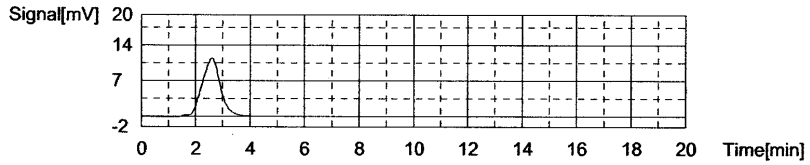
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1298ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	53.97	53.97	554.0ug	1298ppm	426.7mg	426uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:47:27 AM

Mean Area 53.97
Mean CNV 53.97
Mean Conc. 1298ppm



Sample

Sample Name: CCV 40000
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:42896ppm

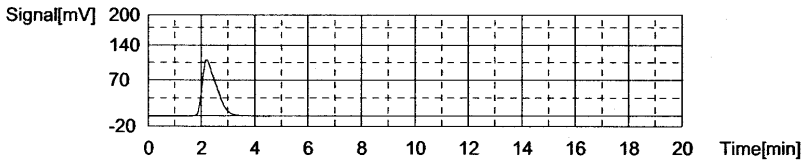
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	408.9	408.9	4290ug	42896ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:09:27 AM

Approved: April 29, 2008

Mean Area 408.9
Mean CNV 408.9
Mean Conc. 42896ppm



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

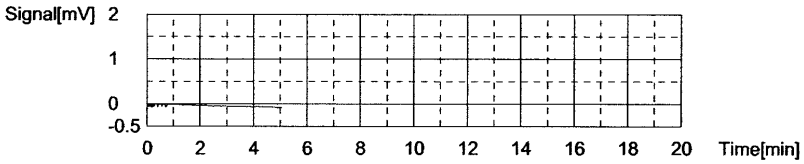
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	!!Error!! SSM-TC:-140.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-14.08ug	-140.8ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:16:13 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -140.8ppm



Sample

Sample Name: L08040484-08
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:4444ppm

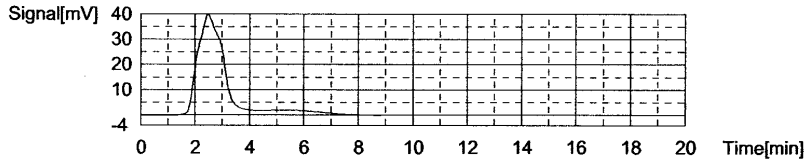
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	288.3	288.3	3020ug	4444ppm	679.7mg	679uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:32:14 AM

Approved: April 29, 2008

Mean Area 288.3
Mean CNV 288.3
Mean Conc. 4444ppm



Sample

Sample Name: L08040508-05
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

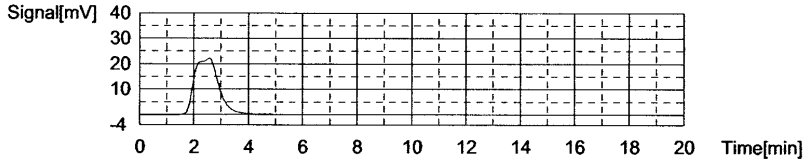
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2226ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	137.3	137.3	1431ug	2226ppm	643.0mg	643uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:41:22 AM

Mean Area 137.3
Mean CNV 137.3
Mean Conc. 2226ppm



Sample

Sample Name: L08040508-06
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:303.6ppm

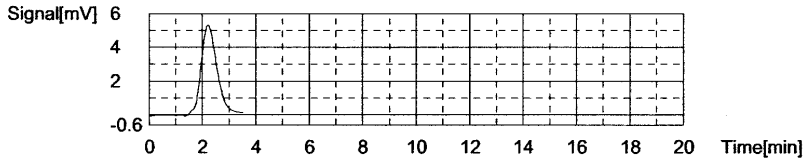
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	21.61	21.61	213.4ug	303.6ppm	702.7mg	702uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:52:14 AM

Approved: April 29, 2008

Mean Area 21.61
Mean CNV 21.61
Mean Conc. 303.6ppm



Sample

Sample Name: L08040508-08
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

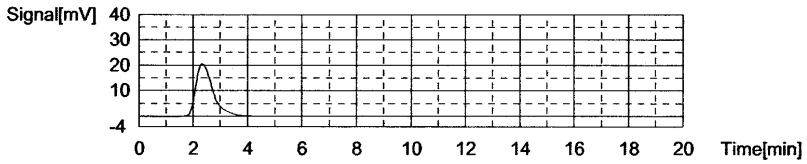
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2496ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	91.10	91.10	944.8ug	2496ppm	378.5mg	378uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 12:02:56 PM

Mean Area 91.10
Mean CNV 91.10
Mean Conc. 2496ppm



Sample

Sample Name: WG269715-05 DUP
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2015ppm

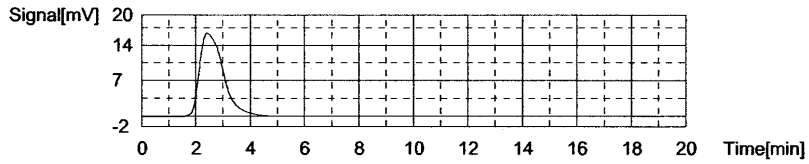
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	98.73	98.73	1025ug	2015ppm	508.8mg	508uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 12:10:10 PM

Approved: April 29, 2008

Mean Area 98.73
Mean CNV 98.73
Mean Conc. 2015ppm



Sample

Sample Name: WG269715-06 MS
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

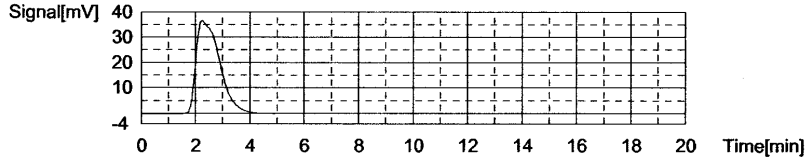
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:12209ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	219.3	219.3	2294ug	12209ppm	187.9mg	187uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:11:26 PM

Mean Area 219.3
Mean CNV 219.3
Mean Conc. 12209ppm



Sample

Sample Name: WG269715-02 LCS
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:9600ppm

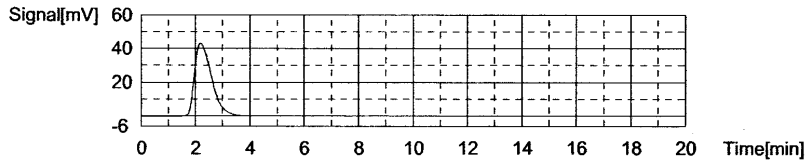
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	189.5	189.5	1980ug	9600ppm	206.3mg	206uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:22:20 PM

Approved: April 29, 2008

Mean Area 189.5
Mean CNV 189.5
Mean Conc. 9600ppm



Sample

Sample Name: WG269715-03 LCSDUP
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

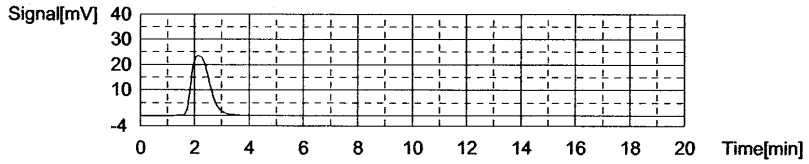
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:9906ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	110.8	110.8	1152ug	9906ppm	116.3mg	116uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:31:07 PM

Mean Area 110.8
Mean CNV 110.8
Mean Conc. 9906ppm



Sample

Sample Name: CCV 40000
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:40570ppm

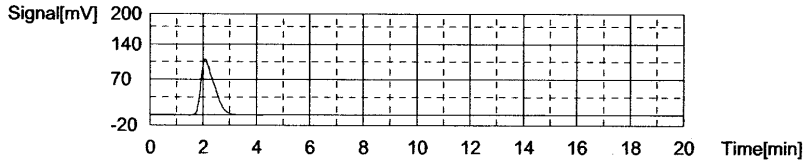
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	386.8	386.8	4057ug	40570ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:43:00 PM

Approved: April 29, 2008

Mean Area 386.8
Mean CNV 386.8
Mean Conc. 40570ppm



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

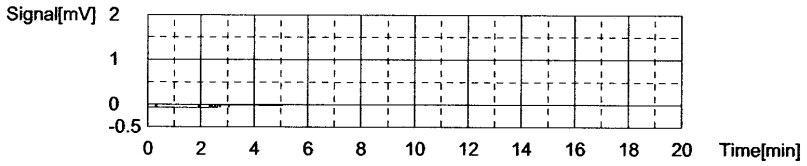
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	!!Error!! SSM-TC:-140.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-14.08ug	-140.8ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 02:32:45 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -140.8ppm



Approved: April 29, 2008

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
May 12, 2008

AJF – AMANDA J. FICKIESEN	ALB – ANNIE L. BROWN	AML – ANTHONY M. LONG
ASP – AARON S. PETRIE	BRG – BRENDA R. GREGORY	CAA – CASSIE A. AUGENSTEIN
CAF – CHERYL A. FLOWERS	CAH – CHARLES A. HALL	CEB – CHAD E. BARNES
CLC – CHRYS L. CRAWFORD	CLW – CHARISSA L. WINTERS	CMS – CRYSTAL M. STEPHENS
CPD – CHAD P. DAVIS	CSH – CHRIS S. HILL	CTB – CHRIS T. BUCINA
DDE – DEBRA D. ELLIOTT	DEL – DON E. LIGHTFRITZ	DEV – DAVID E. VANDENBERG
DGB – DOUGLAS G. BUTCHER	DIH – DEANNA I. HESSON	DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE	DLR – DIANNA L. RAUCH	DR – DEANNA ROBERTS
DSF – DEBRA S. FREDERICK	ECL – ERIC C. LAWSON	ED – EMILY E. DECKER
ERE – ERIN R. ELDER	FJB – FRANCES J. BOLDEN	HAV – HEMA VILASAGAR
HJR – HOLLY J. REED	JAB – JUANITA A. BECKER	JBK – JEREMY B. KINNEY
JDH – JUSTIN D. HESSON	JKP – JACQUELINE K. PARSONS	JKT – JANE K. THOMPSON
JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES	JYH – JI Y. HU
KEB – KATHRYN E. BARNES	KHR – KIM H. RHODES	KJW – KATIE J. WIEFERICH
KRA – KATHY R. ALBERTSON	LKN – LINDA K. NEDEFF	LSB – LESLIE S. BUCINA
MDA – MIKE D. ALBERTSON	MDC – MICHAEL D. COCHRAN	MES – MARY E. SCHILLING
MMB – MAREN M. BEERY	MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON
NPM – NATHANIEL P. MILLER	RAH – ROY A. HALSTEAD	RB – ROBERT BUCHANAN
REK – ROBERT E. KYER	RLK – ROBIN L. KLINGER	RWC – RODNEY W. CAMPBELL
SDH – SHANA D. HINYARD	SDL – SHELLY D. LENT	SLM – STEPHANIE L. MOSSBURG
SLP – SHERI L. PFALZGRAF	SMH – SHAUNA M. HYDE	TDH – TRICIA D. HUCK
TIP – TAE I. PARRISH	TMB – TIFFANY M. BAILEY	TMM – TAMMY M. MORRIS
VC – VICKI COLLIER	WTD – WADE T. DELONG	

Microbac Laboratories Inc.
List of Valid Qualifiers
May 12, 2008

Qualkey: CLP

Qualifier	Description
E	Estimated concentration due to interference
E	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
U	Not detected at or above the reporting limit

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

COC No. A 79701

156 Starlite Drive
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: CH2M Hill

Project Contact: Jeremy Meyer

Contact Phone #: 303-478-0717

Turn Around Requirements:

Location: South charleston, WV

Project ID: Dow SCF PO. 592987 PN. 367695.B5.FI

Sampler (print): Jeremy Meyer

Signature: Jeremy Meyer

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	VOC	SVOC	TOC	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
TB04		X	4/16/08	—	water	2		X				
3001-S001-041608		X		1050	Soil	4		X	X			
3033-S001-041608		X		1510		4		X	X			
3033-S003-041608		X		1540		4		X	X			
3033-S002-041608		X		1515		1				X		
3033-S004-041608		X		1545		1				X		
3033-S005-041608		X		1600		4		X	X			
3033-S006-041608		X		1610		1				X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Jeremy Meyer	4/16/08	1800			4-17-08	1000	Don Liq[illegible]

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
Don Liq[illegible]	4-17-08	1125	Erin Elder	4-17-08	1125	

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page 1 of 1

Microbac Laboratories, Inc.

SAMPLE RECEIPT FORM

158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

Client:	CH2MHill
Workorder Number:	B 8152
Date Received:	4-17-08
Delivered by:	( ) Fedx ( ) UPS ( ) Client (✓) Courier **Time:** 11:25
Opened by:	EE
IR Temp Gun:	(✓) D ( ) G
Logged by:	EE / JKT / KA L 0804 0508

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
1742	1	N/A		encores

Inspection Checklist	**Y**	**N**	**NA**	**Discrepancy ID**
Were shipping coolers sealed?			✓	
Were custody seals intact?			✓	
Were cooler temperatures in range of 0 - 6?	✓			
Was ice present?	✓			
Were COC's received/ information complete/signed and dated?	✓			
Were sample containers and labels intact and match COC?	✓			
Were the correct containers and volumes received?	✓			
Were correct preservatives used? (water only)			✓	
Were pH ranges acceptable? (voa's excluded)			✓	
Were VOA samples free of headspace (< 6mm)?	✓		✓ (EE) 4-17-08	
Were samples received within EPA hold times?	✓			

Discrepancy/Comments/Other Problems

Distribution

Name of Microbac representative:	
Client/Company:	
Person Contacted:	
Date contacted:	

Resolution/other comments:

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040508
Account: 2736
Project: 2736.012
Samples: 8
Due Date: 01-MAY-2008

Samplenum	Container ID	Products
L08040508-03	448387	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Samplenum	Container ID	Products
L08040508-04	448391	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE

Samplenum	Container ID	Products
L08040508-01	448383	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 09:34	MRT	JKT
3	STORE	ORG4	A2	01-MAY-2008 11:11	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 09:34	MRT	JKT
3	STORE	ORG4	A2	01-MAY-2008 11:11	ERE	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040508
Account: 2736
Project: 2736.012
Samples: 8
Due Date: 01-MAY-2008

Samplenum	Container ID	Products
L08040508-04	448392	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	PREP	W1	EXT	18-APR-2008 06:38	CEB	JKT
3	STORE	EXT	W1	18-APR-2008 13:22	JKT	CEB
4	ANALYZ	W1	WET	21-APR-2008 08:21	TMM	JKT
5	STORE	WET	A2	22-APR-2008 09:35	ERE	DIH

Samplenum	Container ID	Products
L08040508-06	448394	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	ANALYZ	W1	WET	21-APR-2008 08:22	TMM	JKT
3	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
4	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE

Samplenum	Container ID	Products
L08040508-08	448398	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	ANALYZ	W1	WET	21-APR-2008 08:21	TMM	JKT
3	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
4	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040508
Account: 2736
Project: 2736.012
Samples: 8
Due Date: 01-MAY-2008

Samplenum	Container ID	Products
L08040508-02	448384	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Samplenum	Container ID	Products
L08040508-07	448396	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE

Samplenum	Container ID	Products
L08040508-03	448388	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040508
Account: 2736
Project: 2736.012
Samples: 8
Due Date: 01-MAY-2008

Samplenum	Container ID	Products
L08040508-04	448390	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:04	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:05	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:05	ERE	MRT

Samplenum	Container ID	Products
L08040508-03	448389	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	PREP	W1	EXT	18-APR-2008 06:38	CEB	JKT
3	STORE	EXT	W1	18-APR-2008 13:22	JKT	CEB
4	ANALYZ	W1	WET	21-APR-2008 08:21	TMM	JKT
5	STORE	WET	A2	22-APR-2008 09:35	ERE	DIH

Samplenum	Container ID	Products
L08040508-05	448393	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	ANALYZ	W1	WET	21-APR-2008 08:22	TMM	JKT
3	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
4	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040508
Account: 2736
Project: 2736.012
Samples: 8
Due Date: 01-MAY-2008

Samplenum	Container ID	Products
L08040508-02	448385	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE

Samplenum	Container ID	Products
L08040508-02	448386	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	PREP	W1	EXT	18-APR-2008 06:38	CEB	JKT
3	STORE	EXT	W1	18-APR-2008 13:22	JKT	CEB
4	ANALYZ	W1	WET	21-APR-2008 08:22	TMM	JKT
5	STORE	WET	A2	22-APR-2008 09:35	ERE	DIH

Samplenum	Container ID	Products
L08040508-07	448395	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:05	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:05	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-APR-2008 13:06	ERE	
2	ANALYZ	V1	ORG4	17-APR-2008 15:56	TMB	ERE
3	STORE	VOAY	A2	01-MAY-2008 11:05	ERE	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040508
Account: 2736
Project: 2736.012
Samples: 8
Due Date: 01-MAY-2008

Samplenum	Container ID	Products
L08040508-07	448397	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-APR-2008 13:06	ERE	
2	PREP	W1	EXT	18-APR-2008 06:39	CEB	JKT
3	STORE	EXT	W1	18-APR-2008 13:22	JKT	CEB
4	ANALYZ	W1	WET	21-APR-2008 08:21	TMM	JKT
5	STORE	WET	A2	22-APR-2008 09:35	ERE	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Quick Facts

Microbac®

Look closer. Go further. Do more.

Corporate Information:

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President & CEO: J. Trevor Boyce

Federal Tax ID#: 25-1199-642

DUNS#: 048192892

Incorporated in the State of PA -- May 1, 1969

Employees Corporate-Wide: 467

Facilities Corporate –Wide: 18 Divisions, 28 locations across 15 states

Please note these administrative changes for our Ohio Valley Division laboratory in Marietta, OH (formerly KEMRON Environmental Services, Inc.) , in particular the address, which is a revised routing of remittances on our invoices. All invoices dated April 1, 2008 or later will reflect this change, and will be highlighted with an attention-getting sticker during our transition. Please adjust your records to ensure proper routing of payments.

Microbac®

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Ohio Valley Division
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Marietta, OH 45750

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Laboratory Report Number: L08040557

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box bleow at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

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This report was reviewed on May 09, 2008.

Kathy Albertson - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories.

This report was certified on May 09, 2008.

David Vandenberg - Managing Director

Accrediting authority: Department of Environmental Protection (West Virginia) ID:037
This report contains a total of 277 pages.

Look closer. Go further. Do more.

Microbac REPORT L08040557
PREPARED FOR CH2MHILL, Inc
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L08040557

CHAIN OF CUSTODY: The chain of custody number was 82094.

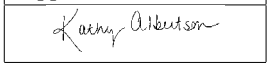
SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 0 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

L08040557-01	3034-S001-041708
L08040557-02	3034-S002-041708
L08040557-03	3034-S002-041708D
L08040557-04	3034-S003-041708
L08040557-05	TB01-041708

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 23-APR-08



2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Microbac Laboratories Inc.
GC/MS VOLATILE ORGANICS

Microbac Login No: L08040557

METHOD

Preparation: SW-846 5030B, 5035

Analysis: SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Samples collected via 5035 preserved by freezing. Sample preparation preceeded normally.

CALIBRATION

Initial Calibration: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: Vinyl acetate was below the lower control limit in the water alternate source standards analyzed 04/19/08 on HPMS-10 and 04/18/08 on HPMS-6. 2-Butanone and acetone exceeded the upper control limits and vinyl acetate was below the lower control limit in the soil alternate source analyzed 04/17/08 on HPMS-9. All other acceptance criteria were met.

Continuing Calibration and Tune: Vinyl acetate exceeded the upper control limit in the water CCV analyzed 04/29/08 on HPMS-10. Bromomethane, carbon tetrachloride, and vinyl acetate exceeded the upper control limits in the soil CCV analyzed 04/29/08 on HPMS-9. All other acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spike: The MS/MSD results were not associated with this sample delivery group (SDG), due to insufficient volume of sample. The laboratory included an LCS and LCS duplicate in the preparation batch in lieu of the NELAC prescribed MS/MSD. Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: Batch QC (MS/MSD) was not associated with the analyses of samples 01, 02, 03, 06, 08, and 09 performed 04/21/08 on HPMS-9 due to an instrument error.

Manual Integration Reason Codes

Microbac laboratory management has identified four general cases with valid reasons supporting the use of manual integration techniques.

Reason #1: Data System Fails to Select Correct Peak

In some cases the chromatography system selects and integrates the ”wrong peak”. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.

This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds.

This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline

There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous

Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CMS

Approved: 06-MAY-08

LABORATORY REPORT

L08040557

05/07/08 11:58

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3034-S001-041708	L08040557-01	8260B	1	18-APR-08
3034-S002-041708	L08040557-02	8260B	1	18-APR-08
3034-S002-041708D	L08040557-03	8260B	1	18-APR-08
3034-S003-041708	L08040557-04	8260B	50	18-APR-08
TB01-041708	L08040557-05	8260B	1	18-APR-08

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-01**
Client ID: **3034-S001-041708**
Matrix: **Soil**
Workgroup Number: **WG269776**
Collect Date: **04/17/2008 09:50**
Sample Tag: **02**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/29/2008 12:10**
Cal Date: **04/17/2008 16:47**
Run Date: **04/29/2008 12:10**
File ID: **9M61437**
Percent Solid: **84.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.48	0.548
1,1,2,2-Tetrachloroethane	79-34-5		U	5.48	0.548
1,1,2-Trichloroethane	79-00-5		U	5.48	0.548
1,1-Dichloroethane	75-34-3		U	5.48	1.10
1,1-Dichloroethene	75-35-4		U	5.48	0.548
1,2,4-Trichlorobenzene	120-82-1		U	5.48	0.548
1,2-Dichlorobenzene	95-50-1	6.18		5.48	0.548
1,2-Dichloroethane	107-06-2		U	5.48	0.548
1,2-Dichloropropane	78-87-5		U	5.48	0.548
1,3-Dichlorobenzene	541-73-1		U	5.48	0.548
1,4-Dichlorobenzene	106-46-7	10.4		5.48	0.548
1,4-Dioxane	123-91-1		U	1860	54.8
2-Butanone	78-93-3		U	27.4	2.74
2-Hexanone	591-78-6		U	11.0	2.74
4-Methyl-2-pentanone	108-10-1		U	11.0	2.74
Acetone	67-64-1		U	110	5.48
Acrylonitrile	107-13-1		U	110	2.74
Benzene	71-43-2		U	5.48	0.548
Bromodichloromethane	75-27-4		U	5.48	0.548
Bromoform	75-25-2		U	5.48	0.548
Bromomethane	74-83-9		U	11.0	1.10
Carbon disulfide	75-15-0		U	5.48	0.548
Carbon tetrachloride	56-23-5		U	5.48	0.548
Chlorobenzene	108-90-7		U	5.48	0.548
Dibromochloromethane	124-48-1		U	5.48	0.548
Chloroethane	75-00-3		U	11.0	1.10
Chloroform	67-66-3		U	5.48	0.548
Chloromethane	74-87-3		U	11.0	2.19
cis-1,2-Dichloroethene	156-59-2		U	5.48	0.548
cis-1,3-Dichloropropene	10061-01-5		U	5.48	0.548
Ethylbenzene	100-41-4		U	5.48	0.548
Methylene chloride	75-09-2		U	5.48	1.10
Methyltert-butyl ether	1634-04-4		U	11.0	0.548
Styrene	100-42-5		U	5.48	0.548
Tetrachloroethene	127-18-4		U	5.48	0.548
Toluene	108-88-3		U	5.48	0.548
trans-1,2-Dichloroethene	156-60-5		U	5.48	0.548
trans-1,3-Dichloropropene	10061-02-6		U	5.48	0.548
Trichloroethene	79-01-6		U	5.48	0.548
Vinyl acetate	108-05-4		U	11.0	1.10
Vinyl chloride	75-01-4		U	11.0	1.10
Xylenes	1330-20-7		U	11.0	0.548

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	94.9	70	121	
4-Bromofluorobenzene	92.9	59	113	
Dibromofluoromethane	100	65	135	
Toluene-d8	94.7	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-02**
Client ID: **3034-S002-041708**
Matrix: **Soil**
Workgroup Number: **WG269776**
Collect Date: **04/17/2008 10:20**
Sample Tag: **02**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/29/2008 12:42**
Cal Date: **04/17/2008 16:47**
Run Date: **04/29/2008 12:42**
File ID: **9M61438**
Percent Solid: **86.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.20	0.520
1,1,2,2-Tetrachloroethane	79-34-5		U	5.20	0.520
1,1,2-Trichloroethane	79-00-5		U	5.20	0.520
1,1-Dichloroethane	75-34-3		U	5.20	1.04
1,1-Dichloroethene	75-35-4		U	5.20	0.520
1,2,4-Trichlorobenzene	120-82-1		U	5.20	0.520
1,2-Dichlorobenzene	95-50-1		U	5.20	0.520
1,2-Dichloroethane	107-06-2		U	5.20	0.520
1,2-Dichloropropane	78-87-5		U	5.20	0.520
1,3-Dichlorobenzene	541-73-1		U	5.20	0.520
1,4-Dichlorobenzene	106-46-7		U	5.20	0.520
1,4-Dioxane	123-91-1		U	1770	52.0
2-Butanone	78-93-3		U	26.0	2.60
2-Hexanone	591-78-6		U	10.4	2.60
4-Methyl-2-pentanone	108-10-1		U	10.4	2.60
Acetone	67-64-1		U	104	5.20
Acrylonitrile	107-13-1		U	104	2.60
Benzene	71-43-2	7.28		5.20	0.520
Bromodichloromethane	75-27-4		U	5.20	0.520
Bromoform	75-25-2		U	5.20	0.520
Bromomethane	74-83-9		U	10.4	1.04
Carbon disulfide	75-15-0		U	5.20	0.520
Carbon tetrachloride	56-23-5		U	5.20	0.520
Chlorobenzene	108-90-7		U	5.20	0.520
Dibromochloromethane	124-48-1		U	5.20	0.520
Chloroethane	75-00-3		U	10.4	1.04
Chloroform	67-66-3		U	5.20	0.520
Chloromethane	74-87-3		U	10.4	2.08
cis-1,2-Dichloroethene	156-59-2	8.86		5.20	0.520
cis-1,3-Dichloropropene	10061-01-5		U	5.20	0.520
Ethylbenzene	100-41-4		U	5.20	0.520
Methylene chloride	75-09-2		U	5.20	1.04
Methyltert-butyl ether	1634-04-4		U	10.4	0.520
Styrene	100-42-5		U	5.20	0.520
Tetrachloroethene	127-18-4		U	5.20	0.520
Toluene	108-88-3		U	5.20	0.520
trans-1,2-Dichloroethene	156-60-5		U	5.20	0.520
trans-1,3-Dichloropropene	10061-02-6		U	5.20	0.520
Trichloroethene	79-01-6		U	5.20	0.520
Vinyl acetate	108-05-4		U	10.4	1.04
Vinyl chloride	75-01-4		U	10.4	1.04
Xylenes	1330-20-7		U	10.4	0.520

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	91.7	70	121	
4-Bromofluorobenzene	93.5	59	113	
Dibromofluoromethane	97.1	65	135	
Toluene-d8	92.3	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-03**
Client ID: **3034-S002-041708D**
Matrix: **Soil**
Workgroup Number: **WG269776**
Collect Date: **04/17/2008 10:25**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **04/29/2008 13:14**
Cal Date: **04/17/2008 16:47**
Run Date: **04/29/2008 13:14**
File ID: **9M61439**
Percent Solid: **85.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.63	0.563
1,1,2,2-Tetrachloroethane	79-34-5		U	5.63	0.563
1,1,2-Trichloroethane	79-00-5		U	5.63	0.563
1,1-Dichloroethane	75-34-3		U	5.63	1.13
1,1-Dichloroethene	75-35-4		U	5.63	0.563
1,2,4-Trichlorobenzene	120-82-1		U	5.63	0.563
1,2-Dichlorobenzene	95-50-1		U	5.63	0.563
1,2-Dichloroethane	107-06-2		U	5.63	0.563
1,2-Dichloropropane	78-87-5		U	5.63	0.563
1,3-Dichlorobenzene	541-73-1		U	5.63	0.563
1,4-Dichlorobenzene	106-46-7		U	5.63	0.563
1,4-Dioxane	123-91-1		U	1910	56.3
2-Butanone	78-93-3		U	28.2	2.82
2-Hexanone	591-78-6		U	11.3	2.82
4-Methyl-2-pentanone	108-10-1		U	11.3	2.82
Acetone	67-64-1		U	113	5.63
Acrylonitrile	107-13-1		U	113	2.82
Benzene	71-43-2	5.94		5.63	0.563
Bromodichloromethane	75-27-4		U	5.63	0.563
Bromoform	75-25-2		U	5.63	0.563
Bromomethane	74-83-9		U	11.3	1.13
Carbon disulfide	75-15-0		U	5.63	0.563
Carbon tetrachloride	56-23-5		U	5.63	0.563
Chlorobenzene	108-90-7		U	5.63	0.563
Dibromochloromethane	124-48-1		U	5.63	0.563
Chloroethane	75-00-3		U	11.3	1.13
Chloroform	67-66-3		U	5.63	0.563
Chloromethane	74-87-3		U	11.3	2.25
cis-1,2-Dichloroethene	156-59-2	7.45		5.63	0.563
cis-1,3-Dichloropropene	10061-01-5		U	5.63	0.563
Ethylbenzene	100-41-4		U	5.63	0.563
Methylene chloride	75-09-2		U	5.63	1.13
Methyltert-butyl ether	1634-04-4		U	11.3	0.563
Styrene	100-42-5		U	5.63	0.563
Tetrachloroethene	127-18-4		U	5.63	0.563
Toluene	108-88-3		U	5.63	0.563
trans-1,2-Dichloroethene	156-60-5		U	5.63	0.563
trans-1,3-Dichloropropene	10061-02-6		U	5.63	0.563
Trichloroethene	79-01-6		U	5.63	0.563
Vinyl acetate	108-05-4		U	11.3	1.13
Vinyl chloride	75-01-4		U	11.3	1.13
Xylenes	1330-20-7		U	11.3	0.563

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	92.7	70	121	
4-Bromofluorobenzene	90.1	59	113	
Dibromofluoromethane	97.5	65	135	
Toluene-d8	89.9	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-04**
Client ID: **3034-S003-041708**
Matrix: **Soil**
Workgroup Number: **WG269755**
Collect Date: **04/17/2008 10:35**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **CMS**
Dilution: **50**
Units: **ug/kg**

Instrument: **HPMS6**
Prep Date: **04/29/2008 15:26**
Cal Date: **04/17/2008 17:34**
Run Date: **04/29/2008 15:26**
File ID: **6M74749**
Percent Solid: **94.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	548	54.8
1,1,2,2-Tetrachloroethane	79-34-5		U	548	54.8
1,1,2-Trichloroethane	79-00-5		U	548	54.8
1,1-Dichloroethane	75-34-3		U	548	110
1,1-Dichloroethene	75-35-4		U	548	54.8
1,2,4-Trichlorobenzene	120-82-1		U	548	54.8
1,2-Dichlorobenzene	95-50-1		U	548	54.8
1,2-Dichloroethane	107-06-2		U	548	54.8
1,2-Dichloropropane	78-87-5		U	548	54.8
1,3-Dichlorobenzene	541-73-1		U	548	54.8
1,4-Dichlorobenzene	106-46-7		U	548	54.8
1,4-Dioxane	123-91-1		U	186000	5480
2-Butanone	78-93-3		U	2740	274
2-Hexanone	591-78-6		U	1100	274
4-Methyl-2-pentanone	108-10-1	2160		1100	274
Acetone	67-64-1		U	11000	548
Acrylonitrile	107-13-1		U	11000	274
Benzene	71-43-2	668		548	54.8
Bromodichloromethane	75-27-4		U	548	54.8
Bromoform	75-25-2		U	548	54.8
Bromomethane	74-83-9		U	1100	110
Carbon disulfide	75-15-0		U	548	54.8
Carbon tetrachloride	56-23-5		U	548	54.8
Chlorobenzene	108-90-7		U	548	54.8
Dibromochloromethane	124-48-1		U	548	54.8
Chloroethane	75-00-3		U	1100	110
Chloroform	67-66-3		U	548	54.8
Chloromethane	74-87-3		U	1100	219
cis-1,2-Dichloroethene	156-59-2		U	548	54.8
cis-1,3-Dichloropropene	10061-01-5		U	548	54.8
Ethylbenzene	100-41-4		U	548	54.8
Methylene chloride	75-09-2		U	548	110
Methyltert-butyl ether	1634-04-4		U	1100	54.8
Styrene	100-42-5		U	548	54.8
Tetrachloroethene	127-18-4		U	548	54.8
Toluene	108-88-3		U	548	54.8
trans-1,2-Dichloroethene	156-60-5		U	548	54.8
trans-1,3-Dichloropropene	10061-02-6		U	548	54.8
Trichloroethene	79-01-6		U	548	54.8
Vinyl acetate	108-05-4		U	1100	110
Vinyl chloride	75-01-4		U	1100	110
Xylenes	1330-20-7		U	1100	54.8

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	87.6	70	121	
4-Bromofluorobenzene	102	59	113	
Dibromofluoromethane	96.8	65	135	
Toluene-d8	90.1	86	138	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-05**
Client ID: **TB01-041708**
Matrix: **Water**
Workgroup Number: **WG269770**
Collect Date: **04/17/2008 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **04/29/2008 12:43**
Cal Date: **04/19/2008 21:04**
Run Date: **04/29/2008 12:43**
File ID: **10M64259**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	112	76	114	
4-Bromofluorobenzene	108	86	115	
Dibromofluoromethane	102	85	115	
Toluene-d8	106	88	110	

U Not detected at or above the reporting limit

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

VOA Preparation/Preservation and Extraction Log

Analyst: MRT / TMB Date Prepared/Preserved: 4-18-08 Method: 8260 / GRO

Sample #	Fraction ID	Date Collected	Time Collected	Time Preserved	Tare Wt. (g)	Total Wt. (g)	Sample Wt. (g)	Water Vol. (mL)	Methanol Vol. (mL)	Comments	Team Notified
L08040563-01	A	4-16-08	NA	NA	NA	NA	5.18	5	NA		
L08040234-02	B	4-8-08	"	"	30.869	37.40	6.53	"	"	5, 6	
" -03	"	"	"	"	30.763	36.73	5.97	"	"	"	
" -04	"	"	"	"	30.843	37.08	6.24	"	"	"	
L08040298-02	"	4-9-08	"	"	30.793	36.45	5.66	"	"	"	
L08040169-22	A	4-2-08	"	"	NA	NA	5.05	"	"		
L08040379-01	A	4-10-08	NA	NA	NA	"	5.35	5	NA	GRO	
" -02	"	"	"	"	"	"	5.01	"	"	"	
L08040552-02	A	4-17-08	0850	1345	NA	NA	5.46	5		8260, 5	
"	B	"	"	"	"	"	4.96	5	—	"	
"	C	"	"	"	"	"	5.25	—	10	"	
" -04	A	"	1110	"	"	"	5.78	5	~~10~~ NA	"	
"	B	"	"	"	"	"	5.65	5	—	"	
"	C	"	"	"	"	"	4.56	—	10	"	
" -06	A	"	1300	"	"	"	5.54	5	—	"	
"	B	"	"	"	"	"	4.59	5	—	"	
"	C	"	"	"	"	"	5.23	—	10	"	
Blank	A	"	NA	NA	"	"	5	5	—	"	
"	B	"	"	"	"	"	"	5	—	"	
"	C	"	"	"	"	"	"	—	10	"	
L08040557-01	A	4-17-08	0950	1625	NA	NA	5.87	5	—	8260, 5	
"	B	"	"	"	"	"	5.42	"	—	"	
"	C	"	"	"	"	"	5.83	~~10~~ NA	10	"	
" -02	A	"	1020	1641	"	"	5.70	5	—	"	

Comments:
1 = improperly sealed cap
2 = preserved out of hold (past 48 hours from time of collection)
3 = effervesced
4 = preserved with NaHSO4 (sodium bisulfate)
5 = preserved by freezing
6 = preserved in field

Methanol (Manufacturer, Lot #) B & J CV646

NaHSO4 (Manufacturer, Lot #) _____

Reviewed by: _____

VOA Preparation/Preservation and Extraction Log

Analyst: TMB Date Prepared/Preserved: 4/18/08 Method: 8286

Sample #	Fraction ID	Date Collected	Time Collected	Time Preserved	Tare Wt. (g)	Total Wt. (g)	Sample Wt. (g)	Water Vol. (mL)	Methanol Vol. (mL)	Comments	Team Notified
L0804055 7-02	B	4-17-08	1020	1635	NA	NA	5.53	5	—	5	
"	C	"	"	"	"	"	5.51	—	10	"	
03	A	"	1025	1640	NA	NA	5.18	5	—	"	
"	B	"	"	"	"	"	5.21	"	—	"	
"	C	"	"	"	"	"	5.44	—	10	"	
04	A	"	1045	1643	"	"	4.71	5	—	"	
"	B	"	"	"	"	"	4.71	"	—	"	
"	C	"	"	"	"	"	4.84	—	10	"	

4-21-08 mf

Comments:
1 = improperly sealed cap
2 = preserved out of hold (past 48 hours from time of collection)
3 = effervesced
4 = preserved with NaHSO4 (sodium bisulfate)
5 = preserved by freezing
6 = preserved in field

Methanol (Manufacturer, Lot #) B+J(232-1) CV646

NaHSO4 (Manufacturer, Lot #) _____

Reviewed by: _____

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 041708
Analyst1: CMS Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 624 SOP: MSV10 Rev: 9
Method: 5030B SOP: PAT01 Rev: 10
Maintenance Log ID: 23802

Internal Standard: STD25713 Surrogate Standard: STD25615
CCV: STD25741 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG268581

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M74324	WG268581-01 BFB 50ng STD 8260	NA	1	1	STD25539	04/17/08 08:37
2	6M74325	WG268581-02 0.30ug/L STD 8260	NA	1	1	STD25741	04/17/08 09:07
3	6M74326	WG268581-03 0.40ug/L STD 8260	NA	1	1	STD25741	04/17/08 09:41
4	6M74327	WG268581-04 1ug/L STD 8260	NA	1	1	STD25741	04/17/08 10:14
5	6M74328	WG268581-05 2ug/L STD 8260	NA	1	1	STD25741	04/17/08 10:47
6	6M74329	WG268581-06 5ug/L STD 8260	NA	1	1	STD25741	04/17/08 11:22
7	6M74330	WG268581-07 20ug/L STD 8260	NA	1	1	STD25741	04/17/08 11:55
8	6M74331	WG268581-08 50ug/L STD 8260	NA	1	1	STD25741	04/17/08 12:30
9	6M74332	WG268581-09 100ug/L STD 8260	NA	1	1	STD25741	04/17/08 13:03
10	6M74333	WG268581-10 200ug/L STD 8260	NA	1	1	STD25741	04/17/08 13:36
11	6M74334	WG268581-11 300ug/L STD 8260	NA	1	1	STD25741	04/17/08 14:09
12	6M74335	SYSTEM BLANK	NA	1	1		04/17/08 14:49
13	6M74336	SYSTEM BLANK	NA	1	1		04/17/08 15:22
14	6M74337	WG268581-05 2ug/L STD 8260	NA	1	1	STD25741	04/17/08 15:55
15	6M74338	WG268581-05 2ug/L STD 8260	NA	1	1	STD25741	04/17/08 16:28
16	6M74339	WG268581-04 1ug/L STD 8260	NA	1	1	STD25741	04/17/08 17:01
17	6M74340	WG268581-03 0.40ug/L STD 8260	NA	1	1	STD25741	04/17/08 17:34
18	6M74341	WG268581-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25665	04/17/08 18:08

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X			
File ID: 6M74326				
	DNR			
4	X			
File ID: 6M74327				
	DNR			
5	X			
File ID: 6M74328				
	DNR			
18	X			
File ID: 6M74341				
	DNR			

Approved: April 23, 2008

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 041708
Analyst1: CMS Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23774

Internal Standard: STD25538 Surrogate Standard: STD25548
CCV: STD25741 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG268631

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61189	BFB STD CHK	NA	7	1	STD25539	04/17/08 07:18
2	9M61190	BFB STD CHK	NA	7	1	STD25539	04/17/08 07:37
3	9M61191	BFB STD CHK	NA	7	1	STD25539	04/17/08 08:41
4	9M61192	BFB STD CHK	NA	7	1	STD25539	04/17/08 09:08
5	9M61193	BFB STD CHK	NA	7	1	STD25539	04/17/08 09:19
6	9M61194	BFB STD CHK	NA	7	1	STD25539	04/17/08 09:56
7	9M61195	STD	NA	7	1		04/17/08 10:28
8	9M61196	BLANK 1365	NA	7	1		04/17/08 11:03
9	9M61197	BFB STD CHK	NA	7	1	STD25539	04/17/08 11:31
10	9M61198	BFB STD CHK	NA	7	1	STD25539	04/17/08 11:47
11	9M61199	WG268631-01 BFB 50ng STD 8260	NA	7	1	STD25539	04/17/08 12:08
12	9M61200	WG268631-02 0.50ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 12:34
13	9M61201	WG268631-03 1ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 13:06
14	9M61202	WG268631-04 2ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 13:39
15	9M61203	WG268631-05 5ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 14:10
16	9M61204	WG268631-06 20ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 14:41
17	9M61205	WG268631-07 50ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 15:12
18	9M61206	WG268631-08 100ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 15:43
19	9M61207	WG268631-09 200ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 16:14
20	9M61208	WG268631-10 300ug/Kg SOIL STD 8260	NA	7	1	STD25741	04/17/08 16:47
21	9M61209	SYSTEM BLANK	NA	7	1		04/17/08 17:17
22	9M61210	SYSTEM BLANK	NA	7	1		04/17/08 17:49
23	9M61211	WG268631-11 20ug/Kg ALT SRC STD 826	NA	7	1	STD25665	04/17/08 18:20

Approved: April 21, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 041808
Analyst1: ASP Analyst2: CMS
Method: 5030B SOP: MSV01 Rev: 10
Method: 8260B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV01 Rev: 9
Maintenance Log ID: 23806

Internal Standard: STD25713 Surrogate Standard: STD25615
CCV: STD25741 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG268745, WG268581

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M74343	WG268744-01 BFB 50ng STD 8260	NA	1	1	STD25539	04/18/08 10:29
2	6M74344	WG268744-01 BFB 50ng STD 8260	NA	1	1	STD25539	04/18/08 10:46
3	6M74345	WG268744-01 BFB 50ng STD 8260	NA	1	1	STD25539	04/18/08 11:14
4	6M74346	WG268744-01 BFB 50ng STD 8260	NA	1	1	STD25539	04/18/08 11:41
5	6M74347	WG268744-02 50ug/L STD 8260	NA	1	1	STD25741	04/18/08 12:10
6	6M74348	WG268745-01 VBLK0418 BLANK 8260	NA	1	1		04/18/08 12:49
7	6M74349	WG268745-01 VBLK0418 BLANK 8260	NA	1	1		04/18/08 13:22
8	6M74350	WG268581-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25665	04/18/08 13:55
9	6M74351	WG268745-02 20ug/L LCS STD 8260	NA	1	1	STD25665	04/18/08 14:28
10	6M74352	WG268745-03 20ug/L LCSDUP STD 8260	NA	1	1	STD25665	04/18/08 15:01
11	6M74353	L08040217-08 A 8260	<2	1	1		04/18/08 15:35
12	6M74354	L08040217-06 A 8260	<2	1	1		04/18/08 16:08
13	6M74355	L08040222-05 A 8260	<2	1	1		04/18/08 16:41
14	6M74356	L08040217-01 A 50X 8260	<2	1	50		04/18/08 17:14
15	6M74357	L08040217-03 A 50X 8260	<2	1	50		04/18/08 17:47
16	6M74358	L08040217-04 A 50X 8260	<2	1	50		04/18/08 18:21
17	6M74359	L08040217-05 A 50X 8260	<2	1	50		04/18/08 18:54
18	6M74360	L08040217-07 A 50X 8260	<2	1	50		04/18/08 19:27
19	6M74361	L08040222-01 A 50X 8260	<2	1	50		04/18/08 20:00
20	6M74362	L08040222-02 A 50X 8260	7	1	50		04/18/08 20:33
21	6M74363	L08040222-03 A 50X 8260	<2	1	50		04/18/08 21:07
22	6M74364	L08040222-04 A 50X 8260	<2	1	50		04/18/08 21:40
23	6M74365	L08040222-06 A 50X 8260	<2	1	50		04/18/08 22:13
24	6M74366	L08040222-08 A 50X 8260	<2	1	50		04/18/08 22:46
25	6M74367	L08040222-10 A 50X 8260	<2	1	50		04/18/08 23:20
26	6M74368	SYSTEM CHECK	NA	1	1		04/18/08 23:53
27	6M74369	SYSTEM CHECK	NA	1	1		04/19/08 00:26

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
File ID: 6M74344				
	Replaced septa.			

Approved: April 23, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 041808
Analyst1: ASP Analyst2: CMS
Method: 5030B SOP: MSV01 Rev: 10
Method: 8260B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV01 Rev: 9
Maintenance Log ID: 23806

Internal Standard: STD25713 Surrogate Standard: STD25615
CCV: STD25741 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG268745, WG268581

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3				
File ID: 6M74345				
Calibrated mass axis and peak width.				
6	X			
File ID: 6M74348				
14	X	1	Analyzed too dilute	
File ID: 6M74356				
15	X	1	Analyzed too dilute	
File ID: 6M74357				
16	X	1	Analyzed too dilute	
File ID: 6M74358				
17	X	1	Analyzed too dilute	
File ID: 6M74359				
19	X	1	Analyzed too dilute	
File ID: 6M74361				
20	X	1	Analyzed too dilute	
File ID: 6M74362				
21	X	1	Analyzed too dilute	
File ID: 6M74363				
22	X	1	Analyzed too dilute	
File ID: 6M74364				
23	X	1	Analyzed too dilute	
File ID: 6M74365				
24	X	1	Analyzed too dilute	
File ID: 6M74366				

Approved: April 23, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 041808
Analyst1: ASP Analyst2: CMS
Method: 5030B SOP: MSV01 Rev: 10
Method: 8260B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV01 Rev: 9
Maintenance Log ID: 23806

Internal Standard: STD25713 Surrogate Standard: STD25615
CCV: STD25741 LCS: STD25665 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG268745, WG268581

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
25	X	1	Analyzed too dilute	
File ID: 6M74367				

Approved: April 23, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 041908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23850

Internal Standard: STD25257 Surrogate Standard: STD25620
CCV: STD25836 LCS: STD25838 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG268868

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M63973	SYSTEM BLANK	NA	1	1		04/19/08 09:48
2	10M63974	SYSTEM BLANK	NA	1	1		04/19/08 10:21
3	10M63975	SYSTEM BLANK 2129	NA	1	1		04/19/08 11:10
4	10M63976	WG268868-01 50ng BFB STD 8260	NA	1	1	STD25539	04/19/08 13:16
5	10M63977	CCV 1-4 DIOX CHECK	NA	1	1	STD25681	04/19/08 13:43
6	10M63978	SYSTEM BLANK	NA	1	1		04/19/08 14:16
7	10M63979	SYSTEM BLANK	NA	1	1		04/19/08 14:49
8	10M63980	SYSTEM BLANK	NA	1	1		04/19/08 15:35
9	10M63981	WG268868-02 0.3ug/L STD 8260	NA	1	1	STD25836	04/19/08 16:10
10	10M63982	WG268868-03 0.4ug/L STD 8260	NA	1	1	STD25836	04/19/08 16:43
11	10M63983	WG268868-04 1ug/L STD 8260	NA	1	1	STD25836	04/19/08 17:16
12	10M63984	WG268868-05 2ug/L STD 8260	NA	1	1	STD25836	04/19/08 17:48
13	10M63985	WG268868-06 5ug/L STD 8260	NA	1	1	STD25836	04/19/08 18:21
14	10M63986	WG268868-07 20ug/L STD 8260	NA	1	1	STD25836	04/19/08 18:54
15	10M63987	WG268868-08 50ug/L STD 8260	NA	1	1	STD25836	04/19/08 19:26
16	10M63988	WG268868-09 100ug/L STD 8260	NA	1	1	STD25836	04/19/08 19:59
17	10M63989	WG268868-10 200ug/L STD 8260	NA	1	1	STD25836	04/19/08 20:31
18	10M63990	WG268868-11 300ug/L STD 8260	NA	1	1	STD25836	04/19/08 21:04
19	10M63991	SYSTEM BLANK	NA	1	1		04/19/08 21:38
20	10M63992	SYSTEM BLANK	NA	1	1		04/19/08 22:12
21	10M63993	WG268868-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25838	04/19/08 22:47

Approved: April 25, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 042908
Analyst1: CMS Analyst2: ASP
Method: 5030B SOP: MSV01 Rev: 10
Method: 8260B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV01 Rev: 9
Maintenance Log ID: 23968

Internal Standard: STD25965 Surrogate Standard: STD25615
CCV: STD25998 LCS: STD25940 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG269755

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M74735	WG269754-01 50ng BFB STD 8260	NA	1	1	STD25539	04/29/08 07:16
2	6M74736	WG269754-01 50ng BFB STD 8260	NA	1	1	STD25539	04/29/08 07:31
3	6M74737	WG269754-02 50ug/L STD 8260	NA	1	1	STD25998	04/29/08 08:04
4	6M74738	WG269755-01 EXT BLK 100X 8260 5g/10m	NA	7	50		04/29/08 08:37
5	6M74739	WG269787-01 VBLK0429 BLANK 8260	NA	1	1		04/29/08 09:11
6	6M74740	WG269755-02 EXT LCS 100X 8260 5g/10m	NA	7	50		04/29/08 09:44
7	6M74741	L08040386-01 500000X 826-TC	NA	17	50000		04/29/08 10:43
8	6M74742	L08040386-02 5000000X 826-TC	NA	17	500000		04/29/08 11:17
9	6M74743	L08040386-03 500000X 826-TC	NA	17	50000		04/29/08 11:50
10	6M74744	L08040580-01 C 100X 826--SPE	NA	7	50		04/29/08 12:33
11	6M74745	L08040593-06 C 100X 826--SPE	NA	7	50		04/29/08 13:09
12	6M74746	WG269755-03 L08040593-09 REF	NA	7	50		04/29/08 13:42
13	6M74747	WG269755-04 L08040593-10 MS C	NA	7	50		04/29/08 14:16
14	6M74748	WG269755-05 L08040593-11 MSD C	NA	7	50		04/29/08 14:49
15	6M74749	L08040557-04 C 100X 826-SPE	NA	7	50		04/29/08 15:26
16	6M74750	L08040386-03 500X 826-TC	NA	17	50		04/29/08 15:59
17	6M74751	L08040386-02 1000000X 826-TC	NA	17	100000		04/29/08 16:32
18	6M74752	L08040386-01 20000X 826-TC	NA	17	2000		04/29/08 17:06
19	6M74753	L08040557-04 C 100X 826-SPE	NA	7	50		04/29/08 17:39
20	6M74754	L08040791-02 500000X 826-SPE	NA	11	50000		04/29/08 18:13
21	6M74755	L08040791-03 500000X 826-SPE	NA	11	50000		04/29/08 18:47
22	6M74756	L08040791-04 500000X 826-SPE	NA	11	50000		04/29/08 19:20
23	6M74757	L08040791-01 500000X 826-SPE	NA	11	50000		04/29/08 19:54
24	6M74758	SYSTEM BLANK	NA	1	1		04/29/08 20:27
25	6M74759	SYSTEM BLANK	NA	1	1		04/29/08 21:00
26	6M74760	SYSTEM CHECK	NA	1	1		04/29/08 21:33
27	6M74761	SYSTEM CHECK	NA	1	1		04/29/08 22:06

Comments

Seq.	Rerun	Dil.	Reason	Analytes
5				
File ID: 6M74739				
	DNR			

Approved: May 05, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 042908
Analyst1: CMS Analyst2: ASP
Method: 5030B SOP: MSV01 Rev: 10
Method: 8260B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV01 Rev: 9
Maintenance Log ID: 23968

Internal Standard: STD25965 Surrogate Standard: STD25615
CCV: STD25998 LCS: STD25940 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG269755

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
7	X	20000	Analyzed too dilute	
File ID: 6M74741				
	DNR			
8	X	1000000	Analyzed too dilute	
File ID: 6M74742				
	DNR			
9	X	500	Analyzed too dilute	
File ID: 6M74743				
	DNR			
12	X			
File ID: 6M74746				
	RR LOW LEVEL			
13	X			
File ID: 6M74747				
	RR LOW LEVEL			
14	X			
File ID: 6M74748				
	RR LOW LEVEL			
15	X			
File ID: 6M74749				
	RR compound confirmation			
19				
File ID: 6M74753				
	A1			
20	X	500	Analyzed too dilute	
File ID: 6M74754				
	DNR			
21	X	100000	Analyzed too dilute	
File ID: 6M74755				
	DNR			
22	X	500	Analyzed too dilute	
File ID: 6M74756				
	DNR			
23	X	100000	Analyzed too dilute	
File ID: 6M74757				
	DNR			

Approved: May 05, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 042908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID:

Internal Standard: NA Surrogate Standard: NA
CCV: NA LCS: NA MS/MSD: NA

Column 1 ID: Column 2 ID: NA
Workgroups: WG269770

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M64251	WG269769-01 50ng BFB STD 8260	NA	1	1	STD25539	04/29/08 08:25
2	10M64252	WG269769-02 50ug/L CCV STD 8260	NA	1	1	STD25998	04/29/08 08:50
3	10M64253	WG269770-01 VBLK0429 BLANK STD 826	NA	1	1		04/29/08 09:24
4	10M64254	WG269770-01 VBLK0429 BLANK STD 826	NA	1	1		04/29/08 09:57
5	10M64255	WG269770-02 20ug/L LCS STD 8260	NA	1	1	STD25940	04/29/08 10:30
6	10M64256	L08040485-04 C 00 250X 826-SPE	NA	1	250		04/29/08 11:03
7	10M64257	L08040582-05 B D1 5X 826-SPE	<2	1	5		04/29/08 11:35
8	10M64258	L08040614-06 A 826-SPE	<2	1	1		04/29/08 12:09
9	10M64259	L08040557-05 B 826-SPE	<2	1	1		04/29/08 12:43
10	10M64260	L08040582-06 B 826-SPE	<2	1	1		04/29/08 13:15
11	10M64261	L08040409-10 B 826-SPE	<2	1	1		04/29/08 13:48
12	10M64262	L08040523-01 A 826-SPE	<2	1	1		04/29/08 14:21
13	10M64263	L08040555-01 B 826-LOW	<2	1	1		04/29/08 14:54
14	10M64264	L08040581-05 A 826-SPLP	NA	18	1		04/29/08 15:27
15	10M64265	L08040581-07 A MS 826-SPLP	NA	18	1	STD25940	04/29/08 16:01
16	10M64266	L08040581-09 A MSD 826-SPLP	NA	18	1	STD25940	04/29/08 16:35
17	10M64267	L08040581-13 A 826-SPLP	NA	18	1		04/29/08 17:08
18	10M64268	L08040614-01 A 10X 826-SPE	<2	1	10		04/29/08 17:42
19	10M64269	L08040614-02 A 10X 826-SPE	<2	1	10		04/29/08 18:17
20	10M64270	L08040614-03 A 10X 826-SPE	<2	1	10		04/29/08 18:50
21	10M64271	L08040614-04 A 10X 826-SPE	<2	1	10		04/29/08 19:24
22	10M64272	L08040614-05 A 10X 826-SPE	7	1	10		04/29/08 19:57
23	10M64273	SYSTEM BLANK	NA	1	1		04/29/08 20:31
24	10M64274	WG269770-06 624 BLANK	NA	2	1		04/29/08 21:05
25	10M64275	L08040789-01 A 624	7	2	1		04/29/08 21:38

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X	1	Carry-over contamination	
File ID: 10M64253				
	DNR			
11	X	5	Over Calibration Range	1122-TCA
File ID: 10M64261				

Approved: May 05, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 042908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID:

Internal Standard: NA Surrogate Standard: NA
CCV: NA LCS: NA MS/MSD: NA

Column 1 ID: Column 2 ID: NA
Workgroups: WG269770

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
22	X	10	Surrogate standard failure	
File ID: 10M64272				
25				
File ID: 10M64275				
			Got cancelled. Logged under the wrong test code. DNR.	

Approved: May 05, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 042908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23922

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD25940 MS/MSD: STD25940

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269776

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61428	SYSTEM BLANK	NA	7	1		04/29/08 07:27
2	9M61429	SYSTEM BLANK	NA	7	1		04/29/08 07:59
3	9M61430	WG269774-01 50ng BFB STD 8260	NA	7	1	STD25539	04/29/08 08:35
4	9M61431	WG269774-02 50ug/Kg SOIL STD 8260	NA	7	1	STD25998	04/29/08 09:01
5	9M61432	WG269776-01 VBLK0429 BLANK STD 826	NA	7	1		04/29/08 09:32
6	9M61433	WG269776-02 20ug/Kg LCS STD 8260	NA	7	1	STD25940	04/29/08 10:04
7	9M61434	WG269776-03 20ug/Kg LCSDUP STD 826	NA	7	1	STD25940	04/29/08 10:35
8	9M61435	L08040508-03 B 826-SPE	NA	7	1		04/29/08 11:07
9	9M61436	L08040552-06 B 826-SPE	NA	7	1		04/29/08 11:39
10	9M61437	L08040557-01 B 826-SPE	NA	7	1		04/29/08 12:10
11	9M61438	L08040557-02 B 826-SPE	NA	7	1		04/29/08 12:42
12	9M61439	L08040557-03 A 826-SPE	NA	7	1		04/29/08 13:14
13	9M61440	L08040524-19 B 826-SPE	NA	7	1		04/29/08 13:46
14	9M61441	L08040593-01 A 826-SPE	NA	7	1		04/29/08 14:18
15	9M61442	L08040593-03 A 826-SPE	NA	7	1		04/29/08 14:50
16	9M61443	L08040593-04 A 826-SPE	NA	7	1		04/29/08 15:22
17	9M61444	L08040593-07 A 826-SPE	NA	7	1		04/29/08 15:53
18	9M61445	L08040593-15 A 826-SPE	NA	7	1		04/29/08 16:25
19	9M61446	L08040593-17 A 826-SPE	NA	7	1		04/29/08 16:56
20	9M61447	L08040616-01 8260	NA	10	1		04/29/08 17:28
21	9M61448	L08040593-09 A 826-SPE	NA	7	1		04/29/08 17:59
22	9M61449	L08040593-10 A MS 826-SPE	NA	7	1	STD25940	04/29/08 18:30
23	9M61450	L08040593-11 A MSD 826-SPE	NA	7	1	STD25940	04/29/08 19:01
24	9M61451	SYSTEM BLANK	NA	7	1		04/29/08 19:32
25	9M61452	SYSTEM BLANK	NA	7	1		04/29/08 20:04
26	9M61453	SYSTEM BLANK	NA	7	1		04/29/08 20:35
27	9M61454	SYSTEM BLANK	NA	7	1		04/29/08 21:06

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
File ID: 9M61428				
	DNR			

Approved: May 01, 2008

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 042908
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 23922

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD25940 MS/MSD: STD25940

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269776

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
File ID: 9M61429				
	DNR.			
15	X	1		
File ID: 9M61442				
	Vial leaked. Do not report.			

Approved: May 01, 2008

Microbac Laboratories Inc.

Data Checklist

Date: 17-APR-2008
Analyst: CMS
Analyst: NA
Method: 8260B/624
Instrument: HPMS6
Curve Workgroup: NA
Runlog ID: 21761
Analytical Workgroups: WG268581

System Performance Check	X
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	NA
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	NA
TCL's	NA
Surrogates	NA
LCS (Laboratory Control Sample)	NA
Recoveries	NA
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	NA
TCL Hits	NA
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Library Searches	NA
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	NA
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
22-APR-2008

Secondary Reviewer:
23-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-23-2008 09:57:54

Microbac Laboratories Inc.

Data Checklist

Date: 17-APR-2008
Analyst: CMS
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 21725
Analytical Workgroups: WG268631

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	BA
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
21-APR-2008
Tiffany Bailey

Secondary Reviewer:
21-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-21-2008 16:00:56

Microbac Laboratories Inc.

Data Checklist

Date: 18-APR-2008
Analyst: ASP
Analyst: CMS
Method: 8260B
Instrument: HPMS6
Curve Workgroup: NA
Runlog ID: 21767
Analytical Workgroups: WG268745

System Performance Check	X
BFB	X
Initial Calibration	NA
Average RF	NA
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
23-APR-2008

Secondary Reviewer:
23-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-23-2008 09:58:36

Microbac Laboratories Inc.

Data Checklist

Date: 19-APR-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 21820
Analytical Workgroups: WG268868

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
24-APR-2008
Tiffany Bailey

Secondary Reviewer:
25-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-25-2008 13:30:49

Microbac Laboratories Inc.

Data Checklist

Date: 29-APR-2008
Analyst: CMS
Analyst: ASP
Method: 8260B
Instrument: HPMS6
Curve Workgroup: NA
Runlog ID: 21970
Analytical Workgroups: WG2269755

System Performance Check	X
BFB	X
Initial Calibration	NA
Average RF	NA
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	NA
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
05-MAY-2008

Secondary Reviewer:
05-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-05-2008 08:07:54

Microbac Laboratories Inc.

Data Checklist

Date: 29-APR-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 21927
Analytical Workgroups: WG269770

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
02-MAY-2008
Tiffany Bailey

Secondary Reviewer:
05-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-05-2008 08:02:54

Microbac Laboratories Inc.

Data Checklist

Date: 29-APR-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 21917
Analytical Workgroups: WG269776

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
30-APR-2008
Tiffany Bailey

Secondary Reviewer:
01-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-01-2008 08:33:26

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG269755

Login Number: L08040557

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3034-S003-041708	04/17/08	04/18/08	04/29/08	14	12.2	04/29/08	14	12.2	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**

***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1086687
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG269776

Login Number: L08040557

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3034-S001-041708	04/17/08	04/18/08	04/29/08	14	12.1	04/29/08	14	12.1	
3034-S002-041708D	04/17/08	04/18/08	04/29/08	14	12.1	04/29/08	14	12.1	
3034-S002-041708	04/17/08	04/18/08	04/29/08	14	12.1	04/29/08	14	12.1	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**

***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1086687
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG269770

Login Number: L08040557

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
TB01-041708	04/17/08	04/18/08	04/29/08	14	12.5	04/29/08	14	12.5	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1086687
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040557
Instrument Id: HPMS6
Workgroup (AAB#): WG269755

Method: 8260
CAL ID: HPMS6-17-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08040557-04	50.0	DL01	87.6	96.8	102	90.1
WG269755-01	50.0	DL01	86.4	98.9	104	91.5
WG269755-02	50.0	DL01	87.7	94.3	102	93.5

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1086694
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040557
Instrument Id: HPMS10
Workgroup (AAB#): WG269770

Method: 8260
CAL ID: HPMS10-19-APR-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08040557-05	1.00	01	112	102	108	106
WG269770-01	1.00	01	110	103	109	107
WG269770-02	1.00	01	110	101	104	105

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	76	-	114
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1086694
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040557
Instrument Id: HPMS9
Workgroup (AAB#): WG269776

Method: 8260
CAL ID: HPMS9-17-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08040557-01	1.00	02	94.9	100	92.9	94.7
L08040557-02	1.00	02	91.7	97.1	93.5	92.3
L08040557-03	1.00	01	92.7	97.5	90.1	89.9
WG269776-01	1.00	01	98.6	101	91.0	92.8
WG269776-02	1.00	01	89.0	93.9	87.4	88.2
WG269776-03	1.00	01	96.9	100	92.8	95.8

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1086694
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L08040557	Work Group:	WG269770
Blank File ID:	10M64254	Blank Sample ID:	WG269770-01
Prep Date:	04/29/08 09:57	Instrument ID:	HPMS10
Analyzed Date:	04/29/08 09:57	Method:	8260B
Analyst:	TMB		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269770-02	10M64255	04/29/08 10:30	01
TB01-041708	L08040557-05	10M64259	04/29/08 12:43	01

Report Name: BLANK_SUMMARY
PDF File ID: 1086688
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040557
Work Group: WG269755
Blank File ID: 6M74738
Blank Sample ID: WG269755-01
Prep Date: 04/29/08 08:37
Instrument ID: HPMS6
Analyzed Date: 04/29/08 08:37
Method: 8260B
Analyst: CMS

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269755-02	6M74740	04/29/08 09:44	DL01
3034-S003-041708	L08040557-04	6M74749	04/29/08 15:26	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1086688
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040557
Work Group: WG269776
Blank File ID: 9M61432
Blank Sample ID: WG269776-01
Prep Date: 04/29/08 09:32
Instrument ID: HPMS9
Analyzed Date: 04/29/08 09:32
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269776-02	9M61433	04/29/08 10:04	01
LCS2	WG269776-03	9M61434	04/29/08 10:35	01
3034-S001-041708	L08040557-01	9M61437	04/29/08 12:10	02
3034-S002-041708	L08040557-02	9M61438	04/29/08 12:42	02
3034-S002-041708D	L08040557-03	9M61439	04/29/08 13:14	01

Report Name: BLANK_SUMMARY
PDF File ID: 1086688
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/29/08 09:57 Sample ID:WG269770-01
Instrument ID:HPMS10 Run Date:04/29/08 09:57 Prep Method:5030B
File ID:10M64254 Analyst:TMB Method:8260B
Workgroup (AAB#):WG269770 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS10-19-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	1.00	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	1.00	1	U
1,1,2-Trichloroethane	0.250	1.00	1.00	1	U
1,1-Dichloroethane	0.125	1.00	1.00	1	U
1,1-Dichloroethene	0.500	1.00	1.00	1	U
1,2,4-Trichlorobenzene	0.200	1.00	1.00	1	U
1,2-Dichlorobenzene	0.125	1.00	1.00	1	U
1,2-Dichloroethane	0.250	1.00	1.00	1	U
1,2-Dichloropropane	0.200	1.00	1.00	1	U
1,3-Dichlorobenzene	0.250	1.00	1.00	1	U
1,4-Dichlorobenzene	0.125	1.00	1.00	1	U
1,4-Dioxane	50.0	100	100	1	U
2-Butanone	2.50	10.0	10.0	1	U
2-Hexanone	2.50	5.00	5.00	1	U
4-Methyl-2-pentanone	2.50	5.00	5.00	1	U
Acetone	2.50	25.0	25.0	1	U
Acrylonitrile	2.50	10.0	10.0	1	U
Benzene	0.125	1.00	1.00	1	U
Bromodichloromethane	0.250	1.00	1.00	1	U
Bromoform	0.500	1.00	1.00	1	U
Bromomethane	0.500	1.00	1.00	1	U
Carbon disulfide	0.500	1.00	1.00	1	U
Carbon tetrachloride	0.250	1.00	1.00	1	U
Chlorobenzene	0.125	1.00	1.00	1	U
Chlorodibromomethane	0.250	1.00	1.00	1	U
Chloroethane	0.500	1.00	1.00	1	U
Chloroform	0.125	1.00	1.00	1	U
Chloromethane	0.250	1.00	1.00	1	U
cis-1,2-Dichloroethene	0.250	1.00	1.00	1	U
cis-1,3-Dichloropropene	0.250	1.00	1.00	1	U
Ethylbenzene	0.250	1.00	1.00	1	U
Methyl t-butyl ether (MTBE)	0.500	5.00	5.00	1	U
Methylene chloride	0.250	5.00	5.00	1	U
Styrene	0.125	1.00	1.00	1	U
Tetrachloroethene	0.250	1.00	1.00	1	U
Toluene	0.250	1.00	1.00	1	U
trans-1,2-Dichloroethene	0.250	1.00	1.00	1	U
trans-1,3-Dichloropropene	0.500	1.00	1.00	1	U
Trichloroethene	0.250	1.00	1.00	1	U
Vinyl acetate	2.50	10.0	10.0	1	U
Vinyl chloride	0.250	1.00	1.00	1	U
Xylenes	0.500	5.00	5.00	1	U

Report Name:BLANK
PDF ID: 1086689
06-MAY-2008 12:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/29/08 09:57 Sample ID:WG269770-01
Instrument ID:HPMS10 Run Date:04/29/08 09:57 Prep Method:5030B
File ID:10M64254 Analyst:TMB Method:8260B
Workgroup (AAB#):WG269770 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS10-19-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	110	76 - 114	PASS
4-Bromofluorobenzene	109	86 - 115	PASS
Dibromofluoromethane	103	85 - 115	PASS
Toluene-d8	107	88 - 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1086689
06-MAY-2008 12:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/29/08 08:37 Sample ID:WG269755-01
Instrument ID:HPMS6 Run Date:04/29/08 08:37 Prep Method:5030B
File ID:6M74738 Analyst:CMS Method:8260B
Workgroup (AAB#):WG269755 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS6-17-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	50.0	500	500	50	U
1,1,2,2-Tetrachloroethane	50.0	500	500	50	U
1,1,2-Trichloroethane	50.0	500	500	50	U
1,1-Dichloroethane	100	500	500	50	U
1,1-Dichloroethene	50.0	500	500	50	U
1,2,4-Trichlorobenzene	50.0	500	500	50	U
1,2-Dichlorobenzene	50.0	500	500	50	U
1,2-Dichloroethane	50.0	500	500	50	U
1,2-Dichloropropane	50.0	500	500	50	U
1,3-Dichlorobenzene	50.0	500	500	50	U
1,4-Dichlorobenzene	50.0	500	500	50	U
1,4-Dioxane	5000	170000	170000	50	U
2-Butanone	250	2500	2500	50	U
2-Hexanone	250	1000	1000	50	U
4-Methyl-2-pentanone	250	1000	1000	50	U
Acetone	500	10000	10000	50	U
Acrylonitrile	250	10000	10000	50	U
Benzene	50.0	500	500	50	U
Bromodichloromethane	50.0	500	500	50	U
Bromoform	50.0	500	500	50	U
Bromomethane	100	1000	1000	50	U
Carbon disulfide	50.0	500	500	50	U
Carbon tetrachloride	50.0	500	500	50	U
Chlorobenzene	50.0	500	500	50	U
Dibromochloromethane	50.0	500	500	50	U
Chloroethane	100	1000	1000	50	U
Chloroform	50.0	500	500	50	U
Chloromethane	200	1000	1000	50	U
cis-1,2-Dichloroethene	50.0	500	500	50	U
cis-1,3-Dichloropropene	50.0	500	500	50	U
Ethylbenzene	50.0	500	500	50	U
Methylene chloride	100	500	500	50	U
Methyltert-butyl ether	50.0	1000	1000	50	U
Styrene	50.0	500	500	50	U
Tetrachloroethene	50.0	500	500	50	U
Toluene	50.0	500	500	50	U
trans-1,2-Dichloroethene	50.0	500	500	50	U
trans-1,3-Dichloropropene	50.0	500	500	50	U
Trichloroethene	50.0	500	500	50	U
Vinyl acetate	100	1000	1000	50	U
Vinyl chloride	100	1000	1000	50	U
Xylenes	50.0	1000	1000	50	U

Report Name:BLANK
PDF ID: 1086689
06-MAY-2008 12:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08040557 Prep Date: 04/29/08 08:37 Sample ID: WG269755-01
Instrument ID: HPMS6 Run Date: 04/29/08 08:37 Prep Method: 5030B
File ID: 6M74738 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG269755 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS6-17-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	86.4	70 - 121	PASS
4-Bromofluorobenzene	104	59 - 113	PASS
Dibromofluoromethane	98.9	65 - 135	PASS
Toluene-d8	91.5	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1086689
06-MAY-2008 12:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/29/08 09:32 Sample ID:WG269776-01
Instrument ID:HPMS9 Run Date:04/29/08 09:32 Prep Method:5030B
File ID:9M61432 Analyst:TMB Method:8260B
Workgroup (AAB#):WG269776 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS9-17-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
PDF ID: 1086689
06-MAY-2008 12:58

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08040557 Prep Date: 04/29/08 09:32 Sample ID: WG269776-01
Instrument ID: HPMS9 Run Date: 04/29/08 09:32 Prep Method: 5030B
File ID: 9M61432 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269776 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-17-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	98.6	70 - 121	PASS
4-Bromofluorobenzene	91.0	59 - 113	PASS
Dibromofluoromethane	101	65 - 135	PASS
Toluene-d8	92.8	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1086689
06-MAY-2008 12:58

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269770-02
Instrument ID: HPMS10 Run Time: 10:30 Prep Method: 5030B
File ID: 10M64255 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269770 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS10-19-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	21.5	107	67 - 132	
1,1,2,2-Tetrachloroethane	20.0	23.0	115	63 - 128	
1,1,2-Trichloroethane	20.0	23.2	116	70 - 125	
1,1-Dichloroethane	20.0	20.0	100	67 - 133	
1,1-Dichloroethene	20.0	18.3	91.6	68 - 130	
1,2,4-Trichlorobenzene	20.0	21.8	109	65 - 134	
1,2-Dichlorobenzene	20.0	22.2	111	71 - 122	
1,2-Dichloroethane	20.0	22.3	112	69 - 132	
1,2-Dichloropropane	20.0	19.2	96.0	75 - 125	
1,3-Dichlorobenzene	20.0	21.4	107	75 - 124	
1,4-Dichlorobenzene	20.0	21.3	106	74 - 123	
1,4-Dioxane	200	183	91.5	70 - 130	
2-Butanone	20.0	25.1	126	49 - 136	
2-Hexanone	20.0	24.5	122	65 - 135	
4-Methyl-2-pentanone	20.0	20.2	101	58 - 134	
Acetone	20.0	25.1	126	30 - 135	
Acrylonitrile	20.0	21.6	108	60 - 135	
Benzene	20.0	18.5	92.4	81 - 122	
Bromodichloromethane	20.0	22.1	110	76 - 121	
Bromoform	20.0	20.5	103	69 - 128	
Bromomethane	20.0	18.7	93.5	53 - 141	
Carbon disulfide	20.0	16.8	83.8	70 - 130	
Carbon tetrachloride	20.0	21.8	109	66 - 138	
Chlorobenzene	20.0	20.4	102	81 - 122	
Chlorodibromomethane	20.0	23.9	119	66 - 133	
Chloroethane	20.0	17.7	88.7	58 - 133	
Chloroform	20.0	20.7	104	69 - 128	
Chloromethane	20.0	18.6	92.8	56 - 131	
cis-1,2-Dichloroethene	20.0	19.0	95.1	72 - 126	
cis-1,3-Dichloropropene	20.0	19.9	99.4	69 - 131	
Ethylbenzene	20.0	21.9	110	73 - 127	
Methyl t-butyl ether (MTBE)	20.0	19.6	97.8	65 - 123	
Methylene chloride	20.0	18.4	91.8	63 - 137	
Styrene	20.0	23.1	116	65 - 134	
Tetrachloroethene	20.0	21.9	109	66 - 128	
Toluene	20.0	20.8	104	77 - 122	
trans-1,2-Dichloroethene	20.0	17.7	88.7	63 - 137	
trans-1,3-Dichloropropene	20.0	21.4	107	59 - 135	
Trichloroethene	20.0	19.3	96.3	70 - 127	
Vinyl acetate	20.0	20.4	102	65 - 130	
Vinyl chloride	20.0	20.8	104	50 - 134	

LCS - Modified 03/06/2008
PDF File ID: 1079376
Report generated: 05/06/2008 14:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269770-02
Instrument ID: HPMS10 Run Time: 10:30 Prep Method: 5030B
File ID: 10M64255 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG269770 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS10-19-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	65.1	108	75 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	110	76 - 114	PASS
4-Bromofluorobenzene	104	86 - 115	PASS
Dibromofluoromethane	101	85 - 115	PASS
Toluene-d8	105	88 - 110	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1079376
Report generated: 05/06/2008 14:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269755-02
Instrument ID: HPMS6 Run Time: 09:44 Prep Method: 5030B
File ID: 6M74740 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG269755 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS6-17-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	2000	1770	88.6	68 - 130	
1,1,2,2-Tetrachloroethane	2000	1970	98.5	59 - 140	
1,1,2-Trichloroethane	2000	1850	92.7	62 - 127	
1,1-Dichloroethane	2000	1740	86.9	73 - 125	
1,1-Dichloroethene	2000	1370	68.6	65 - 136	
1,2,4-Trichlorobenzene	2000	1990	99.4	65 - 131	
1,2-Dichlorobenzene	2000	1950	97.5	74 - 120	
1,2-Dichloroethane	2000	1640	81.8	72 - 137	
1,2-Dichloropropane	2000	1870	93.3	71 - 120	
1,3-Dichlorobenzene	2000	1910	95.7	72 - 124	
1,4-Dichlorobenzene	2000	1830	91.4	72 - 125	
1,4-Dioxane	20000	22700	113	50 - 150	
2-Butanone	2000	2410	121	40 - 135	
2-Hexanone	2000	2120	106	50 - 140	
4-Methyl-2-pentanone	2000	2480	124	50 - 140	
Acetone	2000	2140	107	40 - 141	
Acrylonitrile	2000	2180	109	60 - 140	
Benzene	2000	1890	94.7	73 - 126	
Bromodichloromethane	2000	2000	99.8	72 - 128	
Bromoform	2000	1650	82.4	60 - 137	
Bromomethane	2000	1370	68.4	45 - 141	
Carbon disulfide	2000	1560	78.1	65 - 135	
Carbon tetrachloride	2000	1720	86.2	67 - 133	
Chlorobenzene	2000	1880	94.2	75 - 123	
Dibromochloromethane	2000	1660	83.2	66 - 130	
Chloroethane	2000	1850	92.6	41 - 141	
Chloroform	2000	1770	88.3	72 - 124	
Chloromethane	2000	1250	62.5	51 - 129	
cis-1,2-Dichloroethene	2000	1850	92.7	67 - 125	
cis-1,3-Dichloropropene	2000	1760	88.2	72 - 126	
Ethylbenzene	2000	2000	100	74 - 127	
Methylene chloride	2000	1640	81.9	63 - 137	
Methyltert-butyl ether	2000	2000	99.8	50 - 135	
Styrene	2000	1800	90.1	74 - 128	
Tetrachloroethene	2000	1830	91.7	67 - 139	
Toluene	2000	1740	86.8	71 - 127	
trans-1,2-Dichloroethene	2000	1530	76.7	66 - 134	
trans-1,3-Dichloropropene	2000	1560	77.9	65 - 127	
Trichloroethene	2000	1870	93.6	77 - 124	
Vinyl acetate	2000	1200	60.1	55 - 130	
Vinyl chloride	2000	1370	68.5	58 - 126	

LCS - Modified 03/06/2008
PDF File ID: 1079376
Report generated: 05/06/2008 14:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269755-02
Instrument ID: HPMS6 Run Time: 09:44 Prep Method: 5030B
File ID: 6M74740 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG269755 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS6-17-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	6000	5900	98.4	75 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	87.7	70 - 121	PASS
4-Bromofluorobenzene	102	59 - 113	PASS
Dibromofluoromethane	94.3	65 - 135	PASS
Toluene-d8	93.5	86 - 138	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1079376
Report generated: 05/06/2008 14:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Analyst: TMB Prep Method: 5030B
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG269776 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG269776-02 LCS File ID: 9M61433 Run Date: 04/29/2008 10:04
Sample ID: WG269776-03 LCS2 File ID: 9M61434 Run Date: 04/29/2008 10:35

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	21.6	108	20.0	24.7	124	13.7	68 - 130	30	
1,1,2,2-Tetrachloroethane	20.0	19.1	95.6	20.0	21.1	106	10.0	59 - 140	30	
1,1,2-Trichloroethane	20.0	20.1	100	20.0	22.9	115	13.2	62 - 127	30	
1,1-Dichloroethane	20.0	21.0	105	20.0	23.6	118	11.8	73 - 125	30	
1,1-Dichloroethene	20.0	19.7	98.6	20.0	22.3	112	12.3	65 - 136	30	
1,2,4-Trichlorobenzene	20.0	19.4	96.9	20.0	21.3	107	9.52	65 - 131	30	
1,2-Dichlorobenzene	20.0	19.7	98.4	20.0	21.7	109	10.0	74 - 120	30	
1,2-Dichloroethane	20.0	20.4	102	20.0	23.1	115	12.1	72 - 137	30	
1,2-Dichloropropane	20.0	20.6	103	20.0	23.5	118	13.2	71 - 120	30	
1,3-Dichlorobenzene	20.0	19.8	99.2	20.0	21.6	108	8.61	72 - 124	30	
1,4-Dichlorobenzene	20.0	19.3	96.4	20.0	20.8	104	7.38	72 - 125	30	
1,4-Dioxane	200	200	99.9	200	228	114	13.0	50 - 150	30	
2-Butanone	20.0	23.3	117	20.0	25.6	128	9.35	40 - 135	30	
2-Hexanone	20.0	19.0	94.8	20.0	21.1	105	10.5	50 - 140	30	
4-Methyl-2-pentanone	20.0	20.5	102	20.0	23.7	118	14.5	50 - 140	30	
Acetone	20.0	21.8	109	20.0	25.0	125	13.5	40 - 141	30	
Acrylonitrile	20.0	20.9	104	20.0	23.5	118	12.0	60 - 140	30	
Benzene	20.0	21.1	106	20.0	23.6	118	10.9	73 - 126	30	
Bromodichloromethane	20.0	21.9	110	20.0	24.7	123	11.8	72 - 128	30	
Bromoform	20.0	20.3	101	20.0	23.2	116	13.5	60 - 137	30	
Bromomethane	20.0	21.7	108	20.0	24.0	120	10.2	45 - 141	30	
Carbon disulfide	20.0	18.3	91.5	20.0	20.8	104	13.0	65 - 135	30	
Carbon tetrachloride	20.0	21.4	107	20.0	24.6	123	13.7	67 - 133	30	
Chlorobenzene	20.0	19.8	99.1	20.0	22.3	111	11.6	75 - 123	30	
Dibromochloromethane	20.0	19.4	97.0	20.0	22.2	111	13.3	66 - 130	30	
Chloroethane	20.0	18.0	90.2	20.0	20.1	101	10.8	41 - 141	30	
Chloroform	20.0	20.6	103	20.0	23.3	117	12.4	72 - 124	30	
Chloromethane	20.0	15.1	75.5	20.0	16.8	84.1	10.8	51 - 129	30	
cis-1,2-Dichloroethene	20.0	21.2	106	20.0	23.7	119	11.4	67 - 125	30	
cis-1,3-Dichloropropene	20.0	21.1	106	20.0	24.1	120	12.9	72 - 126	30	
Ethylbenzene	20.0	20.2	101	20.0	22.5	112	10.9	74 - 127	30	
Methylene chloride	20.0	19.5	97.5	20.0	22.0	110	12.1	63 - 137	30	
Methyltert-butyl ether	20.0	20.8	104	20.0	23.4	117	11.9	50 - 135	30	
Styrene	20.0	18.0	90.2	20.0	20.2	101	11.4	74 - 128	30	
Tetrachloroethene	20.0	19.7	98.5	20.0	22.7	114	14.1	67 - 139	30	
Toluene	20.0	20.1	100	20.0	22.8	114	12.8	71 - 127	30	
trans-1,2-Dichloroethene	20.0	20.1	100	20.0	22.4	112	11.0	66 - 134	30	
trans-1,3-Dichloropropene	20.0	18.7	93.3	20.0	20.8	104	10.8	65 - 127	30	
Trichloroethene	20.0	21.0	105	20.0	23.6	118	11.8	77 - 124	30	
Vinyl acetate	20.0	13.8	68.8	20.0	16.0	80.2	15.3	55 - 130	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1081141
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Analyst: TMB Prep Method: 5030B
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG269776 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG269776-02 LCS File ID: 9M61433 Run Date: 04/29/2008 10:04
Sample ID: WG269776-03 LCS2 File ID: 9M61434 Run Date: 04/29/2008 10:35

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	17.9	89.3	20.0	19.9	99.3	10.6	58 - 126	30	
Xylenes	60.0	61.1	102	60.0	69.7	116	13.1	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	93.9	100	65 - 135	PASS
1,2-Dichloroethane-d4	89.0	96.9	70 - 121	PASS
Toluene-d8	88.2	95.8	86 - 138	PASS
4-Bromofluorobenzene	87.4	92.8	59 - 113	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1081141
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557
Instrument: HPMS10
Analyst: TMB
Workgroup: WG268868

Tune ID: WG268868-01
Run Date: 04/19/2008
Run Time: 13:16
File ID: 10M63976
Cal ID: HPMS10-19-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	17.9	5923	PASS
75.0	95.0	30.0	60.0	44.6	14770	PASS
95.0	95.0	100	100	100	33093	PASS
96.0	95.0	5.00	9.00	7.04	2331	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	78.1	25833	PASS
175	174	5.00	9.00	8.16	2107	PASS
176	174	95.0	101	97.5	25196	PASS
177	176	5.00	9.00	7.20	1815	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG268868-02	STD	01	04/19/2008 16:10	
WG268868-03	STD	01	04/19/2008 16:43	
WG268868-04	STD	01	04/19/2008 17:16	
WG268868-05	STD	01	04/19/2008 17:48	
WG268868-06	STD	01	04/19/2008 18:21	
WG268868-07	STD	01	04/19/2008 18:54	
WG268868-08	STD-CCV	01	04/19/2008 19:26	
WG268868-09	STD	01	04/19/2008 19:59	
WG268868-10	STD	01	04/19/2008 20:31	
WG268868-11	STD	01	04/19/2008 21:04	
WG268868-12	SSCV	01	04/19/2008 22:47	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1086691
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557
Instrument: HPMS10
Analyst: TMB
Workgroup: WG269769

Tune ID: WG269769-01
Run Date: 04/29/2008
Run Time: 08:25
File ID: 10M64251
Cal ID: HPMS10-19-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	22.7	8034	PASS
75.0	95.0	30.0	60.0	48.0	17009	PASS
95.0	95.0	100	100	100	35400	PASS
96.0	95.0	5.00	9.00	7.20	2548	PASS
173	174	0	2.00	0.448	121	PASS
174	95.0	50.0	100	76.4	27032	PASS
175	174	5.00	9.00	8.80	2378	PASS
176	174	95.0	101	95.7	25869	PASS
177	176	5.00	9.00	7.39	1913	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269769-02	CCV	01	04/29/2008 08:50	
WG269770-01	BLANK	01	04/29/2008 09:57	
WG269770-02	LCS	01	04/29/2008 10:30	
L08040557-05	TB01-041708	01	04/29/2008 12:43	
WG269770-03	REF	01	04/29/2008 15:27	
WG269770-04	MS	01	04/29/2008 16:01	
WG269770-05	MSD	01	04/29/2008 16:35	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557
Instrument: HPMS6
Analyst: CMS
Workgroup: WG268581

Tune ID: WG268581-01
Run Date: 04/17/2008
Run Time: 08:37
File ID: 6M74324
Cal ID: HPMS6-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	24.7	5835	PASS
75.0	95.0	30.0	60.0	54.3	12819	PASS
95.0	95.0	100	100	100	23626	PASS
96.0	95.0	5.00	9.00	6.76	1597	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	65.0	15368	PASS
175	174	5.00	9.00	6.51	1001	PASS
176	174	95.0	101	99.4	15270	PASS
177	176	5.00	9.00	6.11	933	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG268581-02	STD	01	04/17/2008 09:07	
WG268581-06	STD	01	04/17/2008 11:22	
WG268581-07	STD	01	04/17/2008 11:55	
WG268581-08	STD-CCV	01	04/17/2008 12:30	
WG268581-09	STD	01	04/17/2008 13:03	
WG268581-10	STD	01	04/17/2008 13:36	
WG268581-11	STD	01	04/17/2008 14:09	
WG268581-05	STD	01	04/17/2008 16:28	
WG268581-04	STD	01	04/17/2008 17:01	
WG268581-03	STD	01	04/17/2008 17:34	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557 Tune ID: WG268744-01
Instrument: HPMS6 Run Date: 04/18/2008
Analyst: CMS Run Time: 11:41
Workgroup: WG268744 File ID: 6M74346
Cal ID: HPMS6-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	23.1	6222	PASS
75.0	95.0	30.0	60.0	54.1	14553	PASS
95.0	95.0	100	100	100	26922	PASS
96.0	95.0	5.00	9.00	6.39	1719	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	61.5	16556	PASS
175	174	5.00	9.00	7.12	1179	PASS
176	174	95.0	101	98.6	16324	PASS
177	176	5.00	9.00	5.68	927	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG268581-12	SSCV	01	04/18/2008 13:55	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557
Instrument: HPMS6
Analyst: CMS
Workgroup: WG269754

Tune ID: WG269754-01
Run Date: 04/29/2008
Run Time: 07:31
File ID: 6M74736
Cal ID: HPMS6-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	21.9	6280	PASS
75.0	95.0	30.0	60.0	49.2	14103	PASS
95.0	95.0	100	100	100	28656	PASS
96.0	95.0	5.00	9.00	6.68	1913	PASS
173	174	0	2.00	0.884	167	PASS
174	95.0	50.0	100	65.9	18890	PASS
175	174	5.00	9.00	7.88	1488	PASS
176	174	95.0	101	95.8	18098	PASS
177	176	5.00	9.00	6.25	1132	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269754-02	CCV	01	04/29/2008 08:04	
WG269755-01	BLANK	DL01	04/29/2008 08:37	
WG269755-02	LCS	DL01	04/29/2008 09:44	
WG269755-03	REF	DL01	04/29/2008 13:42	
WG269755-04	MS	DL01	04/29/2008 14:16	
WG269755-05	MSD	DL01	04/29/2008 14:49	
L08040557-04	3034-S003-041708	DL01	04/29/2008 15:26	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557
Instrument: HPMS9
Analyst: CMS
Workgroup: WG268631

Tune ID: WG268631-01
Run Date: 04/17/2008
Run Time: 12:08
File ID: 9M61199
Cal ID: HPMS9-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	25.7	6334	PASS
75.0	95.0	30.0	60.0	57.5	14179	PASS
95.0	95.0	100	100	100	24647	PASS
96.0	95.0	5.00	9.00	7.37	1816	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	61.1	15069	PASS
175	174	5.00	9.00	7.68	1157	PASS
176	174	95.0	101	95.7	14419	PASS
177	176	5.00	9.00	6.58	949	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG268631-02	STD-S	01	04/17/2008 12:34	
WG268631-03	STD-S	01	04/17/2008 13:06	
WG268631-04	STD-S	01	04/17/2008 13:39	
WG268631-05	STD-S	01	04/17/2008 14:10	
WG268631-07	STD-CCV-S	01	04/17/2008 15:12	
WG268631-08	STD-S	01	04/17/2008 15:43	
WG268631-09	STD-S	01	04/17/2008 16:14	
WG268631-10	STD-S	01	04/17/2008 16:47	
WG268631-11	SSCV-S	01	04/17/2008 18:20	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08040557
Instrument: HPMS9
Analyst: TMB
Workgroup: WG269774

Tune ID: WG269774-01
Run Date: 04/29/2008
Run Time: 08:35
File ID: 9M61430
Cal ID: HPMS9-17-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	24.7	6985	PASS
75.0	95.0	30.0	60.0	57.4	16192	PASS
95.0	95.0	100	100	100	28226	PASS
96.0	95.0	5.00	9.00	7.05	1991	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	63.6	17943	PASS
175	174	5.00	9.00	6.88	1235	PASS
176	174	95.0	101	97.4	17481	PASS
177	176	5.00	9.00	6.45	1128	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269774-02	CCV-S	01	04/29/2008 09:01	
WG269776-01	BLANK	01	04/29/2008 09:32	
WG269776-02	LCS	01	04/29/2008 10:04	
WG269776-03	LCS2	01	04/29/2008 10:35	
L08040557-01	3034-S001-041708	02	04/29/2008 12:10	
L08040557-02	3034-S002-041708	02	04/29/2008 12:42	
L08040557-03	3034-S002-041708D	01	04/29/2008 13:14	
WG269776-04	REF	01	04/29/2008 17:59	
WG269776-05	MS	01	04/29/2008 18:30	
WG269776-06	MSD	01	04/29/2008 19:01	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS10

Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

ICAL Workgroup: WG268868 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.2170	6.48		
1,2-Dichloropropane	CCC	0.2456	5.45		
Chloroform	CCC	0.4374	4.81		
Ethylbenzene	CCC	0.4070	4.72		
Toluene	CCC	1.165	3.73		
Vinyl Chloride	CCC	0.2249	19.7		1.00
1,1,2,2-Tetrachloroethane	SPCC	0.3688	8.23		
1,1-Dichloroethane	SPCC	0.4840	3.92		
Bromoform	SPCC	0.1500	15.1	0.999	
Chlorobenzene	SPCC	0.8121	10.3		
Chloromethane	SPCC	0.2162	8.97		
1,1,1-Trichloroethane		0.4068	6.32		
1,1,2-Trichloroethane		0.1959	8.90		
1,2,4-Trichlorobenzene		0.7303	4.61		
1,2-Dichlorobenzene		1.048	3.06		
1,2-Dichloroethane		0.3483	3.86		
1,3-Dichlorobenzene		1.162	3.08		
1,4-Dichlorobenzene		1.220	4.38		
1,4-Dioxane		0.001240	13.2		
2-Butanone		0.05372	4.00		
2-Hexanone		0.09265	5.32		
4-Methyl-2-Pentanone		0.06030	5.09		
Acetone		0.03940	5.76		
Acrylonitrile		0.06463	5.84		
Benzene		0.8752	3.63		
Bromodichloromethane		0.2959	9.98		
Bromomethane		0.1766	7.23		
Carbon Disulfide		0.6833	4.20		
Carbon Tetrachloride		0.3451	8.75		
Chloroethane		0.1889	3.89		
Dibromochloromethane		0.2582	14.7		
Methyl Tert Butyl Ether		0.5391	4.82		
Methylene Chloride		0.2690	26.7		
Styrene		0.7482	13.1		
Tetrachloroethene		0.2468	4.53		
Trichloroethene		0.2578	4.77		
Vinyl Acetate		0.2143	6.51		
cis-1,2-Dichloroethene		0.2604	3.57		
cis-1,3-Dichloropropene		0.3250	11.1		
m-,p-Xylene		0.4943	4.65		
o-Xylene		0.4767	4.71		
trans-1,2-Dichloroethene		0.2492	4.12		
trans-1,3-Dichloropropene		0.3632	10.7		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 Instrument ID: HPMS10

Analytical Method: 8260B Initial Calibration Date: 19-APR-08 21:04

ICAL Workgroup: WG268868 Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum

R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

ICAL Workgroup: WG268581 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.3223	21.7		1.00
1,2-Dichloropropane	CCC	0.2059	11.4		
Chloroform	CCC	0.4245	7.77		
Ethylbenzene	CCC	0.3544	14.0		
Toluene	CCC	0.9880	9.37		
Vinyl Chloride	CCC	0.1848	14.0		
1,1,2,2-Tetrachloroethane	SPCC	0.3941	11.3		
1,1-Dichloroethane	SPCC	0.4171	11.5		
Bromoform	SPCC	0.1346	18.5	1.00	
Chlorobenzene	SPCC	0.7123	4.25		
Chloromethane	SPCC	0.2801	7.35		
1,1,1-Trichloroethane		0.3724	21.9	1.00	
1,1,2-Trichloroethane		0.1864	5.86		
1,2,4-Trichlorobenzene		0.6579	6.63		
1,2-Dichlorobenzene		0.9364	5.40		
1,2-Dichloroethane		0.3502	4.00		
1,3-Dichlorobenzene		1.022	4.90		
1,4-Dichlorobenzene		1.092	3.52		
1,4-Dioxane		0.001133	35.0		0.991
2-Butanone		0.06587	11.1		
2-Hexanone		0.1291	11.8		
4-Methyl-2-Pentanone		0.05044	22.0	0.998	
Acetone		0.04653	7.11		
Acrylonitrile		0.04803	23.6		1.00
Benzene		0.7533	10.3		
Bromodichloromethane		0.3033	14.3		
Bromomethane		0.1167	38.7		1.00
Carbon Disulfide		0.5297	21.1		1.00
Carbon Tetrachloride		0.2937	24.1	1.00	
Chloroethane		0.1615	22.2		1.00
Dibromochloromethane		0.2280	16.2	1.00	
Methyl Tert Butyl Ether		0.4486	15.5		
Methylene Chloride		0.2016	11.2		
Styrene		0.7948	17.1		1.00
Tetrachloroethene		0.2174	14.0		
Trichloroethene		0.1669	19.2		1.00
Vinyl Acetate		0.3242	5.78		
cis-1,2-Dichloroethene		0.1906	14.2		
cis-1,3-Dichloropropene		0.3033	22.4		1.00
m-,p-Xylene		0.4460	13.9		
o-Xylene		0.4387	16.7		1.00
trans-1,2-Dichloroethene		0.1703	18.7		1.00
trans-1,3-Dichloropropene		0.4226	12.9		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 Instrument ID: HPMS6

Analytical Method: 8260B Initial Calibration Date: 17-APR-08 17:34

ICAL Workgroup: WG268581 Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum

R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

ICAL Workgroup: WG268631 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.4308	11.2		
1,2-Dichloropropane	CCC	0.2537	8.93		
Chloroform	CCC	0.4821	6.76		
Ethylbenzene	CCC	0.5482	8.50		
Toluene	CCC	1.681	8.17		
Vinyl Chloride	CCC	0.1742	12.1		
1,1,2,2-Tetrachloroethane	SPCC	0.8466	8.47		
1,1-Dichloroethane	SPCC	0.4944	7.33		
Bromoform	SPCC	0.1694	14.6		0.999
Chlorobenzene	SPCC	0.9896	5.01		
Chloromethane	SPCC	0.2571	12.4		
1,1,1-Trichloroethane		0.4050	12.5		
1,1,2-Trichloroethane		0.3115	8.25		
1,2,4-Trichlorobenzene		0.8931	7.12		
1,2-Dichlorobenzene		1.288	6.08		
1,2-Dichloroethane		0.4153	5.50		
1,3-Dichlorobenzene		1.409	7.17		
1,4-Dichlorobenzene		1.481	5.92		
1,4-Dioxane		0.002150	13.1		
2-Butanone		0.1096	4.80		
2-Hexanone		0.2519	5.38		
4-Methyl-2-Pentanone		0.08192	5.14		
Acetone		0.08792	30.5	0.999	
Acrylonitrile		0.08242	9.68		
Benzene		1.022	8.16		
Bromodichloromethane		0.3300	11.5		
Bromomethane		0.1009	8.05		
Carbon Disulfide		0.8435	8.48		
Carbon Tetrachloride		0.3054	15.1		
Chloroethane		0.1601	7.60		
Dibromochloromethane		0.2933	15.7		
Methyl Tert Butyl Ether		0.6831	12.2		
Methylene Chloride		0.2693	13.1		
Styrene		1.015	16.9		
Tetrachloroethene		0.2947	9.76		
Trichloroethene		0.2140	6.94		
Vinyl Acetate		0.4649	4.86		
cis-1,2-Dichloroethene		0.2530	6.50		
cis-1,3-Dichloropropene		0.3807	14.2		
m-,p-Xylene		0.6407	12.1		
o-Xylene		0.6109	13.3		
trans-1,2-Dichloroethene		0.2463	7.77		
trans-1,3-Dichloropropene		0.6106	15.1		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 Instrument ID: HPMS9

Analytical Method: 8260B Initial Calibration Date: 17-APR-08 16:47

ICAL Workgroup: WG268631 Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum

R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS10

Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-02			WG268868-03			WG268868-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2768.00000	0.1911	1.00	7478.00000	0.2082
1,2-Dichloropropane	NA	NA	NA	0.400	3187.00000	0.2200	1.00	9142.00000	0.2545
Chloroform	0.300	5102.00000	0.4662	0.400	6017.00000	0.4154	1.00	15274.0000	0.4252
Ethylbenzene	NA	NA	NA	0.400	4590.00000	0.3898	1.00	11850.0000	0.3992
Toluene	NA	NA	NA	0.400	13390.0000	1.137	1.00	34223.0000	1.153
Vinyl Chloride	NA	NA	NA	0.400	4348.00000	0.3002	1.00	9178.00000	0.2555
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1856.00000	0.3006	1.00	5719.00000	0.3688
1,1-Dichloroethane	NA	NA	NA	0.400	6702.00000	0.4627	1.00	17800.0000	0.4955
Bromoform	NA	NA	NA	NA	NA	NA	1.00	3457.00000	0.1164
Chlorobenzene	NA	NA	NA	0.400	11590.0000	0.9842	1.00	25445.0000	0.8571
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	8882.00000	0.2472
1,1,1-Trichloroethane	NA	NA	NA	0.400	5348.00000	0.3692	1.00	13746.0000	0.3826
1,1,2-Trichloroethane	NA	NA	NA	0.400	1928.00000	0.1637	1.00	5447.00000	0.1835
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	4659.00000	0.7545	1.00	10500.0000	0.6770
1,2-Dichlorobenzene	0.300	5013.00000	1.068	0.400	6413.00000	1.039	1.00	15895.0000	1.025
1,2-Dichloroethane	NA	NA	NA	0.400	4811.00000	0.3321	1.00	12291.0000	0.3421
1,3-Dichlorobenzene	NA	NA	NA	0.400	7301.00000	1.182	1.00	17572.0000	1.133
1,4-Dichlorobenzene	0.300	6134.00000	1.307	0.400	7713.00000	1.249	1.00	18701.0000	1.206
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	12943.0000	0.8935	1.00	32226.0000	0.8971
Bromodichloromethane	NA	NA	NA	0.400	3656.00000	0.2524	1.00	9652.00000	0.2687
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	5528.00000	0.1539
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	24255.0000	0.6752
Carbon Tetrachloride	NA	NA	NA	0.400	4292.00000	0.2963	1.00	11759.0000	0.3273
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	6607.00000	0.1839
Dibromochloromethane	NA	NA	NA	0.400	2377.00000	0.2018	1.00	6166.00000	0.2077
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	1.00	18082.0000	0.5033
Methylene Chloride	NA	NA	NA	0.400	6227.00000	0.4299	1.00	10836.0000	0.3016
Styrene	NA	NA	NA	0.400	7275.00000	0.6178	1.00	18697.0000	0.6298
Tetrachloroethene	NA	NA	NA	0.400	2848.00000	0.2418	1.00	7498.00000	0.2526
Trichloroethene	NA	NA	NA	0.400	3507.00000	0.2421	1.00	8781.00000	0.2444
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	3754.00000	0.2592	1.00	9211.00000	0.2564
cis-1,3-Dichloropropene	NA	NA	NA	0.400	3934.00000	0.2716	1.00	10274.0000	0.2860
m-,p-Xylene	NA	NA	NA	0.800	11150.0000	0.4734	2.00	29040.0000	0.4891
o-Xylene	NA	NA	NA	0.400	5679.00000	0.4822	1.00	13512.0000	0.4552
trans-1,2-Dichloroethene	NA	NA	NA	0.400	3694.00000	0.2550	1.00	9050.00000	0.2519

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INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS10

Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-05			WG268868-06			WG268868-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	16160.0000	0.2227	5.00	40990.0000	0.2224	20.0	155810.000	0.2102
1,2-Dichloropropane	2.00	17847.0000	0.2459	5.00	44528.0000	0.2416	20.0	176801.000	0.2385
Chloroform	2.00	30734.0000	0.4234	5.00	80659.0000	0.4376	20.0	312196.000	0.4212
Ethylbenzene	2.00	24070.0000	0.4072	5.00	61704.0000	0.4166	20.0	237169.000	0.3955
Toluene	2.00	69953.0000	1.184	5.00	175126.000	1.182	20.0	673479.000	1.123
Vinyl Chloride	2.00	17235.0000	0.2375	5.00	41107.0000	0.2230	20.0	145607.000	0.1965
1,1,2,2-Tetrachloroethane	2.00	11410.0000	0.3652	5.00	30506.0000	0.3855	20.0	121100.000	0.3770
1,1-Dichloroethane	2.00	34946.0000	0.4815	5.00	88872.0000	0.4821	20.0	345418.000	0.4661
Bromoform	2.00	7378.00000	0.1248	5.00	21607.0000	0.1459	20.0	96307.0000	0.1606
Chlorobenzene	2.00	48162.0000	0.8148	5.00	118364.000	0.7992	20.0	450946.000	0.7520
Chloromethane	2.00	17004.0000	0.2343	5.00	39533.0000	0.2145	20.0	154121.000	0.2079
1,1,1-Trichloroethane	2.00	29763.0000	0.4101	5.00	76511.0000	0.4151	20.0	293239.000	0.3957
1,1,2-Trichloroethane	2.00	11116.0000	0.1881	5.00	30435.0000	0.2055	20.0	122846.000	0.2049
1,2,4-Trichlorobenzene	2.00	22567.0000	0.7222	5.00	56499.0000	0.7140	20.0	228056.000	0.7099
1,2-Dichlorobenzene	2.00	32823.0000	1.050	5.00	83372.0000	1.054	20.0	331533.000	1.032
1,2-Dichloroethane	2.00	25432.0000	0.3504	5.00	65532.0000	0.3555	20.0	253630.000	0.3422
1,3-Dichlorobenzene	2.00	36167.0000	1.158	5.00	92370.0000	1.167	20.0	360659.000	1.123
1,4-Dichlorobenzene	2.00	38807.0000	1.242	5.00	96405.0000	1.218	20.0	372864.000	1.161
1,4-Dioxane	NA	NA	NA	100	3962.00000	0.001100	150	5932.00000	0.001100
2-Butanone	NA	NA	NA	5.00	10012.0000	0.05430	20.0	38746.0000	0.05230
2-Hexanone	NA	NA	NA	5.00	13235.0000	0.08940	20.0	55389.0000	0.09240
4-Methyl-2-Pentanone	NA	NA	NA	5.00	10547.0000	0.05720	20.0	44741.0000	0.06040
Acetone	NA	NA	NA	5.00	7711.00000	0.04180	20.0	28057.0000	0.03790
Acrylonitrile	NA	NA	NA	5.00	12327.0000	0.06690	20.0	46122.0000	0.06220
Benzene	2.00	62484.0000	0.8609	5.00	158254.000	0.8585	20.0	613495.000	0.8278
Bromodichloromethane	2.00	20110.0000	0.2771	5.00	54050.0000	0.2932	20.0	221651.000	0.2991
Bromomethane	2.00	13002.0000	0.1791	5.00	31302.0000	0.1698	20.0	127000.000	0.1714
Carbon Disulfide	2.00	48984.0000	0.6749	5.00	124868.000	0.6774	20.0	487371.000	0.6576
Carbon Tetrachloride	2.00	23457.0000	0.3232	5.00	64732.0000	0.3512	20.0	254983.000	0.3440
Chloroethane	2.00	13708.0000	0.1889	5.00	35134.0000	0.1906	20.0	141792.000	0.1913
Dibromochloromethane	2.00	14495.0000	0.2452	5.00	38863.0000	0.2624	20.0	164502.000	0.2743
Methyl Tert Butyl Ether	2.00	38875.0000	0.5356	5.00	100358.000	0.5445	20.0	385963.000	0.5208
Methylene Chloride	2.00	20166.0000	0.2778	5.00	45632.0000	0.2476	20.0	162067.000	0.2187
Styrene	2.00	40075.0000	0.6780	5.00	110226.000	0.7442	20.0	475515.000	0.7930
Tetrachloroethene	2.00	14274.0000	0.2415	5.00	37539.0000	0.2535	20.0	142912.000	0.2383
Trichloroethene	2.00	18678.0000	0.2573	5.00	48508.0000	0.2632	20.0	187694.000	0.2532
Vinyl Acetate	2.00	16100.0000	0.2218	5.00	37474.0000	0.2033	20.0	147562.000	0.1991
cis-1,2-Dichloroethene	2.00	18733.0000	0.2581	5.00	47482.0000	0.2576	20.0	183366.000	0.2474
cis-1,3-Dichloropropene	2.00	21896.0000	0.3017	5.00	60734.0000	0.3295	20.0	246761.000	0.3329
m-,p-Xylene	4.00	58284.0000	0.4930	10.0	149357.000	0.5042	40.0	577825.000	0.4818
o-Xylene	2.00	27028.0000	0.4573	5.00	71090.0000	0.4800	20.0	281532.000	0.4695
trans-1,2-Dichloroethene	2.00	17662.0000	0.2433	5.00	44498.0000	0.2414	20.0	173382.000	0.2339

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS10

Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-08			WG268868-09			WG268868-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	416737.000	0.2385	100	849971.000	0.2252	200	1696968.00	0.2173
1,2-Dichloropropane	50.0	464435.000	0.2658	100	953049.000	0.2525	200	1919202.00	0.2458
Chloroform	50.0	832711.000	0.4765	100	1669592.00	0.4423	200	3347757.00	0.4287
Ethylbenzene	50.0	632077.000	0.4471	100	1269350.00	0.4126	200	2472528.00	0.3881
Toluene	50.0	1775476.00	1.256	100	3577793.00	1.163	200	7166610.00	1.125
Vinyl Chloride	50.0	340039.000	0.1946	100	630680.000	0.1671	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	308233.000	0.4050	100	606210.000	0.3794	200	1189312.00	0.3691
1,1-Dichloroethane	50.0	910984.000	0.5213	100	1853828.00	0.4911	200	3680780.00	0.4714
Bromoform	50.0	255453.000	0.1807	100	502573.000	0.1634	200	1008194.00	0.1582
Chlorobenzene	50.0	1160984.00	0.8212	100	2329654.00	0.7573	200	4531884.00	0.7113
Chloromethane	50.0	382203.000	0.2187	100	747642.000	0.1981	200	1503946.00	0.1926
1,1,1-Trichloroethane	50.0	791328.000	0.4528	100	1602407.00	0.4245	200	3158658.00	0.4045
1,1,2-Trichloroethane	50.0	313523.000	0.2218	100	618015.000	0.2009	200	1268101.00	0.1990
1,2,4-Trichlorobenzene	50.0	599649.000	0.7880	100	1199639.00	0.7508	200	2338189.00	0.7256
1,2-Dichlorobenzene	50.0	851463.000	1.119	100	1660167.00	1.039	200	3240509.00	1.006
1,2-Dichloroethane	50.0	658371.000	0.3767	100	1311889.00	0.3475	200	2656750.00	0.3402
1,3-Dichlorobenzene	50.0	937484.000	1.232	100	1872765.00	1.172	200	3635571.00	1.128
1,4-Dichlorobenzene	50.0	968002.000	1.272	100	1904598.00	1.192	200	3663764.00	1.137
1,4-Dioxane	200	10012.0000	0.001400	400	19069.0000	0.001300	NA	NA	NA
2-Butanone	50.0	99536.0000	0.05700	100	198093.000	0.05250	200	399212.000	0.05110
2-Hexanone	50.0	144083.000	0.1019	100	275460.000	0.08950	200	566671.000	0.08890
4-Methyl-2-Pentanone	50.0	115234.000	0.06590	100	221584.000	0.05870	200	457757.000	0.05860
Acetone	50.0	73939.0000	0.04230	100	145563.000	0.03860	200	306838.000	0.03930
Acrylonitrile	50.0	122975.000	0.07040	100	240472.000	0.06370	200	508260.000	0.06510
Benzene	50.0	1626704.00	0.9308	100	3316725.00	0.8786	200	6673834.00	0.8546
Bromodichloromethane	50.0	598421.000	0.3424	100	1212098.00	0.3211	200	2446557.00	0.3133
Bromomethane	50.0	335284.000	0.1918	100	695489.000	0.1842	200	1453665.00	0.1862
Carbon Disulfide	50.0	1296587.00	0.7419	100	2627549.00	0.6960	200	5157178.00	0.6604
Carbon Tetrachloride	50.0	692236.000	0.3961	100	1381226.00	0.3659	200	2787094.00	0.3569
Chloroethane	50.0	354437.000	0.2028	100	699175.000	0.1852	200	1403888.00	0.1798
Dibromochloromethane	50.0	440826.000	0.3118	100	876380.000	0.2849	200	1767793.00	0.2774
Methyl Tert Butyl Ether	50.0	1027400.00	0.5879	100	2047819.00	0.5425	200	4211874.00	0.5394
Methylene Chloride	50.0	418711.000	0.2396	100	836059.000	0.2215	200	1680565.00	0.2152
Styrene	50.0	1257207.00	0.8893	100	2556440.00	0.8310	200	5112736.00	0.8024
Tetrachloroethene	50.0	380078.000	0.2689	100	752245.000	0.2445	200	1487224.00	0.2334
Trichloroethene	50.0	492143.000	0.2816	100	989648.000	0.2622	200	2018133.00	0.2584
Vinyl Acetate	50.0	408160.000	0.2335	100	807178.000	0.2138	NA	NA	NA
cis-1,2-Dichloroethene	50.0	488885.000	0.2797	100	1003552.00	0.2658	200	2021598.00	0.2589
cis-1,3-Dichloropropene	50.0	659359.000	0.3773	100	1334446.00	0.3535	200	2711469.00	0.3472
m-,p-Xylene	100	1533987.00	0.5425	200	3079327.00	0.5005	400	5982505.00	0.4695
o-Xylene	50.0	741860.000	0.5248	100	1487578.00	0.4835	200	2939201.00	0.4613
trans-1,2-Dichloroethene	50.0	468751.000	0.2682	100	949162.000	0.2514	200	1938457.00	0.2482

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS10

Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	30968.0000	0.001300
2-Butanone	300	632874.000	0.05510
2-Hexanone	300	878239.000	0.09380
4-Methyl-2-Pentanone	300	700999.000	0.06100
Acetone	300	419522.000	0.03650
Acrylonitrile	300	683249.000	0.05950
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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INITIAL CALIBRATION DATA

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Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-02			WG268868-03			WG268868-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	0.400	3620.00000	0.3074	1.00	9496.00000	0.3199

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Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-05			WG268868-06			WG268868-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	19969.0000	0.3378	5.00	54896.0000	0.3706	20.0	225523.000	0.3761

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Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-08			WG268868-09			WG268868-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	598829.000	0.4236	100	1196330.00	0.3889	200	2430920.00	0.3815

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS10

Analytical Method: 8260B **Initial Calibration Date:** 19-APR-08 21:04

Column ID: F

Analyte	WG268868-11		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-02			WG268581-03			WG268581-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	1.00	7093.00000	0.2582
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	1.00	5051.00000	0.1839
Chloroform	0.300	3813.00000	0.4238	0.400	4177.00000	0.3953	1.00	10990.0000	0.4000
Ethylbenzene	NA	NA	NA	0.400	2333.00000	0.3035	1.00	6244.00000	0.3128
Toluene	NA	NA	NA	0.400	7027.00000	0.9142	1.00	17568.0000	0.8802
Vinyl Chloride	NA	NA	NA	0.400	1684.00000	0.1594	1.00	5494.00000	0.2000
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1339.00000	0.3131	1.00	4089.00000	0.3658
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	1.00	10008.0000	0.3643
Bromoform	NA	NA	NA	NA	NA	NA	1.00	2140.00000	0.1072
Chlorobenzene	NA	NA	NA	0.400	5272.00000	0.6859	1.00	13791.0000	0.6909
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	7787.00000	0.2835
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	1.00	7587.00000	0.2762
1,1,2-Trichloroethane	NA	NA	NA	0.400	1285.00000	0.1672	1.00	3704.00000	0.1856
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	2689.00000	0.6287	1.00	6958.00000	0.6224
1,2-Dichlorobenzene	0.300	3091.00000	0.8576	0.400	4000.00000	0.9353	1.00	10075.0000	0.9012
1,2-Dichloroethane	NA	NA	NA	0.400	3634.00000	0.3439	1.00	9523.00000	0.3466
1,3-Dichlorobenzene	NA	NA	NA	0.400	4191.00000	0.9799	1.00	11119.0000	0.9946
1,4-Dichlorobenzene	0.300	4089.00000	1.135	0.400	4893.00000	1.144	1.00	11757.0000	1.052
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	7108.00000	0.6726	1.00	18411.0000	0.6702
Bromodichloromethane	NA	NA	NA	0.400	2541.00000	0.2405	1.00	7121.00000	0.2592
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	1611.00000	0.05860
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	11751.0000	0.4277
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	1.00	5717.00000	0.2081
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	3438.00000	0.1251
Dibromochloromethane	NA	NA	NA	0.400	1320.00000	0.1717	1.00	3588.00000	0.1798
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	1.00	9325.00000	0.3394
Methylene Chloride	NA	NA	NA	NA	NA	NA	1.00	6632.00000	0.2414
Styrene	NA	NA	NA	NA	NA	NA	1.00	11488.0000	0.5756
Tetrachloroethene	NA	NA	NA	NA	NA	NA	1.00	3763.00000	0.1885
Trichloroethene	NA	NA	NA	NA	NA	NA	1.00	3623.00000	0.1319
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	1546.00000	0.1463	1.00	4737.00000	0.1724
cis-1,3-Dichloropropene	NA	NA	NA	0.400	2062.00000	0.1951	1.00	6617.00000	0.2409
m-,p-Xylene	NA	NA	NA	0.800	5491.00000	0.3572	2.00	15909.0000	0.3985
o-Xylene	NA	NA	NA	NA	NA	NA	1.00	6824.00000	0.3419
trans-1,2-Dichloroethene	NA	NA	NA	0.400	1317.00000	0.1246	1.00	3871.00000	0.1409

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-05			WG268581-06			WG268581-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	11704.0000	0.2057	5.00	39967.0000	0.2960	20.0	210973.000	0.3754
1,2-Dichloropropane	2.00	9770.00000	0.1717	5.00	26235.0000	0.1943	20.0	119890.000	0.2133
Chloroform	2.00	20663.0000	0.3632	5.00	57384.0000	0.4250	20.0	259831.000	0.4623
Ethylbenzene	2.00	11462.0000	0.2815	5.00	34219.0000	0.3489	20.0	166968.000	0.4040
Toluene	2.00	35511.0000	0.8721	5.00	98405.0000	1.003	20.0	460399.000	1.114
Vinyl Chloride	2.00	8770.00000	0.1542	5.00	24211.0000	0.1793	20.0	127011.000	0.2260
1,1,2,2-Tetrachloroethane	2.00	8347.00000	0.3633	5.00	22149.0000	0.3944	20.0	99609.0000	0.4112
1,1-Dichloroethane	2.00	19558.0000	0.3438	5.00	53741.0000	0.3980	20.0	252955.000	0.4501
Bromoform	2.00	3892.00000	0.09560	5.00	12605.0000	0.1285	20.0	60095.0000	0.1454
Chlorobenzene	2.00	27110.0000	0.6658	5.00	70575.0000	0.7195	20.0	310688.000	0.7518
Chloromethane	2.00	14056.0000	0.2471	5.00	37656.0000	0.2789	20.0	169543.000	0.3017
1,1,1-Trichloroethane	2.00	14284.0000	0.2511	5.00	46362.0000	0.3434	20.0	240250.000	0.4275
1,1,2-Trichloroethane	2.00	6995.00000	0.1718	5.00	18567.0000	0.1893	20.0	80316.0000	0.1944
1,2,4-Trichlorobenzene	2.00	13797.0000	0.6005	5.00	35236.0000	0.6275	20.0	170762.000	0.7049
1,2-Dichlorobenzene	2.00	20148.0000	0.8769	5.00	52836.0000	0.9409	20.0	241736.000	0.9978
1,2-Dichloroethane	2.00	18683.0000	0.3284	5.00	49174.0000	0.3642	20.0	208067.000	0.3702
1,3-Dichlorobenzene	2.00	21553.0000	0.9381	5.00	56922.0000	1.014	20.0	260893.000	1.077
1,4-Dichlorobenzene	2.00	24026.0000	1.046	5.00	60389.0000	1.076	20.0	272238.000	1.124
1,4-Dioxane	50.0	741.000000	0.0005000	100	2184.00000	0.0008000	150	4937.00000	0.001200
2-Butanone	NA	NA	NA	5.00	7202.00000	0.05330	20.0	35956.0000	0.06400
2-Hexanone	NA	NA	NA	5.00	9934.00000	0.1013	20.0	50209.0000	0.1215
4-Methyl-2-Pentanone	NA	NA	NA	5.00	4590.00000	0.03400	20.0	26580.0000	0.04730
Acetone	NA	NA	NA	5.00	6422.00000	0.04760	20.0	25598.0000	0.04550
Acrylonitrile	2.00	1760.00000	0.03090	5.00	5216.00000	0.03860	20.0	27758.0000	0.04940
Benzene	2.00	37198.0000	0.6539	5.00	100756.000	0.7463	20.0	458791.000	0.8164
Bromodichloromethane	2.00	14941.0000	0.2627	5.00	40999.0000	0.3037	20.0	186160.000	0.3312
Bromomethane	2.00	3691.00000	0.06490	5.00	12078.0000	0.08950	20.0	73020.0000	0.1299
Carbon Disulfide	2.00	21241.0000	0.3734	5.00	58973.0000	0.4368	20.0	343762.000	0.6117
Carbon Tetrachloride	2.00	10739.0000	0.1888	5.00	36796.0000	0.2725	20.0	197031.000	0.3506
Chloroethane	2.00	6644.00000	0.1168	5.00	17819.0000	0.1320	20.0	96918.0000	0.1725
Dibromochloromethane	2.00	8595.00000	0.2111	5.00	22302.0000	0.2274	20.0	104110.000	0.2519
Methyl Tert Butyl Ether	2.00	21662.0000	0.3808	5.00	56087.0000	0.4154	20.0	273014.000	0.4858
Methylene Chloride	2.00	10938.0000	0.1923	5.00	24838.0000	0.1840	20.0	103270.000	0.1838
Styrene	2.00	26279.0000	0.6454	5.00	75081.0000	0.7654	20.0	366268.000	0.8863
Tetrachloroethene	2.00	6882.00000	0.1690	5.00	20377.0000	0.2077	20.0	103033.000	0.2493
Trichloroethene	2.00	6771.00000	0.1190	5.00	20644.0000	0.1529	20.0	103831.000	0.1848
Vinyl Acetate	NA	NA	NA	5.00	38959.0000	0.2886	20.0	185549.000	0.3302
cis-1,2-Dichloroethene	2.00	9369.00000	0.1647	5.00	25212.0000	0.1867	20.0	119836.000	0.2132
cis-1,3-Dichloropropene	2.00	14338.0000	0.2521	5.00	39961.0000	0.2960	20.0	192254.000	0.3421
m-,p-Xylene	4.00	30558.0000	0.3752	10.0	88429.0000	0.4508	40.0	422748.000	0.5115
o-Xylene	2.00	13599.0000	0.3340	5.00	41797.0000	0.4261	20.0	204836.000	0.4957
trans-1,2-Dichloroethene	2.00	7868.00000	0.1383	5.00	22410.0000	0.1660	20.0	111072.000	0.1976

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-08			WG268581-09			WG268581-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	562131.000	0.3769	100	1141885.00	0.3636	200	2436117.00	0.3805
1,2-Dichloropropane	50.0	322549.000	0.2163	100	704787.000	0.2244	200	1520359.00	0.2375
Chloroform	50.0	680375.000	0.4562	100	1393348.00	0.4437	200	2885625.00	0.4508
Ethylbenzene	50.0	445584.000	0.4038	100	969141.000	0.3965	200	2039560.00	0.3840
Toluene	50.0	1209595.00	1.096	100	2511236.00	1.027	200	5294261.00	0.9967
Vinyl Chloride	50.0	317455.000	0.2129	100	563286.000	0.1794	200	1071861.00	0.1674
1,1,2,2-Tetrachloroethane	50.0	272945.000	0.4203	100	615154.000	0.4430	200	1323514.00	0.4415
1,1-Dichloroethane	50.0	680789.000	0.4565	100	1406692.00	0.4479	200	2938297.00	0.4590
Bromoform	50.0	167457.000	0.1518	100	384923.000	0.1575	200	828892.000	0.1560
Chlorobenzene	50.0	822625.000	0.7455	100	1787747.00	0.7313	200	3759113.00	0.7077
Chloromethane	50.0	402302.000	0.2697	100	852946.000	0.2716	200	1973945.00	0.3083
1,1,1-Trichloroethane	50.0	650539.000	0.4362	100	1374210.00	0.4376	200	2782956.00	0.4347
1,1,2-Trichloroethane	50.0	214580.000	0.1945	100	474392.000	0.1941	200	1029927.00	0.1939
1,2,4-Trichlorobenzene	50.0	459816.000	0.7080	100	978864.000	0.7049	200	1997794.00	0.6664
1,2-Dichlorobenzene	50.0	644553.000	0.9924	100	1370231.00	0.9867	200	2814978.00	0.9389
1,2-Dichloroethane	50.0	539583.000	0.3618	100	1087561.00	0.3463	200	2177668.00	0.3402
1,3-Dichlorobenzene	50.0	698094.000	1.075	100	1482306.00	1.067	200	3086815.00	1.030
1,4-Dichlorobenzene	50.0	717858.000	1.105	100	1522735.00	1.097	200	3139083.00	1.047
1,4-Dioxane	200	7596.00000	0.001300	400	20165.0000	0.001600	NA	NA	NA
2-Butanone	50.0	99317.0000	0.06660	100	221029.000	0.07040	200	481146.000	0.07520
2-Hexanone	50.0	148924.000	0.1350	100	342021.000	0.1399	200	741638.000	0.1396
4-Methyl-2-Pentanone	50.0	74987.0000	0.05030	100	180280.000	0.05740	200	404576.000	0.06320
Acetone	50.0	70387.0000	0.04720	100	143288.000	0.04560	200	331088.000	0.05170
Acrylonitrile	50.0	78345.0000	0.05250	100	172536.000	0.05490	200	395960.000	0.06190
Benzene	50.0	1225188.00	0.8215	100	2621867.00	0.8349	200	5190201.00	0.8107
Bromodichloromethane	50.0	500728.000	0.3357	100	1070111.00	0.3408	200	2256520.00	0.3525
Bromomethane	50.0	223555.000	0.1499	100	499768.000	0.1591	200	1057992.00	0.1653
Carbon Disulfide	50.0	915546.000	0.6139	100	1888566.00	0.6014	200	4114624.00	0.6427
Carbon Tetrachloride	50.0	519252.000	0.3482	100	1082844.00	0.3448	200	2197062.00	0.3432
Chloroethane	50.0	279241.000	0.1872	100	623362.000	0.1985	200	1270360.00	0.1984
Dibromochloromethane	50.0	287162.000	0.2602	100	643565.000	0.2633	200	1373056.00	0.2585
Methyl Tert Butyl Ether	50.0	749527.000	0.5026	100	1578651.00	0.5027	200	3287582.00	0.5135
Methylene Chloride	50.0	276619.000	0.1855	100	630171.000	0.2007	200	1432491.00	0.2238
Styrene	50.0	1004569.00	0.9104	100	2200845.00	0.9003	200	4676870.00	0.8805
Tetrachloroethene	50.0	273731.000	0.2481	100	569707.000	0.2331	200	1199421.00	0.2258
Trichloroethene	50.0	278920.000	0.1870	100	612889.000	0.1952	200	1264126.00	0.1975
Vinyl Acetate	50.0	492502.000	0.3302	100	1057529.00	0.3368	200	2173766.00	0.3396
cis-1,2-Dichloroethene	50.0	319303.000	0.2141	100	662548.000	0.2110	200	1384922.00	0.2163
cis-1,3-Dichloropropene	50.0	528341.000	0.3543	100	1143283.00	0.3641	200	2442187.00	0.3815
m-,p-Xylene	100	1129083.00	0.5116	200	2425557.00	0.4961	400	4958617.00	0.4668
o-Xylene	50.0	552223.000	0.5004	100	1203757.00	0.4924	200	2553083.00	0.4806
trans-1,2-Dichloroethene	50.0	297999.000	0.1998	100	617709.000	0.1967	200	1269936.00	0.1984

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	27801.0000	0.001400
2-Butanone	300	672287.000	0.06570
2-Hexanone	300	1020911.00	0.1373
4-Methyl-2-Pentanone	NA	NA	NA
Acetone	300	425575.000	0.04160
Acrylonitrile	NA	NA	NA
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	300	3273009.00	0.3197
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-02			WG268581-03			WG268581-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	6737.00000	0.3375

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INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-05			WG268581-06			WG268581-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	14567.0000	0.3577	5.00	40654.0000	0.4145	20.0	193074.000	0.4672

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INITIAL CALIBRATION DATA

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Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-08			WG268581-09			WG268581-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	518589.000	0.4700	100	1123613.00	0.4597	200	2400145.00	0.4519

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INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 17:34

Column ID: F

Analyte	WG268581-11		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-02			WG268631-03			WG268631-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	1.00	6164.00000	0.4041	2.00	11376.0000	0.3716
1,2-Dichloropropane	NA	NA	NA	1.00	3558.00000	0.2332	2.00	6740.00000	0.2202
Chloroform	NA	NA	NA	1.00	7310.00000	0.4792	2.00	13154.0000	0.4297
Ethylbenzene	NA	NA	NA	1.00	4743.00000	0.5115	2.00	8828.00000	0.4815
Toluene	0.500	7164.00000	1.496	1.00	15715.0000	1.695	2.00	27814.0000	1.517
Vinyl Chloride	NA	NA	NA	1.00	3022.00000	0.1981	2.00	5428.00000	0.1773
1,1,2,2-Tetrachloroethane	NA	NA	NA	1.00	3721.00000	0.8793	2.00	6424.00000	0.7623
1,1-Dichloroethane	NA	NA	NA	1.00	7265.00000	0.4762	2.00	13560.0000	0.4429
Bromoform	NA	NA	NA	NA	NA	NA	2.00	2400.00000	0.1309
Chlorobenzene	NA	NA	NA	1.00	9412.00000	1.015	2.00	16877.0000	0.9205
Chloromethane	NA	NA	NA	1.00	4879.00000	0.3198	2.00	7661.00000	0.2502
1,1,1-Trichloroethane	NA	NA	NA	1.00	5452.00000	0.3574	2.00	10410.0000	0.3400
1,1,2-Trichloroethane	NA	NA	NA	1.00	3056.00000	0.3295	2.00	5141.00000	0.2804
1,2,4-Trichlorobenzene	NA	NA	NA	1.00	3767.00000	0.8902	2.00	6763.00000	0.8025
1,2-Dichlorobenzene	NA	NA	NA	1.00	5389.00000	1.274	2.00	9896.00000	1.174
1,2-Dichloroethane	NA	NA	NA	1.00	6256.00000	0.4101	2.00	12244.0000	0.3999
1,3-Dichlorobenzene	NA	NA	NA	1.00	6109.00000	1.444	2.00	10436.0000	1.238
1,4-Dichlorobenzene	NA	NA	NA	1.00	6752.00000	1.596	2.00	12093.0000	1.435
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.500	7129.00000	0.8865	1.00	16946.0000	1.111	2.00	29204.0000	0.9539
Bromodichloromethane	NA	NA	NA	1.00	4634.00000	0.3038	2.00	8248.00000	0.2694
Bromomethane	NA	NA	NA	1.00	1411.00000	0.09250	2.00	2766.00000	0.09040
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	1.00	4113.00000	0.2696	2.00	7564.00000	0.2471
Chloroethane	NA	NA	NA	1.00	2130.00000	0.1396	2.00	4662.00000	0.1523
Dibromochloromethane	NA	NA	NA	NA	NA	NA	2.00	4036.00000	0.2201
Methyl Tert Butyl Ether	NA	NA	NA	1.00	9771.00000	0.6405	2.00	16611.0000	0.5426
Methylene Chloride	NA	NA	NA	NA	NA	NA	2.00	9891.00000	0.3231
Styrene	NA	NA	NA	NA	NA	NA	2.00	13591.0000	0.7413
Tetrachloroethene	NA	NA	NA	1.00	2610.00000	0.2815	2.00	4531.00000	0.2471
Trichloroethene	NA	NA	NA	1.00	3097.00000	0.2030	2.00	6065.00000	0.1981
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	1.00	3776.00000	0.2475	2.00	6993.00000	0.2284
cis-1,3-Dichloropropene	NA	NA	NA	1.00	5057.00000	0.3315	2.00	9396.00000	0.3069
m-,p-Xylene	1.00	4876.00000	0.5092	2.00	12030.0000	0.6486	4.00	20923.0000	0.5706
o-Xylene	NA	NA	NA	1.00	4948.00000	0.5336	2.00	9150.00000	0.4990
trans-1,2-Dichloroethene	NA	NA	NA	1.00	3597.00000	0.2358	2.00	6705.00000	0.2190

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-05			WG268631-07			WG268631-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	5.00	28807.0000	0.3917	50.0	371908.000	0.4679	100	756767.000	0.4935
1,2-Dichloropropane	5.00	19367.0000	0.2633	50.0	210421.000	0.2647	100	431899.000	0.2816
Chloroform	5.00	35643.0000	0.4846	50.0	401995.000	0.5057	100	804783.000	0.5248
Ethylbenzene	5.00	24274.0000	0.5521	50.0	276519.000	0.5772	100	555457.000	0.6128
Toluene	5.00	73800.0000	1.679	50.0	847174.000	1.768	100	1709617.00	1.886
Vinyl Chloride	5.00	13906.0000	0.1891	50.0	127412.000	0.1603	100	223916.000	0.1460
1,1,2,2-Tetrachloroethane	5.00	19827.0000	0.9636	50.0	181891.000	0.8141	100	366524.000	0.8633
1,1-Dichloroethane	5.00	35568.0000	0.4836	50.0	411826.000	0.5181	100	840925.000	0.5483
Bromoform	5.00	7164.00000	0.1630	50.0	87315.0000	0.1823	100	178156.000	0.1966
Chlorobenzene	5.00	44864.0000	1.021	50.0	477665.000	0.9970	100	948429.000	1.046
Chloromethane	5.00	19061.0000	0.2592	50.0	192236.000	0.2418	100	361177.000	0.2355
1,1,1-Trichloroethane	5.00	28976.0000	0.3940	50.0	355225.000	0.4469	100	721546.000	0.4705
1,1,2-Trichloroethane	5.00	15237.0000	0.3466	50.0	146173.000	0.3051	100	290923.000	0.3210
1,2,4-Trichlorobenzene	5.00	17638.0000	0.8572	50.0	201092.000	0.9000	100	421974.000	0.9939
1,2-Dichlorobenzene	5.00	28414.0000	1.381	50.0	289634.000	1.296	100	580044.000	1.366
1,2-Dichloroethane	5.00	32489.0000	0.4418	50.0	334245.000	0.4205	100	671351.000	0.4378
1,3-Dichlorobenzene	5.00	30407.0000	1.478	50.0	320118.000	1.433	100	643394.000	1.515
1,4-Dichlorobenzene	5.00	31770.0000	1.544	50.0	322936.000	1.445	100	642920.000	1.514
1,4-Dioxane	100	2732.00000	0.001900	200	6289.00000	0.002000	400	15307.0000	0.002500
2-Butanone	5.00	8698.00000	0.1183	50.0	83283.0000	0.1048	100	168223.000	0.1097
2-Hexanone	5.00	10173.0000	0.2314	50.0	117860.000	0.2460	100	240562.000	0.2654
4-Methyl-2-Pentanone	5.00	5511.00000	0.07490	50.0	65315.0000	0.08220	100	132146.000	0.08620
Acetone	5.00	9981.00000	0.1357	50.0	60165.0000	0.07570	100	122472.000	0.07990
Acrylonitrile	5.00	5158.00000	0.07010	50.0	66363.0000	0.08350	100	138915.000	0.09060
Benzene	5.00	75524.0000	1.027	50.0	846160.000	1.065	100	1708554.00	1.114
Bromodichloromethane	5.00	24701.0000	0.3359	50.0	281326.000	0.3539	100	577865.000	0.3768
Bromomethane	5.00	7344.00000	0.09990	50.0	83581.0000	0.1051	100	170017.000	0.1109
Carbon Disulfide	5.00	54182.0000	0.7367	50.0	692117.000	0.8707	100	1362813.00	0.8886
Carbon Tetrachloride	5.00	20434.0000	0.2778	50.0	273210.000	0.3437	100	550763.000	0.3591
Chloroethane	5.00	12511.0000	0.1701	50.0	129117.000	0.1624	100	263180.000	0.1716
Dibromochloromethane	5.00	12358.0000	0.2811	50.0	151188.000	0.3156	100	308276.000	0.3401
Methyl Tert Butyl Ether	5.00	50058.0000	0.6806	50.0	566702.000	0.7129	100	1174033.00	0.7655
Methylene Chloride	5.00	20800.0000	0.2828	50.0	198329.000	0.2495	100	397436.000	0.2592
Styrene	5.00	42608.0000	0.9692	50.0	530890.000	1.108	100	1074720.00	1.186
Tetrachloroethene	5.00	12903.0000	0.2935	50.0	147462.000	0.3078	100	300941.000	0.3320
Trichloroethene	5.00	15153.0000	0.2060	50.0	179699.000	0.2261	100	363129.000	0.2368
Vinyl Acetate	5.00	32309.0000	0.4393	50.0	356450.000	0.4484	100	762953.000	0.4975
cis-1,2-Dichloroethene	5.00	18454.0000	0.2509	50.0	209566.000	0.2636	100	425356.000	0.2774
cis-1,3-Dichloropropene	5.00	27563.0000	0.3748	50.0	329375.000	0.4144	100	690865.000	0.4505
m-,p-Xylene	10.0	58668.0000	0.6672	100	668946.000	0.6981	200	1338906.00	0.7386
o-Xylene	5.00	26728.0000	0.6080	50.0	318395.000	0.6646	100	645799.000	0.7125
trans-1,2-Dichloroethene	5.00	17606.0000	0.2394	50.0	207190.000	0.2606	100	418607.000	0.2730

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-09			WG268631-10		
	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	200	1482160.00	0.4561	NA	NA	NA
1,2-Dichloropropane	200	841200.000	0.2589	NA	NA	NA
Chloroform	200	1523449.00	0.4688	NA	NA	NA
Ethylbenzene	200	1038873.00	0.5539	NA	NA	NA
Toluene	200	3241132.00	1.728	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	200	705472.000	0.7967	NA	NA	NA
1,1-Dichloroethane	200	1615953.00	0.4973	NA	NA	NA
Bromoform	200	326531.000	0.1741	NA	NA	NA
Chlorobenzene	200	1759526.00	0.9381	NA	NA	NA
Chloromethane	200	767907.000	0.2363	NA	NA	NA
1,1,1-Trichloroethane	200	1368164.00	0.4210	NA	NA	NA
1,1,2-Trichloroethane	200	536546.000	0.2861	NA	NA	NA
1,2,4-Trichlorobenzene	200	810146.000	0.9149	NA	NA	NA
1,2-Dichlorobenzene	200	1094654.00	1.236	NA	NA	NA
1,2-Dichloroethane	200	1240928.00	0.3819	NA	NA	NA
1,3-Dichlorobenzene	200	1191133.00	1.345	NA	NA	NA
1,4-Dichlorobenzene	200	1196621.00	1.351	NA	NA	NA
1,4-Dioxane	NA	NA	NA	600	21335.0000	0.002200
2-Butanone	200	345004.000	0.1062	300	533852.000	0.1091
2-Hexanone	200	489690.000	0.2611	300	721236.000	0.2556
4-Methyl-2-Pentanone	200	268202.000	0.08250	300	410355.000	0.08380
Acetone	200	242775.000	0.07470	300	360267.000	0.07360
Acrylonitrile	200	285650.000	0.08790	300	391679.000	0.08000
Benzene	200	3244591.00	0.9984	NA	NA	NA
Bromodichloromethane	200	1105431.00	0.3402	NA	NA	NA
Bromomethane	200	345434.000	0.1063	NA	NA	NA
Carbon Disulfide	200	2852727.00	0.8779	NA	NA	NA
Carbon Tetrachloride	200	1088171.00	0.3349	NA	NA	NA
Chloroethane	200	535117.000	0.1647	NA	NA	NA
Dibromochloromethane	200	580586.000	0.3095	NA	NA	NA
Methyl Tert Butyl Ether	200	2459088.00	0.7567	NA	NA	NA
Methylene Chloride	200	754125.000	0.2321	NA	NA	NA
Styrene	200	2005477.00	1.069	NA	NA	NA
Tetrachloroethene	200	574159.000	0.3061	NA	NA	NA
Trichloroethene	200	694931.000	0.2138	NA	NA	NA
Vinyl Acetate	200	1520769.00	0.4680	300	2307147.00	0.4713
cis-1,2-Dichloroethene	200	813167.000	0.2502	NA	NA	NA
cis-1,3-Dichloropropene	200	1319006.00	0.4059	NA	NA	NA
m-,p-Xylene	400	2446850.00	0.6523	NA	NA	NA
o-Xylene	200	1214635.00	0.6476	NA	NA	NA
trans-1,2-Dichloroethene	200	812569.000	0.2500	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-02			WG268631-03			WG268631-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	1.00	4596.00000	0.4956	2.00	9204.00000	0.5020

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-05			WG268631-07			WG268631-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	5.00	27601.0000	0.6278	50.0	321446.000	0.6709	100	652363.000	0.7198

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 17-APR-08 16:47

Column ID: F

Analyte	WG268631-09			WG268631-10		
	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	200	1214460.00	0.6475	NA	NA	NA

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/19/2008 Sample ID: WG268868-12
Instrument ID: HPMS10 Run Time: 22:47 Method: 8260B
File ID: 10M63993 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG268868 Cal ID: HPMS10 - 19-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	21.7	ug/L	0.235	8.30	25	
1,2-Dichloropropane	CCC	20.0	20.9	ug/L	0.257	4.60	25	
Chloroform	CCC	20.0	20.9	ug/L	0.458	4.60	25	
Ethylbenzene	CCC	20.0	21.6	ug/L	0.439	7.80	25	
Toluene	CCC	20.0	21.3	ug/L	1.24	6.40	25	
Vinyl Chloride	CCC	20.0	21.1	ug/L	0.218	5.40	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	21.6	ug/L	0.399	8.10	25	
1,1-Dichloroethane	SPCC	20.0	20.9	ug/L	0.505	4.40	25	
Bromoform	SPCC	20.0	18.5	ug/L	0.157	7.60	25	
Chlorobenzene	SPCC	20.0	20.0	ug/L	0.811	0.100	25	
Chloromethane	SPCC	20.0	22.3	ug/L	0.241	11.3	25	
1,1,1-Trichloroethane		20.0	21.2	ug/L	0.430	5.80	25	
1,1,2-Trichloroethane		20.0	22.0	ug/L	0.216	10.2	25	
1,2,4-Trichlorobenzene		20.0	20.7	ug/L	0.755	3.40	25	
1,2-Dichlorobenzene		20.0	21.2	ug/L	1.11	6.00	25	
1,2-Dichloroethane		20.0	20.4	ug/L	0.355	1.80	25	
1,3-Dichlorobenzene		20.0	20.7	ug/L	1.20	3.30	25	
1,4-Dichlorobenzene		20.0	20.1	ug/L	1.23	0.500	25	
1,4-Dioxane		200	186	ug/L	0.00150	6.90	25	
2-Butanone		20.0	22.8	ug/L	0.0613	14.1	25	
2-Hexanone		20.0	20.4	ug/L	0.0947	2.20	25	
4-Methyl-2-Pentanone		20.0	20.9	ug/L	0.0629	4.30	25	
Acetone		20.0	22.7	ug/L	0.0447	13.4	25	
Acrylonitrile		20.0	20.2	ug/L	0.0651	0.800	25	
Benzene		20.0	21.1	ug/L	0.924	5.60	25	
Bromodichloromethane		20.0	21.9	ug/L	0.324	9.60	25	
Bromomethane		20.0	22.9	ug/L	0.203	14.7	25	
Carbon Disulfide		20.0	19.1	ug/L	0.652	4.60	25	
Carbon Tetrachloride		20.0	21.4	ug/L	0.369	6.90	25	
Dibromochloromethane		20.0	22.0	ug/L	0.284	10.0	25	
Chloroethane		20.0	21.7	ug/L	0.205	8.40	25	
cis-1,2-Dichloroethene		20.0	21.6	ug/L	0.281	7.80	25	
cis-1,3-Dichloropropene		20.0	21.3	ug/L	0.346	6.50	25	
Methyl Tert Butyl Ether		20.0	21.4	ug/L	0.577	7.00	25	
Methylene Chloride		20.0	21.1	ug/L	0.247	5.60	25	
Styrene		20.0	23.3	ug/L	0.873	16.6	25	
Tetrachloroethene		20.0	20.9	ug/L	0.258	4.40	25	
trans-1,2-Dichloroethene		20.0	20.5	ug/L	0.255	2.40	25	
trans-1,3-Dichloropropene		20.0	19.6	ug/L	0.356	2.00	25	
Trichloroethene		20.0	21.4	ug/L	0.276	7.10	25	
Vinyl Acetate		20.0	12.1	ug/L	0.130	39.3	25	*
Xylenes		60.0	64.3	ug/L	0.521	7.20	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/19/2008 Sample ID: WG268868-12
Instrument ID: HPMS10 Run Time: 22:47 Method: 8260B
File ID: 10M63993 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG268868 Cal ID: HPMS10 - 19-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,2-Dichloroethene		40.0	42.0	ug/L	0.268	5.10	25	
o-Xylene		20.0	21.5	ug/L	0.512	7.30	25	
m-,p-Xylene		40.0	42.9	ug/L	0.530	7.20	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/18/2008 Sample ID: WG268581-12
Instrument ID: HPMS6 Run Time: 13:55 Method: 8260B
File ID: 6M74350 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG268581 Cal ID: HPMS6 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	20.4	ug/L	0.365	1.90	25	
1,2-Dichloropropane	CCC	20.0	21.5	ug/L	0.221	7.30	25	
Chloroform	CCC	20.0	21.8	ug/L	0.462	8.90	25	
Ethylbenzene	CCC	20.0	23.5	ug/L	0.416	17.3	25	
Toluene	CCC	20.0	22.5	ug/L	1.11	12.5	25	
Vinyl Chloride	CCC	20.0	24.1	ug/L	0.223	20.6	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	20.7	ug/L	0.409	3.70	25	
1,1-Dichloroethane	SPCC	20.0	22.1	ug/L	0.460	10.3	25	
Bromoform	SPCC	20.0	18.9	ug/L	0.141	5.60	25	
Chlorobenzene	SPCC	20.0	21.5	ug/L	0.767	7.70	25	
Chloromethane	SPCC	20.0	21.5	ug/L	0.302	7.70	25	
1,1,1-Trichloroethane		20.0	20.2	ug/L	0.431	1.20	25	
1,1,2-Trichloroethane		20.0	20.9	ug/L	0.195	4.60	25	
1,2,4-Trichlorobenzene		20.0	22.5	ug/L	0.739	12.3	25	
1,2-Dichlorobenzene		20.0	22.0	ug/L	1.03	10.1	25	
1,2-Dichloroethane		20.0	20.6	ug/L	0.360	2.80	25	
1,3-Dichlorobenzene		20.0	21.7	ug/L	1.11	8.60	25	
1,4-Dichlorobenzene		20.0	20.8	ug/L	1.14	4.10	25	
1,4-Dioxane		200	177	ug/L	0.00160	11.6	25	
2-Butanone		20.0	21.0	ug/L	0.0692	5.00	25	
2-Hexanone		20.0	18.7	ug/L	0.120	6.70	25	
4-Methyl-2-Pentanone		20.0	21.7	ug/L	0.0485	8.50	25	
Acetone		20.0	21.2	ug/L	0.0492	5.80	25	
Acrylonitrile		20.0	20.9	ug/L	0.0511	4.50	25	
Benzene		20.0	22.2	ug/L	0.835	10.9	25	
Bromodichloromethane		20.0	22.6	ug/L	0.343	13.1	25	
Bromomethane		20.0	18.3	ug/L	0.128	8.70	25	
Carbon Disulfide		20.0	19.0	ug/L	0.550	5.10	25	
Carbon Tetrachloride		20.0	20.8	ug/L	0.352	3.80	25	
Dibromochloromethane		20.0	19.5	ug/L	0.251	2.40	25	
Chloroethane		20.0	19.9	ug/L	0.182	0.600	25	
cis-1,2-Dichloroethene		20.0	23.4	ug/L	0.223	16.8	25	
cis-1,3-Dichloropropene		20.0	20.1	ug/L	0.346	0.600	25	
Methylene Chloride		20.0	19.0	ug/L	0.192	4.90	25	
Methyl Tert Butyl Ether		20.0	20.5	ug/L	0.501	2.60	25	
Styrene		20.0	20.3	ug/L	0.909	1.40	25	
Tetrachloroethene		20.0	23.2	ug/L	0.252	15.9	25	
trans-1,2-Dichloroethene		20.0	20.5	ug/L	0.200	2.40	25	
trans-1,3-Dichloropropene		20.0	18.9	ug/L	0.400	5.40	25	
Trichloroethene		20.0	21.4	ug/L	0.199	7.10	25	
Vinyl Acetate		20.0	10.5	ug/L	0.170	47.6	25	*
Xylenes		60.0	67.8	ug/L	0.517	12.9	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/18/2008 Sample ID: WG268581-12
Instrument ID: HPMS6 Run Time: 13:55 Method: 8260B
File ID: 6M74350 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG268581 Cal ID: HPMS6 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
o-Xylene		20.0	20.6	ug/L	0.508	2.80	25	
m-,p-Xylene		40.0	47.2	ug/L	0.526	18.0	25	
1,2-Dichloroethene		40.0	43.8	ug/L	0.211	9.60	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1084417
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/17/2008 Sample ID: WG268631-11
Instrument ID: HPMS9 Run Time: 18:20 Method: 8260B
File ID: 9M61211 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG268631 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	22.0	ug/kg	0.479	9.90	25	
1,2-Dichloropropane	CCC	20.0	22.2	ug/kg	0.284	11.0	25	
Chloroform	CCC	20.0	22.3	ug/kg	0.544	11.5	25	
Ethylbenzene	CCC	20.0	22.3	ug/kg	0.620	11.7	25	
Toluene	CCC	20.0	22.0	ug/kg	1.86	9.80	25	
Vinyl Chloride	CCC	20.0	21.3	ug/kg	0.187	6.40	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	21.6	ug/kg	0.915	7.90	25	
1,1-Dichloroethane	SPCC	20.0	22.5	ug/kg	0.562	12.3	25	
Bromoform	SPCC	20.0	21.8	ug/kg	0.186	8.90	25	
Chlorobenzene	SPCC	20.0	21.7	ug/kg	1.08	8.60	25	
Chloromethane	SPCC	20.0	21.1	ug/kg	0.272	5.30	25	
1,1,1-Trichloroethane		20.0	22.6	ug/kg	0.465	12.8	25	
1,1,2-Trichloroethane		20.0	21.9	ug/kg	0.341	9.50	25	
1,2,4-Trichlorobenzene		20.0	20.7	ug/kg	0.924	3.30	25	
1,2-Dichlorobenzene		20.0	21.4	ug/kg	1.38	7.10	25	
1,2-Dichloroethane		20.0	21.7	ug/kg	0.455	8.70	25	
1,3-Dichlorobenzene		20.0	21.3	ug/kg	1.51	6.60	25	
1,4-Dichlorobenzene		20.0	20.3	ug/kg	1.51	1.70	25	
1,4-Dioxane		200	228	ug/kg	0.00320	14.1	25	
2-Butanone		20.0	26.2	ug/kg	0.144	31.1	25	*
2-Hexanone		20.0	22.8	ug/kg	0.285	14.0	25	
4-Methyl-2-Pentanone		20.0	23.3	ug/kg	0.0957	16.3	25	
Acetone		20.0	25.3	ug/kg	0.109	26.7	25	*
Acrylonitrile		20.0	23.7	ug/kg	0.0984	18.6	25	
Benzene		20.0	22.3	ug/kg	1.15	11.5	25	
Bromodichloromethane		20.0	22.6	ug/kg	0.377	13.1	25	
Bromomethane		20.0	21.9	ug/kg	0.112	9.60	25	
Carbon Disulfide		20.0	18.2	ug/kg	0.784	8.80	25	
Carbon Tetrachloride		20.0	22.2	ug/kg	0.345	11.1	25	
Dibromochloromethane		20.0	21.3	ug/kg	0.315	6.30	25	
Chloroethane		20.0	22.0	ug/kg	0.178	10.0	25	
cis-1,2-Dichloroethene		20.0	22.6	ug/kg	0.289	13.1	25	
cis-1,3-Dichloropropene		20.0	22.2	ug/kg	0.426	10.8	25	
Methylene Chloride		20.0	20.2	ug/kg	0.272	1.20	25	
Methyl Tert Butyl Ether		20.0	22.4	ug/kg	0.774	12.0	25	
Styrene		20.0	20.0	ug/kg	1.13	0.100	25	
Tetrachloroethene		20.0	21.8	ug/kg	0.324	8.90	25	
trans-1,2-Dichloroethene		20.0	21.5	ug/kg	0.270	7.70	25	
trans-1,3-Dichloropropene		20.0	20.0	ug/kg	0.618	0.200	25	
Trichloroethene		20.0	22.3	ug/kg	0.241	11.3	25	
Vinyl Acetate		20.0	12.8	ug/kg	0.298	35.9	25	*
Xylenes		60.0	67.7	ug/kg	0.714	12.9	25	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1084417
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/17/2008 Sample ID: WG268631-11
Instrument ID: HPMS9 Run Time: 18:20 Method: 8260B
File ID: 9M61211 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG268631 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
m-,p-Xylene		40.0	45.5	ug/kg	0.739	13.6	25	
1,2-Dichloroethene		40.0	44.2	ug/kg	0.279	10.4	25	
o-Xylene		20.0	22.3	ug/kg	0.689	11.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269769-02

Instrument ID: HPMS10 Run Time: 08:50 Method: 8260B

File ID: 10M64252 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269770 Cal ID: HPMS10 - 19-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	44.9	ug/L	0.195	10.2	20	
1,2-Dichloropropane	CCC	50.0	48.0	ug/L	0.236	4.06	20	
Chloroform	CCC	50.0	51.1	ug/L	0.447	2.24	20	
Ethylbenzene	CCC	50.0	52.3	ug/L	0.426	4.54	20	
Toluene	CCC	50.0	50.4	ug/L	1.17	0.716	20	
Vinyl Chloride	CCC	50.0	54.9	ug/L	0.208	9.83	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	51.0	ug/L	0.376	2.01	20	
1,1-Dichloroethane	SPCC	50.0	49.7	ug/L	0.481	0.697	20	
Bromoform	SPCC	50.0	51.9	ug/L	0.177	3.88	20	
Chlorobenzene	SPCC	50.0	48.0	ug/L	0.779	4.07	20	
Chloromethane	SPCC	50.0	49.2	ug/L	0.213	1.51	20	
1,1,1-Trichloroethane		50.0	54.2	ug/L	0.441	8.41	20	
1,1,2-Trichloroethane		50.0	52.6	ug/L	0.206	5.28	20	
1,2,4-Trichlorobenzene		50.0	52.0	ug/L	0.760	4.02	20	
1,2-Dichlorobenzene		50.0	51.8	ug/L	1.09	3.54	20	
1,2-Dichloroethane		50.0	53.8	ug/L	0.375	7.53	20	
1,3-Dichlorobenzene		50.0	52.5	ug/L	1.22	4.92	20	
1,4-Dichlorobenzene		50.0	51.3	ug/L	1.25	2.63	20	
1,4-Dioxane		200	196	ug/L	0.00120	1.82	20	
2-Butanone		50.0	53.7	ug/L	0.0577	7.48	20	
2-Hexanone		50.0	56.8	ug/L	0.105	13.6	20	
4-Methyl-2-Pentanone		50.0	47.7	ug/L	0.0575	4.62	20	
Acetone		50.0	55.0	ug/L	0.0434	10.1	20	
Acrylonitrile		50.0	51.2	ug/L	0.0662	2.43	20	
Benzene		50.0	45.7	ug/L	0.800	8.58	20	
Bromodichloromethane		50.0	54.7	ug/L	0.324	9.40	20	
Bromomethane		50.0	44.5	ug/L	0.157	11.1	20	
Carbon Disulfide		50.0	44.7	ug/L	0.612	10.5	20	
Carbon Tetrachloride		50.0	56.0	ug/L	0.387	12.1	20	
Dibromochloromethane		50.0	59.3	ug/L	0.306	18.5	20	
Chloroethane		50.0	44.2	ug/L	0.167	11.6	20	
cis-1,2-Dichloroethene		50.0	47.0	ug/L	0.245	6.00	20	
cis-1,3-Dichloropropene		50.0	51.2	ug/L	0.333	2.39	20	
Methyl Tert Butyl Ether		50.0	45.0	ug/L	0.485	10.0	20	
Methylene Chloride		50.0	44.6	ug/L	0.205	10.9	20	
Styrene		50.0	57.1	ug/L	0.854	14.2	20	
Tetrachloroethene		50.0	52.1	ug/L	0.257	4.16	20	
trans-1,2-Dichloroethene		50.0	45.6	ug/L	0.227	8.88	20	
trans-1,3-Dichloropropene		50.0	57.3	ug/L	0.416	14.5	20	
Trichloroethene		50.0	47.2	ug/L	0.244	5.51	20	
Vinyl Acetate		50.0	85.5	ug/L	0.366	71.0	20	*
Xylenes		150	157	ug/L	0.509	4.95	20	

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269769-02

Instrument ID: HPMS10 Run Time: 08:50 Method: 8260B

File ID: 10M64252 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269770 Cal ID: HPMS10 - 19-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	92.6	ug/L	0.236	7.44	20	
m-,p-Xylene		100	105	ug/L	0.521	5.39	20	
o-Xylene		50.0	52.0	ug/L	0.496	4.07	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269754-02

Instrument ID: HPMS6 Run Time: 08:04 Method: 8260B

File ID: 6M74737 Analyst: CMS QC Key: DOWWV2006

Workgroup (AAB#): WG269755 Cal ID: HPMS6 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	43.1	ug/L	0.313	13.8	20	
1,2-Dichloropropane	CCC	50.0	50.1	ug/L	0.207	0.266	20	
Chloroform	CCC	50.0	48.8	ug/L	0.415	2.35	20	
Ethylbenzene	CCC	50.0	56.5	ug/L	0.401	13.1	20	
Toluene	CCC	50.0	56.4	ug/L	1.11	12.8	20	
Vinyl Chloride	CCC	50.0	42.4	ug/L	0.157	15.3	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	49.5	ug/L	0.391	0.905	20	
1,1-Dichloroethane	SPCC	50.0	49.8	ug/L	0.416	0.340	20	
Bromoform	SPCC	50.0	45.8	ug/L	0.141	8.39	20	
Chlorobenzene	SPCC	50.0	51.4	ug/L	0.732	2.75	20	
Chloromethane	SPCC	50.0	44.7	ug/L	0.251	10.6	20	
1,1,1-Trichloroethane		50.0	45.5	ug/L	0.393	8.96	20	
1,1,2-Trichloroethane		50.0	50.5	ug/L	0.188	1.02	20	
1,2,4-Trichlorobenzene		50.0	54.6	ug/L	0.718	9.19	20	
1,2-Dichlorobenzene		50.0	52.8	ug/L	0.990	5.69	20	
1,2-Dichloroethane		50.0	44.0	ug/L	0.308	12.0	20	
1,3-Dichlorobenzene		50.0	53.2	ug/L	1.09	6.41	20	
1,4-Dichlorobenzene		50.0	51.0	ug/L	1.11	2.01	20	
1,4-Dioxane		200	201	ug/L	0.00140	0.261	20	
2-Butanone		50.0	47.0	ug/L	0.0619	6.06	20	
2-Hexanone		50.0	49.1	ug/L	0.127	1.86	20	
4-Methyl-2-Pentanone		50.0	43.9	ug/L	0.0480	12.2	20	
Acetone		50.0	48.4	ug/L	0.0451	3.13	20	
Acrylonitrile		50.0	49.4	ug/L	0.0511	1.12	20	
Benzene		50.0	51.9	ug/L	0.783	3.89	20	
Bromodichloromethane		50.0	50.3	ug/L	0.305	0.594	20	
Bromomethane		50.0	49.9	ug/L	0.152	0.128	20	
Carbon Disulfide		50.0	48.5	ug/L	0.576	2.98	20	
Carbon Tetrachloride		50.0	46.1	ug/L	0.316	7.74	20	
Dibromochloromethane		50.0	47.1	ug/L	0.244	5.75	20	
Chloroethane		50.0	45.6	ug/L	0.175	8.84	20	
cis-1,2-Dichloroethene		50.0	53.6	ug/L	0.204	7.24	20	
cis-1,3-Dichloropropene		50.0	46.6	ug/L	0.329	6.87	20	
Methylene Chloride		50.0	42.9	ug/L	0.173	14.2	20	
Methyl Tert Butyl Ether		50.0	48.9	ug/L	0.486	2.27	20	
Styrene		50.0	48.9	ug/L	0.888	2.11	20	
Tetrachloroethene		50.0	57.4	ug/L	0.250	14.8	20	
trans-1,2-Dichloroethene		50.0	47.9	ug/L	0.189	4.13	20	
trans-1,3-Dichloropropene		50.0	50.4	ug/L	0.426	0.779	20	
Trichloroethene		50.0	48.7	ug/L	0.186	2.56	20	
Vinyl Acetate		50.0	52.3	ug/L	0.339	4.52	20	
Xylenes		150	164	ug/L	0.503	9.53	20	

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269754-02

Instrument ID: HPMS6 Run Time: 08:04 Method: 8260B

File ID: 6M74737 Analyst: CMS QC Key: DOWWV2006

Workgroup (AAB#): WG269755 Cal ID: HPMS6 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	102	ug/L	0.197	1.56	20	
m-,p-Xylene		100	115	ug/L	0.511	14.6	20	
o-Xylene		50.0	49.7	ug/L	0.494	0.691	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269774-02

Instrument ID: HPMS9 Run Time: 09:01 Method: 8260B

File ID: 9M61431 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269776 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	53.8	ug/kg	0.469	7.56	20	
1,2-Dichloropropane	CCC	50.0	55.3	ug/kg	0.283	10.5	20	
Chloroform	CCC	50.0	55.0	ug/kg	0.537	10.1	20	
Ethylbenzene	CCC	50.0	53.4	ug/kg	0.593	6.80	20	
Toluene	CCC	50.0	52.5	ug/kg	1.78	4.91	20	
Vinyl Chloride	CCC	50.0	53.8	ug/kg	0.189	7.57	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	46.9	ug/kg	0.796	6.14	20	
1,1-Dichloroethane	SPCC	50.0	55.5	ug/kg	0.556	11.1	20	
Bromoform	SPCC	50.0	57.9	ug/kg	0.198	15.8	20	
Chlorobenzene	SPCC	50.0	51.4	ug/kg	1.02	2.81	20	
Chloromethane	SPCC	50.0	49.4	ug/kg	0.255	1.17	20	
1,1,1-Trichloroethane		50.0	59.4	ug/kg	0.490	18.8	20	
1,1,2-Trichloroethane		50.0	49.7	ug/kg	0.310	0.530	20	
1,2,4-Trichlorobenzene		50.0	50.1	ug/kg	0.896	0.121	20	
1,2-Dichlorobenzene		50.0	49.6	ug/kg	1.28	0.762	20	
1,2-Dichloroethane		50.0	53.1	ug/kg	0.444	6.26	20	
1,3-Dichlorobenzene		50.0	51.1	ug/kg	1.45	2.12	20	
1,4-Dichlorobenzene		50.0	48.9	ug/kg	1.45	2.14	20	
1,4-Dioxane		200	217	ug/kg	0.00230	8.43	20	
2-Butanone		50.0	44.9	ug/kg	0.0986	10.3	20	
2-Hexanone		50.0	45.1	ug/kg	0.226	9.71	20	
4-Methyl-2-Pentanone		50.0	49.2	ug/kg	0.0810	1.52	20	
Acetone		50.0	47.9	ug/kg	0.0764	4.25	20	
Acrylonitrile		50.0	50.4	ug/kg	0.0836	0.801	20	
Benzene		50.0	54.8	ug/kg	1.13	9.53	20	
Bromodichloromethane		50.0	59.0	ug/kg	0.394	18.0	20	
Bromomethane		50.0	61.3	ug/kg	0.125	22.6	20	*
Carbon Disulfide		50.0	53.5	ug/kg	0.920	6.96	20	
Carbon Tetrachloride		50.0	61.6	ug/kg	0.383	23.3	20	*
Dibromochloromethane		50.0	55.6	ug/kg	0.329	11.2	20	
Chloroethane		50.0	57.4	ug/kg	0.185	14.8	20	
cis-1,2-Dichloroethene		50.0	54.7	ug/kg	0.279	9.44	20	
cis-1,3-Dichloropropene		50.0	59.3	ug/kg	0.457	18.6	20	
Methylene Chloride		50.0	49.4	ug/kg	0.266	1.12	20	
Methyl Tert Butyl Ether		50.0	56.2	ug/kg	0.777	12.4	20	
Styrene		50.0	47.1	ug/kg	1.11	5.82	20	
Tetrachloroethene		50.0	53.7	ug/kg	0.320	7.47	20	
trans-1,2-Dichloroethene		50.0	54.9	ug/kg	0.275	9.71	20	
trans-1,3-Dichloropropene		50.0	54.2	ug/kg	0.671	8.38	20	
Trichloroethene		50.0	56.6	ug/kg	0.245	13.2	20	
Vinyl Acetate		50.0	64.7	ug/kg	0.602	29.4	20	*
Xylenes		150	161	ug/kg	0.682	7.56	20	

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269774-02

Instrument ID: HPMS9 Run Time: 09:01 Method: 8260B

File ID: 9M61431 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG269776 Cal ID: HPMS9 - 17-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	110	ug/kg	0.277	9.58	20	
m-,p-Xylene		100	108	ug/kg	0.700	7.68	20	
o-Xylene		50.0	53.7	ug/kg	0.664	7.32	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1086692
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040557
Instrument ID:HPMS6
Workgroup (AAB#):WG269755

ICAL CCV Number:WG268581-08
CAL ID: HPMS6-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268581-08	NA	NA	324738	551732	745710
Upper Limit	NA	NA	649476	1103464	1491420
Lower Limit	NA	NA	162369	275866	372855
L08040557-04	50.0	DL01	300164	528656	610044
WG269755-01	50.0	DL01	279774	503636	585657
WG269755-02	50.0	DL01	289922	501072	611817

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1086693
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040557
Instrument ID:HPMS9
Workgroup (AAB#):WG269776

ICAL CCV Number:WG268631-07
CAL ID: HPMS9-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268631-07	NA	NA	223427	479092	794901
Upper Limit	NA	NA	446854	958184	1589802
Lower Limit	NA	NA	111714	239546	397451
L08040557-01	1.00	02	217818	475484	742487
L08040557-02	1.00	02	223839	510918	811759
L08040557-03	1.00	01	245652	537248	835375
WG269776-01	1.00	01	251182	528986	815947
WG269776-02	1.00	01	236211	509694	790520
WG269776-03	1.00	01	250008	523015	811539

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1086693
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Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number: L08040557
Instrument ID: HPMS10
Workgroup (AAB#): WG269770

ICAL CCV Number: WG268868-08
CAL ID: HPMS10-19-APR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268868-08	NA	NA	380506	706846	873819
Upper Limit	NA	NA	761012	1413692	1747638
Lower Limit	NA	NA	190253	353423	436910
L08040557-05	1.00	01	360741	691665	918550
WG269770-01	1.00	01	362355	700654	938040
WG269770-02	1.00	01	414604	752552	992581

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1086693
Report generated 05/06/2008 12:58

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08040557
Instrument ID: HPMS6
Workgroup (AAB#): WG269755

ICAL CCV Number: WG268581-08
CAL ID: HPMS6-17-APR-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268581-08	NA	NA	18.86	15.3	10.83
Upper Limit	NA	NA	19.36	15.8	11.33
Lower Limit	NA	NA	18.36	14.8	10.33
L08040557-04	50.0	DL01	18.86	15.3	10.82
WG269755-01	50.0	DL01	18.86	15.3	10.83
WG269755-02	50.0	DL01	18.86	15.3	10.82

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1086695
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040557
Instrument ID:HPMS9
Workgroup (AAB#):WG269776

ICAL CCV Number:WG268631-07
CAL ID: HPMS9-17-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268631-07	NA	NA	15.21	12.23	8.38
Upper Limit	NA	NA	15.71	12.73	8.88
Lower Limit	NA	NA	14.71	11.73	7.88
L08040557-01	1.00	02	15.21	12.23	8.39
L08040557-02	1.00	02	15.21	12.23	8.39
L08040557-03	1.00	01	15.21	12.23	8.39
WG269776-01	1.00	01	15.2	12.23	8.39
WG269776-02	1.00	01	15.2	12.23	8.39
WG269776-03	1.00	01	15.21	12.23	8.38

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1086695
Report generated: 05/06/2008 12:58

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040557
Instrument ID:HPMS10
Workgroup (AAB#):WG269770

ICAL CCV Number:WG268868-08
CAL ID: HPMS10-19-APR-08
Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG268868-08	NA	NA	17.74	14.72	10.84
Upper Limit	NA	NA	18.24	15.22	11.34
Lower Limit	NA	NA	17.24	14.22	10.34
L08040557-05	1.00	01	17.73	14.72	10.84
WG269770-01	1.00	01	17.73	14.71	10.84
WG269770-02	1.00	01	17.73	14.72	10.84

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1086695
Report generated: 05/06/2008 12:58

2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data

Microbac Laboratories Inc.
GC/MS SEMIVOLATILE ORGANICS

Microbac Login No: L08040557

METHOD

Preparation: Soils - SW-846 3545; Waters - SW-846 3510C or 3520C

Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: The standard analyzed on 4/24/08 yielded a %D for bis(2-chloroethoxy)methane that was beyond the acceptance limit (biased low). All other acceptance criteria were met..

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: The LCS yielded low recoveries for 7 compounds. Samples were re-extracted with an acceptable LCS. All other acceptance criteria were met.

Matrix Spikes: There were no MS/MSD results associated with this sample delivery group.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Manual Integration Reason Codes

Microbac laboratory management has identified four general cases with valid reasons supporting the use of manual integration techniques.

Reason #1: Data System Fails to Select Correct Peak
In some cases the chromatography system selects and integrates the ”wrong peak”. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.
This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds.
This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous
Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CAA, MES

Approved: 06-MAY-08

LABORATORY REPORT

L08040557

05/07/08 11:58

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3034-S001-041708	L08040557-01	8270C	1	18-APR-08
3034-S001-041708	L08040557-01	8270C	1	18-APR-08
3034-S002-041708	L08040557-02	8270C	1	18-APR-08
3034-S002-041708	L08040557-02	8270C	1	18-APR-08
3034-S002-041708D	L08040557-03	8270C	1	18-APR-08
3034-S002-041708D	L08040557-03	8270C	1	18-APR-08
3034-S003-041708	L08040557-04	8270C	1	18-APR-08
3034-S003-041708	L08040557-04	8270C	1	18-APR-08

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-01**
Client ID: **3034-S001-041708**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 18:22**
File ID: **4M42539**
Percent Solid: **84.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	189	94.5
2,4,6-Trichlorophenol	88-06-2		U	189	94.5
2,4-Dichlorophenol	120-83-2		U	189	94.5
2,4-Dimethylphenol	105-67-9		U	189	94.5
2,4-Dinitrophenol	51-28-5		U	945	472
2,4-Dinitrotoluene	121-14-2		U	189	94.5
2,6-Dinitrotoluene	606-20-2		U	189	94.5
2-Chloronaphthalene	91-58-7		U	189	94.5
2-Chlorophenol	95-57-8		U	189	94.5
2-Methylnaphthalene	91-57-6		U	189	94.5
2-Methylphenol	95-48-7		U	189	94.5
2-Nitroaniline	88-74-4		U	945	472
2-Nitrophenol	88-75-5		U	189	94.5
3,3'-Dichlorobenzidine	91-94-1		U	378	189
3-,4-Methylphenol	106-44-5		U	189	94.5
3-Nitroaniline	99-09-2		U	945	472
4,6-Dinitro-2-methylphenol	534-52-1		U	945	472
4-Bromophenyl phenyl ether	101-55-3		U	189	94.5
4-Chloro-3-methylphenol	59-50-7		U	189	94.5
4-Chloroaniline	106-47-8		U	189	94.5
4-Chlorophenyl phenyl ether	7005-72-3		U	189	94.5
4-Nitroaniline	100-01-6		U	945	472
4-Nitrophenol	100-02-7		U	945	472
Acenaphthene	83-32-9		U	189	94.5
Acenaphthylene	208-96-8		U	189	94.5
Anthracene	120-12-7		U	189	94.5
Benzo(a)anthracene	56-55-3		U	189	94.5
Benzo(a)pyrene	50-32-8		U	189	94.5
Benzo(b)fluoranthene	205-99-2		U	189	94.5
Benzo(g,h,i)Perylene	191-24-2		U	189	94.5
Benzo(k)fluoranthene	207-08-9		U	189	94.5
Bis(2-Chloroethoxy)Methane	111-91-1		U	189	94.5
Bis(2-Chloroethyl)ether	111-44-4		U	189	94.5
bis(2-Chloroisopropyl)ether	39638-32-9		U	189	94.5
bis(2-Ethylhexyl)phthalate	117-81-7		U	189	94.5
Butyl benzyl phthalate	85-68-7		U	189	94.5
Carbazole	86-74-8		U	189	94.5
Chrysene	218-01-9		U	189	94.5
Dibenz(a,h)anthracene	53-70-3		U	189	94.5
Dibenzofuran	132-64-9		U	189	94.5
Diethyl phthalate	84-66-2		U	189	94.5
Dimethyl phthalate	131-11-3		U	189	94.5
Di-N-Butylphthalate	84-74-2		U	189	94.5
Di-n-octyl phthalate	117-84-0		U	189	94.5
Fluoranthene	206-44-0		U	189	94.5
Fluorene	86-73-7		U	189	94.5
Hexachlorobenzene	118-74-1		U	189	94.5
Hexachlorobutadiene	87-68-3		U	189	94.5

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-01**
Client ID: **3034-S001-041708**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 18:22**
File ID: **4M42539**
Percent Solid: **84.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	189	94.5
Hexachloroethane	67-72-1		U	189	94.5
Indeno(1,2,3-cd)pyrene	193-39-5		U	189	94.5
Isophorone	78-59-1		U	189	94.5
Naphthalene	91-20-3		U	189	94.5
Nitrobenzene	98-95-3		U	189	94.5
N-Nitrosodiphenylamine	86-30-6		U	189	94.5
N-Nitrosodipropylamine	621-64-7		U	189	94.5
Pentachlorophenol	87-86-5		U	945	472
Phenanthrene	85-01-8		U	189	94.5
Phenol	108-95-2		U	189	94.5
Pyrene	129-00-0		U	189	94.5

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	63.6	19	122	
2-Fluorobiphenyl	43.8	30	115	
2-Fluorophenol	50.9	25	121	
Nitrobenzene-d5	49.9	23	120	
p-Terphenyl-d14	99.2	18	137	
Phenol-d5	53.8	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-01**
Client ID: **3034-S001-041708**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 09:50**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 23:05**
File ID: **4M42604**
Percent Solid: **84.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	191	95.6
2,4,6-Trichlorophenol	88-06-2		U	191	95.6
2,4-Dichlorophenol	120-83-2		U	191	95.6
2,4-Dimethylphenol	105-67-9		U	191	95.6
2,4-Dinitrophenol	51-28-5		U	956	478
2,4-Dinitrotoluene	121-14-2		U	191	95.6
2,6-Dinitrotoluene	606-20-2		U	191	95.6
2-Chloronaphthalene	91-58-7		U	191	95.6
2-Chlorophenol	95-57-8		U	191	95.6
2-Methylnaphthalene	91-57-6		U	191	95.6
2-Methylphenol	95-48-7		U	191	95.6
2-Nitroaniline	88-74-4		U	956	478
2-Nitrophenol	88-75-5		U	191	95.6
3,3'-Dichlorobenzidine	91-94-1		U	383	191
3-,4-Methylphenol	106-44-5		U	191	95.6
3-Nitroaniline	99-09-2		U	956	478
4,6-Dinitro-2-methylphenol	534-52-1		U	956	478
4-Bromophenyl phenyl ether	101-55-3		U	191	95.6
4-Chloro-3-methylphenol	59-50-7		U	191	95.6
4-Chloroaniline	106-47-8		U	191	95.6
4-Chlorophenyl phenyl ether	7005-72-3		U	191	95.6
4-Nitroaniline	100-01-6		U	956	478
4-Nitrophenol	100-02-7		U	956	478
Acenaphthene	83-32-9		U	191	95.6
Acenaphthylene	208-96-8		U	191	95.6
Anthracene	120-12-7		U	191	95.6
Benzo(a)anthracene	56-55-3		U	191	95.6
Benzo(a)pyrene	50-32-8		U	191	95.6
Benzo(b)fluoranthene	205-99-2		U	191	95.6
Benzo(g,h,i)Perylene	191-24-2		U	191	95.6
Benzo(k)fluoranthene	207-08-9		U	191	95.6
Bis(2-Chloroethoxy)Methane	111-91-1		U	191	95.6
Bis(2-Chloroethyl)ether	111-44-4		U	191	95.6
bis(2-Chloroisopropyl)ether	39638-32-9		U	191	95.6
bis(2-Ethylhexyl)phthalate	117-81-7		U	191	95.6
Butyl benzyl phthalate	85-68-7		U	191	95.6
Carbazole	86-74-8		U	191	95.6
Chrysene	218-01-9		U	191	95.6
Dibenz(a,h)anthracene	53-70-3		U	191	95.6
Dibenzofuran	132-64-9		U	191	95.6
Diethyl phthalate	84-66-2		U	191	95.6
Dimethyl phthalate	131-11-3		U	191	95.6
Di-N-Butylphthalate	84-74-2		U	191	95.6
Di-n-octyl phthalate	117-84-0		U	191	95.6
Fluoranthene	206-44-0		U	191	95.6
Fluorene	86-73-7		U	191	95.6
Hexachlorobenzene	118-74-1		U	191	95.6
Hexachlorobutadiene	87-68-3		U	191	95.6

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-01**
Client ID: **3034-S001-041708**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 09:50**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 23:05**
File ID: **4M42604**
Percent Solid: **84.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	191	95.6
Hexachloroethane	67-72-1		U	191	95.6
Indeno(1,2,3-cd)pyrene	193-39-5		U	191	95.6
Isophorone	78-59-1		U	191	95.6
Naphthalene	91-20-3		U	191	95.6
Nitrobenzene	98-95-3		U	191	95.6
N-Nitrosodiphenylamine	86-30-6		U	191	95.6
N-Nitrosodipropylamine	621-64-7		U	191	95.6
Pentachlorophenol	87-86-5		U	956	478
Phenanthrene	85-01-8		U	191	95.6
Phenol	108-95-2		U	191	95.6
Pyrene	129-00-0		U	191	95.6

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	62.6	19	122	
2-Fluorobiphenyl	45.8	30	115	
2-Fluorophenol	55.7	25	121	
Nitrobenzene-d5	54.5	23	120	
p-Terphenyl-d14	67.9	18	137	
Phenol-d5	61.0	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-02**
Client ID: **3034-S002-041708**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 10:20**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 18:53**
File ID: **4M42540**
Percent Solid: **86.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	185	92.6
2,4,6-Trichlorophenol	88-06-2		U	185	92.6
2,4-Dichlorophenol	120-83-2		U	185	92.6
2,4-Dimethylphenol	105-67-9		U	185	92.6
2,4-Dinitrophenol	51-28-5		U	926	463
2,4-Dinitrotoluene	121-14-2		U	185	92.6
2,6-Dinitrotoluene	606-20-2		U	185	92.6
2-Chloronaphthalene	91-58-7		U	185	92.6
2-Chlorophenol	95-57-8		U	185	92.6
2-Methylnaphthalene	91-57-6		U	185	92.6
2-Methylphenol	95-48-7		U	185	92.6
2-Nitroaniline	88-74-4		U	926	463
2-Nitrophenol	88-75-5		U	185	92.6
3,3'-Dichlorobenzidine	91-94-1		U	371	185
3-,4-Methylphenol	106-44-5		U	185	92.6
3-Nitroaniline	99-09-2		U	926	463
4,6-Dinitro-2-methylphenol	534-52-1		U	926	463
4-Bromophenyl phenyl ether	101-55-3		U	185	92.6
4-Chloro-3-methylphenol	59-50-7		U	185	92.6
4-Chloroaniline	106-47-8		U	185	92.6
4-Chlorophenyl phenyl ether	7005-72-3		U	185	92.6
4-Nitroaniline	100-01-6		U	926	463
4-Nitrophenol	100-02-7		U	926	463
Acenaphthene	83-32-9		U	185	92.6
Acenaphthylene	208-96-8		U	185	92.6
Anthracene	120-12-7		U	185	92.6
Benzo(a)anthracene	56-55-3		U	185	92.6
Benzo(a)pyrene	50-32-8		U	185	92.6
Benzo(b)fluoranthene	205-99-2		U	185	92.6
Benzo(g,h,i)Perylene	191-24-2		U	185	92.6
Benzo(k)fluoranthene	207-08-9		U	185	92.6
Bis(2-Chloroethoxy)Methane	111-91-1		U	185	92.6
Bis(2-Chloroethyl)ether	111-44-4		U	185	92.6
bis(2-Chloroisopropyl)ether	39638-32-9		U	185	92.6
bis(2-Ethylhexyl)phthalate	117-81-7		U	185	92.6
Butyl benzyl phthalate	85-68-7		U	185	92.6
Carbazole	86-74-8		U	185	92.6
Chrysene	218-01-9		U	185	92.6
Dibenz(a,h)anthracene	53-70-3		U	185	92.6
Dibenzofuran	132-64-9		U	185	92.6
Diethyl phthalate	84-66-2		U	185	92.6
Dimethyl phthalate	131-11-3		U	185	92.6
Di-N-Butylphthalate	84-74-2		U	185	92.6
Di-n-octyl phthalate	117-84-0		U	185	92.6
Fluoranthene	206-44-0		U	185	92.6
Fluorene	86-73-7		U	185	92.6
Hexachlorobenzene	118-74-1		U	185	92.6
Hexachlorobutadiene	87-68-3		U	185	92.6

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-02**
Client ID: **3034-S002-041708**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 10:20**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 18:53**
File ID: **4M42540**
Percent Solid: **86.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	185	92.6
Hexachloroethane	67-72-1		U	185	92.6
Indeno(1,2,3-cd)pyrene	193-39-5		U	185	92.6
Isophorone	78-59-1		U	185	92.6
Naphthalene	91-20-3		U	185	92.6
Nitrobenzene	98-95-3		U	185	92.6
N-Nitrosodiphenylamine	86-30-6		U	185	92.6
N-Nitrosodipropylamine	621-64-7		U	185	92.6
Pentachlorophenol	87-86-5		U	926	463
Phenanthrene	85-01-8		U	185	92.6
Phenol	108-95-2		U	185	92.6
Pyrene	129-00-0		U	185	92.6

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	61.2	19	122	
2-Fluorobiphenyl	57.4	30	115	
2-Fluorophenol	56.6	25	121	
Nitrobenzene-d5	57.5	23	120	
p-Terphenyl-d14	83.5	18	137	
Phenol-d5	58.9	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-02**
Client ID: **3034-S002-041708**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 10:20**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 23:37**
File ID: **4M42605**
Percent Solid: **86.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	187	93.7
2,4,6-Trichlorophenol	88-06-2		U	187	93.7
2,4-Dichlorophenol	120-83-2		U	187	93.7
2,4-Dimethylphenol	105-67-9		U	187	93.7
2,4-Dinitrophenol	51-28-5		U	937	468
2,4-Dinitrotoluene	121-14-2		U	187	93.7
2,6-Dinitrotoluene	606-20-2		U	187	93.7
2-Chloronaphthalene	91-58-7		U	187	93.7
2-Chlorophenol	95-57-8		U	187	93.7
2-Methylnaphthalene	91-57-6		U	187	93.7
2-Methylphenol	95-48-7		U	187	93.7
2-Nitroaniline	88-74-4		U	937	468
2-Nitrophenol	88-75-5		U	187	93.7
3,3'-Dichlorobenzidine	91-94-1		U	375	187
3-,4-Methylphenol	106-44-5		U	187	93.7
3-Nitroaniline	99-09-2		U	937	468
4,6-Dinitro-2-methylphenol	534-52-1		U	937	468
4-Bromophenyl phenyl ether	101-55-3		U	187	93.7
4-Chloro-3-methylphenol	59-50-7		U	187	93.7
4-Chloroaniline	106-47-8		U	187	93.7
4-Chlorophenyl phenyl ether	7005-72-3		U	187	93.7
4-Nitroaniline	100-01-6		U	937	468
4-Nitrophenol	100-02-7		U	937	468
Acenaphthene	83-32-9		U	187	93.7
Acenaphthylene	208-96-8		U	187	93.7
Anthracene	120-12-7		U	187	93.7
Benzo(a)anthracene	56-55-3		U	187	93.7
Benzo(a)pyrene	50-32-8		U	187	93.7
Benzo(b)fluoranthene	205-99-2		U	187	93.7
Benzo(g,h,i)Perylene	191-24-2		U	187	93.7
Benzo(k)fluoranthene	207-08-9		U	187	93.7
Bis(2-Chloroethoxy)Methane	111-91-1		U	187	93.7
Bis(2-Chloroethyl)ether	111-44-4		U	187	93.7
bis(2-Chloroisopropyl)ether	39638-32-9		U	187	93.7
bis(2-Ethylhexyl)phthalate	117-81-7		U	187	93.7
Butyl benzyl phthalate	85-68-7		U	187	93.7
Carbazole	86-74-8		U	187	93.7
Chrysene	218-01-9		U	187	93.7
Dibenz(a,h)anthracene	53-70-3		U	187	93.7
Dibenzofuran	132-64-9		U	187	93.7
Diethyl phthalate	84-66-2		U	187	93.7
Dimethyl phthalate	131-11-3		U	187	93.7
Di-N-Butylphthalate	84-74-2		U	187	93.7
Di-n-octyl phthalate	117-84-0		U	187	93.7
Fluoranthene	206-44-0		U	187	93.7
Fluorene	86-73-7		U	187	93.7
Hexachlorobenzene	118-74-1		U	187	93.7
Hexachlorobutadiene	87-68-3		U	187	93.7

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-02**
Client ID: **3034-S002-041708**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 10:20**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/01/2008 23:37**
File ID: **4M42605**
Percent Solid: **86.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	187	93.7
Hexachloroethane	67-72-1		U	187	93.7
Indeno(1,2,3-cd)pyrene	193-39-5		U	187	93.7
Isophorone	78-59-1		U	187	93.7
Naphthalene	91-20-3		U	187	93.7
Nitrobenzene	98-95-3		U	187	93.7
N-Nitrosodiphenylamine	86-30-6		U	187	93.7
N-Nitrosodipropylamine	621-64-7		U	187	93.7
Pentachlorophenol	87-86-5		U	937	468
Phenanthrene	85-01-8		U	187	93.7
Phenol	108-95-2		U	187	93.7
Pyrene	129-00-0		U	187	93.7

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	61.9	19	122	
2-Fluorobiphenyl	59.3	30	115	
2-Fluorophenol	62.0	25	121	
Nitrobenzene-d5	63.8	23	120	
p-Terphenyl-d14	47.6	18	137	
Phenol-d5	65.8	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-03**
Client ID: **3034-S002-041708D**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 10:25**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 19:25**
File ID: **4M42541**
Percent Solid: **85.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	185	92.5
2,4,6-Trichlorophenol	88-06-2		U	185	92.5
2,4-Dichlorophenol	120-83-2		U	185	92.5
2,4-Dimethylphenol	105-67-9		U	185	92.5
2,4-Dinitrophenol	51-28-5		U	925	462
2,4-Dinitrotoluene	121-14-2		U	185	92.5
2,6-Dinitrotoluene	606-20-2		U	185	92.5
2-Chloronaphthalene	91-58-7		U	185	92.5
2-Chlorophenol	95-57-8		U	185	92.5
2-Methylnaphthalene	91-57-6		U	185	92.5
2-Methylphenol	95-48-7		U	185	92.5
2-Nitroaniline	88-74-4		U	925	462
2-Nitrophenol	88-75-5		U	185	92.5
3,3'-Dichlorobenzidine	91-94-1		U	370	185
3-,4-Methylphenol	106-44-5		U	185	92.5
3-Nitroaniline	99-09-2		U	925	462
4,6-Dinitro-2-methylphenol	534-52-1		U	925	462
4-Bromophenyl phenyl ether	101-55-3		U	185	92.5
4-Chloro-3-methylphenol	59-50-7		U	185	92.5
4-Chloroaniline	106-47-8		U	185	92.5
4-Chlorophenyl phenyl ether	7005-72-3		U	185	92.5
4-Nitroaniline	100-01-6		U	925	462
4-Nitrophenol	100-02-7		U	925	462
Acenaphthene	83-32-9		U	185	92.5
Acenaphthylene	208-96-8		U	185	92.5
Anthracene	120-12-7		U	185	92.5
Benzo(a)anthracene	56-55-3		U	185	92.5
Benzo(a)pyrene	50-32-8		U	185	92.5
Benzo(b)fluoranthene	205-99-2		U	185	92.5
Benzo(g,h,i)Perylene	191-24-2		U	185	92.5
Benzo(k)fluoranthene	207-08-9		U	185	92.5
Bis(2-Chloroethoxy)Methane	111-91-1		U	185	92.5
Bis(2-Chloroethyl)ether	111-44-4		U	185	92.5
bis(2-Chloroisopropyl)ether	39638-32-9		U	185	92.5
bis(2-Ethylhexyl)phthalate	117-81-7		U	185	92.5
Butyl benzyl phthalate	85-68-7		U	185	92.5
Carbazole	86-74-8		U	185	92.5
Chrysene	218-01-9		U	185	92.5
Dibenz(a,h)anthracene	53-70-3		U	185	92.5
Dibenzofuran	132-64-9		U	185	92.5
Diethyl phthalate	84-66-2		U	185	92.5
Dimethyl phthalate	131-11-3		U	185	92.5
Di-N-Butylphthalate	84-74-2		U	185	92.5
Di-n-octyl phthalate	117-84-0		U	185	92.5
Fluoranthene	206-44-0		U	185	92.5
Fluorene	86-73-7		U	185	92.5
Hexachlorobenzene	118-74-1		U	185	92.5
Hexachlorobutadiene	87-68-3		U	185	92.5

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-03**
Client ID: **3034-S002-041708D**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 10:25**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 19:25**
File ID: **4M42541**
Percent Solid: **85.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	185	92.5
Hexachloroethane	67-72-1		U	185	92.5
Indeno(1,2,3-cd)pyrene	193-39-5		U	185	92.5
Isophorone	78-59-1		U	185	92.5
Naphthalene	91-20-3		U	185	92.5
Nitrobenzene	98-95-3		U	185	92.5
N-Nitrosodiphenylamine	86-30-6		U	185	92.5
N-Nitrosodipropylamine	621-64-7		U	185	92.5
Pentachlorophenol	87-86-5		U	925	462
Phenanthrene	85-01-8		U	185	92.5
Phenol	108-95-2		U	185	92.5
Pyrene	129-00-0		U	185	92.5

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	59.0	19	122	
2-Fluorobiphenyl	45.1	30	115	
2-Fluorophenol	46.3	25	121	
Nitrobenzene-d5	47.6	23	120	
p-Terphenyl-d14	61.0	18	137	
Phenol-d5	48.2	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-03**
Client ID: **3034-S002-041708D**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 10:25**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/02/2008 00:09**
File ID: **4M42606**
Percent Solid: **85.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	191	95.5
2,4,6-Trichlorophenol	88-06-2		U	191	95.5
2,4-Dichlorophenol	120-83-2		U	191	95.5
2,4-Dimethylphenol	105-67-9		U	191	95.5
2,4-Dinitrophenol	51-28-5		U	955	477
2,4-Dinitrotoluene	121-14-2		U	191	95.5
2,6-Dinitrotoluene	606-20-2		U	191	95.5
2-Chloronaphthalene	91-58-7		U	191	95.5
2-Chlorophenol	95-57-8		U	191	95.5
2-Methylnaphthalene	91-57-6		U	191	95.5
2-Methylphenol	95-48-7		U	191	95.5
2-Nitroaniline	88-74-4		U	955	477
2-Nitrophenol	88-75-5		U	191	95.5
3,3'-Dichlorobenzidine	91-94-1		U	382	191
3-,4-Methylphenol	106-44-5		U	191	95.5
3-Nitroaniline	99-09-2		U	955	477
4,6-Dinitro-2-methylphenol	534-52-1		U	955	477
4-Bromophenyl phenyl ether	101-55-3		U	191	95.5
4-Chloro-3-methylphenol	59-50-7		U	191	95.5
4-Chloroaniline	106-47-8		U	191	95.5
4-Chlorophenyl phenyl ether	7005-72-3		U	191	95.5
4-Nitroaniline	100-01-6		U	955	477
4-Nitrophenol	100-02-7		U	955	477
Acenaphthene	83-32-9		U	191	95.5
Acenaphthylene	208-96-8		U	191	95.5
Anthracene	120-12-7		U	191	95.5
Benzo(a)anthracene	56-55-3		U	191	95.5
Benzo(a)pyrene	50-32-8		U	191	95.5
Benzo(b)fluoranthene	205-99-2		U	191	95.5
Benzo(g,h,i)Perylene	191-24-2		U	191	95.5
Benzo(k)fluoranthene	207-08-9		U	191	95.5
Bis(2-Chloroethoxy)Methane	111-91-1		U	191	95.5
Bis(2-Chloroethyl)ether	111-44-4		U	191	95.5
bis(2-Chloroisopropyl)ether	39638-32-9		U	191	95.5
bis(2-Ethylhexyl)phthalate	117-81-7		U	191	95.5
Butyl benzyl phthalate	85-68-7		U	191	95.5
Carbazole	86-74-8		U	191	95.5
Chrysene	218-01-9		U	191	95.5
Dibenz(a,h)anthracene	53-70-3		U	191	95.5
Dibenzofuran	132-64-9		U	191	95.5
Diethyl phthalate	84-66-2		U	191	95.5
Dimethyl phthalate	131-11-3		U	191	95.5
Di-N-Butylphthalate	84-74-2		U	191	95.5
Di-n-octyl phthalate	117-84-0		U	191	95.5
Fluoranthene	206-44-0		U	191	95.5
Fluorene	86-73-7		U	191	95.5
Hexachlorobenzene	118-74-1		U	191	95.5
Hexachlorobutadiene	87-68-3		U	191	95.5

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-03**
Client ID: **3034-S002-041708D**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 10:25**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/02/2008 00:09**
File ID: **4M42606**
Percent Solid: **85.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	191	95.5
Hexachloroethane	67-72-1		U	191	95.5
Indeno(1,2,3-cd)pyrene	193-39-5		U	191	95.5
Isophorone	78-59-1		U	191	95.5
Naphthalene	91-20-3		U	191	95.5
Nitrobenzene	98-95-3		U	191	95.5
N-Nitrosodiphenylamine	86-30-6		U	191	95.5
N-Nitrosodipropylamine	621-64-7		U	191	95.5
Pentachlorophenol	87-86-5		U	955	477
Phenanthrene	85-01-8		U	191	95.5
Phenol	108-95-2		U	191	95.5
Pyrene	129-00-0		U	191	95.5

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	85.9	19	122	
2-Fluorobiphenyl	65.9	30	115	
2-Fluorophenol	65.8	25	121	
Nitrobenzene-d5	69.4	23	120	
p-Terphenyl-d14	94.6	18	137	
Phenol-d5	72.0	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-04**
Client ID: **3034-S003-041708**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 10:35**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/02/2008 00:41**
File ID: **4M42607**
Percent Solid: **94.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	174	86.8
2,4,6-Trichlorophenol	88-06-2		U	174	86.8
2,4-Dichlorophenol	120-83-2		U	174	86.8
2,4-Dimethylphenol	105-67-9		U	174	86.8
2,4-Dinitrophenol	51-28-5		U	868	433
2,4-Dinitrotoluene	121-14-2		U	174	86.8
2,6-Dinitrotoluene	606-20-2		U	174	86.8
2-Chloronaphthalene	91-58-7		U	174	86.8
2-Chlorophenol	95-57-8		U	174	86.8
2-Methylnaphthalene	91-57-6		U	174	86.8
2-Methylphenol	95-48-7		U	174	86.8
2-Nitroaniline	88-74-4		U	868	433
2-Nitrophenol	88-75-5		U	174	86.8
3,3'-Dichlorobenzidine	91-94-1		U	347	174
3-,4-Methylphenol	106-44-5		U	174	86.8
3-Nitroaniline	99-09-2		U	868	433
4,6-Dinitro-2-methylphenol	534-52-1		U	868	433
4-Bromophenyl phenyl ether	101-55-3		U	174	86.8
4-Chloro-3-methylphenol	59-50-7		U	174	86.8
4-Chloroaniline	106-47-8		U	174	86.8
4-Chlorophenyl phenyl ether	7005-72-3		U	174	86.8
4-Nitroaniline	100-01-6		U	868	433
4-Nitrophenol	100-02-7		U	868	433
Acenaphthene	83-32-9		U	174	86.8
Acenaphthylene	208-96-8		U	174	86.8
Anthracene	120-12-7		U	174	86.8
Benzo(a)anthracene	56-55-3		U	174	86.8
Benzo(a)pyrene	50-32-8		U	174	86.8
Benzo(b)fluoranthene	205-99-2		U	174	86.8
Benzo(g,h,i)Perylene	191-24-2		U	174	86.8
Benzo(k)fluoranthene	207-08-9		U	174	86.8
Bis(2-Chloroethoxy)Methane	111-91-1	441		174	86.8
Bis(2-Chloroethyl)ether	111-44-4		U	174	86.8
bis(2-Chloroisopropyl)ether	39638-32-9		U	174	86.8
bis(2-Ethylhexyl)phthalate	117-81-7		U	174	86.8
Butyl benzyl phthalate	85-68-7		U	174	86.8
Carbazole	86-74-8		U	174	86.8
Chrysene	218-01-9		U	174	86.8
Dibenz(a,h)anthracene	53-70-3		U	174	86.8
Dibenzofuran	132-64-9		U	174	86.8
Diethyl phthalate	84-66-2		U	174	86.8
Dimethyl phthalate	131-11-3		U	174	86.8
Di-N-Butylphthalate	84-74-2		U	174	86.8
Di-n-octyl phthalate	117-84-0		U	174	86.8
Fluoranthene	206-44-0		U	174	86.8
Fluorene	86-73-7		U	174	86.8
Hexachlorobenzene	118-74-1		U	174	86.8
Hexachlorobutadiene	87-68-3		U	174	86.8

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-04**
Client ID: **3034-S003-041708**
Matrix: **Soil**
Workgroup Number: **WG270218**
Collect Date: **04/17/2008 10:35**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/01/2008 08:30**
Cal Date: **05/01/2008 18:20**
Run Date: **05/02/2008 00:41**
File ID: **4M42607**
Percent Solid: **94.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	174	86.8
Hexachloroethane	67-72-1		U	174	86.8
Indeno(1,2,3-cd)pyrene	193-39-5		U	174	86.8
Isophorone	78-59-1		U	174	86.8
Naphthalene	91-20-3		U	174	86.8
Nitrobenzene	98-95-3		U	174	86.8
N-Nitrosodiphenylamine	86-30-6		U	174	86.8
N-Nitrosodipropylamine	621-64-7		U	174	86.8
Pentachlorophenol	87-86-5		U	868	433
Phenanthrene	85-01-8		U	174	86.8
Phenol	108-95-2		U	174	86.8
Pyrene	129-00-0		U	174	86.8

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	73.8	19	122	
2-Fluorobiphenyl	61.1	30	115	
2-Fluorophenol	66.5	25	121	
Nitrobenzene-d5	69.2	23	120	
p-Terphenyl-d14	73.5	18	137	
Phenol-d5	72.3	24	113	

U Not detected at or above the reporting limit

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-04**
Client ID: **3034-S003-041708**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 10:35**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 19:57**
File ID: **4M42542**
Percent Solid: **94.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	170	84.9
2,4,6-Trichlorophenol	88-06-2		U	170	84.9
2,4-Dichlorophenol	120-83-2		U	170	84.9
2,4-Dimethylphenol	105-67-9		U	170	84.9
2,4-Dinitrophenol	51-28-5		U	849	424
2,4-Dinitrotoluene	121-14-2		U	170	84.9
2,6-Dinitrotoluene	606-20-2		U	170	84.9
2-Chloronaphthalene	91-58-7		U	170	84.9
2-Chlorophenol	95-57-8		U	170	84.9
2-Methylnaphthalene	91-57-6		U	170	84.9
2-Methylphenol	95-48-7		U	170	84.9
2-Nitroaniline	88-74-4		U	849	424
2-Nitrophenol	88-75-5		U	170	84.9
3,3'-Dichlorobenzidine	91-94-1		U	340	170
3-,4-Methylphenol	106-44-5		U	170	84.9
3-Nitroaniline	99-09-2		U	849	424
4,6-Dinitro-2-methylphenol	534-52-1		U	849	424
4-Bromophenyl phenyl ether	101-55-3		U	170	84.9
4-Chloro-3-methylphenol	59-50-7		U	170	84.9
4-Chloroaniline	106-47-8		U	170	84.9
4-Chlorophenyl phenyl ether	7005-72-3		U	170	84.9
4-Nitroaniline	100-01-6		U	849	424
4-Nitrophenol	100-02-7		U	849	424
Acenaphthene	83-32-9		U	170	84.9
Acenaphthylene	208-96-8		U	170	84.9
Anthracene	120-12-7		U	170	84.9
Benzo(a)anthracene	56-55-3		U	170	84.9
Benzo(a)pyrene	50-32-8		U	170	84.9
Benzo(b)fluoranthene	205-99-2		U	170	84.9
Benzo(g,h,i)Perylene	191-24-2		U	170	84.9
Benzo(k)fluoranthene	207-08-9		U	170	84.9
Bis(2-Chloroethoxy)Methane	111-91-1	445		170	84.9
Bis(2-Chloroethyl)ether	111-44-4		U	170	84.9
bis(2-Chloroisopropyl)ether	39638-32-9		U	170	84.9
bis(2-Ethylhexyl)phthalate	117-81-7		U	170	84.9
Butyl benzyl phthalate	85-68-7		U	170	84.9
Carbazole	86-74-8		U	170	84.9
Chrysene	218-01-9		U	170	84.9
Dibenz(a,h)anthracene	53-70-3		U	170	84.9
Dibenzofuran	132-64-9		U	170	84.9
Diethyl phthalate	84-66-2		U	170	84.9
Dimethyl phthalate	131-11-3		U	170	84.9
Di-N-Butylphthalate	84-74-2		U	170	84.9
Di-n-octyl phthalate	117-84-0		U	170	84.9
Fluoranthene	206-44-0		U	170	84.9
Fluorene	86-73-7		U	170	84.9
Hexachlorobenzene	118-74-1		U	170	84.9
Hexachlorobutadiene	87-68-3		U	170	84.9

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-04**
Client ID: **3034-S003-041708**
Matrix: **Soil**
Workgroup Number: **WG269584**
Collect Date: **04/17/2008 10:35**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **04/22/2008 08:30**
Cal Date: **04/25/2008 17:58**
Run Date: **04/29/2008 19:57**
File ID: **4M42542**
Percent Solid: **94.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Hexachlorocyclopentadiene	77-47-4		U	170	84.9
Hexachloroethane	67-72-1		U	170	84.9
Indeno(1,2,3-cd)pyrene	193-39-5		U	170	84.9
Isophorone	78-59-1		U	170	84.9
Naphthalene	91-20-3		U	170	84.9
Nitrobenzene	98-95-3		U	170	84.9
N-Nitrosodiphenylamine	86-30-6		U	170	84.9
N-Nitrosodipropylamine	621-64-7		U	170	84.9
Pentachlorophenol	87-86-5		U	849	424
Phenanthrene	85-01-8		U	170	84.9
Phenol	108-95-2		U	170	84.9
Pyrene	129-00-0		U	170	84.9

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	65.0	19	122	
2-Fluorobiphenyl	54.3	30	115	
2-Fluorophenol	55.2	25	121	
Nitrobenzene-d5	57.0	23	120	
p-Terphenyl-d14	92.7	18	137	
Phenol-d5	57.8	24	113	

U Not detected at or above the reporting limit

2.2.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

R1439310

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Sample Extract Log Sheet

Microbac

Parameter: BNASoil SOP #: EXASE01 Revision #: 6
Extraction Analyst(s): CAF,CPD TV/KD Analyst(s): CAF
Date/Time Extracted: 05-1-08/0830 Date TV/KD: 05-1-08
Spike/Surrogate Analyst: CAF Witness: CPD
Surrogate #: STD25376 Earliest Hold Date: 5/13
Spike #: A = STD25009 Spike #: B = —

Extraction Work Group WG 269996

Extract Relinquished By: CPD
Extract Received By & Date: mg 5/1/08

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank					20.00g	500uL		1mL	T				WG269996-02
2	LCS					1		500uL		C				WG 1-03
3	04-0829-02	827-SPE				20.29g				O				
4	-04					20.34g				O				
5	-06					20.79g				O				
6	-08Ref					20.82g				C				WG 269996-01
7	-10MS					20.75g		500uL		O				WG 1-04
8	-12MSD					20.76g		1		O				WG 1-05
9	04-0557-4					20.49g				C				ReExt in Hold
10	-02					20.26g				C				
11	-03					20.17g				C				
12	-04					20.17g				C				
13	04-0687-17					20.11g				C				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CPD 5-1-08

Methylene Chloride Lot #: C06E27
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Sand Lot #: E32599
Reagent: DE Lot #: E11H04
Reagent: — Lot #: —
Acid: 1% Acetic Lot #: RCT12386
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: C0A12940

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545	✓				
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 5-1-8

Extraction Notes For Volume # 298 Page # 131

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Sample Extract Log Sheet R1430685

Microbac

Parameter: BNA SCI SOP #: EXASE01 Revision #: 6
Extraction Analyst(s): CPD TV/KD Analyst(s): CSH
Date/Time Extracted: 4-22-08/0930 Date TV/KD: 4/22/08
Spike/Surrogate Analyst: CPD Witness: RHH
Surrogate #: STD25376 Earliest Hold Date: 5/1
Spike #: A = STD25009 Spike #: B = —

Extraction Work Group WG 269047
Extract Relinquished By: CSH
Extract Received By & Date: AV 4/23/08

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank					20.00g	500µl		1mL	T				WG 269047-02
2	LCS					1		500µl		C				WG 1-03
3	04-0557-01	827-SPE				20.74g				C				
4	-02					20.49g				T				
5	-03					20.81g				C				
6	-04					20.61g				C				
7	04-0578-01					20.48g				C				
8	-02					20.54g				T				
9	-03Dup					20.28g				C				WG 269047-01
10	-04MS					20.64g		500µl		C				WG -04
11	-05MSD					20.74g		1		C				WG 1 -05
12	-06					20.32g				C				
13	-07					20.50g				T				
14	-08					20.57g				T				
15	04-0581-04					20.98g				C				
16	-06					20.62g				C				
17	-08					20.39g				O				
18	-10					20.66g				C				
19	-12					20.15g				C				
20	04-0460-04					20.25g				T				RE-EXT IN HOLD
21	-10					20.89g				C				1
22														
23														
24														

RHH 4/22/08

Methylene Chloride Lot #: C09E23
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Sand Lot #: E33618
Reagent: DE Lot #: E11H04
Reagent: — Lot #: —
Acid: 1% Acetic Lot #: RGT12330
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: COA2940

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545	✓				
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Ray Halsted II Date: 4/22/08

Extraction Notes For Volume # 298 Page # 55

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS5 Dataset: 042408
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23861

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG269521, WG268579, WG269100, WG269207
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	5M50572	BAKEOUT	1	1		04/24/08 07:36
2	5M50573	WG269065-01 50PPM DFTPP	1	1	STD25193	04/24/08 08:04
3	5M50574	WG269065-01 50PPM DFTPP	1	1	STD25193	04/24/08 08:21
4	5M50575	WG269065-02 50PPM Megamix Std	1	1	STD25568	04/24/08 08:42
5	5M50576	WG269065-03 3PPM Megamix Std	1	1	STD25568	04/24/08 09:16
6	5M50577	WG269065-04 10PPM Megamix Std	1	1	STD25568	04/24/08 09:50
7	5M50578	WG269065-05 15PPM Megamix Std	1	1	STD25568	04/24/08 10:24
8	5M50579	WG269065-06 25PPM Megamix Std	1	1	STD25568	04/24/08 10:58
9	5M50580	WG269065-07 80PPM Megamix Std	1	1	STD25568	04/24/08 11:31
10	5M50581	WG269065-08 100PPM Megamix Std	1	1	STD25568	04/24/08 12:05
11	5M50582	WG269065-09 120PPM Megamix Std	1	1	STD25568	04/24/08 12:39
12	5M50583	WG269065-10 50PPM BNA Alt Source Std	1	1	STD24887	04/24/08 13:12
13	5M50584	WG269065-11 50PPM A9 Alt Source Std	1	1	STD24013	04/24/08 13:46
14	5M50585	WG269403-01 50PPM DFTPP	1	1	STD25193	04/24/08 14:15
15	5M50586	WG269403-02 50PPM Megamix Std	1	1	STD25568	04/24/08 14:35
16	5M50587	WG268324-01 BLK 4/15 EP297 P105	1	1		04/24/08 15:09
17	5M50588	WG268324-02 LCS 4/15 EP297 P105	1	1		04/24/08 15:43
18	5M50589	WG268324-03 LCS DUP 4/15 EP297 P105	1	1		04/24/08 16:16
19	5M50590	WG268924-02 BLK 4/21 EP298 P45	7	1	SOIL	04/24/08 16:50
20	5M50591	WG268202-02 BLK 4/14 EP296 P187	7	1	SOIL	04/24/08 17:24
21	5M50592	L08040513-01 SOIL	7	1	SOIL	04/24/08 17:57
22	5M50593	L08040343-01	1	1		04/24/08 18:31
23	5M50594	L08040343-02	1	1		04/24/08 19:04
24	5M50595	L08040343-03	1	1		04/24/08 19:38
25	5M50596	L08040343-04	1	1		04/24/08 20:11
26	5M50597	L08040343-05	1	1		04/24/08 20:45
27	5M50598	L08040343-06	1	1		04/24/08 21:19
28	5M50599	L08040234-01 SOIL	7	1	SOIL	04/24/08 21:53
29	5M50600	WG268202-01 L08040234-02 REF SOIL	7	1	SOIL	04/24/08 22:27
30	5M50601	WG268202-04 L08040234-03 MS SOIL	7	1	SOIL	04/24/08 23:01
31	5M50602	WG268202-05 L08040234-04 MSD SOIL	7	1	SOIL	04/24/08 23:35
32	5M50603	L08040552-02 SOIL	7	1	SOIL	04/25/08 00:08
33	5M50604	L08040552-04 SOIL	7	1	SOIL	04/25/08 00:43
34	5M50605	L08040552-06 SOIL	7	1	SOIL	04/25/08 01:17
35	5M50606	L08040234-05 SOIL	7	1	SOIL	04/25/08 01:50

Page: 1 Approved: 25-APR-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS5 Dataset: 042408
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23861

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG269521, WG268579, WG269100, WG269207
Internal STD: COA13022 Surrogate STD: NA

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
36	5M50607	BAKEOUT	1	1		04/25/08 02:24
37	5M50608	BAKEOUT	1	1		04/25/08 02:57
38	5M50609	BAKEOUT	1	1		04/25/08 03:32

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
	WG269065-01 50PPM DFTPP - Runtime too short.			
34				
	L08040552-06 SOIL - SS FBP low.			
35				
	L08040234-05 SOIL - SS TBP low.			

 Approved: 25-APR-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 042508
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23885

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269488

Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments: Pentachlorophenol 15-120.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42443	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 09:40
2	4M42444	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 10:03
3	4M42445	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 10:41
4	4M42446	WG269488-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 10:59
5	4M42447	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:03
6	4M42448	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:18
7	4M42449	WG269488-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:48
8	4M42450	WG269488-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 13:06
9	4M42451	WG269488-03 3 PPM MEGAMIX STD	1	1	STD25568	04/25/08 13:44
10	4M42452	WG269488-04 10 PPM MEGAMIX STD	1	1	STD25568	04/25/08 14:17
11	4M42453	WG269488-05 15 PPM MEGAMIX STD	1	1	STD25568	04/25/08 14:49
12	4M42454	WG269488-09 120 PPM MEGAMIX STD	1	1	STD25568	04/25/08 15:21
13	4M42455	WG269488-08 100 PPM MEGAMIX STD	1	1	STD25568	04/25/08 15:52
14	4M42456	WG269488-07 80 PPM MEGAMIX STD	1	1	STD25568	04/25/08 16:24
15	4M42457	WG269488-06 25 PPM MEGAMIX STD	1	1	STD25568	04/25/08 16:56
16	4M42458	WG269488-05 15 PPM MEGAMIX STD	1	1	STD25568	04/25/08 17:27
17	4M42459	WG269488-02 50 PPM MEGAMIX STD	1	1	STD25568	04/25/08 17:58
18	4M42460	WG269488-10 50PPM BNA ALT SOURCE	1	1	STD24887	04/25/08 18:30
19	4M42461	WG269488-11 50PPM A9 ALT SOURCE	1	1	STD24013	04/25/08 19:01

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed.			
2				
	RR, DFTPP failed. Retuned MS.			
4				
	Several compounds low-running a curve.			
5				
	RR, DFTPP failed. Quicktune.			
6				
	RR, DFTPP failed. Retuned MS.			
8				
	Do not report.			
11				

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 042508

Analyst1: MES Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23885

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269488

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Do not report.

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS5 Dataset: 042508
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23873

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG269583, WG269584
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	5M50611	WG269464-01 50PPM DFTPP	1	1	STD25193	04/25/08 08:39
2	5M50612	WG269464-02 50PPM Megamix Std	1	1	STD25568	04/25/08 08:59
3	5M50613	WG269464-01 50PPM DFTPP	1	1	STD25193	04/25/08 10:17
4	5M50614	WG269464-02 50PPM Megamix Std	1	1	STD25568	04/25/08 10:38
5	5M50615	PRIMER	1	1		04/25/08 11:12
6	5M50616	PRIMER	1	1		04/25/08 11:46
7	5M50617	PRIMER	1	1		04/25/08 12:20
8	5M50618	PRIMER	1	1		04/25/08 12:53
9	5M50619	WG269464-01 50PPM DFTPP	1	1	STD25193	04/25/08 13:22
10	5M50620	WG269464-02 50PPM Megamix Std	1	1	STD25568	04/25/08 13:43
11	5M50621	WG269464-02 50PPM Megamix Std	1	1	STD25568	04/25/08 14:17
12	5M50622	WG269047-02 BLK 4/22 EP298 P55	7	1	SOIL	04/25/08 14:52
13	5M50623	WG269047-03 LCS 4/22 EP298 P55	7	1	SOIL	04/25/08 15:26
14	5M50624	WG269324-02 BLK 4/24 EP298 P75	7	1	SOIL	04/25/08 16:00
15	5M50625	WG269324-03 LCS 4/24 EP298 P75	7	1	SOIL	04/25/08 16:34
16	5M50626	L08040581-02 SOIL	7	1	SOIL	04/25/08 17:08
17	5M50627	L08040640-01 SOIL	7	1	SOIL	04/25/08 17:42
18	5M50628	L08040640-02 SOIL	7	1	SOIL	04/25/08 18:15
19	5M50629	L08040640-03 SOIL	7	1	SOIL	04/25/08 18:49
20	5M50630	L08040640-04 SOIL	7	1	SOIL	04/25/08 19:22
21	5M50631	L08040644-01 SOIL	7	1	SOIL	04/25/08 19:56
22	5M50632	L08040644-02 SOIL	7	1	SOIL	04/25/08 20:30
23	5M50633	L08040581-10 SOIL	7	1	SOIL	04/25/08 21:04
24	5M50634	L08040581-12 SOIL	7	1	SOIL	04/25/08 21:38
25	5M50635	L08040581-06 SOIL	7	1	SOIL	04/25/08 22:12
26	5M50636	WG269324-01 L08040581-04 REF SOIL	7	1	SOIL	04/25/08 22:46
27	5M50637	WG269324-04 L08040581-06 MS SOIL	7	1	SOIL	04/25/08 23:21
28	5M50638	WG269324-05 L08040581-08 MSD SOIL	7	1	SOIL	04/25/08 23:54
29	5M50639	L08040581-04 SOIL	7	1	SOIL	04/26/08 00:28
30	5M50640	L08040581-08 SOIL	7	1	SOIL	04/26/08 01:02
31	5M50641	L08040644-03 SOIL	7	1	SOIL	04/26/08 01:37
32	5M50642	BAKEOUT	1	1		04/26/08 02:11
33	5M50643	BAKEOUT	1	1		04/26/08 02:44
34	5M50644	BAKEOUT	1	1		04/26/08 03:18

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS5 Dataset: 042508
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23873

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269583, WG269584

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
	WG269464-02 50PPM Megamix Std - Pentachlorophenol >20% low.			
4	X			
	WG269464-02 50PPM Megamix Std - Pentachlorophenol >20% low.			
10	X			
	WG269464-02 50PPM Megamix Std - Internal std high but still passing vs ICAL - try rerunning.			
13				
	WG269047-03 LCS 4/22 EP298 P55 - 2 compounds low.			
18				
	L08040640-02 SOIL - SS TBP low.			
23				
	L08040581-10 SOIL - SS FBP low.			
25				
	L08040581-06 SOIL - Not required, not reported.			
27				
	WG269324-04 L08040581-06 MS SOIL - 3 compounds low.			
28				
	WG269324-05 L08040581-08 MSD SOIL - 1 compound low.			
29				
	L08040581-04 SOIL - Not required, not reported.			
30				
	L08040581-08 SOIL - Not required, not reported.			
31	X		Missed Tune	
	L08040644-03 SOIL			

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS5 Dataset: 042608
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23876

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG269657, WG269583
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	5M50645	WG269571-01 50PPM DFTPP	1	1	STD25193	04/26/08 10:27
2	5M50646	WG269571-02 50PPM Megamix Std	1	1	STD25568	04/26/08 10:48
3	5M50647	WG269571-03 3PPM Megamix Std	1	1	STD25568	04/26/08 11:22
4	5M50648	WG269571-04 10PPM Megamix Std	1	1	STD25568	04/26/08 11:56
5	5M50649	WG269571-05 15PPM Megamix Std	1	1	STD25568	04/26/08 12:30
6	5M50650	WG269571-06 25PPM Megamix Std	1	1	STD25568	04/26/08 13:04
7	5M50651	WG269571-07 80PPM Megamix Std	1	1	STD25568	04/26/08 13:38
8	5M50652	WG269571-08 100PPM Megamix Std	1	1	STD25568	04/26/08 14:12
9	5M50653	WG269571-09 120PPM Megamix Std	1	1	STD25568	04/26/08 14:46
10	5M50654	WG269571-10 50PPM BNA Alt Source Std	1	1	STD24887	04/26/08 15:20
11	5M50655	WG269571-11 50PPM A9 Alt Source Std	1	1	STD24013	04/26/08 15:53
12	5M50656	WG268784-02 BLK 4/21 EP297 P151	1	1		04/26/08 16:27
13	5M50657	WG268784-03 LCS 4/21 EP297 P151	1	1		04/26/08 17:00
14	5M50658	L08040427-07	1	1		04/26/08 17:34
15	5M50659	L08040427-09	1	1		04/26/08 18:08
16	5M50660	L08040427-13	1	1		04/26/08 18:41
17	5M50661	L08040644-03 SOIL	7	1	SOIL	04/26/08 19:15
18	5M50662	L08040427-11 2X	1	2		04/26/08 19:49
19	5M50663	WG268784-01 L08040427-01 REF 2X	1	2		04/26/08 20:24
20	5M50664	WG268784-04 L08040427-02 MS 2X	1	2		04/26/08 20:58
21	5M50665	WG268784-05 L08040427-03 MSD 2X	1	2		04/26/08 21:32
22	5M50666	BAKEOUT	1	1		04/26/08 22:06
23	5M50667	BAKEOUT	1	1		04/26/08 22:40
24	5M50668	BAKEOUT	1	1		04/26/08 23:14

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	WG269571-02 50PPM Megamix Std - Pentachlorophenol >20%.			
11	X			
	WG269571-11 50PPM A9 Alt Source Std - Std too low to inject; not reported.			
12				
	WG268784-02 BLK 4/21 EP297 P151 - SS TPH, PHL high.			
13				
	WG268784-03 LCS 4/21 EP297 P151 - SS TPH high.			

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Instrument Run Log

Instrument: HPMS5 Dataset: 042608

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23876

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269657, WG269583

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
14				
	L08040427-07 - SS TPH high.			
15				
	L08040427-09 - SS PHL high.			
20				
	WG268784-04 L08040427-02 MS 2X - 1 compound high.			

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Instrument Run Log

Instrument: HPMS5 Dataset: 042808
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23892

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269773

Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	5M50669	WG269636-01 50PPM DFTPP	1	1	STD25193	04/28/08 08:18
2	5M50670	WG269636-01 50PPM DFTPP	1	1	STD25193	04/28/08 08:33
3	5M50671	WG269636-02 50PPM Megamix Std	1	1	STD25568	04/28/08 08:53
4	5M50672	WG269571-11 50PPM A9 Alt Source Std	1	1	STD24013	04/28/08 09:26
5	5M50673	WG269350-02 BLK 4/24 EP297 P183	17	1		04/28/08 10:00
6	5M50674	WG269350-03 LCS 4/24 EP297 P183	17	1		04/28/08 10:33
7	5M50675	WG269156-01 SPLP BLK 4/22 EP297 P183	18	1	SPLP	04/28/08 11:07
8	5M50676	WG269262-01 FBLK 4/23 EP297 P183	17	1		04/28/08 11:41
9	5M50677	L08040581-03 SPLP	18	1	SPLP	04/28/08 12:15
10	5M50678	WG269350-01 L08040581-05 REF SPLP	18	1	SPLP	04/28/08 12:49
11	5M50679	WG269350-04 L08040581-07 MS SPLP	18	1	SPLP	04/28/08 13:23
12	5M50680	WG269350-05 L08040581-09 MSD SPLP	18	1	SPLP	04/28/08 13:57
13	5M50681	L08040581-11 SPLP	18	1	SPLP	04/28/08 14:31
14	5M50682	L08040581-13 SPLP	18	1	SPLP	04/28/08 15:05
15	5M50683	L08040589-05 TCLP	17	1		04/28/08 15:39
16	5M50684	L08040539-01 TCLP	17	1		04/28/08 16:12
17	5M50685	L08040536-02 TCLP	17	1		04/28/08 16:47
18	5M50686	L08040536-03 TCLP	17	1		04/28/08 17:21
19	5M50687	L08040539-02 2X TCLP	17	2		04/28/08 17:54
20	5M50688	L08040539-03 2X TCLP	17	2		04/28/08 18:28
21	5M50689	L08040536-01 2X TCLP	17	2		04/28/08 19:01
22	5M50690	L08040536-04 2X TCLP	17	2		04/28/08 19:35
23	5M50691	L08040536-05 2X TCLP	17	2		04/28/08 20:09
24	5M50692	BAKEOUT	1	1		04/28/08 20:43
25	5M50693	BAKEOUT	1	1		04/28/08 21:17
26	5M50694	BAKEOUT	1	1		04/28/08 21:51

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG269636-01 50PPM DFTPP - Not enough std too inject.			
21	X	5	Over Calibration Range	#22
	L08040536-01 2X TCLP			
22	X	5	Over Calibration Range	#20
	L08040536-04 2X TCLP - 20x #22			

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Instrument Run Log

Instrument: HPMS4 Dataset: 042908
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23915

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG268579,WG269584,WG268626,WG269589,WG269721
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments: Reextracting 557-01 to-04. LCS had greater than 10% of compounds low.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42520	WG269789-01 50PPM DFTPP STD	1	1	STD25193	04/29/08 08:59
2	4M42521	WG269789-01 50PPM DFTPP STD	1	1	STD25193	04/29/08 09:15
3	4M42522	WG269789-01 50PPM DFTPP STD	1	1	STD25193	04/29/08 09:42
4	4M42523	WG269789-01 50PPM DFTPP STD	1	1	STD25193	04/29/08 10:07
5	4M42524	WG269789-02 50PPM MEGAMIX STD	1	1	STD25568	04/29/08 10:26
6	4M42525	WG269789-02 50PPM MEGAMIX STD	1	1	STD25568	04/29/08 10:57
7	4M42526	L08040578-03 SOIL	7	1		04/29/08 11:29
8	4M42527	L08040377-01 SOIL	7	1		04/29/08 12:00
9	4M42528	L08040377-02 SOIL	7	1		04/29/08 12:31
10	4M42529	L08040377-03 SOIL	7	1		04/29/08 13:03
11	4M42530	L08040377-04 SOIL	7	1		04/29/08 13:35
12	4M42531	L08040400-01 SOIL	7	1		04/29/08 14:07
13	4M42532	L08040377-03 SOIL	7	1		04/29/08 14:38
14	4M42533	L08040377-04 A1 SOIL	7	1		04/29/08 15:10
15	4M42534	L08040400-02 SOIL	7	1		04/29/08 15:43
16	4M42535	L08040400-03 SOIL	7	1		04/29/08 16:14
17	4M42536	L08040400-04 SOIL	7	1		04/29/08 16:46
18	4M42537	L08040400-05 SOIL	7	1		04/29/08 17:18
19	4M42538	L08040400-06 SOIL	7	1		04/29/08 17:50
20	4M42539	L08040557-01 SOIL	7	1		04/29/08 18:22
21	4M42540	L08040557-02 SOIL	7	1		04/29/08 18:53
22	4M42541	L08040557-03 SOIL	7	1		04/29/08 19:25
23	4M42542	L08040557-04 SOIL	7	1		04/29/08 19:57
24	4M42543	L08040431-01	1	1		04/29/08 20:28
25	4M42544	L08040431-03	1	1		04/29/08 21:00
26	4M42545	L08040485-01	1	1		04/29/08 21:33
27	4M42546	L08040485-02	1	1		04/29/08 22:05
28	4M42547	BAKE OUT	1	1		04/29/08 22:37
29	4M42548	BAKE OUT	1	1		04/29/08 23:09

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed. Quicktune.			
2				

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 042908
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23915

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG268579,WG269584,WG268626,WG269589,WG269721

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	RR, DFTPP failed. Retune MS.			
3				
	RR, DFTPP failed. Retune MS.			
5				
	Di-n-Octyl Phthalate is high. RR.			
6				
	Benzoic acid >20% <40% low. 69 >20% but <25% high.			
7				
	tbp, 2FP are low. Confirms initial run.			
10				
	Do not report.			
11	X	1	Internal standard failure	
	PHN,CRY,PRY are low. RR confirms low IS.			
16	X	1	Internal standard failure	
18				
	FBP is low.			
25	X	10	Over Calibration Range	13
27				
	FBP is low. 2FP,NBZ,PHL <10%. Not reextracting. Sample is out of hold.			

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Instrument Run Log

Instrument: HPMS4 Dataset: 050108
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23966

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG270019, WG270218
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments: 4M42576 thru 4M42586 Not reported.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42576	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 08:53
2	4M42577	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 09:07
3	4M42578	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 09:53
4	4M42579	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 10:11
5	4M42580	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 10:43
6	4M42581	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 11:48
7	4M42582	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 12:03
8	4M42583	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 12:28
9	4M42584	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 12:46
10	4M42585	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:21
11	4M42586	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:35
12	4M42587	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:58
13	4M42588	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 14:16
14	4M42589	WG270026-03 3 PPM MEGAMIX STD	1	1	STD25568	05/01/08 15:12
15	4M42590	WG270026-04 10 PPM MEGAMIX STD	1	1	STD25568	05/01/08 15:44
16	4M42591	WG270026-05 15 PPM MEGAMIX STD	1	1	STD25568	05/01/08 16:15
17	4M42592	WG270026-06 25 PPM MEGAMIX STD	1	1	STD25568	05/01/08 16:46
18	4M42593	WG270026-07 80 PPM MEGAMIX STD	1	1	STD25568	05/01/08 17:17
19	4M42594	WG270026-08 100 PPM MEGAMIX STD	1	1	STD25568	05/01/08 17:48
20	4M42595	WG270026-09 120 PPM MEGAMIX STD	1	1	STD25568	05/01/08 18:20
21	4M42596	WG270026-10 50PPM BNA ALT SOURCE	1	1	STD24887	05/01/08 18:52
22	4M42597	WG270026-11 50PPM A9 ALT SOURCE	1	1	STD24013	05/01/08 19:23
23	4M42598	WG269996-02 BLANK EP0298 PG131	7	1		05/01/08 19:55
24	4M42599	WG269996-03 LCS EP0298 PG131	7	1		05/01/08 20:26
25	4M42600	L08040484-02 SOIL	7	1		05/01/08 20:57
26	4M42601	L08040508-03 SOIL	7	1		05/01/08 21:29
27	4M42602	L08040508-04 SOIL	7	1		05/01/08 22:02
28	4M42603	L08040508-07 SOIL	7	1		05/01/08 22:33
29	4M42604	L08040557-01 SOIL	7	1		05/01/08 23:05
30	4M42605	L08040557-02 SOIL	7	1		05/01/08 23:37
31	4M42606	L08040557-03 SOIL	7	1		05/02/08 00:09
32	4M42607	L08040557-04 SOIL	7	1		05/02/08 00:41
33	4M42608	L08040687-17 SOIL	7	1		05/02/08 01:12
34	4M42609	BAKE OUT	7	1		05/02/08 01:43
35	4M42610	BAKE OUT	7	1		05/02/08 02:15

Page: 1 Approved: 02-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050108

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23966

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270019, WG270218

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes

 Approved: 02-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS5 Dataset: 050208
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23978

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270218, WG269657, WG270164, WG270081, WG269583

Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	5M50782	WG270135-01 50PPM DFTPP	1	1	STD25193	05/02/08 07:55
2	5M50783	WG270135-02 50PPM Megamix Std	1	1	STD25568	05/02/08 08:14
3	5M50784	L08040478-03 1000X	1	1000		05/02/08 08:48
4	5M50785	L08040003-01 MDL SOIL 3545	7	1	SOIL	05/02/08 09:22
5	5M50786	L08040003-02 MDL SOIL 3545	7	1	SOIL	05/02/08 09:55
6	5M50787	L08040004-01 MDL SOIL 3545	7	1	SOIL	05/02/08 10:29
7	5M50788	L08040004-02 MDL SOIL 3545	7	1	SOIL	05/02/08 11:03
8	5M50789	WG269829-01 BLK 4/29 EP299 P11	1	1		05/02/08 11:36
9	5M50790	L08040001-01 MDL 3510C	1	1		05/02/08 12:10
10	5M50791	L08040002-01 MDL 3510C	1	1		05/02/08 12:43
11	5M50792	WG269996-02 BLK 5/1 EP298 P131	7	1	SOIL	05/02/08 13:17
12	5M50793	L08040787-04 SPLP	18	1	SPLP	05/02/08 13:50
13	5M50794	L08040655-05 5X SOIL	7	5	SOIL	05/02/08 14:24
14	5M50795	L08040655-06 10X SOIL	7	10	SOIL	05/02/08 14:58
15	5M50796	L08040655-07 2X SOIL	7	2	SOIL	05/02/08 15:31
16	5M50797	L08040792-01	1	1		05/02/08 16:05
17	5M50798	L08040829-02 SOIL	7	1	SOIL	05/02/08 16:39
18	5M50799	L08040829-04 SOIL	7	1	SOIL	05/02/08 17:12
19	5M50800	L08040829-06 10X SOIL	7	10	SOIL	05/02/08 17:46
20	5M50801	WG269996-01 L08040829-08 REF SOIL	7	1	SOIL	05/02/08 18:20
21	5M50802	WG269996-04 L08040829-10 MS SOIL	7	1	SOIL	05/02/08 18:53
22	5M50803	WG269996-05 L08040829-12 MSD SOIL	7	1	SOIL	05/02/08 19:27
23	5M50804	BAKEOUT	1	1		05/02/08 20:00
24	5M50805	BAKEOUT	1	1		05/02/08 20:34
25	5M50806	BAKEOUT	1	1		05/02/08 21:07

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	WG270135-02 50PPM Megamix Std - Benzoic acid >40%.			

Page: 1 Approved: 05-MAY-08

Microbac Laboratories Inc.

Data Checklist

Date: 24-APR-2008
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS5
Curve Workgroup: NA
Runlog ID: 21839
Analytical Workgroups: L08040513, L08040343, L08040234, L08040552

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
25-APR-2008

Secondary Reviewer:
25-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-25-2008 15:11:04

Microbac Laboratories Inc.

Data Checklist

Date: 25-APR-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21868
Analytical Workgroups: WG269488-CURVE

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	NA
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
28-APR-2008

Secondary Reviewer:
28-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-28-2008 14:17:39

Microbac Laboratories Inc.

Data Checklist

Date: 25-APR-2008
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS5
Curve Workgroup: NA
Runlog ID: 21850
Analytical Workgroups: L08040581, L08040640, L08040644

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
26-APR-2008

Secondary Reviewer:
28-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-28-2008 08:24:44

Microbac Laboratories Inc.

Data Checklist

Date: 26-APR-2008
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS5
Curve Workgroup: NA
Runlog ID: 21861
Analytical Workgroups: L08040427, L08040644

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
28-APR-2008

Secondary Reviewer:
28-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-28-2008 10:13:33

Microbac Laboratories Inc.

Data Checklist

Date: 28-APR-2008
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS5
Curve Workgroup: NA
Runlog ID: 21878
Analytical Workgroups: L08040581, L08040589, L08040539, L08040536

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
29-APR-2008

Secondary Reviewer:
29-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-29-2008 10:24:20

Microbac Laboratories Inc.

Data Checklist

Date: 29-APR-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21907
Analytical Workgroups: L08040578,L08040557,L08040431,L08040485,L08040400,L08040377

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
30-APR-2008

Secondary Reviewer:
30-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-30-2008 10:45:29

Microbac Laboratories Inc.

Data Checklist

Date: 01-MAY-2008
Analyst: CAA
Analyst: MES
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21969
Analytical Workgroups: L08040484, L08040508, L040557, L08040687

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
02-MAY-2008

Secondary Reviewer:
02-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-02-2008 14:58:31

Microbac Laboratories Inc.

Data Checklist

Date: 02-MAY-2008
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS5
Curve Workgroup: NA
Runlog ID: 21988
Analytical Workgroups: L08040478, 040003, 040004, 040001, 040002, 040787, 040655, 040792, 040829

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
05-MAY-2008

Secondary Reviewer:
05-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-05-2008 10:50:33

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG270218

Login Number: L08040557

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3034-S002-041708	04/17/08	04/18/08	05/01/08	14	13.9	05/01/08	40	0.630	
3034-S003-041708	04/17/08	04/18/08	05/01/08	14	13.9	05/02/08	40	0.674	
3034-S002-041708D	04/17/08	04/18/08	05/01/08	14	13.9	05/02/08	40	0.652	
3034-S001-041708	04/17/08	04/18/08	05/01/08	14	13.9	05/01/08	40	0.608	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1084948
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG269584

Login Number: L08040557

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3034-S002-041708	04/17/08	04/18/08	04/22/08	14	4.92	04/29/08	40	7.43	
3034-S003-041708	04/17/08	04/18/08	04/22/08	14	4.91	04/29/08	40	7.48	
3034-S002-041708D	04/17/08	04/18/08	04/22/08	14	4.92	04/29/08	40	7.45	
3034-S001-041708	04/17/08	04/18/08	04/22/08	14	4.94	04/29/08	40	7.41	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1084948
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040557
Instrument Id: HPMS5
Workgroup (AAB#): WG269584

Method: 8270
CAL ID: HPMS5-24-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
WG269047-02	1.00	02	52.2	46.6	48.5	47.1	92.0	50.3
WG269047-03	1.00	02	66.3	43.8	43.5	42.4	103	47.9

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1080017
Report generated: 05/02/2008 16:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040557
Instrument Id: HPMS4
Workgroup (AAB#): WG269584

Method: 8270
CAL ID: HPMS4-25-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L08040557-01	1.00	01	63.6	43.8	50.9	49.9	99.2	53.8
L08040557-02	1.00	01	61.2	57.4	56.6	57.5	83.5	58.9
L08040557-03	1.00	01	59.0	45.1	46.3	47.6	61.0	48.2
L08040557-04	1.00	01	65.0	54.3	55.2	57.0	92.7	57.8

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1080017
Report generated: 05/02/2008 16:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08040557
Instrument Id: HPMS4
Workgroup (AAB#): WG270218

Method: 8270
CAL ID: HPMS4-01-MAY-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L08040557-01	1.00	RE1	62.6	45.8	55.7	54.5	67.9	61.0
L08040557-02	1.00	RE1	61.9	59.3	62.0	63.8	47.6	65.8
L08040557-03	1.00	RE1	85.9	65.9	65.8	69.4	94.6	72.0
L08040557-04	1.00	RE1	73.8	61.1	66.5	69.2	73.5	72.3
WG269996-02	1.00	01	79.0	67.2	65.2	66.2	86.4	68.2
WG269996-03	1.00	01	83.6	66.4	62.9	59.0	83.5	67.5

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1080017
Report generated: 05/02/2008 16:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040557
Work Group: WG270218
Blank File ID: 4M42598
Blank Sample ID: WG269996-02
Prep Date: 05/01/08 08:30
Instrument ID: HPMS4
Analyzed Date: 05/01/08 19:55
Method: 8270C
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269996-03	4M42599	05/01/08 20:26	01
3034-S001-041708	L08040557-01	4M42604	05/01/08 23:05	RE1
3034-S002-041708	L08040557-02	4M42605	05/01/08 23:37	RE1
3034-S002-041708D	L08040557-03	4M42606	05/02/08 00:09	RE1
3034-S003-041708	L08040557-04	4M42607	05/02/08 00:41	RE1

Report Name: BLANK_SUMMARY
PDF File ID: 1084949
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040557
Work Group: WG269584
Blank File ID: 5M50622
Blank Sample ID: WG269047-02
Prep Date: 04/22/08 08:30
Instrument ID: HPMS5
Analyzed Date: 04/25/08 14:52
Method: 8270C
Analyst: CAA

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG269047-03	5M50623	04/25/08 15:26	02
3034-S001-041708	L08040557-01	4M42539	04/29/08 18:22	01
3034-S002-041708	L08040557-02	4M42540	04/29/08 18:53	01
3034-S002-041708D	L08040557-03	4M42541	04/29/08 19:25	01
3034-S003-041708	L08040557-04	4M42542	04/29/08 19:57	01

Report Name: BLANK_SUMMARY
PDF File ID: 1084949
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/22/08 08:30 Sample ID:WG269047-02
Instrument ID:HPMS5 Run Date:04/25/08 14:52 Prep Method:3545
File ID:5M50622 Analyst:CAA Method:8270C
Workgroup (AAB#):WG269584 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS5-24-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U
Dimethyl phthalate	82.5	165	165	1	U

Report Name:BLANK
PDF ID: 1080015
02-MAY-2008 16:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/22/08 08:30 Sample ID:WG269047-02
Instrument ID:HPMS5 Run Date:04/25/08 14:52 Prep Method:3545
File ID:5M50622 Analyst:CAA Method:8270C
Workgroup (AAB#):WG269584 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS5-24-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	52.2	19 - 122	PASS
2-Fluorobiphenyl	46.6	30 - 115	PASS
2-Fluorophenol	48.5	25 - 121	PASS
Nitrobenzene-d5	47.1	23 - 120	PASS
p-Terphenyl-d14	92.0	18 - 137	PASS
Phenol-d5	50.3	24 - 113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1080015
02-MAY-2008 16:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:05/01/08 08:30 Sample ID:WG269996-02
Instrument ID:HPMS4 Run Date:05/01/08 19:55 Prep Method:3545
File ID:4M42598 Analyst:MES Method:8270C
Workgroup (AAB#):WG270218 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-01-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U
Dimethyl phthalate	82.5	165	165	1	U

Report Name:BLANK
PDF ID: 1080015
02-MAY-2008 16:24

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:05/01/08 08:30 Sample ID:WG269996-02
Instrument ID:HPMS4 Run Date:05/01/08 19:55 Prep Method:3545
File ID:4M42598 Analyst:MES Method:8270C
Workgroup (AAB#):WG270218 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-01-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	79.0	19	-	122	PASS
2-Fluorobiphenyl	67.2	30	-	115	PASS
2-Fluorophenol	65.2	25	-	121	PASS
Nitrobenzene-d5	66.2	23	-	120	PASS
p-Terphenyl-d14	86.4	18	-	137	PASS
Phenol-d5	68.2	24	-	113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1080015
02-MAY-2008 16:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 04/25/2008 Sample ID: WG269047-03
Instrument ID: HPMS5 Run Time: 15:26 Prep Method: 3545
File ID: 5M50623 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG269584 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS5-24-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
2,4,5-Trichlorophenol	2500	1260	50.2	49 - 125	
2,4,6-Trichlorophenol	2500	1180	47.1	43 - 125	
2,4-Dichlorophenol	2500	1050	42.1	45 - 125	*
2,4-Dimethylphenol	2500	1080	43.3	32 - 125	
2,4-Dinitrophenol	2500	1760	70.2	25 - 132	
2,4-Dinitrotoluene	2500	1770	70.9	48 - 125	
2,6-Dinitrotoluene	2500	1450	58.0	48 - 125	
2-Chloronaphthalene	2500	954	38.2	45 - 125	*
2-Chlorophenol	2500	1140	45.6	44 - 125	
2-Methylnaphthalene	2500	1050	42.1	47 - 125	*
2-Methylphenol	2500	1160	46.3	40 - 125	
2-Nitroaniline	2500	1340	53.6	44 - 125	
2-Nitrophenol	2500	1080	43.2	42 - 125	
3,3'-Dichlorobenzidine	2500	2600	104	20 - 128	
3-,4-Methylphenol	2500	1300	52.2	50 - 120	
3-Nitroaniline	2500	1830	73.3	27 - 125	
4,6-Dinitro-2-methylphenol	2500	2090	83.5	29 - 137	
4-Bromophenyl phenyl ether	2500	1170	46.9	46 - 125	
4-Chloro-3-methylphenol	2500	1110	44.4	46 - 125	*
4-Chloroaniline	2500	1060	42.2	20 - 120	
4-Chlorophenyl phenyl ether	2500	1120	44.8	47 - 125	*
4-Nitroaniline	2500	2120	84.8	34 - 125	
4-Nitrophenol	2500	2080	83.2	25 - 138	
Acenaphthene	2500	1160	46.5	46 - 125	
Acenaphthylene	2500	1160	46.3	44 - 125	
Anthracene	2500	1770	70.8	53 - 125	
Benzo(a)anthracene	2500	2430	97.3	52 - 125	
Benzo(a)pyrene	2500	2480	99.1	50 - 125	
Benzo(b)fluoranthene	2500	2000	79.9	45 - 125	
Benzo(g,h,i)Perylene	2500	2560	102	38 - 126	
Benzo(k)fluoranthene	2500	2530	101	45 - 125	
Bis(2-Chloroethoxy)Methane	2500	732	29.3	43 - 125	*
Bis(2-Chloroethyl)ether	2500	1050	42.1	38 - 125	
bis(2-Chloroisopropyl)ether	2500	1060	42.5	25 - 125	
bis(2-Ethylhexyl)phthalate	2500	2330	93.1	47 - 127	
Butyl benzyl phthalate	2500	2440	97.8	49 - 125	
Carbazole	2500	1930	77.1	40 - 135	
Chrysene	2500	2510	100	53 - 125	
Dibenz(a,h)anthracene	2500	2330	93.2	41 - 125	
Dibenzofuran	2500	1180	47.2	51 - 125	*
Diethyl phthalate	2500	1700	68.0	50 - 125	

LCS - Modified 03/06/2008
PDF File ID: 1080016
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 04/25/2008 Sample ID: WG269047-03
Instrument ID: HPMS5 Run Time: 15:26 Prep Method: 3545
File ID: 5M50623 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG269584 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS5-24-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Dimethyl phthalate	2500	1380	55.2	49 - 125	
Di-N-Butylphthalate	2500	1950	77.8	56 - 125	
Di-n-octyl phthalate	2500	2400	95.8	41 - 132	
Fluoranthene	2500	2110	84.3	54 - 125	
Fluorene	2500	1230	49.3	49 - 125	
Hexachlorobenzene	2500	1510	60.5	47 - 125	
Hexachlorobutadiene	2500	1030	41.0	40 - 125	
Hexachlorocyclopentadiene	2500	819	32.8	10 - 150	
Hexachloroethane	2500	980	39.2	34 - 125	
Indeno(1,2,3-cd)pyrene	2500	2550	102	38 - 125	
Isophorone	2500	1180	47.2	43 - 125	
Naphthalene	2500	1020	40.6	40 - 125	
Nitrobenzene	2500	1040	41.8	41 - 125	
N-Nitrosodiphenylamine	2500	1350	54.0	49 - 125	
N-Nitrosodipropylamine	2500	1070	43.0	40 - 125	
Pentachlorophenol	2500	2030	81.2	25 - 125	
Phenanthrene	2500	1720	68.8	50 - 125	
Phenol	2500	1150	45.9	39 - 125	
Pyrene	2500	2400	96.0	46 - 125	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	66.3	19 - 122	PASS
2-Fluorobiphenyl	43.8	30 - 115	PASS
2-Fluorophenol	43.5	25 - 121	PASS
Nitrobenzene-d5	42.4	23 - 120	PASS
p-Terphenyl-d14	103	18 - 137	PASS
Phenol-d5	47.9	24 - 113	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1080016
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 05/01/2008 Sample ID: WG269996-03
Instrument ID: HPMS4 Run Time: 20:26 Prep Method: 3545
File ID: 4M42599 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270218 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS4-01-MAY-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
2,4,5-Trichlorophenol	2500	1940	77.7	49 - 125	
2,4,6-Trichlorophenol	2500	1810	72.4	43 - 125	
2,4-Dichlorophenol	2500	1590	63.6	45 - 125	
2,4-Dimethylphenol	2500	1630	65.2	32 - 125	
2,4-Dinitrophenol	2500	1900	75.9	25 - 132	
2,4-Dinitrotoluene	2500	2100	83.9	48 - 125	
2,6-Dinitrotoluene	2500	1900	76.0	48 - 125	
2-Chloronaphthalene	2500	1450	57.9	45 - 125	
2-Chlorophenol	2500	1640	65.8	44 - 125	
2-Methylnaphthalene	2500	1570	62.7	47 - 125	
2-Methylphenol	2500	1690	67.6	40 - 125	
2-Nitroaniline	2500	1830	73.0	44 - 125	
2-Nitrophenol	2500	1540	61.4	42 - 125	
3,3'-Dichlorobenzidine	2500	2120	84.6	20 - 128	
3-,4-Methylphenol	2500	1940	77.4	50 - 120	
3-Nitroaniline	2500	2050	81.9	27 - 125	
4,6-Dinitro-2-methylphenol	2500	1930	77.0	29 - 137	
4-Bromophenyl phenyl ether	2500	1560	62.5	46 - 125	
4-Chloro-3-methylphenol	2500	1670	66.7	46 - 125	
4-Chloroaniline	2500	1460	58.4	20 - 120	
4-Chlorophenyl phenyl ether	2500	1770	70.8	47 - 125	
4-Nitroaniline	2500	2020	80.8	34 - 125	
4-Nitrophenol	2500	1940	77.6	25 - 138	
Acenaphthene	2500	1720	68.7	46 - 125	
Acenaphthylene	2500	1740	69.5	44 - 125	
Anthracene	2500	1910	76.4	53 - 125	
Benzo(a)anthracene	2500	2110	84.4	52 - 125	
Benzo(a)pyrene	2500	2190	87.8	50 - 125	
Benzo(b)fluoranthene	2500	2100	84.1	45 - 125	
Benzo(g,h,i)Perylene	2500	2230	89.2	38 - 126	
Benzo(k)fluoranthene	2500	2250	90.1	45 - 125	
Bis(2-Chloroethoxy)Methane	2500	1170	46.8	43 - 125	
Bis(2-Chloroethyl)ether	2500	1540	61.7	38 - 125	
bis(2-Chloroisopropyl)ether	2500	1570	62.9	25 - 125	
bis(2-Ethylhexyl)phthalate	2500	2080	83.4	47 - 127	
Butyl benzyl phthalate	2500	2170	86.6	49 - 125	
Carbazole	2500	1940	77.5	40 - 135	
Chrysene	2500	2150	86.1	53 - 125	
Dibenz(a,h)anthracene	2500	2230	89.1	41 - 125	
Dibenzofuran	2500	1790	71.4	51 - 125	
Diethyl phthalate	2500	1920	76.9	50 - 125	

LCS - Modified 03/06/2008
PDF File ID: 1080016
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Run Date: 05/01/2008 Sample ID: WG269996-03
Instrument ID: HPMS4 Run Time: 20:26 Prep Method: 3545
File ID: 4M42599 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270218 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS4-01-MAY-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Dimethyl phthalate	2500	1850	74.0	49 - 125	
Di-N-Butylphthalate	2500	1870	74.7	56 - 125	
Di-n-octyl phthalate	2500	2120	84.9	41 - 132	
Fluoranthene	2500	1990	79.7	54 - 125	
Fluorene	2500	1830	73.1	49 - 125	
Hexachlorobenzene	2500	1890	75.4	47 - 125	
Hexachlorobutadiene	2500	1630	65.2	40 - 125	
Hexachlorocyclopentadiene	2500	1340	53.7	10 - 150	
Hexachloroethane	2500	1540	61.6	34 - 125	
Indeno(1,2,3-cd)pyrene	2500	2220	88.8	38 - 125	
Isophorone	2500	1640	65.7	43 - 125	
Naphthalene	2500	1470	58.9	40 - 125	
Nitrobenzene	2500	1460	58.5	41 - 125	
N-Nitrosodiphenylamine	2500	1540	61.6	49 - 125	
N-Nitrosodipropylamine	2500	1600	63.8	40 - 125	
Pentachlorophenol	2500	2230	89.2	25 - 125	
Phenanthrene	2500	1860	74.6	50 - 125	
Phenol	2500	1680	67.2	39 - 125	
Pyrene	2500	2170	86.6	46 - 125	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	83.6	19 - 122	PASS
2-Fluorobiphenyl	66.4	30 - 115	PASS
2-Fluorophenol	62.9	25 - 121	PASS
Nitrobenzene-d5	59.0	23 - 120	PASS
p-Terphenyl-d14	83.5	18 - 137	PASS
Phenol-d5	67.5	24 - 113	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1080016
Report generated: 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040557
Instrument: HPMS4
Analyst: MES
Workgroup: WG269488

Tune ID: WG269488-01
Run Date: 04/25/2008
Run Time: 12:48
File ID: 4M42449
Cal ID: HPMS4-25-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	41.9	97350	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	42.1	97861	PASS
70.0	69.0	0	2.00	0.526	515	PASS
127	198	40.0	60.0	53.1	123453	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	232426	PASS
199	198	5.00	9.00	6.82	15862	PASS
275	198	10.0	30.0	23.5	54573	PASS
365	198	1.00	100	2.51	5829	PASS
441	443	0.0100	100	47.3	17794	PASS
442	198	40.0	100	83.0	192893	PASS
443	442	17.0	23.0	19.5	37637	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269488-03	STD	01	04/25/2008 13:44	
WG269488-04	STD	01	04/25/2008 14:17	
WG269488-09	STD	01	04/25/2008 15:21	
WG269488-08	STD	01	04/25/2008 15:52	
WG269488-07	STD	01	04/25/2008 16:24	
WG269488-06	STD	01	04/25/2008 16:56	
WG269488-05	STD	01	04/25/2008 17:27	
WG269488-02	STD-CCV	01	04/25/2008 17:58	
WG269488-10	SSCV	01	04/25/2008 18:30	
WG269488-11	SSCV	01	04/25/2008 19:01	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084952
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040557
Instrument: HPMS4
Analyst: MES
Workgroup: WG269789

Tune ID: WG269789-01
Run Date: 04/29/2008
Run Time: 10:07
File ID: 4M42523
Cal ID: HPMS4-25-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	44.0	61589	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.5	58104	PASS
70.0	69.0	0	2.00	0.451	262	PASS
127	198	40.0	60.0	54.2	75826	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	140000	PASS
199	198	5.00	9.00	6.57	9200	PASS
275	198	10.0	30.0	23.6	33101	PASS
365	198	1.00	100	2.66	3727	PASS
441	443	0.0100	100	86.9	18848	PASS
442	198	40.0	100	80.3	112352	PASS
443	442	17.0	23.0	19.3	21684	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269789-02	CCV	01	04/29/2008 10:57	
L08040557-01	3034-S001-041708	01	04/29/2008 18:22	
L08040557-02	3034-S002-041708	01	04/29/2008 18:53	
L08040557-03	3034-S002-041708D	01	04/29/2008 19:25	
L08040557-04	3034-S003-041708	01	04/29/2008 19:57	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084952
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040557
Instrument: HPMS4
Analyst: MES
Workgroup: WG270026

Tune ID: WG270026-01
Run Date: 05/01/2008
Run Time: 13:58
File ID: 4M42587
Cal ID: HPMS4-01-MAY-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	39.8	42258	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	40.1	42557	PASS
70.0	69.0	0	2.00	0.573	244	PASS
127	198	40.0	60.0	51.3	54544	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	106253	PASS
199	198	5.00	9.00	6.43	6833	PASS
275	198	10.0	30.0	24.1	25616	PASS
365	198	1.00	100	2.87	3049	PASS
441	443	0.0100	100	86.1	14807	PASS
442	198	40.0	100	83.5	88757	PASS
443	442	17.0	23.0	19.4	17190	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270026-02	STD-CCV	01	05/01/2008 14:16	
WG270026-03	STD	01	05/01/2008 15:12	
WG270026-04	STD	01	05/01/2008 15:44	
WG270026-05	STD	01	05/01/2008 16:15	
WG270026-06	STD	01	05/01/2008 16:46	
WG270026-07	STD	01	05/01/2008 17:17	
WG270026-08	STD	01	05/01/2008 17:48	
WG270026-09	STD	01	05/01/2008 18:20	
WG270026-10	SSCV	01	05/01/2008 18:52	
WG270026-11	SSCV	01	05/01/2008 19:23	
WG269996-02	BLANK	01	05/01/2008 19:55	
WG269996-03	LCS	01	05/01/2008 20:26	
L08040557-01	3034-S001-041708	RE1	05/01/2008 23:05	
L08040557-02	3034-S002-041708	RE1	05/01/2008 23:37	
L08040557-03	3034-S002-041708D	RE1	05/02/2008 00:09	
L08040557-04	3034-S003-041708	RE1	05/02/2008 00:41	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084952
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040557
Instrument: HPMS5
Analyst: CAA
Workgroup: WG269065

Tune ID: WG269065-01
Run Date: 04/24/2008
Run Time: 08:21
File ID: 5M50574
Cal ID: HPMS5-21-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	43.1	49231	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	45.1	51514	PASS
70.0	69.0	0	2.00	0.198	102	PASS
127	198	40.0	60.0	48.7	55576	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	114229	PASS
199	198	5.00	9.00	6.94	7928	PASS
275	198	10.0	30.0	28.8	32906	PASS
365	198	1.00	100	3.54	4046	PASS
441	443	0.0100	100	87.2	13095	PASS
442	198	40.0	100	69.4	79226	PASS
443	442	17.0	23.0	19.0	15023	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269065-02	STD-CCV	01	04/24/2008 08:42	
WG269065-03	STD	01	04/24/2008 09:16	
WG269065-04	STD	01	04/24/2008 09:50	
WG269065-05	STD	01	04/24/2008 10:24	
WG269065-06	STD	01	04/24/2008 10:58	
WG269065-07	STD	01	04/24/2008 11:31	
WG269065-08	STD	01	04/24/2008 12:05	
WG269065-09	STD	01	04/24/2008 12:39	
WG269065-10	SSCV	01	04/24/2008 13:12	
WG269065-11	SSCV	01	04/24/2008 13:46	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084952
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08040557
Instrument: HPMS5
Analyst: CAA
Workgroup: WG269464

Tune ID: WG269464-01
Run Date: 04/25/2008
Run Time: 13:22
File ID: 5M50619
Cal ID: HPMS5-24-APR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
51.0	198	30.0	60.0	43.2	63089	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	45.8	66962	PASS
70.0	69.0	0	2.00	0	0	PASS
127	198	40.0	60.0	49.3	71962	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	146080	PASS
199	198	5.00	9.00	6.80	9937	PASS
275	198	10.0	30.0	28.4	41456	PASS
365	198	1.00	100	3.50	5106	PASS
441	443	0.0100	100	86.2	17836	PASS
442	198	40.0	100	74.1	108266	PASS
443	442	17.0	23.0	19.1	20695	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269464-02	CCV	01	04/25/2008 14:17	
WG269047-02	BLANK	02	04/25/2008 14:52	
WG269047-03	LCS	02	04/25/2008 15:26	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1084952
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

ICAL Workgroup: WG269065 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4038	11.4		
2,4-Dichlorophenol	CCC	0.3304	10.3		
2-Nitrophenol	CCC	0.2020	12.5		
4-Chloro-3-Methylphenol	CCC	0.3684	6.73		
Acenaphthene	CCC	1.261	16.8	0.998	
Benzo[a]pyrene	CCC	1.222	12.3		
Di-n-Octyl Phthalate	CCC	1.483	12.8		
Fluoranthene	CCC	1.409	14.2		
Hexachlorobutadiene	CCC	0.2508	6.63		
Pentachlorophenol	CCC	0.1899	17.5	0.996	
Phenol	CCC	1.556	3.92		
n-Nitrosodiphenylamine	CCC	0.7523	12.1		
2,4-Dinitrophenol	SPCC	0.1774	44.1		0.999
4-Nitrophenol	SPCC	0.2986	8.56		
Hexachlorocyclopentadiene	SPCC	0.3211	26.0	0.997	
n-Nitrosodipropylamine	SPCC	1.056	3.30		
2,4,5-Trichlorophenol		0.4241	12.1		
2,4-Dimethylphenol		0.3565	11.5		
2,4-Dinitrotoluene		0.4489	18.6	0.998	
2,6-Dinitrotoluene		0.3144	9.73		
2-Chloronaphthalene		1.361	10.8		
2-Chlorophenol		1.335	5.61		
2-Methylnaphthalene		0.7601	11.5		
2-Methylphenol		1.067	4.88		
2-Nitroaniline		0.3895	4.55		
3,3'-Dichlorobenzidine		0.4060	10.6		
3-,4-Methylphenol		1.417	7.24		
3-Nitroaniline		0.2871	9.59		
4,6-Dinitro-2-Methylphenol		0.1462	26.9		0.999
4-Bromophenyl Phenyl Ether		0.2865	13.1		
4-Chloroaniline		0.4485	8.78		
4-Chlorophenyl Phenyl Ether		0.7703	15.0		
4-Nitroaniline		0.3213	10.2		
Acenaphthylene		1.880	12.5		
Anthracene		1.318	13.6		
Benzo[a]anthracene		1.269	9.74		
Benzo[b]fluoranthene		1.582	17.1	0.998	
Benzo[ghi]perylene		1.096	10.5		
Benzo[k]fluoranthene		1.239	11.4		
Butyl Benzyl Phthalate		0.6191	11.0		
Carbazole		1.107	15.3	0.996	
Chrysene		1.198	11.1		
Di-n-Butyl Phthalate		1.483	9.32		
Dibenz[ah]anthracene		1.170	16.2	0.999	
Dibenzofuran		1.765	13.9		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

ICAL Workgroup: WG269065 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.432	7.41		
Dimethylphthalate		1.381	8.11		
Fluorene		1.527	14.2		
Hexachlorobenzene		0.2954	12.3		
Hexachloroethane		0.6439	4.42		
Indeno[1,2,3-cd]pyrene		1.365	15.0		
Isophorone		0.6607	4.71		
Naphthalene		1.106	8.67		
Nitrobenzene		0.4242	3.31		
Phenanthrene		1.314	12.9		
Pyrene		1.268	10.9		
bis(2-Chloroethoxy)methane		0.5681	7.46		
bis(2-Chloroethyl)ether		0.8799	4.03		
bis(2-Chloroisopropyl)ether		1.557	4.11		
bis(2-Ethylhexyl)phthalate		0.8131	7.27		

R = Correlation coefficient; 0.995 minimum

R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008

PDF File ID: 1084950

Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

ICAL Workgroup: WG269488 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.3757	3.82		
2,4-Dichlorophenol	CCC	0.2932	3.21		
2-Nitrophenol	CCC	0.2002	6.96		
4-Chloro-3-Methylphenol	CCC	0.2891	3.12		
Acenaphthene	CCC	1.183	1.37		
Benzo[a]pyrene	CCC	1.256	4.73		
Di-n-Octyl Phthalate	CCC	1.658	5.17		
Fluoranthene	CCC	1.273	4.10		
Hexachlorobutadiene	CCC	0.1688	2.09		
Pentachlorophenol	CCC	0.1115	25.4	0.997	
Phenol	CCC	1.582	3.59		
n-Nitrosodiphenylamine	CCC	0.7414	4.67		
2,4-Dinitrophenol	SPCC	0.09042	53.9	0.999	
4-Nitrophenol	SPCC	0.2226	6.90		
Hexachlorocyclopentadiene	SPCC	0.1766	35.3	0.998	
n-Nitrosodipropylamine	SPCC	0.8014	4.62		
2,4,5-Trichlorophenol		0.3980	5.01		
2,4-Dimethylphenol		0.3286	2.95		
2,4-Dinitrotoluene		0.4036	5.58		
2,6-Dinitrotoluene		0.3269	2.85		
2-Chloronaphthalene		1.353	2.46		
2-Chlorophenol		1.450	2.60		
2-Methylnaphthalene		0.7118	2.13		
2-Methylphenol		1.055	2.93		
2-Nitroaniline		0.3027	4.45		
3,3'-Dichlorobenzidine		0.4276	4.43		
3-,4-Methylphenol		1.415	2.77		
3-Nitroaniline		0.3406	3.82		
4,6-Dinitro-2-Methylphenol		0.1171	23.9	0.998	
4-Bromophenyl Phenyl Ether		0.2418	3.90		
4-Chloroaniline		0.4394	2.65		
4-Chlorophenyl Phenyl Ether		0.6459	3.51		
4-Nitroaniline		0.3623	3.40		
Acenaphthylene		1.897	2.82		
Anthracene		1.279	4.51		
Benzo[a]anthracene		1.252	4.10		
Benzo[b]fluoranthene		1.421	5.78		
Benzo[ghi]perylene		1.180	5.69		
Benzo[k]fluoranthene		1.227	7.72		
Butyl Benzyl Phthalate		0.6304	8.29		
Carbazole		1.121	4.64		
Chrysene		1.192	4.04		
Di-n-Butyl Phthalate		1.478	5.89		
Dibenz[ah]anthracene		1.198	6.39		
Dibenzofuran		1.621	3.47		

INT_CAL - Modified 03/06/2008

PDF File ID: 1084950

Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58
ICAL Workgroup: WG269488 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.356	3.30		
Dimethylphthalate		1.309	2.95		
Fluorene		1.393	2.66		
Hexachlorobenzene		0.2603	3.80		
Hexachloroethane		0.5619	4.01		
Indeno[1,2,3-cd]pyrene		1.402	6.53		
Isophorone		0.5570	3.43		
Naphthalene		1.043	2.68		
Nitrobenzene		0.3180	3.76		
Phenanthrene		1.271	4.68		
Pyrene		1.326	4.91		
bis(2-Chloroethoxy)methane		0.4839	4.22		
bis(2-Chloroethyl)ether		0.8847	4.37		
bis(2-Chloroisopropyl)ether		1.934	5.26		
bis(2-Ethylhexyl)phthalate		0.9065	5.02		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 1084950
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

ICAL Workgroup: WG270026 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.3588	6.13		
2,4-Dichlorophenol	CCC	0.2962	4.39		
2-Nitrophenol	CCC	0.2044	5.80		
4-Chloro-3-Methylphenol	CCC	0.2984	2.41		
Acenaphthene	CCC	1.185	2.88		
Benzo[a]pyrene	CCC	1.246	5.32		
Di-n-Octyl Phthalate	CCC	1.631	6.55		
Fluoranthene	CCC	1.267	4.25		
Hexachlorobutadiene	CCC	0.1622	4.25		
Pentachlorophenol	CCC	0.1190	20.7	0.997	
Phenol	CCC	1.653	1.98		
n-Nitrosodiphenylamine	CCC	0.7417	3.76		
2,4-Dinitrophenol	SPCC	0.1473	33.6	0.998	
4-Nitrophenol	SPCC	0.2498	5.07		
Hexachlorocyclopentadiene	SPCC	0.1921	33.9	0.999	
n-Nitrosodipropylamine	SPCC	0.8873	2.89		
2,4,5-Trichlorophenol		0.3851	5.16		
2,4-Dimethylphenol		0.3403	2.18		
2,4-Dinitrotoluene		0.4093	6.22		
2,6-Dinitrotoluene		0.3244	3.55		
2-Chloronaphthalene		1.356	1.97		
2-Chlorophenol		1.491	2.86		
2-Methylnaphthalene		0.7034	2.42		
2-Methylphenol		1.084	2.03		
2-Nitroaniline		0.3246	3.80		
3,3'-Dichlorobenzidine		0.4463	4.24		
3-,4-Methylphenol		1.450	2.53		
3-Nitroaniline		0.3563	1.89		
4,6-Dinitro-2-Methylphenol		0.1550	13.5		
4-Bromophenyl Phenyl Ether		0.2243	4.85		
4-Chloroaniline		0.4693	2.39		
4-Chlorophenyl Phenyl Ether		0.6379	3.20		
4-Nitroaniline		0.3869	2.35		
Acenaphthylene		1.894	1.93		
Anthracene		1.255	3.77		
Benzo[a]anthracene		1.254	3.53		
Benzo[b]fluoranthene		1.433	5.35		
Benzo[ghi]perylene		1.216	5.82		
Benzo[k]fluoranthene		1.213	7.39		
Butyl Benzyl Phthalate		0.6538	6.52		
Carbazole		1.161	3.58		
Chrysene		1.199	3.81		
Di-n-Butyl Phthalate		1.432	3.45		
Dibenz[ah]anthracene		1.229	5.70		
Dibenzofuran		1.647	2.16		

INT_CAL - Modified 03/06/2008

PDF File ID: 1084950

Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08040557 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20
ICAL Workgroup: WG270026 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.320	1.55		
Dimethylphthalate		1.300	1.87		
Fluorene		1.388	2.37		
Hexachlorobenzene		0.2428	5.37		
Hexachloroethane		0.5953	1.75		
Indeno[1,2,3-cd]pyrene		1.439	5.44		
Isophorone		0.5440	2.44		
Naphthalene		1.075	1.63		
Nitrobenzene		0.3357	2.21		
Phenanthrene		1.248	4.04		
Pyrene		1.368	4.55		
bis(2-Chloroethoxy)methane		0.5007	2.28		
bis(2-Chloroethyl)ether		0.8929	3.12		
bis(2-Chloroisopropyl)ether		1.955	4.71		
bis(2-Ethylhexyl)phthalate		0.9064	5.57		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

Column ID: F

Analyte	WG269065-02			WG269065-03			WG269065-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	129065.000	0.4059	3.00	6507.00000	0.3350	10.0	25317.0000	0.3664
2,4-Dichlorophenol	50.0	159674.000	0.3324	3.00	8223.00000	0.2775	10.0	31082.0000	0.2997
2-Nitrophenol	50.0	98092.0000	0.2042	3.00	4706.00000	0.1588	10.0	18586.0000	0.1792
4-Chloro-3-Methylphenol	50.0	177602.000	0.3697	3.00	9724.00000	0.3282	10.0	35157.0000	0.3390
Acenaphthene	50.0	406024.000	1.277	3.00	18565.0000	0.9558	10.0	72650.0000	1.052
Benzo[a]pyrene	50.0	656875.000	1.382	3.00	30470.0000	0.9921	10.0	125219.000	1.084
Di-n-Octyl Phthalate	50.0	851989.000	1.793	3.00	36623.0000	1.192	10.0	148160.000	1.282
Fluoranthene	50.0	744324.000	1.303	3.00	35746.0000	1.169	10.0	138203.000	1.231
Hexachlorobutadiene	50.0	117330.000	0.2442	3.00	6798.00000	0.2294	10.0	25222.0000	0.2432
Pentachlorophenol	50.0	100777.000	0.1764	NA	NA	NA	10.0	16867.0000	0.1502
Phenol	50.0	198834.000	1.544	3.00	11498.0000	1.459	10.0	40337.0000	1.480
n-Nitrosodiphenylamine	50.0	396069.000	0.6934	3.00	19897.0000	0.6505	10.0	75459.0000	0.6722
2,4-Dinitrophenol	50.0	53152.0000	0.1671	NA	NA	NA	10.0	5441.00000	0.07880
4-Nitrophenol	50.0	97340.0000	0.3061	NA	NA	NA	10.0	17174.0000	0.2486
Hexachlorocyclopentadiene	50.0	108334.000	0.3407	3.00	3477.00000	0.1790	10.0	17507.0000	0.2534
n-Nitrosodipropylamine	50.0	138488.000	1.075	3.00	7949.00000	1.009	10.0	28700.0000	1.053
2,4,5-Trichlorophenol	50.0	135401.000	0.4258	3.00	6604.00000	0.3400	10.0	26364.0000	0.3816
2,4-Dimethylphenol	50.0	173467.000	0.3611	3.00	8734.00000	0.2948	10.0	33155.0000	0.3197
2,4-Dinitrotoluene	50.0	145569.000	0.4577	3.00	6231.00000	0.3208	10.0	25478.0000	0.3688
2,6-Dinitrotoluene	50.0	100206.000	0.3151	3.00	5157.00000	0.2655	10.0	20040.0000	0.2901
2-Chloronaphthalene	50.0	431571.000	1.357	3.00	22640.0000	1.166	10.0	84320.0000	1.221
2-Chlorophenol	50.0	169860.000	1.319	3.00	9337.00000	1.185	10.0	35603.0000	1.306
2-Methylnaphthalene	50.0	359297.000	0.7480	3.00	19056.0000	0.6431	10.0	70855.0000	0.6831
2-Methylphenol	50.0	137246.000	1.066	3.00	7700.00000	0.9773	10.0	27461.0000	1.008
2-Nitroaniline	50.0	125430.000	0.3944	NA	NA	NA	10.0	24610.0000	0.3562
3,3'-Dichlorobenzidine	50.0	255012.000	0.4587	3.00	12360.0000	0.3557	10.0	46526.0000	0.3498
3-,4-Methylphenol	50.0	181136.000	1.406	3.00	9925.00000	1.260	10.0	35377.0000	1.298
3-Nitroaniline	50.0	88277.0000	0.2776	NA	NA	NA	10.0	17049.0000	0.2468
4,6-Dinitro-2-Methylphenol	50.0	75649.0000	0.1324	NA	NA	NA	10.0	10504.0000	0.09360
4-Bromophenyl Phenyl Ether	50.0	149474.000	0.2617	3.00	7464.00000	0.2440	10.0	28557.0000	0.2544
4-Chloroaniline	50.0	215785.000	0.4492	3.00	11636.0000	0.3927	10.0	42703.0000	0.4117
4-Chlorophenyl Phenyl Ether	50.0	240373.000	0.7559	3.00	12175.0000	0.6268	10.0	46209.0000	0.6688
4-Nitroaniline	50.0	101725.000	0.3199	NA	NA	NA	10.0	18228.0000	0.2638
Acenaphthylene	50.0	599762.000	1.886	3.00	30067.0000	1.548	10.0	114518.000	1.658
Anthracene	50.0	697291.000	1.221	3.00	34171.0000	1.117	10.0	129080.000	1.150
Benzo[a]anthracene	50.0	791748.000	1.424	3.00	38392.0000	1.105	10.0	150982.000	1.135
Benzo[b]fluoranthene	50.0	880437.000	1.853	3.00	38768.0000	1.262	10.0	151270.000	1.309
Benzo[ghi]perylene	50.0	589084.000	1.240	3.00	27770.0000	0.9042	10.0	113306.000	0.9804
Benzo[k]fluoranthene	50.0	648657.000	1.365	3.00	30936.0000	1.007	10.0	136685.000	1.183
Butyl Benzyl Phthalate	50.0	414775.000	0.7460	3.00	18139.0000	0.5220	10.0	72987.0000	0.5487
Carbazole	50.0	586944.000	1.028	3.00	27965.0000	0.9143	10.0	104796.000	0.9335
Chrysene	50.0	756131.000	1.360	3.00	35424.0000	1.019	10.0	139856.000	1.051

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

Column ID: F

Analyte	WG269065-02			WG269065-03			WG269065-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	802885.000	1.406	3.00	39157.0000	1.280	10.0	152138.000	1.355
Dibenz[ah]anthracene	50.0	640126.000	1.347	3.00	26432.0000	0.8606	10.0	113023.000	0.9779
Dibenzofuran	50.0	556194.000	1.749	3.00	28447.0000	1.465	10.0	104762.000	1.516
Diethylphthalate	50.0	458056.000	1.440	3.00	24465.0000	1.260	10.0	91393.0000	1.323
Dimethylphthalate	50.0	437667.000	1.376	3.00	23913.0000	1.231	10.0	87401.0000	1.265
Fluorene	50.0	491792.000	1.547	3.00	23618.0000	1.216	10.0	90629.0000	1.312
Hexachlorobenzene	50.0	150519.000	0.2635	3.00	7933.00000	0.2594	10.0	30648.0000	0.2730
Hexachloroethane	50.0	81043.0000	0.6292	3.00	4659.00000	0.5914	10.0	16842.0000	0.6179
Indeno[1,2,3-cd]pyrene	50.0	744303.000	1.566	3.00	31392.0000	1.022	10.0	134602.000	1.165
Isophorone	50.0	325683.000	0.6780	3.00	17824.0000	0.6016	10.0	64617.0000	0.6230
Naphthalene	50.0	526885.000	1.097	3.00	29252.0000	0.9873	10.0	105486.000	1.017
Nitrobenzene	50.0	208645.000	0.4343	3.00	11857.0000	0.4002	10.0	43043.0000	0.4150
Phenanthrene	50.0	693769.000	1.215	3.00	34323.0000	1.122	10.0	130267.000	1.160
Pyrene	50.0	812543.000	1.461	3.00	38019.0000	1.094	10.0	148865.000	1.119
bis(2-Chloroethoxy)methane	50.0	275555.000	0.5736	3.00	15071.0000	0.5087	10.0	52944.0000	0.5105
bis(2-Chloroethyl)ether	50.0	113544.000	0.8816	3.00	6790.00000	0.8618	10.0	23714.0000	0.8700
bis(2-Chloroisopropyl)ether	50.0	204009.000	1.584	3.00	12239.0000	1.554	10.0	40739.0000	1.495
bis(2-Ethylhexyl)phthalate	50.0	523587.000	0.9417	3.00	27595.0000	0.7941	10.0	97616.0000	0.7338

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

Column ID: F

Analyte	WG269065-05			WG269065-06			WG269065-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	34356.0000	0.3747	25.0	78994.0000	0.3931	80.0	273274.000	0.4317
2,4-Dichlorophenol	15.0	43390.0000	0.3101	25.0	98466.0000	0.3274	80.0	327546.000	0.3535
2-Nitrophenol	15.0	26751.0000	0.1912	25.0	61095.0000	0.2032	80.0	201302.000	0.2173
4-Chloro-3-Methylphenol	15.0	50541.0000	0.3612	25.0	112993.000	0.3757	80.0	353363.000	0.3814
Acenaphthene	15.0	102825.000	1.121	25.0	247381.000	1.231	80.0	893058.000	1.411
Benzo[a]pyrene	15.0	170854.000	1.115	25.0	410826.000	1.182	80.0	1519089.00	1.294
Di-n-Octyl Phthalate	15.0	214404.000	1.399	25.0	522623.000	1.504	80.0	1789763.00	1.525
Fluoranthene	15.0	193453.000	1.291	25.0	456878.000	1.373	80.0	1672556.00	1.569
Hexachlorobutadiene	15.0	33402.0000	0.2387	25.0	73809.0000	0.2454	80.0	243283.000	0.2626
Pentachlorophenol	15.0	23498.0000	0.1569	25.0	58850.0000	0.1769	80.0	226241.000	0.2122
Phenol	15.0	57090.0000	1.556	25.0	125138.000	1.596	80.0	379589.000	1.568
n-Nitrosodiphenylamine	15.0	105293.000	0.7029	25.0	243955.000	0.7333	80.0	868666.000	0.8148
2,4-Dinitrophenol	15.0	8427.00000	0.09190	25.0	28741.0000	0.1430	80.0	146631.000	0.2316
4-Nitrophenol	15.0	25714.0000	0.2804	25.0	63037.0000	0.3137	80.0	196072.000	0.3097
Hexachlorocyclopentadiene	15.0	24611.0000	0.2684	25.0	64818.0000	0.3226	80.0	239370.000	0.3781
n-Nitrosodipropylamine	15.0	40006.0000	1.091	25.0	87004.0000	1.110	80.0	251789.000	1.040
2,4,5-Trichlorophenol	15.0	36544.0000	0.3985	25.0	84100.0000	0.4185	80.0	289855.000	0.4579
2,4-Dimethylphenol	15.0	46311.0000	0.3310	25.0	104914.000	0.3489	80.0	353221.000	0.3812
2,4-Dinitrotoluene	15.0	37148.0000	0.4051	25.0	87157.0000	0.4337	80.0	321326.000	0.5076
2,6-Dinitrotoluene	15.0	27356.0000	0.2983	25.0	62316.0000	0.3101	80.0	209154.000	0.3304
2-Chloronaphthalene	15.0	116158.000	1.267	25.0	266129.000	1.324	80.0	917245.000	1.449
2-Chlorophenol	15.0	48127.0000	1.312	25.0	106976.000	1.365	80.0	331400.000	1.369
2-Methylnaphthalene	15.0	97985.0000	0.7003	25.0	223179.000	0.7421	80.0	759431.000	0.8197
2-Methylphenol	15.0	38902.0000	1.061	25.0	85527.0000	1.091	80.0	264400.000	1.092
2-Nitroaniline	15.0	36783.0000	0.4011	25.0	81994.0000	0.4080	80.0	239815.000	0.3788
3,3'-Dichlorobenzidine	15.0	66354.0000	0.3769	25.0	161679.000	0.3988	80.0	580530.000	0.4173
3-,4-Methylphenol	15.0	50503.0000	1.377	25.0	113227.000	1.444	80.0	356573.000	1.473
3-Nitroaniline	15.0	24301.0000	0.2650	25.0	56539.0000	0.2814	80.0	189640.000	0.2996
4,6-Dinitro-2-Methylphenol	15.0	16231.0000	0.1084	25.0	45118.0000	0.1356	80.0	181310.000	0.1701
4-Bromophenyl Phenyl Ether	15.0	40162.0000	0.2681	25.0	92385.0000	0.2777	80.0	335778.000	0.3149
4-Chloroaniline	15.0	58764.0000	0.4200	25.0	134257.000	0.4464	80.0	436052.000	0.4706
4-Chlorophenyl Phenyl Ether	15.0	63350.0000	0.6908	25.0	145812.000	0.7256	80.0	539071.000	0.8515
4-Nitroaniline	15.0	26998.0000	0.2944	25.0	65161.0000	0.3243	80.0	214757.000	0.3392
Acenaphthylene	15.0	158577.000	1.729	25.0	368698.000	1.835	80.0	1282183.00	2.025
Anthracene	15.0	180175.000	1.203	25.0	428804.000	1.289	80.0	1554781.00	1.458
Benzo[a]anthracene	15.0	207497.000	1.179	25.0	498766.000	1.230	80.0	1833476.00	1.318
Benzo[b]fluoranthene	15.0	201265.000	1.313	25.0	511348.000	1.472	80.0	2050202.00	1.746
Benzo[ghi]perylene	15.0	159759.000	1.042	25.0	377155.000	1.085	80.0	1341114.00	1.142
Benzo[k]fluoranthene	15.0	172928.000	1.128	25.0	400397.000	1.152	80.0	1546941.00	1.318
Butyl Benzyl Phthalate	15.0	104789.000	0.5952	25.0	255110.000	0.6293	80.0	882054.000	0.6340
Carbazole	15.0	149765.000	0.9998	25.0	363427.000	1.092	80.0	1311342.00	1.230
Chrysene	15.0	194744.000	1.106	25.0	469243.000	1.158	80.0	1733970.00	1.246

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557
Analytical Method: 8270C
Instrument ID: HPMS5
Initial Calibration Date: 24-APR-08 12:39
Column ID: F

Analyte	WG269065-05			WG269065-06			WG269065-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	215124.000	1.436	25.0	499636.000	1.502	80.0	1678239.00	1.574
Dibenz[ah]anthracene	15.0	162950.000	1.063	25.0	397949.000	1.145	80.0	1502985.00	1.280
Dibenzofuran	15.0	145739.000	1.589	25.0	340517.000	1.695	80.0	1230393.00	1.944
Diethylphthalate	15.0	127132.000	1.386	25.0	290674.000	1.447	80.0	944224.000	1.492
Dimethylphthalate	15.0	121069.000	1.320	25.0	273953.000	1.363	80.0	909422.000	1.437
Fluorene	15.0	126424.000	1.379	25.0	302154.000	1.504	80.0	1067224.00	1.686
Hexachlorobenzene	15.0	41284.0000	0.2756	25.0	93931.0000	0.2823	80.0	342231.000	0.3210
Hexachloroethane	15.0	24068.0000	0.6562	25.0	52835.0000	0.6740	80.0	158030.000	0.6527
Indeno[1,2,3-cd]pyrene	15.0	191280.000	1.248	25.0	466508.000	1.343	80.0	1739282.00	1.482
Isophorone	15.0	93267.0000	0.6665	25.0	206053.000	0.6852	80.0	619873.000	0.6691
Naphthalene	15.0	144495.000	1.033	25.0	325941.000	1.084	80.0	1077383.00	1.163
Nitrobenzene	15.0	60660.0000	0.4335	25.0	133578.000	0.4442	80.0	386239.000	0.4169
Phenanthrene	15.0	181965.000	1.215	25.0	424725.000	1.277	80.0	1540165.00	1.445
Pyrene	15.0	206071.000	1.171	25.0	491044.000	1.211	80.0	1830948.00	1.316
bis(2-Chloroethoxy)methane	15.0	77194.0000	0.5517	25.0	172586.000	0.5739	80.0	548096.000	0.5916
bis(2-Chloroethyl)ether	15.0	34123.0000	0.9303	25.0	73502.0000	0.9377	80.0	205853.000	0.8502
bis(2-Chloroisopropyl)ether	15.0	59475.0000	1.621	25.0	130261.000	1.662	80.0	362450.000	1.497
bis(2-Ethylhexyl)phthalate	15.0	139159.000	0.7904	25.0	327973.000	0.8090	80.0	1098485.00	0.7896

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

Column ID: F

Analyte	WG269065-08			WG269065-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	339719.000	0.4494	120	464077.000	0.4743
2,4-Dichlorophenol	100	409398.000	0.3632	120	546462.000	0.3790
2-Nitrophenol	100	253317.000	0.2248	120	341643.000	0.2369
4-Chloro-3-Methylphenol	100	442222.000	0.3924	120	576044.000	0.3995
Acenaphthene	100	1126275.00	1.490	120	1513492.00	1.547
Benzo[a]pyrene	100	1870379.00	1.330	120	2609634.00	1.396
Di-n-Octyl Phthalate	100	2236945.00	1.591	120	2954983.00	1.580
Fluoranthene	100	2067740.00	1.623	120	2840074.00	1.713
Hexachlorobutadiene	100	294751.000	0.2615	120	406052.000	0.2816
Pentachlorophenol	100	279857.000	0.2196	120	393029.000	0.2370
Phenol	100	482042.000	1.617	120	618063.000	1.629
n-Nitrosodiphenylamine	100	1093742.00	0.8584	120	1480016.00	0.8925
2,4-Dinitrophenol	100	193086.000	0.2554	120	268162.000	0.2741
4-Nitrophenol	100	243754.000	0.3225	120	302439.000	0.3091
Hexachlorocyclopentadiene	100	302030.000	0.3995	120	418047.000	0.4272
n-Nitrosodipropylamine	100	314571.000	1.055	120	385805.000	1.017
2,4,5-Trichlorophenol	100	357348.000	0.4727	120	486782.000	0.4975
2,4-Dimethylphenol	100	451586.000	0.4007	120	597406.000	0.4143
2,4-Dinitrotoluene	100	406729.000	0.5380	120	547154.000	0.5592
2,6-Dinitrotoluene	100	262323.000	0.3470	120	351146.000	0.3589
2-Chloronaphthalene	100	1154872.00	1.528	120	1542905.00	1.577
2-Chlorophenol	100	415859.000	1.395	120	543766.000	1.433
2-Methylnaphthalene	100	960854.000	0.8525	120	1285847.00	0.8918
2-Methylphenol	100	332803.000	1.117	120	427900.000	1.128
2-Nitroaniline	100	303656.000	0.4017	120	378081.000	0.3864
3,3'-Dichlorobenzidine	100	722563.000	0.4336	120	1013375.00	0.4573
3-,4-Methylphenol	100	454329.000	1.524	120	588035.000	1.550
3-Nitroaniline	100	239165.000	0.3164	120	316222.000	0.3232
4,6-Dinitro-2-Methylphenol	100	234020.000	0.1837	120	330410.000	0.1993
4-Bromophenyl Phenyl Ether	100	412411.000	0.3237	120	576463.000	0.3476
4-Chloroaniline	100	554642.000	0.4921	120	728013.000	0.5049
4-Chlorophenyl Phenyl Ether	100	675039.000	0.8930	120	929854.000	0.9503
4-Nitroaniline	100	265974.000	0.3518	120	348253.000	0.3559
Acenaphthylene	100	1622596.00	2.147	120	2161460.00	2.209
Anthracene	100	1923574.00	1.510	120	2647757.00	1.597
Benzo[a]anthracene	100	2260924.00	1.357	120	3111596.00	1.404
Benzo[b]fluoranthene	100	2520048.00	1.793	120	3569641.00	1.909
Benzo[ghi]perylene	100	1636658.00	1.164	120	2262313.00	1.210
Benzo[k]fluoranthene	100	1909803.00	1.359	120	2615219.00	1.399
Butyl Benzyl Phthalate	100	1079312.00	0.6477	120	1396720.00	0.6302
Carbazole	100	1664100.00	1.306	120	2242297.00	1.352
Chrysene	100	2157383.00	1.295	120	2982607.00	1.346

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS5

Analytical Method: 8270C **Initial Calibration Date:** 24-APR-08 12:39

Column ID: F

Analyte	WG269065-08			WG269065-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	2102386.00	1.650	120	2752800.00	1.660
Dibenz[ah]anthracene	100	1851119.00	1.317	120	2565689.00	1.372
Dibenzofuran	100	1539765.00	2.037	120	2078123.00	2.124
Diethylphthalate	100	1161954.00	1.537	120	1540700.00	1.575
Dimethylphthalate	100	1133700.00	1.500	120	1522568.00	1.556
Fluorene	100	1323272.00	1.751	120	1780522.00	1.820
Hexachlorobenzene	100	420402.000	0.3300	120	594806.000	0.3587
Hexachloroethane	100	197324.000	0.6620	120	253208.000	0.6674
Indeno[1,2,3-cd]pyrene	100	2129929.00	1.515	120	2953164.00	1.579
Isophorone	100	771029.000	0.6841	120	977761.000	0.6781
Naphthalene	100	1365914.00	1.212	120	1807823.00	1.254
Nitrobenzene	100	485361.000	0.4306	120	603370.000	0.4185
Phenanthrene	100	1920983.00	1.508	120	2601072.00	1.569
Pyrene	100	2272564.00	1.364	120	3118643.00	1.407
bis(2-Chloroethoxy)methane	100	696529.000	0.6180	120	888754.000	0.6164
bis(2-Chloroethyl)ether	100	257786.000	0.8648	120	319808.000	0.8429
bis(2-Chloroisopropyl)ether	100	464064.000	1.557	120	563117.000	1.484
bis(2-Ethylhexyl)phthalate	100	1372952.00	0.8239	120	1822222.00	0.8222

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-02			WG269488-03			WG269488-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	494496.000	0.3792	3.00	24262.0000	0.3465	10.0	80724.0000	0.3639
2,4-Dichlorophenol	50.0	662419.000	0.2923	3.00	33315.0000	0.2733	10.0	112989.000	0.2904
2-Nitrophenol	50.0	465357.000	0.2053	3.00	20702.0000	0.1698	10.0	75462.0000	0.1939
4-Chloro-3-Methylphenol	50.0	648121.000	0.2860	3.00	34000.0000	0.2789	10.0	113795.000	0.2924
Acenaphthene	50.0	1542554.00	1.183	3.00	82671.0000	1.181	10.0	263048.000	1.186
Benzo[a]pyrene	50.0	2522928.00	1.387	3.00	127146.000	1.195	10.0	414990.000	1.203
Di-n-Octyl Phthalate	50.0	3302805.00	1.816	3.00	173160.000	1.627	10.0	564704.000	1.637
Fluoranthene	50.0	2682620.00	1.175	3.00	139047.000	1.268	10.0	461151.000	1.298
Hexachlorobutadiene	50.0	379544.000	0.1675	3.00	20131.0000	0.1651	10.0	65291.0000	0.1678
Pentachlorophenol	50.0	237706.000	0.1041	NA	NA	NA	NA	NA	NA
Phenol	50.0	880503.000	1.545	3.00	47163.0000	1.538	10.0	156888.000	1.602
n-Nitrosodiphenylamine	50.0	1534832.00	0.6721	3.00	82373.0000	0.7510	10.0	268116.000	0.7545
2,4-Dinitrophenol	50.0	119598.000	0.09170	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	283846.000	0.2177	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	260861.000	0.2001	3.00	4333.00000	0.06190	10.0	28857.0000	0.1301
n-Nitrosodipropylamine	50.0	442703.000	0.7770	3.00	24330.0000	0.7935	10.0	80548.0000	0.8227
2,4,5-Trichlorophenol	50.0	522374.000	0.4006	3.00	24790.0000	0.3541	10.0	86023.0000	0.3878
2,4-Dimethylphenol	50.0	733902.000	0.3238	3.00	40007.0000	0.3282	10.0	130721.000	0.3359
2,4-Dinitrotoluene	50.0	540156.000	0.4143	3.00	24838.0000	0.3547	10.0	89173.0000	0.4020
2,6-Dinitrotoluene	50.0	426862.000	0.3274	3.00	21886.0000	0.3126	10.0	72411.0000	0.3265
2-Chloronaphthalene	50.0	1750756.00	1.343	3.00	94798.0000	1.354	10.0	307609.000	1.387
2-Chlorophenol	50.0	810329.000	1.422	3.00	43090.0000	1.405	10.0	141435.000	1.445
2-Methylnaphthalene	50.0	1600381.00	0.7062	3.00	85848.0000	0.7042	10.0	279470.000	0.7182
2-Methylphenol	50.0	587446.000	1.031	3.00	31359.0000	1.023	10.0	103528.000	1.057
2-Nitroaniline	50.0	390775.000	0.2997	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	50.0	899579.000	0.4567	3.00	51410.0000	0.4501	10.0	149224.000	0.4024
3-,4-Methylphenol	50.0	785462.000	1.379	3.00	42346.0000	1.381	10.0	136933.000	1.399
3-Nitroaniline	50.0	437904.000	0.3358	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	254210.000	0.1113	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	502978.000	0.2202	3.00	26662.0000	0.2431	10.0	86329.0000	0.2429
4-Chloroaniline	50.0	991431.000	0.4375	3.00	51675.0000	0.4239	10.0	168391.000	0.4327
4-Chlorophenyl Phenyl Ether	50.0	837814.000	0.6425	3.00	45465.0000	0.6494	10.0	148653.000	0.6702
4-Nitroaniline	50.0	464930.000	0.3566	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	2467163.00	1.892	3.00	129917.000	1.856	10.0	428300.000	1.931
Anthracene	50.0	2678604.00	1.173	3.00	142373.000	1.298	10.0	465002.000	1.309
Benzo[a]anthracene	50.0	2684540.00	1.363	3.00	140785.000	1.233	10.0	455520.000	1.228
Benzo[b]fluoranthene	50.0	2874895.00	1.581	3.00	140360.000	1.319	10.0	481676.000	1.396
Benzo[ghi]perylene	50.0	2383135.00	1.310	3.00	115888.000	1.089	10.0	384645.000	1.115
Benzo[k]fluoranthene	50.0	2538045.00	1.396	3.00	118930.000	1.118	10.0	428122.000	1.241
Butyl Benzyl Phthalate	50.0	1332505.00	0.6765	3.00	75183.0000	0.6583	10.0	245306.000	0.6615
Carbazole	50.0	2391012.00	1.047	3.00	123755.000	1.128	10.0	374030.000	1.053
Chrysene	50.0	2546066.00	1.293	3.00	135820.000	1.189	10.0	435115.000	1.173

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 25-APR-08 17:58
Column ID: F

Analyte	WG269488-02			WG269488-03			WG269488-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	3104807.00	1.360	3.00	165750.000	1.511	10.0	542404.000	1.526
Dibenz[ah]anthracene	50.0	2424854.00	1.333	3.00	114552.000	1.077	10.0	389095.000	1.128
Dibenzofuran	50.0	2093301.00	1.605	3.00	114597.000	1.637	10.0	369887.000	1.668
Diethylphthalate	50.0	1753144.00	1.345	3.00	93940.0000	1.342	10.0	308148.000	1.389
Dimethylphthalate	50.0	1690806.00	1.297	3.00	91144.0000	1.302	10.0	297110.000	1.340
Fluorene	50.0	1809739.00	1.388	3.00	96155.0000	1.373	10.0	317218.000	1.430
Hexachlorobenzene	50.0	542527.000	0.2376	3.00	28383.0000	0.2588	10.0	93280.0000	0.2625
Hexachloroethane	50.0	318711.000	0.5594	3.00	16022.0000	0.5225	10.0	53794.0000	0.5494
Indeno[1,2,3-cd]pyrene	50.0	2840135.00	1.562	3.00	133861.000	1.258	10.0	454158.000	1.317
Isophorone	50.0	1241764.00	0.5479	3.00	66827.0000	0.5482	10.0	218534.000	0.5616
Naphthalene	50.0	2327738.00	1.027	3.00	127039.000	1.042	10.0	412231.000	1.059
Nitrobenzene	50.0	708081.000	0.3124	3.00	37781.0000	0.3099	10.0	124502.000	0.3200
Phenanthrene	50.0	2643872.00	1.158	3.00	144883.000	1.321	10.0	461244.000	1.298
Pyrene	50.0	2852973.00	1.448	3.00	150267.000	1.316	10.0	494202.000	1.333
bis(2-Chloroethoxy)methane	50.0	1073801.00	0.4738	3.00	59351.0000	0.4869	10.0	192448.000	0.4946
bis(2-Chloroethyl)ether	50.0	490092.000	0.8602	3.00	26994.0000	0.8804	10.0	88239.0000	0.9012
bis(2-Chloroisopropyl)ether	50.0	1063139.00	1.866	3.00	59110.0000	1.928	10.0	193526.000	1.977
bis(2-Ethylhexyl)phthalate	50.0	1924661.00	0.9771	3.00	103259.000	0.9041	10.0	337874.000	0.9111

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-05			WG269488-06			WG269488-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	138786.000	0.3748	25.0	276041.000	0.3915	80.0	834211.000	0.3840
2,4-Dichlorophenol	15.0	190065.000	0.2977	25.0	376669.000	0.3050	80.0	1108467.00	0.2958
2-Nitrophenol	15.0	136358.000	0.2136	25.0	263694.000	0.2135	80.0	762362.000	0.2035
4-Chloro-3-Methylphenol	15.0	188202.000	0.2948	25.0	378940.000	0.3068	80.0	1061613.00	0.2833
Acenaphthene	15.0	437050.000	1.180	25.0	859712.000	1.219	80.0	2547186.00	1.173
Benzo[a]pyrene	15.0	708555.000	1.247	25.0	1377676.00	1.267	80.0	4245910.00	1.242
Di-n-Octyl Phthalate	15.0	948430.000	1.669	25.0	1908169.00	1.755	80.0	5401863.00	1.580
Fluoranthene	15.0	776040.000	1.327	25.0	1496593.00	1.345	80.0	4407944.00	1.269
Hexachlorobutadiene	15.0	111513.000	0.1747	25.0	214207.000	0.1734	80.0	629763.000	0.1681
Pentachlorophenol	15.0	38066.0000	0.06510	25.0	108821.000	0.09780	80.0	442525.000	0.1274
Phenol	15.0	255155.000	1.599	25.0	525594.000	1.707	80.0	1442035.00	1.539
n-Nitrosodiphenylamine	15.0	447981.000	0.7658	25.0	880282.000	0.7909	80.0	2553507.00	0.7352
2,4-Dinitrophenol	15.0	2796.00000	0.007500	25.0	43270.0000	0.06140	80.0	260830.000	0.1201
4-Nitrophenol	15.0	72232.0000	0.1950	25.0	163286.000	0.2316	80.0	486239.000	0.2238
Hexachlorocyclopentadiene	15.0	50055.0000	0.1352	25.0	133180.000	0.1889	80.0	484961.000	0.2232
n-Nitrosodipropylamine	15.0	132199.000	0.8282	25.0	268712.000	0.8727	80.0	719111.000	0.7675
2,4,5-Trichlorophenol	15.0	147940.000	0.3995	25.0	295315.000	0.4189	80.0	884201.000	0.4070
2,4-Dimethylphenol	15.0	215313.000	0.3373	25.0	425207.000	0.3443	80.0	1204496.00	0.3215
2,4-Dinitrotoluene	15.0	153747.000	0.4152	25.0	305360.000	0.4331	80.0	886588.000	0.4081
2,6-Dinitrotoluene	15.0	122088.000	0.3297	25.0	243545.000	0.3455	80.0	704187.000	0.3241
2-Chloronaphthalene	15.0	509549.000	1.376	25.0	990092.000	1.404	80.0	2880399.00	1.326
2-Chlorophenol	15.0	235402.000	1.475	25.0	468806.000	1.523	80.0	1334419.00	1.424
2-Methylnaphthalene	15.0	465093.000	0.7286	25.0	911758.000	0.7382	80.0	2627047.00	0.7011
2-Methylphenol	15.0	171314.000	1.073	25.0	343441.000	1.115	80.0	963837.000	1.029
2-Nitroaniline	15.0	112422.000	0.3036	25.0	231767.000	0.3287	80.0	634760.000	0.2922
3,3'-Dichlorobenzidine	15.0	258861.000	0.4225	25.0	508797.000	0.4366	80.0	1512796.00	0.4103
3-,4-Methylphenol	15.0	231506.000	1.450	25.0	458501.000	1.489	80.0	1297038.00	1.384
3-Nitroaniline	15.0	117460.000	0.3172	25.0	247130.000	0.3505	80.0	744383.000	0.3426
4,6-Dinitro-2-Methylphenol	15.0	39559.0000	0.06760	25.0	120685.000	0.1084	80.0	476471.000	0.1372
4-Bromophenyl Phenyl Ether	15.0	145219.000	0.2482	25.0	280238.000	0.2518	80.0	841113.000	0.2422
4-Chloroaniline	15.0	279563.000	0.4379	25.0	574011.000	0.4648	80.0	1652270.00	0.4410
4-Chlorophenyl Phenyl Ether	15.0	247039.000	0.6671	25.0	473052.000	0.6710	80.0	1379014.00	0.6348
4-Nitroaniline	15.0	135809.000	0.3667	25.0	271185.000	0.3847	80.0	771705.000	0.3552
Acenaphthylene	15.0	714361.000	1.929	25.0	1409242.00	1.999	80.0	4073119.00	1.875
Anthracene	15.0	777416.000	1.329	25.0	1510817.00	1.358	80.0	4405509.00	1.269
Benzo[a]anthracene	15.0	770714.000	1.258	25.0	1497086.00	1.285	80.0	4457989.00	1.209
Benzo[b]fluoranthene	15.0	813016.000	1.431	25.0	1570064.00	1.444	80.0	4612743.00	1.349
Benzo[ghi]perylene	15.0	656794.000	1.156	25.0	1288239.00	1.185	80.0	4038223.00	1.181
Benzo[k]fluoranthene	15.0	731348.000	1.287	25.0	1407657.00	1.295	80.0	3938843.00	1.152
Butyl Benzyl Phthalate	15.0	407567.000	0.6653	25.0	789412.000	0.6775	80.0	2127175.00	0.5770
Carbazole	15.0	660416.000	1.129	25.0	1346779.00	1.210	80.0	3964181.00	1.141
Chrysene	15.0	741297.000	1.210	25.0	1414399.00	1.214	80.0	4259809.00	1.155

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 25-APR-08 17:58
Column ID: F

Analyte	WG269488-05			WG269488-06			WG269488-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	912352.000	1.560	25.0	1793849.00	1.612	80.0	4991198.00	1.437
Dibenz[ah]anthracene	15.0	666243.000	1.172	25.0	1320449.00	1.214	80.0	4140177.00	1.211
Dibenzofuran	15.0	618729.000	1.671	25.0	1198536.00	1.700	80.0	3437742.00	1.582
Diethylphthalate	15.0	516753.000	1.395	25.0	1009617.00	1.432	80.0	2858495.00	1.316
Dimethylphthalate	15.0	496277.000	1.340	25.0	968363.000	1.374	80.0	2774726.00	1.277
Fluorene	15.0	527241.000	1.424	25.0	1023268.00	1.451	80.0	2970053.00	1.367
Hexachlorobenzene	15.0	156350.000	0.2673	25.0	299942.000	0.2695	80.0	908675.000	0.2616
Hexachloroethane	15.0	90894.0000	0.5694	25.0	185082.000	0.6011	80.0	522302.000	0.5575
Indeno[1,2,3-cd]pyrene	15.0	778273.000	1.369	25.0	1542102.00	1.418	80.0	4837231.00	1.415
Isophorone	15.0	360418.000	0.5646	25.0	740001.000	0.5992	80.0	2025253.00	0.5405
Naphthalene	15.0	685178.000	1.073	25.0	1344525.00	1.089	80.0	3816463.00	1.019
Nitrobenzene	15.0	208843.000	0.3272	25.0	423892.000	0.3432	80.0	1157112.00	0.3088
Phenanthrene	15.0	771721.000	1.319	25.0	1487055.00	1.336	80.0	4334200.00	1.248
Pyrene	15.0	827389.000	1.351	25.0	1596493.00	1.370	80.0	4653312.00	1.262
bis(2-Chloroethoxy)methane	15.0	318312.000	0.4986	25.0	644199.000	0.5216	80.0	1744624.00	0.4656
bis(2-Chloroethyl)ether	15.0	144771.000	0.9070	25.0	296045.000	0.9614	80.0	788194.000	0.8412
bis(2-Chloroisopropyl)ether	15.0	317579.000	1.990	25.0	659225.000	2.141	80.0	1710483.00	1.826
bis(2-Ethylhexyl)phthalate	15.0	562136.000	0.9176	25.0	1118826.00	0.9602	80.0	3150386.00	0.8545

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-08			WG269488-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	1003168.00	0.3805	120	1161327.00	0.3853
2,4-Dichlorophenol	100	1328276.00	0.2911	120	1553197.00	0.2999
2-Nitrophenol	100	913889.000	0.2003	120	1045976.00	0.2020
4-Chloro-3-Methylphenol	100	1282960.00	0.2812	120	1498554.00	0.2894
Acenaphthene	100	3071758.00	1.165	120	3541019.00	1.175
Benzo[a]pyrene	100	5083799.00	1.239	120	5959205.00	1.269
Di-n-Octyl Phthalate	100	6485019.00	1.580	120	7508187.00	1.598
Fluoranthene	100	5252522.00	1.253	120	5996507.00	1.254
Hexachlorobutadiene	100	753224.000	0.1651	120	873502.000	0.1687
Pentachlorophenol	100	554561.000	0.1323	120	679243.000	0.1421
Phenol	100	1753464.00	1.547	120	2023485.00	1.581
n-Nitrosodiphenylamine	100	3050150.00	0.7276	120	3508776.00	0.7339
2,4-Dinitrophenol	100	341439.000	0.1295	120	398603.000	0.1323
4-Nitrophenol	100	601205.000	0.2280	120	721621.000	0.2394
Hexachlorocyclopentadiene	100	606477.000	0.2300	120	733106.000	0.2432
n-Nitrosodipropylamine	100	868144.000	0.7661	120	1003503.00	0.7838
2,4,5-Trichlorophenol	100	1068820.00	0.4054	120	1238871.00	0.4110
2,4-Dimethylphenol	100	1443589.00	0.3164	120	1662478.00	0.3210
2,4-Dinitrotoluene	100	1051102.00	0.3987	120	1214083.00	0.4028
2,6-Dinitrotoluene	100	845463.000	0.3207	120	989789.000	0.3284
2-Chloronaphthalene	100	3471278.00	1.317	120	3971317.00	1.318
2-Chlorophenol	100	1625704.00	1.435	120	1882023.00	1.470
2-Methylnaphthalene	100	3163595.00	0.6933	120	3650415.00	0.7049
2-Methylphenol	100	1179546.00	1.041	120	1368405.00	1.069
2-Nitroaniline	100	771934.000	0.2928	120	901979.000	0.2993
3,3'-Dichlorobenzidine	100	1835611.00	0.4166	120	2140411.00	0.4258
3-,4-Methylphenol	100	1593904.00	1.407	120	1832913.00	1.432
3-Nitroaniline	100	907452.000	0.3442	120	1064333.00	0.3531
4,6-Dinitro-2-Methylphenol	100	579386.000	0.1382	120	669746.000	0.1401
4-Bromophenyl Phenyl Ether	100	1008182.00	0.2405	120	1172631.00	0.2453
4-Chloroaniline	100	1991343.00	0.4364	120	2285107.00	0.4413
4-Chlorophenyl Phenyl Ether	100	1628177.00	0.6175	120	1852454.00	0.6146
4-Nitroaniline	100	922294.000	0.3498	120	1087743.00	0.3609
Acenaphthylene	100	4844651.00	1.837	120	5594816.00	1.856
Anthracene	100	5207876.00	1.242	120	5992913.00	1.254
Benzo[a]anthracene	100	5318555.00	1.207	120	6212584.00	1.236
Benzo[b]fluoranthene	100	6054125.00	1.475	120	6461793.00	1.376
Benzo[ghi]perylene	100	4857728.00	1.184	120	5720757.00	1.218
Benzo[k]fluoranthene	100	4798670.00	1.169	120	5427406.00	1.155
Butyl Benzyl Phthalate	100	2495685.00	0.5665	120	2818324.00	0.5607
Carbazole	100	4707111.00	1.123	120	5436131.00	1.137
Chrysene	100	5055767.00	1.148	120	5787507.00	1.151

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:58

Column ID: F

Analyte	WG269488-08			WG269488-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	5910026.00	1.410	120	6735520.00	1.409
Dibenz[ah]anthracene	100	4951626.00	1.206	120	5824167.00	1.240
Dibenzofuran	100	4082486.00	1.548	120	4694791.00	1.558
Diethylphthalate	100	3445179.00	1.307	120	3984372.00	1.322
Dimethylphthalate	100	3331312.00	1.264	120	3847264.00	1.277
Fluorene	100	3557799.00	1.349	120	4110096.00	1.364
Hexachlorobenzene	100	1088665.00	0.2597	120	1269074.00	0.2655
Hexachloroethane	100	633394.000	0.5589	120	738437.000	0.5768
Indeno[1,2,3-cd]pyrene	100	5824082.00	1.419	120	6853818.00	1.459
Isophorone	100	2471352.00	0.5416	120	2859245.00	0.5521
Naphthalene	100	4618882.00	1.012	120	5298960.00	1.023
Nitrobenzene	100	1412602.00	0.3096	120	1620981.00	0.3130
Phenanthrene	100	5187765.00	1.238	120	5970142.00	1.249
Pyrene	100	5568797.00	1.264	120	6343650.00	1.262
bis(2-Chloroethoxy)methane	100	2109893.00	0.4624	120	2422256.00	0.4678
bis(2-Chloroethyl)ether	100	962827.000	0.8497	120	1122070.00	0.8764
bis(2-Chloroisopropyl)ether	100	2095859.00	1.850	120	2431355.00	1.899
bis(2-Ethylhexyl)phthalate	100	3774687.00	0.8568	120	4375077.00	0.8704

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-02			WG270026-03			WG270026-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	213896.000	0.3594	3.00	9658.00000	0.3162	10.0	37176.0000	0.3372
2,4-Dichlorophenol	50.0	303612.000	0.2951	3.00	14450.0000	0.2704	10.0	55274.0000	0.2881
2-Nitrophenol	50.0	214221.000	0.2082	3.00	9663.00000	0.1808	10.0	36906.0000	0.1923
4-Chloro-3-Methylphenol	50.0	314036.000	0.3052	3.00	15363.0000	0.2875	10.0	55370.0000	0.2886
Acenaphthene	50.0	700740.000	1.178	3.00	34202.0000	1.120	10.0	127870.000	1.160
Benzo[a]pyrene	50.0	1063055.00	1.386	3.00	51746.0000	1.160	10.0	200911.000	1.201
Di-n-Octyl Phthalate	50.0	1445487.00	1.885	3.00	69888.0000	1.567	10.0	265511.000	1.587
Fluoranthene	50.0	1166672.00	1.152	3.00	59807.0000	1.260	10.0	221245.000	1.263
Hexachlorobutadiene	50.0	160849.000	0.1563	3.00	8055.00000	0.1507	10.0	31114.0000	0.1622
Pentachlorophenol	50.0	111604.000	0.1102	NA	NA	NA	NA	NA	NA
Phenol	50.0	433066.000	1.667	3.00	21975.0000	1.626	10.0	79484.0000	1.639
n-Nitrosodiphenylamine	50.0	694371.000	0.6856	3.00	34390.0000	0.7243	10.0	130230.000	0.7433
2,4-Dinitrophenol	50.0	85650.0000	0.1439	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	152557.000	0.2563	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	130310.000	0.2190	3.00	2242.00000	0.07340	10.0	14488.0000	0.1314
n-Nitrosodipropylamine	50.0	234796.000	0.9038	3.00	12093.0000	0.8949	10.0	42389.0000	0.8739
2,4,5-Trichlorophenol	50.0	231094.000	0.3883	3.00	10635.0000	0.3482	10.0	40488.0000	0.3672
2,4-Dimethylphenol	50.0	352554.000	0.3427	3.00	17512.0000	0.3277	10.0	64944.0000	0.3385
2,4-Dinitrotoluene	50.0	248146.000	0.4170	3.00	10715.0000	0.3508	10.0	43832.0000	0.3976
2,6-Dinitrotoluene	50.0	192581.000	0.3236	3.00	9105.00000	0.2981	10.0	35485.0000	0.3219
2-Chloronaphthalene	50.0	793211.000	1.333	3.00	40953.0000	1.341	10.0	149574.000	1.357
2-Chlorophenol	50.0	384841.000	1.481	3.00	19019.0000	1.408	10.0	71548.0000	1.475
2-Methylnaphthalene	50.0	715732.000	0.6957	3.00	36208.0000	0.6776	10.0	132472.000	0.6904
2-Methylphenol	50.0	282682.000	1.088	3.00	14107.0000	1.044	10.0	51876.0000	1.070
2-Nitroaniline	50.0	201691.000	0.3389	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	50.0	399640.000	0.4819	3.00	21879.0000	0.4616	10.0	77754.0000	0.4395
3-,4-Methylphenol	50.0	378839.000	1.458	3.00	18625.0000	1.378	10.0	69585.0000	1.435
3-Nitroaniline	50.0	209857.000	0.3526	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	141369.000	0.1396	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	205389.000	0.2028	3.00	10248.0000	0.2158	10.0	39426.0000	0.2250
4-Chloroaniline	50.0	485133.000	0.4715	3.00	23840.0000	0.4461	10.0	89078.0000	0.4642
4-Chlorophenyl Phenyl Ether	50.0	370004.000	0.6217	3.00	18515.0000	0.6062	10.0	70851.0000	0.6427
4-Nitroaniline	50.0	232425.000	0.3906	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	1115522.00	1.875	3.00	56108.0000	1.837	10.0	207526.000	1.882
Anthracene	50.0	1174602.00	1.160	3.00	58613.0000	1.235	10.0	220977.000	1.261
Benzo[a]anthracene	50.0	1122413.00	1.354	3.00	58630.0000	1.237	10.0	216124.000	1.222
Benzo[b]fluoranthene	50.0	1226825.00	1.600	3.00	62477.0000	1.401	10.0	231857.000	1.386
Benzo[ghi]perylene	50.0	1037410.00	1.353	3.00	49281.0000	1.105	10.0	196037.000	1.172
Benzo[k]fluoranthene	50.0	1057128.00	1.379	3.00	51197.0000	1.148	10.0	202960.000	1.213
Butyl Benzyl Phthalate	50.0	615514.000	0.7423	3.00	31102.0000	0.6562	10.0	114990.000	0.6499
Carbazole	50.0	1098814.00	1.085	3.00	54974.0000	1.158	10.0	197844.000	1.129
Chrysene	50.0	1075576.00	1.297	3.00	55168.0000	1.164	10.0	207637.000	1.174

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-08 18:20
Column ID: F

Analyte	WG270026-02			WG270026-03			WG270026-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	1372456.00	1.355	3.00	65506.0000	1.380	10.0	248048.000	1.416
Dibenz[ah]anthracene	50.0	1040721.00	1.357	3.00	50233.0000	1.126	10.0	193942.000	1.160
Dibenzofuran	50.0	964865.000	1.621	3.00	50162.0000	1.642	10.0	182957.000	1.660
Diethylphthalate	50.0	779228.000	1.309	3.00	39751.0000	1.302	10.0	145296.000	1.318
Dimethylphthalate	50.0	766532.000	1.288	3.00	38800.0000	1.270	10.0	144282.000	1.309
Fluorene	50.0	810170.000	1.361	3.00	41216.0000	1.350	10.0	151427.000	1.374
Hexachlorobenzene	50.0	220339.000	0.2176	3.00	11084.0000	0.2334	10.0	42445.0000	0.2423
Hexachloroethane	50.0	155507.000	0.5986	3.00	7747.00000	0.5733	10.0	28827.0000	0.5943
Indeno[1,2,3-cd]pyrene	50.0	1218831.00	1.589	3.00	59442.0000	1.333	10.0	228209.000	1.364
Isophorone	50.0	575324.000	0.5592	3.00	28381.0000	0.5311	10.0	101861.000	0.5309
Naphthalene	50.0	1094999.00	1.064	3.00	56991.0000	1.067	10.0	205019.000	1.069
Nitrobenzene	50.0	353230.000	0.3433	3.00	17890.0000	0.3348	10.0	63888.0000	0.3330
Phenanthrene	50.0	1156019.00	1.142	3.00	58725.0000	1.237	10.0	219575.000	1.253
Pyrene	50.0	1247953.00	1.505	3.00	62334.0000	1.315	10.0	237233.000	1.341
bis(2-Chloroethoxy)methane	50.0	523968.000	0.5093	3.00	27390.0000	0.5125	10.0	95419.0000	0.4973
bis(2-Chloroethyl)ether	50.0	238876.000	0.9195	3.00	12143.0000	0.8986	10.0	43374.0000	0.8942
bis(2-Chloroisopropyl)ether	50.0	532416.000	2.049	3.00	27487.0000	2.034	10.0	94773.0000	1.954
bis(2-Ethylhexyl)phthalate	50.0	846687.000	1.021	3.00	42789.0000	0.9028	10.0	154954.000	0.8758

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-05			WG270026-06			WG270026-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	57373.0000	0.3582	25.0	161608.000	0.3736	80.0	410109.000	0.3749
2,4-Dichlorophenol	15.0	82505.0000	0.2965	25.0	227916.000	0.3114	80.0	558306.000	0.3001
2-Nitrophenol	15.0	57305.0000	0.2059	25.0	156849.000	0.2143	80.0	387173.000	0.2081
4-Chloro-3-Methylphenol	15.0	84367.0000	0.3031	25.0	223392.000	0.3052	80.0	548629.000	0.2949
Acenaphthene	15.0	189721.000	1.185	25.0	528961.000	1.223	80.0	1314341.00	1.201
Benzo[a]pyrene	15.0	292158.000	1.224	25.0	859582.000	1.256	80.0	2124611.00	1.232
Di-n-Octyl Phthalate	15.0	388336.000	1.628	25.0	1083533.00	1.584	80.0	2670591.00	1.548
Fluoranthene	15.0	325362.000	1.294	25.0	925148.000	1.341	80.0	2247918.00	1.270
Hexachlorobutadiene	15.0	45219.0000	0.1625	25.0	126752.000	0.1732	80.0	306557.000	0.1648
Pentachlorophenol	15.0	19495.0000	0.07750	25.0	77043.0000	0.1116	80.0	237196.000	0.1340
Phenol	15.0	119795.000	1.699	25.0	309383.000	1.691	80.0	746208.000	1.600
n-Nitrosodiphenylamine	15.0	192983.000	0.7673	25.0	535227.000	0.7755	80.0	1306154.00	0.7380
2,4-Dinitrophenol	15.0	9899.00000	0.06180	25.0	53746.0000	0.1242	80.0	190683.000	0.1743
4-Nitrophenol	15.0	37265.0000	0.2327	25.0	104297.000	0.2411	80.0	265917.000	0.2431
Hexachlorocyclopentadiene	15.0	24701.0000	0.1542	25.0	94480.0000	0.2184	80.0	268121.000	0.2451
n-Nitrosodipropylamine	15.0	65600.0000	0.9302	25.0	163680.000	0.8944	80.0	393892.000	0.8443
2,4,5-Trichlorophenol	15.0	60593.0000	0.3783	25.0	172988.000	0.3999	80.0	433004.000	0.3958
2,4-Dimethylphenol	15.0	96018.0000	0.3450	25.0	257308.000	0.3516	80.0	620635.000	0.3336
2,4-Dinitrotoluene	15.0	66390.0000	0.4145	25.0	186327.000	0.4307	80.0	460002.000	0.4205
2,6-Dinitrotoluene	15.0	52199.0000	0.3259	25.0	144999.000	0.3352	80.0	358894.000	0.3280
2-Chloronaphthalene	15.0	219832.000	1.372	25.0	611038.000	1.413	80.0	1477136.00	1.350
2-Chlorophenol	15.0	106500.000	1.510	25.0	281781.000	1.540	80.0	686300.000	1.471
2-Methylnaphthalene	15.0	198076.000	0.7117	25.0	533827.000	0.7294	80.0	1309509.00	0.7039
2-Methylphenol	15.0	76621.0000	1.086	25.0	203494.000	1.112	80.0	498712.000	1.069
2-Nitroaniline	15.0	54078.0000	0.3376	25.0	137071.000	0.3169	80.0	337875.000	0.3088
3,3'-Dichlorobenzidine	15.0	108305.000	0.4309	25.0	326029.000	0.4580	80.0	782664.000	0.4297
3-,4-Methylphenol	15.0	103719.000	1.471	25.0	272863.000	1.491	80.0	664697.000	1.425
3-Nitroaniline	15.0	55519.0000	0.3466	25.0	153515.000	0.3549	80.0	389825.000	0.3563
4,6-Dinitro-2-Methylphenol	15.0	30842.0000	0.1226	25.0	105490.000	0.1529	80.0	293051.000	0.1656
4-Bromophenyl Phenyl Ether	15.0	57370.0000	0.2281	25.0	164649.000	0.2386	80.0	400854.000	0.2265
4-Chloroaniline	15.0	132889.000	0.4775	25.0	353564.000	0.4831	80.0	869969.000	0.4676
4-Chlorophenyl Phenyl Ether	15.0	103892.000	0.6486	25.0	290877.000	0.6724	80.0	708165.000	0.6473
4-Nitroaniline	15.0	59667.0000	0.3725	25.0	173218.000	0.4004	80.0	421116.000	0.3849
Acenaphthylene	15.0	308590.000	1.927	25.0	847050.000	1.958	80.0	2073166.00	1.895
Anthracene	15.0	324639.000	1.291	25.0	911660.000	1.321	80.0	2212043.00	1.250
Benzo[a]anthracene	15.0	314944.000	1.253	25.0	906430.000	1.273	80.0	2226123.00	1.222
Benzo[b]fluoranthene	15.0	328239.000	1.376	25.0	963914.000	1.409	80.0	2530262.00	1.467
Benzo[ghi]perylene	15.0	284789.000	1.194	25.0	849718.000	1.242	80.0	2088490.00	1.211
Benzo[k]fluoranthene	15.0	268226.000	1.124	25.0	773851.000	1.131	80.0	2007308.00	1.164
Butyl Benzyl Phthalate	15.0	170877.000	0.6799	25.0	461465.000	0.6482	80.0	1108649.00	0.6087
Carbazole	15.0	290310.000	1.154	25.0	844699.000	1.224	80.0	2062029.00	1.165
Chrysene	15.0	305943.000	1.217	25.0	870053.000	1.222	80.0	2122067.00	1.165

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-05			WG270026-06			WG270026-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	375484.000	1.493	25.0	1032640.00	1.496	80.0	2524280.00	1.426
Dibenz[ah]anthracene	15.0	287666.000	1.206	25.0	856309.000	1.252	80.0	2118876.00	1.228
Dibenzofuran	15.0	270269.000	1.687	25.0	738548.000	1.707	80.0	1775249.00	1.623
Diethylphthalate	15.0	215347.000	1.344	25.0	587611.000	1.358	80.0	1435508.00	1.312
Dimethylphthalate	15.0	211038.000	1.318	25.0	581700.000	1.345	80.0	1413921.00	1.292
Fluorene	15.0	225807.000	1.410	25.0	628019.000	1.452	80.0	1521889.00	1.391
Hexachlorobenzene	15.0	61194.0000	0.2433	25.0	179303.000	0.2598	80.0	435758.000	0.2462
Hexachloroethane	15.0	42676.0000	0.6051	25.0	110175.000	0.6021	80.0	274039.000	0.5874
Indeno[1,2,3-cd]pyrene	15.0	336237.000	1.409	25.0	995201.000	1.455	80.0	2474832.00	1.435
Isophorone	15.0	156964.000	0.5640	25.0	399195.000	0.5455	80.0	983542.000	0.5287
Naphthalene	15.0	304035.000	1.093	25.0	810399.000	1.107	80.0	1966338.00	1.057
Nitrobenzene	15.0	96776.0000	0.3477	25.0	246316.000	0.3366	80.0	601558.000	0.3234
Phenanthrene	15.0	325361.000	1.294	25.0	902996.000	1.308	80.0	2191416.00	1.238
Pyrene	15.0	350219.000	1.394	25.0	985403.000	1.384	80.0	2393241.00	1.314
bis(2-Chloroethoxy)methane	15.0	142693.000	0.5127	25.0	369937.000	0.5055	80.0	893452.000	0.4803
bis(2-Chloroethyl)ether	15.0	65918.0000	0.9347	25.0	162267.000	0.8867	80.0	394748.000	0.8461
bis(2-Chloroisopropyl)ether	15.0	145603.000	2.065	25.0	350578.000	1.916	80.0	844098.000	1.809
bis(2-Ethylhexyl)phthalate	15.0	233093.000	0.9275	25.0	634439.000	0.8912	80.0	1567419.00	0.8606

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-08			WG270026-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	447858.000	0.3697	120	643690.000	0.3815
2,4-Dichlorophenol	100	618048.000	0.2973	120	882977.000	0.3104
2-Nitrophenol	100	436005.000	0.2097	120	613171.000	0.2156
4-Chloro-3-Methylphenol	100	625012.000	0.3006	120	858638.000	0.3019
Acenaphthene	100	1445655.00	1.193	120	2063246.00	1.223
Benzo[a]pyrene	100	2233225.00	1.234	120	3274407.00	1.275
Di-n-Octyl Phthalate	100	2957962.00	1.635	120	4137987.00	1.612
Fluoranthene	100	2399644.00	1.259	120	3471315.00	1.295
Hexachlorobutadiene	100	332769.000	0.1601	120	478165.000	0.1681
Pentachlorophenol	100	260266.000	0.1365	120	387183.000	0.1444
Phenol	100	856657.000	1.653	120	1169326.00	1.653
n-Nitrosodiphenylamine	100	1420595.00	0.7453	120	2022769.00	0.7544
2,4-Dinitrophenol	100	222143.000	0.1834	120	330526.000	0.1959
4-Nitrophenol	100	320994.000	0.2650	120	439441.000	0.2605
Hexachlorocyclopentadiene	100	295135.000	0.2436	120	425111.000	0.2520
n-Nitrosodipropylamine	100	460426.000	0.8883	120	614434.000	0.8688
2,4,5-Trichlorophenol	100	475425.000	0.3924	120	692229.000	0.4103
2,4-Dimethylphenol	100	703802.000	0.3385	120	980909.000	0.3449
2,4-Dinitrotoluene	100	507795.000	0.4192	120	715156.000	0.4239
2,6-Dinitrotoluene	100	398822.000	0.3292	120	561974.000	0.3331
2-Chloronaphthalene	100	1610245.00	1.329	120	2283628.00	1.354
2-Chlorophenol	100	778848.000	1.503	120	1087390.00	1.538
2-Methylnaphthalene	100	1449004.00	0.6969	120	2053060.00	0.7218
2-Methylphenol	100	567586.000	1.095	120	781322.000	1.105
2-Nitroaniline	100	398379.000	0.3288	120	534374.000	0.3167
3,3'-Dichlorobenzidine	100	830270.000	0.4303	120	1205729.00	0.4388
3-,4-Methylphenol	100	757389.000	1.461	120	1049176.00	1.484
3-Nitroaniline	100	438292.000	0.3618	120	616809.000	0.3656
4,6-Dinitro-2-Methylphenol	100	328692.000	0.1724	120	474464.000	0.1769
4-Bromophenyl Phenyl Ether	100	428386.000	0.2247	120	623995.000	0.2327
4-Chloroaniline	100	973744.000	0.4684	120	1354510.00	0.4762
4-Chlorophenyl Phenyl Ether	100	754413.000	0.6227	120	1082359.00	0.6416
4-Nitroaniline	100	466595.000	0.3851	120	654736.000	0.3881
Acenaphthylene	100	2270577.00	1.874	120	3210161.00	1.903
Anthracene	100	2380422.00	1.249	120	3422728.00	1.277
Benzo[a]anthracene	100	2356284.00	1.221	120	3438911.00	1.252
Benzo[b]fluoranthene	100	2472693.00	1.367	120	3743306.00	1.458
Benzo[ghi]perylene	100	2188227.00	1.209	120	3194506.00	1.244
Benzo[k]fluoranthene	100	2314600.00	1.279	120	3259773.00	1.270
Butyl Benzyl Phthalate	100	1218920.00	0.6317	120	1685704.00	0.6135
Carbazole	100	2245331.00	1.178	120	3198016.00	1.193
Chrysene	100	2257031.00	1.170	120	3249287.00	1.183

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08040557 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-08			WG270026-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	2762453.00	1.449	120	3855498.00	1.438
Dibenz[ah]anthracene	100	2234944.00	1.235	120	3253472.00	1.267
Dibenzofuran	100	1945135.00	1.606	120	2743594.00	1.626
Diethylphthalate	100	1579825.00	1.304	120	2212035.00	1.311
Dimethylphthalate	100	1543449.00	1.274	120	2198254.00	1.303
Fluorene	100	1655932.00	1.367	120	2363407.00	1.401
Hexachlorobenzene	100	466141.000	0.2446	120	684926.000	0.2554
Hexachloroethane	100	311853.000	0.6016	120	424057.000	0.5996
Indeno[1,2,3-cd]pyrene	100	2602910.00	1.438	120	3818123.00	1.487
Isophorone	100	1141843.00	0.5492	120	1544513.00	0.5430
Naphthalene	100	2206391.00	1.061	120	3080519.00	1.083
Nitrobenzene	100	696846.000	0.3352	120	942356.000	0.3313
Phenanthrene	100	2369275.00	1.243	120	3402926.00	1.269
Pyrene	100	2583901.00	1.339	120	3718540.00	1.353
bis(2-Chloroethoxy)methane	100	1031581.00	0.4962	120	1398653.00	0.4918
bis(2-Chloroethyl)ether	100	464881.000	0.8969	120	612765.000	0.8664
bis(2-Chloroisopropyl)ether	100	1014370.00	1.957	120	1313850.00	1.858
bis(2-Ethylhexyl)phthalate	100	1725473.00	0.8942	120	2411629.00	0.8776

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/24/2008 Sample ID: WG269065-10
Instrument ID: HPMS5 Run Time: 13:12 Method: 8270C
File ID: 5M50583 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG269065 Cal ID: HPMS5 - 24-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	52200	ug/L	0.421	4.40	25	
2,4-Dichlorophenol	CCC	50000	48700	ug/L	0.322	2.50	25	
2-Nitrophenol	CCC	50000	51800	ug/L	0.209	3.60	25	
Benzo[a]pyrene	CCC	50000	57500	ug/L	1.41	15.0	25	
Di-n-Octyl Phthalate	CCC	50000	54100	ug/L	1.61	8.20	25	
Fluoranthene	CCC	50000	58900	ug/L	1.66	17.7	25	
Hexachlorobutadiene	CCC	50000	56600	ug/L	0.284	13.2	25	
Pentachlorophenol	CCC	50000	56500	ug/L	0.239	13.1	25	
Phenol	CCC	50000	48500	ug/L	1.51	3.00	25	
2,4-Dinitrophenol	SPCC	50000	60100	ug/L	0.238	20.2	25	
4-Nitrophenol	SPCC	50000	52200	ug/L	0.312	4.40	25	
Hexachlorocyclopentadiene	SPCC	50000	48000	ug/L	0.364	3.90	25	
2,4,5-Trichlorophenol		50000	53300	ug/L	0.452	6.50	25	
2,4-Dinitrotoluene		50000	50000	ug/L	0.511	0.100	25	
2,6-Dinitrotoluene		50000	53100	ug/L	0.334	6.20	25	
2-Chloronaphthalene		50000	45900	ug/L	1.25	8.20	25	
2-Chlorophenol		50000	48500	ug/L	1.30	2.90	25	
2-Methylnaphthalene		50000	53500	ug/L	0.814	7.10	25	
3,3'-Dichlorobenzidine		50000	49100	ug/L	0.399	1.80	25	
4,6-Dinitro-2-Methylphenol		50000	59700	ug/L	0.179	19.3	25	
4-Chloroaniline		50000	52500	ug/L	0.471	5.00	25	
4-Chlorophenyl Phenyl Ether		50000	47500	ug/L	0.731	5.10	25	
Anthracene		50000	58100	ug/L	1.53	16.1	25	
Benzo[a]anthracene		50000	54900	ug/L	1.39	9.90	25	
Benzo[b]fluoranthene		50000	45000	ug/L	1.58	10.0	25	
Benzo[k]fluoranthene		50000	58600	ug/L	1.45	17.1	25	
bis(2-Chloroethoxy)methane		50000	34900	ug/L	0.396	30.2	25	*
bis(2-Chloroisopropyl)ether		50000	47200	ug/L	1.47	5.60	25	
bis(2-Ethylhexyl)phthalate		50000	50700	ug/L	0.825	1.50	25	
Butyl Benzyl Phthalate		50000	53800	ug/L	0.667	7.70	25	
Carbazole		50000	50900	ug/L	1.26	1.80	25	
Chrysene		50000	55800	ug/L	1.34	11.7	25	
Dibenz[ah]anthracene		50000	51400	ug/L	1.33	2.70	25	
Dibenzofuran		50000	54600	ug/L	1.93	9.30	25	
Hexachlorobenzene		50000	54900	ug/L	0.325	9.80	25	
Hexachloroethane		50000	51100	ug/L	0.658	2.20	25	
Isophorone		50000	57500	ug/L	0.760	15.0	25	
Naphthalene		50000	53700	ug/L	1.19	7.50	25	
Nitrobenzene		50000	51200	ug/L	0.434	2.30	25	
Phenanthrene		50000	55400	ug/L	1.46	10.8	25	
Pyrene		50000	56300	ug/L	1.43	12.6	25	

* Exceeds %D Limit

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/24/2008 Sample ID: WG269065-11
Instrument ID: HPMS5 Run Time: 13:46 Method: 8270C
File ID: 5M50584 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG269065 Cal ID: HPMS5 - 24-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	51500	ug/L	0.418	2.90	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/25/2008 Sample ID: WG269488-10
Instrument ID: HPMS4 Run Time: 18:30 Method: 8270C
File ID: 4M42460 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269488 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50600	ug/L	0.380	1.20	25	
2,4-Dichlorophenol	CCC	50000	48600	ug/L	0.285	2.70	25	
2-Nitrophenol	CCC	50000	54700	ug/L	0.219	9.40	25	
Benzo[a]pyrene	CCC	50000	55400	ug/L	1.39	10.9	25	
Di-n-Octyl Phthalate	CCC	50000	54300	ug/L	1.80	8.50	25	
Fluoranthene	CCC	50000	56700	ug/L	1.45	13.5	25	
Hexachlorobutadiene	CCC	50000	54200	ug/L	0.183	8.40	25	
Pentachlorophenol	CCC	50000	59000	ug/L	0.146	18.0	25	
Phenol	CCC	50000	49900	ug/L	1.58	0.200	25	
2,4-Dinitrophenol	SPCC	50000	52500	ug/L	0.111	5.00	25	
4-Nitrophenol	SPCC	50000	52200	ug/L	0.232	4.40	25	
Hexachlorocyclopentadiene	SPCC	50000	48600	ug/L	0.212	2.90	25	
2,4,5-Trichlorophenol		50000	51600	ug/L	0.411	3.20	25	
2,4-Dinitrotoluene		50000	55400	ug/L	0.448	10.9	25	
2,6-Dinitrotoluene		50000	53100	ug/L	0.347	6.20	25	
2-Chloronaphthalene		50000	44900	ug/L	1.21	10.3	25	
2-Chlorophenol		50000	48700	ug/L	1.41	2.60	25	
2-Methylnaphthalene		50000	52500	ug/L	0.747	5.00	25	
4,6-Dinitro-2-Methylphenol		50000	54300	ug/L	0.137	8.70	25	
4-Chloroaniline		50000	49700	ug/L	0.436	0.700	25	
4-Chlorophenyl Phenyl Ether		50000	48500	ug/L	0.627	2.90	25	
Anthracene		50000	56300	ug/L	1.44	12.6	25	
Benzo[a]anthracene		50000	53200	ug/L	1.33	6.40	25	
Benzo[b]fluoranthene		50000	50600	ug/L	1.44	1.10	25	
Benzo[k]fluoranthene		50000	52000	ug/L	1.30	4.00	25	
bis(2-Chloroethoxy)methane		50000	39900	ug/L	0.386	20.2	25	
bis(2-Chloroisopropyl)ether		50000	51500	ug/L	1.99	3.00	25	
bis(2-Ethylhexyl)phthalate		50000	52400	ug/L	0.950	4.80	25	
Butyl Benzyl Phthalate		50000	54400	ug/L	0.686	8.90	25	
Carbazole		50000	49900	ug/L	1.12	0.200	25	
Chrysene		50000	53200	ug/L	1.27	6.40	25	
Dibenz[ah]anthracene		50000	54300	ug/L	1.30	8.70	25	
Dibenzofuran		50000	52300	ug/L	1.69	4.50	25	
Hexachlorobenzene		50000	52400	ug/L	0.273	4.80	25	
Hexachloroethane		50000	53100	ug/L	0.597	6.20	25	
Isophorone		50000	58200	ug/L	0.649	16.5	25	
Naphthalene		50000	52700	ug/L	1.10	5.40	25	
Nitrobenzene		50000	52800	ug/L	0.336	5.60	25	
Phenanthrene		50000	54600	ug/L	1.39	9.20	25	
Pyrene		50000	54200	ug/L	1.44	8.50	25	

* Exceeds %D Limit

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 04/25/2008 Sample ID: WG269488-11
Instrument ID: HPMS4 Run Time: 19:01 Method: 8270C
File ID: 4M42461 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269488 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	50800	ug/L	0.435	1.70	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 05/01/2008 Sample ID: WG270026-10
Instrument ID: HPMS4 Run Time: 18:52 Method: 8270C
File ID: 4M42596 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	52600	ug/L	0.377	5.10	25	
2,4-Dichlorophenol	CCC	50000	49800	ug/L	0.295	0.400	25	
2-Nitrophenol	CCC	50000	51400	ug/L	0.210	2.80	25	
Benzo[a]pyrene	CCC	50000	55900	ug/L	1.39	11.8	25	
Di-n-Octyl Phthalate	CCC	50000	52000	ug/L	1.70	4.10	25	
Fluoranthene	CCC	50000	57100	ug/L	1.45	14.2	25	
Hexachlorobutadiene	CCC	50000	56700	ug/L	0.184	13.5	25	
Pentachlorophenol	CCC	50000	61600	ug/L	0.160	23.1	25	
Phenol	CCC	50000	48100	ug/L	1.59	3.80	25	
2,4-Dinitrophenol	SPCC	50000	55600	ug/L	0.183	11.1	25	
4-Nitrophenol	SPCC	50000	49200	ug/L	0.246	1.60	25	
Hexachlorocyclopentadiene	SPCC	50000	51700	ug/L	0.243	3.40	25	
2,4,5-Trichlorophenol		50000	53400	ug/L	0.411	6.70	25	
2,4-Dinitrotoluene		50000	56400	ug/L	0.461	12.7	25	
2,6-Dinitrotoluene		50000	53700	ug/L	0.348	7.30	25	
2-Chloronaphthalene		50000	45400	ug/L	1.23	9.10	25	
2-Chlorophenol		50000	48100	ug/L	1.43	3.90	25	
2-Methylnaphthalene		50000	53200	ug/L	0.749	6.40	25	
3,3'-Dichlorobenzidine		50000	44200	ug/L	0.395	11.6	25	
4,6-Dinitro-2-Methylphenol		50000	58800	ug/L	0.182	17.5	25	
4-Chloroaniline		50000	52300	ug/L	0.491	4.70	25	
4-Chlorophenyl Phenyl Ether		50000	49600	ug/L	0.633	0.700	25	
Anthracene		50000	56600	ug/L	1.42	13.1	25	
Benzo[a]anthracene		50000	53500	ug/L	1.34	6.90	25	
Benzo[b]fluoranthene		50000	54000	ug/L	1.55	8.10	25	
Benzo[k]fluoranthene		50000	54300	ug/L	1.32	8.50	25	
bis(2-Chloroethoxy)methane		50000	38200	ug/L	0.383	23.6	25	
bis(2-Chloroisopropyl)ether		50000	47100	ug/L	1.84	5.80	25	
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.916	1.10	25	
Butyl Benzyl Phthalate		50000	52700	ug/L	0.689	5.40	25	
Carbazole		50000	55300	ug/L	1.28	10.6	25	
Chrysene		50000	53500	ug/L	1.28	6.90	25	
Dibenz[ah]anthracene		50000	55400	ug/L	1.36	10.8	25	
Dibenzofuran		50000	53400	ug/L	1.76	6.80	25	
Hexachlorobenzene		50000	54800	ug/L	0.266	9.70	25	
Hexachloroethane		50000	51100	ug/L	0.608	2.20	25	
Isophorone		50000	56600	ug/L	0.616	13.2	25	
Naphthalene		50000	52800	ug/L	1.14	5.70	25	
Nitrobenzene		50000	50400	ug/L	0.338	0.800	25	
Phenanthrene		50000	54600	ug/L	1.36	9.30	25	
Pyrene		50000	54700	ug/L	1.50	9.40	25	

* Exceeds %D Limit

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08040557 Run Date: 05/01/2008 Sample ID: WG270026-11
Instrument ID: HPMS4 Run Time: 19:23 Method: 8270C
File ID: 4M42597 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	62400	ug/L	0.557	24.8	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Version 1.5 PDF File ID: 1084951
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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269789-02

Instrument ID: HPMS4 Run Time: 10:57 Method: 8270C

File ID: 4M42525 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG269584 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	48000	ug/L	0.360	4.09	20	
2,4-Dichlorophenol	CCC	50000	49500	ug/L	0.290	0.937	20	
2-Nitrophenol	CCC	50000	51000	ug/L	0.204	1.97	20	
4-Chloro-3-Methylphenol	CCC	50000	47800	ug/L	0.277	4.31	20	
Acenaphthene	CCC	50000	50600	ug/L	1.20	1.18	20	
Benzo[a]pyrene	CCC	50000	55800	ug/L	1.40	11.5	20	
Di-n-Octyl Phthalate	CCC	50000	59400	ug/L	1.97	18.8	20	
Fluoranthene	CCC	50000	45800	ug/L	1.17	8.40	20	
Hexachlorobutadiene	CCC	50000	45600	ug/L	0.154	8.75	20	
n-Nitrosodiphenylamine	CCC	50000	47000	ug/L	0.697	6.01	20	
Pentachlorophenol	CCC	50000	50000	ug/L	0.119	0.0796	20	
Phenol	CCC	50000	47200	ug/L	1.49	5.60	20	
1,4-Dichlorobenzene	CCC	50000	49400	ug/L	1.61	1.21	25	
2,4-Dinitrophenol	SPCC	50000	62000	ug/L	0.139	24.0	25	
4-Nitrophenol	SPCC	50000	47200	ug/L	0.210	5.67	25	
Hexachlorocyclopentadiene	SPCC	50000	50900	ug/L	0.224	1.86	25	
n-Nitrosodipropylamine	SPCC	50000	47600	ug/L	0.763	4.83	25	
2,4,5-Trichlorophenol		50000	48100	ug/L	0.383	3.85	25	
2,4-Dimethylphenol		50000	48900	ug/L	0.322	2.11	25	
2,4-Dinitrotoluene		50000	50800	ug/L	0.410	1.61	25	
2,6-Dinitrotoluene		50000	50000	ug/L	0.327	0.0218	25	
2-Chloronaphthalene		50000	49000	ug/L	1.33	2.02	25	
2-Chlorophenol		50000	49400	ug/L	1.43	1.19	25	
2-Methylnaphthalene		50000	49300	ug/L	0.702	1.42	25	
2-Methylphenol		50000	47500	ug/L	1.00	4.91	25	
2-Nitroaniline		50000	48800	ug/L	0.296	2.38	25	
3,3'-Dichlorobenzidine		50000	53400	ug/L	0.456	6.73	25	
3-,4-Methylphenol		50000	47500	ug/L	1.34	5.07	25	
3-Nitroaniline		50000	49200	ug/L	0.335	1.65	25	
4,6-Dinitro-2-Methylphenol		50000	53200	ug/L	0.134	6.47	25	
4-Bromophenyl Phenyl Ether		50000	43100	ug/L	0.208	13.8	25	
4-Chloroaniline		50000	50300	ug/L	0.442	0.540	25	
4-Chlorophenyl Phenyl Ether		50000	47600	ug/L	0.616	4.70	25	
4-Nitroaniline		50000	48500	ug/L	0.351	3.02	25	
Acenaphthylene		50000	49600	ug/L	1.88	0.734	25	
Anthracene		50000	45700	ug/L	1.17	8.60	25	
Benzo[a]anthracene		50000	55000	ug/L	1.38	9.92	25	
Benzo[b]fluoranthene		50000	55100	ug/L	1.57	10.3	25	
Benzo[ghi]perylene		50000	56000	ug/L	1.32	12.0	25	
Benzo[k]fluoranthene		50000	57300	ug/L	1.43	14.5	25	
bis(2-Chloroethoxy)methane		50000	48700	ug/L	0.471	2.58	25	
bis(2-Chloroethyl)ether		50000	46200	ug/L	0.817	7.60	25	

CCV - Modified 03/05/2008

PDF File ID: 1084953

Report generated 05/02/2008 16:24

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/29/2008 Sample ID: WG269789-02

Instrument ID: HPMS4 Run Time: 10:57 Method: 8270C

File ID: 4M42525 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG269584 Cal ID: HPMS4 - 25-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroisopropyl)ether		50000	47600	ug/L	1.84	4.85	25	
bis(2-Ethylhexyl)phthalate		50000	58800	ug/L	1.07	17.7	25	
Butyl Benzyl Phthalate		50000	58900	ug/L	0.742	17.7	25	
Carbazole		50000	48300	ug/L	1.08	3.31	25	
Chrysene		50000	55000	ug/L	1.31	10.0	25	
Dibenz[ah]anthracene		50000	56500	ug/L	1.35	13.1	25	
Dibenzofuran		50000	49100	ug/L	1.59	1.77	25	
Diethylphthalate		50000	49400	ug/L	1.34	1.25	25	
Dimethylphthalate		50000	49300	ug/L	1.29	1.46	25	
Di-n-Butyl Phthalate		50000	47000	ug/L	1.39	5.92	25	
Fluorene		50000	49700	ug/L	1.39	0.535	25	
Hexachlorobenzene		50000	43100	ug/L	0.224	13.8	25	
Hexachloroethane		50000	50400	ug/L	0.567	0.838	25	
Indeno[1,2,3-cd]pyrene		50000	56200	ug/L	1.58	12.5	25	
Isophorone		50000	46700	ug/L	0.521	6.53	25	
Naphthalene		50000	49300	ug/L	1.03	1.46	25	
Nitrobenzene		50000	47100	ug/L	0.300	5.77	25	
Phenanthrene		50000	45500	ug/L	1.16	8.99	25	
Pyrene		50000	57300	ug/L	1.52	14.6	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1084953
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/25/2008 Sample ID: WG269464-02
Instrument ID: HPMS5 Run Time: 14:17 Method: 8270C
File ID: 5M50621 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG269584 Cal ID: HPMS5 - 24-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50100	ug/L	0.404	0.114	20	
2,4-Dichlorophenol	CCC	50000	50700	ug/L	0.335	1.42	20	
2-Nitrophenol	CCC	50000	52500	ug/L	0.212	4.96	20	
4-Chloro-3-Methylphenol	CCC	50000	48300	ug/L	0.356	3.42	20	
Acenaphthene	CCC	50000	44500	ug/L	1.25	11.0	20	
Benzo[a]pyrene	CCC	50000	56900	ug/L	1.39	13.8	20	
Di-n-Octyl Phthalate	CCC	50000	54000	ug/L	1.60	8.07	20	
Fluoranthene	CCC	50000	46500	ug/L	1.31	6.95	20	
Hexachlorobutadiene	CCC	50000	47300	ug/L	0.238	5.33	20	
n-Nitrosodiphenylamine	CCC	50000	46400	ug/L	0.698	7.23	20	
Pentachlorophenol	CCC	50000	41000	ug/L	0.164	18.0	20	
Phenol	CCC	50000	49700	ug/L	1.55	0.684	20	
1,4-Dichlorobenzene	CCC	50000	49300	ug/L	1.58	1.37	25	
2,4-Dinitrophenol	SPCC	50000	48000	ug/L	0.173	3.91	25	
4-Nitrophenol	SPCC	50000	47600	ug/L	0.284	4.77	25	
Hexachlorocyclopentadiene	SPCC	50000	41600	ug/L	0.309	16.8	25	
n-Nitrosodipropylamine	SPCC	50000	46800	ug/L	0.988	6.47	25	
2,4,5-Trichlorophenol		50000	50400	ug/L	0.428	0.805	25	
2,4-Dimethylphenol		50000	50500	ug/L	0.360	1.09	25	
2,4-Dinitrotoluene		50000	45900	ug/L	0.464	8.30	25	
2,6-Dinitrotoluene		50000	51400	ug/L	0.323	2.78	25	
2-Chloronaphthalene		50000	50200	ug/L	1.37	0.480	25	
2-Chlorophenol		50000	50500	ug/L	1.35	1.06	25	
2-Methylnaphthalene		50000	49400	ug/L	0.750	1.28	25	
2-Methylphenol		50000	50200	ug/L	1.07	0.339	25	
2-Nitroaniline		50000	46200	ug/L	0.360	7.64	25	
3,3'-Dichlorobenzidine		50000	57600	ug/L	0.468	15.2	25	
3-,4-Methylphenol		50000	50200	ug/L	1.42	0.409	25	
3-Nitroaniline		50000	51900	ug/L	0.298	3.85	25	
4,6-Dinitro-2-Methylphenol		50000	49000	ug/L	0.138	1.91	25	
4-Bromophenyl Phenyl Ether		50000	45600	ug/L	0.261	8.84	25	
4-Chloroaniline		50000	50700	ug/L	0.455	1.49	25	
4-Chlorophenyl Phenyl Ether		50000	49400	ug/L	0.762	1.15	25	
4-Nitroaniline		50000	51900	ug/L	0.333	3.70	25	
Acenaphthylene		50000	49700	ug/L	1.87	0.619	25	
Anthracene		50000	46500	ug/L	1.23	6.97	25	
Benzo[a]anthracene		50000	55700	ug/L	1.41	11.4	25	
Benzo[b]fluoranthene		50000	49500	ug/L	1.75	1.09	25	
Benzo[ghi]perylene		50000	58100	ug/L	1.27	16.1	25	
Benzo[k]fluoranthene		50000	58500	ug/L	1.45	16.9	25	
bis(2-Chloroethoxy)methane		50000	48400	ug/L	0.550	3.15	25	
bis(2-Chloroethyl)ether		50000	47700	ug/L	0.839	4.67	25	

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08040557 Run Date: 04/25/2008 Sample ID: WG269464-02

Instrument ID: HPMS5 Run Time: 14:17 Method: 8270C

File ID: 5M50621 Analyst: CAA QC Key: DOWWV2006

Workgroup (AAB#): WG269584 Cal ID: HPMS5 - 24-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroisopropyl)ether		50000	46900	ug/L	1.46	6.24	25	
bis(2-Ethylhexyl)phthalate		50000	51400	ug/L	0.836	2.76	25	
Butyl Benzyl Phthalate		50000	53700	ug/L	0.664	7.30	25	
Carbazole		50000	43800	ug/L	1.06	12.4	25	
Chrysene		50000	56200	ug/L	1.35	12.4	25	
Dibenz[ah]anthracene		50000	53000	ug/L	1.38	6.06	25	
Dibenzofuran		50000	50200	ug/L	1.77	0.387	25	
Diethylphthalate		50000	48400	ug/L	1.39	3.28	25	
Dimethylphthalate		50000	49000	ug/L	1.35	1.92	25	
Di-n-Butyl Phthalate		50000	44800	ug/L	1.33	10.3	25	
Fluorene		50000	49900	ug/L	1.52	0.283	25	
Hexachlorobenzene		50000	44800	ug/L	0.265	10.3	25	
Hexachloroethane		50000	48000	ug/L	0.619	3.91	25	
Indeno[1,2,3-cd]pyrene		50000	58500	ug/L	1.60	17.0	25	
Isophorone		50000	48000	ug/L	0.635	3.90	25	
Naphthalene		50000	49400	ug/L	1.09	1.25	25	
Nitrobenzene		50000	47300	ug/L	0.401	5.48	25	
Phenanthrene		50000	46300	ug/L	1.22	7.38	25	
Pyrene		50000	54400	ug/L	1.38	8.82	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1084953
Report generated 05/02/2008 16:24

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040557
Instrument ID:HPMS5
Workgroup (AAB#):WG269584

ICAL CCV Number:WG269065-02
CAL ID: HPMS5-24-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269065-02	NA	NA	103038	254409	444803	384297	380172	456982
Upper Limit	NA	NA	206076	508818	889606	768594	760344	913964
Lower Limit	NA	NA	51519	127205	222402	192149	190086	228491
WG269047-02	1.00	02	168196	411640	736323	630541	652287	740756
WG269047-03	1.00	02	149331	371516	698314	600204	609423	683512

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1084954
Report generated 05/02/2008 16:25

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040557
Instrument ID:HPMS4
Workgroup (AAB#):WG269584

ICAL CCV Number:WG269488-02
CAL ID: HPMS4-25-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269488-02	NA	NA	455816	1043139	1575756	1813000	1454981	1827024
Upper Limit	NA	NA	911632	2086278	3151512	3626000	2909962	3654048
Lower Limit	NA	NA	227908	521570	787878	906500	727491	913512
L08040557-01	1.00	01	323638	728117	987828	1286107	914954	1203479
L08040557-02	1.00	01	308424	701879	939799	1226447	855798	1152037
L08040557-03	1.00	01	328788	738356	991371	1303921	899230	1215987
L08040557-04	1.00	01	291951	651591	864149	1155593	784040	1061918

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1084954
Report generated 05/02/2008 16:25

Microbac Laboratories Inc.
INTERNAL STANDARD AREA SUMMARY

Login Number:L08040557 ICAL CCV Number:WG270026-02
Instrument ID:HPMS4 CAL ID: HPMS4-01-MAY-08
Workgroup (AAB#):WG270218 Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG270026-02	NA	NA	207840	476090	663378	823046	613487	810191
Upper Limit	NA	NA	415680	952180	1326756	1646092	1226974	1620382
Lower Limit	NA	NA	103920	238045	331689	411523	306744	405096
L08040557-01	1.00	RE1	152483	346574	515092	603900	474469	588493
L08040557-02	1.00	RE1	176802	406125	603135	697375	565897	691160
L08040557-03	1.00	RE1	148701	332635	481095	580013	448199	566246
L08040557-04	1.00	RE1	148636	331827	478869	584788	441741	557782
WG269996-02	1.00	01	182417	423585	631985	718749	587793	731557
WG269996-03	1.00	01	174442	413235	632004	767193	580557	706855

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1084954
Report generated 05/02/2008 16:25

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040557
Instrument ID:HPMS5
Workgroup (AAB#):WG269584

ICAL CCV Number:WG269065-02
CAL ID: HPMS5-24-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269065-02	NA	NA	9.25	12.95	17.4	10.85	19.82	14.56
Upper Limit	NA	NA	9.75	13.45	17.9	11.35	20.32	15.06
Lower Limit	NA	NA	8.75	12.45	16.9	10.35	19.32	14.06
WG269047-02	1.00	02	9.18	12.89	17.31	10.78	19.68	14.49
WG269047-03	1.00	02	9.18	12.89	17.31	10.78	19.68	14.49

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084955
Report generated: 05/02/2008 16:25

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040557
Instrument ID:HPMS4
Workgroup (AAB#):WG269584

ICAL CCV Number:WG269488-02
CAL ID: HPMS4-25-APR-08
Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269488-02	NA	NA	7.8	11.16	15.52	9.25	17.76	12.71
Upper Limit	NA	NA	8.3	11.66	16.02	9.75	18.26	13.21
Lower Limit	NA	NA	7.3	10.66	15.02	8.75	17.26	12.21
L08040557-01	1.00	01	7.79	11.15	15.51	9.24	17.75	12.71
L08040557-02	1.00	01	7.79	11.15	15.51	9.24	17.75	12.71
L08040557-03	1.00	01	7.79	11.15	15.51	9.24	17.75	12.71
L08040557-04	1.00	01	7.79	11.15	15.52	9.24	17.75	12.71

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084955
Report generated: 05/02/2008 16:25

Microbac Laboratories Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08040557 ICAL CCV Number:WG270026-02
Instrument ID:HPMS4 CAL ID: HPMS4-01-MAY-08
Workgroup (AAB#):WG270218 Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG270026-02	NA	NA	7.72	11.09	15.44	9.19	17.63	12.65
Upper Limit	NA	NA	8.22	11.59	15.94	9.69	18.13	13.15
Lower Limit	NA	NA	7.22	10.59	14.94	8.69	17.13	12.15
L08040557-01	1.00	RE1	7.73	11.09	15.44	9.18	17.63	12.65
L08040557-02	1.00	RE1	7.72	11.09	15.46	9.18	17.65	12.64
L08040557-03	1.00	RE1	7.72	11.09	15.45	9.18	17.64	12.64
L08040557-04	1.00	RE1	7.72	11.09	15.45	9.18	17.64	12.64
WG269996-02	1.00	01	7.73	11.1	15.45	9.19	17.63	12.65
WG269996-03	1.00	01	7.73	11.1	15.45	9.18	17.63	12.65

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1084955
Report generated: 05/02/2008 16:25

2.3 General Chemistry Data

2.3.1 Percent Solids Data

2.3.1.1 Raw Data

Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:	
WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

% Moisture = 100 - % Solids from 1.0 calculation

WG269127

PERCENT SOLIDS

SOP K0003 Rev: 9

Balance: OHAUS EP2102/Other

Sample	Empty Pan WT 1	WET WT2	DRY WT 3A	WET WT 3B	DRY WT 3C
04-0593-07	1.30	23.55	23.00		
-09,10,11	1.31	21.52	19.09		
-15	1.31	27.92	26.75		
-17	1.30	26.11	24.99		
04-0583 -01	1.28	24.12	20.78		
-02	1.26	23.76	21.25		
-03	1.27	24.06	20.34		
-04	1.27	25.07	21.46		
-05	1.30	27.38	22.39		
-06	1.29	23.89	19.77		
-07	1.31	32.63	28.29		
-08	1.30	25.43	20.85		
-09	1.31	32.91	28.07		
-10	1.28	30.91	27.46		
04-0557 -01	1.30	24.66	20.97		
-02	1.28	30.97	27.09		
-03	1.27	29.60	25.55		
-04	1.30	23.03	21.78		
04-0589- 01	1.30	25.46	23.79		
-02	1.30	33.56	31.46		
Duplicate: 04-0557-04	1.30	22.53	21.33		

Analyst:

ADT (on): 4/22/08 1030

ADT (off): 4/23/08 0822

ADT (off): _____

DCN#75083

Approved: April 24, 2008

Microbac Laboratories Inc.

PERCENT SOLID REPORT

Workgroup (AAB#):WG269127 Run Date:04/22/2008
Method:D2216-90 Run Time:10:30
Analyst:HJR

SAMPLE NUMBER	Pan WT.	Int WT.	Fnl WT.	% Solid	% Moist	UNITS
L08040557-01	1.300	24.66	20.97	84.20		%
L08040557-02	1.280	30.97	27.09	86.93		%
L08040557-03	1.270	29.60	25.55	85.70		%
L08040557-04	1.300	23.03	21.78	94.25		%
L08040583-01	1.280	24.12	20.78	85.38		%
L08040583-02	1.260	23.76	21.25	88.84		%
L08040583-03	1.270	24.06	20.34	83.68		%
L08040583-04	1.270	25.07	21.46	84.83		%
L08040583-05	1.300	27.38	22.39	80.87		%
L08040583-06	1.290	23.89	19.77	81.77		%
L08040583-07	1.310	32.63	28.29	86.14		%
L08040583-08	1.300	25.43	20.85	81.02		%
L08040583-09	1.310	32.91	28.07	84.68		%
L08040583-10	1.280	30.91	27.46	88.36		%
L08040589-01	1.300	25.46	23.79	93.09		%
L08040589-02	1.300	33.56	31.46	93.49		%
L08040593-07	1.300	23.55	23.00	97.53		%
L08040593-09	1.310	21.52	19.09	87.98		%
L08040593-10	1.310	21.52	19.09	87.98		%
L08040593-11	1.310	21.52	19.09	87.98		%
L08040593-15	1.310	27.92	26.75	95.60		%
L08040593-17	1.300	26.11	24.99	95.49		%
WG269127-01	1.300	23.03	21.78	94.25	5.752	%
WG269127-02	1.300	22.53	21.33	94.35	5.652	%

PERCENT_SOLID - Modified 03/06/2008

Report generated 04/23/2008 09:57

Microbac

Approved: April 24, 2008

2.3.2 Total Organic Carbon Data

2.3.2.1 Summary Data

KEMRON Login No.: L08040557

METHOD

Analysis: Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)

Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

There were no technical difficulties.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst:

Created:

Approved: April 29, 2008

LABORATORY REPORT

L08040557

05/07/08 11:58

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3034-S001-041708	L08040557-01	LYDKHN	1	18-APR-08
3034-S002-041708	L08040557-02	LYDKHN	1	18-APR-08
3034-S002-041708D	L08040557-03	LYDKHN	1	18-APR-08
3034-S003-041708	L08040557-04	LYDKHN	1	18-APR-08

Microbac Laboratories Inc.

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-01**
Client ID: **3034-S001-041708**
Matrix: **Soil**
Workgroup Number: **WG269715**
Collect Date: **04/17/2008 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **LYDKHN**
Analytical Method: **LYDKHN**
Analyst: **DIH**
Dilution: **1**
Units: **mg/kg**

Instrument: **TOC-VWP**
Prep Date: **04/28/2008 10:23**
Cal Date: **11/09/2007 14:27**
Run Date: **04/28/2008 10:23**
File ID: **TC04-28-2008.09**
Percent Solid: **84.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon		**4720**		**1190**	**594**

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number:	L08040557-02	PrePrep Method:	NONE	Instrument:	TOC-VWP
Client ID:	3034-S002-041708	Prep Method:	LYDKHN	Prep Date:	04/28/2008 10:32
Matrix:	Soil	Analytical Method:	LYDKHN	Cal Date:	11/09/2007 14:27
Workgroup Number:	WG269715	Analyst:	DIH	Run Date:	04/28/2008 10:32
Collect Date:	04/17/2008 10:20	Dilution:	1	File ID:	TC04-28-2008.10
Sample Tag:	01	Units:	mg/kg	Percent Solid:	86.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon		1570		1150	575

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-03**
Client ID: **3034-S002-041708D**
Matrix: **Soil**
Workgroup Number: **WG269715**
Collect Date: **04/17/2008 10:25**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **LYDKHN**
Analytical Method: **LYDKHN**
Analyst: **DIH**
Dilution: **1**
Units: **mg/kg**

Instrument: **TOC-VWP**
Prep Date: **04/28/2008 10:40**
Cal Date: **11/09/2007 14:27**
Run Date: **04/28/2008 10:40**
File ID: **TC04-28-2008.11**
Percent Solid: **85.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon		**1400**		**1170**	**583**

Report Number: **L08040557**
Report Date : **May 7, 2008**

Sample Number: **L08040557-04**
Client ID: **3034-S003-041708**
Matrix: **Soil**
Workgroup Number: **WG269715**
Collect Date: **04/17/2008 10:35**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **LYDKHN**
Analytical Method: **LYDKHN**
Analyst: **DIH**
Dilution: **1**
Units: **mg/kg**

Instrument: **TOC-VWP**
Prep Date: **04/28/2008 10:47**
Cal Date: **11/09/2007 14:27**
Run Date: **04/28/2008 10:47**
File ID: **TC04-28-2008.12**
Percent Solid: **94.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
Total Organic Carbon		**1380**		**1060**	**531**

2.3.2.2 QC Summary Data

Total Organic Carbon Example Calculations
(Direct Readout Parameter)

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 28-APR-2008
Analyst: DIH
Analyst: NA
Method: TOC
Instrument: TOC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG269715

Calibration/Linearity	4/4/2008
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DR
Comments	

Primary Reviewer:
29-APR-2008

Secondary Reviewer:
29-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-29-2008 15:59:43

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: LYDKHN **AAB#:** WG269715

Login Number: L08040557

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3034-S002-041708D	04/17/08	04/18/08	04/28/08	28	11.0	04/28/08	28	11.0	
3034-S001-041708	04/17/08	04/18/08	04/28/08	28	11.0	04/28/08	28	11.0	
3034-S002-041708	04/17/08	04/18/08	04/28/08	28	11.0	04/28/08	28	11.0	
3034-S003-041708	04/17/08	04/18/08	04/28/08	28	11.0	04/28/08	28	11.0	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**

***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1079165
Report generated 04/29/2008 12:59

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08040557 Work Group: WG269715
Blank File ID: TC04-28-2008.03 Blank Sample ID: WG269715-01
Prep Date: 04/28/08 09:30 Instrument ID: TOC-VWP
Analyzed Date: 04/28/08 09:30 Method: LYDKHN
Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
3034-S001-041708	L08040557-01	TC04-28-2008.09	04/28/08 10:23	01
3034-S002-041708	L08040557-02	TC04-28-2008.10	04/28/08 10:32	01
3034-S002-041708D	L08040557-03	TC04-28-2008.11	04/28/08 10:40	01
3034-S003-041708	L08040557-04	TC04-28-2008.12	04/28/08 10:47	01
DUP	WG269715-05	TC04-28-2008.19	04/28/08 12:10	01
LCS	WG269715-02	TC04-28-2008.21	04/28/08 13:22	01
LCS2	WG269715-03	TC04-28-2008.22	04/28/08 13:31	01

Report Name: BLANK_SUMMARY
PDF File ID: 1079166
Report generated 04/29/2008 12:59

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08040557 Prep Date:04/28/08 09:30 Sample ID:WG269715-01
Instrument ID:TOC-VWP Run Date:04/28/08 09:30 Prep Method:LYDKHN
File ID:TC04-28-2008.03 Analyst:DIH Method:LYDKHN
Workgroup (AAB#):WG269715 Matrix:Soil Units:mg/kg
Contract #: Cal ID:TOC-VW-09-NOV-07

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Total Organic Carbon	500	1000	1000	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1079167
29-APR-2008 12:59

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08040557 Analyst: DIH Prep Method: LYDKHN
Instrument ID: TOC-VWP Matrix: Soil Method: LYDKHN
Workgroup (AAB#): WG269715 Units: mg/kg
QC Key: DOWWV2006 Lot #: STD23302

Sample ID: WG269715-02 LCS File ID: TC04-28-2008.21 Run Date: 04/28/2008 13:22
Sample ID: WG269715-03 LCS2 File ID: TC04-28-2008.22 Run Date: 04/28/2008 13:31

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	8150	9600	118	8150	9910	122	3.14	70 - 140	50	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1079168
Report generated: 04/29/2008 12:59

2.3.2.3 Raw Data

KEMRON ENVIRONMENTAL SERVICES

Curve

Total Organic Carbon (Soil)

Calibration curve: 510 19511

LCS (TOC): ICV 510 = 8380

CCV (TOC): _____

MS (TOC): _____

Daily dilution: _____

☑ Lloyd Kahn Method

☐ Other: _____

SOP: K 5310 Rev. 7

Instrument: Shimadza TOC-VWP/SSM-5000A

DAILY CHECK

☑ drain reservoir filled sufficient gas

☑ waste container tubing connections

Position	Sample ID	Weight (mg)
1	40000	
2	20000	
3	10000	
4	4000	
5	1200	
6	800	
7	ICV 8380	13.5.3
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Position	Sample ID	Weight (mg)
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
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47		
48		
49		
50		

Analyst: Joanna Roberts Date: 11/9/07 Time: _____

DCN#71810

Joanna Roberts

Approved: November 20, 2007

	Analy	Sample Name	Result	Status	Date / Time
1	SSM-	TC CURVE		Compl	11/09/2007 02:27:13 PM
2	SSM-	ICV 8380	SSM-TC:8811ppm	Compl	11/09/2007 02:46:52 PM

Approved: November 20, 2007

Instr.Information

System	TOCVW SSM
Detector	Wet Chemical

Cal. Curve

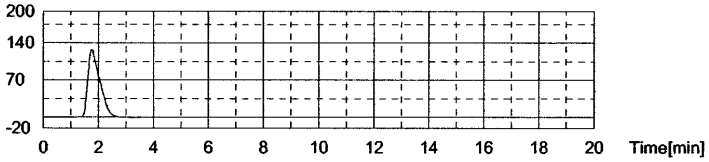
Sample Name:	TC CURVE
Sample ID:	Untitled
Cal. Curve:	SOILCURVE-11-9-2007.2007_11_09_13_40_07.cal
Status	Completed

Type	Anal.	Density
Standard	SSM-TC	

AbsC: 4000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	383.3	383.3	4000ug	100.0mg	********		11/09/2007 01:52:39 PM

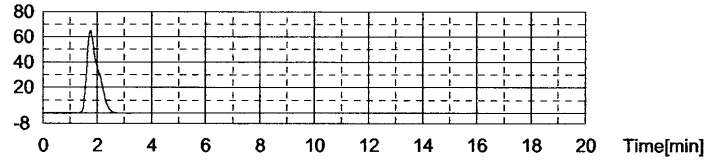
Mean Area 383.3
Mean CNV 383.3



AbsC: 2000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	188.2	188.2	2000ug	50.00mg	********		11/09/2007 01:57:51 PM

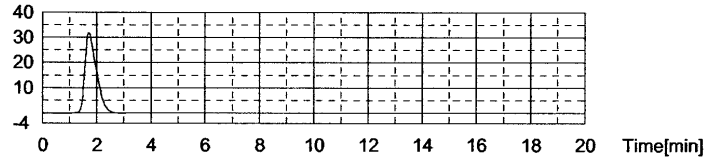
Mean Area 188.2
Mean CNV 188.2



AbsC: 1000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	94.16	94.16	1000ug	25.00mg	********		11/09/2007 02:03:10 PM

Mean Area 94.16
Mean CNV 94.16

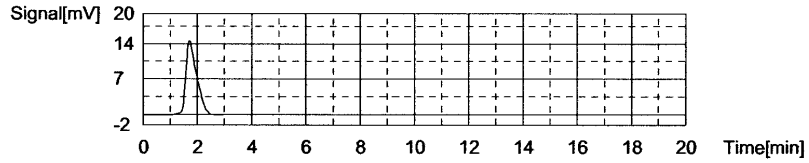


AbsC: 400.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	40.88	40.88	400.0ug	10.00mg	********		11/09/2007 02:10:48 PM

Approved: November 20, 2007

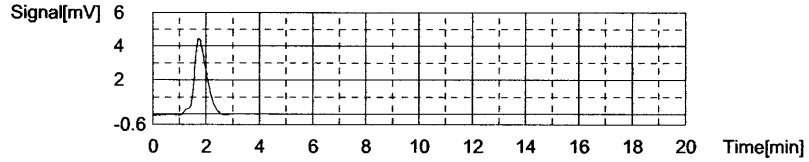
Mean Area 40.88
Mean CNV 40.88



AbsC: 120.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	14.64	14.64	120.0ug	3.000mg	*******		11/09/2007 02:19:31 PM

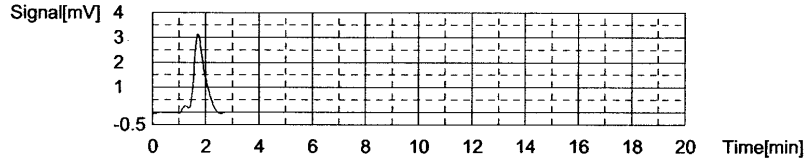
Mean Area 14.64
Mean CNV 14.64



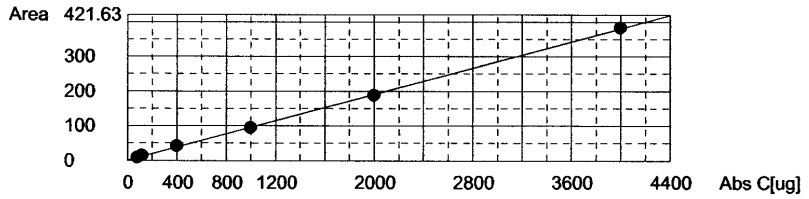
AbsC: 80.00ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	8.934	8.934	80.00ug	2.000mg	*******		11/09/2007 02:27:13 PM

Mean Area 8.934
Mean CNV 8.934



Slope: 0.09501
Intercept 1.338
r^2 0.999766
Zero Shift No



Sample

Sample Name: ICV 8380
Sample ID: Untitled
Origin: SOILCURVE-11-9-2007.cal
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:8811ppm

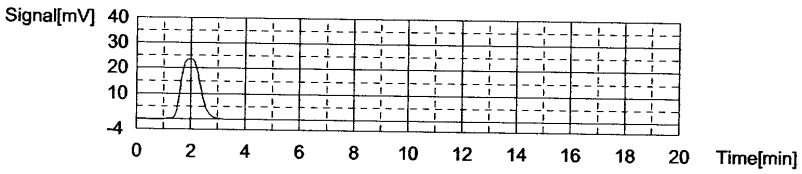
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	114.6	114.6	1192ug	8811ppm	135.3mg	135uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	11/09/2007 02:46:52 PM

Approved: November 20, 2007

Mean Area	114.6
Mean CNV	114.6
Mean Conc.	8811ppm



Approved: November 20, 2007

269715

KEMRON ENVIRONMENTAL SERVICES

Total Organic Carbon (Soil)

Calibration curve: 11/9/07
CCV (TOC): STD 23498
Daily dilution: = 40000
LCS (TOC): STD 23302
MS (TOC): = 8150 mg/kg
☑ Lloyd Kahn Method
☐ Other:
SOP: K 5310 Rev. 7
Instrument: Shimadza TOC-VWP/SSM-5000A

DAILY CHECK

☑ drain reservoir filled
☑ sufficient gas
☑ waste container
☑ tubing connections

Position	Sample ID	Weight (mg)
1	CCV	100
2	CCB	100
3	BLK	219.3
4	LCS	147.5
5	LCSDUP	164.8
6	04-430-06	414.1
7	07	442.4
8	08	456.4
9	04-557-01	311.8
10	02	394.5
11	03	556.4
12	04	426.7
13	CCV	100
14	CCB	100
15	04-484-08	679.7
16	04-508-05	643.0
17	06	402.7
18	08	378.5
19	DUP ↓	508.8
20	MS ↓	187.9
21	RR LCS	206.3
22	RR LCSDUP	116.3
23	CCV	100
24	CCB	100
25		

Position	Sample ID	Weight (mg)
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
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49		
50		

Analyst: Deanna Roberts Date: 4/28/08 Time: _____

DCN#75151

Deanna Roberts
Approved: April 29, 2008

TOTAL SOIL WET WEIGHTS

LCS (8150 mg/kg) std 23302

	ADT	SAMPLE	WEIGHT (mg)	COMMENTS
	BIK	dun 4/28/0812	219.3	✓
	LCS		147.5	✓
	LCSDUP		164.8	✓
	04-430-06		414.1	✓
	07		442.4	✓
	08		456.4	✓
	04-557-01		311.8	✓
	02		394.5	✓
	03		556.4	✓
	04		426.7	✓
	04-484-08		679.7	✓
	04-508-05		643.0	✓
	06		402.7	✓
	08		378.5	✓
	DUP		508.8	✓
	MS ↓		MS 170.0/197.9	✓
RR	LCS		206.3	✓
	LCSDUP	↓	116.3	

Approved: April 29, 2008

	Analysis	Sample Name	Result	Status	Date / Time
1	SSM-T	CCV 40000	SSM-TC:37581ppm	Comple	04/28/2008 09:17:29 AM
2	SSM-T	CCB	!!Error!! SSM-TC:-140.8ppm	Comple	04/28/2008 09:25:27 AM
3	SSM-T	WG269715-01 BLANK	SSM-TC:174.3ppm	Comple	04/28/2008 09:30:09 AM
4	SSM-T	WG269715-02 LCS	SSM-TC:12249ppm	Comple	04/28/2008 09:43:48 AM
5	SSM-T	WG269715-03 LCSDUP	SSM-TC:11417ppm	Comple	04/28/2008 09:52:46 AM
6	SSM-T	L08040430-06	SSM-TC:1898ppm	Comple	04/28/2008 09:58:42 AM
7	SSM-T	L08040430-07	SSM-TC:734.2ppm	Comple	04/28/2008 10:04:14 AM
8	SSM-T	L08040430-08	SSM-TC:650.8ppm	Comple	04/28/2008 10:11:50 AM
9	SSM-T	L08040557-01	SSM-TC:3972ppm	Comple	04/28/2008 10:23:51 AM
10	SSM-T	L08040557-02	SSM-TC:1366ppm	Comple	04/28/2008 10:32:12 AM
11	SSM-T	L08040557-03	SSM-TC:1197ppm	Comple	04/28/2008 10:40:21 AM
12	SSM-T	L08040557-04	SSM-TC:1298ppm	Comple	04/28/2008 10:47:27 AM
13	SSM-T	CCV 40000	SSM-TC:42896ppm	Comple	04/28/2008 11:09:27 AM
14	SSM-T	CCB	!!Error!! SSM-TC:-140.8ppm	Comple	04/28/2008 11:16:13 AM
15	SSM-T	L08040484-08	SSM-TC:4444ppm	Comple	04/28/2008 11:32:14 AM
16	SSM-T	L08040508-05	SSM-TC:2226ppm	Comple	04/28/2008 11:41:22 AM
17	SSM-T	L08040508-06	SSM-TC:303.6ppm	Comple	04/28/2008 11:52:14 AM
18	SSM-T	L08040508-08	SSM-TC:2496ppm	Comple	04/28/2008 12:02:56 PM
19	SSM-T	WG269715-05 DUP	SSM-TC:2015ppm	Comple	04/28/2008 12:10:10 PM
20	SSM-T	WG269715-06 MS	SSM-TC:12209ppm	Comple	04/28/2008 01:11:26 PM
21	SSM-T	WG269715-02 LCS	SSM-TC:9600ppm	Comple	04/28/2008 01:22:20 PM
22	SSM-T	WG269715-03 LCSDUP	SSM-TC:9906ppm	Comple	04/28/2008 01:31:07 PM
23	SSM-T	CCV 40000	SSM-TC:40570ppm	Comple	04/28/2008 01:43:00 PM
24	SSM-T	CCB	!!Error!! SSM-TC:-140.8ppm	Comple	04/28/2008 02:32:45 PM

Approved: April 29, 2008

Instr.Information

System TOCVW SSM
Detector Wet Chemical

Sample

Sample Name: CCV 40000
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

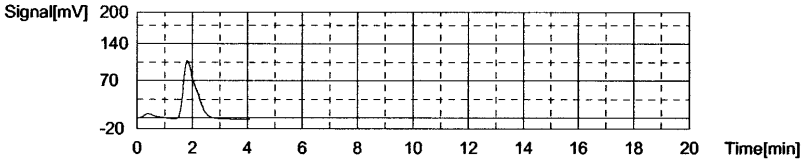
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:37581ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	358.4	358.4	3758ug	37581ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:17:29 AM

Mean Area 358.4
Mean CNV 358.4
Mean Conc. 37581ppm



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

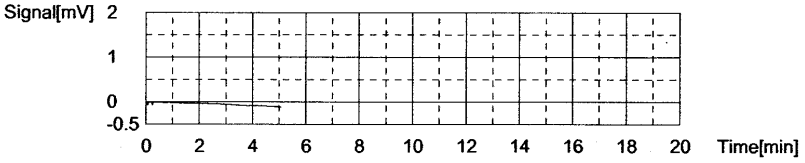
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	!!Error!! SSM-TC:-140.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-14.08ug	-140.8ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:25:27 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -140.8ppm



Approved: April 29, 2008

Sample

Sample Name: WG269715-01 BLANK
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

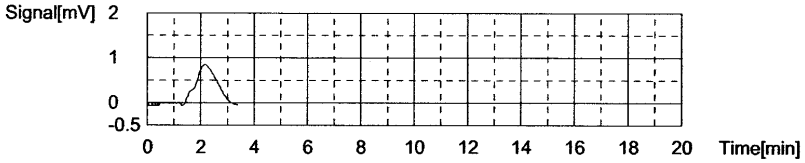
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:174.3ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	4.970	4.970	38.23ug	174.3ppm	219.3mg	219uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:30:09 AM

Mean Area 4.970
Mean CNV 4.970
Mean Conc. 174.3ppm



Sample

Sample Name: WG269715-02 LCS
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

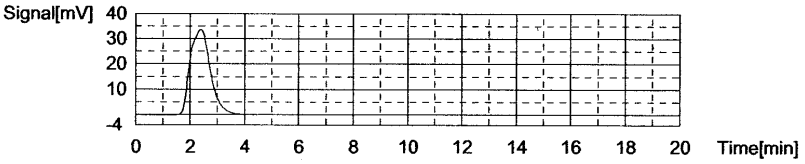
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:12249ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	173.0	173.0	1807ug	12249ppm	147.5mg	147uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:43:48 AM

Mean Area 173.0
Mean CNV 173.0
Mean Conc. 12249ppm



Sample

Sample Name: WG269715-03 LCSDUP
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Jeanna Roberts

Approved: April 29, 2008

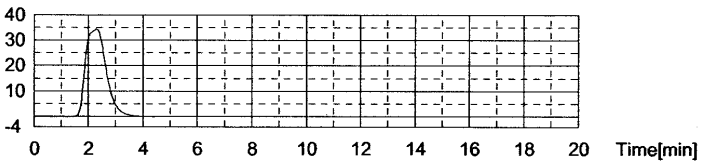
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:11417ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	180.1	180.1	1881ug	11417ppm	164.8mg	164uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:52:46 AM

Mean Area 180.1
Mean CNV 180.1
Mean Conc. 11417ppm



Sample

Sample Name: L08040430-06
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

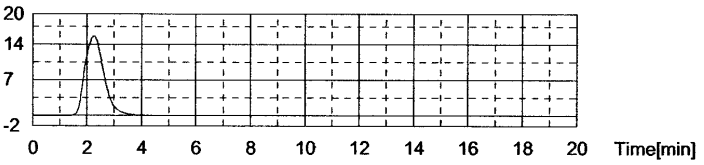
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1898ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	76.01	76.01	785.9ug	1898ppm	414.1mg	414uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 09:58:42 AM

Mean Area 76.01
Mean CNV 76.01
Mean Conc. 1898ppm



Sample

Sample Name: L08040430-07
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:734.2ppm

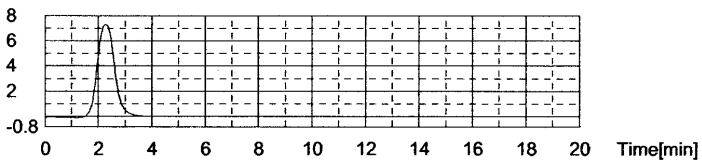
1. Det

Anal.: SSM-TC

Approved: April 29, 2008

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	32.20	32.20	324.8ug	734.2ppm	442.4mg	442uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:04:14 AM

Mean Area 32.20
Mean CNV 32.20
Mean Conc. 734.2ppm



Sample

Sample Name: L08040430-08
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

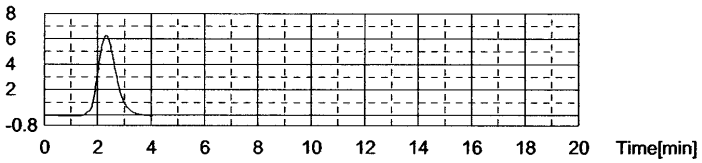
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:650.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	29.56	29.56	297.0ug	650.8ppm	456.4mg	456uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:11:50 AM

Mean Area 29.56
Mean CNV 29.56
Mean Conc. 650.8ppm



Sample

Sample Name: L08040557-01
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:3972ppm

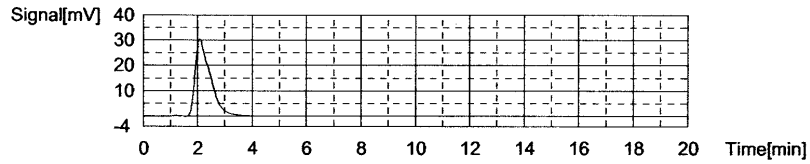
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	119.0	119.0	1238ug	3972ppm	311.8mg	311uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:23:51 AM

Approved: April 29, 2008

Mean Area 119.0
Mean CNV 119.0
Mean Conc. 3972ppm



Sample

Sample Name: L08040557-02
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

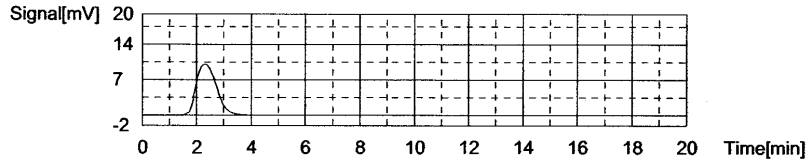
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1366ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	52.54	52.54	538.9ug	1366ppm	394.5mg	394uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:32:12 AM

Mean Area 52.54
Mean CNV 52.54
Mean Conc. 1366ppm



Sample

Sample Name: L08040557-03
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1197ppm

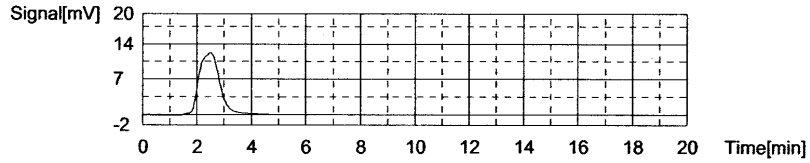
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	64.60	64.60	665.8ug	1197ppm	556.4mg	556uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:40:21 AM

Approved: April 29, 2008

Mean Area 64.60
Mean CNV 64.60
Mean Conc. 1197ppm



Sample

Sample Name: L08040557-04
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

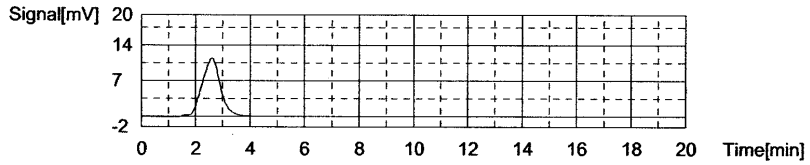
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1298ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	53.97	53.97	554.0ug	1298ppm	426.7mg	426uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 10:47:27 AM

Mean Area 53.97
Mean CNV 53.97
Mean Conc. 1298ppm



Sample

Sample Name: CCV 40000
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:42896ppm

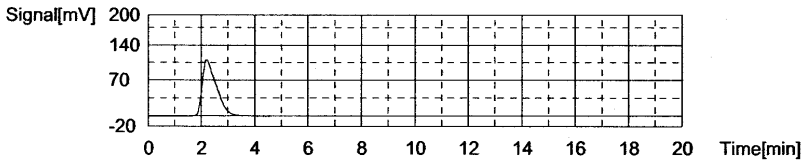
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	408.9	408.9	4290ug	42896ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:09:27 AM

Approved: April 29, 2008

Mean Area 408.9
Mean CNV 408.9
Mean Conc. 42896ppm



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

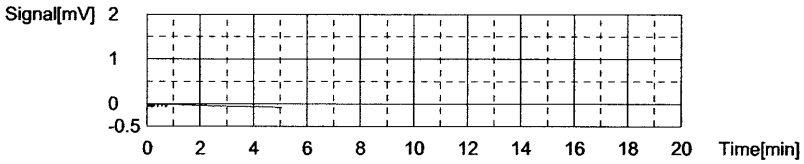
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	!!Error!! SSM-TC:-140.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-14.08ug	-140.8ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:16:13 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -140.8ppm



Sample

Sample Name: L08040484-08
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:4444ppm

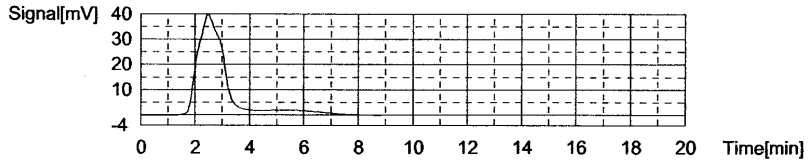
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	288.3	288.3	3020ug	4444ppm	679.7mg	679uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:32:14 AM

Approved: April 29, 2008

Mean Area 288.3
Mean CNV 288.3
Mean Conc. 4444ppm



Sample

Sample Name: L08040508-05
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

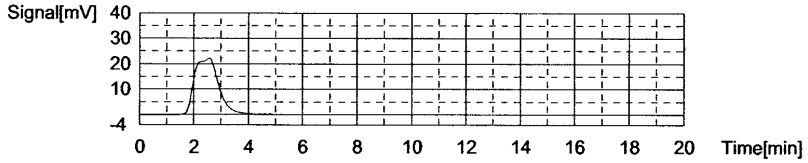
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2226ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	137.3	137.3	1431ug	2226ppm	643.0mg	643uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:41:22 AM

Mean Area 137.3
Mean CNV 137.3
Mean Conc. 2226ppm



Sample

Sample Name: L08040508-06
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:303.6ppm

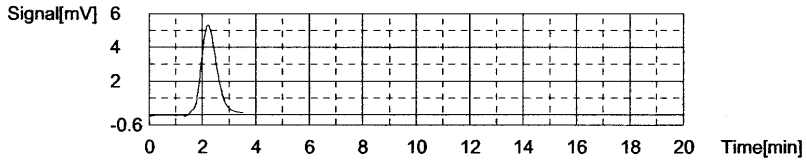
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	21.61	21.61	213.4ug	303.6ppm	702.7mg	702uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 11:52:14 AM

Approved: April 29, 2008

Mean Area 21.61
Mean CNV 21.61
Mean Conc. 303.6ppm



Sample

Sample Name: L08040508-08
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

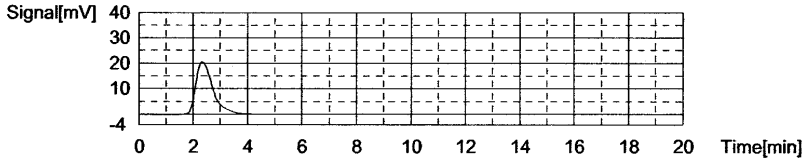
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2496ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	91.10	91.10	944.8ug	2496ppm	378.5mg	378uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 12:02:56 PM

Mean Area 91.10
Mean CNV 91.10
Mean Conc. 2496ppm



Sample

Sample Name: WG269715-05 DUP
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2015ppm

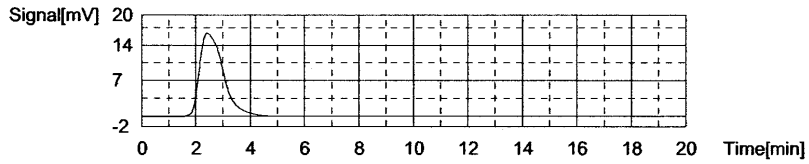
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	98.73	98.73	1025ug	2015ppm	508.8mg	508uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 12:10:10 PM

Approved: April 29, 2008

Mean Area 98.73
Mean CNV 98.73
Mean Conc. 2015ppm



Sample

Sample Name: WG269715-06 MS
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

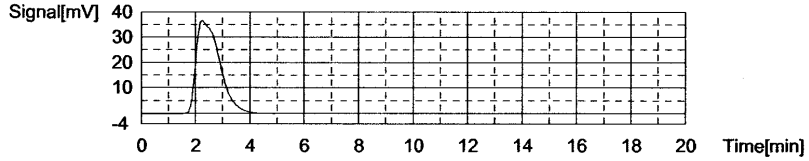
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:12209ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	219.3	219.3	2294ug	12209ppm	187.9mg	187uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:11:26 PM

Mean Area 219.3
Mean CNV 219.3
Mean Conc. 12209ppm



Sample

Sample Name: WG269715-02 LCS
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:9600ppm

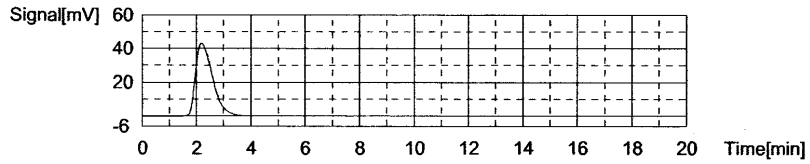
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	189.5	189.5	1980ug	9600ppm	206.3mg	206uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:22:20 PM

Approved: April 29, 2008

Mean Area 189.5
Mean CNV 189.5
Mean Conc. 9600ppm



Sample

Sample Name: WG269715-03 LCSDUP
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

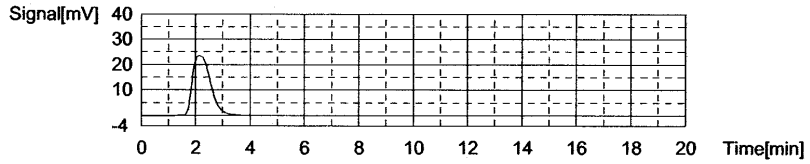
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:9906ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	110.8	110.8	1152ug	9906ppm	116.3mg	116uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:31:07 PM

Mean Area 110.8
Mean CNV 110.8
Mean Conc. 9906ppm



Sample

Sample Name: CCV 40000
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:40570ppm

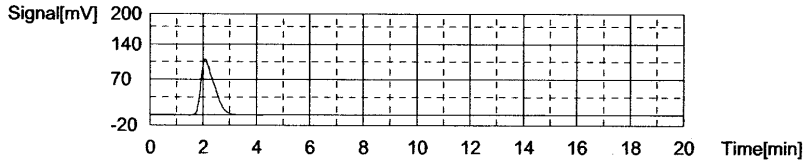
1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	386.8	386.8	4057ug	40570ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 01:43:00 PM

Approved: April 29, 2008

Mean Area 386.8
Mean CNV 386.8
Mean Conc. 40570ppm



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: SOIL-11-09-2007.met
Status Completed
Chk. Result

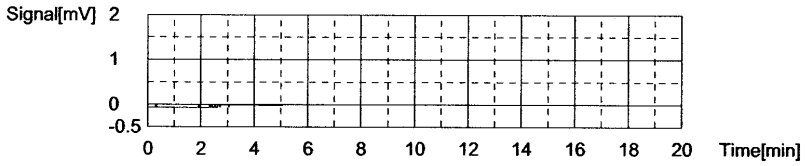
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	!!Error!! SSM-TC:-140.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-14.08ug	-140.8ppm	100.0mg	100uL		SOILCURVE-11-9-2007.2007_11_09_13_40_0	04/28/2008 02:32:45 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -140.8ppm



Approved: April 29, 2008

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
May 9, 2008

AJF – AMANDA J. FICKIESEN	ALB – ANNIE L. BROWN	AML – ANTHONY M. LONG
ASP – AARON S. PETRIE	BRG – BRENDA R. GREGORY	CAA – CASSIE A. AUGENSTEIN
CAF – CHERYL A. FLOWERS	CAH – CHARLES A. HALL	CEB – CHAD E. BARNES
CLC – CHRYS L. CRAWFORD	CLW – CHARISSA L. WINTERS	CMS – CRYSTAL M. STEPHENS
CPD – CHAD P. DAVIS	CSH – CHRIS S. HILL	CTB – CHRIS T. BUCINA
DDE – DEBRA D. ELLIOTT	DEL – DON E. LIGHTFRITZ	DEV – DAVID E. VANDENBERG
DGB – DOUGLAS G. BUTCHER	DIH – DEANNA I. HESSON	DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE	DLR – DIANNA L. RAUCH	DR – DEANNA ROBERTS
DSF – DEBRA S. FREDERICK	ECL – ERIC C. LAWSON	ED – EMILY E. DECKER
ERE – ERIN R. ELDER	FJB – FRANCES J. BOLDEN	HAV – HEMA VILASAGAR
HJR – HOLLY J. REED	JAB – JUANITA A. BECKER	JBK – JEREMY B. KINNEY
JDH – JUSTIN D. HESSON	JKP – JACQUELINE K. PARSONS	JKT – JANE K. THOMPSON
JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES	JYH – JI Y. HU
KEB – KATHRYN E. BARNES	KHR – KIM H. RHODES	KJW – KATIE J. WIEFERICH
KRA – KATHY R. ALBERTSON	LKN – LINDA K. NEDEFF	LSB – LESLIE S. BUCINA
MDA – MIKE D. ALBERTSON	MDC – MICHAEL D. COCHRAN	MES – MARY E. SCHILLING
MMB – MAREN M. BEERY	MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON
NPM – NATHANIEL P. MILLER	RAH – ROY A. HALSTEAD	RB – ROBERT BUCHANAN
REK – ROBERT E. KYER	RLK – ROBIN L. KLINGER	RWC – RODNEY W. CAMPBELL
SDH – SHANA D. HINYARD	SDL – SHELLY D. LENT	SLM – STEPHANIE L. MOSSBURG
SLP – SHERI L. PFALZGRAF	SMH – SHAUNA M. HYDE	TDH – TRICIA D. HUCK
TIP – TAE I. PARRISH	TMB – TIFFANY M. BAILEY	TMM – TAMMY M. MORRIS
VC – VICKI COLLIER	WTD – WADE T. DELONG	

Microbac Laboratories Inc.
List of Valid Qualifiers
May 09, 2008

Qualkey: CLP

Qualifier	Description
E	Estimated concentration due to interference
E	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
U	Not detected at or above the reporting limit

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

COC No. A 82094

156 Starlite Drive
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: CH2M HILL

Project Contact: Emil File

Contact Phone #: 937-220-2953

Turn Around Requirements: 14 DAY

Location: South Charleston, WV

Project ID: 367695.B5.FI South Charleston Facility PO: 592987

Sampler (print): Jeremy Meyer

Signature:

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Voc	Svoc	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS Sample depth
3034-S001-041708			04/17/08	0950	Soil	4		X	X		4.5'
3034-S002-041708			↓	1020	↓	4		X	X		19.5'
3034-S002-041708D			↓	1025	↓	4		X	X		19.5'
3034-S003-041708			↓	1035	↓	4		X	X		27'
TB01-041708			↓	1630	water	2		X			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	04/17/08	1645			4-18-08	1200	Don [signature]

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
Don [signature]	4-18-08	1325	[signature]	4-18-08	13:25	

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page _____ of _____

Microbac Laboratories, Inc.

SAMPLE RECEIPT FORM

158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

Client:	CH2M Hill
Workorder Number:	B 8152
Date Received:	4-18-08
Delivered by:	( ) Fedx ( ) UPS ( ) Client (X) Courier **Time:** 1325
Opened by:	RM
IR Temp Gun:	(X) D ( ) G
Logged by:	EE/JVT/RA L08040557

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
2007	-0		82094	

Inspection Checklist	Y	N	NA	Discrepancy ID
Were shipping coolers sealed?			✓	
Were custody seals intact?			✓	
Were cooler temperatures in range of 0 - 6?	✓			
Was ice present?	✓			
Were COC's received/ information complete/signed and dated?	✓			
Were sample containers and labels intact and match COC?	✓			
Were the correct containers and volumes received?	✓			
Were correct preservatives used? (water only)	✓			
Were pH ranges acceptable? (voa's excluded)			✓	
Were VOA samples free of headspace (< 6mm)?	✓		1	
Were samples received within EPA hold times?	✓			

Discrepancy/Comments/Other Problems

Distribution

Name of Microbac representative:	
Client/Company:	
Person Contacted:	
Date contacted:	

Resolution/other comments:

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040557
Account: 2736
Project: 2736.012
Samples: 5
Due Date: 29-APR-2008

Samplenum	Container ID	Products
L08040557-04	449192	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-APR-2008 14:50	ERE	
2	PREP	W1	EXT	22-APR-2008 06:41	CEB	ERE
3	ANALYZ	EXT	WET	22-APR-2008 09:52	DIH	CPD
4	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
5	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE
6	PREP	W1	EXT	01-MAY-2008 06:45	CEB	ERE
7	STORE	EXT	W1	01-MAY-2008 10:42	ERE	CEB
8	STORE	W1	A2	07-MAY-2008 08:59	RLK	RLK

Samplenum	Container ID	Products
L08040557-01	449181	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Samplenum	Container ID	Products
L08040557-01	449182	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040557
Account: 2736
Project: 2736.012
Samples: 5
Due Date: 29-APR-2008

Samplenum	Container ID	Products
L08040557-05	449193	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	21-APR-2008 12:25	MRT	JKT
3	STORE	ORG4	A2	05-MAY-2008 11:11	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	ORG4	18-APR-2008 14:50	ERE	
2	STORE	ORG4	A2	05-MAY-2008 11:10	JKT	MRT

Samplenum	Container ID	Products
L08040557-02	449186	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-APR-2008 14:50	ERE	
2	PREP	W1	EXT	22-APR-2008 06:41	CEB	ERE
3	ANALYZ	EXT	WET	22-APR-2008 09:52	DIH	CPD
4	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
5	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE
6	PREP	W1	EXT	01-MAY-2008 06:45	CEB	ERE
7	STORE	EXT	W1	01-MAY-2008 10:42	ERE	CEB
8	STORE	W1	A2	07-MAY-2008 08:59	RLK	RLK

Samplenum	Container ID	Products
L08040557-03	449189	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-APR-2008 14:50	ERE	
2	PREP	W1	EXT	22-APR-2008 06:41	CEB	ERE
3	ANALYZ	EXT	WET	22-APR-2008 09:52	DIH	CPD
4	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
5	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE
6	PREP	W1	EXT	01-MAY-2008 06:45	CEB	ERE
7	STORE	EXT	W1	01-MAY-2008 10:42	ERE	CEB
8	STORE	W1	A2	07-MAY-2008 08:59	RLK	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040557
Account: 2736
Project: 2736.012
Samples: 5
Due Date: 29-APR-2008

Samplenum	Container ID	Products
L08040557-02	449185	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK

Samplenum	Container ID	Products
L08040557-04	449191	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK

Samplenum	Container ID	Products
L08040557-01	449183	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-APR-2008 14:50	ERE	
2	PREP	W1	EXT	22-APR-2008 06:41	CEB	ERE
3	ANALYZ	EXT	WET	22-APR-2008 09:52	DIH	CPD
4	STORE	WET	A2	28-APR-2008 13:49	ERE	DIH
5	STORE	W1	A2	30-APR-2008 08:53	ERE	ERE
6	PREP	W1	EXT	01-MAY-2008 06:45	CEB	ERE
7	STORE	EXT	W1	01-MAY-2008 10:41	ERE	CEB
8	STORE	W1	A2	07-MAY-2008 08:59	RLK	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040557
Account: 2736
Project: 2736.012
Samples: 5
Due Date: 29-APR-2008

Samplenum	Container ID	Products
L08040557-02	449184	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Samplenum	Container ID	Products
L08040557-03	449187	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08040557
Account: 2736
Project: 2736.012
Samples: 5
Due Date: 29-APR-2008

Samplenum	Container ID	Products
L08040557-03	449188	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK

Samplenum	Container ID	Products
L08040557-04	449190	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-APR-2008 14:50	ERE	
2	ANALYZ	V1	ORG4	18-APR-2008 15:28	MDA	RLK
3	STORE	VOAY	A2	02-MAY-2008 09:46	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Quick Facts

Microbac®

Look closer. Go further. Do more.

Corporate Information:

Microbac Laboratories, Inc.

Franklin Corporate Center

2000 Corporate Drive, Suite 350

Wexford, PA 15090

Phone: (724) 934-5030

FAX: (724) 934-5088

www.microbac.com

President & CEO: J. Trevor Boyce

Federal Tax ID#: 25-1199-642

DUNS#: 048192892

Incorporated in the State of PA -- May 1, 1969

Employees Corporate-Wide: 467

Facilities Corporate –Wide: 18 Divisions, 28 locations across 15 states

Please note these administrative changes for our Ohio Valley Division laboratory in Marietta, OH (formerly KEMRON Environmental Services, Inc.) , in particular the address, which is a revised routing of remittances on our invoices. All invoices dated April 1, 2008 or later will reflect this change, and will be highlighted with an attention-getting sticker during our transition. Please adjust your records to ensure proper routing of payments.

Microbac®

Microbac Laboratories Inc.
Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750

Phone: 800-373-4071
Fax: 740-373-4835
Email: OVL@microbac.com

158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • http://www.microbac.com

Laboratory Report Number: L08050050

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box bleow at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

Debbie Elliott	*Team Leader*	delliott@microbac.com
Kathy Albertson	*Team Chemist/Data Specialist*	kalbertson@microbac.com
Stephanie Mossburg	*Team Chemist/Data Specialist*	smossburg@microbac.com
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Annie Brown	*Client Services Specialist*	abrown@microbac.com
Katie Barnes	*Team Assistant*	kbarnes@microbac.com
Jacqueline Parsons	*Team Assistant*	jparsons@microbac.com

This report was reviewed on May 27, 2008.

Kathy Albertson

Kathy Albertson - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories.

This report was certified on May 27, 2008.

David E. Vandenberg

David Vandenberg - Managing Director

Accrediting authority: Department of Environmental Protection (West Virginia) ID:037
This report contains a total of 272 pages.

Look closer. Go further. Do more.

Microbac REPORT L08050050
PREPARED FOR CH2MHILL, Inc
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L08050050

CHAIN OF CUSTODY: The chain of custody number was 82101.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 6 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

L08050050-01	3025-SO01-050108
L08050050-02	3025-SO01-050108-MS
L08050050-03	3025-SO01-050108-MSD
L08050050-04	3025-SO02-050108
L08050050-05	3023-SO01-050108
L08050050-06	3023-SO01-050108-FD
L08050050-07	3015-SO01-050108
L08050050-08	3015-SO02-050108
L08050050-09	3014-SO01-050108
L08050050-10	3014-SO02-050108
L08050050-11	TB01-050108

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 06-MAY-08

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Microbac Laboratories Inc.
GC/MS VOLATILE ORGANICS

Microbac Login No: L08050050

METHOD

Preparation: SW-846 5030B, 5035

Analysis: SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Samples collected via 5035 preserved by freezing. Sample preparation preceeded normally.

CALIBRATION

Initial Calibration: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: Vinyl acetate was below the lower control limit in the water alternate source analyzed 04/29/08 on HPMS-8. 1,4-Dioxane exceeded the upper control limit and vinyl acetate was below the lower control limit in the soil alternate source analyzed 05/12/08 on HPMS-9. All other acceptance criteria were met.

Continuing Calibration and Tune: Vinyl acetate was below the lower control limit in the water CCV analyzed 05/03/08 on HPMS-8. 1,2,4-Trichlorobenzene, t-1,3-dichloropropene, and o-xylene exceeded the upper control limits in the soil CCV analyzed 05/06/08 on HPMS-9. Bromoform exceeded the upper control limit in the soil CCV analyzed 05/13/08 on HPMS-9. All other acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Vinyl acetate was below the lower advisory limit in the soil LCS/LCSD analyzed 05/13/08 on HPMS-9. All other acceptance criteria were met.

Matrix Spike: c-1,2-Dichloroethene and trichloroethene were below the lower advisory limits and 1,3-dichlorobenzene exceeded the upper advisory limit in the MS/MSD analyses of sample 01. Outliers were acceptable in the associated LCS. All other acceptance criteria were met.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: Reporting limits elevated for samples 05, 06, 07, and 08 due to the presence of target analytes.

Manual Integration Reason Codes

Microbac laboratory management has identified four general cases with valid reasons supporting the use of manual integration techniques.

Reason #1: Data System Fails to Select Correct Peak

In some cases the chromatography system selects and integrates the ”wrong peak”. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.

This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds.

This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline

There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

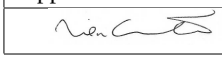
Reason #5: Miscellaneous

Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: TMB

Approved: 19-MAY-08



LABORATORY REPORT

L08050050

05/27/08 16:45

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3025-SO01-050108	L08050050-01	8260B	1	02-MAY-08
3025-SO01-050108-MS	L08050050-02	8260B	1	02-MAY-08
3025-SO01-050108-MSD	L08050050-03	8260B	1	02-MAY-08
3025-SO02-050108	L08050050-04	8260B	1	02-MAY-08
3023-SO01-050108	L08050050-05	8260B	50	02-MAY-08
3023-SO01-050108-FD	L08050050-06	8260B	50	02-MAY-08
3015-SO01-050108	L08050050-07	8260B	50	02-MAY-08
3015-SO02-050108	L08050050-08	8260B	50	02-MAY-08
3014-SO01-050108	L08050050-09	8260B	1	02-MAY-08
3014-SO02-050108	L08050050-10	8260B	1	02-MAY-08
TB01-050108	L08050050-11	8260B	1	02-MAY-08

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-01**
Client ID: **3025-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270445**
Collect Date: **05/01/2008 10:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **05/06/2008 11:30**
Cal Date: **05/02/2008 21:49**
Run Date: **05/06/2008 11:30**
File ID: **9M61649**
Percent Solid: **83.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	4.67	0.467
1,1,2,2-Tetrachloroethane	79-34-5		U	4.67	0.467
1,1,2-Trichloroethane	79-00-5		U	4.67	0.467
1,1-Dichloroethane	75-34-3		U	4.67	0.935
1,1-Dichloroethene	75-35-4		U	4.67	0.467
1,2,4-Trichlorobenzene	120-82-1		U	4.67	0.467
1,2-Dichlorobenzene	95-50-1		U	4.67	0.467
1,2-Dichloroethane	107-06-2		U	4.67	0.467
1,2-Dichloropropane	78-87-5		U	4.67	0.467
1,3-Dichlorobenzene	541-73-1		U	4.67	0.467
1,4-Dichlorobenzene	106-46-7		U	4.67	0.467
1,4-Dioxane	123-91-1		U	1590	46.7
2-Butanone	78-93-3		U	23.4	2.34
2-Hexanone	591-78-6		U	9.35	2.34
4-Methyl-2-pentanone	108-10-1		U	9.35	2.34
Acetone	67-64-1		U	93.5	4.67
Acrylonitrile	107-13-1		U	93.5	2.34
Benzene	71-43-2		U	4.67	0.467
Bromodichloromethane	75-27-4		U	4.67	0.467
Bromoform	75-25-2		U	4.67	0.467
Bromomethane	74-83-9		U	9.35	0.935
Carbon disulfide	75-15-0		U	4.67	0.467
Carbon tetrachloride	56-23-5		U	4.67	0.467
Chlorobenzene	108-90-7		U	4.67	0.467
Dibromochloromethane	124-48-1		U	4.67	0.467
Chloroethane	75-00-3		U	9.35	0.935
Chloroform	67-66-3		U	4.67	0.467
Chloromethane	74-87-3		U	9.35	1.87
cis-1,2-Dichloroethene	156-59-2	64.6		4.67	0.467
cis-1,3-Dichloropropene	10061-01-5		U	4.67	0.467
Ethylbenzene	100-41-4		U	4.67	0.467
Methylene chloride	75-09-2		U	4.67	0.935
Methyltert-butyl ether	1634-04-4		U	9.35	0.467
Styrene	100-42-5		U	4.67	0.467
Tetrachloroethene	127-18-4	21.6		4.67	0.467
Toluene	108-88-3		U	4.67	0.467
trans-1,2-Dichloroethene	156-60-5		U	4.67	0.467
trans-1,3-Dichloropropene	10061-02-6		U	4.67	0.467
Trichloroethene	79-01-6	30.2		4.67	0.467
Vinyl acetate	108-05-4		U	9.35	0.935
Vinyl chloride	75-01-4		U	9.35	0.935
Xylenes	1330-20-7		U	9.35	0.467

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	82.2	70	121	
4-Bromofluorobenzene	99.5	59	113	
Dibromofluoromethane	87.4	65	135	
Toluene-d8	98.9	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-02**
Client ID: **3025-SO01-050108-MS**
Matrix: **Soil**
Workgroup Number: **WG270445**
Collect Date: **05/01/2008 10:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **05/06/2008 12:01**
Cal Date: **05/02/2008 21:49**
Run Date: **05/06/2008 12:01**
File ID: **9M61650**
Percent Solid: **83.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6	20.1		4.65	0.465
1,1,2,2-Tetrachloroethane	79-34-5	19.9		4.65	0.465
1,1,2-Trichloroethane	79-00-5	20.6		4.65	0.465
1,1-Dichloroethane	75-34-3	19.7		4.65	0.929
1,1-Dichloroethene	75-35-4	20.1		4.65	0.465
1,2,4-Trichlorobenzene	120-82-1	21.0		4.65	0.465
1,2-Dichlorobenzene	95-50-1	21.1		4.65	0.465
1,2-Dichloroethane	107-06-2	18.3		4.65	0.465
1,2-Dichloropropane	78-87-5	19.6		4.65	0.465
1,3-Dichlorobenzene	541-73-1	22.0		4.65	0.465
1,4-Dichlorobenzene	106-46-7	20.6		4.65	0.465
1,4-Dioxane	123-91-1	161	J	1580	46.5
2-Butanone	78-93-3	18.9	J	23.2	2.32
2-Hexanone	591-78-6	18.1		9.29	2.32
4-Methyl-2-pentanone	108-10-1	17.5		9.29	2.32
Acetone	67-64-1	17.3	J	92.9	4.65
Acrylonitrile	107-13-1	17.7	J	92.9	2.32
Benzene	71-43-2	20.1		4.65	0.465
Bromodichloromethane	75-27-4	19.6		4.65	0.465
Bromoform	75-25-2	20.3		4.65	0.465
Bromomethane	74-83-9	17.6		9.29	0.929
Carbon disulfide	75-15-0	16.7		4.65	0.465
Carbon tetrachloride	56-23-5	18.8		4.65	0.465
Chlorobenzene	108-90-7	20.8		4.65	0.465
Dibromochloromethane	124-48-1	20.6		4.65	0.465
Chloroethane	75-00-3	19.0		9.29	0.929
Chloroform	67-66-3	19.3		4.65	0.465
Chloromethane	74-87-3	20.6		9.29	1.86
cis-1,2-Dichloroethene	156-59-2	65.9		4.65	0.465
cis-1,3-Dichloropropene	10061-01-5	20.0		4.65	0.465
Ethylbenzene	100-41-4	22.2		4.65	0.465
Methylene chloride	75-09-2	18.0		4.65	0.929
Methyltert-butyl ether	1634-04-4	18.8		9.29	0.465
Styrene	100-42-5	19.5		4.65	0.465
Tetrachloroethene	127-18-4	38.3		4.65	0.465
Toluene	108-88-3	21.3		4.65	0.465
trans-1,2-Dichloroethene	156-60-5	20.2		4.65	0.465
trans-1,3-Dichloropropene	10061-02-6	19.6		4.65	0.465
Trichloroethene	79-01-6	41.1		4.65	0.465
Vinyl acetate	108-05-4	15.6		9.29	0.929
Vinyl chloride	75-01-4	19.8		9.29	0.929
Xylenes	1330-20-7	65.4		9.29	0.465

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	79.0	70	121	
4-Bromofluorobenzene	101	59	113	
Dibromofluoromethane	88.1	65	135	
Toluene-d8	99.9	86	138	

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-03**
Client ID: **3025-SO01-050108-MSD**
Matrix: **Soil**
Workgroup Number: **WG270445**
Collect Date: **05/01/2008 10:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **05/06/2008 12:32**
Cal Date: **05/02/2008 21:49**
Run Date: **05/06/2008 12:32**
File ID: **9M61651**
Percent Solid: **83.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6	20.5		4.72	0.472
1,1,2,2-Tetrachloroethane	79-34-5	21.5		4.72	0.472
1,1,2-Trichloroethane	79-00-5	22.2		4.72	0.472
1,1-Dichloroethane	75-34-3	20.4		4.72	0.944
1,1-Dichloroethene	75-35-4	20.8		4.72	0.472
1,2,4-Trichlorobenzene	120-82-1	24.0		4.72	0.472
1,2-Dichlorobenzene	95-50-1	22.7		4.72	0.472
1,2-Dichloroethane	107-06-2	19.8		4.72	0.472
1,2-Dichloropropane	78-87-5	20.6		4.72	0.472
1,3-Dichlorobenzene	541-73-1	23.8		4.72	0.472
1,4-Dichlorobenzene	106-46-7	21.7		4.72	0.472
1,4-Dioxane	123-91-1	169	J	1600	47.2
2-Butanone	78-93-3	20.0	J	23.6	2.36
2-Hexanone	591-78-6	20.7		9.44	2.36
4-Methyl-2-pentanone	108-10-1	19.4		9.44	2.36
Acetone	67-64-1	20.0	J	94.4	4.72
Acrylonitrile	107-13-1	19.6	J	94.4	2.36
Benzene	71-43-2	21.1		4.72	0.472
Bromodichloromethane	75-27-4	20.5		4.72	0.472
Bromoform	75-25-2	22.1		4.72	0.472
Bromomethane	74-83-9	17.9		9.44	0.944
Carbon disulfide	75-15-0	16.9		4.72	0.472
Carbon tetrachloride	56-23-5	19.3		4.72	0.472
Chlorobenzene	108-90-7	21.7		4.72	0.472
Dibromochloromethane	124-48-1	22.8		4.72	0.472
Chloroethane	75-00-3	19.9		9.44	0.944
Chloroform	67-66-3	19.8		4.72	0.472
Chloromethane	74-87-3	21.4		9.44	1.89
cis-1,2-Dichloroethene	156-59-2	82.6		4.72	0.472
cis-1,3-Dichloropropene	10061-01-5	21.2		4.72	0.472
Ethylbenzene	100-41-4	23.0		4.72	0.472
Methylene chloride	75-09-2	18.9		4.72	0.944
Methyltert-butyl ether	1634-04-4	20.5		9.44	0.472
Styrene	100-42-5	20.8		4.72	0.472
Tetrachloroethene	127-18-4	44.8		4.72	0.472
Toluene	108-88-3	22.2		4.72	0.472
trans-1,2-Dichloroethene	156-60-5	20.8		4.72	0.472
trans-1,3-Dichloropropene	10061-02-6	21.4		4.72	0.472
Trichloroethene	79-01-6	48.0		4.72	0.472
Vinyl acetate	108-05-4	16.9		9.44	0.944
Vinyl chloride	75-01-4	21.3		9.44	0.944
Xylenes	1330-20-7	68.2		9.44	0.472

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	80.3	70	121	
4-Bromofluorobenzene	101	59	113	
Dibromofluoromethane	86.9	65	135	
Toluene-d8	99.9	86	138	

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-04**
Client ID: **3025-SO02-050108**
Matrix: **Soil**
Workgroup Number: **WG271083**
Collect Date: **05/01/2008 10:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **05/13/2008 21:55**
Cal Date: **05/12/2008 18:39**
Run Date: **05/13/2008 21:55**
File ID: **9M61837**
Percent Solid: **87.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.24	0.524
1,1,2,2-Tetrachloroethane	79-34-5		U	5.24	0.524
1,1,2-Trichloroethane	79-00-5		U	5.24	0.524
1,1-Dichloroethane	75-34-3		U	5.24	1.05
1,1-Dichloroethene	75-35-4		U	5.24	0.524
1,2,4-Trichlorobenzene	120-82-1		U	5.24	0.524
1,2-Dichlorobenzene	95-50-1		U	5.24	0.524
1,2-Dichloroethane	107-06-2		U	5.24	0.524
1,2-Dichloropropane	78-87-5		U	5.24	0.524
1,3-Dichlorobenzene	541-73-1		U	5.24	0.524
1,4-Dichlorobenzene	106-46-7		U	5.24	0.524
1,4-Dioxane	123-91-1		U	1780	52.4
2-Butanone	78-93-3		U	26.2	2.62
2-Hexanone	591-78-6		U	10.5	2.62
4-Methyl-2-pentanone	108-10-1		U	10.5	2.62
Acetone	67-64-1		U	105	5.24
Acrylonitrile	107-13-1		U	105	2.62
Benzene	71-43-2		U	5.24	0.524
Bromodichloromethane	75-27-4		U	5.24	0.524
Bromoform	75-25-2		U	5.24	0.524
Bromomethane	74-83-9		U	10.5	1.05
Carbon disulfide	75-15-0		U	5.24	0.524
Carbon tetrachloride	56-23-5		U	5.24	0.524
Chlorobenzene	108-90-7		U	5.24	0.524
Dibromochloromethane	124-48-1		U	5.24	0.524
Chloroethane	75-00-3		U	10.5	1.05
Chloroform	67-66-3		U	5.24	0.524
Chloromethane	74-87-3		U	10.5	2.10
cis-1,2-Dichloroethene	156-59-2	61.5		5.24	0.524
cis-1,3-Dichloropropene	10061-01-5		U	5.24	0.524
Ethylbenzene	100-41-4		U	5.24	0.524
Methylene chloride	75-09-2		U	5.24	1.05
Methyltert-butyl ether	1634-04-4		U	10.5	0.524
Styrene	100-42-5		U	5.24	0.524
Tetrachloroethene	127-18-4	101		5.24	0.524
Toluene	108-88-3		U	5.24	0.524
trans-1,2-Dichloroethene	156-60-5		U	5.24	0.524
trans-1,3-Dichloropropene	10061-02-6		U	5.24	0.524
Trichloroethene	79-01-6	136		5.24	0.524
Vinyl acetate	108-05-4		U	10.5	1.05
Vinyl chloride	75-01-4		U	10.5	1.05
Xylenes	1330-20-7		U	10.5	0.524

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	103	70	121	
4-Bromofluorobenzene	112	59	113	
Dibromofluoromethane	109	65	135	
Toluene-d8	108	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-05**
Client ID: **3023-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270256**
Collect Date: **05/01/2008 12:45**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **CMS**
Dilution: **50**
Units: **ug/kg**

Instrument: **HPMS8**
Prep Date: **05/03/2008 15:58**
Cal Date: **04/29/2008 15:06**
Run Date: **05/03/2008 15:58**
File ID: **8M344975**
Percent Solid: **87.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	514	51.4
1,1,2,2-Tetrachloroethane	79-34-5		U	514	51.4
1,1,2-Trichloroethane	79-00-5		U	514	51.4
1,1-Dichloroethane	75-34-3		U	514	103
1,1-Dichloroethene	75-35-4		U	514	51.4
1,2,4-Trichlorobenzene	120-82-1		U	514	51.4
1,2-Dichlorobenzene	95-50-1		U	514	51.4
1,2-Dichloroethane	107-06-2		U	514	51.4
1,2-Dichloropropane	78-87-5		U	514	51.4
1,3-Dichlorobenzene	541-73-1		U	514	51.4
1,4-Dichlorobenzene	106-46-7		U	514	51.4
1,4-Dioxane	123-91-1		U	175000	5140
2-Butanone	78-93-3		U	2570	257
2-Hexanone	591-78-6		U	1030	257
4-Methyl-2-pentanone	108-10-1		U	1030	257
Acetone	67-64-1		U	10300	514
Acrylonitrile	107-13-1		U	10300	257
Benzene	71-43-2		U	514	51.4
Bromodichloromethane	75-27-4		U	514	51.4
Bromoform	75-25-2		U	514	51.4
Bromomethane	74-83-9		U	1030	103
Carbon disulfide	75-15-0		U	514	51.4
Carbon tetrachloride	56-23-5		U	514	51.4
Chlorobenzene	108-90-7		U	514	51.4
Dibromochloromethane	124-48-1		U	514	51.4
Chloroethane	75-00-3		U	1030	103
Chloroform	67-66-3		U	514	51.4
Chloromethane	74-87-3		U	1030	206
cis-1,2-Dichloroethene	156-59-2		U	514	51.4
cis-1,3-Dichloropropene	10061-01-5		U	514	51.4
Ethylbenzene	100-41-4		U	514	51.4
Methylene chloride	75-09-2		U	514	103
Methyltert-butyl ether	1634-04-4		U	1030	51.4
Styrene	100-42-5		U	514	51.4
Tetrachloroethene	127-18-4		U	514	51.4
Toluene	108-88-3		U	514	51.4
trans-1,2-Dichloroethene	156-60-5		U	514	51.4
trans-1,3-Dichloropropene	10061-02-6		U	514	51.4
Trichloroethene	79-01-6	1150		514	51.4
Vinyl acetate	108-05-4		U	1030	103
Vinyl chloride	75-01-4		U	1030	103
Xylenes	1330-20-7		U	1030	51.4

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	82.3	70	121	
4-Bromofluorobenzene	101	59	113	
Dibromofluoromethane	96.7	65	135	
Toluene-d8	102	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-06**
Client ID: **3023-SO01-050108-FD**
Matrix: **Soil**
Workgroup Number: **WG270256**
Collect Date: **05/01/2008 12:45**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **CMS**
Dilution: **50**
Units: **ug/kg**

Instrument: **HPMS8**
Prep Date: **05/03/2008 16:30**
Cal Date: **04/29/2008 15:06**
Run Date: **05/03/2008 16:30**
File ID: **8M344976**
Percent Solid: **89.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	491	49.1
1,1,2,2-Tetrachloroethane	79-34-5		U	491	49.1
1,1,2-Trichloroethane	79-00-5		U	491	49.1
1,1-Dichloroethane	75-34-3		U	491	98.1
1,1-Dichloroethene	75-35-4		U	491	49.1
1,2,4-Trichlorobenzene	120-82-1		U	491	49.1
1,2-Dichlorobenzene	95-50-1		U	491	49.1
1,2-Dichloroethane	107-06-2		U	491	49.1
1,2-Dichloropropane	78-87-5		U	491	49.1
1,3-Dichlorobenzene	541-73-1		U	491	49.1
1,4-Dichlorobenzene	106-46-7		U	491	49.1
1,4-Dioxane	123-91-1		U	167000	4910
2-Butanone	78-93-3		U	2450	245
2-Hexanone	591-78-6		U	981	245
4-Methyl-2-pentanone	108-10-1		U	981	245
Acetone	67-64-1		U	9810	491
Acrylonitrile	107-13-1		U	9810	245
Benzene	71-43-2		U	491	49.1
Bromodichloromethane	75-27-4		U	491	49.1
Bromoform	75-25-2		U	491	49.1
Bromomethane	74-83-9		U	981	98.1
Carbon disulfide	75-15-0		U	491	49.1
Carbon tetrachloride	56-23-5		U	491	49.1
Chlorobenzene	108-90-7		U	491	49.1
Dibromochloromethane	124-48-1		U	491	49.1
Chloroethane	75-00-3		U	981	98.1
Chloroform	67-66-3		U	491	49.1
Chloromethane	74-87-3		U	981	196
cis-1,2-Dichloroethene	156-59-2		U	491	49.1
cis-1,3-Dichloropropene	10061-01-5		U	491	49.1
Ethylbenzene	100-41-4		U	491	49.1
Methylene chloride	75-09-2		U	491	98.1
Methyltert-butyl ether	1634-04-4		U	981	49.1
Styrene	100-42-5		U	491	49.1
Tetrachloroethene	127-18-4		U	491	49.1
Toluene	108-88-3		U	491	49.1
trans-1,2-Dichloroethene	156-60-5		U	491	49.1
trans-1,3-Dichloropropene	10061-02-6		U	491	49.1
Trichloroethene	79-01-6	890		491	49.1
Vinyl acetate	108-05-4		U	981	98.1
Vinyl chloride	75-01-4		U	981	98.1
Xylenes	1330-20-7		U	981	49.1

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	84.0	70	121	
4-Bromofluorobenzene	102	59	113	
Dibromofluoromethane	96.9	65	135	
Toluene-d8	101	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-07**
Client ID: **3015-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270256**
Collect Date: **05/01/2008 15:15**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **CMS**
Dilution: **50**
Units: **ug/kg**

Instrument: **HPMS8**
Prep Date: **05/03/2008 17:02**
Cal Date: **04/29/2008 15:06**
Run Date: **05/03/2008 17:02**
File ID: **8M344977**
Percent Solid: **82.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	486	48.6
1,1,2,2-Tetrachloroethane	79-34-5		U	486	48.6
1,1,2-Trichloroethane	79-00-5		U	486	48.6
1,1-Dichloroethane	75-34-3		U	486	97.3
1,1-Dichloroethene	75-35-4		U	486	48.6
1,2,4-Trichlorobenzene	120-82-1		U	486	48.6
1,2-Dichlorobenzene	95-50-1		U	486	48.6
1,2-Dichloroethane	107-06-2	1180		486	48.6
1,2-Dichloropropane	78-87-5	621		486	48.6
1,3-Dichlorobenzene	541-73-1		U	486	48.6
1,4-Dichlorobenzene	106-46-7		U	486	48.6
1,4-Dioxane	123-91-1		U	165000	4860
2-Butanone	78-93-3		U	2430	243
2-Hexanone	591-78-6		U	973	243
4-Methyl-2-pentanone	108-10-1		U	973	243
Acetone	67-64-1		U	9730	486
Acrylonitrile	107-13-1		U	9730	243
Benzene	71-43-2		U	486	48.6
Bromodichloromethane	75-27-4		U	486	48.6
Bromoform	75-25-2		U	486	48.6
Bromomethane	74-83-9		U	973	97.3
Carbon disulfide	75-15-0		U	486	48.6
Carbon tetrachloride	56-23-5		U	486	48.6
Chlorobenzene	108-90-7		U	486	48.6
Dibromochloromethane	124-48-1		U	486	48.6
Chloroethane	75-00-3		U	973	97.3
Chloroform	67-66-3		U	486	48.6
Chloromethane	74-87-3		U	973	195
cis-1,2-Dichloroethene	156-59-2		U	486	48.6
cis-1,3-Dichloropropene	10061-01-5		U	486	48.6
Ethylbenzene	100-41-4		U	486	48.6
Methylene chloride	75-09-2		U	486	97.3
Methyltert-butyl ether	1634-04-4		U	973	48.6
Styrene	100-42-5		U	486	48.6
Tetrachloroethene	127-18-4		U	486	48.6
Toluene	108-88-3		U	486	48.6
trans-1,2-Dichloroethene	156-60-5		U	486	48.6
trans-1,3-Dichloropropene	10061-02-6		U	486	48.6
Trichloroethene	79-01-6		U	486	48.6
Vinyl acetate	108-05-4		U	973	97.3
Vinyl chloride	75-01-4		U	973	97.3
Xylenes	1330-20-7		U	973	48.6

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	85.2	70	121	
4-Bromofluorobenzene	101	59	113	
Dibromofluoromethane	96.7	65	135	
Toluene-d8	103	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-08**
Client ID: **3015-SO02-050108**
Matrix: **Soil**
Workgroup Number: **WG270256**
Collect Date: **05/01/2008 15:25**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **CMS**
Dilution: **50**
Units: **ug/kg**

Instrument: **HPMS8**
Prep Date: **05/03/2008 17:35**
Cal Date: **04/29/2008 15:06**
Run Date: **05/03/2008 17:35**
File ID: **8M344978**
Percent Solid: **82.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	503	50.3
1,1,2,2-Tetrachloroethane	79-34-5		U	503	50.3
1,1,2-Trichloroethane	79-00-5		U	503	50.3
1,1-Dichloroethane	75-34-3		U	503	101
1,1-Dichloroethene	75-35-4		U	503	50.3
1,2,4-Trichlorobenzene	120-82-1		U	503	50.3
1,2-Dichlorobenzene	95-50-1		U	503	50.3
1,2-Dichloroethane	107-06-2	3330		503	50.3
1,2-Dichloropropane	78-87-5	1400		503	50.3
1,3-Dichlorobenzene	541-73-1		U	503	50.3
1,4-Dichlorobenzene	106-46-7		U	503	50.3
1,4-Dioxane	123-91-1		U	171000	5030
2-Butanone	78-93-3		U	2510	251
2-Hexanone	591-78-6		U	1010	251
4-Methyl-2-pentanone	108-10-1		U	1010	251
Acetone	67-64-1		U	10100	503
Acrylonitrile	107-13-1		U	10100	251
Benzene	71-43-2		U	503	50.3
Bromodichloromethane	75-27-4		U	503	50.3
Bromoform	75-25-2		U	503	50.3
Bromomethane	74-83-9		U	1010	101
Carbon disulfide	75-15-0		U	503	50.3
Carbon tetrachloride	56-23-5		U	503	50.3
Chlorobenzene	108-90-7		U	503	50.3
Dibromochloromethane	124-48-1		U	503	50.3
Chloroethane	75-00-3		U	1010	101
Chloroform	67-66-3		U	503	50.3
Chloromethane	74-87-3		U	1010	201
cis-1,2-Dichloroethene	156-59-2		U	503	50.3
cis-1,3-Dichloropropene	10061-01-5		U	503	50.3
Ethylbenzene	100-41-4		U	503	50.3
Methylene chloride	75-09-2		U	503	101
Methyltert-butyl ether	1634-04-4		U	1010	50.3
Styrene	100-42-5		U	503	50.3
Tetrachloroethene	127-18-4		U	503	50.3
Toluene	108-88-3		U	503	50.3
trans-1,2-Dichloroethene	156-60-5		U	503	50.3
trans-1,3-Dichloropropene	10061-02-6		U	503	50.3
Trichloroethene	79-01-6	707		503	50.3
Vinyl acetate	108-05-4		U	1010	101
Vinyl chloride	75-01-4		U	1010	101
Xylenes	1330-20-7		U	1010	50.3

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	87.2	70	121	
4-Bromofluorobenzene	101	59	113	
Dibromofluoromethane	98.8	65	135	
Toluene-d8	101	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-09**
Client ID: **3014-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG271083**
Collect Date: **05/01/2008 17:05**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **05/13/2008 20:53**
Cal Date: **05/12/2008 18:39**
Run Date: **05/13/2008 20:53**
File ID: **9M61835**
Percent Solid: **80.0**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.23	0.523
1,1,2,2-Tetrachloroethane	79-34-5		U	5.23	0.523
1,1,2-Trichloroethane	79-00-5		U	5.23	0.523
1,1-Dichloroethane	75-34-3		U	5.23	1.05
1,1-Dichloroethene	75-35-4		U	5.23	0.523
1,2,4-Trichlorobenzene	120-82-1		U	5.23	0.523
1,2-Dichlorobenzene	95-50-1		U	5.23	0.523
1,2-Dichloroethane	107-06-2		U	5.23	0.523
1,2-Dichloropropane	78-87-5		U	5.23	0.523
1,3-Dichlorobenzene	541-73-1		U	5.23	0.523
1,4-Dichlorobenzene	106-46-7		U	5.23	0.523
1,4-Dioxane	123-91-1		U	1780	52.3
2-Butanone	78-93-3		U	26.2	2.62
2-Hexanone	591-78-6		U	10.5	2.62
4-Methyl-2-pentanone	108-10-1		U	10.5	2.62
Acetone	67-64-1		U	105	5.23
Acrylonitrile	107-13-1		U	105	2.62
Benzene	71-43-2		U	5.23	0.523
Bromodichloromethane	75-27-4		U	5.23	0.523
Bromoform	75-25-2		U	5.23	0.523
Bromomethane	74-83-9		U	10.5	1.05
Carbon disulfide	75-15-0		U	5.23	0.523
Carbon tetrachloride	56-23-5		U	5.23	0.523
Chlorobenzene	108-90-7		U	5.23	0.523
Dibromochloromethane	124-48-1		U	5.23	0.523
Chloroethane	75-00-3		U	10.5	1.05
Chloroform	67-66-3		U	5.23	0.523
Chloromethane	74-87-3		U	10.5	2.09
cis-1,2-Dichloroethene	156-59-2		U	5.23	0.523
cis-1,3-Dichloropropene	10061-01-5		U	5.23	0.523
Ethylbenzene	100-41-4		U	5.23	0.523
Methylene chloride	75-09-2		U	5.23	1.05
Methyltert-butyl ether	1634-04-4		U	10.5	0.523
Styrene	100-42-5		U	5.23	0.523
Tetrachloroethene	127-18-4		U	5.23	0.523
Toluene	108-88-3		U	5.23	0.523
trans-1,2-Dichloroethene	156-60-5		U	5.23	0.523
trans-1,3-Dichloropropene	10061-02-6		U	5.23	0.523
Trichloroethene	79-01-6		U	5.23	0.523
Vinyl acetate	108-05-4		U	10.5	1.05
Vinyl chloride	75-01-4		U	10.5	1.05
Xylenes	1330-20-7		U	10.5	0.523

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	105	70	121	
4-Bromofluorobenzene	104	59	113	
Dibromofluoromethane	108	65	135	
Toluene-d8	105	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-10**
Client ID: **3014-SO02-050108**
Matrix: **Soil**
Workgroup Number: **WG271083**
Collect Date: **05/01/2008 17:20**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **05/13/2008 21:24**
Cal Date: **05/12/2008 18:39**
Run Date: **05/13/2008 21:24**
File ID: **9M61836**
Percent Solid: **90.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	4.66	0.466
1,1,2,2-Tetrachloroethane	79-34-5		U	4.66	0.466
1,1,2-Trichloroethane	79-00-5		U	4.66	0.466
1,1-Dichloroethane	75-34-3		U	4.66	0.933
1,1-Dichloroethene	75-35-4	68.2		4.66	0.466
1,2,4-Trichlorobenzene	120-82-1		U	4.66	0.466
1,2-Dichlorobenzene	95-50-1		U	4.66	0.466
1,2-Dichloroethane	107-06-2	11.8		4.66	0.466
1,2-Dichloropropane	78-87-5	20.3		4.66	0.466
1,3-Dichlorobenzene	541-73-1		U	4.66	0.466
1,4-Dichlorobenzene	106-46-7		U	4.66	0.466
1,4-Dioxane	123-91-1		U	1590	46.6
2-Butanone	78-93-3		U	23.3	2.33
2-Hexanone	591-78-6		U	9.33	2.33
4-Methyl-2-pentanone	108-10-1		U	9.33	2.33
Acetone	67-64-1		U	93.3	4.66
Acrylonitrile	107-13-1		U	93.3	2.33
Benzene	71-43-2		U	4.66	0.466
Bromodichloromethane	75-27-4		U	4.66	0.466
Bromoform	75-25-2		U	4.66	0.466
Bromomethane	74-83-9		U	9.33	0.933
Carbon disulfide	75-15-0		U	4.66	0.466
Carbon tetrachloride	56-23-5		U	4.66	0.466
Chlorobenzene	108-90-7		U	4.66	0.466
Dibromochloromethane	124-48-1		U	4.66	0.466
Chloroethane	75-00-3		U	9.33	0.933
Chloroform	67-66-3		U	4.66	0.466
Chloromethane	74-87-3		U	9.33	1.87
cis-1,2-Dichloroethene	156-59-2		U	4.66	0.466
cis-1,3-Dichloropropene	10061-01-5		U	4.66	0.466
Ethylbenzene	100-41-4		U	4.66	0.466
Methylene chloride	75-09-2		U	4.66	0.933
Methyltert-butyl ether	1634-04-4		U	9.33	0.466
Styrene	100-42-5		U	4.66	0.466
Tetrachloroethene	127-18-4		U	4.66	0.466
Toluene	108-88-3		U	4.66	0.466
trans-1,2-Dichloroethene	156-60-5	6.45		4.66	0.466
trans-1,3-Dichloropropene	10061-02-6		U	4.66	0.466
Trichloroethene	79-01-6	11.9		4.66	0.466
Vinyl acetate	108-05-4		U	9.33	0.933
Vinyl chloride	75-01-4	38.0		9.33	0.933
Xylenes	1330-20-7		U	9.33	0.466

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	103	70	121	
4-Bromofluorobenzene	106	59	113	
Dibromofluoromethane	106	65	135	
Toluene-d8	107	86	138	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-11**
Client ID: **TB01-050108**
Matrix: **Water**
Workgroup Number: **WG270547**
Collect Date: **05/01/2008 00:01**
Sample Tag: **02**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **tmb**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **05/07/2008 13:29**
Cal Date: **05/02/2008 17:40**
Run Date: **05/07/2008 13:29**
File ID: **10M64433**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Dibromochloromethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methylene chloride	75-09-2		U	5.00	0.250
Methyltert-butyl ether	1634-04-4		U	5.00	0.500
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	99.0	76	114	
4-Bromofluorobenzene	107	86	115	
Dibromofluoromethane	102	85	115	
Toluene-d8	106	88	110	

U Not detected at or above the reporting limit

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

VOA Preparation/Preservation and Extraction Log

Analyst: MRP / TMB Date Prepared/Preserved: 5-2-08 Method: 8260

Sample #	Fraction ID	Date Collected	Time Collected	Time Preserved	Tare Wt. (g)	Total Wt. (g)	Sample Wt. (g)	Water Vol. (mL)	Methanol Vol. (mL)	Comments	Team Notified
L08050040-02	A	5-1-08	830	1305	NA	NA	4.88	5	–	5	
	B		〃	〃			4.81	5	–		
	C		〃	〃			4.89	–	10		
-04	A		1050	1307			5.18	5	–		
	B		〃	〃			4.95	5	–		
	C		〃	〃			5.69	–	10		
-07	A		1535	1309			5.36	5	–		
	B		〃	〃			6.00	5	–		
	C		〃	〃			5.86	–	10		
L08050042-01	A		1340	1310			4.97	5	–		
〃	B		〃	〃			4.80	5	–		
〃	C	〃	〃	〃			5.10	–	10		
Blank	A	NA	NA	NA			5.00	5	–		
〃	B	〃	〃	〃			〃	5	–		
〃	C	〃	〃	〃	〃	〃	〃	–	10	〃	
L08050050-01	A	5-1-08	1010	1645	NA	NA	6.38	5	–	5	
〃	B	〃	〃	〃			6.35	〃	–	〃	
〃	C	〃	〃	〃			6.38	–	10	〃	
02	A	〃	1010	1700			6.42	5	–	〃	
〃	B	〃	〃	〃			6.11	〃	–	〃	
〃	C	〃	〃	〃			6.00	–	10	〃	
03	A	〃	〃	1703			6.32	5	–	〃	
〃	B	〃	〃	〃			6.03	〃	–	〃	
〃	C	〃	〃	〃			6.33	–	10	〃	

Comments:
1 = improperly sealed cap
2 = preserved out of hold (past 48 hours from time of collection)
3 = effervesced
4 = preserved with NaHSO4 (sodium bisulfate)
5 = preserved by freezing
6 = preserved in field

Methanol (Manufacturer, Lot #) B+J CV646

NaHSO4 (Manufacturer, Lot #) _____

Reviewed by: _____

VOA Preparation/Preservation and Extraction Log

Analyst: TMB Date Prepared/Preserved: 5/2/08 Method: 8260

Sample #	Fraction ID	Date Collected	Time Collected	Time Preserved	Tare Wt. (g)	Total Wt. (g)	Sample Wt. (g)	Water Vol. (mL)	Methanol Vol. (mL)	Comments	Team Notified
L08050050-04	A	5-1-08	1040	1707	NA	NA	5.43	5	—	5	
"	B	"	"	"	"	"	5.40	"	—	"	
"	C	"	"	"	"	"	5.76	—	10	"	
05	A	"	1245	1710	"	"	5.93	5	—	"	
"	B	"	"	"	"	"	6.35	"	—	"	
"	C	"	"	"	"	"	5.54	—	10	"	
06	A	"	1245	1713	"	"	5.03	5	—	"	
"	B	"	"	"	"	"	5.76	"	—	"	
"	C	"	"	"	"	"	5.68	—	10	"	
07	A	"	1515	1717	"	"	6.03	5	—	"	
"	B	"	"	"	"	"	5.78	"	—	"	
"	C	"	"	"	"	"	6.25	—	10	"	
08	A	"	1525	1720	"	"	5.89	5	—	"	
"	B	"	"	"	"	"	6.24	"	—	"	
"	C	"	"	"	"	"	6.00	—	10	"	
09	A	"	1705	1723	"	"	5.88	5	—	"	
"	B	"	"	"	"	"	5.97	"	—	"	
"	C	"	"	"	"	"	5.93	—	10	"	
10	A	"	1720	1728	"	"	5.94	5	—	"	
"	B	"	"	"	"	"	5.44	"	—	"	
"	C	"	"	"	"	"	4.98	—	10	"	
				MLS 5-08							

Comments:
1 = improperly sealed cap
2 = preserved out of hold (past 48 hours from time of collection)
3 = effervesced
4 = preserved with NaHSO4 (sodium bisulfate)
5 = preserved by freezing
6 = preserved in field

Methanol (Manufacturer, Lot #) B+J CV 646

NaHSO4 (Manufacturer, Lot #) _____

Reviewed by: _____

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 042908
Analyst1: CMS Analyst2: SMH
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV10 Rev: 9
Maintenance Log ID: 23993

Internal Standard: STD25916 Surrogate Standard: STD26089
CCV: STD26064 LCS: STD25940 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269760;WG269871

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M344806	WG269760-01 50ng BFB STD 8260	NA	1	1	STD25539	04/29/08 07:31
2	8M344807	WG269760-02 50ug/L STD 8260	NA	1	1	STD25998	04/29/08 08:01
3	8M344808	WG269760-02 50ug/L STD 8260	NA	1	1	STD25998	04/29/08 08:33
4	8M344809	SYSTEM BLANK	NA	1	1		04/29/08 09:06
5	8M344810	SYSTEM BLANK	NA	1	1		04/29/08 09:39
6	8M344811	WG269760-02 0.30ug/L STD 8260	NA	1	1	STD26064	04/29/08 10:12
7	8M344812	WG269760-03 0.40ug/L STD 8260	NA	1	1	STD26064	04/29/08 10:44
8	8M344813	WG269760-04 1ug/L STD 8260	NA	1	1	STD26064	04/29/08 11:16
9	8M344814	WG269760-05 2ug/L STD 8260	NA	1	1	STD26064	04/29/08 11:48
10	8M344815	WG269760-06 5ug/L STD 8260	NA	1	1	STD26064	04/29/08 12:20
11	8M344816	WG269760-07 20ug/L STD 8260	NA	1	1	STD26064	04/29/08 12:54
12	8M344817	WG269760-08 50ug/L STD 8260	NA	1	1	STD26064	04/29/08 13:27
13	8M344818	WG269760-09 100ug/L STD 8260	NA	1	1	STD26064	04/29/08 13:59
14	8M344819	WG269760-10 200ug/L STD 8260	NA	1	1	STD26064	04/29/08 14:33
15	8M344820	WG269760-11 300ug/L STD 8260	NA	1	1	STD26064	04/29/08 15:06
16	8M344821	SYSTEM BLANK	NA	1	1		04/29/08 15:38
17	8M344822	SYSTEM BLANK	NA	1	1		04/29/08 16:10
18	8M344823	WG269760-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25940	04/29/08 16:46
19	8M344824	WG269760-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25940	04/29/08 17:28
20	8M344825	WG269870-01 50ng BFB STD 8260	NA	1	1	STD25539	04/29/08 18:29
21	8M344826	WG269870-02 50ug/L STD 8260	NA	1	1	STD25664	04/29/08 18:54
22	8M344827	WG269871-01 VBLK0429 BLANK 8260	NA	1	1		04/29/08 19:28
23	8M344828	WG269871-01 VBLK0429 BLANK 8260	NA	1	1		04/29/08 20:00
24	8M344829	WG269871-02 20ug/L LCS STD 8260	NA	1	1	STD25940	04/29/08 20:32
25	8M344830	WG269871-03 20ug/L LCSDUP STD 8260	NA	1	1	STD25940	04/29/08 21:04
26	8M344831	WG269871-04 FBLK 8260	NA	1	1		04/29/08 21:37
27	8M344832	L08040620-25 A 826-SPE	<2	1	1		04/29/08 22:09
28	8M344833	L08040620-09 A 826-SPE	<2	1	1		04/29/08 22:41
29	8M344834	L08040620-10 A 826-SPE	<2	1	1		04/29/08 23:13
30	8M344835	L08040620-11 A 826-SPE	<2	1	1		04/29/08 23:45
31	8M344836	L08040620-12 A 826-SPE	<2	1	1		04/30/08 00:18
32	8M344837	L08040620-13 A 826-SPE	<2	1	1		04/30/08 00:50
33	8M344838	L08040620-14 A 826-SPE	<2	1	1		04/30/08 01:22
34	8M344839	L08040620-15 A 826-SPE	<2	1	1		04/30/08 01:54

Approved: May 06, 2008

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 042908
Analyst1: CMS Analyst2: SMH
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B SOP: PAT01 Rev: 10
Method: 624 SOP: MSV10 Rev: 9
Maintenance Log ID: 23993

Internal Standard: STD25916 Surrogate Standard: STD26089
CCV: STD26064 LCS: STD25940 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG269760;WG269871

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	8M344840	L08040620-16 A 826-SPE	<2	1	1		04/30/08 02:26
36	8M344841	L08040620-17 A 826-SPE	<2	1	1		04/30/08 02:58
37	8M344842	L08040620-18 A 826-SPE	<2	1	1		04/30/08 03:30
38	8M344843	L08040620-19 A 826-SPE	<2	1	1		04/30/08 04:03
39	8M344844	L08040620-20 A 826-SPE	<2	1	1		04/30/08 04:35
40	8M344845	L08040620-21 A 826-SPE	<2	1	1		04/30/08 05:07
41	8M344846	L08040620-22 A 826-SPE	<2	1	1		04/30/08 05:39
42	8M344847	L08040620-23 A 826-SPE	<2	1	1		04/30/08 06:11
43	8M344848	SYSTEM CHECK	NA	1	1		04/30/08 06:43

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X		Check Standard Failure	
File ID: 8M344807				
	DNR			
3	X		Check Standard Failure	
File ID: 8M344808				
	DNR-RR CURVE			
18	X			
File ID: 8M344823				
	DNR			
22	X		Carry-over contamination	
File ID: 8M344827				
	DNR			

Approved: May 06, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 050208
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24095

Internal Standard: STD25840 Surrogate Standard: STD26140
CCV: STD26064 LCS: STD26142 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270161

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M64339	SYSTEM BLANK	NA	1	1		05/02/08 08:56
2	10M64340	SYSTEM BLANK	NA	1	1		05/02/08 09:41
3	10M64341	WG270161-01 50ng BFB STD 8260	NA	1	1	STD25539	05/02/08 10:07
4	10M64342	WG270161-02 50ug/L CCV STD 8260	NA	1	1	STD26064	05/02/08 10:32
5	10M64343	SYSTEM BLANK	NA	1	1		05/02/08 11:25
6	10M64344	SYSTEM BLANK	NA	1	1		05/02/08 11:58
7	10M64345	WG270161-03 0.3ug/L STD 8260	NA	1	1	STD26142	05/02/08 12:39
8	10M64346	WG270161-04 0.4ug/L STD 8260	NA	1	1	STD26142	05/02/08 13:12
9	10M64347	WG270161-05 1ug/L STD 8260	NA	1	1	STD26142	05/02/08 13:46
10	10M64348	WG270161-06 2ug/L STD 8260	NA	1	1	STD26142	05/02/08 14:18
11	10M64349	WG270161-07 5ug/L STD 8260	NA	1	1	STD26142	05/02/08 14:59
12	10M64350	WG270161-08 20ug/L STD 8260	NA	1	1	STD26142	05/02/08 15:31
13	10M64351	WG270161-09 50ug/L STD 8260	NA	1	1	STD26142	05/02/08 16:04
14	10M64352	WG270161-10 100ug/L STD 8260	NA	1	1	STD26142	05/02/08 16:36
15	10M64353	WG270161-11 200ug/L STD 8260	NA	1	1	STD26142	05/02/08 17:08
16	10M64354	WG270161-12 300ug/L STD 8260	NA	1	1	STD26142	05/02/08 17:40
17	10M64355	SYSTEM BLANK	NA	1	1		05/02/08 18:13
18	10M64356	SYSTEM BLANK	NA	1	1		05/02/08 18:45
19	10M64357	WG270161-13 20ug/L ALT SRC STD 8260	NA	1	1	STD26119	05/02/08 19:18
20	10M64358	SYSTEM BLANK	NA	1	1		05/02/08 19:51
21	10M64359	SYSTEM BLANK	NA	1	1		05/02/08 20:23
22	10M64360	TEST VIAL (4/30/08)	NA	1	1		05/02/08 20:56
23	10M64361	TEST VIAL (5/01/08)	NA	1	1		05/02/08 21:28

Comments

Seq.	Rerun	Dil.	Reason	Analytes
4				
File ID: 10M64342				
Do not report. Checking to make sure the sparge tube didn't need changed before running a curve. 1-4 Dioxane level check.				

Approved: May 12, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 050208
Analyst1: CMS Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24057

Internal Standard: STD25538 Surrogate Standard: STD25866
CCV: STD25998 LCS: STD26148 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270140

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61515	SYSTEM BLANK	NA	7	1		05/02/08 07:30
2	9M61516	WG270140-01 BFB 50ng STD 8260	NA	7	1	STD25539	05/02/08 08:03
3	9M61517	WG270140-02 50ug/Kg SOIL STD 8260	NA	7	1	STD25998	05/02/08 08:51
4	9M61518	WG270140-02 50ug/Kg SOIL STD 8260	NA	7	1	STD25998	05/02/08 09:31
5	9M61519	SYSTEM CHECK	NA	7	1		05/02/08 10:15
6	9M61520	SYSTEM CHECK	NA	7	1		05/02/08 10:45
7	9M61521	WG270140-01 50ng BFB STD 8260	NA	7	1	STD25539	05/02/08 11:12
8	9M61522	WG270140-02 50ug/Kg SOIL STD 8260	NA	7	1	STD26064	05/02/08 11:49
9	9M61523	SYSTEM BLANK	NA	7	1		05/02/08 13:40
10	9M61524	SYSTEM BLANK	NA	7	1		05/02/08 15:23
11	9M61525	SYSTEM BLANK	NA	7	1		05/02/08 15:53
12	9M61526	WG270140-01 BFB 50ng STD 8260	NA	7	1	STD25539	05/02/08 16:20
13	9M61527	WG270140-02 50ug/Kg SOIL STD 8260	NA	7	1	STD25998	05/02/08 16:43
14	9M61528	SYSTEM BLANK	NA	7	1		05/02/08 17:14
15	9M61529	WG270140-02 0.50ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 17:44
16	9M61530	WG270140-03 1ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 18:15
17	9M61531	WG270140-04 2ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 18:46
18	9M61532	WG270140-05 5ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 19:16
19	9M61533	WG270140-06 20ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 19:47
20	9M61534	WG270140-07 50ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 20:18
21	9M61535	WG270140-08 100ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 20:48
22	9M61536	WG270140-09 200ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 21:19
23	9M61537	WG270140-10 300ug/Kg SOIL STD 8260	NA	7	1	STD26148	05/02/08 21:49
24	9M61538	SYSTEM BLANK	NA	7	1		05/02/08 22:20
25	9M61539	SYSTEM BLANK	NA	7	1		05/02/08 22:51
26	9M61540	WG270140-11 20ug/Kg ALT SRC STD 826	NA	7	1	STD25940	05/02/08 23:22

Approved: May 08, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 050308
Analyst1: CMS Analyst2: ASP
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 24036

Internal Standard: STD26115 Surrogate Standard: STD26089
CCV: STD26064 LCS: STD25940 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG270256

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M344957	WG270255-01 50ng BFB STD 8260	NA	1	1	STD25539	05/03/08 06:24
2	8M344958	WG270255-02 50ug/L STD 8260	NA	1	1	STD26064	05/03/08 06:49
3	8M344959	WG270256-01 EXT BLK 100X 8260 5g/10m	NA	7	50		05/03/08 07:21
4	8M344960	WG270256-02 EXT LCS 100X 8260 5g/10m	NA	7	50		05/03/08 07:53
5	8M344961	WG270256-03 EXT LCSDUP 100X 8260 5g	NA	7	50		05/03/08 08:25
6	8M344962	L08040679-07 1000X 826-SPE	NA	7	500		05/03/08 08:58
7	8M344963	L08040601-03 500X 826-TC (4/29@1500)	NA	17	50		05/03/08 09:30
8	8M344964	L08040601-01 5000X 826-TC (4/29@1500	NA	17	500		05/03/08 10:02
9	8M344965	L08040655-03 C 100X 826-SPE	NA	7	50		05/03/08 10:34
10	8M344966	L08040655-04 C 100X 826-SPE	NA	7	50		05/03/08 11:07
11	8M344967	L08040655-05 C 100X 826-SPE	NA	7	50		05/03/08 11:39
12	8M344968	L08040655-06 C 100X 826-SPE	NA	7	50		05/03/08 12:12
13	8M344969	L08040655-07 C 100X 826-SPE	NA	7	50		05/03/08 12:44
14	8M344970	L08040809-02 C 100X 826-SPE	NA	7	50		05/03/08 13:16
15	8M344971	WG270256-04 L08050050-01	NA	7	50		05/03/08 13:49
16	8M344972	WG270256-05 L08050050-02	NA	7	50		05/03/08 14:21
17	8M344973	WG270256-06 L08050050-03 MS	NA	7	50		05/03/08 14:53
18	8M344974	L08050050-04 C 100X 826-SPE	NA	7	50		05/03/08 15:25
19	8M344975	L08050050-05 C 100X 826-SPE	NA	7	50		05/03/08 15:58
20	8M344976	L08050050-06 C 100X 826-SPE	NA	7	50		05/03/08 16:30
21	8M344977	L08050050-07 C 100X 826-SPE	NA	7	50		05/03/08 17:02
22	8M344978	L08050050-08 C 100X 826-SPE	NA	7	50		05/03/08 17:35
23	8M344979	L08050050-09 C 100X 826-SPE	NA	7	50		05/03/08 18:07
24	8M344980	L08050050-10 C 100X 826-SPE	NA	7	50		05/03/08 18:39
25	8M344981	SYSTEM BLANK	NA	1	1		05/03/08 19:11
26	8M344982	SYSTEM BLANK	NA	1	1		05/03/08 19:43
27	8M344983	SYSTEM BLANK	NA	1	1		05/03/08 20:16
28	8M344984	SYSTEM BLANK	NA	1	1		05/03/08 20:48

Comments

Seq.	Rerun	Dil.	Reason	Analytes
6				
File ID: 8M344962				

Approved: May 08, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 050308
Analyst1: CMS Analyst2: ASP
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 24036

Internal Standard: STD26115 Surrogate Standard: STD26089
CCV: STD26064 LCS: STD25940 MS/MSD: NA

Column 1 ID: RTX5 Column 2 ID: NA
Workgroups: WG270256

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	M1			
9	X			
File ID: 8M344965				
	RR LOW LEVEL			
10	X			
File ID: 8M344966				
	RR LOW LEVEL			
14	X	1000		
File ID: 8M344970				
15	X			
File ID: 8M344971				
	RR LOW LEVEL			
16	X			
File ID: 8M344972				
	RR LOW LEVEL			
17	X			
File ID: 8M344973				
	RR LOW LEVEL			
18	X			
File ID: 8M344974				
	RR LOW LEVEL			
23	X			
File ID: 8M344979				
	RR LOW LEVEL			
24	X		Missed Tune	
File ID: 8M344980				
	RR LOW LEVEL			

Approved: May 08, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 050608
Analyst1: TMB Analyst2: CMS
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24034

Internal Standard: STD26151 Surrogate Standard: STD26150
CCV: STD26064 LCS: STD26119; STD26208 MS/MSD: STD26119

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270445; WG270540

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61643	SYSTEM BLANK	NA	7	1		05/06/08 08:26
2	9M61644	WG270443-01 50ng BFB STD 8260	NA	7	1	STD26149	05/06/08 09:00
3	9M61645	WG270443-02 50ug/Kg SOIL STD 8260	NA	7	1	STD26064	05/06/08 09:25
4	9M61646	WG270445-01 VBLK0506 BLANK STD 826	NA	7	1		05/06/08 09:56
5	9M61647	WG270445-02 20ug/Kg LCS STD 8260	NA	7	1	STD26119	05/06/08 10:28
6	9M61648	L08040655-03 B 826-SPE	NA	7	1		05/06/08 10:59
7	9M61649	L08050050-01 A 826-SPE	NA	7	1		05/06/08 11:30
8	9M61650	L08050050-02 A MS 826-SPE	NA	7	1	STD26119	05/06/08 12:01
9	9M61651	L08050050-03 A MSD 826-SPE	NA	7	1	STD26119	05/06/08 12:32
10	9M61652	L08050025-01 A 826-SPE	NA	7	1		05/06/08 13:03
11	9M61653	L08040858-03 5X 826-SPE D1	NA	7	1		05/06/08 13:34
12	9M61654	L08040858-04 5X 826-SPE D1	NA	7	1		05/06/08 14:05
13	9M61655	L08040858-06 5X 826-SPE D1	NA	7	1		05/06/08 14:36
14	9M61656	L08040858-05 826-SPE	NA	7	1		05/06/08 15:06
15	9M61657	L08040829-02 A 826-SPE	NA	7	1		05/06/08 15:37
16	9M61658	L08040829-04 A 826-SPE	NA	7	1		05/06/08 16:08
17	9M61659	L08040829-06 A 826-SPE	NA	7	1		05/06/08 16:39
18	9M61660	L08040829-08 A 826-SPE	NA	7	1		05/06/08 17:10
19	9M61661	L08040829-10 A MS 826-SPE	NA	7	1	STD26119	05/06/08 17:41
20	9M61662	L08040829-12 A MSD 826-SPE	NA	7	1	STD26119	05/06/08 18:12
21	9M61663	L08040679-06 5X 826-SPE D1	NA	7	1		05/06/08 18:43
22	9M61664	L08040679-09 5X 826-SPE D1	NA	7	1		05/06/08 19:14
23	9M61665	WG270539-01 BFB 50ng STD 8260	NA	1	1	STD26149	05/06/08 19:41
24	9M61666	WG270539-02 50ug/Kg SOIL STD 8260	NA	1	1	STD26064	05/06/08 20:04
25	9M61667	WG270540-01 VBLK0506 BLANK 8260	NA	7	1		05/06/08 20:34
26	9M61668	WG270540-02 20ug/Kg LCS STD 8260	NA	7	1	STD26208	05/06/08 21:06
27	9M61669	WG270540-03 20ug/Kg LCSDUP STD 826	NA	7	1	STD26208	05/06/08 21:37
28	9M61670	L08050081-01 826-SPE	NA	7	1		05/06/08 22:09
29	9M61671	L08050081-02 826-SPE	NA	7	1		05/06/08 22:41
30	9M61672	L08050081-03 826-SPE	NA	7	1		05/06/08 23:13
31	9M61673	L08050081-04 826-SPE	NA	7	1		05/06/08 23:44
32	9M61674	L08050081-05 826-SPE	NA	7	1		05/07/08 00:16
33	9M61675	L08050081-06 826-SPE	NA	7	1		05/07/08 00:48
34	9M61676	L08050081-07 826-SPE	NA	7	1		05/07/08 01:19

Approved: May 14, 2008

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Instrument Run Log

Instrument: HPMS9 Dataset: 050608
Analyst1: TMB Analyst2: CMS
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24034

Internal Standard: STD26151 Surrogate Standard: STD26150
CCV: STD26064 LCS: STD26119; STD26208 MS/MSD: STD26119

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270445; WG270540

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	9M61677	L08050081-08 826-SPE	NA	7	1		05/07/08 01:52
36	9M61678	L08050081-09 826-SPE	NA	7	1		05/07/08 02:23
37	9M61679	L08050081-10 826-SPE	NA	7	1		05/07/08 02:55
38	9M61680	L08040858-07 826-SPE	NA	7	1		05/07/08 03:27
39	9M61681	L08040858-08 826-SPE	NA	7	1		05/07/08 03:59
40	9M61682	L08040858-09 826-SPE	NA	7	1		05/07/08 04:30
41	9M61683	L08040858-10 826-SPE	NA	7	1		05/07/08 05:02
42	9M61684	L08040858-11 826-SPE	NA	7	1		05/07/08 05:34
43	9M61685	L08040858-12 826-SPE	NA	7	1		05/07/08 06:06
44	9M61686	L08040858-13 826-SPE	NA	7	1		05/07/08 06:38
45	9M61687	L08040858-14 826-SPE	NA	7	1		05/07/08 07:09
46	9M61688	SYSTEM BLANK	NA	7	1		05/07/08 07:42
47	9M61689	SYSTEM BLANK	NA	7	1		05/07/08 08:13

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
File ID: 9M61643				
	Do not report.			
15	X	100	Over Calibration Range	EB, Sty, IS conf
File ID: 9M61657				
16	X		Carry-over contamination	
File ID: 9M61658				
	DNR			
17	X	100	Over Calibration Range	Sty
File ID: 9M61659				
38	X	5	Over Calibration Range	TCE
File ID: 9M61680				
39	X	1	Carry-over contamination	
File ID: 9M61681				
	Do not report.			
41	X	5	Over Calibration Range	cis12dce

Approved: May 14, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 050608
Analyst1: TMB Analyst2: CMS
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24034

Internal Standard: STD26151 Surrogate Standard: STD26150
CCV: STD26064 LCS: STD26119; STD26208 MS/MSD: STD26119

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270445; WG270540

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 9M61683				
42	X	200	Over Calibration Range	tce
File ID: 9M61684				
	Needs rr extracted.			
43	X	200	Over Calibration Range	tce
File ID: 9M61685				
	Needs rr extracted.			
44	X	1	Carry-over contamination	
File ID: 9M61686				
	Do not report.			
45	X	1	Carry-over contamination	
File ID: 9M61687				
	Do not report.			

Approved: May 14, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 050708
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24038

Internal Standard: STD25840 Surrogate Standard: STD26140
CCV: STD26064 LCS: STD26208 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270547

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M64422	WG270546-01 50ng BFB STD 8260	NA	1	1	STD26149	05/07/08 07:45
2	10M64423	WG270546-01 50ng BFB STD 8260	NA	1	1	STD26149	05/07/08 08:18
3	10M64424	WG270546-01 50ng BFB STD 8260	NA	1	1	STD26149	05/07/08 08:32
4	10M64425	WG270546-02 50ug/L CCV STD 8260	NA	1	1	STD26064	05/07/08 08:57
5	10M64426	WG270546-02 50ug/L CCV STD 8260	NA	1	1	STD26064	05/07/08 09:32
6	10M64427	WG270547-01 VBLK0507 BLANK STD 826	NA	1	1		05/07/08 10:14
7	10M64428	WG270547-01 VBLK0507 BLANK STD 826	NA	1	1		05/07/08 10:47
8	10M64429	WG270547-02 20ug/L LCS STD 8260	NA	1	1	STD26208	05/07/08 11:19
9	10M64430	WG270547-03 20ug/L LCSDUP STD 8260	NA	1	1	STD26208	05/07/08 11:52
10	10M64431	L08040859-03 B 00 20X 8260	<2	1	20		05/07/08 12:24
11	10M64432	L08050083-03 A 826-SPE	<2	1	1		05/07/08 12:56
12	10M64433	L08050050-11 B A1 826-SPE	<2	1	1		05/07/08 13:29
13	10M64434	L08050051-13 A 826-SPE	<2	1	1		05/07/08 14:01
14	10M64435	L08040409-40 B 826-SPE	<2	1	1		05/07/08 14:33
15	10M64436	L08050083-01 A 826-SPE	<2	1	1		05/07/08 15:06
16	10M64437	L08050083-02 A 826-SPE	<2	1	1		05/07/08 15:38
17	10M64438	L08050026-11 B D1 2X 826-SPE	<2	1	2		05/07/08 16:11
18	10M64439	L08040444-14 B D1 5X 826-SPE	<2	1	5		05/07/08 16:43
19	10M64440	L08040409-38 C 826-SPE	<2	1	1		05/07/08 17:15
20	10M64441	L08040859-01 B 00 8260	<2	1	1		05/07/08 17:48
21	10M64442	L08040859-02 B 00 8260	<2	1	1		05/07/08 18:20
22	10M64443	L08050051-05 B D1 2.5X 826-SPE	<2	1	2.5		05/07/08 18:53
23	10M64444	L08050051-09 A 2.5X 826-SPE	<2	1	2.5		05/07/08 19:26
24	10M64445	L08050051-11 A 20X 826-SPE	<2	1	20		05/07/08 19:59
25	10M64446	SYSTEM BLANK	NA	1	1		05/07/08 20:32
26	10M64447	WG270547-04 624 BLANK	NA	2	1		05/07/08 21:05
27	10M64448	L08050084-01 A 624-SPE2	7	2	1		05/07/08 21:37
28	10M64449	L08050085-01 A 624-SPE	7	2	1		05/07/08 22:11
29	10M64450	L08050101-03 A 624-SPE	7	2	1		05/07/08 22:44
30	10M64451	L08050122-02 A 624-SPE	7	2	1		05/07/08 23:18
31	10M64452	L08050122-01 A 624-SPE	7	2	1		05/07/08 23:51
32	10M64453	SYSTEM BLANK	NA	1	1		05/08/08 00:25
33	10M64454	SYSTEM BLANK	NA	1	1		05/08/08 00:57
34	10M64455	SYSTEM BLANK	NA	1	1		05/08/08 01:30

Approved: May 15, 2008

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 050708
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24038

Internal Standard: STD25840 Surrogate Standard: STD26140
CCV: STD26064 LCS: STD26208 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270547

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	10M64456	TEST VIAL (5/7/08)	NA	1	1		05/08/08 02:03
36	10M64457	TEST VIAL (5/7/08)	NA	1	1		05/08/08 02:36

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
File ID: 10M64422				
	Tune failed. DNR.			
2	X			
File ID: 10M64423				
	Tune failed. DNR. Changed the septa.			
4	X		Over Calibration Range	vc
File ID: 10M64425				
	VC was high. DNR.			
6	X	1	Carry-over contamination	
File ID: 10M64427				
	Do not report.			
10				
File ID: 10M64431				
	The A vial missed tune.			
24	X	2	Analyzed too dilute	
File ID: 10M64445				
	Do not report.			
31	X	5	Over Calibration Range	ben, tol
File ID: 10M64452				

Approved: May 15, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 051208
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24179

Internal Standard: STD26151 Surrogate Standard: STD26150
CCV: STD26310 LCS: STD26314 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270933

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61788	system blank	NA	7	1		05/12/08 07:18
2	9M61789	WG270933-01 50ng BFB STD 8260	NA	7	1	STD26149	05/12/08 08:17
3	9M61790	WG270933-01 50ng BFB STD 8260	NA	7	1	STD26149	05/12/08 08:37
4	9M61792	WG270934-01 VBLK0512 BLANK STD 826	NA	7	1		05/12/08 09:35
5	9M61793	WG270933-02 50ug/Kg SOIL STD 8260	NA	7	1	STD26262	05/12/08 10:06
6	9M61794	SYSTEM CHECK	NA	7	1		05/12/08 10:40
7	9M61795	WG270933-01 BFB 50ng STD 8260	NA	7	1	STD26149	05/12/08 11:07
8	9M61797	WG270934-01 VBLK0512 BLANK STD 826	NA	7	1		05/12/08 12:03
9	9M61798	WG270934-02 20ug/Kg LCS STD 8260	NA	7	1	STD26208	05/12/08 12:43
10	9M61799	WG270934-02 20ug/Kg LCS STD 8260	NA	7	1	STD26208	05/12/08 13:24
11	9M61800	SYSTEM BLANK	NA	7	1		05/12/08 13:59
12	9M61801	WG270933-03 0.5ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 14:31
13	9M61802	WG270933-04 1ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 15:03
14	9M61803	WG270933-05 2ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 15:34
15	9M61804	WG270933-06 5ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 16:05
16	9M61805	WG270933-07 20ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 16:36
17	9M61806	WG270933-08 50ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 17:06
18	9M61807	WG270933-09 100ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 17:37
19	9M61808	WG270933-10 200ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 18:08
20	9M61809	WG270933-11 300ug/Kg STD 8260	NA	7	1	STD26310	05/12/08 18:39
21	9M61810	SYSTEM BLANK	NA	7	1		05/12/08 19:10
22	9M61811	SYSTEM BLANK	NA	7	1		05/12/08 19:41
23	9M61812	WG270933-12 20ug/Kg ALT SRC STD 826	NA	7	1	STD26314	05/12/08 20:12

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8				
File ID: 9M61797				
			DNR.	
9				
File ID: 9M61798				
			DNR.	
10				

Approved: May 16, 2008

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 051208
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24179

Internal Standard: STD26151 Surrogate Standard: STD26150
CCV: STD26310 LCS: STD26314 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG270933

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 9M61799				
	DNR. Had to run a curve.			
11				
File ID: 9M61800				
	DNR.			

Approved: May 16, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 051308
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24118

Internal Standard: STD26151 Surrogate Standard: STD26329
CCV: STD26310 LCS: STD26314 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG271083

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M61814	system blank	NA	7	1		05/13/08 09:30
2	9M61815	WG271082-01 50ng BFB STD 8260	NA	7	1	STD26149	05/13/08 10:33
3	9M61816	WG271082-02 50ug/Kg SOIL STD 8260	NA	7	1	STD26310	05/13/08 10:58
4	9M61817	WG271083-01 VBLK0513 BLANK STD 826	NA	7	1		05/13/08 11:41
5	9M61818	WG271083-02 20ug/Kg LCS STD 8260	NA	7	1	STD26314	05/13/08 12:12
6	9M61819	WG271083-03 20ug/Kg LCSDUP STD 826	NA	7	1	STD26314	05/13/08 12:43
7	9M61820	L08050062-09 826-SPE	NA	7	1		05/13/08 13:13
8	9M61821	L08050062-14 826-SPE	NA	7	1		05/13/08 13:44
9	9M61822	L08050062-16 826-SPE	NA	7	1		05/13/08 14:15
10	9M61823	L08050062-20 5X 826-SPE	NA	7	1		05/13/08 14:45
11	9M61824	L08050061-02 A 826-SPE	NA	7	1		05/13/08 15:16
12	9M61825	L08050080-02 A 826-SPE	NA	7	1		05/13/08 15:46
13	9M61826	L08050121-02 A 826-SPE	NA	7	1		05/13/08 16:16
14	9M61827	L08050121-04 A 826-SPE	NA	7	1		05/13/08 16:47
15	9M61828	L08050121-06 A 826-SPE	NA	7	1		05/13/08 17:18
16	9M61829	L08050025-04 A 826-SPE	NA	7	1		05/13/08 17:49
17	9M61830	L08050025-05 A 826-SPE	NA	7	1		05/13/08 18:19
18	9M61831	L08050025-02 A 826-SPE	NA	7	1		05/13/08 18:51
19	9M61832	SYSTEM BLANK	NA	7	1		05/13/08 19:21
20	9M61833	L08040679-06 5X 826-SPE	NA	7	1		05/13/08 19:51
21	9M61834	L08040679-09 5X 826-SPE	NA	7	1		05/13/08 20:22
22	9M61835	L08050050-09 B 00826-SPE	NA	7	1		05/13/08 20:53
23	9M61836	L08050050-10 A 00 826-SPE	NA	7	1		05/13/08 21:24
24	9M61837	L08050050-04 A 00 826-SPE	NA	7	1		05/13/08 21:55
25	9M61838	SYSTEM BLANK	NA	7	1		05/13/08 22:27
26	9M61839	SYSTEM BLANK	NA	7	1		05/13/08 22:57
27	9M61840	SYSTEM BLANK	NA	7	1		05/13/08 23:29
28	9M61841	L08040726-06 A 826-REF-BLK	NA	7	1		05/13/08 23:59

Comments

Seq.	Rerun	Dil.	Reason	Analytes
9	X	1	Internal standard failure	
File ID: 9M61822				

Approved: May 19, 2008

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 051308
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 10
Method: 5030B/5035 SOP: PAT01 Rev: 10

Maintenance Log ID: 24118

Internal Standard: STD26151 Surrogate Standard: STD26329
CCV: STD26310 LCS: STD26314 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG271083

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
13	X	1	Internal standard and surrogate standard failure	
File ID: 9M61826				
14	X	1	Internal standard failure	
File ID: 9M61827				
16	X	100	Over Calibration Range	BEN
File ID: 9M61829				
The extraction has ran for this sample.				
18	X	100	Over Calibration Range	12dca, 4-m-2-p
File ID: 9M61831				
The extraction run has already ran for this sample.				
20				
File ID: 9M61833				
Do not report. The rr ran in 5/6/08.				
21				
File ID: 9M61834				
Do not report. The rr ran in 5/6/08.				
22				
File ID: 9M61835				
The A vial was cracked and the water leaked out when thawed.				
28	X	1		me cl
File ID: 9M61841				
Me cl was over the RL.				

Approved: May 19, 2008

Page: 2

Microbac Laboratories Inc.

Data Checklist

Date: 29-APR-2008
Analyst: CMS
Analyst: SMH
Method: 8260B/624
Instrument: HPMS8
Curve Workgroup: NA
Runlog ID: 22004
Analytical Workgroups: WG269760;WG269871

System Performance Check	X
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
05-MAY-2008

Secondary Reviewer:
06-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-07-2008 08:49:44

Microbac Laboratories Inc.

Data Checklist

Date: 02-MAY-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 22131
Analytical Workgroups: WG270161

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
12-MAY-2008
Tiffany Bailey

Secondary Reviewer:
12-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-12-2008 13:07:48

Microbac Laboratories Inc.

Data Checklist

Date: 02-MAY-2008
Analyst: CMS
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 22081
Analytical Workgroups: WG27014

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
08-MAY-2008
Tiffany Bailey

Secondary Reviewer:
08-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-08-2008 14:45:12

Microbac Laboratories Inc.

Data Checklist

Date: 07-MAY-2008
Analyst: CMS
Analyst: ASP
Method: 8260B
Instrument: HPMS8
Curve Workgroup: NA
Runlog ID: 22055
Analytical Workgroups: WG270256

System Performance Check	X
BFB	X
Initial Calibration	NA
Average RF	NA
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	NA
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	NA
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
08-MAY-2008

Secondary Reviewer:
08-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-08-2008 08:27:39

Microbac Laboratories Inc.

Data Checklist

Date: 06-MAY-2008
Analyst: TMB
Analyst: CMS
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 22058
Analytical Workgroups: WG270445; WG270540

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
07-MAY-2008
Tiffany Bailey

Secondary Reviewer:
14-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-14-2008 14:54:27

Microbac Laboratories Inc.

Data Checklist

Date: 07-MAY-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 22061
Analytical Workgroups: WG270547

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
14-MAY-2008
Tiffany Bailey

Secondary Reviewer:
15-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-15-2008 10:02:37

Microbac Laboratories Inc.

Data Checklist

Date: 12-MAY-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 22226
Analytical Workgroups: WG270933

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
16-MAY-2008
Tiffany Bailey

Secondary Reviewer:
16-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-16-2008 13:40:10

Microbac Laboratories Inc.

Data Checklist

Date: 13-MAY-2008
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 22160
Analytical Workgroups: WG271083

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
15-MAY-2008
Tiffany Bailey

Secondary Reviewer:
19-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-19-2008 11:16:52

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG271083

Login Number: L08050050

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3014-SO01-050108	05/01/08	05/02/08	05/13/08	14	12.2	05/13/08	14	12.2	
3014-SO02-050108	05/01/08	05/02/08	05/13/08	14	12.2	05/13/08	14	12.2	
3025-SO02-050108	05/01/08	05/02/08	05/13/08	14	12.5	05/13/08	14	12.5	

* EXT = SEE PROJECT QAPP REQUIREMENTS
*ANAL = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1096835
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG270547

Login Number: L08050050

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
TB01-050108	05/01/08	05/02/08	05/07/08	14	6.56	05/07/08	14	6.56	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**
***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1096835
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG270445

Login Number: L08050050

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3025-SO01-050108-MSD	05/01/08	05/02/08	05/06/08	14	5.10	05/06/08	14	5.10	
3025-SO01-050108	05/01/08	05/02/08	05/06/08	14	5.06	05/06/08	14	5.06	
3025-SO01-050108-MS	05/01/08	05/02/08	05/06/08	14	5.08	05/06/08	14	5.08	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**
***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1096835
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG270256

Login Number: L08050050

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3023-SO01-050108	05/01/08	05/02/08	05/03/08	14	2.13	05/03/08	14	2.13	
3023-SO01-050108-FD	05/01/08	05/02/08	05/03/08	14	2.16	05/03/08	14	2.16	
3015-SO02-050108	05/01/08	05/02/08	05/03/08	14	2.09	05/03/08	14	2.09	
3015-SO01-050108	05/01/08	05/02/08	05/03/08	14	2.07	05/03/08	14	2.07	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**
***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1096835
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08050050
Instrument Id: HPMS9
Workgroup (AAB#): WG271083

Method: 8260
CAL ID: HPMS9-12-MAY-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08050050-04	1.00	01	103	109	112	108
L08050050-09	1.00	01	105	108	104	105
L08050050-10	1.00	01	103	106	106	107
WG271083-01	1.00	01	86.1	86.0	87.9	87.7
WG271083-02	1.00	01	89.9	92.0	90.5	92.3
WG271083-03	1.00	01	86.1	87.4	85.6	86.4

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1096841
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08050050
Instrument Id: HPMS10
Workgroup (AAB#): WG270547

Method: 8260
CAL ID: HPMS10-02-MAY-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08050050-11	1.00	02	99.0	102	107	106
WG270547-01	1.00	01	103	105	107	107
WG270547-02	1.00	01	101	104	101	103
WG270547-03	1.00	01	102	105	105	107
WG270547-04	1.00	01	99.9	105	99.9	102

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	76	-	114
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1096841
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08050050
Instrument Id: HPMS9
Workgroup (AAB#): WG270445

Method: 8260
CAL ID: HPMS9-02-MAY-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08050050-01	1.00	01	82.2	87.4	99.5	98.9
L08050050-02	1.00	01	79.0	88.1	101	99.9
L08050050-03	1.00	01	80.3	86.9	101	99.9
WG270445-01	1.00	01	80.9	86.3	98.3	96.7
WG270445-02	1.00	01	79.4	85.9	100	98.8

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1096841
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08050050
Instrument Id: HPMS8
Workgroup (AAB#): WG270256

Method: 8260
CAL ID: HPMS8-29-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L08050050-05	50.0	DL01	82.3	96.7	101	102
L08050050-06	50.0	DL01	84.0	96.9	102	101
L08050050-07	50.0	DL01	85.2	96.7	101	103
L08050050-08	50.0	DL01	87.2	98.8	101	101
WG270256-01	50.0	DL01	96.3	104	104	105
WG270256-02	50.0	DL01	98.3	107	101	104
WG270256-03	50.0	DL01	95.3	105	102	104

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1096841
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08050050
Work Group: WG270547
Blank File ID: 10M64428
Blank Sample ID: WG270547-01
Prep Date: 05/07/08 10:47
Instrument ID: HPMS10
Analyzed Date: 05/07/08 10:47
Method: 8260B
Analyst: tmb

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG270547-02	10M64429	05/07/08 11:19	01
LCS2	WG270547-03	10M64430	05/07/08 11:52	01
TB01-050108	L08050050-11	10M64433	05/07/08 13:29	02

Report Name: BLANK_SUMMARY
PDF File ID: 1096836
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08050050
Blank File ID: 8M344959
Prep Date: 05/03/08 07:21
Analyzed Date: 05/03/08 07:21
Analyst: CMS

Work Group: WG270256
Blank Sample ID: WG270256-01
Instrument ID: HPMS8
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG270256-02	8M344960	05/03/08 07:53	DL01
LCS2	WG270256-03	8M344961	05/03/08 08:25	DL01
3023-SO01-050108	L08050050-05	8M344975	05/03/08 15:58	DL01
3023-SO01-050108-FD	L08050050-06	8M344976	05/03/08 16:30	DL01
3015-SO01-050108	L08050050-07	8M344977	05/03/08 17:02	DL01
3015-SO02-050108	L08050050-08	8M344978	05/03/08 17:35	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1096836
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08050050
Work Group: WG270445
Blank File ID: 9M61646
Blank Sample ID: WG270445-01
Prep Date: 05/06/08 09:56
Instrument ID: HPMS9
Analyzed Date: 05/06/08 09:56
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG270445-02	9M61647	05/06/08 10:28	01
3025-SO01-050108	L08050050-01	9M61649	05/06/08 11:30	01
3025-SO01-050108-MS	L08050050-02	9M61650	05/06/08 12:01	01
3025-SO01-050108-MSD	L08050050-03	9M61651	05/06/08 12:32	01

Report Name: BLANK_SUMMARY
PDF File ID: 1096836
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08050050
Work Group: WG271083
Blank File ID: 9M61817
Blank Sample ID: WG271083-01
Prep Date: 05/13/08 11:41
Instrument ID: HPMS9
Analyzed Date: 05/13/08 11:41
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG271083-02	9M61818	05/13/08 12:12	01
LCS2	WG271083-03	9M61819	05/13/08 12:43	01
3014-SO01-050108	L08050050-09	9M61835	05/13/08 20:53	01
3014-SO02-050108	L08050050-10	9M61836	05/13/08 21:24	01
3025-SO02-050108	L08050050-04	9M61837	05/13/08 21:55	01

Report Name: BLANK_SUMMARY
PDF File ID: 1096836
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08050050 Prep Date:05/07/08 10:47 Sample ID:WG270547-01
Instrument ID:HPMS10 Run Date:05/07/08 10:47 Prep Method:5030B
File ID:10M64428 Analyst:tmb Method:8260B
Workgroup (AAB#):WG270547 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS10-02-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	1.00	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	1.00	1	U
1,1,2-Trichloroethane	0.250	1.00	1.00	1	U
1,1-Dichloroethane	0.125	1.00	1.00	1	U
1,1-Dichloroethene	0.500	1.00	1.00	1	U
1,2,4-Trichlorobenzene	0.200	1.00	1.00	1	U
1,2-Dichlorobenzene	0.125	1.00	1.00	1	U
1,2-Dichloroethane	0.250	1.00	1.00	1	U
1,2-Dichloropropane	0.200	1.00	1.00	1	U
1,3-Dichlorobenzene	0.250	1.00	1.00	1	U
1,4-Dichlorobenzene	0.125	1.00	1.00	1	U
1,4-Dioxane	50.0	100	100	1	U
2-Butanone	2.50	10.0	10.0	1	U
2-Hexanone	2.50	5.00	5.00	1	U
4-Methyl-2-pentanone	2.50	5.00	5.00	1	U
Acetone	2.50	25.0	25.0	1	U
Acrylonitrile	2.50	10.0	10.0	1	U
Benzene	0.125	1.00	1.00	1	U
Bromodichloromethane	0.250	1.00	1.00	1	U
Bromoform	0.500	1.00	1.00	1	U
Bromomethane	0.500	1.00	1.00	1	U
Carbon disulfide	0.500	1.00	1.00	1	U
Carbon tetrachloride	0.250	1.00	1.00	1	U
Chlorobenzene	0.125	1.00	1.00	1	U
Dibromochloromethane	0.250	1.00	1.00	1	U
Chloroethane	0.500	1.00	1.00	1	U
Chloroform	0.125	1.00	1.00	1	U
Chloromethane	0.250	1.00	1.00	1	U
cis-1,2-Dichloroethene	0.250	1.00	1.00	1	U
cis-1,3-Dichloropropene	0.250	1.00	1.00	1	U
Ethylbenzene	0.250	1.00	1.00	1	U
Methylene chloride	0.250	5.00	5.00	1	U
Methyltert-butyl ether	0.500	5.00	5.00	1	U
Styrene	0.125	1.00	1.00	1	U
Tetrachloroethene	0.250	1.00	1.00	1	U
Toluene	0.250	1.00	1.00	1	U
trans-1,2-Dichloroethene	0.250	1.00	1.00	1	U
trans-1,3-Dichloropropene	0.500	1.00	1.00	1	U
Trichloroethene	0.250	1.00	1.00	1	U
Vinyl acetate	2.50	10.0	10.0	1	U
Vinyl chloride	0.250	1.00	1.00	1	U
Xylenes	0.500	5.00	5.00	1	U

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/07/08 10:47 Sample ID: WG270547-01
Instrument ID: HPMS10 Run Date: 05/07/08 10:47 Prep Method: 5030B
File ID: 10M64428 Analyst: tmb Method: 8260B
Workgroup (AAB#): WG270547 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS10-02-MAY-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	103	76 - 114	PASS
4-Bromofluorobenzene	107	86 - 115	PASS
Dibromofluoromethane	105	85 - 115	PASS
Toluene-d8	107	88 - 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/03/08 07:21 Sample ID: WG270256-01
Instrument ID: HPMS8 Run Date: 05/03/08 07:21 Prep Method: 5030B
File ID: 8M344959 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG270256 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS8-29-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	25.0	250	250	50	U
1,1,2,2-Tetrachloroethane	25.0	250	250	50	U
1,1,2-Trichloroethane	25.0	250	250	50	U
1,1-Dichloroethane	50.0	250	250	50	U
1,1-Dichloroethene	25.0	250	250	50	U
1,2,4-Trichlorobenzene	25.0	250	250	50	U
1,2-Dichlorobenzene	25.0	250	250	50	U
1,2-Dichloroethane	25.0	250	250	50	U
1,2-Dichloropropane	25.0	250	250	50	U
1,3-Dichlorobenzene	25.0	250	250	50	U
1,4-Dichlorobenzene	25.0	250	250	50	U
1,4-Dioxane	2500	85000	85000	50	U
2-Butanone	125	1250	1250	50	U
2-Hexanone	125	500	500	50	U
4-Methyl-2-pentanone	125	500	500	50	U
Acetone	250	5000	5000	50	U
Acrylonitrile	125	5000	5000	50	U
Benzene	25.0	250	250	50	U
Bromodichloromethane	25.0	250	250	50	U
Bromoform	25.0	250	250	50	U
Bromomethane	50.0	500	500	50	U
Carbon disulfide	25.0	250	250	50	U
Carbon tetrachloride	25.0	250	250	50	U
Chlorobenzene	25.0	250	250	50	U
Dibromochloromethane	25.0	250	250	50	U
Chloroethane	50.0	500	500	50	U
Chloroform	25.0	250	250	50	U
Chloromethane	100	500	500	50	U
cis-1,2-Dichloroethene	25.0	250	250	50	U
cis-1,3-Dichloropropene	25.0	250	250	50	U
Ethylbenzene	25.0	250	250	50	U
Methylene chloride	50.0	250	250	50	U
Methyltert-butyl ether	25.0	500	500	50	U
Styrene	25.0	250	250	50	U
Tetrachloroethene	25.0	250	250	50	U
Toluene	25.0	250	250	50	U
trans-1,2-Dichloroethene	25.0	250	250	50	U
trans-1,3-Dichloropropene	25.0	250	250	50	U
Trichloroethene	25.0	250	250	50	U
Vinyl acetate	50.0	500	500	50	U
Vinyl chloride	50.0	500	500	50	U
Xylenes	25.0	500	500	50	U

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/03/08 07:21 Sample ID: WG270256-01
Instrument ID: HPMS8 Run Date: 05/03/08 07:21 Prep Method: 5030B
File ID: 8M344959 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG270256 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS8-29-APR-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	96.3	70 - 121	PASS
4-Bromofluorobenzene	104	59 - 113	PASS
Dibromofluoromethane	104	65 - 135	PASS
Toluene-d8	105	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08050050 Prep Date:05/06/08 09:56 Sample ID:WG270445-01
Instrument ID:HPMS9 Run Date:05/06/08 09:56 Prep Method:5030B
File ID:9M61646 Analyst:TMB Method:8260B
Workgroup (AAB#):WG270445 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS9-02-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/06/08 09:56 Sample ID: WG270445-01
Instrument ID: HPMS9 Run Date: 05/06/08 09:56 Prep Method: 5030B
File ID: 9M61646 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG270445 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-MAY-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	80.9	70 - 121	PASS
4-Bromofluorobenzene	98.3	59 - 113	PASS
Dibromofluoromethane	86.3	65 - 135	PASS
Toluene-d8	96.7	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1096837
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/13/08 11:41 Sample ID: WG271083-01
Instrument ID: HPMS9 Run Date: 05/13/08 11:41 Prep Method: 5030B
File ID: 9M61817 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG271083 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-12-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/13/08 11:41 Sample ID: WG271083-01
Instrument ID: HPMS9 Run Date: 05/13/08 11:41 Prep Method: 5030B
File ID: 9M61817 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG271083 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-12-MAY-08

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	86.1	70 - 121	PASS
4-Bromofluorobenzene	87.9	59 - 113	PASS
Dibromofluoromethane	86.0	65 - 135	PASS
Toluene-d8	87.7	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1096837
19-MAY-2008 13:35

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/03/2008 Sample ID: WG270256-02
Instrument ID: HPMS8 Run Time: 07:53 Prep Method: 5030B
File ID: 8M344960 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG270256 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS8-29-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	1000	1130	113	68 - 130	
1,1,2,2-Tetrachloroethane	1000	1040	104	59 - 140	
1,1,2-Trichloroethane	1000	1060	106	62 - 127	
1,1-Dichloroethane	1000	1100	110	73 - 125	
1,1-Dichloroethene	1000	968	96.8	65 - 136	
1,2,4-Trichlorobenzene	1000	1170	117	65 - 131	
1,2-Dichlorobenzene	1000	1150	115	74 - 120	
1,2-Dichloroethane	1000	1050	105	72 - 137	
1,2-Dichloropropane	1000	1090	109	71 - 120	
1,3-Dichlorobenzene	1000	1120	112	72 - 124	
1,4-Dichlorobenzene	1000	1060	106	72 - 125	
1,4-Dioxane	10000	9740	97.4	50 - 150	
2-Butanone	1000	1150	115	40 - 135	
2-Hexanone	1000	980	98.0	50 - 140	
4-Methyl-2-pentanone	1000	996	99.6	50 - 140	
Acetone	1000	1170	117	40 - 141	
Acrylonitrile	1000	1030	103	60 - 140	
Benzene	1000	1130	113	73 - 126	
Bromodichloromethane	1000	1120	112	72 - 128	
Bromoform	1000	1040	104	60 - 137	
Bromomethane	1000	966	96.6	45 - 141	
Carbon disulfide	1000	975	97.5	65 - 135	
Carbon tetrachloride	1000	1030	103	67 - 133	
Chlorobenzene	1000	1100	110	75 - 123	
Dibromochloromethane	1000	954	95.4	66 - 130	
Chloroethane	1000	1010	101	41 - 141	
Chloroform	1000	1090	109	72 - 124	
Chloromethane	1000	822	82.2	51 - 129	
cis-1,2-Dichloroethene	1000	1190	119	67 - 125	
cis-1,3-Dichloropropene	1000	1090	109	72 - 126	
Ethylbenzene	1000	1190	119	74 - 127	
Methylene chloride	1000	1010	101	63 - 137	
Methyltert-butyl ether	1000	1070	107	50 - 135	
Styrene	1000	1020	102	74 - 128	
Tetrachloroethene	1000	1020	102	67 - 139	
Toluene	1000	1180	118	71 - 127	
trans-1,2-Dichloroethene	1000	1120	112	66 - 134	
trans-1,3-Dichloropropene	1000	998	99.8	65 - 127	
Trichloroethene	1000	1030	103	77 - 124	
Vinyl acetate	1000	835	83.5	55 - 130	
Vinyl chloride	1000	829	82.9	58 - 126	

LCS - Modified 03/06/2008
PDF File ID: 1093499
Report generated: 05/14/2008 13:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/03/2008 Sample ID: WG270256-02
Instrument ID: HPMS8 Run Time: 07:53 Prep Method: 5030B
File ID: 8M344960 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG270256 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS8-29-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	3000	3600	120	75 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	98.3	70 - 121	PASS
4-Bromofluorobenzene	101	59 - 113	PASS
Dibromofluoromethane	107	65 - 135	PASS
Toluene-d8	104	86 - 138	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1093499
Report generated: 05/14/2008 13:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/05/2008 Sample ID: WG270409-02
Instrument ID: HPMS8 Run Time: 21:46 Prep Method: 5030B
File ID: 8M344997 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG270409 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS8-29-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	2000	2090	104	68 - 130	
1,1,2,2-Tetrachloroethane	2000	1990	99.5	59 - 140	
1,1,2-Trichloroethane	2000	2070	103	62 - 127	
1,1-Dichloroethane	2000	2070	103	73 - 125	
1,1-Dichloroethene	2000	1730	86.5	65 - 136	
1,2,4-Trichlorobenzene	2000	2250	113	65 - 131	
1,2-Dichlorobenzene	2000	2180	109	74 - 120	
1,2-Dichloroethane	2000	1920	96.0	72 - 137	
1,2-Dichloropropane	2000	2140	107	71 - 120	
1,3-Dichlorobenzene	2000	2190	110	72 - 124	
1,4-Dichlorobenzene	2000	2060	103	72 - 125	
1,4-Dioxane	20000	15300	76.5	50 - 150	
2-Butanone	2000	1990	99.6	40 - 135	
2-Hexanone	2000	1850	92.7	50 - 140	
4-Methyl-2-pentanone	2000	2010	100	50 - 140	
Acetone	2000	2010	101	40 - 141	
Acrylonitrile	2000	2040	102	60 - 140	
Benzene	2000	2170	109	73 - 126	
Bromodichloromethane	2000	2140	107	72 - 128	
Bromoform	2000	2010	100	60 - 137	
Bromomethane	2000	1770	88.5	45 - 141	
Carbon disulfide	2000	1810	90.3	65 - 135	
Carbon tetrachloride	2000	1890	94.7	67 - 133	
Chlorobenzene	2000	2140	107	75 - 123	
Dibromochloromethane	2000	1800	90.1	66 - 130	
Chloroethane	2000	1840	92.1	41 - 141	
Chloroform	2000	2040	102	72 - 124	
Chloromethane	2000	1430	71.5	51 - 129	
cis-1,2-Dichloroethene	2000	2260	113	67 - 125	
cis-1,3-Dichloropropene	2000	2140	107	72 - 126	
Ethylbenzene	2000	2300	115	74 - 127	
Methylene chloride	2000	1870	93.4	63 - 137	
Methyltert-butyl ether	2000	2030	102	50 - 135	
Styrene	2000	1970	98.4	74 - 128	
Tetrachloroethene	2000	1920	96.0	67 - 139	
Toluene	2000	2220	111	71 - 127	
trans-1,2-Dichloroethene	2000	2080	104	66 - 134	
trans-1,3-Dichloropropene	2000	1830	91.7	65 - 127	
Trichloroethene	2000	2020	101	77 - 124	
Vinyl acetate	2000	1270	63.4	55 - 130	
Vinyl chloride	2000	1460	73.2	58 - 126	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/05/2008 Sample ID: WG270409-02
Instrument ID: HPMS8 Run Time: 21:46 Prep Method: 5030B
File ID: 8M344997 Analyst: CMS Method: 8260B
Workgroup (AAB#): WG270409 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD25940 Cal ID: HPMS8-29-APR-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	6000	6970	116	75 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	89.3	70 - 121	PASS
4-Bromofluorobenzene	108	59 - 113	PASS
Dibromofluoromethane	103	65 - 135	PASS
Toluene-d8	103	86 - 138	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1093499
Report generated: 05/14/2008 13:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/06/2008 Sample ID: WG270445-02
Instrument ID: HPMS9 Run Time: 10:28 Prep Method: 5030B
File ID: 9M61647 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG270445 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD26119 Cal ID: HPMS9-02-MAY-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	21.6	108	68 - 130	
1,1,2,2-Tetrachloroethane	20.0	22.4	112	59 - 140	
1,1,2-Trichloroethane	20.0	22.6	113	62 - 127	
1,1-Dichloroethane	20.0	21.1	105	73 - 125	
1,1-Dichloroethene	20.0	21.8	109	65 - 136	
1,2,4-Trichlorobenzene	20.0	25.0	125	65 - 131	
1,2-Dichlorobenzene	20.0	23.6	118	74 - 120	
1,2-Dichloroethane	20.0	20.7	103	72 - 137	
1,2-Dichloropropane	20.0	20.6	103	71 - 120	
1,3-Dichlorobenzene	20.0	24.7	123	72 - 124	
1,4-Dichlorobenzene	20.0	22.8	114	72 - 125	
1,4-Dioxane	200	186	93.0	50 - 150	
2-Butanone	20.0	22.6	113	40 - 135	
2-Hexanone	20.0	21.0	105	50 - 140	
4-Methyl-2-pentanone	20.0	20.0	100	50 - 140	
Acetone	20.0	18.7	93.7	40 - 141	
Acrylonitrile	20.0	20.1	101	60 - 140	
Benzene	20.0	20.9	105	73 - 126	
Bromodichloromethane	20.0	20.7	103	72 - 128	
Bromoform	20.0	22.2	111	60 - 137	
Bromomethane	20.0	18.7	93.7	45 - 141	
Carbon disulfide	20.0	18.3	91.5	65 - 135	
Carbon tetrachloride	20.0	20.1	100	67 - 133	
Chlorobenzene	20.0	22.8	114	75 - 123	
Dibromochloromethane	20.0	22.4	112	66 - 130	
Chloroethane	20.0	20.7	103	41 - 141	
Chloroform	20.0	20.4	102	72 - 124	
Chloromethane	20.0	22.8	114	51 - 129	
cis-1,2-Dichloroethene	20.0	22.0	110	67 - 125	
cis-1,3-Dichloropropene	20.0	20.7	104	72 - 126	
Ethylbenzene	20.0	24.0	120	74 - 127	
Methylene chloride	20.0	20.3	101	63 - 137	
Methyltert-butyl ether	20.0	20.0	99.8	50 - 135	
Styrene	20.0	21.2	106	74 - 128	
Tetrachloroethene	20.0	24.1	120	67 - 139	
Toluene	20.0	23.0	115	71 - 127	
trans-1,2-Dichloroethene	20.0	21.8	109	66 - 134	
trans-1,3-Dichloropropene	20.0	21.3	107	65 - 127	
Trichloroethene	20.0	21.6	108	77 - 124	
Vinyl acetate	20.0	16.9	84.6	55 - 130	
Vinyl chloride	20.0	19.8	98.9	58 - 126	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/06/2008 Sample ID: WG270445-02
Instrument ID: HPMS9 Run Time: 10:28 Prep Method: 5030B
File ID: 9M61647 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG270445 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD26119 Cal ID: HPMS9-02-MAY-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	70.7	118	75 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	79.4	70 - 121	PASS
4-Bromofluorobenzene	100	59 - 113	PASS
Dibromofluoromethane	85.9	65 - 135	PASS
Toluene-d8	98.8	86 - 138	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1093499
Report generated: 05/14/2008 13:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: TMB Prep Method: 5030B
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG271083 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD26314

Sample ID: WG271083-02 LCS File ID: 9M61818 Run Date: 05/13/2008 12:12
Sample ID: WG271083-03 LCS2 File ID: 9M61819 Run Date: 05/13/2008 12:43

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	20.9	105	20.0	18.1	90.5	14.6	68 - 130	30	
1,1,2,2-Tetrachloroethane	20.0	21.6	108	20.0	19.6	97.9	9.96	59 - 140	30	
1,1,2-Trichloroethane	20.0	22.6	113	20.0	20.2	101	11.2	62 - 127	30	
1,1-Dichloroethane	20.0	19.7	98.6	20.0	17.2	85.9	13.8	73 - 125	30	
1,1-Dichloroethene	20.0	19.5	97.5	20.0	17.1	85.3	13.3	65 - 136	30	
1,2,4-Trichlorobenzene	20.0	22.6	113	20.0	19.5	97.3	15.1	65 - 131	30	
1,2-Dichlorobenzene	20.0	21.4	107	20.0	18.8	93.8	13.3	74 - 120	30	
1,2-Dichloroethane	20.0	20.4	102	20.0	18.0	90.0	12.3	72 - 137	30	
1,2-Dichloropropane	20.0	21.3	107	20.0	18.8	93.9	12.7	71 - 120	30	
1,3-Dichlorobenzene	20.0	21.2	106	20.0	18.7	93.3	12.7	72 - 124	30	
1,4-Dichlorobenzene	20.0	20.2	101	20.0	17.7	88.7	13.0	72 - 125	30	
1,4-Dioxane	200	195	97.3	200	192	96.1	1.25	50 - 150	30	
2-Butanone	20.0	20.5	102	20.0	20.6	103	0.562	40 - 135	30	
2-Hexanone	20.0	19.6	98.0	20.0	18.4	92.2	6.11	50 - 140	30	
4-Methyl-2-pentanone	20.0	19.6	98.0	20.0	17.8	88.8	9.88	50 - 140	30	
Acetone	20.0	19.9	99.4	20.0	18.3	91.4	8.47	40 - 141	30	
Acrylonitrile	20.0	19.5	97.4	20.0	19.2	96.2	1.32	60 - 140	30	
Benzene	20.0	20.6	103	20.0	18.0	90.2	13.1	73 - 126	30	
Bromodichloromethane	20.0	22.0	110	20.0	19.3	96.6	13.0	72 - 128	30	
Bromoform	20.0	22.3	111	20.0	19.4	97.1	13.8	60 - 137	30	
Bromomethane	20.0	19.8	98.8	20.0	16.9	84.4	15.7	45 - 141	30	
Carbon disulfide	20.0	16.4	81.9	20.0	13.8	69.0	17.2	65 - 135	30	
Carbon tetrachloride	20.0	21.9	110	20.0	18.9	94.7	14.6	67 - 133	30	
Chlorobenzene	20.0	21.2	106	20.0	18.4	91.8	14.4	75 - 123	30	
Dibromochloromethane	20.0	21.5	108	20.0	19.6	97.9	9.39	66 - 130	30	
Chloroethane	20.0	19.6	98.0	20.0	16.0	80.1	20.1	41 - 141	30	
Chloroform	20.0	20.6	103	20.0	17.9	89.4	14.1	72 - 124	30	
Chloromethane	20.0	15.1	75.4	20.0	13.4	66.8	12.2	51 - 129	30	
cis-1,2-Dichloroethene	20.0	21.1	106	20.0	18.4	91.9	14.0	67 - 125	30	
cis-1,3-Dichloropropene	20.0	20.9	105	20.0	18.2	90.9	14.2	72 - 126	30	
Ethylbenzene	20.0	22.3	112	20.0	19.2	96.0	15.0	74 - 127	30	
Methylene chloride	20.0	18.3	91.6	20.0	16.3	81.5	11.7	63 - 137	30	
Methyltert-butyl ether	20.0	20.2	101	20.0	18.2	91.1	10.1	50 - 135	30	
Styrene	20.0	20.1	100	20.0	17.2	85.8	15.5	74 - 128	30	
Tetrachloroethene	20.0	20.6	103	20.0	18.0	90.0	13.6	67 - 139	30	
Toluene	20.0	21.6	108	20.0	18.6	93.2	14.5	71 - 127	30	
trans-1,2-Dichloroethene	20.0	19.7	98.5	20.0	17.5	87.4	12.0	66 - 134	30	
trans-1,3-Dichloropropene	20.0	20.2	101	20.0	18.0	90.1	11.5	65 - 127	30	
Trichloroethene	20.0	20.7	103	20.0	18.4	91.9	11.7	77 - 124	30	
Vinyl acetate	20.0	9.59	47.9	20.0	8.70	43.5	9.74	55 - 130	30	*

LCS_LCS2 - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: TMB Prep Method: 5030B
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG271083 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD26314

Sample ID: WG271083-02 LCS File ID: 9M61818 Run Date: 05/13/2008 12:12
Sample ID: WG271083-03 LCS2 File ID: 9M61819 Run Date: 05/13/2008 12:43

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	18.5	92.4	20.0	16.1	80.4	13.8	58 - 126	30	
Xylenes	60.0	65.1	108	60.0	56.7	94.6	13.7	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	92.0	87.4	65 - 135	PASS
1,2-Dichloroethane-d4	89.9	86.1	70 - 121	PASS
Toluene-d8	92.3	86.4	86 - 138	PASS
4-Bromofluorobenzene	90.5	85.6	59 - 113	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1088305
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: CMS Prep Method: 5030B
Instrument ID: HPMS8 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG270256 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG270256-02 LCS File ID: 8M344960 Run Date: 05/03/2008 07:53
Sample ID: WG270256-03 LCS2 File ID: 8M344961 Run Date: 05/03/2008 08:25

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	1000	1130	113	1000	1100	110	2.24	68 - 130	30	
1,1,2,2-Tetrachloroethane	1000	1040	104	1000	1020	102	1.17	59 - 140	30	
1,1,2-Trichloroethane	1000	1060	106	1000	1070	107	1.28	62 - 127	30	
1,1-Dichloroethane	1000	1100	110	1000	1090	109	1.41	73 - 125	30	
1,1-Dichloroethene	1000	968	96.8	1000	941	94.1	2.84	65 - 136	30	
1,2,4-Trichlorobenzene	1000	1170	117	1000	1170	117	0.651	65 - 131	30	
1,2-Dichlorobenzene	1000	1150	115	1000	1140	114	0.681	74 - 120	30	
1,2-Dichloroethane	1000	1050	105	1000	1000	100	4.83	72 - 137	30	
1,2-Dichloropropane	1000	1090	109	1000	1090	109	0.444	71 - 120	30	
1,3-Dichlorobenzene	1000	1120	112	1000	1130	113	1.07	72 - 124	30	
1,4-Dichlorobenzene	1000	1060	106	1000	1070	107	1.22	72 - 125	30	
1,4-Dioxane	10000	9740	97.4	10000	8740	87.4	10.8	50 - 150	30	
2-Butanone	1000	1150	115	1000	1130	113	1.83	40 - 135	30	
2-Hexanone	1000	980	98.0	1000	977	97.7	0.272	50 - 140	30	
4-Methyl-2-pentanone	1000	996	99.6	1000	960	96.0	3.69	50 - 140	30	
Acetone	1000	1170	117	1000	1180	118	0.847	40 - 141	30	
Acrylonitrile	1000	1030	103	1000	1060	106	2.83	60 - 140	30	
Benzene	1000	1130	113	1000	1120	112	0.797	73 - 126	30	
Bromodichloromethane	1000	1120	112	1000	1090	109	3.16	72 - 128	30	
Bromoform	1000	1040	104	1000	1030	103	1.26	60 - 137	30	
Bromomethane	1000	966	96.6	1000	969	96.9	0.300	45 - 141	30	
Carbon disulfide	1000	975	97.5	1000	947	94.7	2.88	65 - 135	30	
Carbon tetrachloride	1000	1030	103	1000	992	99.2	3.78	67 - 133	30	
Chlorobenzene	1000	1100	110	1000	1090	109	0.875	75 - 123	30	
Dibromochloromethane	1000	954	95.4	1000	937	93.7	1.81	66 - 130	30	
Chloroethane	1000	1010	101	1000	985	98.5	2.33	41 - 141	30	
Chloroform	1000	1090	109	1000	1070	107	1.80	72 - 124	30	
Chloromethane	1000	822	82.2	1000	745	74.5	9.77	51 - 129	30	
cis-1,2-Dichloroethene	1000	1190	119	1000	1150	115	3.62	67 - 125	30	
cis-1,3-Dichloropropene	1000	1090	109	1000	1090	109	0.0468	72 - 126	30	
Ethylbenzene	1000	1190	119	1000	1200	120	0.631	74 - 127	30	
Methylene chloride	1000	1010	101	1000	997	99.7	1.64	63 - 137	30	
Methyltert-butyl ether	1000	1070	107	1000	1050	105	1.77	50 - 135	30	
Styrene	1000	1020	102	1000	1020	102	0.222	74 - 128	30	
Tetrachloroethene	1000	1020	102	1000	1020	102	0.277	67 - 139	30	
Toluene	1000	1180	118	1000	1180	118	0.0902	71 - 127	30	
trans-1,2-Dichloroethene	1000	1120	112	1000	1090	109	2.51	66 - 134	30	
trans-1,3-Dichloropropene	1000	998	99.8	1000	972	97.2	2.65	65 - 127	30	
Trichloroethene	1000	1030	103	1000	1020	102	0.627	77 - 124	30	
Vinyl acetate	1000	835	83.5	1000	816	81.6	2.28	55 - 130	30	

LCS_LCS2 - Modified 03/06/2008
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Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: CMS Prep Method: 5030B
Instrument ID: HPMS8 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG270256 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25940

Sample ID: WG270256-02 LCS File ID: 8M344960 Run Date: 05/03/2008 07:53
Sample ID: WG270256-03 LCS2 File ID: 8M344961 Run Date: 05/03/2008 08:25

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	1000	829	82.9	1000	782	78.2	5.90	58 - 126	30	
Xylenes	3000	3600	120	3000	3600	120	0.0730	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	107	105	65 - 135	PASS
1,2-Dichloroethane-d4	98.3	95.3	70 - 121	PASS
Toluene-d8	104	104	86 - 138	PASS
4-Bromofluorobenzene	101	102	59 - 113	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1088305
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: tmb Prep Method: 5030B
Instrument ID: HPMS10 Matrix: Water Method: 8260B
Workgroup (AAB#): WG270547 Units: ug/L
QC Key: DOWWV2006 Lot #: STD26208

Sample ID: WG270547-02 LCS File ID: 10M64429 Run Date: 05/07/2008 11:19
Sample ID: WG270547-03 LCS2 File ID: 10M64430 Run Date: 05/07/2008 11:52

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	21.7	108	20.0	21.6	108	0.454	67 - 132	20	
1,1,2,2-Tetrachloroethane	20.0	21.4	107	20.0	21.5	107	0.276	63 - 128	20	
1,1,2-Trichloroethane	20.0	21.3	107	20.0	21.3	107	0.139	70 - 125	20	
1,1-Dichloroethane	20.0	21.1	106	20.0	20.9	104	1.22	67 - 133	20	
1,1-Dichloroethene	20.0	22.0	110	20.0	21.9	110	0.124	68 - 130	20	
1,2,4-Trichlorobenzene	20.0	21.8	109	20.0	22.6	113	3.49	65 - 134	20	
1,2-Dichlorobenzene	20.0	21.2	106	20.0	21.5	108	1.39	71 - 122	20	
1,2-Dichloroethane	20.0	21.1	106	20.0	20.9	104	1.19	69 - 132	20	
1,2-Dichloropropane	20.0	21.1	106	20.0	21.0	105	0.396	75 - 125	20	
1,3-Dichlorobenzene	20.0	20.6	103	20.0	21.7	109	4.98	75 - 124	20	
1,4-Dichlorobenzene	20.0	20.0	100	20.0	20.7	104	3.36	74 - 123	20	
1,4-Dioxane	200	159	79.5	200	175	87.3	9.35	70 - 130	20	
2-Butanone	20.0	23.0	115	20.0	21.6	108	6.08	49 - 136	20	
2-Hexanone	20.0	20.2	101	20.0	19.7	98.3	2.61	65 - 135	20	
4-Methyl-2-pentanone	20.0	20.5	103	20.0	20.4	102	0.598	58 - 134	20	
Acetone	20.0	22.2	111	20.0	21.2	106	4.45	30 - 135	20	
Acrylonitrile	20.0	20.7	103	20.0	20.2	101	2.16	60 - 135	20	
Benzene	20.0	21.1	105	20.0	21.5	108	1.97	81 - 122	20	
Bromodichloromethane	20.0	22.5	112	20.0	22.3	112	0.666	76 - 121	20	
Bromoform	20.0	22.1	111	20.0	21.7	109	1.71	69 - 128	20	
Bromomethane	20.0	23.4	117	20.0	24.5	123	4.84	53 - 141	20	
Carbon disulfide	20.0	18.6	92.9	20.0	18.9	94.3	1.54	70 - 130	20	
Carbon tetrachloride	20.0	22.6	113	20.0	22.4	112	0.690	66 - 138	20	
Chlorobenzene	20.0	20.2	101	20.0	20.4	102	0.707	81 - 122	20	
Dibromochloromethane	20.0	22.6	113	20.0	21.9	109	3.11	66 - 133	20	
Chloroethane	20.0	21.4	107	20.0	21.7	108	1.46	58 - 133	20	
Chloroform	20.0	20.4	102	20.0	20.4	102	0.237	69 - 128	20	
Chloromethane	20.0	22.8	114	20.0	24.0	120	5.31	56 - 131	20	
cis-1,2-Dichloroethene	20.0	22.4	112	20.0	22.3	111	0.394	72 - 126	20	
cis-1,3-Dichloropropene	20.0	22.7	114	20.0	23.0	115	1.19	69 - 131	20	
Ethylbenzene	20.0	21.5	107	20.0	21.4	107	0.246	73 - 127	20	
Methylene chloride	20.0	22.0	110	20.0	22.7	114	3.02	63 - 137	20	
Methyltert-butyl ether	20.0	22.0	110	20.0	21.5	108	2.33	65 - 123	20	
Styrene	20.0	20.3	101	20.0	20.6	103	1.35	65 - 134	20	
Tetrachloroethene	20.0	21.3	107	20.0	21.7	108	1.59	66 - 128	20	
Toluene	20.0	21.5	108	20.0	21.7	109	0.893	77 - 122	20	
trans-1,2-Dichloroethene	20.0	20.8	104	20.0	20.4	102	1.89	63 - 137	20	
trans-1,3-Dichloropropene	20.0	19.6	98.1	20.0	19.4	96.8	1.28	59 - 135	20	
Trichloroethene	20.0	21.9	109	20.0	21.7	108	0.903	70 - 127	20	
Vinyl acetate	20.0	14.7	73.5	20.0	14.3	71.6	2.63	65 - 130	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1088305
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: tmb Prep Method: 5030B
Instrument ID: HPMS10 Matrix: Water Method: 8260B
Workgroup (AAB#): WG270547 Units: ug/L
QC Key: DOWWV2006 Lot #: STD26208

Sample ID: WG270547-02 LCS File ID: 10M64429 Run Date: 05/07/2008 11:19
Sample ID: WG270547-03 LCS2 File ID: 10M64430 Run Date: 05/07/2008 11:52

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	25.9	130	20.0	26.6	133	2.61	50 - 134	20	
Xylenes	60.0	64.8	108	60.0	65.6	109	1.29	75 - 120	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	104	105	85 - 115	PASS
1,2-Dichloroethane-d4	101	102	76 - 114	PASS
Toluene-d8	103	107	88 - 110	PASS
4-Bromofluorobenzene	101	105	86 - 115	PASS

* FAILS %REC LIMIT

FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1088305
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L08050050 Cal ID: HPMS9-02-MAY-08 Worknum: WG270445

Instrument ID: HPMS9 Contract #: Prep Method: 5030B

Parent ID: L08050050-01 File ID: 9M61649 Dil: 1 Method: 8260B

Sample ID: L08050050-02 MS File ID: 9M61650 Dil: 1 Matrix: Soil

Sample ID: L08050050-03 MSD File ID: 9M61651 Dil: 1 Units: ug/kg

Percent Solid: 83.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
1,1,1-Trichloroethane	U	18.6	20.1	108	18.9	20.5	108	2.05	68 - 130	30	
1,1,2,2-Tetrachloroethane	U	18.6	19.9	107	18.9	21.5	114	7.83	59 - 140	30	
1,1,2-Trichloroethane	U	18.6	20.6	111	18.9	22.2	118	7.76	62 - 127	30	
1,1-Dichloroethane	U	18.6	19.7	106	18.9	20.4	108	3.54	73 - 125	30	
1,1-Dichloroethene	U	18.6	20.1	108	18.9	20.8	110	3.63	65 - 136	30	
1,2,4-Trichlorobenzene	U	18.6	21.0	113	18.9	24.0	127	13.4	65 - 131	30	
1,2-Dichlorobenzene	U	18.6	21.1	113	18.9	22.7	120	7.23	74 - 120	30	
1,2-Dichloroethane	U	18.6	18.3	98.7	18.9	19.8	105	7.75	72 - 137	30	
1,2-Dichloropropane	U	18.6	19.6	106	18.9	20.6	109	4.59	71 - 120	30	
1,3-Dichlorobenzene	U	18.6	22.0	118	18.9	23.8	126	7.82	72 - 124	30	*
1,4-Dichlorobenzene	U	18.6	20.6	111	18.9	21.7	115	5.36	72 - 125	30	
1,4-Dioxane	U	186	161	86.6	189	169	89.4	4.81	50 - 150	30	
2-Butanone	U	18.6	18.9	102	18.9	20.0	106	5.46	40 - 135	30	
2-Hexanone	U	18.6	18.1	97.4	18.9	20.7	110	13.3	50 - 140	30	
4-Methyl-2-pentanone	U	18.6	17.5	94.4	18.9	19.4	103	10.2	50 - 140	30	
Acetone	U	18.6	17.3	92.9	18.9	20.0	106	14.9	40 - 141	30	
Acrylonitrile	U	18.6	17.7	95.5	18.9	19.6	104	9.74	60 - 140	30	
Benzene	U	18.6	20.1	108	18.9	21.1	112	4.66	73 - 126	30	
Bromodichloromethane	U	18.6	19.6	106	18.9	20.5	109	4.32	72 - 128	30	
Bromoform	U	18.6	20.3	109	18.9	22.1	117	8.53	60 - 137	30	
Bromomethane	U	18.6	17.6	94.6	18.9	17.9	95.1	2.12	45 - 141	30	
Carbon disulfide	U	18.6	16.7	90.0	18.9	16.9	89.4	0.875	65 - 135	30	
Carbon tetrachloride	U	18.6	18.8	101	18.9	19.3	102	2.77	67 - 133	30	
Chlorobenzene	U	18.6	20.8	112	18.9	21.7	115	3.90	75 - 123	30	
Dibromochloromethane	U	18.6	20.6	111	18.9	22.8	121	10.2	66 - 130	30	
Chloroethane	U	18.6	19.0	102	18.9	19.9	105	4.67	41 - 141	30	
Chloroform	U	18.6	19.3	104	18.9	19.8	105	2.84	72 - 124	30	
Chloromethane	U	18.6	20.6	111	18.9	21.4	114	3.92	51 - 129	30	
cis-1,2-Dichloroethene	64.6	18.6	65.9	7.03	18.9	82.6	95.5	22.5	67 - 125	30	*
cis-1,3-Dichloropropene	U	18.6	20.0	108	18.9	21.2	112	5.89	72 - 126	30	
Ethylbenzene	U	18.6	22.2	119	18.9	23.0	122	3.54	74 - 127	30	
Methylene chloride	U	18.6	18.0	97.1	18.9	18.9	99.9	4.44	63 - 137	30	
Methyltert-butyl ether	U	18.6	18.8	101	18.9	20.5	108	8.29	50 - 135	30	
Styrene	U	18.6	19.5	105	18.9	20.8	110	6.69	74 - 128	30	
Tetrachloroethene	21.6	18.6	38.3	89.6	18.9	44.8	123	15.7	67 - 139	30	
Toluene	U	18.6	21.3	115	18.9	22.2	117	4.06	71 - 127	30	
trans-1,2-Dichloroethene	U	18.6	20.2	109	18.9	20.8	110	3.12	66 - 134	30	
trans-1,3-Dichloropropene	U	18.6	19.6	105	18.9	21.4	113	9.07	65 - 127	30	
Trichloroethene	30.2	18.6	41.1	58.3	18.9	48.0	94.2	15.6	77 - 124	30	*
Vinyl acetate	U	18.6	15.6	83.7	18.9	16.9	89.6	8.35	55 - 130	30	
Vinyl chloride	U	18.6	19.8	106	18.9	21.3	113	7.17	58 - 126	30	

MS_MSD - Modified 03/06/2008

PDF File ID: 1093500

Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L08050050 Cal ID: HPMS9 02-MAY-08 Worknum: WG270445

Instrument ID: HPMS9 Contract #: Prep Method: 5030B

Parent ID: L08050050-01 File ID: 9M61649 Dil: 1 Method: 8260B

Sample ID: L08050050-02 MS File ID: 9M61650 Dil: 1 Matrix: Soil

Sample ID: L08050050-03 MSD File ID: 9M61651 Dil: 1 Units: ug/kg

Percent Solid: 83.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Xylenes	U	55.7	65.4	117	56.6	68.2	120	4.14	75 - 130	30	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 1093500

Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS10
Analyst: TMB
Workgroup: WG270161

Tune ID: WG270161-01
Run Date: 05/02/2008
Run Time: 10:07
File ID: 10M64341
Cal ID: HPMS10-02-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	20.8	9990	PASS
75.0	95.0	30.0	60.0	48.9	23496	PASS
95.0	95.0	100	100	100	48080	PASS
96.0	95.0	5.00	9.00	6.89	3314	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	76.5	36762	PASS
175	174	5.00	9.00	8.84	3249	PASS
176	174	95.0	101	95.2	34992	PASS
177	176	5.00	9.00	7.07	2475	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270161-03	STD	01	05/02/2008 12:39	
WG270161-04	STD	01	05/02/2008 13:12	
WG270161-05	STD	01	05/02/2008 13:46	
WG270161-06	STD	01	05/02/2008 14:18	
WG270161-07	STD	01	05/02/2008 14:59	
WG270161-08	STD	01	05/02/2008 15:31	
WG270161-09	STD-CCV	01	05/02/2008 16:04	
WG270161-10	STD	01	05/02/2008 16:36	
WG270161-11	STD	01	05/02/2008 17:08	
WG270161-12	STD	01	05/02/2008 17:40	
WG270161-13	SSCV	01	05/02/2008 19:18	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1096839
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS10
Analyst: tmb
Workgroup: WG270546

Tune ID: WG270546-01
Run Date: 05/07/2008
Run Time: 08:32
File ID: 10M64424
Cal ID: HPMS10-02-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	21.1	8638	PASS
75.0	95.0	30.0	60.0	49.6	20368	PASS
95.0	95.0	100	100	100	41029	PASS
96.0	95.0	5.00	9.00	6.95	2852	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	80.9	33184	PASS
175	174	5.00	9.00	7.87	2611	PASS
176	174	95.0	101	97.2	32245	PASS
177	176	5.00	9.00	6.34	2045	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270546-02	CCV	01	05/07/2008 09:32	
WG270547-01	BLANK	01	05/07/2008 10:47	
WG270547-02	LCS	01	05/07/2008 11:19	
WG270547-03	LCS2	01	05/07/2008 11:52	
L08050050-11	TB01-050108	02	05/07/2008 13:29	
WG270547-04	BLANK2	01	05/07/2008 21:05	*

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1096839
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS8
Analyst: CMS
Workgroup: WG269760

Tune ID: WG269760-01
Run Date: 04/29/2008
Run Time: 07:31
File ID: 8M344806
Cal ID: HPMS8-29-APR-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	19.8	14178	PASS
75.0	95.0	30.0	60.0	51.3	36821	PASS
95.0	95.0	100	100	100	71738	PASS
96.0	95.0	5.00	9.00	7.05	5056	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	70.2	50389	PASS
175	174	5.00	9.00	7.52	3787	PASS
176	174	95.0	101	101	50752	PASS
177	176	5.00	9.00	6.78	3441	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269760-02	STD	01	04/29/2008 10:12	
WG269760-03	STD	01	04/29/2008 10:44	
WG269760-04	STD	01	04/29/2008 11:16	
WG269760-05	STD	01	04/29/2008 11:48	
WG269760-06	STD	01	04/29/2008 12:20	
WG269760-07	STD	01	04/29/2008 12:54	
WG269760-08	STD-CCV	01	04/29/2008 13:27	
WG269760-09	STD	01	04/29/2008 13:59	
WG269760-10	STD	01	04/29/2008 14:33	
WG269760-11	STD	01	04/29/2008 15:06	
WG269760-12	SSCV	01	04/29/2008 17:28	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1096839
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS8
Analyst: CMS
Workgroup: WG270255

Tune ID: WG270255-01
Run Date: 05/03/2008
Run Time: 06:24
File ID: 8M344957
Cal ID: HPMS8-29-APR-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	23.7	8969	PASS
75.0	95.0	30.0	60.0	55.2	20914	PASS
95.0	95.0	100	100	100	37869	PASS
96.0	95.0	5.00	9.00	5.93	2244	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	71.0	26893	PASS
175	174	5.00	9.00	7.85	2111	PASS
176	174	95.0	101	95.7	25730	PASS
177	176	5.00	9.00	6.89	1773	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270255-02	CCV	01	05/03/2008 06:49	
WG270256-01	BLANK	DL01	05/03/2008 07:21	
WG270256-02	LCS	DL01	05/03/2008 07:53	
WG270256-03	LCS2	DL01	05/03/2008 08:25	
WG270256-04	REF	DL01	05/03/2008 13:49	
WG270256-05	MS	DL01	05/03/2008 14:21	
WG270256-06	MSD	DL01	05/03/2008 14:53	
L08050050-05	3023-SO01-050108	DL01	05/03/2008 15:58	
L08050050-06	3023-SO01-050108-FD	DL01	05/03/2008 16:30	
L08050050-07	3015-SO01-050108	DL01	05/03/2008 17:02	
L08050050-08	3015-SO02-050108	DL01	05/03/2008 17:35	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1096839
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS9
Analyst: TMB
Workgroup: WG270140

Tune ID: WG270140-01
Run Date: 05/02/2008
Run Time: 16:20
File ID: 9M61526
Cal ID: HPMS9-02-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	24.9	7229	PASS
75.0	95.0	30.0	60.0	54.5	15805	PASS
95.0	95.0	100	100	100	28987	PASS
96.0	95.0	5.00	9.00	6.95	2015	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	60.0	17400	PASS
175	174	5.00	9.00	7.46	1298	PASS
176	174	95.0	101	95.1	16544	PASS
177	176	5.00	9.00	6.87	1136	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270140-02	STD-S	01	05/02/2008 17:44	
WG270140-03	STD-S	01	05/02/2008 18:15	
WG270140-04	STD-S	01	05/02/2008 18:46	
WG270140-05	STD-S	01	05/02/2008 19:16	
WG270140-06	STD-S	01	05/02/2008 19:47	
WG270140-07	STD-CCV-S	01	05/02/2008 20:18	
WG270140-08	STD-S	01	05/02/2008 20:48	
WG270140-09	STD-S	01	05/02/2008 21:19	
WG270140-10	STD-S	01	05/02/2008 21:49	
WG270140-11	SSCV-S	01	05/02/2008 23:22	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1096839
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS9
Analyst: TMB
Workgroup: WG270443

Tune ID: WG270443-01
Run Date: 05/06/2008
Run Time: 09:00
File ID: 9M61644
Cal ID: HPMS9-02-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	22.8	2709	PASS
75.0	95.0	30.0	60.0	55.0	6541	PASS
95.0	95.0	100	100	100	11900	PASS
96.0	95.0	5.00	9.00	7.07	841	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	69.6	8280	PASS
175	174	5.00	9.00	5.11	423	PASS
176	174	95.0	101	95.2	7886	PASS
177	176	5.00	9.00	6.78	535	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270443-02	CCV-S	01	05/06/2008 09:25	
WG270445-01	BLANK	01	05/06/2008 09:56	
WG270445-02	LCS	01	05/06/2008 10:28	
L08050050-01	3025-SO01-050108	01	05/06/2008 11:30	
WG270445-03	REF	01	05/06/2008 11:30	
L08050050-02	3025-SO01-050108-MS	01	05/06/2008 12:01	
WG270445-04	MS	01	05/06/2008 12:01	
L08050050-03	3025-SO01-050108-MSD	01	05/06/2008 12:32	
WG270445-05	MSD	01	05/06/2008 12:32	
WG270445-06	REF	01	05/06/2008 17:10	
WG270445-07	MS	01	05/06/2008 17:41	
WG270445-08	MSD	01	05/06/2008 18:12	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1096839
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS9
Analyst: TMB
Workgroup: WG270933

Tune ID: WG270933-01
Run Date: 05/12/2008
Run Time: 11:07
File ID: 9M61795
Cal ID: HPMS9-02-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	24.0	3552	PASS
75.0	95.0	30.0	60.0	54.5	8072	PASS
95.0	95.0	100	100	100	14822	PASS
96.0	95.0	5.00	9.00	6.47	959	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	60.9	9034	PASS
175	174	5.00	9.00	8.38	757	PASS
176	174	95.0	101	95.6	8636	PASS
177	176	5.00	9.00	5.69	491	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270933-03	STD-S	01	05/12/2008 14:31	
WG270933-04	STD-S	01	05/12/2008 15:03	
WG270933-05	STD-S	01	05/12/2008 15:34	
WG270933-06	STD-S	01	05/12/2008 16:05	
WG270933-07	STD-S	01	05/12/2008 16:36	
WG270933-08	STD-CCV-S	01	05/12/2008 17:06	
WG270933-09	STD-S	01	05/12/2008 17:37	
WG270933-10	STD-S	01	05/12/2008 18:08	
WG270933-11	STD-S	01	05/12/2008 18:39	
WG270933-12	SSCV-S	01	05/12/2008 20:12	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L08050050
Instrument: HPMS9
Analyst: TMB
Workgroup: WG271082

Tune ID: WG271082-01
Run Date: 05/13/2008
Run Time: 10:33
File ID: 9M61815
Cal ID: HPMS9-12-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	24.7	7173	PASS
75.0	95.0	30.0	60.0	55.2	15995	PASS
95.0	95.0	100	100	100	28994	PASS
96.0	95.0	5.00	9.00	6.59	1910	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	62.3	18064	PASS
175	174	5.00	9.00	8.25	1490	PASS
176	174	95.0	101	98.9	17868	PASS
177	176	5.00	9.00	6.81	1217	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG271082-02	CCV-S	01	05/13/2008 10:58	
WG271083-01	BLANK	01	05/13/2008 11:41	
WG271083-02	LCS	01	05/13/2008 12:12	
WG271083-03	LCS2	01	05/13/2008 12:43	
L08050050-09	3014-SO01-050108	01	05/13/2008 20:53	
L08050050-10	3014-SO02-050108	01	05/13/2008 21:24	
L08050050-04	3025-SO02-050108	01	05/13/2008 21:55	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 02-MAY-08 17:40
ICAL Workgroup: WG270161 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.2001	9.60		
1,2-Dichloropropane	CCC	0.2296	5.04		
Chloroform	CCC	0.4398	4.98		
Ethylbenzene	CCC	0.4165	4.89		
Toluene	CCC	1.145	6.00		
Vinyl Chloride	CCC	0.2830	19.2		1.00
1,1,2,2-Tetrachloroethane	SPCC	0.3472	6.33		
1,1-Dichloroethane	SPCC	0.4612	4.53		
Bromoform	SPCC	0.1436	14.1		
Chlorobenzene	SPCC	0.8107	4.36		
Chloromethane	SPCC	0.2880	12.1		
1,1,1-Trichloroethane		0.4104	7.17		
1,1,2-Trichloroethane		0.1945	3.63		
1,2,4-Trichlorobenzene		0.6760	9.69		
1,2-Dichlorobenzene		1.055	3.36		
1,2-Dichloroethane		0.3538	2.84		
1,3-Dichlorobenzene		1.198	2.56		
1,4-Dichlorobenzene		1.259	3.15		
1,4-Dioxane		0.001000	7.28		
2-Butanone		0.04932	4.50		
2-Hexanone		0.08680	6.54		
4-Methyl-2-Pentanone		0.05045	7.13		
Acetone		0.03692	6.25		
Acrylonitrile		0.05790	4.33		
Benzene		0.8225	3.29		
Bromodichloromethane		0.2911	6.98		
Bromomethane		0.1869	4.34		
Carbon Disulfide		0.6489	4.80		
Carbon Tetrachloride		0.3407	11.8		
Chloroethane		0.1900	4.55		
Dibromochloromethane		0.2571	11.8		
Methyl Tert Butyl Ether		0.4453	4.97		
Methylene Chloride		0.2484	20.5		
Styrene		0.7562	15.8		1.00
Tetrachloroethene		0.2501	7.31		
Trichloroethene		0.2447	4.06		
Vinyl Acetate		0.2472	5.54		
cis-1,2-Dichloroethene		0.2309	9.68		
cis-1,3-Dichloropropene		0.2929	14.5		
m-,p-Xylene		0.5039	5.13		
o-Xylene		0.4585	11.3		
trans-1,2-Dichloroethene		0.2245	6.58		
trans-1,3-Dichloropropene		0.3689	12.7		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08050050
Analytical Method: 8260B
ICAL Workgroup: WG270161

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS8
Analytical Method: 8260B **Initial Calibration Date:** 29-APR-08 15:06
ICAL Workgroup: WG269760 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.3231	25.0	1.00	
1,2-Dichloropropane	CCC	0.1899	8.75		
Chloroform	CCC	0.4220	6.29		
Ethylbenzene	CCC	0.4044	14.3		
Toluene	CCC	1.107	13.0		
Vinyl Chloride	CCC	0.2007	14.3		
1,1,2,2-Tetrachloroethane	SPCC	0.3870	3.81		
1,1-Dichloroethane	SPCC	0.3901	8.79		
Bromoform	SPCC	0.1296	13.9		
Chlorobenzene	SPCC	0.7661	7.28		
Chloromethane	SPCC	0.2412	14.9		
1,1,1-Trichloroethane		0.3790	13.7		
1,1,2-Trichloroethane		0.1782	3.26		
1,2,4-Trichlorobenzene		0.7539	8.33		
1,2-Dichlorobenzene		1.046	5.42		
1,2-Dichloroethane		0.3026	5.82		
1,3-Dichlorobenzene		1.204	6.18		
1,4-Dichlorobenzene		1.264	9.83		
1,4-Dioxane		0.0009400	17.2	0.998	
2-Butanone		0.04588	4.30		
2-Hexanone		0.04582	13.5		
4-Methyl-2-Pentanone		0.03655	11.8		
Acetone		0.03395	7.59		
Acrylonitrile		0.03932	13.1		
Benzene		0.7935	9.34		
Bromodichloromethane		0.2911	7.48		
Bromomethane		0.1780	10.7		
Carbon Disulfide		0.6547	13.8		
Carbon Tetrachloride		0.3027	21.0		1.00
Chloroethane		0.1714	4.37		
Dibromochloromethane		0.2210	15.7		1.00
Methyl Tert Butyl Ether		0.4145	5.67		
Methylene Chloride		0.2325	10.1		
Styrene		0.7898	16.9		1.00
Tetrachloroethene		0.2158	17.3		1.00
Trichloroethene		0.1909	15.9		1.00
Vinyl Acetate		0.2705	9.72		
cis-1,2-Dichloroethene		0.2108	11.7		
cis-1,3-Dichloropropene		0.3011	10.7		
m-,p-Xylene		0.4954	12.9		
o-Xylene		0.4983	13.2		
trans-1,2-Dichloroethene		0.3057	14.5		
trans-1,3-Dichloropropene		0.3771	9.64		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08050050
Analytical Method: 8260B
ICAL Workgroup: WG269760

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS9
Analytical Method: 8260B **Initial Calibration Date:** 02-MAY-08 21:49
ICAL Workgroup: WG270140 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.4682	13.8		
1,2-Dichloropropane	CCC	0.2704	6.23		
Chloroform	CCC	0.5321	6.00		
Ethylbenzene	CCC	0.5317	8.79		
Toluene	CCC	1.695	4.95		
Vinyl Chloride	CCC	0.2199	12.7		
1,1,2,2-Tetrachloroethane	SPCC	0.7778	8.01		
1,1-Dichloroethane	SPCC	0.5650	5.86		
Bromoform	SPCC	0.1562	11.2		
Chlorobenzene	SPCC	0.9728	6.11		
Chloromethane	SPCC	0.2959	11.8		
1,1,1-Trichloroethane		0.4420	12.4		
1,1,2-Trichloroethane		0.2928	7.30		
1,2,4-Trichlorobenzene		0.7552	8.99		
1,2-Dichlorobenzene		1.205	6.04		
1,2-Dichloroethane		0.4351	6.47		
1,3-Dichlorobenzene		1.302	6.76		
1,4-Dichlorobenzene		1.411	11.8		
1,4-Dioxane		0.002040	12.0		
2-Butanone		0.1084	10.7		
2-Hexanone		0.2279	6.78		
4-Methyl-2-Pentanone		0.07842	7.89		
Acetone		0.1038	45.6		0.998
Acrylonitrile		0.08217	8.70		
Benzene		1.126	5.69		
Bromodichloromethane		0.3523	6.63		
Bromomethane		0.1270	11.2		
Carbon Disulfide		0.9480	10.5		
Carbon Tetrachloride		0.3521	10.3		
Chloroethane		0.1846	10.5		
Dibromochloromethane		0.2742	10.5		
Methyl Tert Butyl Ether		0.6917	12.1		
Methylene Chloride		0.2862	14.1		
Styrene		0.9522	16.7		1.00
Tetrachloroethene		0.2812	11.3		
Trichloroethene		0.2221	9.25		
Vinyl Acetate		0.3891	8.54		
cis-1,2-Dichloroethene		0.2674	7.84		
cis-1,3-Dichloropropene		0.3871	14.5		
m-,p-Xylene		0.6689	8.39		
o-Xylene		0.5782	14.3		
trans-1,2-Dichloroethene		0.2625	10.9		
trans-1,3-Dichloropropene		0.5832	13.0		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08050050
Analytical Method: 8260B
ICAL Workgroup: WG270140

Instrument ID: HPMS9
Initial Calibration Date: 02-MAY-08 21:49
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS9
Analytical Method: 8260B **Initial Calibration Date:** 12-MAY-08 18:39
ICAL Workgroup: WG270933 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.4588	7.55		
1,2-Dichloropropane	CCC	0.2608	10.7		
Chloroform	CCC	0.5162	3.59		
Ethylbenzene	CCC	0.5626	9.19		
Toluene	CCC	1.724	12.5		
Vinyl Chloride	CCC	0.1858	12.0		
1,1,2,2-Tetrachloroethane	SPCC	0.7830	4.40		
1,1-Dichloroethane	SPCC	0.5553	3.69		
Bromoform	SPCC	0.1603	13.5		
Chlorobenzene	SPCC	1.026	3.24		
Chloromethane	SPCC	0.3160	14.7		
1,1,1-Trichloroethane		0.4383	6.48		
1,1,2-Trichloroethane		0.2955	6.26		
1,2,4-Trichlorobenzene		0.8378	12.8		
1,2-Dichlorobenzene		1.288	4.20		
1,2-Dichloroethane		0.4151	5.15		
1,3-Dichlorobenzene		1.452	3.94		
1,4-Dichlorobenzene		1.533	6.37		
1,4-Dioxane		0.001683	22.2	0.997	
2-Butanone		0.1054	8.74		
2-Hexanone		0.2294	14.2		
4-Methyl-2-Pentanone		0.07657	11.7		
Acetone		0.08272	28.3	0.999	
Acrylonitrile		0.07434	13.1		
Benzene		1.089	4.81		
Bromodichloromethane		0.3374	9.35		
Bromomethane		0.1093	8.38		
Carbon Disulfide		0.9167	5.80		
Carbon Tetrachloride		0.3112	13.7		
Chloroethane		0.1761	3.81		
Dibromochloromethane		0.2826	14.3		
Methyl Tert Butyl Ether		0.6528	12.5		
Methylene Chloride		0.2741	12.4		
Styrene		1.015	17.0	1.00	
Tetrachloroethene		0.3176	6.72		
Trichloroethene		0.2225	6.49		
Vinyl Acetate		0.4854	11.1		
cis-1,2-Dichloroethene		0.2590	6.95		
cis-1,3-Dichloropropene		0.3986	15.0		
m-,p-Xylene		0.6677	10.2		
o-Xylene		0.5964	19.4	1.00	
trans-1,2-Dichloroethene		0.2562	9.35		
trans-1,3-Dichloropropene		0.6074	14.3		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L08050050
Analytical Method: 8260B
ICAL Workgroup: WG270933

Instrument ID: HPMS9
Initial Calibration Date: 12-MAY-08 18:39
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-03			WG270161-04			WG270161-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2540.00000	0.1656	1.00	7474.00000	0.1938
1,2-Dichloropropane	NA	NA	NA	0.400	3241.00000	0.2113	1.00	8256.00000	0.2141
Chloroform	0.300	5689.00000	0.4671	0.400	7147.00000	0.4659	1.00	17703.0000	0.4590
Ethylbenzene	NA	NA	NA	0.400	4459.00000	0.3721	1.00	12608.0000	0.4247
Toluene	NA	NA	NA	0.400	12011.0000	1.002	1.00	33279.0000	1.121
Vinyl Chloride	NA	NA	NA	NA	NA	NA	1.00	13928.0000	0.3611
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	2106.00000	0.3348	1.00	4880.00000	0.3101
1,1-Dichloroethane	NA	NA	NA	0.400	6623.00000	0.4317	1.00	17593.0000	0.4562
Bromoform	NA	NA	NA	NA	NA	NA	1.00	3454.00000	0.1164
Chlorobenzene	NA	NA	NA	0.400	10222.0000	0.8531	1.00	25299.0000	0.8523
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	12189.0000	0.3160
1,1,1-Trichloroethane	NA	NA	NA	0.400	5341.00000	0.3481	1.00	16565.0000	0.4295
1,1,2-Trichloroethane	NA	NA	NA	0.400	2269.00000	0.1894	1.00	5497.00000	0.1852
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	3788.00000	0.6021	1.00	9203.00000	0.5848
1,2-Dichlorobenzene	0.300	5084.00000	1.047	0.400	6552.00000	1.042	1.00	15441.0000	0.9813
1,2-Dichloroethane	NA	NA	NA	0.400	5572.00000	0.3632	1.00	13573.0000	0.3519
1,3-Dichlorobenzene	NA	NA	NA	0.400	7236.00000	1.150	1.00	19031.0000	1.209
1,4-Dichlorobenzene	0.300	6264.00000	1.290	0.400	8215.00000	1.306	1.00	20409.0000	1.297
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	12051.0000	0.7855	1.00	33157.0000	0.8597
Bromodichloromethane	NA	NA	NA	0.400	3936.00000	0.2566	1.00	11027.0000	0.2859
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	6913.00000	0.1792
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	24302.0000	0.6301
Carbon Tetrachloride	NA	NA	NA	0.400	3820.00000	0.2490	1.00	12863.0000	0.3335
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	7447.00000	0.1931
Dibromochloromethane	NA	NA	NA	0.400	2568.00000	0.2143	1.00	6694.00000	0.2255
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	1.00	16736.0000	0.4339
Methylene Chloride	NA	NA	NA	0.400	5426.00000	0.3537	1.00	11155.0000	0.2892
Styrene	NA	NA	NA	0.400	6876.00000	0.5738	1.00	17986.0000	0.6059
Tetrachloroethene	NA	NA	NA	0.400	2500.00000	0.2086	1.00	7593.00000	0.2558
Trichloroethene	NA	NA	NA	0.400	3654.00000	0.2382	1.00	8971.00000	0.2326
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	2875.00000	0.1874	1.00	8556.00000	0.2218
cis-1,3-Dichloropropene	NA	NA	NA	0.400	3618.00000	0.2358	1.00	9818.00000	0.2546
m-,p-Xylene	NA	NA	NA	0.800	10821.0000	0.4515	2.00	29251.0000	0.4927
o-Xylene	NA	NA	NA	0.400	4593.00000	0.3833	1.00	11419.0000	0.3847
trans-1,2-Dichloroethene	NA	NA	NA	0.400	3172.00000	0.2068	1.00	8690.00000	0.2253

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-06			WG270161-07			WG270161-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	14745.0000	0.1843	5.00	41122.0000	0.2059	20.0	164209.000	0.1955
1,2-Dichloropropane	2.00	18514.0000	0.2314	5.00	47280.0000	0.2367	20.0	189418.000	0.2255
Chloroform	2.00	33569.0000	0.4196	5.00	88010.0000	0.4407	20.0	336695.000	0.4009
Ethylbenzene	2.00	25688.0000	0.4131	5.00	66486.0000	0.4286	20.0	266864.000	0.4038
Toluene	2.00	69871.0000	1.124	5.00	188338.000	1.214	20.0	744605.000	1.127
Vinyl Chloride	2.00	26138.0000	0.3267	5.00	59544.0000	0.2981	20.0	206323.000	0.2457
1,1,2,2-Tetrachloroethane	2.00	10683.0000	0.3238	5.00	29535.0000	0.3612	20.0	121527.000	0.3528
1,1-Dichloroethane	2.00	36244.0000	0.4531	5.00	95304.0000	0.4772	20.0	364339.000	0.4338
Bromoform	2.00	7423.00000	0.1194	5.00	20974.0000	0.1352	20.0	98367.0000	0.1488
Chlorobenzene	2.00	51370.0000	0.8261	5.00	129823.000	0.8370	20.0	504483.000	0.7633
Chloromethane	2.00	27038.0000	0.3380	5.00	63697.0000	0.3189	20.0	224411.000	0.2672
1,1,1-Trichloroethane	2.00	31964.0000	0.3996	5.00	86766.0000	0.4344	20.0	329416.000	0.3922
1,1,2-Trichloroethane	2.00	11691.0000	0.1880	5.00	31698.0000	0.2044	20.0	126232.000	0.1910
1,2,4-Trichlorobenzene	2.00	20521.0000	0.6220	5.00	55664.0000	0.6807	20.0	239326.000	0.6947
1,2-Dichlorobenzene	2.00	36012.0000	1.092	5.00	90199.0000	1.103	20.0	362905.000	1.054
1,2-Dichloroethane	2.00	28808.0000	0.3601	5.00	73805.0000	0.3695	20.0	283862.000	0.3380
1,3-Dichlorobenzene	2.00	38952.0000	1.181	5.00	102103.000	1.249	20.0	404041.000	1.173
1,4-Dichlorobenzene	2.00	41399.0000	1.255	5.00	105962.000	1.296	20.0	418874.000	1.216
1,4-Dioxane	NA	NA	NA	100	3760.00000	0.0009000	150	6032.00000	0.001000
2-Butanone	NA	NA	NA	5.00	10358.0000	0.05190	20.0	39710.0000	0.04730
2-Hexanone	NA	NA	NA	5.00	12080.0000	0.07790	20.0	55666.0000	0.08420
4-Methyl-2-Pentanone	NA	NA	NA	5.00	8951.00000	0.04480	20.0	40747.0000	0.04850
Acetone	NA	NA	NA	5.00	8140.00000	0.04080	20.0	30092.0000	0.03580
Acrylonitrile	NA	NA	NA	5.00	11226.0000	0.05620	20.0	47377.0000	0.05640
Benzene	2.00	64711.0000	0.8089	5.00	169980.000	0.8511	20.0	662275.000	0.7886
Bromodichloromethane	2.00	21755.0000	0.2719	5.00	58601.0000	0.2934	20.0	240876.000	0.2868
Bromomethane	2.00	14652.0000	0.1832	5.00	38606.0000	0.1933	20.0	147524.000	0.1757
Carbon Disulfide	2.00	47039.0000	0.5880	5.00	134657.000	0.6742	20.0	543205.000	0.6468
Carbon Tetrachloride	2.00	27011.0000	0.3376	5.00	73050.0000	0.3657	20.0	282427.000	0.3363
Chloroethane	2.00	15732.0000	0.1967	5.00	40950.0000	0.2050	20.0	152674.000	0.1818
Dibromochloromethane	2.00	14528.0000	0.2336	5.00	39416.0000	0.2541	20.0	173313.000	0.2622
Methyl Tert Butyl Ether	2.00	33005.0000	0.4126	5.00	86024.0000	0.4307	20.0	368021.000	0.4382
Methylene Chloride	2.00	20304.0000	0.2538	5.00	48289.0000	0.2418	20.0	178203.000	0.2122
Styrene	2.00	43027.0000	0.6920	5.00	120237.000	0.7752	20.0	526271.000	0.7963
Tetrachloroethene	2.00	16192.0000	0.2604	5.00	41753.0000	0.2692	20.0	160685.000	0.2431
Trichloroethene	2.00	18980.0000	0.2373	5.00	51731.0000	0.2590	20.0	197691.000	0.2354
Vinyl Acetate	NA	NA	NA	5.00	44759.0000	0.2241	20.0	207247.000	0.2468
cis-1,2-Dichloroethene	2.00	17622.0000	0.2203	5.00	47167.0000	0.2362	20.0	189894.000	0.2261
cis-1,3-Dichloropropene	2.00	19409.0000	0.2426	5.00	60095.0000	0.3009	20.0	256286.000	0.3052
m-,p-Xylene	4.00	61918.0000	0.4979	10.0	163096.000	0.5257	40.0	651067.000	0.4925
o-Xylene	2.00	27193.0000	0.4373	5.00	74287.0000	0.4789	20.0	308476.000	0.4667
trans-1,2-Dichloroethene	2.00	16946.0000	0.2118	5.00	45418.0000	0.2274	20.0	175003.000	0.2084

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-09			WG270161-10			WG270161-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	460539.000	0.2155	100	977669.000	0.2204	200	1927388.00	0.2200
1,2-Dichloropropane	50.0	504416.000	0.2361	100	1061843.00	0.2394	200	2119909.00	0.2419
Chloroform	50.0	916545.000	0.4289	100	1941398.00	0.4377	200	3843394.00	0.4386
Ethylbenzene	50.0	713744.000	0.4270	100	1465854.00	0.4307	200	2881262.00	0.4321
Toluene	50.0	1981438.00	1.185	100	4058095.00	1.192	200	7984055.00	1.197
Vinyl Chloride	50.0	520158.000	0.2434	100	988246.000	0.2228	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	332902.000	0.3746	100	633902.000	0.3609	200	1233101.00	0.3590
1,1-Dichloroethane	50.0	1004202.00	0.4699	100	2147101.00	0.4841	200	4235681.00	0.4834
Bromoform	50.0	278218.000	0.1664	100	546362.000	0.1605	200	1057107.00	0.1585
Chlorobenzene	50.0	1318779.00	0.7889	100	2664491.00	0.7828	200	5216542.00	0.7823
Chloromethane	50.0	564616.000	0.2642	100	1150322.00	0.2593	200	2212145.00	0.2525
1,1,1-Trichloroethane	50.0	903285.000	0.4227	100	1898030.00	0.4279	200	3756932.00	0.4288
1,1,2-Trichloroethane	50.0	338438.000	0.2025	100	670577.000	0.1970	200	1321782.00	0.1982
1,2,4-Trichlorobenzene	50.0	653476.000	0.7354	100	1322584.00	0.7531	200	2525075.00	0.7351
1,2-Dichlorobenzene	50.0	952562.000	1.072	100	1878467.00	1.070	200	3571712.00	1.040
1,2-Dichloroethane	50.0	752907.000	0.3523	100	1549785.00	0.3494	200	3033360.00	0.3462
1,3-Dichlorobenzene	50.0	1074174.00	1.209	100	2146053.00	1.222	200	4104643.00	1.195
1,4-Dichlorobenzene	50.0	1092455.00	1.229	100	2174026.00	1.238	200	4123897.00	1.201
1,4-Dioxane	200	8781.00000	0.001000	400	18065.0000	0.001000	NA	NA	NA
2-Butanone	50.0	108352.000	0.05070	100	213972.000	0.04820	200	408416.000	0.04660
2-Hexanone	50.0	156939.000	0.09390	100	300339.000	0.08820	200	568559.000	0.08530
4-Methyl-2-Pentanone	50.0	116514.000	0.05450	100	229866.000	0.05180	200	433626.000	0.04950
Acetone	50.0	81029.0000	0.03790	100	163810.000	0.03690	200	317233.000	0.03620
Acrylonitrile	50.0	130474.000	0.06110	100	263699.000	0.05950	200	521900.000	0.05960
Benzene	50.0	1754951.00	0.8213	100	3694640.00	0.8330	200	7291230.00	0.8321
Bromodichloromethane	50.0	656577.000	0.3073	100	1386075.00	0.3125	200	2757879.00	0.3147
Bromomethane	50.0	397795.000	0.1862	100	857417.000	0.1933	200	1730703.00	0.1975
Carbon Disulfide	50.0	1419530.00	0.6643	100	2988279.00	0.6737	200	5827612.00	0.6651
Carbon Tetrachloride	50.0	774890.000	0.3626	100	1627305.00	0.3669	200	3276213.00	0.3739
Chloroethane	50.0	399392.000	0.1869	100	813413.000	0.1834	200	1604217.00	0.1831
Dibromochloromethane	50.0	485034.000	0.2902	100	982550.000	0.2887	200	1920309.00	0.2880
Methyl Tert Butyl Ether	50.0	1003096.00	0.4694	100	2083575.00	0.4697	200	4051912.00	0.4624
Methylene Chloride	50.0	459111.000	0.2149	100	930100.000	0.2097	200	1855176.00	0.2117
Styrene	50.0	1436136.00	0.8591	100	2962482.00	0.8703	200	5847973.00	0.8769
Tetrachloroethene	50.0	429014.000	0.2566	100	869098.000	0.2553	200	1678154.00	0.2517
Trichloroethene	50.0	534160.000	0.2500	100	1120483.00	0.2526	200	2214101.00	0.2527
Vinyl Acetate	50.0	551146.000	0.2579	100	1138870.00	0.2568	200	2195427.00	0.2506
cis-1,2-Dichloroethene	50.0	524736.000	0.2456	100	1122489.00	0.2531	200	2247059.00	0.2564
cis-1,3-Dichloropropene	50.0	711090.000	0.3328	100	1486279.00	0.3351	200	2943865.00	0.3360
m-,p-Xylene	100	1749861.00	0.5234	200	3577659.00	0.5255	400	6956094.00	0.5216
o-Xylene	50.0	836853.000	0.5006	100	1726213.00	0.5071	200	3398336.00	0.5096
trans-1,2-Dichloroethene	50.0	487597.000	0.2282	100	1073907.00	0.2421	200	2154714.00	0.2459

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INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-12		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	30836.0000	0.001100
2-Butanone	300	699739.000	0.05120
2-Hexanone	300	957548.000	0.09130
4-Methyl-2-Pentanone	300	731702.000	0.05360
Acetone	300	462768.000	0.03390
Acrylonitrile	300	745325.000	0.05460
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

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Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-03			WG270161-04			WG270161-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	8627.00000	0.2906

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-06			WG270161-07			WG270161-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	19822.0000	0.3188	5.00	57380.0000	0.3699	20.0	251135.000	0.3800

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-09			WG270161-10			WG270161-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	679055.000	0.4062	100	1388192.00	0.4078	200	2726301.00	0.4088

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS10
Initial Calibration Date: 02-MAY-08 17:40
Column ID: F

Analyte	WG270161-12		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-02			WG269760-03			WG269760-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2618.00000	0.1934	1.00	6843.00000	0.2062
1,2-Dichloropropane	NA	NA	NA	0.400	2182.00000	0.1612	1.00	5563.00000	0.1676
Chloroform	0.300	4809.00000	0.4510	0.400	5475.00000	0.4045	1.00	12498.0000	0.3766
Ethylbenzene	0.300	3344.00000	0.4288	0.400	3170.00000	0.3165	1.00	7637.00000	0.3117
Toluene	NA	NA	NA	0.400	9223.00000	0.9208	1.00	21952.0000	0.8959
Vinyl Chloride	NA	NA	NA	NA	NA	NA	1.00	8073.00000	0.2433
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1913.00000	0.3701	1.00	5134.00000	0.3960
1,1-Dichloroethane	NA	NA	NA	0.400	4837.00000	0.3573	1.00	10821.0000	0.3261
Bromoform	NA	NA	NA	NA	NA	NA	1.00	2545.00000	0.1039
Chlorobenzene	NA	NA	NA	0.400	7631.00000	0.7619	1.00	18061.0000	0.7371
Chloromethane	NA	NA	NA	0.400	4060.00000	0.2999	1.00	9291.00000	0.2800
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	1.00	9053.00000	0.2728
1,1,2-Trichloroethane	NA	NA	NA	0.400	1725.00000	0.1722	1.00	4346.00000	0.1774
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	3416.00000	0.6609	1.00	8921.00000	0.6881
1,2-Dichlorobenzene	0.300	4352.00000	1.086	0.400	5299.00000	1.025	1.00	12462.0000	0.9612
1,2-Dichloroethane	NA	NA	NA	0.400	4010.00000	0.2962	1.00	10320.0000	0.3110
1,3-Dichlorobenzene	NA	NA	NA	0.400	6239.00000	1.207	1.00	14297.0000	1.103
1,4-Dichlorobenzene	0.300	6107.00000	1.524	0.400	6688.00000	1.294	1.00	15288.0000	1.179
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	9413.00000	0.6954	1.00	22956.0000	0.6918
Bromodichloromethane	NA	NA	NA	0.400	3410.00000	0.2519	1.00	8907.00000	0.2684
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	5244.00000	0.1580
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	18050.0000	0.5439
Carbon Tetrachloride	NA	NA	NA	0.400	2730.00000	0.2017	1.00	6987.00000	0.2105
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	5757.00000	0.1735
Dibromochloromethane	NA	NA	NA	0.400	1577.00000	0.1574	1.00	4505.00000	0.1839
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	1.00	13125.0000	0.3955
Methylene Chloride	NA	NA	NA	NA	NA	NA	1.00	9117.00000	0.2747
Styrene	NA	NA	NA	0.400	5847.00000	0.5838	1.00	15005.0000	0.6124
Tetrachloroethene	NA	NA	NA	0.400	1566.00000	0.1563	1.00	3938.00000	0.1607
Trichloroethene	NA	NA	NA	0.400	1986.00000	0.1467	1.00	4721.00000	0.1423
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	2345.00000	0.1732	1.00	5744.00000	0.1731
cis-1,3-Dichloropropene	NA	NA	NA	0.400	3505.00000	0.2589	1.00	8536.00000	0.2572
m-,p-Xylene	NA	NA	NA	0.800	8613.00000	0.4300	2.00	19616.0000	0.4003
o-Xylene	NA	NA	NA	NA	NA	NA	1.00	9098.00000	0.3713
trans-1,2-Dichloroethene	NA	NA	NA	0.400	3271.00000	0.2416	1.00	7793.00000	0.2348

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-05			WG269760-06			WG269760-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	25680.0000	0.3628	5.00	51190.0000	0.3037	20.0	247962.000	0.3595
1,2-Dichloropropane	2.00	13933.0000	0.1968	5.00	32177.0000	0.1909	20.0	137990.000	0.2001
Chloroform	2.00	31592.0000	0.4463	5.00	69294.0000	0.4111	20.0	307131.000	0.4453
Ethylbenzene	2.00	23125.0000	0.4552	5.00	50746.0000	0.4110	20.0	233733.000	0.4589
Toluene	2.00	62503.0000	1.230	5.00	141252.000	1.144	20.0	636666.000	1.250
Vinyl Chloride	2.00	15038.0000	0.2124	5.00	34483.0000	0.2046	20.0	138795.000	0.2012
1,1,2,2-Tetrachloroethane	2.00	10760.0000	0.4033	5.00	24016.0000	0.3693	20.0	103471.000	0.3822
1,1-Dichloroethane	2.00	29639.0000	0.4187	5.00	63704.0000	0.3780	20.0	287843.000	0.4173
Bromoform	2.00	5803.00000	0.1142	5.00	14406.0000	0.1167	20.0	69307.0000	0.1361
Chlorobenzene	2.00	42766.0000	0.8417	5.00	95361.0000	0.7724	20.0	413256.000	0.8114
Chloromethane	2.00	18493.0000	0.2613	5.00	40159.0000	0.2383	20.0	156528.000	0.2269
1,1,1-Trichloroethane	2.00	29299.0000	0.4139	5.00	60708.0000	0.3602	20.0	282068.000	0.4090
1,1,2-Trichloroethane	2.00	9352.00000	0.1841	5.00	21628.0000	0.1752	20.0	92450.0000	0.1815
1,2,4-Trichlorobenzene	2.00	19807.0000	0.7424	5.00	48878.0000	0.7516	20.0	222893.000	0.8232
1,2-Dichlorobenzene	2.00	28182.0000	1.056	5.00	68538.0000	1.054	20.0	301526.000	1.114
1,2-Dichloroethane	2.00	23166.0000	0.3273	5.00	52553.0000	0.3118	20.0	213924.000	0.3102
1,3-Dichlorobenzene	2.00	33639.0000	1.261	5.00	80002.0000	1.230	20.0	346183.000	1.279
1,4-Dichlorobenzene	2.00	35100.0000	1.316	5.00	81028.0000	1.246	20.0	350593.000	1.295
1,4-Dioxane	NA	NA	NA	100	2268.00000	0.0007000	150	4404.00000	0.0009000
2-Butanone	NA	NA	NA	5.00	7461.00000	0.04430	20.0	30329.0000	0.04400
2-Hexanone	NA	NA	NA	5.00	4464.00000	0.03620	20.0	20942.0000	0.04110
4-Methyl-2-Pentanone	NA	NA	NA	5.00	4941.00000	0.02930	20.0	23619.0000	0.03420
Acetone	NA	NA	NA	5.00	6020.00000	0.03570	20.0	23004.0000	0.03340
Acrylonitrile	NA	NA	NA	5.00	5375.00000	0.03190	20.0	24643.0000	0.03570
Benzene	2.00	61362.0000	0.8669	5.00	135497.000	0.8039	20.0	594499.000	0.8619
Bromodichloromethane	2.00	21207.0000	0.2996	5.00	48069.0000	0.2852	20.0	211427.000	0.3065
Bromomethane	2.00	12982.0000	0.1834	5.00	25613.0000	0.1520	20.0	117994.000	0.1711
Carbon Disulfide	2.00	46165.0000	0.6522	5.00	87137.0000	0.5170	20.0	475826.000	0.6899
Carbon Tetrachloride	2.00	24760.0000	0.3498	5.00	48577.0000	0.2882	20.0	238757.000	0.3462
Chloroethane	2.00	11304.0000	0.1597	5.00	28263.0000	0.1677	20.0	122631.000	0.1778
Dibromochloromethane	2.00	11007.0000	0.2166	5.00	27385.0000	0.2218	20.0	122005.000	0.2396
Methyl Tert Butyl Ether	2.00	28223.0000	0.3987	5.00	65342.0000	0.3877	20.0	292482.000	0.4241
Methylene Chloride	2.00	18062.0000	0.2552	5.00	37575.0000	0.2229	20.0	154372.000	0.2238
Styrene	2.00	39424.0000	0.7760	5.00	103169.000	0.8356	20.0	471042.000	0.9249
Tetrachloroethene	2.00	12106.0000	0.2383	5.00	26591.0000	0.2154	20.0	123493.000	0.2425
Trichloroethene	2.00	14554.0000	0.2056	5.00	31492.0000	0.1869	20.0	143472.000	0.2080
Vinyl Acetate	2.00	17129.0000	0.2420	5.00	40016.0000	0.2374	20.0	193625.000	0.2807
cis-1,2-Dichloroethene	2.00	15748.0000	0.2225	5.00	34875.0000	0.2069	20.0	157226.000	0.2280
cis-1,3-Dichloropropene	2.00	20314.0000	0.2870	5.00	49238.0000	0.2921	20.0	223695.000	0.3243
m-,p-Xylene	4.00	54847.0000	0.5398	10.0	126273.000	0.5114	40.0	576696.000	0.5662
o-Xylene	2.00	24908.0000	0.4903	5.00	60729.0000	0.4919	20.0	284722.000	0.5591
trans-1,2-Dichloroethene	2.00	23607.0000	0.3335	5.00	50067.0000	0.2971	20.0	232471.000	0.3371

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-08			WG269760-09			WG269760-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	718201.000	0.3874	100	1617635.00	0.3886	200	3282581.00	0.3830
1,2-Dichloropropane	50.0	381162.000	0.2056	100	850064.000	0.2042	200	1651183.00	0.1927
Chloroform	50.0	820071.000	0.4424	100	1775318.00	0.4264	200	3383309.00	0.3948
Ethylbenzene	50.0	634414.000	0.4587	100	1296474.00	0.4237	200	2442706.00	0.3751
Toluene	50.0	1715449.00	1.240	100	3550216.00	1.160	200	6622352.00	1.017
Vinyl Chloride	50.0	345497.000	0.1864	100	651175.000	0.1564	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	283970.000	0.3852	100	663405.000	0.4094	200	1272502.00	0.3803
1,1-Dichloroethane	50.0	779064.000	0.4202	100	1710386.00	0.4108	200	3364503.00	0.3926
Bromoform	50.0	200091.000	0.1447	100	466047.000	0.1523	200	908659.000	0.1395
Chlorobenzene	50.0	1103069.00	0.7975	100	2294404.00	0.7499	200	4280235.00	0.6572
Chloromethane	50.0	397497.000	0.2144	100	829626.000	0.1993	200	1795930.00	0.2095
1,1,1-Trichloroethane	50.0	781143.000	0.4214	100	1681680.00	0.4039	200	3187638.00	0.3719
1,1,2-Trichloroethane	50.0	248708.000	0.1798	100	569581.000	0.1862	200	1102543.00	0.1693
1,2,4-Trichlorobenzene	50.0	611662.000	0.8296	100	1312598.00	0.8100	200	2427267.00	0.7254
1,2-Dichlorobenzene	50.0	810083.000	1.099	100	1725375.00	1.065	200	3189470.00	0.9532
1,2-Dichloroethane	50.0	557614.000	0.3008	100	1234620.00	0.2966	200	2288422.00	0.2670
1,3-Dichlorobenzene	50.0	935289.000	1.269	100	1948880.00	1.203	200	3621294.00	1.082
1,4-Dichlorobenzene	50.0	932726.000	1.265	100	1933586.00	1.193	200	3569506.00	1.067
1,4-Dioxane	200	7095.00000	0.001000	400	17759.0000	0.001100	NA	NA	NA
2-Butanone	50.0	84264.0000	0.04550	100	205761.000	0.04940	200	398440.000	0.04650
2-Hexanone	50.0	64911.0000	0.04690	100	163545.000	0.05350	200	316765.000	0.04860
4-Methyl-2-Pentanone	50.0	70203.0000	0.03790	100	174064.000	0.04180	200	335234.000	0.03910
Acetone	50.0	61732.0000	0.03330	100	154429.000	0.03710	200	296439.000	0.03460
Acrylonitrile	50.0	75510.0000	0.04070	100	189559.000	0.04550	200	378173.000	0.04410
Benzene	50.0	1596450.00	0.8612	100	3436296.00	0.8254	200	6355691.00	0.7416
Bromodichloromethane	50.0	581652.000	0.3138	100	1295750.00	0.3112	200	2500564.00	0.2918
Bromomethane	50.0	340673.000	0.1838	100	861032.000	0.2068	200	1638382.00	0.1912
Carbon Disulfide	50.0	1377827.00	0.7432	100	3075140.00	0.7387	200	5985319.00	0.6983
Carbon Tetrachloride	50.0	669146.000	0.3610	100	1415922.00	0.3401	200	2775009.00	0.3238
Chloroethane	50.0	329956.000	0.1780	100	742738.000	0.1784	200	1410146.00	0.1645
Dibromochloromethane	50.0	347512.000	0.2512	100	792740.000	0.2591	200	1551369.00	0.2382
Methyl Tert Butyl Ether	50.0	791289.000	0.4268	100	1899257.00	0.4562	200	3536232.00	0.4126
Methylene Chloride	50.0	413785.000	0.2232	100	915206.000	0.2198	200	1784139.00	0.2082
Styrene	50.0	1292634.00	0.9345	100	2697470.00	0.8816	200	5011961.00	0.7696
Tetrachloroethene	50.0	348276.000	0.2518	100	740976.000	0.2422	200	1427653.00	0.2192
Trichloroethene	50.0	406903.000	0.2195	100	898116.000	0.2157	200	1737298.00	0.2027
Vinyl Acetate	50.0	535250.000	0.2887	100	1264933.00	0.3038	200	2319239.00	0.2706
cis-1,2-Dichloroethene	50.0	433310.000	0.2337	100	965294.000	0.2319	200	1857159.00	0.2167
cis-1,3-Dichloropropene	50.0	619455.000	0.3341	100	1406239.00	0.3378	200	2718642.00	0.3172
m-,p-Xylene	100	1560357.00	0.5640	200	3129091.00	0.5114	400	5729697.00	0.4399
o-Xylene	50.0	781709.000	0.5651	100	1625144.00	0.5312	200	3119068.00	0.4789
trans-1,2-Dichloroethene	50.0	643050.000	0.3469	100	1408602.00	0.3384	200	2708016.00	0.3160

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	27062.0000	0.001000
2-Butanone	300	604431.000	0.04560
2-Hexanone	300	464658.000	0.04860
4-Methyl-2-Pentanone	300	490864.000	0.03700
Acetone	300	392070.000	0.02960
Acrylonitrile	300	503200.000	0.03800
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-02			WG269760-03			WG269760-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	0.400	3207.00000	0.3202	1.00	8087.00000	0.3300

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-05			WG269760-06			WG269760-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	19147.0000	0.3769	5.00	46150.0000	0.3738	20.0	205045.000	0.4026

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-08			WG269760-09			WG269760-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	568649.000	0.4111	100	1289378.00	0.4214	200	2479151.00	0.3807

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 29-APR-08 15:06
Column ID: F

Analyte	WG269760-11		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-MAY-08 21:49
Column ID: F

Analyte	WG270140-02			WG270140-03			WG270140-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	1.00	6253.00000	0.4086	2.00	11196.0000	0.3782
1,2-Dichloropropane	NA	NA	NA	1.00	3889.00000	0.2541	2.00	7627.00000	0.2576
Chloroform	NA	NA	NA	1.00	8281.00000	0.5411	2.00	14874.0000	0.5025
Ethylbenzene	NA	NA	NA	1.00	4761.00000	0.4851	2.00	9164.00000	0.4849
Toluene	NA	NA	NA	1.00	15964.0000	1.627	2.00	30679.0000	1.624
Vinyl Chloride	NA	NA	NA	1.00	3514.00000	0.2296	2.00	7503.00000	0.2535
1,1,2,2-Tetrachloroethane	NA	NA	NA	1.00	3635.00000	0.7966	2.00	7044.00000	0.7909
1,1-Dichloroethane	NA	NA	NA	1.00	8633.00000	0.5641	2.00	15718.0000	0.5310
Bromoform	NA	NA	NA	NA	NA	NA	2.00	2453.00000	0.1298
Chlorobenzene	NA	NA	NA	1.00	10073.0000	1.026	2.00	18433.0000	0.9754
Chloromethane	NA	NA	NA	1.00	4859.00000	0.3175	2.00	10168.0000	0.3435
1,1,1-Trichloroethane	NA	NA	NA	1.00	5904.00000	0.3858	2.00	10978.0000	0.3708
1,1,2-Trichloroethane	NA	NA	NA	1.00	2936.00000	0.2992	2.00	5626.00000	0.2977
1,2,4-Trichlorobenzene	NA	NA	NA	1.00	3146.00000	0.6894	2.00	6015.00000	0.6753
1,2-Dichlorobenzene	NA	NA	NA	1.00	5828.00000	1.277	2.00	10686.0000	1.200
1,2-Dichloroethane	NA	NA	NA	1.00	7040.00000	0.4600	2.00	12855.0000	0.4342
1,3-Dichlorobenzene	NA	NA	NA	1.00	5630.00000	1.234	2.00	11227.0000	1.261
1,4-Dichlorobenzene	NA	NA	NA	1.00	7757.00000	1.700	2.00	13107.0000	1.472
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	2.00	5834.00000	0.1971
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	1.00	17427.0000	1.139	2.00	32016.0000	1.082
Bromodichloromethane	NA	NA	NA	1.00	5172.00000	0.3379	2.00	9922.00000	0.3352
Bromomethane	NA	NA	NA	1.00	2274.00000	0.1486	2.00	4137.00000	0.1397
Carbon Disulfide	NA	NA	NA	1.00	16059.0000	1.049	2.00	27243.0000	0.9203
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	1.00	2541.00000	0.1660	2.00	6035.00000	0.2039
Dibromochloromethane	NA	NA	NA	1.00	2368.00000	0.2413	2.00	4535.00000	0.2400
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	2.00	16454.0000	0.5558
Methylene Chloride	NA	NA	NA	NA	NA	NA	2.00	10458.0000	0.3533
Styrene	NA	NA	NA	NA	NA	NA	2.00	13153.0000	0.6960
Tetrachloroethene	NA	NA	NA	1.00	2357.00000	0.2402	2.00	4761.00000	0.2519
Trichloroethene	NA	NA	NA	1.00	3036.00000	0.1984	2.00	6001.00000	0.2027
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	1.00	3607.00000	0.2357	2.00	7657.00000	0.2587
cis-1,3-Dichloropropene	NA	NA	NA	1.00	4920.00000	0.3215	2.00	9371.00000	0.3166
m-,p-Xylene	1.00	7263.00000	0.7550	2.00	13114.0000	0.6682	4.00	22261.0000	0.5890
o-Xylene	NA	NA	NA	1.00	4762.00000	0.4852	2.00	8858.00000	0.4687
trans-1,2-Dichloroethene	NA	NA	NA	1.00	3414.00000	0.2231	2.00	6885.00000	0.2326

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 02-MAY-08 21:49

Column ID: F

Analyte	WG270140-05			WG270140-06			WG270140-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	5.00	31742.0000	0.4237	20.0	164253.000	0.5318	50.0	416715.000	0.5457
1,2-Dichloropropane	5.00	19603.0000	0.2617	20.0	90605.0000	0.2934	50.0	224821.000	0.2944
Chloroform	5.00	38833.0000	0.5184	20.0	178794.000	0.5789	50.0	434129.000	0.5685
Ethylbenzene	5.00	24309.0000	0.5002	20.0	119797.000	0.5927	50.0	291025.000	0.5929
Toluene	5.00	80144.0000	1.649	20.0	363289.000	1.797	50.0	895600.000	1.825
Vinyl Chloride	5.00	16855.0000	0.2250	20.0	69880.0000	0.2263	50.0	164774.000	0.2158
1,1,2,2-Tetrachloroethane	5.00	18886.0000	0.8355	20.0	80750.0000	0.8409	50.0	186109.000	0.7963
1,1-Dichloroethane	5.00	41175.0000	0.5496	20.0	188545.000	0.6105	50.0	465243.000	0.6092
Bromoform	5.00	7023.00000	0.1445	20.0	34701.0000	0.1717	50.0	86729.0000	0.1767
Chlorobenzene	5.00	47546.0000	0.9783	20.0	207472.000	1.027	50.0	498715.000	1.016
Chloromethane	5.00	22841.0000	0.3049	20.0	94843.0000	0.3071	50.0	229345.000	0.3003
1,1,1-Trichloroethane	5.00	30928.0000	0.4129	20.0	156735.000	0.5075	50.0	387474.000	0.5074
1,1,2-Trichloroethane	5.00	15278.0000	0.3144	20.0	61853.0000	0.3060	50.0	150204.000	0.3060
1,2,4-Trichlorobenzene	5.00	15803.0000	0.6991	20.0	79414.0000	0.8270	50.0	196454.000	0.8406
1,2-Dichlorobenzene	5.00	26546.0000	1.174	20.0	122881.000	1.280	50.0	295755.000	1.265
1,2-Dichloroethane	5.00	33161.0000	0.4427	20.0	142639.000	0.4618	50.0	344422.000	0.4510
1,3-Dichlorobenzene	5.00	29977.0000	1.326	20.0	136743.000	1.424	50.0	330165.000	1.413
1,4-Dichlorobenzene	5.00	31436.0000	1.391	20.0	140821.000	1.467	50.0	329991.000	1.412
1,4-Dioxane	100	2565.00000	0.001700	150	4476.00000	0.001900	200	6990.00000	0.002300
2-Butanone	5.00	9407.00000	0.1256	20.0	33928.0000	0.1099	50.0	89445.0000	0.1171
2-Hexanone	5.00	10221.0000	0.2103	20.0	46652.0000	0.2308	50.0	124371.000	0.2534
4-Methyl-2-Pentanone	5.00	5342.00000	0.07130	20.0	25447.0000	0.08240	50.0	66946.0000	0.08770
Acetone	5.00	10252.0000	0.1369	20.0	28723.0000	0.09300	50.0	64869.0000	0.08490
Acrylonitrile	5.00	5611.00000	0.07490	20.0	26053.0000	0.08440	50.0	70611.0000	0.09250
Benzene	5.00	84872.0000	1.133	20.0	374742.000	1.213	50.0	911871.000	1.194
Bromodichloromethane	5.00	24953.0000	0.3331	20.0	117569.000	0.3807	50.0	297270.000	0.3893
Bromomethane	5.00	9390.00000	0.1253	20.0	38832.0000	0.1257	50.0	99120.0000	0.1298
Carbon Disulfide	5.00	58547.0000	0.7815	20.0	312364.000	1.011	50.0	809646.000	1.060
Carbon Tetrachloride	5.00	21803.0000	0.2911	20.0	115396.000	0.3736	50.0	293654.000	0.3845
Chloroethane	5.00	14238.0000	0.1901	20.0	61428.0000	0.1989	50.0	155222.000	0.2033
Dibromochloromethane	5.00	12703.0000	0.2614	20.0	60743.0000	0.3005	50.0	155289.000	0.3164
Methyl Tert Butyl Ether	5.00	48228.0000	0.6438	20.0	229151.000	0.7420	50.0	608987.000	0.7975
Methylene Chloride	5.00	22745.0000	0.3036	20.0	88617.0000	0.2869	50.0	214912.000	0.2814
Styrene	5.00	40126.0000	0.8257	20.0	214908.000	1.063	50.0	545110.000	1.111
Tetrachloroethene	5.00	12375.0000	0.2546	20.0	63643.0000	0.3149	50.0	155398.000	0.3166
Trichloroethene	5.00	15785.0000	0.2107	20.0	76603.0000	0.2480	50.0	190354.000	0.2493
Vinyl Acetate	5.00	26382.0000	0.3522	20.0	130230.000	0.4217	50.0	331836.000	0.4345
cis-1,2-Dichloroethene	5.00	19387.0000	0.2588	20.0	89945.0000	0.2912	50.0	226241.000	0.2963
cis-1,3-Dichloropropene	5.00	26732.0000	0.3568	20.0	135977.000	0.4403	50.0	348434.000	0.4563
m-,p-Xylene	10.0	61975.0000	0.6376	40.0	288680.000	0.7142	100	702711.000	0.7158
o-Xylene	5.00	25933.0000	0.5336	20.0	131644.000	0.6513	50.0	332379.000	0.6772
trans-1,2-Dichloroethene	5.00	18824.0000	0.2513	20.0	91542.0000	0.2964	50.0	225054.000	0.2947

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-MAY-08 21:49
Column ID: F

Analyte	WG270140-08			WG270140-09			WG270140-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	100	769099.000	0.5031	200	1498515.00	0.4861	NA	NA	NA
1,2-Dichloropropane	100	414485.000	0.2711	200	803216.000	0.2606	NA	NA	NA
Chloroform	100	793491.000	0.5190	200	1530123.00	0.4964	NA	NA	NA
Ethylbenzene	100	526469.000	0.5451	200	994270.000	0.5209	NA	NA	NA
Toluene	100	1643292.00	1.701	200	3130651.00	1.640	NA	NA	NA
Vinyl Chloride	100	258517.000	0.1691	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	100	332849.000	0.7078	200	631799.000	0.6767	NA	NA	NA
1,1-Dichloroethane	100	854879.000	0.5592	200	1638001.00	0.5314	NA	NA	NA
Bromoform	100	155893.000	0.1614	200	292115.000	0.1530	NA	NA	NA
Chlorobenzene	100	883924.000	0.9152	200	1664139.00	0.8718	NA	NA	NA
Chloromethane	100	378410.000	0.2475	200	772904.000	0.2507	NA	NA	NA
1,1,1-Trichloroethane	100	709407.000	0.4640	200	1372692.00	0.4453	NA	NA	NA
1,1,2-Trichloroethane	100	261845.000	0.2711	200	487609.000	0.2555	NA	NA	NA
1,2,4-Trichlorobenzene	100	371798.000	0.7907	200	713578.000	0.7643	NA	NA	NA
1,2-Dichlorobenzene	100	536279.000	1.140	200	1021994.00	1.095	NA	NA	NA
1,2-Dichloroethane	100	629440.000	0.4117	200	1185250.00	0.3845	NA	NA	NA
1,3-Dichlorobenzene	100	591676.000	1.258	200	1119793.00	1.199	NA	NA	NA
1,4-Dichlorobenzene	100	586311.000	1.247	200	1108918.00	1.188	NA	NA	NA
1,4-Dioxane	400	13875.0000	0.002300	NA	NA	NA	600	18353.0000	0.002000
2-Butanone	100	157382.000	0.1029	200	289143.000	0.09380	300	471123.000	0.1010
2-Hexanone	100	227188.000	0.2352	200	418522.000	0.2193	300	624857.000	0.2181
4-Methyl-2-Pentanone	100	122681.000	0.08020	200	224867.000	0.07300	300	354200.000	0.07590
Acetone	100	118126.000	0.07730	200	208197.000	0.06750	300	325251.000	0.06970
Acrylonitrile	100	133035.000	0.08700	200	246645.000	0.08000	300	346083.000	0.07420
Benzene	100	1666052.00	1.090	200	3180531.00	1.032	NA	NA	NA
Bromodichloromethane	100	539243.000	0.3527	200	1038585.00	0.3369	NA	NA	NA
Bromomethane	100	167314.000	0.1094	200	341165.000	0.1107	NA	NA	NA
Carbon Disulfide	100	1409996.00	0.9223	200	2746149.00	0.8909	NA	NA	NA
Carbon Tetrachloride	100	548627.000	0.3589	200	1086679.00	0.3525	NA	NA	NA
Chloroethane	100	266429.000	0.1743	200	479297.000	0.1555	NA	NA	NA
Dibromochloromethane	100	274602.000	0.2843	200	525761.000	0.2754	NA	NA	NA
Methyl Tert Butyl Ether	100	1098876.00	0.7188	200	2133536.00	0.6922	NA	NA	NA
Methylene Chloride	100	386550.000	0.2528	200	736816.000	0.2390	NA	NA	NA
Styrene	100	996092.000	1.031	200	1882302.00	0.9861	NA	NA	NA
Tetrachloroethene	100	290104.000	0.3004	200	553506.000	0.2900	NA	NA	NA
Trichloroethene	100	348588.000	0.2280	200	670564.000	0.2175	NA	NA	NA
Vinyl Acetate	100	600527.000	0.3928	200	1130778.00	0.3668	300	1708673.00	0.3663
cis-1,2-Dichloroethene	100	414957.000	0.2714	200	800320.000	0.2596	NA	NA	NA
cis-1,3-Dichloropropene	100	641043.000	0.4193	200	1228755.00	0.3986	NA	NA	NA
m-,p-Xylene	200	1266187.00	0.6555	400	2350972.00	0.6158	NA	NA	NA
o-Xylene	100	605763.000	0.6272	200	1153727.00	0.6044	NA	NA	NA
trans-1,2-Dichloroethene	100	417924.000	0.2734	200	820789.000	0.2663	NA	NA	NA

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-MAY-08 21:49
Column ID: F

Analyte	WG270140-02			WG270140-03			WG270140-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	1.00	4688.00000	0.4777	2.00	9518.00000	0.5037

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INITIAL CALIBRATION DATA

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Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-MAY-08 21:49
Column ID: F

Analyte	WG270140-05			WG270140-06			WG270140-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	5.00	27073.0000	0.5571	20.0	132212.000	0.6541	50.0	334448.000	0.6814

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-MAY-08 21:49
Column ID: F

Analyte	WG270140-08			WG270140-09			WG270140-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	100	601229.000	0.6225	200	1118551.00	0.5860	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 12-MAY-08 18:39
Column ID: F

Analyte	WG270933-03			WG270933-04			WG270933-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	1.00	6393.00000	0.4071	2.00	13566.0000	0.4272
1,2-Dichloropropane	NA	NA	NA	1.00	3254.00000	0.2072	2.00	8013.00000	0.2523
Chloroform	NA	NA	NA	1.00	7976.00000	0.5079	2.00	15792.0000	0.4973
Ethylbenzene	NA	NA	NA	1.00	4761.00000	0.5005	2.00	9446.00000	0.4974
Toluene	NA	NA	NA	1.00	12626.0000	1.327	2.00	30014.0000	1.580
Vinyl Chloride	NA	NA	NA	NA	NA	NA	2.00	6925.00000	0.2181
1,1,2,2-Tetrachloroethane	NA	NA	NA	1.00	3345.00000	0.7776	2.00	6577.00000	0.7594
1,1-Dichloroethane	NA	NA	NA	1.00	8631.00000	0.5496	2.00	16963.0000	0.5342
Bromoform	NA	NA	NA	NA	NA	NA	2.00	2429.00000	0.1279
Chlorobenzene	NA	NA	NA	1.00	9933.00000	1.044	2.00	19044.0000	1.003
Chloromethane	NA	NA	NA	1.00	6439.00000	0.4100	2.00	10808.0000	0.3403
1,1,1-Trichloroethane	NA	NA	NA	1.00	6199.00000	0.3948	2.00	13170.0000	0.4147
1,1,2-Trichloroethane	NA	NA	NA	1.00	2516.00000	0.2645	2.00	5653.00000	0.2977
1,2,4-Trichlorobenzene	NA	NA	NA	1.00	2950.00000	0.6858	2.00	6557.00000	0.7571
1,2-Dichlorobenzene	NA	NA	NA	1.00	5430.00000	1.262	2.00	10544.0000	1.217
1,2-Dichloroethane	NA	NA	NA	1.00	6043.00000	0.3848	2.00	13057.0000	0.4112
1,3-Dichlorobenzene	NA	NA	NA	1.00	6160.00000	1.432	2.00	11894.0000	1.373
1,4-Dichlorobenzene	NA	NA	NA	1.00	7367.00000	1.713	2.00	13568.0000	1.567
1,4-Dioxane	NA	NA	NA	NA	NA	NA	50.0	960.000000	0.001200
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	2.00	4290.00000	0.2259
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	2.00	2075.00000	0.06530
Benzene	NA	NA	NA	1.00	15706.0000	1.000	2.00	34249.0000	1.079
Bromodichloromethane	NA	NA	NA	1.00	4703.00000	0.2995	2.00	9583.00000	0.3018
Bromomethane	NA	NA	NA	1.00	1597.00000	0.1017	2.00	3401.00000	0.1071
Carbon Disulfide	NA	NA	NA	1.00	15811.0000	1.007	2.00	29433.0000	0.9268
Carbon Tetrachloride	NA	NA	NA	1.00	3662.00000	0.2332	2.00	9059.00000	0.2853
Chloroethane	NA	NA	NA	1.00	2807.00000	0.1787	2.00	5257.00000	0.1655
Dibromochloromethane	NA	NA	NA	NA	NA	NA	2.00	4240.00000	0.2233
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	2.00	17468.0000	0.5501
Methylene Chloride	NA	NA	NA	NA	NA	NA	2.00	10422.0000	0.3282
Styrene	NA	NA	NA	NA	NA	NA	2.00	13650.0000	0.7188
Tetrachloroethene	NA	NA	NA	1.00	2776.00000	0.2918	2.00	5518.00000	0.2906
Trichloroethene	NA	NA	NA	1.00	3175.00000	0.2022	2.00	6691.00000	0.2107
Vinyl Acetate	NA	NA	NA	NA	NA	NA	2.00	14317.0000	0.4508
cis-1,2-Dichloroethene	NA	NA	NA	1.00	3619.00000	0.2305	2.00	7779.00000	0.2450
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	2.00	9719.00000	0.3060
m-,p-Xylene	1.00	5660.00000	0.5719	2.00	11146.0000	0.5858	4.00	23579.0000	0.6208
o-Xylene	NA	NA	NA	1.00	3824.00000	0.4020	2.00	9538.00000	0.5022
trans-1,2-Dichloroethene	NA	NA	NA	1.00	3365.00000	0.2143	2.00	7448.00000	0.2345

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 12-MAY-08 18:39

Column ID: F

Analyte	WG270933-06			WG270933-07			WG270933-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	5.00	36896.0000	0.4476	20.0	156692.000	0.4683	50.0	412211.000	0.5025
1,2-Dichloropropane	5.00	21008.0000	0.2549	20.0	86489.0000	0.2585	50.0	235779.000	0.2874
Chloroform	5.00	42879.0000	0.5202	20.0	169069.000	0.5053	50.0	446055.000	0.5438
Ethylbenzene	5.00	26651.0000	0.5399	20.0	115596.000	0.5708	50.0	311046.000	0.6262
Toluene	5.00	83438.0000	1.690	20.0	356327.000	1.759	50.0	951503.000	1.916
Vinyl Chloride	5.00	16451.0000	0.1996	20.0	61278.0000	0.1832	50.0	155260.000	0.1893
1,1,2,2-Tetrachloroethane	5.00	18301.0000	0.7999	20.0	69709.0000	0.7375	50.0	197663.000	0.8470
1,1-Dichloroethane	5.00	46079.0000	0.5590	20.0	183109.000	0.5473	50.0	477051.000	0.5815
Bromoform	5.00	7264.00000	0.1471	20.0	30815.0000	0.1522	50.0	92350.0000	0.1859
Chlorobenzene	5.00	50596.0000	1.025	20.0	200813.000	0.9915	50.0	537818.000	1.083
Chloromethane	5.00	25485.0000	0.3092	20.0	97925.0000	0.2927	50.0	238892.000	0.2912
1,1,1-Trichloroethane	5.00	36085.0000	0.4378	20.0	148594.000	0.4441	50.0	388224.000	0.4733
1,1,2-Trichloroethane	5.00	14699.0000	0.2978	20.0	57520.0000	0.2840	50.0	160693.000	0.3235
1,2,4-Trichlorobenzene	5.00	17715.0000	0.7743	20.0	77361.0000	0.8185	50.0	225695.000	0.9672
1,2-Dichlorobenzene	5.00	29594.0000	1.293	20.0	117796.000	1.246	50.0	320823.000	1.375
1,2-Dichloroethane	5.00	35252.0000	0.4277	20.0	136303.000	0.4074	50.0	366257.000	0.4465
1,3-Dichlorobenzene	5.00	33534.0000	1.466	20.0	134724.000	1.425	50.0	361829.000	1.551
1,4-Dichlorobenzene	5.00	34966.0000	1.528	20.0	136799.000	1.447	50.0	364265.000	1.561
1,4-Dioxane	100	2487.00000	0.001500	150	3412.00000	0.001400	200	6625.00000	0.002000
2-Butanone	5.00	9520.00000	0.1155	20.0	30969.0000	0.09260	50.0	90902.0000	0.1108
2-Hexanone	5.00	8633.00000	0.1749	20.0	40072.0000	0.1979	50.0	127211.000	0.2561
4-Methyl-2-Pentanone	5.00	5157.00000	0.06260	20.0	23191.0000	0.06930	50.0	69458.0000	0.08470
Acetone	5.00	10220.0000	0.1240	20.0	23803.0000	0.07110	50.0	64842.0000	0.07900
Acrylonitrile	5.00	4904.00000	0.05950	20.0	22897.0000	0.06840	50.0	69006.0000	0.08410
Benzene	5.00	90941.0000	1.103	20.0	363548.000	1.087	50.0	951282.000	1.160
Bromodichloromethane	5.00	26456.0000	0.3210	20.0	112426.000	0.3360	50.0	309859.000	0.3777
Bromomethane	5.00	7993.00000	0.09700	20.0	34963.0000	0.1045	50.0	95227.0000	0.1161
Carbon Disulfide	5.00	71112.0000	0.8627	20.0	302228.000	0.9033	50.0	780732.000	0.9517
Carbon Tetrachloride	5.00	24711.0000	0.2998	20.0	109746.000	0.3280	50.0	291285.000	0.3551
Chloroethane	5.00	15115.0000	0.1834	20.0	56124.0000	0.1677	50.0	146967.000	0.1792
Dibromochloromethane	5.00	12361.0000	0.2504	20.0	55464.0000	0.2739	50.0	161009.000	0.3241
Methyl Tert Butyl Ether	5.00	47996.0000	0.5823	20.0	209936.000	0.6275	50.0	617880.000	0.7532
Methylene Chloride	5.00	24991.0000	0.3032	20.0	83872.0000	0.2507	50.0	218794.000	0.2667
Styrene	5.00	45367.0000	0.9190	20.0	205246.000	1.013	50.0	579871.000	1.167
Tetrachloroethene	5.00	15175.0000	0.3074	20.0	65599.0000	0.3239	50.0	170532.000	0.3433
Trichloroethene	5.00	17908.0000	0.2173	20.0	74427.0000	0.2225	50.0	198950.000	0.2425
Vinyl Acetate	5.00	34394.0000	0.4173	20.0	144304.000	0.4313	50.0	450260.000	0.5489
cis-1,2-Dichloroethene	5.00	21509.0000	0.2609	20.0	86093.0000	0.2573	50.0	229982.000	0.2804
cis-1,3-Dichloropropene	5.00	29275.0000	0.3551	20.0	130047.000	0.3887	50.0	372613.000	0.4542
m-,p-Xylene	10.0	66804.0000	0.6766	40.0	279515.000	0.6901	100	749507.000	0.7545
o-Xylene	5.00	27361.0000	0.5543	20.0	125671.000	0.6205	50.0	352077.000	0.7088
trans-1,2-Dichloroethene	5.00	21611.0000	0.2622	20.0	88416.0000	0.2643	50.0	229210.000	0.2794

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INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 12-MAY-08 18:39
Column ID: F

Analyte	WG270933-09			WG270933-10			WG270933-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	100	832531.000	0.4962	200	1504017.00	0.4625	NA	NA	NA
1,2-Dichloropropane	100	480649.000	0.2864	200	905931.000	0.2786	NA	NA	NA
Chloroform	100	903271.000	0.5383	200	1627555.00	0.5005	NA	NA	NA
Ethylbenzene	100	601327.000	0.6124	200	1121306.00	0.5909	NA	NA	NA
Toluene	100	1886524.00	1.921	200	3557692.00	1.875	NA	NA	NA
Vinyl Chloride	100	286506.000	0.1707	200	500174.000	0.1538	NA	NA	NA
1,1,2,2-Tetrachloroethane	100	355195.000	0.7746	200	705193.000	0.7848	NA	NA	NA
1,1-Dichloroethane	100	977894.000	0.5828	200	1731421.00	0.5324	NA	NA	NA
Bromoform	100	169772.000	0.1729	200	333140.000	0.1756	NA	NA	NA
Chlorobenzene	100	1024707.00	1.044	200	1885988.00	0.9939	NA	NA	NA
Chloromethane	100	459282.000	0.2737	200	959711.000	0.2951	NA	NA	NA
1,1,1-Trichloroethane	100	790925.000	0.4714	200	1405524.00	0.4322	NA	NA	NA
1,1,2-Trichloroethane	100	302413.000	0.3080	200	555741.000	0.2929	NA	NA	NA
1,2,4-Trichlorobenzene	100	437389.000	0.9538	200	815612.000	0.9077	NA	NA	NA
1,2-Dichlorobenzene	100	614087.000	1.339	200	1152410.00	1.283	NA	NA	NA
1,2-Dichloroethane	100	723954.000	0.4314	200	1289849.00	0.3966	NA	NA	NA
1,3-Dichlorobenzene	100	683969.000	1.492	200	1278695.00	1.423	NA	NA	NA
1,4-Dichlorobenzene	100	687968.000	1.500	200	1268732.00	1.412	NA	NA	NA
1,4-Dioxane	400	13644.0000	0.002000	NA	NA	NA	600	20425.0000	0.002000
2-Butanone	100	170016.000	0.1013	200	320464.000	0.09850	300	575724.000	0.1134
2-Hexanone	100	232440.000	0.2367	200	475176.000	0.2504	300	762913.000	0.2640
4-Methyl-2-Pentanone	100	129991.000	0.07750	200	261419.000	0.08040	300	431135.000	0.08490
Acetone	100	119224.000	0.07110	200	222409.000	0.06840	NA	NA	NA
Acrylonitrile	100	138058.000	0.08230	200	261513.000	0.08040	300	407809.000	0.08040
Benzene	100	1908422.00	1.137	200	3443505.00	1.059	NA	NA	NA
Bromodichloromethane	100	618856.000	0.3688	200	1160199.00	0.3568	NA	NA	NA
Bromomethane	100	195989.000	0.1168	200	397037.000	0.1221	NA	NA	NA
Carbon Disulfide	100	1535985.00	0.9154	200	2765655.00	0.8504	NA	NA	NA
Carbon Tetrachloride	100	587410.000	0.3501	200	1063328.00	0.3270	NA	NA	NA
Chloroethane	100	299319.000	0.1784	200	585303.000	0.1800	NA	NA	NA
Dibromochloromethane	100	310238.000	0.3159	200	584740.000	0.3081	NA	NA	NA
Methyl Tert Butyl Ether	100	1236750.00	0.7370	200	2168088.00	0.6667	NA	NA	NA
Methylene Chloride	100	425995.000	0.2539	200	786904.000	0.2420	NA	NA	NA
Styrene	100	1129465.00	1.150	200	2126229.00	1.121	NA	NA	NA
Tetrachloroethene	100	331921.000	0.3380	200	623274.000	0.3285	NA	NA	NA
Trichloroethene	100	400818.000	0.2389	200	727344.000	0.2237	NA	NA	NA
Vinyl Acetate	100	891726.000	0.5314	200	1575238.00	0.4844	300	2710030.00	0.5340
cis-1,2-Dichloroethene	100	470924.000	0.2807	200	839787.000	0.2582	NA	NA	NA
cis-1,3-Dichloropropene	100	753697.000	0.4492	200	1426324.00	0.4386	NA	NA	NA
m-,p-Xylene	200	1453870.00	0.7403	400	2662835.00	0.7016	NA	NA	NA
o-Xylene	100	686142.000	0.6988	200	1305696.00	0.6881	NA	NA	NA
trans-1,2-Dichloroethene	100	469986.000	0.2801	200	839949.000	0.2583	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 12-MAY-08 18:39
Column ID: F

Analyte	WG270933-03			WG270933-04			WG270933-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	1.00	4563.00000	0.4797	2.00	10288.0000	0.5417

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 12-MAY-08 18:39
Column ID: F

Analyte	WG270933-06			WG270933-07			WG270933-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	5.00	27404.0000	0.5551	20.0	123023.000	0.6074	50.0	356535.000	0.7178

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 12-MAY-08 18:39
Column ID: F

Analyte	WG270933-09			WG270933-10			WG270933-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	100	677983.000	0.6905	200	1251013.00	0.6593	NA	NA	NA

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/02/2008 Sample ID: WG270161-13
Instrument ID: HPMS10 Run Time: 19:18 Method: 8260B
File ID: 10M64357 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG270161 Cal ID: HPMS10 - 02-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	20.5	ug/L	0.205	2.60	25	
1,2-Dichloropropane	CCC	20.0	20.8	ug/L	0.239	4.00	25	
Chloroform	CCC	20.0	19.5	ug/L	0.428	2.60	25	
Ethylbenzene	CCC	20.0	20.7	ug/L	0.431	3.50	25	
Toluene	CCC	20.0	21.0	ug/L	1.20	4.80	25	
Vinyl Chloride	CCC	20.0	19.2	ug/L	0.245	4.10	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	21.9	ug/L	0.381	9.70	25	
1,1-Dichloroethane	SPCC	20.0	20.1	ug/L	0.463	0.400	25	
Bromoform	SPCC	20.0	20.4	ug/L	0.147	2.20	25	
Chlorobenzene	SPCC	20.0	19.9	ug/L	0.806	0.600	25	
Chloromethane	SPCC	20.0	19.2	ug/L	0.277	3.80	25	
1,1,1-Trichloroethane		20.0	19.9	ug/L	0.409	0.400	25	
1,1,2-Trichloroethane		20.0	21.2	ug/L	0.206	6.00	25	
1,2,4-Trichlorobenzene		20.0	21.8	ug/L	0.737	9.10	25	
1,2-Dichlorobenzene		20.0	21.1	ug/L	1.11	5.60	25	
1,2-Dichloroethane		20.0	19.8	ug/L	0.351	0.900	25	
1,3-Dichlorobenzene		20.0	20.8	ug/L	1.24	3.80	25	
1,4-Dichlorobenzene		20.0	20.1	ug/L	1.27	0.600	25	
1,4-Dioxane		200	199	ug/L	0.00130	0.500	25	
2-Butanone		20.0	21.9	ug/L	0.0541	9.70	25	
2-Hexanone		20.0	20.8	ug/L	0.0905	4.20	25	
4-Methyl-2-Pentanone		20.0	20.6	ug/L	0.0520	3.10	25	
Acetone		20.0	22.1	ug/L	0.0407	10.3	25	
Acrylonitrile		20.0	21.2	ug/L	0.0612	5.80	25	
Benzene		20.0	20.5	ug/L	0.842	2.30	25	
Bromodichloromethane		20.0	21.0	ug/L	0.306	5.00	25	
Bromomethane		20.0	20.5	ug/L	0.191	2.30	25	
Carbon Disulfide		20.0	18.7	ug/L	0.605	6.70	25	
Carbon Tetrachloride		20.0	20.2	ug/L	0.343	0.800	25	
Dibromochloromethane		20.0	21.1	ug/L	0.271	5.40	25	
Chloroethane		20.0	19.6	ug/L	0.186	2.20	25	
cis-1,2-Dichloroethene		20.0	21.4	ug/L	0.247	7.00	25	
cis-1,3-Dichloropropene		20.0	21.6	ug/L	0.316	7.90	25	
Methylene Chloride		20.0	20.9	ug/L	0.225	4.70	25	
Methyl Tert Butyl Ether		20.0	22.1	ug/L	0.491	10.3	25	
Styrene		20.0	20.0	ug/L	0.842	0.100	25	
Tetrachloroethene		20.0	20.4	ug/L	0.256	2.20	25	
trans-1,2-Dichloroethene		20.0	19.7	ug/L	0.221	1.40	25	
trans-1,3-Dichloropropene		20.0	18.9	ug/L	0.349	5.40	25	
Trichloroethene		20.0	20.5	ug/L	0.251	2.60	25	
Vinyl Acetate		20.0	20.2	ug/L	0.250	1.20	25	
Xylenes		60.0	63.0	ug/L	0.509	5.00	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/02/2008 Sample ID: WG270161-13
Instrument ID: HPMS10 Run Time: 19:18 Method: 8260B
File ID: 10M64357 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG270161 Cal ID: HPMS10 - 02-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
o-Xylene		20.0	21.7	ug/L	0.498	8.60	25	
m-,p-Xylene		40.0	41.3	ug/L	0.520	3.30	25	
1,2-Dichloroethene		40.0	41.1	ug/L	0.234	2.80	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 04/29/2008 Sample ID: WG269760-12
Instrument ID: HPMS8 Run Time: 17:28 Method: 8260B
File ID: 8M344824 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG269760 Cal ID: HPMS8 - 29-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	19.1	ug/L	0.360	4.70	25	
1,2-Dichloropropane	CCC	20.0	21.2	ug/L	0.201	6.00	25	
Chloroform	CCC	20.0	20.5	ug/L	0.433	2.50	25	
Ethylbenzene	CCC	20.0	23.3	ug/L	0.472	16.7	25	
Toluene	CCC	20.0	22.8	ug/L	1.26	14.1	25	
Vinyl Chloride	CCC	20.0	18.6	ug/L	0.186	7.20	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	19.7	ug/L	0.382	1.30	25	
1,1-Dichloroethane	SPCC	20.0	21.0	ug/L	0.409	4.90	25	
Bromoform	SPCC	20.0	19.8	ug/L	0.128	1.00	25	
Chlorobenzene	SPCC	20.0	21.3	ug/L	0.818	6.70	25	
Chloromethane	SPCC	20.0	18.8	ug/L	0.227	5.80	25	
1,1,1-Trichloroethane		20.0	21.0	ug/L	0.397	4.80	25	
1,1,2-Trichloroethane		20.0	20.5	ug/L	0.183	2.70	25	
1,2,4-Trichlorobenzene		20.0	22.0	ug/L	0.828	9.90	25	
1,2-Dichlorobenzene		20.0	21.3	ug/L	1.11	6.30	25	
1,2-Dichloroethane		20.0	19.1	ug/L	0.289	4.40	25	
1,3-Dichlorobenzene		20.0	21.1	ug/L	1.27	5.40	25	
1,4-Dichlorobenzene		20.0	20.0	ug/L	1.26	0.100	25	
1,4-Dioxane		200	213	ug/L	0.00130	6.30	25	
2-Butanone		20.0	19.7	ug/L	0.0451	1.60	25	
2-Hexanone		20.0	18.9	ug/L	0.0433	5.50	25	
4-Methyl-2-Pentanone		20.0	19.3	ug/L	0.0354	3.30	25	
Acetone		20.0	20.0	ug/L	0.0339	0.100	25	
Acrylonitrile		20.0	18.3	ug/L	0.0359	8.70	25	
Benzene		20.0	21.9	ug/L	0.867	9.30	25	
Bromodichloromethane		20.0	21.0	ug/L	0.306	5.10	25	
Bromomethane		20.0	21.2	ug/L	0.188	5.80	25	
Carbon Disulfide		20.0	19.3	ug/L	0.633	3.30	25	
Carbon Tetrachloride		20.0	19.2	ug/L	0.340	3.90	25	
Dibromochloromethane		20.0	18.2	ug/L	0.234	9.20	25	
Chloroethane		20.0	20.9	ug/L	0.179	4.30	25	
cis-1,2-Dichloroethene		20.0	22.8	ug/L	0.240	13.9	25	
cis-1,3-Dichloropropene		20.0	21.3	ug/L	0.321	6.50	25	
Methylene Chloride		20.0	19.4	ug/L	0.226	2.90	25	
Methyl Tert Butyl Ether		20.0	20.5	ug/L	0.426	2.70	25	
Styrene		20.0	19.5	ug/L	0.925	2.70	25	
Tetrachloroethene		20.0	19.8	ug/L	0.251	1.20	25	
trans-1,2-Dichloroethene		20.0	21.4	ug/L	0.327	7.00	25	
trans-1,3-Dichloropropene		20.0	18.9	ug/L	0.357	5.40	25	
Trichloroethene		20.0	20.0	ug/L	0.219	0.200	25	
Vinyl Acetate		20.0	11.8	ug/L	0.160	40.8	25	*
Xylenes		60.0	68.5	ug/L	0.564	14.2	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 04/29/2008 Sample ID: WG269760-12
Instrument ID: HPMS8 Run Time: 17:28 Method: 8260B
File ID: 8M344824 Analyst: CMS QC Key: DOWWV2006
ICal Workgroup: WG269760 Cal ID: HPMS8 - 29-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,2-Dichloroethene		40.0	44.2	ug/L	0.284	10.4	25	
m-,p-Xylene		40.0	46.3	ug/L	0.573	15.7	25	
o-Xylene		20.0	22.3	ug/L	0.555	11.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/02/2008 Sample ID: WG270140-11
Instrument ID: HPMS9 Run Time: 23:22 Method: 8260B
File ID: 9M61540 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG270140 Cal ID: HPMS9 - 02-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	20.9	ug/kg	0.490	4.60	25	
1,2-Dichloropropane	CCC	20.0	20.0	ug/kg	0.270	0.100	25	
Chloroform	CCC	20.0	19.9	ug/kg	0.530	0.500	25	
Ethylbenzene	CCC	20.0	21.0	ug/kg	0.559	5.10	25	
Toluene	CCC	20.0	20.0	ug/kg	1.69	0.100	25	
Vinyl Chloride	CCC	20.0	19.0	ug/kg	0.208	5.20	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	18.5	ug/kg	0.720	7.40	25	
1,1-Dichloroethane	SPCC	20.0	20.1	ug/kg	0.567	0.300	25	
Bromoform	SPCC	20.0	19.7	ug/kg	0.154	1.30	25	
Chlorobenzene	SPCC	20.0	19.5	ug/kg	0.947	2.60	25	
Chloromethane	SPCC	20.0	19.3	ug/kg	0.285	3.50	25	
1,1,1-Trichloroethane		20.0	20.9	ug/kg	0.462	4.40	25	
1,1,2-Trichloroethane		20.0	19.8	ug/kg	0.289	1.20	25	
1,2,4-Trichlorobenzene		20.0	19.0	ug/kg	0.719	4.80	25	
1,2-Dichlorobenzene		20.0	19.5	ug/kg	1.18	2.40	25	
1,2-Dichloroethane		20.0	19.5	ug/kg	0.425	2.40	25	
1,3-Dichlorobenzene		20.0	19.6	ug/kg	1.28	1.80	25	
1,4-Dichlorobenzene		20.0	18.2	ug/kg	1.28	9.20	25	
1,4-Dioxane		200	178	ug/kg	0.00240	11.0	25	
2-Butanone		20.0	20.6	ug/kg	0.112	2.90	25	
2-Hexanone		20.0	17.8	ug/kg	0.203	11.1	25	
4-Methyl-2-Pentanone		20.0	18.7	ug/kg	0.0731	6.70	25	
Acetone		20.0	17.9	ug/kg	0.0855	10.4	25	
Acrylonitrile		20.0	19.3	ug/kg	0.0794	3.40	25	
Benzene		20.0	20.1	ug/kg	1.13	0.500	25	
Bromodichloromethane		20.0	20.2	ug/kg	0.356	0.900	25	
Bromomethane		20.0	19.0	ug/kg	0.121	4.90	25	
Carbon Disulfide		20.0	18.1	ug/kg	0.858	9.50	25	
Carbon Tetrachloride		20.0	19.9	ug/kg	0.350	0.700	25	
Dibromochloromethane		20.0	19.7	ug/kg	0.270	1.70	25	
Chloroethane		20.0	18.7	ug/kg	0.173	6.50	25	
cis-1,2-Dichloroethene		20.0	20.8	ug/kg	0.278	4.10	25	
cis-1,3-Dichloropropene		20.0	20.2	ug/kg	0.391	1.10	25	
Methylene Chloride		20.0	18.8	ug/kg	0.269	6.00	25	
Methyl Tert Butyl Ether		20.0	19.1	ug/kg	0.661	4.40	25	
Styrene		20.0	18.4	ug/kg	0.978	8.10	25	
Tetrachloroethene		20.0	21.0	ug/kg	0.295	5.00	25	
trans-1,2-Dichloroethene		20.0	20.7	ug/kg	0.272	3.40	25	
trans-1,3-Dichloropropene		20.0	18.2	ug/kg	0.532	8.90	25	
Trichloroethene		20.0	20.6	ug/kg	0.229	3.00	25	
Vinyl Acetate		20.0	18.5	ug/kg	0.360	7.50	25	
Xylenes		60.0	60.1	ug/kg	0.628	0.100	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/02/2008 Sample ID: WG270140-11
Instrument ID: HPMS9 Run Time: 23:22 Method: 8260B
File ID: 9M61540 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG270140 Cal ID: HPMS9 - 02-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
o-Xylene		20.0	20.7	ug/kg	0.599	3.50	25	
1,2-Dichloroethene		40.0	41.5	ug/kg	0.275	3.80	25	
m-,p-Xylene		40.0	39.4	ug/kg	0.658	1.60	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/12/2008 Sample ID: WG270933-12
Instrument ID: HPMS9 Run Time: 20:12 Method: 8260B
File ID: 9M61812 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG270933 Cal ID: HPMS9 - 12-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	20.0	19.5	ug/kg	0.447	2.50	25	
1,2-Dichloropropane	CCC	20.0	21.4	ug/kg	0.279	6.90	25	
Chloroform	CCC	20.0	20.6	ug/kg	0.532	3.00	25	
Ethylbenzene	CCC	20.0	22.1	ug/kg	0.623	10.7	25	
Toluene	CCC	20.0	21.9	ug/kg	1.89	9.70	25	
Vinyl Chloride	CCC	20.0	19.4	ug/kg	0.180	3.10	25	
1,1,2,2-Tetrachloroethane	SPCC	20.0	22.2	ug/kg	0.871	11.2	25	
1,1-Dichloroethane	SPCC	20.0	20.2	ug/kg	0.562	1.20	25	
Bromoform	SPCC	20.0	21.3	ug/kg	0.171	6.40	25	
Chlorobenzene	SPCC	20.0	21.1	ug/kg	1.08	5.70	25	
Chloromethane	SPCC	20.0	16.8	ug/kg	0.265	16.1	25	
1,1,1-Trichloroethane		20.0	20.5	ug/kg	0.449	2.30	25	
1,1,2-Trichloroethane		20.0	22.3	ug/kg	0.329	11.3	25	
1,2,4-Trichlorobenzene		20.0	21.4	ug/kg	0.897	7.10	25	
1,2-Dichlorobenzene		20.0	21.7	ug/kg	1.40	8.60	25	
1,2-Dichloroethane		20.0	20.4	ug/kg	0.423	2.00	25	
1,3-Dichlorobenzene		20.0	21.4	ug/kg	1.55	7.10	25	
1,4-Dichlorobenzene		20.0	20.0	ug/kg	1.54	0.200	25	
1,4-Dioxane		150	216	ug/kg	0.00270	43.9	25	*
2-Butanone		20.0	23.4	ug/kg	0.124	17.2	25	
2-Hexanone		20.0	20.4	ug/kg	0.234	1.90	25	
4-Methyl-2-Pentanone		20.0	19.9	ug/kg	0.0763	0.400	25	
Acetone		20.0	22.2	ug/kg	0.0905	11.2	25	
Acrylonitrile		20.0	22.4	ug/kg	0.0834	12.1	25	
Benzene		20.0	20.8	ug/kg	1.13	4.10	25	
Bromodichloromethane		20.0	21.9	ug/kg	0.369	9.50	25	
Bromomethane		20.0	19.3	ug/kg	0.105	3.60	25	
Carbon Disulfide		20.0	17.0	ug/kg	0.781	14.8	25	
Carbon Tetrachloride		20.0	20.5	ug/kg	0.319	2.50	25	
Dibromochloromethane		20.0	21.7	ug/kg	0.307	8.60	25	
Chloroethane		20.0	19.0	ug/kg	0.168	4.80	25	
cis-1,2-Dichloroethene		20.0	21.2	ug/kg	0.275	6.20	25	
cis-1,3-Dichloropropene		20.0	20.8	ug/kg	0.414	3.80	25	
Methylene Chloride		20.0	19.2	ug/kg	0.263	4.10	25	
Methyl Tert Butyl Ether		20.0	21.2	ug/kg	0.692	6.00	25	
Styrene		20.0	20.0	ug/kg	1.11	0.200	25	
Tetrachloroethene		20.0	20.5	ug/kg	0.326	2.60	25	
trans-1,2-Dichloroethene		20.0	20.2	ug/kg	0.259	1.00	25	
trans-1,3-Dichloropropene		20.0	20.2	ug/kg	0.613	1.00	25	
Trichloroethene		20.0	20.8	ug/kg	0.231	4.00	25	
Vinyl Acetate		20.0	10.3	ug/kg	0.249	48.7	25	*
Xylenes		60.0	65.5	ug/kg	0.723	9.20	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/12/2008 Sample ID: WG270933-12
Instrument ID: HPMS9 Run Time: 20:12 Method: 8260B
File ID: 9M61812 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG270933 Cal ID: HPMS9 - 12-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,2-Dichloroethene		40.0	41.4	ug/kg	0.267	3.60	25	
o-Xylene		20.0	20.5	ug/kg	0.694	2.60	25	
m-,p-Xylene		40.0	45.0	ug/kg	0.751	12.5	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/07/2008 Sample ID: WG270546-02
Instrument ID: HPMS10 Run Time: 09:32 Method: 8260B
File ID: 10M64426 Analyst: tmb QC Key: DOWWV2006
Workgroup (AAB#): WG270547 Cal ID: HPMS10 - 02-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	53.9	ug/L	0.216	7.70	20	
1,2-Dichloropropane	CCC	50.0	51.2	ug/L	0.235	2.39	20	
Chloroform	CCC	50.0	49.8	ug/L	0.438	0.448	20	
Ethylbenzene	CCC	50.0	50.6	ug/L	0.422	1.28	20	
Toluene	CCC	50.0	50.8	ug/L	1.16	1.58	20	
Vinyl Chloride	CCC	50.0	58.8	ug/L	0.280	17.5	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	53.3	ug/L	0.370	6.51	20	
1,1-Dichloroethane	SPCC	50.0	51.6	ug/L	0.476	3.16	20	
Bromoform	SPCC	50.0	59.0	ug/L	0.169	18.0	20	
Chlorobenzene	SPCC	50.0	47.3	ug/L	0.768	5.33	20	
Chloromethane	SPCC	50.0	51.6	ug/L	0.297	3.16	20	
1,1,1-Trichloroethane		50.0	52.9	ug/L	0.434	5.74	20	
1,1,2-Trichloroethane		50.0	51.3	ug/L	0.200	2.66	20	
1,2,4-Trichlorobenzene		50.0	55.2	ug/L	0.746	10.3	20	
1,2-Dichlorobenzene		50.0	49.8	ug/L	1.05	0.336	20	
1,2-Dichloroethane		50.0	51.5	ug/L	0.365	3.06	20	
1,3-Dichlorobenzene		50.0	49.1	ug/L	1.18	1.73	20	
1,4-Dichlorobenzene		50.0	47.8	ug/L	1.20	4.41	20	
1,4-Dioxane		200	233	ug/L	0.00120	16.7	20	
2-Butanone		50.0	56.6	ug/L	0.0559	13.3	20	
2-Hexanone		50.0	57.8	ug/L	0.100	15.7	20	
4-Methyl-2-Pentanone		50.0	59.5	ug/L	0.0600	19.0	20	
Acetone		50.0	59.5	ug/L	0.0440	19.1	20	
Acrylonitrile		50.0	55.5	ug/L	0.0642	11.0	20	
Benzene		50.0	50.4	ug/L	0.829	0.787	20	
Bromodichloromethane		50.0	54.6	ug/L	0.318	9.29	20	
Bromomethane		50.0	51.4	ug/L	0.192	2.79	20	
Carbon Disulfide		50.0	48.8	ug/L	0.633	2.42	20	
Carbon Tetrachloride		50.0	55.6	ug/L	0.379	11.3	20	
Dibromochloromethane		50.0	57.1	ug/L	0.294	14.2	20	
Chloroethane		50.0	49.6	ug/L	0.188	0.835	20	
cis-1,2-Dichloroethene		50.0	54.4	ug/L	0.251	8.89	20	
cis-1,3-Dichloropropene		50.0	58.0	ug/L	0.340	15.9	20	
Methylene Chloride		50.0	51.1	ug/L	0.217	2.23	20	
Methyl Tert Butyl Ether		50.0	56.0	ug/L	0.499	12.0	20	
Styrene		50.0	49.1	ug/L	0.842	1.89	20	
Tetrachloroethene		50.0	50.7	ug/L	0.254	1.45	20	
trans-1,2-Dichloroethene		50.0	52.7	ug/L	0.237	5.38	20	
trans-1,3-Dichloropropene		50.0	55.5	ug/L	0.409	11.0	20	
Trichloroethene		50.0	51.7	ug/L	0.253	3.39	20	
Vinyl Acetate		50.0	47.5	ug/L	0.235	5.04	20	
Xylenes		150	155	ug/L	0.500	3.24	20	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/07/2008 Sample ID: WG270546-02
Instrument ID: HPMS10 Run Time: 09:32 Method: 8260B
File ID: 10M64426 Analyst: tmb QC Key: DOWWV2006
Workgroup (AAB#): WG270547 Cal ID: HPMS10 - 02-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	107	ug/L	0.244	7.13	20	
m-,p-Xylene		100	102	ug/L	0.513	1.78	20	
o-Xylene		50.0	53.1	ug/L	0.487	6.16	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/03/2008 Sample ID: WG270255-02
Instrument ID: HPMS8 Run Time: 06:49 Method: 8260B
File ID: 8M344958 Analyst: CMS QC Key: DOWWV2006
Workgroup (AAB#): WG270256 Cal ID: HPMS8 - 29-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	50.4	ug/L	0.385	0.819	20	
1,2-Dichloropropane	CCC	50.0	52.6	ug/L	0.200	5.20	20	
Chloroform	CCC	50.0	52.8	ug/L	0.446	5.65	20	
Ethylbenzene	CCC	50.0	57.9	ug/L	0.468	15.8	20	
Toluene	CCC	50.0	54.7	ug/L	1.21	9.33	20	
Vinyl Chloride	CCC	50.0	51.9	ug/L	0.208	3.79	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	45.1	ug/L	0.349	9.76	20	
1,1-Dichloroethane	SPCC	50.0	53.4	ug/L	0.416	6.73	20	
Bromoform	SPCC	50.0	53.1	ug/L	0.138	6.24	20	
Chlorobenzene	SPCC	50.0	51.8	ug/L	0.794	3.58	20	
Chloromethane	SPCC	50.0	45.7	ug/L	0.220	8.61	20	
1,1,1-Trichloroethane		50.0	57.6	ug/L	0.436	15.1	20	
1,1,2-Trichloroethane		50.0	47.4	ug/L	0.169	5.21	20	
1,2,4-Trichlorobenzene		50.0	53.1	ug/L	0.801	6.25	20	
1,2-Dichlorobenzene		50.0	51.3	ug/L	1.07	2.52	20	
1,2-Dichloroethane		50.0	50.2	ug/L	0.304	0.328	20	
1,3-Dichlorobenzene		50.0	52.5	ug/L	1.26	5.00	20	
1,4-Dichlorobenzene		50.0	49.4	ug/L	1.25	1.29	20	
1,4-Dioxane		200	192	ug/L	0.000900	4.09	20	
2-Butanone		50.0	45.0	ug/L	0.0413	9.90	20	
2-Hexanone		50.0	44.2	ug/L	0.0405	11.6	20	
4-Methyl-2-Pentanone		50.0	46.8	ug/L	0.0343	6.31	20	
Acetone		50.0	48.1	ug/L	0.0326	3.82	20	
Acrylonitrile		50.0	47.1	ug/L	0.0370	5.87	20	
Benzene		50.0	54.2	ug/L	0.861	8.45	20	
Bromodichloromethane		50.0	54.8	ug/L	0.319	9.66	20	
Bromomethane		50.0	42.2	ug/L	0.150	15.7	20	
Carbon Disulfide		50.0	55.1	ug/L	0.722	10.2	20	
Carbon Tetrachloride		50.0	54.1	ug/L	0.380	8.13	20	
Dibromochloromethane		50.0	45.8	ug/L	0.239	8.37	20	
Chloroethane		50.0	48.8	ug/L	0.167	2.45	20	
cis-1,2-Dichloroethene		50.0	54.9	ug/L	0.231	9.71	20	
cis-1,3-Dichloropropene		50.0	54.5	ug/L	0.328	8.91	20	
Methylene Chloride		50.0	45.6	ug/L	0.212	8.73	20	
Methyl Tert Butyl Ether		50.0	45.1	ug/L	0.374	9.86	20	
Styrene		50.0	50.9	ug/L	0.948	1.74	20	
Tetrachloroethene		50.0	49.2	ug/L	0.248	1.55	20	
trans-1,2-Dichloroethene		50.0	55.6	ug/L	0.340	11.3	20	
trans-1,3-Dichloropropene		50.0	52.0	ug/L	0.392	4.04	20	
Trichloroethene		50.0	50.6	ug/L	0.222	1.23	20	
Vinyl Acetate		50.0	35.6	ug/L	0.193	28.7	20	*
Xylenes		150	174	ug/L	0.575	15.8	20	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/03/2008 Sample ID: WG270255-02
Instrument ID: HPMS8 Run Time: 06:49 Method: 8260B
File ID: 8M344958 Analyst: CMS QC Key: DOWWV2006
Workgroup (AAB#): WG270256 Cal ID: HPMS8 - 29-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	110	ug/L	0.286	10.5	20	
m-,p-Xylene		100	116	ug/L	0.573	15.7	20	
o-Xylene		50.0	57.9	ug/L	0.577	15.9	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/06/2008 Sample ID: WG270443-02
Instrument ID: HPMS9 Run Time: 09:25 Method: 8260B
File ID: 9M61645 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG270445 Cal ID: HPMS9 - 02-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	51.2	ug/kg	0.480	2.50	20	
1,2-Dichloropropane	CCC	50.0	50.4	ug/kg	0.272	0.736	20	
Chloroform	CCC	50.0	47.9	ug/kg	0.510	4.18	20	
Ethylbenzene	CCC	50.0	57.8	ug/kg	0.615	15.6	20	
Toluene	CCC	50.0	55.4	ug/kg	1.88	10.8	20	
Vinyl Chloride	CCC	50.0	42.5	ug/kg	0.187	15.0	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	56.4	ug/kg	0.877	12.8	20	
1,1-Dichloroethane	SPCC	50.0	48.2	ug/kg	0.544	3.65	20	
Bromoform	SPCC	50.0	59.8	ug/kg	0.187	19.6	20	
Chlorobenzene	SPCC	50.0	54.5	ug/kg	1.06	8.92	20	
Chloromethane	SPCC	50.0	49.7	ug/kg	0.294	0.504	20	
1,1,1-Trichloroethane		50.0	50.5	ug/kg	0.447	1.09	20	
1,1,2-Trichloroethane		50.0	54.6	ug/kg	0.320	9.15	20	
1,2,4-Trichlorobenzene		50.0	62.6	ug/kg	0.946	25.2	20	*
1,2-Dichlorobenzene		50.0	56.5	ug/kg	1.36	13.0	20	
1,2-Dichloroethane		50.0	47.8	ug/kg	0.416	4.36	20	
1,3-Dichlorobenzene		50.0	58.5	ug/kg	1.52	16.9	20	
1,4-Dichlorobenzene		50.0	53.9	ug/kg	1.52	7.85	20	
1,4-Dioxane		200	202	ug/kg	0.00210	0.804	20	
2-Butanone		50.0	45.8	ug/kg	0.0994	8.31	20	
2-Hexanone		50.0	55.3	ug/kg	0.252	10.6	20	
4-Methyl-2-Pentanone		50.0	52.5	ug/kg	0.0824	5.03	20	
Acetone		50.0	46.2	ug/kg	0.0732	7.64	20	
Acrylonitrile		50.0	47.9	ug/kg	0.0786	4.27	20	
Benzene		50.0	49.2	ug/kg	1.11	1.70	20	
Bromodichloromethane		50.0	50.0	ug/kg	0.352	0.0202	20	
Bromomethane		50.0	44.6	ug/kg	0.113	10.8	20	
Carbon Disulfide		50.0	46.8	ug/kg	0.888	6.33	20	
Carbon Tetrachloride		50.0	47.3	ug/kg	0.333	5.37	20	
Dibromochloromethane		50.0	59.0	ug/kg	0.323	18.0	20	
Chloroethane		50.0	48.5	ug/kg	0.179	2.95	20	
cis-1,2-Dichloroethene		50.0	49.5	ug/kg	0.265	1.04	20	
cis-1,3-Dichloropropene		50.0	55.2	ug/kg	0.428	10.5	20	
Methylene Chloride		50.0	43.9	ug/kg	0.251	12.2	20	
Methyl Tert Butyl Ether		50.0	49.9	ug/kg	0.691	0.162	20	
Styrene		50.0	54.0	ug/kg	1.15	7.91	20	
Tetrachloroethene		50.0	59.4	ug/kg	0.334	18.8	20	
trans-1,2-Dichloroethene		50.0	50.0	ug/kg	0.263	0.000400	20	
trans-1,3-Dichloropropene		50.0	61.2	ug/kg	0.714	22.5	20	*
Trichloroethene		50.0	51.8	ug/kg	0.230	3.55	20	
Vinyl Acetate		50.0	44.1	ug/kg	0.344	11.7	20	
Xylenes		150	171	ug/kg	0.720	14.0	20	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/06/2008 Sample ID: WG270443-02
Instrument ID: HPMS9 Run Time: 09:25 Method: 8260B
File ID: 9M61645 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG270445 Cal ID: HPMS9 - 02-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	99.5	ug/kg	0.264	0.519	20	
m-,p-Xylene		100	110	ug/kg	0.738	10.3	20	
o-Xylene		50.0	60.7	ug/kg	0.702	21.3	20	*

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/13/2008 Sample ID: WG271082-02
Instrument ID: HPMS9 Run Time: 10:58 Method: 8260B
File ID: 9M61816 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG271083 Cal ID: HPMS9 - 12-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	45.9	ug/kg	0.421	8.17	20	
1,2-Dichloropropane	CCC	50.0	52.3	ug/kg	0.273	4.61	20	
Chloroform	CCC	50.0	47.9	ug/kg	0.494	4.25	20	
Ethylbenzene	CCC	50.0	50.7	ug/kg	0.570	1.30	20	
Toluene	CCC	50.0	51.2	ug/kg	1.76	2.32	20	
Vinyl Chloride	CCC	50.0	42.9	ug/kg	0.159	14.2	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	54.8	ug/kg	0.858	9.63	20	
1,1-Dichloroethane	SPCC	50.0	47.1	ug/kg	0.523	5.74	20	
Bromoform	SPCC	50.0	60.1	ug/kg	0.193	20.2	20	*
Chlorobenzene	SPCC	50.0	49.4	ug/kg	1.01	1.12	20	
Chloromethane	SPCC	50.0	41.2	ug/kg	0.260	17.6	20	
1,1,1-Trichloroethane		50.0	48.8	ug/kg	0.428	2.43	20	
1,1,2-Trichloroethane		50.0	54.4	ug/kg	0.322	8.82	20	
1,2,4-Trichlorobenzene		50.0	53.5	ug/kg	0.896	6.94	20	
1,2-Dichlorobenzene		50.0	50.1	ug/kg	1.29	0.288	20	
1,2-Dichloroethane		50.0	51.7	ug/kg	0.429	3.37	20	
1,3-Dichlorobenzene		50.0	49.5	ug/kg	1.44	1.02	20	
1,4-Dichlorobenzene		50.0	48.2	ug/kg	1.48	3.57	20	
1,4-Dioxane		200	221	ug/kg	0.00210	10.7	20	
2-Butanone		50.0	55.0	ug/kg	0.116	9.91	20	
2-Hexanone		50.0	59.2	ug/kg	0.271	18.3	20	
4-Methyl-2-Pentanone		50.0	59.0	ug/kg	0.0903	18.0	20	
Acetone		50.0	56.8	ug/kg	0.0826	13.5	20	
Acrylonitrile		50.0	58.9	ug/kg	0.0876	17.8	20	
Benzene		50.0	49.8	ug/kg	1.09	0.379	20	
Bromodichloromethane		50.0	53.3	ug/kg	0.360	6.65	20	
Bromomethane		50.0	49.8	ug/kg	0.109	0.342	20	
Carbon Disulfide		50.0	43.6	ug/kg	0.800	12.8	20	
Carbon Tetrachloride		50.0	50.5	ug/kg	0.315	1.07	20	
Dibromochloromethane		50.0	57.4	ug/kg	0.324	14.8	20	
Chloroethane		50.0	45.8	ug/kg	0.161	8.41	20	
cis-1,2-Dichloroethene		50.0	48.4	ug/kg	0.251	3.16	20	
cis-1,3-Dichloropropene		50.0	54.7	ug/kg	0.436	9.31	20	
Methylene Chloride		50.0	44.0	ug/kg	0.241	12.0	20	
Methyl Tert Butyl Ether		50.0	55.9	ug/kg	0.729	11.7	20	
Styrene		50.0	47.2	ug/kg	1.06	5.64	20	
Tetrachloroethene		50.0	48.5	ug/kg	0.308	2.96	20	
trans-1,2-Dichloroethene		50.0	48.3	ug/kg	0.248	3.35	20	
trans-1,3-Dichloropropene		50.0	57.2	ug/kg	0.695	14.4	20	
Trichloroethene		50.0	50.7	ug/kg	0.226	1.39	20	
Vinyl Acetate		50.0	55.0	ug/kg	0.534	9.98	20	
Xylenes		150	152	ug/kg	0.675	1.51	20	

CCV - Modified 03/05/2008
PDF File ID: 1093582
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/13/2008 Sample ID: WG271082-02

Instrument ID: HPMS9 Run Time: 10:58 Method: 8260B

File ID: 9M61816 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG271083 Cal ID: HPMS9 - 12-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	96.7	ug/kg	0.249	3.26	20	
m-,p-Xylene		100	105	ug/kg	0.701	4.92	20	
o-Xylene		50.0	47.3	ug/kg	0.649	5.31	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1093582
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS8
Workgroup (AAB#): WG270256

ICAL CCV Number: WG269760-08
CAL ID: HPMS8-29-APR-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG269760-08	NA	NA	368633	691602	926916
Upper Limit	NA	NA	737266	1383204	1853832
Lower Limit	NA	NA	184317	345801	463458
L08050050-05	50.0	DL01	389736	754351	1015163
L08050050-06	50.0	DL01	388659	749314	1007875
L08050050-07	50.0	DL01	387275	739764	994255
L08050050-08	50.0	DL01	386014	739339	988550
WG270256-01	50.0	DL01	300723	596947	838403
WG270256-02	50.0	DL01	339092	628003	855756
WG270256-03	50.0	DL01	349490	665820	916045

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1096840
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS9
Workgroup (AAB#): WG270445

ICAL CCV Number: WG270140-07
CAL ID: HPMS9-02-MAY-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG270140-07	NA	NA	233716	490832	763655
Upper Limit	NA	NA	467432	981664	1527310
Lower Limit	NA	NA	116858	245416	381828
L08050050-01	1.00	01	235301	516141	892556
L08050050-02	1.00	01	244247	537677	915752
L08050050-03	1.00	01	248772	542289	924239
WG270445-01	1.00	01	227293	502662	852509
WG270445-02	1.00	01	217606	483824	826520

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1096840
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS10
Workgroup (AAB#): WG270547

ICAL CCV Number: WG270161-09
CAL ID: HPMS10-02-MAY-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG270161-09	NA	NA	444315	835829	1068433
Upper Limit	NA	NA	888630	1671658	2136866
Lower Limit	NA	NA	222158	417915	534217
L08050050-11	1.00	02	366511	710599	904051
WG270547-01	1.00	01	377008	724098	941927
WG270547-02	1.00	01	420898	787028	995983
WG270547-03	1.00	01	399821	770522	960605

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1096840
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS9
Workgroup (AAB#): WG271083

ICAL CCV Number: WG270933-08
CAL ID: HPMS9-12-MAY-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG270933-08	NA	NA	233359	496719	820327
Upper Limit	NA	NA	466718	993438	1640654
Lower Limit	NA	NA	116680	248360	410164
L08050050-04	1.00	01	168766	435903	765756
L08050050-09	1.00	01	230280	496378	827326
L08050050-10	1.00	01	208781	494496	846403
WG271083-01	1.00	01	235248	521505	862353
WG271083-02	1.00	01	227948	491196	816965
WG271083-03	1.00	01	255537	544919	902071

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1096840
Report generated 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY

(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050

Instrument ID: HPMS8

Workgroup (AAB#): WG270256

ICAL CCV Number: WG269760-08

CAL ID: HPMS8-29-APR-08

Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG269760-08	NA	NA	17.88	14.86	10.99
Upper Limit	NA	NA	18.38	15.36	11.49
Lower Limit	NA	NA	17.38	14.36	10.49
L08050050-05	50.0	DL01	17.89	14.86	10.99
L08050050-06	50.0	DL01	17.88	14.86	10.99
L08050050-07	50.0	DL01	17.89	14.87	10.99
L08050050-08	50.0	DL01	17.89	14.87	10.99
WG270256-01	50.0	DL01	17.89	14.87	10.99
WG270256-02	50.0	DL01	17.89	14.87	10.99
WG270256-03	50.0	DL01	17.89	14.86	10.99

IS-1 - 1,4-Dichlorobenzene-d4

IS-2 - Chlorobenzene-d5

IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008

PDF File ID: 1096842

Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS9
Workgroup (AAB#): WG270445

ICAL CCV Number: WG270140-07
CAL ID: HPMS9-02-MAY-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG270140-07	NA	NA	15.21	12.23	8.39
Upper Limit	NA	NA	15.71	12.73	8.89
Lower Limit	NA	NA	14.71	11.73	7.89
L08050050-01	1.00	01	15.21	12.23	8.39
L08050050-02	1.00	01	15.2	12.23	8.39
L08050050-03	1.00	01	15.21	12.23	8.39
WG270445-01	1.00	01	15.21	12.23	8.39
WG270445-02	1.00	01	15.21	12.23	8.38

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1096842
Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY

(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050

Instrument ID: HPMS10

Workgroup (AAB#): WG270547

ICAL CCV Number: WG270161-09

CAL ID: HPMS10-02-MAY-08

Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG270161-09	NA	NA	17.74	14.72	10.84
Upper Limit	NA	NA	18.24	15.22	11.34
Lower Limit	NA	NA	17.24	14.22	10.34
L08050050-11	1.00	02	17.73	14.72	10.84
WG270547-01	1.00	01	17.73	14.72	10.84
WG270547-02	1.00	01	17.74	14.72	10.84
WG270547-03	1.00	01	17.74	14.72	10.84

IS-1 - 1,4-Dichlorobenzene-d4

IS-2 - Chlorobenzene-d5

IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008

PDF File ID: 1096842

Report generated: 05/19/2008 13:35

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS9
Workgroup (AAB#): WG271083

ICAL CCV Number: WG270933-08
CAL ID: HPMS9-12-MAY-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG270933-08	NA	NA	15.2	12.23	8.39
Upper Limit	NA	NA	15.7	12.73	8.89
Lower Limit	NA	NA	14.7	11.73	7.89
L08050050-04	1.00	01	15.2	12.23	8.39
L08050050-09	1.00	01	15.21	12.23	8.39
L08050050-10	1.00	01	15.21	12.23	8.38
WG271083-01	1.00	01	15.2	12.23	8.39
WG271083-02	1.00	01	15.2	12.23	8.39
WG271083-03	1.00	01	15.2	12.23	8.39

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1096842
Report generated: 05/19/2008 13:35

2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data

Microbac Laboratories Inc.
GC/MS SEMIVOLATILE ORGANICS

Microbac Login No: L08050050

METHOD

Preparation: Soils - SW-846 3545; Waters - SW-846 3510C or 3520C

Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: The standard analyzed on 4/25/08 yielded %D that were beyond the acceptance limits for 2,4-dinitrophenol (biased high) and 3,3'-dichlorobenzidine (biased low). All other acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: The LCS associated with WG270285 yielded recoveries for 2-chloronaphthalene and bis(2-chloroethoxy)methane that were below the lower acceptance limits. The LCS associated with WG270668 yielded recoveries for 2-chloronaphthalene and n-nitrosodiphenylamine that were below the lower acceptance limits; the LCS DUP was acceptable for these compounds. All other acceptance criteria were met.

Matrix Spikes: Samples 02MS and 03MSD yielded recoveries for bis(2-chloroethoxy)methane that were below the lower acceptance limit. Sample 02MS also yielded a low recovery for n-nitrosodiphenylamine. All other acceptance criteria were met.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: Sample 07 yielded a recovery for 2,4,6-tribromophenol that was below the lower acceptance limit; the sample was re-extracted and yielded acceptable recoveries. All other acceptance criteria were met.

Samples: All acceptance criteria were met.

Manual Integration Reason Codes

Microbac laboratory management has identified four general cases with valid reasons supporting the use of manual integration techniques.

Reason #1: Data System Fails to Select Correct Peak
In some cases the chromatography system selects and integrates the ”wrong peak”. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.
This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds.
This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

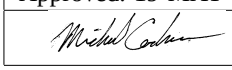
Reason #4: System Establishes Incorrect Baseline
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous
Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CAA, MES

Approved: 19-MAY-08



LABORATORY REPORT

L08050050

05/27/08 16:45

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
727 North 1st Street Suite 400
St. Louis, MO 63102-2542
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

P.O. Number: 927090

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
3025-SO01-050108	L08050050-01	8270C	1	02-MAY-08
3025-SO01-050108-MS	L08050050-02	8270C	1	02-MAY-08
3025-SO01-050108-MSD	L08050050-03	8270C	1	02-MAY-08
3025-SO02-050108	L08050050-04	8270C	1	02-MAY-08
3023-SO01-050108	L08050050-05	8270C	1	02-MAY-08
3023-SO01-050108-FD	L08050050-06	8270C	1	02-MAY-08
3015-SO01-050108	L08050050-07	8270C	1	02-MAY-08
3015-SO01-050108	L08050050-07	8270C	1	02-MAY-08
3015-SO02-050108	L08050050-08	8270C	1	02-MAY-08
3014-SO01-050108	L08050050-09	8270C	1	02-MAY-08
3014-SO02-050108	L08050050-10	8270C	1	02-MAY-08

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-01**
Client ID: **3025-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 10:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 15:10**
File ID: **4M42685**
Percent Solid: **83.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	189	94.4
2,4,6-Trichlorophenol	88-06-2		U	189	94.4
2,4-Dichlorophenol	120-83-2		U	189	94.4
2,4-Dimethylphenol	105-67-9		U	189	94.4
2,4-Dinitrophenol	51-28-5		U	944	471
2,4-Dinitrotoluene	121-14-2		U	189	94.4
2,6-Dinitrotoluene	606-20-2		U	189	94.4
2-Chloronaphthalene	91-58-7		U	189	94.4
2-Chlorophenol	95-57-8		U	189	94.4
2-Methylnaphthalene	91-57-6		U	189	94.4
2-Methylphenol	95-48-7		U	189	94.4
2-Nitroaniline	88-74-4		U	944	471
2-Nitrophenol	88-75-5		U	189	94.4
3,3'-Dichlorobenzidine	91-94-1		U	378	189
3-,4-Methylphenol	106-44-5		U	189	94.4
3-Nitroaniline	99-09-2		U	944	471
4,6-Dinitro-2-methylphenol	534-52-1		U	944	471
4-Bromophenyl phenyl ether	101-55-3		U	189	94.4
4-Chloro-3-methylphenol	59-50-7		U	189	94.4
4-Chloroaniline	106-47-8		U	189	94.4
4-Chlorophenyl phenyl ether	7005-72-3		U	189	94.4
4-Nitroaniline	100-01-6		U	944	471
4-Nitrophenol	100-02-7		U	944	471
Acenaphthene	83-32-9		U	189	94.4
Acenaphthylene	208-96-8		U	189	94.4
Anthracene	120-12-7		U	189	94.4
Benzo(a)anthracene	56-55-3		U	189	94.4
Benzo(a)pyrene	50-32-8		U	189	94.4
Benzo(b)fluoranthene	205-99-2		U	189	94.4
Benzo(g,h,i)Perylene	191-24-2		U	189	94.4
Benzo(k)fluoranthene	207-08-9		U	189	94.4
Bis(2-Chloroethoxy)Methane	111-91-1		U	189	94.4
Bis(2-Chloroethyl)ether	111-44-4		U	189	94.4
bis(2-Chloroisopropyl)ether	39638-32-9		U	189	94.4
bis(2-Ethylhexyl)phthalate	117-81-7		U	189	94.4
Butyl benzyl phthalate	85-68-7		U	189	94.4
Carbazole	86-74-8		U	189	94.4
Chrysene	218-01-9		U	189	94.4
Dibenz(a,h)anthracene	53-70-3		U	189	94.4
Dibenzofuran	132-64-9		U	189	94.4
Diethyl phthalate	84-66-2		U	189	94.4
Dimethyl phthalate	131-11-3		U	189	94.4
Di-N-Butylphthalate	84-74-2		U	189	94.4
Di-n-octyl phthalate	117-84-0		U	189	94.4
Fluoranthene	206-44-0		U	189	94.4
Fluorene	86-73-7		U	189	94.4
Hexachlorobenzene	118-74-1		U	189	94.4
Hexachlorobutadiene	87-68-3		U	189	94.4
Hexachlorocyclopentadiene	77-47-4		U	189	94.4
Hexachloroethane	67-72-1		U	189	94.4
Indeno(1,2,3-cd)pyrene	193-39-5		U	189	94.4
Isophorone	78-59-1		U	189	94.4
Naphthalene	91-20-3		U	189	94.4
Nitrobenzene	98-95-3		U	189	94.4
N-Nitrosodiphenylamine	86-30-6		U	189	94.4
N-Nitrosodipropylamine	621-64-7		U	189	94.4
Pentachlorophenol	87-86-5		U	944	471
Phenanthrene	85-01-8		U	189	94.4
Phenol	108-95-2		U	189	94.4

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-01	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3025-SO01-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 15:10
Collect Date:	05/01/2008 10:10	Dilution:	1	File ID:	4M42685
Sample Tag:	01	Units:	ug/kg	Percent Solid:	83.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	189	94.4

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	46.7	19	122	
2-Fluorobiphenyl	55.5	30	115	
2-Fluorophenol	55.3	25	121	
Nitrobenzene-d5	60.1	23	120	
p-Terphenyl-d14	74.7	18	137	
Phenol-d5	57.6	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-02**
Client ID: **3025-SO01-050108-MS**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 10:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 15:42**
File ID: **4M42686**
Percent Solid: **83.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4	1770		195	97.4
2,4,6-Trichlorophenol	88-06-2	1700		195	97.4
2,4-Dichlorophenol	120-83-2	1540		195	97.4
2,4-Dimethylphenol	105-67-9	1330		195	97.4
2,4-Dinitrophenol	51-28-5	1790		974	486
2,4-Dinitrotoluene	121-14-2	2130		195	97.4
2,6-Dinitrotoluene	606-20-2	1750		195	97.4
2-Chloronaphthalene	91-58-7	1420		195	97.4
2-Chlorophenol	95-57-8	1580		195	97.4
2-Methylnaphthalene	91-57-6	1570		195	97.4
2-Methylphenol	95-48-7	1580		195	97.4
2-Nitroaniline	88-74-4	1670		974	486
2-Nitrophenol	88-75-5	1540		195	97.4
3,3'-Dichlorobenzidine	91-94-1	1960		390	195
3-,4-Methylphenol	106-44-5	1790		195	97.4
3-Nitroaniline	99-09-2	2020		974	486
4,6-Dinitro-2-methylphenol	534-52-1	1920		974	486
4-Bromophenyl phenyl ether	101-55-3	1470		195	97.4
4-Chloro-3-methylphenol	59-50-7	1550		195	97.4
4-Chloroaniline	106-47-8	1390		195	97.4
4-Chlorophenyl phenyl ether	7005-72-3	1630		195	97.4
4-Nitroaniline	100-01-6	2280		974	486
4-Nitrophenol	100-02-7	2090		974	486
Acenaphthene	83-32-9	1670		195	97.4
Acenaphthylene	208-96-8	1690		195	97.4
Anthracene	120-12-7	1970		195	97.4
Benzo(a)anthracene	56-55-3	2420		195	97.4
Benzo(a)pyrene	50-32-8	2550		195	97.4
Benzo(b)fluoranthene	205-99-2	2540		195	97.4
Benzo(g,h,i)Perylene	191-24-2	2500		195	97.4
Benzo(k)fluoranthene	207-08-9	2520		195	97.4
Bis(2-Chloroethoxy)Methane	111-91-1	1180		195	97.4
Bis(2-Chloroethyl)ether	111-44-4	1510		195	97.4
bis(2-Chloroisopropyl)ether	39638-32-9	1390		195	97.4
bis(2-Ethylhexyl)phthalate	117-81-7	2440		195	97.4
Butyl benzyl phthalate	85-68-7	2500		195	97.4
Carbazole	86-74-8	2160		195	97.4
Chrysene	218-01-9	2470		195	97.4
Dibenz(a,h)anthracene	53-70-3	2530		195	97.4
Dibenzofuran	132-64-9	1680		195	97.4
Diethyl phthalate	84-66-2	1970		195	97.4
Dimethyl phthalate	131-11-3	1720		195	97.4
Di-N-Butylphthalate	84-74-2	2110		195	97.4
Di-n-octyl phthalate	117-84-0	2580		195	97.4
Fluoranthene	206-44-0	2190		195	97.4
Fluorene	86-73-7	1690		195	97.4
Hexachlorobenzene	118-74-1	1800		195	97.4
Hexachlorobutadiene	87-68-3	1740		195	97.4
Hexachlorocyclopentadiene	77-47-4	1380		195	97.4
Hexachloroethane	67-72-1	1560		195	97.4
Indeno(1,2,3-cd)pyrene	193-39-5	2490		195	97.4
Isophorone	78-59-1	1680		195	97.4
Naphthalene	91-20-3	1500		195	97.4
Nitrobenzene	98-95-3	1490		195	97.4
N-Nitrosodiphenylamine	86-30-6	1430		195	97.4
N-Nitrosodipropylamine	621-64-7	1540		195	97.4
Pentachlorophenol	87-86-5	2340		974	486
Phenanthrene	85-01-8	1910		195	97.4
Phenol	108-95-2	1600		195	97.4

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-02	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3025-SO01-050108-MS	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 15:42
Collect Date:	05/01/2008 10:10	Dilution:	1	File ID:	4M42686
Sample Tag:	01	Units:	ug/kg	Percent Solid:	83.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0	2380		195	97.4

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	55.2	19	122	
2-Fluorobiphenyl	53.2	30	115	
2-Fluorophenol	49.2	25	121	
Nitrobenzene-d5	49.7	23	120	
p-Terphenyl-d14	70.4	18	137	
Phenol-d5	51.1	24	113	

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-03**
Client ID: **3025-SO01-050108-MSD**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 10:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 16:13**
File ID: **4M42687**
Percent Solid: **83.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4	1770		189	94.5
2,4,6-Trichlorophenol	88-06-2	1690		189	94.5
2,4-Dichlorophenol	120-83-2	1510		189	94.5
2,4-Dimethylphenol	105-67-9	1190		189	94.5
2,4-Dinitrophenol	51-28-5	1860		945	472
2,4-Dinitrotoluene	121-14-2	2160		189	94.5
2,6-Dinitrotoluene	606-20-2	1830		189	94.5
2-Chloronaphthalene	91-58-7	1420		189	94.5
2-Chlorophenol	95-57-8	1540		189	94.5
2-Methylnaphthalene	91-57-6	1540		189	94.5
2-Methylphenol	95-48-7	1540		189	94.5
2-Nitroaniline	88-74-4	1840		945	472
2-Nitrophenol	88-75-5	1500		189	94.5
3,3'-Dichlorobenzidine	91-94-1	1510		378	189
3-,4-Methylphenol	106-44-5	1740		189	94.5
3-Nitroaniline	99-09-2	2100		945	472
4,6-Dinitro-2-methylphenol	534-52-1	2030		945	472
4-Bromophenyl phenyl ether	101-55-3	1510		189	94.5
4-Chloro-3-methylphenol	59-50-7	1600		189	94.5
4-Chloroaniline	106-47-8	1340		189	94.5
4-Chlorophenyl phenyl ether	7005-72-3	1650		189	94.5
4-Nitroaniline	100-01-6	2310		945	472
4-Nitrophenol	100-02-7	2230		945	472
Acenaphthene	83-32-9	1700		189	94.5
Acenaphthylene	208-96-8	1710		189	94.5
Anthracene	120-12-7	2020		189	94.5
Benzo(a)anthracene	56-55-3	2420		189	94.5
Benzo(a)pyrene	50-32-8	2530		189	94.5
Benzo(b)fluoranthene	205-99-2	2310		189	94.5
Benzo(g,h,i)Perylene	191-24-2	2440		189	94.5
Benzo(k)fluoranthene	207-08-9	2440		189	94.5
Bis(2-Chloroethoxy)Methane	111-91-1	1180		189	94.5
Bis(2-Chloroethyl)ether	111-44-4	1520		189	94.5
bis(2-Chloroisopropyl)ether	39638-32-9	1420		189	94.5
bis(2-Ethylhexyl)phthalate	117-81-7	2550		189	94.5
Butyl benzyl phthalate	85-68-7	2600		189	94.5
Carbazole	86-74-8	2170		189	94.5
Chrysene	218-01-9	2510		189	94.5
Dibenz(a,h)anthracene	53-70-3	2530		189	94.5
Dibenzofuran	132-64-9	1710		189	94.5
Diethyl phthalate	84-66-2	2010		189	94.5
Dimethyl phthalate	131-11-3	1780		189	94.5
Di-N-Butylphthalate	84-74-2	2170		189	94.5
Di-n-octyl phthalate	117-84-0	2720		189	94.5
Fluoranthene	206-44-0	2170		189	94.5
Fluorene	86-73-7	1730		189	94.5
Hexachlorobenzene	118-74-1	1820		189	94.5
Hexachlorobutadiene	87-68-3	1650		189	94.5
Hexachlorocyclopentadiene	77-47-4	1400		189	94.5
Hexachloroethane	67-72-1	1520		189	94.5
Indeno(1,2,3-cd)pyrene	193-39-5	2460		189	94.5
Isophorone	78-59-1	1720		189	94.5
Naphthalene	91-20-3	1460		189	94.5
Nitrobenzene	98-95-3	1500		189	94.5
N-Nitrosodiphenylamine	86-30-6	1420		189	94.5
N-Nitrosodipropylamine	621-64-7	1560		189	94.5
Pentachlorophenol	87-86-5	2290		945	472
Phenanthrene	85-01-8	1950		189	94.5
Phenol	108-95-2	1570		189	94.5

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-03	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3025-SO01-050108-MSD	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 16:13
Collect Date:	05/01/2008 10:10	Dilution:	1	File ID:	4M42687
Sample Tag:	01	Units:	ug/kg	Percent Solid:	83.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0	2400		189	94.5

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	57.2	19	122	
2-Fluorobiphenyl	55.3	30	115	
2-Fluorophenol	51.2	25	121	
Nitrobenzene-d5	52.7	23	120	
p-Terphenyl-d14	73.4	18	137	
Phenol-d5	53.3	24	113	

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-04**
Client ID: **3025-SO02-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 10:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 18:18**
File ID: **4M42691**
Percent Solid: **87.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	179	89.5
2,4,6-Trichlorophenol	88-06-2		U	179	89.5
2,4-Dichlorophenol	120-83-2		U	179	89.5
2,4-Dimethylphenol	105-67-9		U	179	89.5
2,4-Dinitrophenol	51-28-5		U	895	447
2,4-Dinitrotoluene	121-14-2		U	179	89.5
2,6-Dinitrotoluene	606-20-2		U	179	89.5
2-Chloronaphthalene	91-58-7		U	179	89.5
2-Chlorophenol	95-57-8		U	179	89.5
2-Methylnaphthalene	91-57-6		U	179	89.5
2-Methylphenol	95-48-7		U	179	89.5
2-Nitroaniline	88-74-4		U	895	447
2-Nitrophenol	88-75-5		U	179	89.5
3,3'-Dichlorobenzidine	91-94-1		U	358	179
3-,4-Methylphenol	106-44-5		U	179	89.5
3-Nitroaniline	99-09-2		U	895	447
4,6-Dinitro-2-methylphenol	534-52-1		U	895	447
4-Bromophenyl phenyl ether	101-55-3		U	179	89.5
4-Chloro-3-methylphenol	59-50-7		U	179	89.5
4-Chloroaniline	106-47-8		U	179	89.5
4-Chlorophenyl phenyl ether	7005-72-3		U	179	89.5
4-Nitroaniline	100-01-6		U	895	447
4-Nitrophenol	100-02-7		U	895	447
Acenaphthene	83-32-9		U	179	89.5
Acenaphthylene	208-96-8		U	179	89.5
Anthracene	120-12-7		U	179	89.5
Benzo(a)anthracene	56-55-3		U	179	89.5
Benzo(a)pyrene	50-32-8		U	179	89.5
Benzo(b)fluoranthene	205-99-2		U	179	89.5
Benzo(g,h,i)Perylene	191-24-2		U	179	89.5
Benzo(k)fluoranthene	207-08-9		U	179	89.5
Bis(2-Chloroethoxy)Methane	111-91-1		U	179	89.5
Bis(2-Chloroethyl)ether	111-44-4		U	179	89.5
bis(2-Chloroisopropyl)ether	39638-32-9		U	179	89.5
bis(2-Ethylhexyl)phthalate	117-81-7		U	179	89.5
Butyl benzyl phthalate	85-68-7		U	179	89.5
Carbazole	86-74-8		U	179	89.5
Chrysene	218-01-9		U	179	89.5
Dibenz(a,h)anthracene	53-70-3		U	179	89.5
Dibenzofuran	132-64-9		U	179	89.5
Diethyl phthalate	84-66-2		U	179	89.5
Dimethyl phthalate	131-11-3		U	179	89.5
Di-N-Butylphthalate	84-74-2		U	179	89.5
Di-n-octyl phthalate	117-84-0		U	179	89.5
Fluoranthene	206-44-0		U	179	89.5
Fluorene	86-73-7		U	179	89.5
Hexachlorobenzene	118-74-1		U	179	89.5
Hexachlorobutadiene	87-68-3		U	179	89.5
Hexachlorocyclopentadiene	77-47-4		U	179	89.5
Hexachloroethane	67-72-1		U	179	89.5
Indeno(1,2,3-cd)pyrene	193-39-5		U	179	89.5
Isophorone	78-59-1		U	179	89.5
Naphthalene	91-20-3		U	179	89.5
Nitrobenzene	98-95-3		U	179	89.5
N-Nitrosodiphenylamine	86-30-6		U	179	89.5
N-Nitrosodipropylamine	621-64-7		U	179	89.5
Pentachlorophenol	87-86-5		U	895	447
Phenanthrene	85-01-8		U	179	89.5
Phenol	108-95-2		U	179	89.5

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-04	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3025-SO02-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 18:18
Collect Date:	05/01/2008 10:40	Dilution:	1	File ID:	4M42691
Sample Tag:	01	Units:	ug/kg	Percent Solid:	87.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	179	89.5

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	51.4	19	122	
2-Fluorobiphenyl	50.7	30	115	
2-Fluorophenol	53.7	25	121	
Nitrobenzene-d5	55.9	23	120	
p-Terphenyl-d14	73.4	18	137	
Phenol-d5	55.7	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-05**
Client ID: **3023-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 12:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 19:53**
File ID: **4M42694**
Percent Solid: **87.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	183	91.3
2,4,6-Trichlorophenol	88-06-2		U	183	91.3
2,4-Dichlorophenol	120-83-2		U	183	91.3
2,4-Dimethylphenol	105-67-9		U	183	91.3
2,4-Dinitrophenol	51-28-5		U	913	456
2,4-Dinitrotoluene	121-14-2		U	183	91.3
2,6-Dinitrotoluene	606-20-2		U	183	91.3
2-Chloronaphthalene	91-58-7		U	183	91.3
2-Chlorophenol	95-57-8		U	183	91.3
2-Methylnaphthalene	91-57-6		U	183	91.3
2-Methylphenol	95-48-7		U	183	91.3
2-Nitroaniline	88-74-4		U	913	456
2-Nitrophenol	88-75-5		U	183	91.3
3,3'-Dichlorobenzidine	91-94-1		U	365	183
3-,4-Methylphenol	106-44-5		U	183	91.3
3-Nitroaniline	99-09-2		U	913	456
4,6-Dinitro-2-methylphenol	534-52-1		U	913	456
4-Bromophenyl phenyl ether	101-55-3		U	183	91.3
4-Chloro-3-methylphenol	59-50-7		U	183	91.3
4-Chloroaniline	106-47-8		U	183	91.3
4-Chlorophenyl phenyl ether	7005-72-3		U	183	91.3
4-Nitroaniline	100-01-6		U	913	456
4-Nitrophenol	100-02-7		U	913	456
Acenaphthene	83-32-9		U	183	91.3
Acenaphthylene	208-96-8		U	183	91.3
Anthracene	120-12-7		U	183	91.3
Benzo(a)anthracene	56-55-3		U	183	91.3
Benzo(a)pyrene	50-32-8		U	183	91.3
Benzo(b)fluoranthene	205-99-2		U	183	91.3
Benzo(g,h,i)Perylene	191-24-2		U	183	91.3
Benzo(k)fluoranthene	207-08-9		U	183	91.3
Bis(2-Chloroethoxy)Methane	111-91-1		U	183	91.3
Bis(2-Chloroethyl)ether	111-44-4		U	183	91.3
bis(2-Chloroisopropyl)ether	39638-32-9		U	183	91.3
bis(2-Ethylhexyl)phthalate	117-81-7		U	183	91.3
Butyl benzyl phthalate	85-68-7		U	183	91.3
Carbazole	86-74-8		U	183	91.3
Chrysene	218-01-9	196		183	91.3
Dibenz(a,h)anthracene	53-70-3		U	183	91.3
Dibenzofuran	132-64-9		U	183	91.3
Diethyl phthalate	84-66-2		U	183	91.3
Dimethyl phthalate	131-11-3		U	183	91.3
Di-N-Butylphthalate	84-74-2		U	183	91.3
Di-n-octyl phthalate	117-84-0		U	183	91.3
Fluoranthene	206-44-0	352		183	91.3
Fluorene	86-73-7		U	183	91.3
Hexachlorobenzene	118-74-1		U	183	91.3
Hexachlorobutadiene	87-68-3		U	183	91.3
Hexachlorocyclopentadiene	77-47-4		U	183	91.3
Hexachloroethane	67-72-1		U	183	91.3
Indeno(1,2,3-cd)pyrene	193-39-5		U	183	91.3
Isophorone	78-59-1		U	183	91.3
Naphthalene	91-20-3		U	183	91.3
Nitrobenzene	98-95-3		U	183	91.3
N-Nitrosodiphenylamine	86-30-6		U	183	91.3
N-Nitrosodipropylamine	621-64-7		U	183	91.3
Pentachlorophenol	87-86-5		U	913	456
Phenanthrene	85-01-8	300		183	91.3
Phenol	108-95-2		U	183	91.3

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-05	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3023-SO01-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 19:53
Collect Date:	05/01/2008 12:45	Dilution:	1	File ID:	4M42694
Sample Tag:	01	Units:	ug/kg	Percent Solid:	87.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0	335		183	91.3

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	56.1	19	122	
2-Fluorobiphenyl	48.0	30	115	
2-Fluorophenol	54.4	25	121	
Nitrobenzene-d5	58.1	23	120	
p-Terphenyl-d14	66.5	18	137	
Phenol-d5	58.2	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-06**
Client ID: **3023-SO01-050108-FD**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 12:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 18:50**
File ID: **4M42692**
Percent Solid: **89.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	177	88.4
2,4,6-Trichlorophenol	88-06-2		U	177	88.4
2,4-Dichlorophenol	120-83-2		U	177	88.4
2,4-Dimethylphenol	105-67-9		U	177	88.4
2,4-Dinitrophenol	51-28-5		U	884	441
2,4-Dinitrotoluene	121-14-2		U	177	88.4
2,6-Dinitrotoluene	606-20-2		U	177	88.4
2-Chloronaphthalene	91-58-7		U	177	88.4
2-Chlorophenol	95-57-8		U	177	88.4
2-Methylnaphthalene	91-57-6		U	177	88.4
2-Methylphenol	95-48-7		U	177	88.4
2-Nitroaniline	88-74-4		U	884	441
2-Nitrophenol	88-75-5		U	177	88.4
3,3'-Dichlorobenzidine	91-94-1		U	353	177
3-,4-Methylphenol	106-44-5		U	177	88.4
3-Nitroaniline	99-09-2		U	884	441
4,6-Dinitro-2-methylphenol	534-52-1		U	884	441
4-Bromophenyl phenyl ether	101-55-3		U	177	88.4
4-Chloro-3-methylphenol	59-50-7		U	177	88.4
4-Chloroaniline	106-47-8		U	177	88.4
4-Chlorophenyl phenyl ether	7005-72-3		U	177	88.4
4-Nitroaniline	100-01-6		U	884	441
4-Nitrophenol	100-02-7		U	884	441
Acenaphthene	83-32-9		U	177	88.4
Acenaphthylene	208-96-8		U	177	88.4
Anthracene	120-12-7		U	177	88.4
Benzo(a)anthracene	56-55-3		U	177	88.4
Benzo(a)pyrene	50-32-8		U	177	88.4
Benzo(b)fluoranthene	205-99-2		U	177	88.4
Benzo(g,h,i)Perylene	191-24-2		U	177	88.4
Benzo(k)fluoranthene	207-08-9		U	177	88.4
Bis(2-Chloroethoxy)Methane	111-91-1		U	177	88.4
Bis(2-Chloroethyl)ether	111-44-4		U	177	88.4
bis(2-Chloroisopropyl)ether	39638-32-9		U	177	88.4
bis(2-Ethylhexyl)phthalate	117-81-7		U	177	88.4
Butyl benzyl phthalate	85-68-7		U	177	88.4
Carbazole	86-74-8		U	177	88.4
Chrysene	218-01-9		U	177	88.4
Dibenz(a,h)anthracene	53-70-3		U	177	88.4
Dibenzofuran	132-64-9		U	177	88.4
Diethyl phthalate	84-66-2		U	177	88.4
Dimethyl phthalate	131-11-3		U	177	88.4
Di-N-Butylphthalate	84-74-2		U	177	88.4
Di-n-octyl phthalate	117-84-0		U	177	88.4
Fluoranthene	206-44-0		U	177	88.4
Fluorene	86-73-7		U	177	88.4
Hexachlorobenzene	118-74-1		U	177	88.4
Hexachlorobutadiene	87-68-3		U	177	88.4
Hexachlorocyclopentadiene	77-47-4		U	177	88.4
Hexachloroethane	67-72-1		U	177	88.4
Indeno(1,2,3-cd)pyrene	193-39-5		U	177	88.4
Isophorone	78-59-1		U	177	88.4
Naphthalene	91-20-3		U	177	88.4
Nitrobenzene	98-95-3		U	177	88.4
N-Nitrosodiphenylamine	86-30-6		U	177	88.4
N-Nitrosodipropylamine	621-64-7		U	177	88.4
Pentachlorophenol	87-86-5		U	884	441
Phenanthrene	85-01-8		U	177	88.4
Phenol	108-95-2		U	177	88.4

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-06	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3023-SO01-050108-FD	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 18:50
Collect Date:	05/01/2008 12:45	Dilution:	1	File ID:	4M42692
Sample Tag:	01	Units:	ug/kg	Percent Solid:	89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	177	88.4

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	57.9	19	122	
2-Fluorobiphenyl	57.1	30	115	
2-Fluorophenol	57.5	25	121	
Nitrobenzene-d5	60.8	23	120	
p-Terphenyl-d14	89.2	18	137	
Phenol-d5	61.3	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-07**
Client ID: **3015-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 15:15**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 17:47**
File ID: **4M42690**
Percent Solid: **82.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	195	97.4
2,4,6-Trichlorophenol	88-06-2		U	195	97.4
2,4-Dichlorophenol	120-83-2		U	195	97.4
2,4-Dimethylphenol	105-67-9		U	195	97.4
2,4-Dinitrophenol	51-28-5		U	974	486
2,4-Dinitrotoluene	121-14-2		U	195	97.4
2,6-Dinitrotoluene	606-20-2		U	195	97.4
2-Chloronaphthalene	91-58-7		U	195	97.4
2-Chlorophenol	95-57-8		U	195	97.4
2-Methylnaphthalene	91-57-6		U	195	97.4
2-Methylphenol	95-48-7		U	195	97.4
2-Nitroaniline	88-74-4		U	974	486
2-Nitrophenol	88-75-5		U	195	97.4
3,3'-Dichlorobenzidine	91-94-1		U	390	195
3-,4-Methylphenol	106-44-5		U	195	97.4
3-Nitroaniline	99-09-2		U	974	486
4,6-Dinitro-2-methylphenol	534-52-1		U	974	486
4-Bromophenyl phenyl ether	101-55-3		U	195	97.4
4-Chloro-3-methylphenol	59-50-7		U	195	97.4
4-Chloroaniline	106-47-8		U	195	97.4
4-Chlorophenyl phenyl ether	7005-72-3		U	195	97.4
4-Nitroaniline	100-01-6		U	974	486
4-Nitrophenol	100-02-7		U	974	486
Acenaphthene	83-32-9		U	195	97.4
Acenaphthylene	208-96-8		U	195	97.4
Anthracene	120-12-7		U	195	97.4
Benzo(a)anthracene	56-55-3		U	195	97.4
Benzo(a)pyrene	50-32-8		U	195	97.4
Benzo(b)fluoranthene	205-99-2		U	195	97.4
Benzo(g,h,i)Perylene	191-24-2		U	195	97.4
Benzo(k)fluoranthene	207-08-9		U	195	97.4
Bis(2-Chloroethoxy)Methane	111-91-1		U	195	97.4
Bis(2-Chloroethyl)ether	111-44-4		U	195	97.4
bis(2-Chloroisopropyl)ether	39638-32-9		U	195	97.4
bis(2-Ethylhexyl)phthalate	117-81-7		U	195	97.4
Butyl benzyl phthalate	85-68-7		U	195	97.4
Carbazole	86-74-8		U	195	97.4
Chrysene	218-01-9		U	195	97.4
Dibenz(a,h)anthracene	53-70-3		U	195	97.4
Dibenzofuran	132-64-9		U	195	97.4
Diethyl phthalate	84-66-2		U	195	97.4
Dimethyl phthalate	131-11-3		U	195	97.4
Di-N-Butylphthalate	84-74-2		U	195	97.4
Di-n-octyl phthalate	117-84-0		U	195	97.4
Fluoranthene	206-44-0		U	195	97.4
Fluorene	86-73-7		U	195	97.4
Hexachlorobenzene	118-74-1		U	195	97.4
Hexachlorobutadiene	87-68-3		U	195	97.4
Hexachlorocyclopentadiene	77-47-4		U	195	97.4
Hexachloroethane	67-72-1		U	195	97.4
Indeno(1,2,3-cd)pyrene	193-39-5		U	195	97.4
Isophorone	78-59-1		U	195	97.4
Naphthalene	91-20-3		U	195	97.4
Nitrobenzene	98-95-3		U	195	97.4
N-Nitrosodiphenylamine	86-30-6		U	195	97.4
N-Nitrosodipropylamine	621-64-7		U	195	97.4
Pentachlorophenol	87-86-5		U	974	486
Phenanthrene	85-01-8		U	195	97.4
Phenol	108-95-2		U	195	97.4

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-07	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3015-SO01-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 17:47
Collect Date:	05/01/2008 15:15	Dilution:	1	File ID:	4M42690
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	195	97.4

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	7.52	19	122	*
2-Fluorobiphenyl	69.6	30	115	
2-Fluorophenol	35.6	25	121	
Nitrobenzene-d5	70.0	23	120	
p-Terphenyl-d14	129	18	137	
Phenol-d5	52.8	24	113	

U Not detected at or above the reporting limit
***** Surrogate or spike compound out of range

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-07**
Client ID: **3015-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270949**
Collect Date: **05/01/2008 15:15**
Sample Tag: **RE1**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS12**
Prep Date: **05/08/2008 08:00**
Cal Date: **04/25/2008 17:11**
Run Date: **05/09/2008 12:38**
File ID: **12M21666**
Percent Solid: **82.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	197	98.3
2,4,6-Trichlorophenol	88-06-2		U	197	98.3
2,4-Dichlorophenol	120-83-2		U	197	98.3
2,4-Dimethylphenol	105-67-9		U	197	98.3
2,4-Dinitrophenol	51-28-5		U	983	491
2,4-Dinitrotoluene	121-14-2		U	197	98.3
2,6-Dinitrotoluene	606-20-2		U	197	98.3
2-Chloronaphthalene	91-58-7		U	197	98.3
2-Chlorophenol	95-57-8		U	197	98.3
2-Methylnaphthalene	91-57-6		U	197	98.3
2-Methylphenol	95-48-7		U	197	98.3
2-Nitroaniline	88-74-4		U	983	491
2-Nitrophenol	88-75-5		U	197	98.3
3,3'-Dichlorobenzidine	91-94-1		U	393	197
3-,4-Methylphenol	106-44-5		U	197	98.3
3-Nitroaniline	99-09-2		U	983	491
4,6-Dinitro-2-methylphenol	534-52-1		U	983	491
4-Bromophenyl phenyl ether	101-55-3		U	197	98.3
4-Chloro-3-methylphenol	59-50-7		U	197	98.3
4-Chloroaniline	106-47-8		U	197	98.3
4-Chlorophenyl phenyl ether	7005-72-3		U	197	98.3
4-Nitroaniline	100-01-6		U	983	491
4-Nitrophenol	100-02-7		U	983	491
Acenaphthene	83-32-9		U	197	98.3
Acenaphthylene	208-96-8		U	197	98.3
Anthracene	120-12-7		U	197	98.3
Benzo(a)anthracene	56-55-3		U	197	98.3
Benzo(a)pyrene	50-32-8		U	197	98.3
Benzo(b)fluoranthene	205-99-2		U	197	98.3
Benzo(g,h,i)Perylene	191-24-2		U	197	98.3
Benzo(k)fluoranthene	207-08-9		U	197	98.3
Bis(2-Chloroethoxy)Methane	111-91-1		U	197	98.3
Bis(2-Chloroethyl)ether	111-44-4		U	197	98.3
bis(2-Chloroisopropyl)ether	39638-32-9		U	197	98.3
bis(2-Ethylhexyl)phthalate	117-81-7		U	197	98.3
Butyl benzyl phthalate	85-68-7		U	197	98.3
Carbazole	86-74-8		U	197	98.3
Chrysene	218-01-9		U	197	98.3
Dibenz(a,h)anthracene	53-70-3		U	197	98.3
Dibenzofuran	132-64-9		U	197	98.3
Diethyl phthalate	84-66-2		U	197	98.3
Dimethyl phthalate	131-11-3		U	197	98.3
Di-N-Butylphthalate	84-74-2		U	197	98.3
Di-n-octyl phthalate	117-84-0		U	197	98.3
Fluoranthene	206-44-0		U	197	98.3
Fluorene	86-73-7		U	197	98.3
Hexachlorobenzene	118-74-1		U	197	98.3
Hexachlorobutadiene	87-68-3		U	197	98.3
Hexachlorocyclopentadiene	77-47-4		U	197	98.3
Hexachloroethane	67-72-1		U	197	98.3
Indeno(1,2,3-cd)pyrene	193-39-5		U	197	98.3
Isophorone	78-59-1		U	197	98.3
Naphthalene	91-20-3		U	197	98.3
Nitrobenzene	98-95-3		U	197	98.3
N-Nitrosodiphenylamine	86-30-6		U	197	98.3
N-Nitrosodipropylamine	621-64-7		U	197	98.3
Pentachlorophenol	87-86-5		U	983	491
Phenanthrene	85-01-8		U	197	98.3
Phenol	108-95-2		U	197	98.3

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-07	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	3015-SO01-050108	Prep Method:	3545	Prep Date:	05/08/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	04/25/2008 17:11
Workgroup Number:	WG270949	Analyst:	MES	Run Date:	05/09/2008 12:38
Collect Date:	05/01/2008 15:15	Dilution:	1	File ID:	12M21666
Sample Tag:	RE1	Units:	ug/kg	Percent Solid:	82.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	197	98.3

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	69.2	19	122	
2-Fluorobiphenyl	74.4	30	115	
2-Fluorophenol	66.6	25	121	
Nitrobenzene-d5	69.8	23	120	
p-Terphenyl-d14	99.7	18	137	
Phenol-d5	69.5	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-08**
Client ID: **3015-SO02-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 15:25**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 16:44**
File ID: **4M42688**
Percent Solid: **82.9**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	191	95.7
2,4,6-Trichlorophenol	88-06-2		U	191	95.7
2,4-Dichlorophenol	120-83-2		U	191	95.7
2,4-Dimethylphenol	105-67-9		U	191	95.7
2,4-Dinitrophenol	51-28-5		U	957	478
2,4-Dinitrotoluene	121-14-2		U	191	95.7
2,6-Dinitrotoluene	606-20-2		U	191	95.7
2-Chloronaphthalene	91-58-7		U	191	95.7
2-Chlorophenol	95-57-8		U	191	95.7
2-Methylnaphthalene	91-57-6		U	191	95.7
2-Methylphenol	95-48-7		U	191	95.7
2-Nitroaniline	88-74-4		U	957	478
2-Nitrophenol	88-75-5		U	191	95.7
3,3'-Dichlorobenzidine	91-94-1		U	383	191
3-,4-Methylphenol	106-44-5		U	191	95.7
3-Nitroaniline	99-09-2		U	957	478
4,6-Dinitro-2-methylphenol	534-52-1		U	957	478
4-Bromophenyl phenyl ether	101-55-3		U	191	95.7
4-Chloro-3-methylphenol	59-50-7		U	191	95.7
4-Chloroaniline	106-47-8		U	191	95.7
4-Chlorophenyl phenyl ether	7005-72-3		U	191	95.7
4-Nitroaniline	100-01-6		U	957	478
4-Nitrophenol	100-02-7		U	957	478
Acenaphthene	83-32-9		U	191	95.7
Acenaphthylene	208-96-8		U	191	95.7
Anthracene	120-12-7		U	191	95.7
Benzo(a)anthracene	56-55-3		U	191	95.7
Benzo(a)pyrene	50-32-8		U	191	95.7
Benzo(b)fluoranthene	205-99-2		U	191	95.7
Benzo(g,h,i)Perylene	191-24-2		U	191	95.7
Benzo(k)fluoranthene	207-08-9		U	191	95.7
Bis(2-Chloroethoxy)Methane	111-91-1		U	191	95.7
Bis(2-Chloroethyl)ether	111-44-4		U	191	95.7
bis(2-Chloroisopropyl)ether	39638-32-9		U	191	95.7
bis(2-Ethylhexyl)phthalate	117-81-7		U	191	95.7
Butyl benzyl phthalate	85-68-7		U	191	95.7
Carbazole	86-74-8		U	191	95.7
Chrysene	218-01-9		U	191	95.7
Dibenz(a,h)anthracene	53-70-3		U	191	95.7
Dibenzofuran	132-64-9		U	191	95.7
Diethyl phthalate	84-66-2		U	191	95.7
Dimethyl phthalate	131-11-3		U	191	95.7
Di-N-Butylphthalate	84-74-2		U	191	95.7
Di-n-octyl phthalate	117-84-0		U	191	95.7
Fluoranthene	206-44-0		U	191	95.7
Fluorene	86-73-7		U	191	95.7
Hexachlorobenzene	118-74-1		U	191	95.7
Hexachlorobutadiene	87-68-3		U	191	95.7
Hexachlorocyclopentadiene	77-47-4		U	191	95.7
Hexachloroethane	67-72-1		U	191	95.7
Indeno(1,2,3-cd)pyrene	193-39-5		U	191	95.7
Isophorone	78-59-1		U	191	95.7
Naphthalene	91-20-3		U	191	95.7
Nitrobenzene	98-95-3		U	191	95.7
N-Nitrosodiphenylamine	86-30-6		U	191	95.7
N-Nitrosodipropylamine	621-64-7		U	191	95.7
Pentachlorophenol	87-86-5		U	957	478
Phenanthrene	85-01-8		U	191	95.7
Phenol	108-95-2		U	191	95.7

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-08	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3015-SO02-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 16:44
Collect Date:	05/01/2008 15:25	Dilution:	1	File ID:	4M42688
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	191	95.7

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	56.4	19	122	
2-Fluorobiphenyl	63.6	30	115	
2-Fluorophenol	62.6	25	121	
Nitrobenzene-d5	66.2	23	120	
p-Terphenyl-d14	87.1	18	137	
Phenol-d5	65.3	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-09**
Client ID: **3014-SO01-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 17:05**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 17:15**
File ID: **4M42689**
Percent Solid: **80.0**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	201	101
2,4,6-Trichlorophenol	88-06-2		U	201	101
2,4-Dichlorophenol	120-83-2		U	201	101
2,4-Dimethylphenol	105-67-9		U	201	101
2,4-Dinitrophenol	51-28-5		U	1010	502
2,4-Dinitrotoluene	121-14-2		U	201	101
2,6-Dinitrotoluene	606-20-2		U	201	101
2-Chloronaphthalene	91-58-7		U	201	101
2-Chlorophenol	95-57-8		U	201	101
2-Methylnaphthalene	91-57-6		U	201	101
2-Methylphenol	95-48-7		U	201	101
2-Nitroaniline	88-74-4		U	1010	502
2-Nitrophenol	88-75-5		U	201	101
3,3'-Dichlorobenzidine	91-94-1		U	402	201
3-,4-Methylphenol	106-44-5		U	201	101
3-Nitroaniline	99-09-2		U	1010	502
4,6-Dinitro-2-methylphenol	534-52-1		U	1010	502
4-Bromophenyl phenyl ether	101-55-3		U	201	101
4-Chloro-3-methylphenol	59-50-7		U	201	101
4-Chloroaniline	106-47-8		U	201	101
4-Chlorophenyl phenyl ether	7005-72-3		U	201	101
4-Nitroaniline	100-01-6		U	1010	502
4-Nitrophenol	100-02-7		U	1010	502
Acenaphthene	83-32-9		U	201	101
Acenaphthylene	208-96-8		U	201	101
Anthracene	120-12-7		U	201	101
Benzo(a)anthracene	56-55-3		U	201	101
Benzo(a)pyrene	50-32-8		U	201	101
Benzo(b)fluoranthene	205-99-2		U	201	101
Benzo(g,h,i)Perylene	191-24-2		U	201	101
Benzo(k)fluoranthene	207-08-9		U	201	101
Bis(2-Chloroethoxy)Methane	111-91-1		U	201	101
Bis(2-Chloroethyl)ether	111-44-4		U	201	101
bis(2-Chloroisopropyl)ether	39638-32-9		U	201	101
bis(2-Ethylhexyl)phthalate	117-81-7		U	201	101
Butyl benzyl phthalate	85-68-7		U	201	101
Carbazole	86-74-8		U	201	101
Chrysene	218-01-9		U	201	101
Dibenz(a,h)anthracene	53-70-3		U	201	101
Dibenzofuran	132-64-9		U	201	101
Diethyl phthalate	84-66-2		U	201	101
Dimethyl phthalate	131-11-3		U	201	101
Di-N-Butylphthalate	84-74-2		U	201	101
Di-n-octyl phthalate	117-84-0		U	201	101
Fluoranthene	206-44-0		U	201	101
Fluorene	86-73-7		U	201	101
Hexachlorobenzene	118-74-1		U	201	101
Hexachlorobutadiene	87-68-3		U	201	101
Hexachlorocyclopentadiene	77-47-4		U	201	101
Hexachloroethane	67-72-1		U	201	101
Indeno(1,2,3-cd)pyrene	193-39-5		U	201	101
Isophorone	78-59-1		U	201	101
Naphthalene	91-20-3		U	201	101
Nitrobenzene	98-95-3		U	201	101
N-Nitrosodiphenylamine	86-30-6		U	201	101
N-Nitrosodipropylamine	621-64-7		U	201	101
Pentachlorophenol	87-86-5		U	1010	502
Phenanthrene	85-01-8		U	201	101
Phenol	108-95-2		U	201	101

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-09	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3014-SO01-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 17:15
Collect Date:	05/01/2008 17:05	Dilution:	1	File ID:	4M42689
Sample Tag:	01	Units:	ug/kg	Percent Solid:	80.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	201	101

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	49.4	19	122	
2-Fluorobiphenyl	50.4	30	115	
2-Fluorophenol	54.3	25	121	
Nitrobenzene-d5	55.4	23	120	
p-Terphenyl-d14	80.4	18	137	
Phenol-d5	55.4	24	113	

U Not detected at or above the reporting limit

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number: **L08050050-10**
Client ID: **3014-SO02-050108**
Matrix: **Soil**
Workgroup Number: **WG270646**
Collect Date: **05/01/2008 17:20**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **05/05/2008 08:00**
Cal Date: **05/01/2008 18:20**
Run Date: **05/07/2008 19:21**
File ID: **4M42693**
Percent Solid: **90.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
2,4,5-Trichlorophenol	95-95-4		U	181	90.6
2,4,6-Trichlorophenol	88-06-2		U	181	90.6
2,4-Dichlorophenol	120-83-2		U	181	90.6
2,4-Dimethylphenol	105-67-9		U	181	90.6
2,4-Dinitrophenol	51-28-5		U	906	453
2,4-Dinitrotoluene	121-14-2		U	181	90.6
2,6-Dinitrotoluene	606-20-2		U	181	90.6
2-Chloronaphthalene	91-58-7		U	181	90.6
2-Chlorophenol	95-57-8		U	181	90.6
2-Methylnaphthalene	91-57-6		U	181	90.6
2-Methylphenol	95-48-7		U	181	90.6
2-Nitroaniline	88-74-4		U	906	453
2-Nitrophenol	88-75-5		U	181	90.6
3,3'-Dichlorobenzidine	91-94-1		U	362	181
3-,4-Methylphenol	106-44-5		U	181	90.6
3-Nitroaniline	99-09-2		U	906	453
4,6-Dinitro-2-methylphenol	534-52-1		U	906	453
4-Bromophenyl phenyl ether	101-55-3		U	181	90.6
4-Chloro-3-methylphenol	59-50-7		U	181	90.6
4-Chloroaniline	106-47-8		U	181	90.6
4-Chlorophenyl phenyl ether	7005-72-3		U	181	90.6
4-Nitroaniline	100-01-6		U	906	453
4-Nitrophenol	100-02-7		U	906	453
Acenaphthene	83-32-9		U	181	90.6
Acenaphthylene	208-96-8		U	181	90.6
Anthracene	120-12-7		U	181	90.6
Benzo(a)anthracene	56-55-3		U	181	90.6
Benzo(a)pyrene	50-32-8		U	181	90.6
Benzo(b)fluoranthene	205-99-2		U	181	90.6
Benzo(g,h,i)Perylene	191-24-2		U	181	90.6
Benzo(k)fluoranthene	207-08-9		U	181	90.6
Bis(2-Chloroethoxy)Methane	111-91-1		U	181	90.6
Bis(2-Chloroethyl)ether	111-44-4	247		181	90.6
bis(2-Chloroisopropyl)ether	39638-32-9	256		181	90.6
bis(2-Ethylhexyl)phthalate	117-81-7		U	181	90.6
Butyl benzyl phthalate	85-68-7		U	181	90.6
Carbazole	86-74-8		U	181	90.6
Chrysene	218-01-9		U	181	90.6
Dibenz(a,h)anthracene	53-70-3		U	181	90.6
Dibenzofuran	132-64-9		U	181	90.6
Diethyl phthalate	84-66-2		U	181	90.6
Dimethyl phthalate	131-11-3		U	181	90.6
Di-N-Butylphthalate	84-74-2		U	181	90.6
Di-n-octyl phthalate	117-84-0		U	181	90.6
Fluoranthene	206-44-0		U	181	90.6
Fluorene	86-73-7		U	181	90.6
Hexachlorobenzene	118-74-1		U	181	90.6
Hexachlorobutadiene	87-68-3		U	181	90.6
Hexachlorocyclopentadiene	77-47-4		U	181	90.6
Hexachloroethane	67-72-1		U	181	90.6
Indeno(1,2,3-cd)pyrene	193-39-5		U	181	90.6
Isophorone	78-59-1		U	181	90.6
Naphthalene	91-20-3		U	181	90.6
Nitrobenzene	98-95-3		U	181	90.6
N-Nitrosodiphenylamine	86-30-6		U	181	90.6
N-Nitrosodipropylamine	621-64-7		U	181	90.6
Pentachlorophenol	87-86-5		U	906	453
Phenanthrene	85-01-8		U	181	90.6
Phenol	108-95-2		U	181	90.6

Report Number: **L08050050**
Report Date : **May 27, 2008**

Sample Number:	L08050050-10	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	3014-SO02-050108	Prep Method:	3545	Prep Date:	05/05/2008 08:00
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	05/01/2008 18:20
Workgroup Number:	WG270646	Analyst:	MES	Run Date:	05/07/2008 19:21
Collect Date:	05/01/2008 17:20	Dilution:	1	File ID:	4M42693
Sample Tag:	01	Units:	ug/kg	Percent Solid:	90.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	181	90.6

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	49.5	19	122	
2-Fluorobiphenyl	57.3	30	115	
2-Fluorophenol	56.8	25	121	
Nitrobenzene-d5	62.7	23	120	
p-Terphenyl-d14	83.0	18	137	
Phenol-d5	61.4	24	113	

U Not detected at or above the reporting limit

2.2.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Sample Extract Log Sheet R1446443

Microbac

Parameter: BNAS.1 SOP #: EXASED1 Revision #: 6
Extraction Analyst(s): RAH TV/KD Analyst(s): RAH
Date/Time Extracted: 5-08-08@ 09:00 Date TV/KD: 5/8/08
Spike/Surrogate Analyst: RAH Witness: CAT
Surrogate #: STD25376 Earliest Hold Date: 5-20-08
Spike #: A = STD25209 Spike #: B = —

Extraction Work Group WG 270668
Extract Relinquished By: RAH
Extract Received By & Date: 5-8-08

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank					20.00g	500 uL		1mL	T				WG270668-01
2	LCS							500uL		C				WG -02
3	LCS DUP							"		C				-03
4	05-0121-02	827-SIM								C				
5	-04					20.49g				O				
6	-06					20.51g				O				
7	-08					20.48g				O				
8	05-0093-06					20.87g				C				
9	-09	"				20.18g	"			C				
10	05-0050-07	"				20.41g	"		"	T				
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

RAH 5/8/08

Methylene Chloride Lot #: GOLE27
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Sand Lot #: E32599
Reagent: DE Lot #: E11404
Reagent: — Lot #: —
Acid: 6N Acetic Lot #: RGT12759
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: COA12940

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545	✓				
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Cheryl Flowers Date: 5-08-08

Extraction Notes For Volume # 298 Page # 189

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

R1442896

Sample Extract Log Sheet

Microbac

Parameter: BNA Soil SOP #: EXASE01 Revision #: 6
Extraction Analyst(s): RAH, CPD TV/KD Analyst(s): CPD
Date/Time Extracted: 5/5/08 0800 Date TV/KD: 5-5-08
Spike/Surrogate Analyst: RAH Witness: CPD
Surrogate #: STD25376 Earliest Hold Date: 5/15/08
Spike #: A = STD25009 Spike #: B = —

Extraction Work Group WG 270285
Extract Relinquished By: CPD
Extract Received By & Date: mf 5/5/08

	Sample ID	Test Code	pH θ <2	pH θ N	pH θ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions θ A	Emulsions θ BN	Emulsions θ N	Comments
1	Blank					20.00g	500 uL		1mL	T				WG 270285-02
2	LCS							500 uL		C				WG -03
3	05-0050-01 RL/ 827-5PE					20.85g				T				-01
4	-02 MS					20.21g		500 uL		C				-04
5	-03 MSD					20.84g				C				-05
6	-04					20.98g				C				
7	-05					20.57g				C				
8	-06					20.82g				C				
9	-07					20.60g				C				
10	-08					20.73g				T				
11	-09					20.51g				C				
12	-10					20.18g				C				
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CPD 5-5-08

Methylene Chloride Lot #: GN6E27
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Sand Lot #: E32599
Reagent: DE Lot #: E11H04
Reagent: — Lot #: —
Acid: 12° Acetic Lot #: RGT12759
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: COA12940

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545	✓				
Sep Funnel	3510C					
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3665A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Chadwick Davis Date: 5-5-08

Extraction Notes For Volume # 298 Page # ~~60~~ 159

General Comments: None

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 042508
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23870

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269038,WG269123,WG269414

Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M21387	WG269466-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 08:29
2	12M21388	WG269466-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 08:45
3	12M21389	WG269466-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 09:06
4	12M21390	WG269466-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 09:25
5	12M21391	WG269466-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 09:58
6	12M21392	WG269466-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 10:17
7	12M21393	WG269466-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 11:21
8	12M21394	WG269466-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 11:40
9	12M21395	WG269466-01 50PPM DFTPP STD	1	1	STD25193	04/25/08 12:44
10	12M21396	WG269466-02 50PPM MEGAMIX STD	1	1	STD25568	04/25/08 13:03
11	12M21397	WG269466-03 3 PPM MEGAMIX STD	1	1	STD25568	04/25/08 13:39
12	12M21398	WG269466-04 10 PPM MEGAMIX STD	1	1	STD25568	04/25/08 14:14
13	12M21399	WG269466-05 15 PPM MEGAMIX STD	1	1	STD25568	04/25/08 14:51
14	12M21400	WG269466-06 25 PPM MEGAMIX STD	1	1	STD25568	04/25/08 15:26
15	12M21401	WG269466-07 80 PPM MEGAMIX STD	1	1	STD25568	04/25/08 16:01
16	12M21402	WG269466-08 100 PPM MEGAMIX STD	1	1	STD25568	04/25/08 16:36
17	12M21403	WG269466-09 120 PPM MEGAMIX STD	1	1	STD25568	04/25/08 17:11
18	12M21404	WG269466-10 50PPM BNA ALT SOURCE	1	1	STD24887	04/25/08 17:46
19	12M21405	WG269466-11 50PPM A9 ALT SOURCE	1	1	STD24013	04/25/08 18:21
20	12M21406	WG268690-02 BLANK EP0297 PG139	17	1		04/25/08 18:56
21	12M21407	L08040535-01 D1 50X SOIL	10	50		04/25/08 19:31
22	12M21408	L08040356-01 2X	1	2		04/25/08 20:06
23	12M21409	L08040356-03 D1 5X	1	5		04/25/08 20:41
24	12M21410	L08040356-03 D2 50X	1	50		04/25/08 21:16
25	12M21411	L08040356-04	1	1		04/25/08 21:51
26	12M21412	L08040356-04 D1 5X	1	5		04/25/08 22:27
27	12M21413	L08040398-01 TCLP	17	1		04/25/08 23:02
28	12M21414	WG268690-01 L08040398-02 TCLP	17	1		04/25/08 23:37
29	12M21415	WG268690-05 L08040398-02 MS TCLP	17	1		04/26/08 00:13
30	12M21416	L08040398-03 TCLP	17	1		04/26/08 00:48
31	12M21417	BAKE OUT	1	1		04/26/08 01:23
32	12M21418	BAKE OUT	1	1		04/26/08 01:58

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 27-APR-08

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 042508
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23870

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG269038,WG269123,WG269414

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed. Quicktune.			
2				
	RR DFTPP failed. Retuned MS.			
4				
	Internals low-increased voltage-restarting.			
6				
	Hexachlorobutadiene high. Clipping column-change gold seal.			
8				
	Hexachlorobutadiene high-changing liner.			
22	X	10	Over Calibration Range	12,17,19,22,38
	tph is low. PHL is <10% due to SMI. Not reextracting.			
25				
	Do not report-IS fails.			
30	X	1	Missed Tune	

Page: 2 Approved: 27-APR-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050108
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23966

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG270019, WG270218
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments: 4M42576 thru 4M42586 Not reported.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42576	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 08:53
2	4M42577	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 09:07
3	4M42578	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 09:53
4	4M42579	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 10:11
5	4M42580	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 10:43
6	4M42581	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 11:48
7	4M42582	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 12:03
8	4M42583	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 12:28
9	4M42584	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 12:46
10	4M42585	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:21
11	4M42586	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:35
12	4M42587	WG270026-01 50PPM DFTPP STD	1	1	STD25193	05/01/08 13:58
13	4M42588	WG270026-02 50PPM MEGAMIX STD	1	1	STD25568	05/01/08 14:16
14	4M42589	WG270026-03 3 PPM MEGAMIX STD	1	1	STD25568	05/01/08 15:12
15	4M42590	WG270026-04 10 PPM MEGAMIX STD	1	1	STD25568	05/01/08 15:44
16	4M42591	WG270026-05 15 PPM MEGAMIX STD	1	1	STD25568	05/01/08 16:15
17	4M42592	WG270026-06 25 PPM MEGAMIX STD	1	1	STD25568	05/01/08 16:46
18	4M42593	WG270026-07 80 PPM MEGAMIX STD	1	1	STD25568	05/01/08 17:17
19	4M42594	WG270026-08 100 PPM MEGAMIX STD	1	1	STD25568	05/01/08 17:48
20	4M42595	WG270026-09 120 PPM MEGAMIX STD	1	1	STD25568	05/01/08 18:20
21	4M42596	WG270026-10 50PPM BNA ALT SOURCE	1	1	STD24887	05/01/08 18:52
22	4M42597	WG270026-11 50PPM A9 ALT SOURCE	1	1	STD24013	05/01/08 19:23
23	4M42598	WG269996-02 BLANK EP0298 PG131	7	1		05/01/08 19:55
24	4M42599	WG269996-03 LCS EP0298 PG131	7	1		05/01/08 20:26
25	4M42600	L08040484-02 SOIL	7	1		05/01/08 20:57
26	4M42601	L08040508-03 SOIL	7	1		05/01/08 21:29
27	4M42602	L08040508-04 SOIL	7	1		05/01/08 22:02
28	4M42603	L08040508-07 SOIL	7	1		05/01/08 22:33
29	4M42604	L08040557-01 SOIL	7	1		05/01/08 23:05
30	4M42605	L08040557-02 SOIL	7	1		05/01/08 23:37
31	4M42606	L08040557-03 SOIL	7	1		05/02/08 00:09
32	4M42607	L08040557-04 SOIL	7	1		05/02/08 00:41
33	4M42608	L08040687-17 SOIL	7	1		05/02/08 01:12
34	4M42609	BAKE OUT	7	1		05/02/08 01:43
35	4M42610	BAKE OUT	7	1		05/02/08 02:15

Page: 1 Approved: 02-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050108

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 23966

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270019, WG270218

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: 02-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050708
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 24051

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270388,WG270646,WG270464,WG269414

Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M42672	WG270575-01 50PPM DFTPP STD	1	1	STD25193	05/07/08 08:59
2	4M42673	WG270575-01 50PPM DFTPP STD	1	1	STD25193	05/07/08 09:14
3	4M42674	WG270575-01 50PPM DFTPP STD	1	1	STD25193	05/07/08 09:38
4	4M42675	WG270575-02 50PPM MEGAMIX STD	1	1	STD25568	05/07/08 09:58
5	4M42676	WG269142-01 BLANK EP0298 PG69	10	1		05/07/08 10:29
6	4M42677	L08040003-04 3550B	10	1		05/07/08 11:00
7	4M42678	L08040004-04 3550B	10	1		05/07/08 11:31
8	4M42679	WG270285-02 BLANK EP0298 PG159	7	1		05/07/08 12:03
9	4M42680	WG270285-03 LCS EP0298 PG159	7	1		05/07/08 12:34
10	4M42681	L08040791-02 500X OIL	11	500		05/07/08 13:05
11	4M42682	L08040791-03 D1 500X OIL	11	500		05/07/08 13:36
12	4M42683	L08040791-04 500X OIL	11	500		05/07/08 14:08
13	4M42684	L08040840-02	1	1		05/07/08 14:39
14	4M42685	WG270285-01 L08050050-01 SOIL	7	1		05/07/08 15:10
15	4M42686	WG270285-04 L08050050-02 MS SOIL	7	1		05/07/08 15:42
16	4M42687	WG270285-05 L08050050-03 MSD SOIL	7	1		05/07/08 16:13
17	4M42688	L08050050-08 SOIL	7	1		05/07/08 16:44
18	4M42689	L08050050-09 SOIL	7	1		05/07/08 17:15
19	4M42690	L08050050-07 SOIL	7	1		05/07/08 17:47
20	4M42691	L08050050-04 SOIL	7	1		05/07/08 18:18
21	4M42692	L08050050-06 SOIL	7	1		05/07/08 18:50
22	4M42693	L08050050-10 SOIL	7	1		05/07/08 19:21
23	4M42694	L08050050-05 SOIL	7	1		05/07/08 19:53
24	4M42695	L08040791-02 D1 1000X OIL	11	1000		05/07/08 20:25
25	4M42696	L08040791-04 D1 1000X OIL	11	1000		05/07/08 20:56
26	4M42697	BAKE OUT	7	1		05/07/08 21:28
27	4M42698	BAKE OUT	7	1		05/07/08 22:00

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed. Quicktune.			
2				
	RR, DFTPP failed. Retune.			
4				

Page: 1 Approved: 08-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 050708
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 24051

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270388,WG270646,WG270464,WG269414

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	130 >20% but <25%.			
10	X	1000	Over Calibration Range	
	Do not report.			
12	X	1000	Over Calibration Range	
	Do not report.			
19				
	tbp is <10%, RE.			

 Approved: 08-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 050908
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 24091

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG270949,WG270950
Internal STD: COA13022 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M21658	WG270810-01 50PPM DFTPP STD	1	1	STD25193	05/09/08 08:31
2	12M21659	WG270810-01 50PPM DFTPP STD	1	1	STD25193	05/09/08 08:47
3	12M21660	WG270810-02 50PPM MEGAMIX STD	1	1	STD25568	05/09/08 09:06
4	12M21661	WG270668-01 BLANK EP0298 PG189	7	1		05/09/08 09:41
5	12M21662	WG270668-02 LCS EP0298 PG189	7	1		05/09/08 10:17
6	12M21663	WG270668-03 LCSDUP EP0298 PG189	7	1		05/09/08 10:52
7	12M21664	L08050043-06 RE SOIL	7	1		05/09/08 11:27
8	12M21665	L08050043-09 RE SOIL	7	1	SOIL	05/09/08 12:02
9	12M21666	L08050050-07 RE SOIL	7	1	SOIL	05/09/08 12:38
10	12M21667	L08050121-02 SOIL	7	1	SOIL	05/09/08 13:14
11	12M21668	L08050121-04 SOIL	7	1	SOIL	05/09/08 13:49
12	12M21669	L08050121-08 SOIL	7	1	SOIL	05/09/08 14:25
13	12M21670	L08050121-06 2X SOIL	7	2	SOIL	05/09/08 14:59
14	12M21671	WG270840-02 BLANK EP0299 PG79	2	1		05/09/08 15:38
15	12M21672	WG270840-03 LCS EP0299 PG79	2	1		05/09/08 16:13
16	12M21673	WG270753-01 SPLP BLANK 5/8/08	18	1		05/09/08 16:48
17	12M21674	L08050148-03 SPLP	18	1		05/09/08 17:23
18	12M21675	WG270840-01 L08050148-05 SPLP	18	1		05/09/08 17:59
19	12M21676	WG270840-04 L08050148-07 MS SPLP	18	1		05/09/08 18:35
20	12M21677	WG270840-05 L08050148-09 MSD SPLP	18	1		05/09/08 19:11
21	12M21678	L08050148-11 SPLP	18	1		05/09/08 19:47
22	12M21679	L08050148-13 SPLP	18	1		05/09/08 20:22
23	12M21680	BAKE OUT	18	1		05/09/08 20:57
24	12M21681	L08050153-01 625	2	1		05/09/08 21:33
25	12M21682	BAKE OUT	2	1		05/09/08 22:09
26	12M21683	CH2CL2 LOT G06E30	2	1		05/09/08 22:44

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed. Quicktune.			
3				
	45 is >20%<25%.			
7				
	tbp is low.			

Page: 1 Approved: 12-MAY-08

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 050908
Analyst1: MES Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 24091

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG270949,WG270950

Internal STD: COA13022 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8				
	tbp <10%. 2FP and PHL low. Reextract confirms 00.			
17				
	TPH is low.			

 Approved: 12-MAY-08

Microbac Laboratories Inc.

Data Checklist

Date: 25-APR-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 21849
Analytical Workgroups: L08040356,L08040535,L0804398

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
26-APR-2008

Secondary Reviewer:
27-APR-2008

CHECKLIST1 - Modified 03/05/2008
Generated: APR-27-2008 16:24:20

Microbac Laboratories Inc.

Data Checklist

Date: 01-MAY-2008
Analyst: CAA
Analyst: MES
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 21969
Analytical Workgroups: L08040484, L08040508, L040557, L08040687

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
02-MAY-2008

Secondary Reviewer:
02-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-02-2008 14:58:31

Microbac Laboratories Inc.

Data Checklist

Date: 07-MAY-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 22069
Analytical Workgroups: L08040840,L08040791,L08050050,L08040003,L08040004

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
08-MAY-2008

Secondary Reviewer:
08-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-08-2008 09:40:58

Microbac Laboratories Inc.

Data Checklist

Date: 09-MAY-2008
Analyst: MES
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 22125
Analytical Workgroups: L08050043,L08050050,L08050121,L08050148,L08050153

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
12-MAY-2008

Secondary Reviewer:
12-MAY-2008

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-12-2008 11:09:42

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C **AAB#:** WG270646

Login Number: L08050050

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3023-SO01-050108	05/01/08	05/02/08	05/05/08	14	3.80	05/07/08	40	2.50	
3015-SO02-050108	05/01/08	05/02/08	05/05/08	14	3.69	05/07/08	40	2.36	
3025-SO01-050108	05/01/08	05/02/08	05/05/08	14	3.91	05/07/08	40	2.30	
3023-SO01-050108-FD	05/01/08	05/02/08	05/05/08	14	3.80	05/07/08	40	2.45	
3025-SO02-050108	05/01/08	05/02/08	05/05/08	14	3.89	05/07/08	40	2.43	
3025-SO01-050108-MSD	05/01/08	05/02/08	05/05/08	14	3.91	05/07/08	40	2.34	
3015-SO01-050108	05/01/08	05/02/08	05/05/08	14	3.70	05/07/08	40	2.41	
3014-SO01-050108	05/01/08	05/02/08	05/05/08	14	3.62	05/07/08	40	2.39	
3014-SO02-050108	05/01/08	05/02/08	05/05/08	14	3.61	05/07/08	40	2.47	
3025-SO01-050108-MS	05/01/08	05/02/08	05/05/08	14	3.91	05/07/08	40	2.32	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**
***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1091898
Report generated 05/13/2008 11:17

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C **AAB#:** WG270949

Login Number: L08050050

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
3015-SO01-050108	05/01/08	05/02/08	05/08/08	14	6.70	05/09/08	40	1.19	

*** EXT = SEE PROJECT QAPP REQUIREMENTS**
***ANAL = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1091898
Report generated 05/13/2008 11:17

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08050050
Instrument Id: HPMS4
Workgroup (AAB#): WG270646

Method: 8270
CAL ID: HPMS4-01-MAY-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L08050050-01	1.00	01	46.7	55.5	55.3	60.1	74.7	57.6
L08050050-02	1.00	01	55.2	53.2	49.2	49.7	70.4	51.1
L08050050-03	1.00	01	57.2	55.3	51.2	52.7	73.4	53.3
L08050050-04	1.00	01	51.4	50.7	53.7	55.9	73.4	55.7
L08050050-05	1.00	01	56.1	48.0	54.4	58.1	66.5	58.2
L08050050-06	1.00	01	57.9	57.1	57.5	60.8	89.2	61.3
L08050050-07	1.00	01	7.52	69.6	35.6	70.0	129	52.8
L08050050-08	1.00	01	56.4	63.6	62.6	66.2	87.1	65.3
L08050050-09	1.00	01	49.4	50.4	54.3	55.4	80.4	55.4
L08050050-10	1.00	01	49.5	57.3	56.8	62.7	83.0	61.4
WG270285-02	1.00	01	53.4	57.4	58.0	61.0	79.3	60.0
WG270285-03	1.00	01	62.4	50.1	47.7	46.4	75.8	49.5

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1088637
Report generated: 05/13/2008 11:26

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L08050050
Instrument Id: HPMS12
Workgroup (AAB#): WG270949

Method: 8270
CAL ID: HPMS12-25-APR-08
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L08050050-07	1.00	RE1	69.2	74.4	66.6	69.8	99.7	69.5
WG270668-01	1.00	01	63.8	53.6	53.0	50.2	86.9	54.2
WG270668-02	1.00	01	60.4	49.9	53.3	53.4	68.2	55.2
WG270668-03	1.00	01	65.9	57.1	58.9	60.1	72.1	61.7

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1088637
Report generated: 05/13/2008 11:26

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08050050
Work Group: WG270646
Blank File ID: 4M42679
Blank Sample ID: WG270285-02
Prep Date: 05/05/08 08:00
Instrument ID: HPMS4
Analyzed Date: 05/07/08 12:03
Method: 8270C
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG270285-03	4M42680	05/07/08 12:34	01
3025-SO01-050108	L08050050-01	4M42685	05/07/08 15:10	01
3025-SO01-050108-MS	L08050050-02	4M42686	05/07/08 15:42	01
3025-SO01-050108-MSD	L08050050-03	4M42687	05/07/08 16:13	01
3015-SO02-050108	L08050050-08	4M42688	05/07/08 16:44	01
3014-SO01-050108	L08050050-09	4M42689	05/07/08 17:15	01
3015-SO01-050108	L08050050-07	4M42690	05/07/08 17:47	01
3025-SO02-050108	L08050050-04	4M42691	05/07/08 18:18	01
3023-SO01-050108-FD	L08050050-06	4M42692	05/07/08 18:50	01
3014-SO02-050108	L08050050-10	4M42693	05/07/08 19:21	01
3023-SO01-050108	L08050050-05	4M42694	05/07/08 19:53	01

Report Name: BLANK_SUMMARY
PDF File ID: 1091899
Report generated 05/13/2008 11:17

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L08050050
Work Group: WG270949
Blank File ID: 12M21661
Blank Sample ID: WG270668-01
Prep Date: 05/08/08 08:00
Instrument ID: HPMS12
Analyzed Date: 05/09/08 09:41
Method: 8270C
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG270668-02	12M21662	05/09/08 10:17	01
LCS2	WG270668-03	12M21663	05/09/08 10:52	01
3015-SO01-050108	L08050050-07	12M21666	05/09/08 12:38	RE1

Report Name: BLANK_SUMMARY
PDF File ID: 1091899
Report generated 05/13/2008 11:17

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08050050 Prep Date:05/05/08 08:00 Sample ID:WG270285-02
Instrument ID:HPMS4 Run Date:05/07/08 12:03 Prep Method:3545
File ID:4M42679 Analyst:MES Method:8270C
Workgroup (AAB#):WG270646 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-01-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U
Dimethyl phthalate	82.5	165	165	1	U

Report Name:BLANK
PDF ID: 1088628
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/05/08 08:00 Sample ID: WG270285-02
Instrument ID: HPMS4 Run Date: 05/07/08 12:03 Prep Method: 3545
File ID: 4M42679 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270646 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS4-01-MAY-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	53.4	19	-	122	PASS
2-Fluorobiphenyl	57.4	30	-	115	PASS
2-Fluorophenol	58.0	25	-	121	PASS
Nitrobenzene-d5	61.0	23	-	120	PASS
p-Terphenyl-d14	79.3	18	-	137	PASS
Phenol-d5	60.0	24	-	113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L08050050 Prep Date:05/08/08 08:00 Sample ID:WG270668-01
Instrument ID:HPMS12 Run Date:05/09/08 09:41 Prep Method:3545
File ID:12M21661 Analyst:MES Method:8270C
Workgroup (AAB#):WG270949 Matrix:Soil Units:ug/kg
Contract #: Cal ID:HPMS12-25-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U
Dimethyl phthalate	82.5	165	165	1	U

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L08050050 Prep Date: 05/08/08 08:00 Sample ID: WG270668-01
Instrument ID: HPMS12 Run Date: 05/09/08 09:41 Prep Method: 3545
File ID: 12M21661 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270949 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS12-25-APR-08

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	63.8	19 - 122	PASS
2-Fluorobiphenyl	53.6	30 - 115	PASS
2-Fluorophenol	53.0	25 - 121	PASS
Nitrobenzene-d5	50.2	23 - 120	PASS
p-Terphenyl-d14	86.9	18 - 137	PASS
Phenol-d5	54.2	24 - 113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* Analyte concentration > RL

Report Name:BLANK
PDF ID: 1088628
13-MAY-2008 11:17

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/07/2008 Sample ID: WG270285-03
Instrument ID: HPMS4 Run Time: 12:34 Prep Method: 3545
File ID: 4M42680 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270646 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS4-01-MAY-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
2,4,5-Trichlorophenol	2500	1420	56.9	49 - 125	
2,4,6-Trichlorophenol	2500	1350	54.0	43 - 125	
2,4-Dichlorophenol	2500	1220	48.9	45 - 125	
2,4-Dimethylphenol	2500	1220	48.9	32 - 125	
2,4-Dinitrophenol	2500	1690	67.8	25 - 132	
2,4-Dinitrotoluene	2500	1820	72.7	48 - 125	
2,6-Dinitrotoluene	2500	1440	57.6	48 - 125	
2-Chloronaphthalene	2500	1090	43.6	45 - 125	*
2-Chlorophenol	2500	1230	49.4	44 - 125	
2-Methylnaphthalene	2500	1220	48.7	47 - 125	
2-Methylphenol	2500	1240	49.8	40 - 125	
2-Nitroaniline	2500	1340	53.5	44 - 125	
2-Nitrophenol	2500	1190	47.8	42 - 125	
3,3'-Dichlorobenzidine	2500	2310	92.3	20 - 128	
3-,4-Methylphenol	2500	1420	56.9	50 - 120	
3-Nitroaniline	2500	1750	70.1	27 - 125	
4,6-Dinitro-2-methylphenol	2500	1770	70.7	29 - 137	
4-Bromophenyl phenyl ether	2500	1240	49.6	46 - 125	
4-Chloro-3-methylphenol	2500	1240	49.6	46 - 125	
4-Chloroaniline	2500	1130	45.3	20 - 120	
4-Chlorophenyl phenyl ether	2500	1310	52.2	47 - 125	
4-Nitroaniline	2500	2040	81.7	34 - 125	
4-Nitrophenol	2500	1890	75.5	25 - 138	
Acenaphthene	2500	1310	52.3	46 - 125	
Acenaphthylene	2500	1310	52.5	44 - 125	
Anthracene	2500	1740	69.5	53 - 125	
Benzo(a)anthracene	2500	2220	89.0	52 - 125	
Benzo(a)pyrene	2500	2390	95.8	50 - 125	
Benzo(b)fluoranthene	2500	2260	90.5	45 - 125	
Benzo(g,h,i)Perylene	2500	2380	95.2	38 - 126	
Benzo(k)fluoranthene	2500	2470	98.8	45 - 125	
Bis(2-Chloroethoxy)Methane	2500	907	36.3	43 - 125	*
Bis(2-Chloroethyl)ether	2500	1120	45.0	38 - 125	
bis(2-Chloroisopropyl)ether	2500	1030	41.2	25 - 125	
bis(2-Ethylhexyl)phthalate	2500	2180	87.2	47 - 127	
Butyl benzyl phthalate	2500	2260	90.4	49 - 125	
Carbazole	2500	1970	78.6	40 - 135	
Chrysene	2500	2270	90.9	53 - 125	
Dibenz(a,h)anthracene	2500	2360	94.3	41 - 125	
Dibenzofuran	2500	1310	52.6	51 - 125	
Diethyl phthalate	2500	1680	67.2	50 - 125	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Run Date: 05/07/2008 Sample ID: WG270285-03
Instrument ID: HPMS4 Run Time: 12:34 Prep Method: 3545
File ID: 4M42680 Analyst: MES Method: 8270C
Workgroup (AAB#): WG270646 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: Cal ID: HPMS4-01-MAY-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Dimethyl phthalate	2500	1420	56.6	49 - 125	
Di-N-Butylphthalate	2500	1950	77.9	56 - 125	
Di-n-octyl phthalate	2500	2360	94.2	41 - 132	
Fluoranthene	2500	2010	80.6	54 - 125	
Fluorene	2500	1350	54.1	49 - 125	
Hexachlorobenzene	2500	1550	61.9	47 - 125	
Hexachlorobutadiene	2500	1360	54.4	40 - 125	
Hexachlorocyclopentadiene	2500	1110	44.3	10 - 150	
Hexachloroethane	2500	1200	48.0	34 - 125	
Indeno(1,2,3-cd)pyrene	2500	2360	94.2	38 - 125	
Isophorone	2500	1290	51.5	43 - 125	
Naphthalene	2500	1150	46.1	40 - 125	
Nitrobenzene	2500	1140	45.5	41 - 125	
N-Nitrosodiphenylamine	2500	1300	52.0	49 - 125	
N-Nitrosodipropylamine	2500	1180	47.2	40 - 125	
Pentachlorophenol	2500	2180	87.3	25 - 125	
Phenanthrene	2500	1670	66.7	50 - 125	
Phenol	2500	1250	49.8	39 - 125	
Pyrene	2500	2150	85.9	46 - 125	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	62.4	19 - 122	PASS
2-Fluorobiphenyl	50.1	30 - 115	PASS
2-Fluorophenol	47.7	25 - 121	PASS
Nitrobenzene-d5	46.4	23 - 120	PASS
p-Terphenyl-d14	75.8	18 - 137	PASS
Phenol-d5	49.5	24 - 113	PASS

* FAILS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1088629
Report generated: 05/13/2008 11:17

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: MES Prep Method: 3545
Instrument ID: HPMS12 Matrix: Soil Method: 8270C
Workgroup (AAB#): WG270949 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25009

Sample ID: WG270668-02 LCS File ID: 12M21662 Run Date: 05/09/2008 10:17
Sample ID: WG270668-03 LCS2 File ID: 12M21663 Run Date: 05/09/2008 10:52

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2,4,5-Trichlorophenol	2500	1430	57.2	2500	1710	68.4	17.9	49 - 125	30	
2,4,6-Trichlorophenol	2500	1410	56.6	2500	1690	67.7	17.9	43 - 125	30	
2,4-Dichlorophenol	2500	1260	50.3	2500	1420	56.9	12.4	45 - 125	30	
2,4-Dimethylphenol	2500	1230	49.2	2500	1450	57.9	16.3	32 - 125	30	
2,4-Dinitrophenol	2500	1530	61.1	2500	1710	68.3	11.2	25 - 132	30	
2,4-Dinitrotoluene	2500	1620	64.9	2500	1740	69.6	7.01	48 - 125	30	
2,6-Dinitrotoluene	2500	1380	55.3	2500	1640	65.4	16.8	48 - 125	30	
2-Chloronaphthalene	2500	1120	44.6	2500	1260	50.5	12.4	45 - 125	30	*
2-Chlorophenol	2500	1350	53.9	2500	1480	59.0	9.13	44 - 125	30	
2-Methylnaphthalene	2500	1180	47.2	2500	1390	55.6	16.4	47 - 125	30	
2-Methylphenol	2500	1340	53.5	2500	1480	59.4	10.3	40 - 125	30	
2-Nitroaniline	2500	1560	62.4	2500	1790	71.7	13.8	44 - 125	30	
2-Nitrophenol	2500	1300	51.8	2500	1460	58.5	12.0	42 - 125	30	
3,3'-Dichlorobenzidine	2500	1720	68.9	2500	1920	76.8	10.8	20 - 128	30	
3-,4-Methylphenol	2500	1450	58.0	2500	1650	66.0	12.9	50 - 120	30	
3-Nitroaniline	2500	1530	61.2	2500	1580	63.1	3.09	27 - 125	30	
4,6-Dinitro-2-methylphenol	2500	1680	67.3	2500	1860	74.3	9.90	29 - 137	30	
4-Bromophenyl phenyl ether	2500	1160	46.5	2500	1290	51.7	10.7	46 - 125	30	
4-Chloro-3-methylphenol	2500	1240	49.6	2500	1510	60.2	19.4	46 - 125	30	
4-Chloroaniline	2500	1120	44.9	2500	1290	51.8	14.3	20 - 120	30	
4-Chlorophenyl phenyl ether	2500	1240	49.7	2500	1470	58.9	17.0	47 - 125	30	
4-Nitroaniline	2500	1530	61.2	2500	1580	63.1	3.09	34 - 125	30	
4-Nitrophenol	2500	1670	66.9	2500	1840	73.6	9.59	25 - 138	30	
Acenaphthene	2500	1260	50.3	2500	1520	60.8	18.9	46 - 125	30	
Acenaphthylene	2500	1300	51.8	2500	1530	61.3	16.8	44 - 125	30	
Anthracene	2500	1440	57.6	2500	1570	62.6	8.44	53 - 125	30	
Benzo(a)anthracene	2500	1690	67.6	2500	1850	74.0	9.13	52 - 125	30	
Benzo(a)pyrene	2500	1780	71.0	2500	1900	75.8	6.54	50 - 125	30	
Benzo(b)fluoranthene	2500	1770	70.7	2500	1920	76.8	8.25	45 - 125	30	
Benzo(g,h,i)Perylene	2500	1660	66.4	2500	1770	70.9	6.58	38 - 126	30	
Benzo(k)fluoranthene	2500	1770	70.9	2500	1930	77.1	8.33	45 - 125	30	
Bis(2-Chloroethoxy)Methane	2500	1230	49.1	2500	1380	55.3	11.9	43 - 125	30	
Bis(2-Chloroethyl)ether	2500	1280	51.0	2500	1400	56.1	9.55	38 - 125	30	
bis(2-Chloroisopropyl)ether	2500	1330	53.4	2500	1430	57.3	7.00	25 - 125	30	
bis(2-Ethylhexyl)phthalate	2500	1770	70.6	2500	1930	77.2	8.85	47 - 127	30	
Butyl benzyl phthalate	2500	1710	68.5	2500	1880	75.3	9.45	49 - 125	30	
Carbazole	2500	1480	59.3	2500	1600	63.9	7.41	40 - 135	30	
Chrysene	2500	1700	68.1	2500	1860	74.4	8.87	53 - 125	30	
Dibenz(a,h)anthracene	2500	1610	64.6	2500	1720	68.9	6.49	41 - 125	30	
Dibenzofuran	2500	1300	52.0	2500	1550	62.0	17.6	51 - 125	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1090975
Report generated: 05/13/2008 11:18

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L08050050 Analyst: MES Prep Method: 3545
Instrument ID: HPMS12 Matrix: Soil Method: 8270C
Workgroup (AAB#): WG270949 Units: ug/kg
QC Key: DOWWV2006 Lot #: STD25009

Sample ID: WG270668-02 LCS File ID: 12M21662 Run Date: 05/09/2008 10:17
Sample ID: WG270668-03 LCS2 File ID: 12M21663 Run Date: 05/09/2008 10:52

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Diethyl phthalate	2500	1460	58.6	2500	1620	64.7	9.99	50 - 125	30	
Dimethyl phthalate	2500	1370	54.7	2500	1600	64.0	15.8	49 - 125	30	
Di-N-Butylphthalate	2500	1470	58.9	2500	1590	63.5	7.42	56 - 125	30	
Di-n-octyl phthalate	2500	1760	70.4	2500	1920	76.8	8.69	41 - 132	30	
Fluoranthene	2500	1610	64.5	2500	1730	69.3	7.13	54 - 125	30	
Fluorene	2500	1320	52.7	2500	1560	62.4	16.9	49 - 125	30	
Hexachlorobenzene	2500	1420	56.9	2500	1590	63.6	11.0	47 - 125	30	
Hexachlorobutadiene	2500	1360	54.6	2500	1550	61.9	12.6	40 - 125	30	
Hexachlorocyclopentadiene	2500	1310	52.2	2500	1470	58.9	12.1	10 - 150	30	
Hexachloroethane	2500	1320	52.8	2500	1460	58.3	9.78	34 - 125	30	
Indeno(1,2,3-cd)pyrene	2500	1660	66.6	2500	1820	72.7	8.82	38 - 125	30	
Isophorone	2500	1350	54.1	2500	1590	63.6	16.0	43 - 125	30	
Naphthalene	2500	1170	46.7	2500	1320	52.6	11.9	40 - 125	30	
Nitrobenzene	2500	1300	51.8	2500	1460	58.2	11.6	41 - 125	30	
N-Nitrosodiphenylamine	2500	1120	45.0	2500	1250	50.0	10.6	49 - 125	30	*
N-Nitrosodipropylamine	2500	1240	49.7	2500	1440	57.6	14.7	40 - 125	30	
Pentachlorophenol	2500	1680	67.1	2500	1850	73.8	9.53	25 - 125	30	
Phenanthrene	2500	1370	54.7	2500	1510	60.6	10.1	50 - 125	30	
Phenol	2500	1330	53.3	2500	1530	61.2	13.8	39 - 125	30	
Pyrene	2500	1690	67.5	2500	1790	71.5	5.79	46 - 125	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
2-Fluorophenol	53.3	58.9	25 - 121	PASS
Phenol-d5	55.2	61.7	24 - 113	PASS
Nitrobenzene-d5	53.4	60.1	23 - 120	PASS
2-Fluorobiphenyl	49.9	57.1	30 - 115	PASS
2,4,6-Tribromophenol	60.4	65.9	19 - 122	PASS
p-Terphenyl-d14	68.2	72.1	18 - 137	PASS

* FAILS %REC LIMIT
# FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1090975
Report generated: 05/13/2008 11:18

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L08050050 Cal ID:HPMS4-01-MAY-08 Worknum:WG270646

Instrument ID:HPMS4 Contract #: Prep Method:3545

Parent ID:L08050050-01 File ID:4M42685 Dil:1 Method:8270C

Sample ID:L08050050-02 MS File ID:4M42686 Dil:1 Matrix:Soil

Sample ID:L08050050-03 MSD File ID:4M42687 Dil:1 Units:ug/kg

Percent Solid:83.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
2,4,5-Trichlorophenol	U	2950	1770	59.9	2860	1770	61.7	0.0407	49 - 125	30	
2,4,6-Trichlorophenol	U	2950	1700	57.5	2860	1690	58.9	0.595	43 - 125	30	
2,4-Dichlorophenol	U	2950	1540	52.1	2860	1510	52.6	2.15	45 - 125	30	
2,4-Dimethylphenol	U	2950	1330	45.1	2860	1190	41.7	10.8	32 - 125	30	
2,4-Dinitrophenol	U	2950	1790	60.7	2860	1860	64.9	3.59	25 - 132	30	
2,4-Dinitrotoluene	U	2950	2130	72.1	2860	2160	75.5	1.58	48 - 125	30	
2,6-Dinitrotoluene	U	2950	1750	59.5	2860	1830	63.8	4.02	48 - 125	30	
2-Chloronaphthalene	U	2950	1420	48.2	2860	1420	49.6	0.149	45 - 125	30	
2-Chlorophenol	U	2950	1580	53.4	2860	1540	53.8	2.41	44 - 125	30	
2-Methylnaphthalene	U	2950	1570	53.3	2860	1540	53.8	2.11	47 - 125	30	
2-Methylphenol	U	2950	1580	53.5	2860	1540	53.8	2.55	40 - 125	30	
2-Nitroaniline	U	2950	1670	56.7	2860	1840	64.3	9.58	44 - 125	30	
2-Nitrophenol	U	2950	1540	52.1	2860	1500	52.5	2.26	42 - 125	30	
3,3'-Dichlorobenzidine	U	2950	1960	66.3	2860	1510	52.7	25.8	20 - 128	30	
3-,4-Methylphenol	U	2950	1790	60.5	2860	1740	60.8	2.51	50 - 120	30	
3-Nitroaniline	U	2950	2020	68.4	2860	2100	73.4	3.90	27 - 125	30	
4,6-Dinitro-2-methylphenol	U	2950	1920	65.1	2860	2030	71.0	5.60	29 - 137	30	
4-Bromophenyl phenyl ether	U	2950	1470	49.7	2860	1510	52.9	3.11	46 - 125	30	
4-Chloro-3-methylphenol	U	2950	1550	52.7	2860	1600	55.8	2.68	46 - 125	30	
4-Chloroaniline	U	2950	1390	47.0	2860	1340	46.9	3.27	20 - 120	30	
4-Chlorophenyl phenyl ether	U	2950	1630	55.2	2860	1650	57.6	1.20	47 - 125	30	
4-Nitroaniline	U	2950	2280	77.3	2860	2310	80.6	1.20	34 - 125	30	
4-Nitrophenol	U	2950	2090	70.7	2860	2230	77.9	6.63	25 - 138	30	
Acenaphthene	U	2950	1670	56.5	2860	1700	59.5	2.20	46 - 125	30	
Acenaphthylene	U	2950	1690	57.4	2860	1710	59.8	1.09	44 - 125	30	
Anthracene	U	2950	1970	66.9	2860	2020	70.5	2.13	53 - 125	30	
Benzo(a)anthracene	U	2950	2420	82.0	2860	2420	84.6	0.0157	52 - 125	30	
Benzo(a)pyrene	U	2950	2550	86.5	2860	2530	88.5	0.732	50 - 125	30	
Benzo(b)fluoranthene	U	2950	2540	86.0	2860	2310	80.8	9.22	45 - 125	30	
Benzo(g,h,i)Perylene	U	2950	2500	84.6	2860	2440	85.3	2.15	38 - 126	30	
Benzo(k)fluoranthene	U	2950	2520	85.4	2860	2440	85.2	3.25	45 - 125	30	
Bis(2-Chloroethoxy)Methane	U	2950	1180	40.0	2860	1180	41.1	0.436	43 - 125	30	*
Bis(2-Chloroethyl)ether	U	2950	1510	51.0	2860	1520	53.1	0.977	38 - 125	30	
bis(2-Chloroisopropyl)ether	U	2950	1390	47.0	2860	1420	49.7	2.39	25 - 125	30	
bis(2-Ethylhexyl)phthalate	U	2950	2440	82.6	2860	2550	89.2	4.58	47 - 127	30	
Butyl benzyl phthalate	U	2950	2500	84.8	2860	2600	90.7	3.58	49 - 125	30	
Carbazole	U	2950	2160	73.3	2860	2170	76.0	0.450	40 - 135	30	
Chrysene	U	2950	2470	83.6	2860	2510	87.6	1.52	53 - 125	30	
Dibenz(a,h)anthracene	U	2950	2530	85.6	2860	2530	88.4	0.168	41 - 125	30	
Dibenzofuran	U	2950	1680	56.8	2860	1710	59.6	1.77	51 - 125	30	
Diethyl phthalate	U	2950	1970	66.7	2860	2010	70.2	2.13	50 - 125	30	

MS_MSD - Modified 03/06/2008

PDF File ID: 1088632

Report generated 05/13/2008 11:18

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L08050050 Cal ID: HPMS4 01-MAY-08 Worknum:WG270646

Instrument ID:HPMS4 Contract #: Prep Method:3545

Parent ID:L08050050-01 File ID:4M42685 Dil:1 Method:8270C

Sample ID:L08050050-02 MS File ID:4M42686 Dil:1 Matrix:Soil

Sample ID:L08050050-03 MSD File ID:4M42687 Dil:1 Units:ug/kg

Percent Solid:83.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Dimethyl phthalate	U	2950	1720	58.4	2860	1780	62.0	2.94	49 - 125	30	
Di-N-Butylphthalate	U	2950	2110	71.6	2860	2170	75.7	2.57	56 - 125	30	
Di-n-octyl phthalate	U	2950	2580	87.6	2860	2720	95.0	5.13	41 - 132	30	
Fluoranthene	U	2950	2190	74.2	2860	2170	75.8	0.989	54 - 125	30	
Fluorene	U	2950	1690	57.3	2860	1730	60.5	2.39	49 - 125	30	
Hexachlorobenzene	U	2950	1800	61.1	2860	1820	63.5	0.752	47 - 125	30	
Hexachlorobutadiene	U	2950	1740	59.1	2860	1650	57.8	5.35	40 - 125	30	
Hexachlorocyclopentadiene	U	2950	1380	46.8	2860	1400	48.8	1.30	10 - 150	30	
Hexachloroethane	U	2950	1560	52.9	2860	1520	53.1	2.65	34 - 125	30	
Indeno(1,2,3-cd)pyrene	U	2950	2490	84.4	2860	2460	86.0	1.18	38 - 125	30	
Isophorone	U	2950	1680	56.8	2860	1720	60.1	2.47	43 - 125	30	
Naphthalene	U	2950	1500	50.9	2860	1460	50.8	3.14	40 - 125	30	
Nitrobenzene	U	2950	1490	50.4	2860	1500	52.5	0.926	41 - 125	30	
N-Nitrosodiphenylamine	U	2950	1430	48.4	2860	1420	49.6	0.632	49 - 125	30	*
N-Nitrosodipropylamine	U	2950	1540	52.2	2860	1560	54.5	1.32	40 - 125	30	
Pentachlorophenol	U	2950	2340	79.2	2860	2290	79.9	2.14	25 - 125	30	
Phenanthrene	U	2950	1910	64.8	2860	1950	68.1	1.77	50 - 125	30	
Phenol	U	2950	1600	54.3	2860	1570	55.0	1.73	39 - 125	30	
Pyrene	U	2950	2380	80.7	2860	2400	83.9	0.833	46 - 125	30	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 1088632

Report generated 05/13/2008 11:18

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08050050
Instrument: HPMS12
Analyst: MES
Workgroup: WG269466

Tune ID: WG269466-01
Run Date: 04/25/2008
Run Time: 12:44
File ID: 12M21395
Cal ID: HPMS12 - 25-APR-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	39.7	68129	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	42.6	73016	PASS
70.0	69.0	0	2.00	0.823	601	PASS
127	198	40.0	60.0	47.2	80904	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	171541	PASS
199	198	5.00	9.00	7.11	12203	PASS
275	198	10.0	30.0	28.8	49362	PASS
365	198	1.00	100	4.52	7750	PASS
441	443	0.0100	100	81.0	16290	PASS
442	198	40.0	100	60.4	103578	PASS
443	442	17.0	23.0	19.4	20104	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG269466-02	STD-CCV	01	04/25/2008 13:03	
WG269466-03	STD	01	04/25/2008 13:39	
WG269466-04	STD	01	04/25/2008 14:14	
WG269466-05	STD	01	04/25/2008 14:51	
WG269466-06	STD	01	04/25/2008 15:26	
WG269466-07	STD	01	04/25/2008 16:01	
WG269466-08	STD	01	04/25/2008 16:36	
WG269466-09	STD	01	04/25/2008 17:11	
WG269466-10	SSCV	01	04/25/2008 17:46	
WG269466-11	SSCV	01	04/25/2008 18:21	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1091913
Report generated 05/13/2008 11:23

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08050050
Instrument: HPMS12
Analyst: MES
Workgroup: WG270810

Tune ID: WG270810-01
Run Date: 05/09/2008
Run Time: 08:47
File ID: 12M21659
Cal ID: HPMS12 - 25-APR-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	36.9	54538	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	39.8	58813	PASS
70.0	69.0	0	2.00	0.376	221	PASS
127	198	40.0	60.0	44.9	66488	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	147946	PASS
199	198	5.00	9.00	6.67	9864	PASS
275	198	10.0	30.0	28.8	42648	PASS
365	198	1.00	100	4.34	6426	PASS
441	443	0.0100	100	79.9	16217	PASS
442	198	40.0	100	63.7	94226	PASS
443	442	17.0	23.0	21.5	20288	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270810-02	CCV	01	05/09/2008 09:06	
WG270668-01	BLANK	01	05/09/2008 09:41	
WG270668-02	LCS	01	05/09/2008 10:17	
WG270668-03	LCS2	01	05/09/2008 10:52	
L08050050-07	3015-SO01-050108	RE1	05/09/2008 12:38	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1091913
Report generated 05/13/2008 11:23

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08050050
Instrument: HPMS4
Analyst: MES
Workgroup: WG270026

Tune ID: WG270026-01
Run Date: 05/01/2008
Run Time: 13:58
File ID: 4M42587
Cal ID: HPMS4-01-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	39.8	42258	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	40.1	42557	PASS
70.0	69.0	0	2.00	0.573	244	PASS
127	198	40.0	60.0	51.3	54544	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	106253	PASS
199	198	5.00	9.00	6.43	6833	PASS
275	198	10.0	30.0	24.1	25616	PASS
365	198	1.00	100	2.87	3049	PASS
441	443	0.0100	100	86.1	14807	PASS
442	198	40.0	100	83.5	88757	PASS
443	442	17.0	23.0	19.4	17190	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270026-02	STD-CCV	01	05/01/2008 14:16	
WG270026-03	STD	01	05/01/2008 15:12	
WG270026-04	STD	01	05/01/2008 15:44	
WG270026-05	STD	01	05/01/2008 16:15	
WG270026-06	STD	01	05/01/2008 16:46	
WG270026-07	STD	01	05/01/2008 17:17	
WG270026-08	STD	01	05/01/2008 17:48	
WG270026-09	STD	01	05/01/2008 18:20	
WG270026-10	SSCV	01	05/01/2008 18:52	
WG270026-11	SSCV	01	05/01/2008 19:23	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1091913
Report generated 05/13/2008 11:23

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L08050050 Tune ID: WG270575-01
Instrument: HPMS4 Run Date: 05/07/2008
Analyst: MES Run Time: 09:38
Workgroup: WG270575 File ID: 4M42674
Cal ID: HPMS4-01-MAY-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	33.6	57192	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	36.7	62561	PASS
70.0	69.0	0	2.00	0.663	415	PASS
127	198	40.0	60.0	51.5	87712	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	170325	PASS
199	198	5.00	9.00	6.85	11675	PASS
275	198	10.0	30.0	22.2	37818	PASS
365	198	1.00	100	2.50	4261	PASS
441	443	0.0100	100	86.1	14458	PASS
442	198	40.0	100	50.9	86696	PASS
443	442	17.0	23.0	19.4	16799	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG270575-02	CCV	01	05/07/2008 09:58	
WG270285-02	BLANK	01	05/07/2008 12:03	
WG270285-03	LCS	01	05/07/2008 12:34	
L08050050-01	3025-SO01-050108	01	05/07/2008 15:10	
WG270285-01	REF	01	05/07/2008 15:10	
L08050050-02	3025-SO01-050108-MS	01	05/07/2008 15:42	
WG270285-04	MS	01	05/07/2008 15:42	
L08050050-03	3025-SO01-050108-MSD	01	05/07/2008 16:13	
WG270285-05	MSD	01	05/07/2008 16:13	
L08050050-08	3015-SO02-050108	01	05/07/2008 16:44	
L08050050-09	3014-SO01-050108	01	05/07/2008 17:15	
L08050050-07	3015-SO01-050108	01	05/07/2008 17:47	
L08050050-04	3025-SO02-050108	01	05/07/2008 18:18	
L08050050-06	3023-SO01-050108-FD	01	05/07/2008 18:50	
L08050050-10	3014-SO02-050108	01	05/07/2008 19:21	
L08050050-05	3023-SO01-050108	01	05/07/2008 19:53	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1091913
Report generated 05/13/2008 11:23

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11
ICAL Workgroup: WG269466 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4184	12.6		
2,4-Dichlorophenol	CCC	0.3488	10.2		
2-Nitrophenol	CCC	0.1857	15.3	0.999	
4-Chloro-3-Methylphenol	CCC	0.3870	7.61		
Acenaphthene	CCC	1.193	10.8		
Benzo[a]pyrene	CCC	1.217	8.97		
Di-n-Octyl Phthalate	CCC	1.218	15.7	0.998	
Fluoranthene	CCC	1.397	7.10		
Hexachlorobutadiene	CCC	0.3276	1.94		
Pentachlorophenol	CCC	0.1518	27.4	0.996	
Phenol	CCC	1.661	4.60		
n-Nitrosodiphenylamine	CCC	0.6676	7.80		
2,4-Dinitrophenol	SPCC	0.1449	38.6		0.999
4-Nitrophenol	SPCC	0.3133	6.27		
Hexachlorocyclopentadiene	SPCC	0.4039	22.4	0.999	
n-Nitrosodipropylamine	SPCC	1.032	3.83		
2,4,5-Trichlorophenol		0.4429	11.9		
2,4-Dimethylphenol		0.3697	10.3		
2,4-Dinitrotoluene		0.3792	14.5		
2,6-Dinitrotoluene		0.2941	9.67		
2-Chloronaphthalene		1.315	3.32		
2-Chlorophenol		1.236	5.81		
2-Methylnaphthalene		0.7859	6.94		
2-Methylphenol		1.020	7.51		
2-Nitroaniline		0.3601	4.92		
3,3'-Dichlorobenzidine		0.3636	16.5	0.999	
3-,4-Methylphenol		1.298	7.04		
3-Nitroaniline		0.3089	8.98		
4,6-Dinitro-2-Methylphenol		0.1347	28.2		0.999
4-Bromophenyl Phenyl Ether		0.2811	7.81		
4-Chloroaniline		0.5825	6.96		
4-Chlorophenyl Phenyl Ether		0.8612	3.69		
4-Nitroaniline		0.3089	8.98		
Acenaphthylene		1.775	6.34		
Anthracene		1.126	9.03		
Benzo[a]anthracene		1.309	5.38		
Benzo[b]fluoranthene		1.326	8.38		
Benzo[ghi]perylene		1.106	9.48		
Benzo[k]fluoranthene		1.269	5.91		
Butyl Benzyl Phthalate		0.5165	8.89		
Carbazole		0.9738	11.7		
Chrysene		1.186	5.12		
Di-n-Butyl Phthalate		1.286	8.69		
Dibenz[ah]anthracene		1.102	24.4	0.999	
Dibenzofuran		1.704	4.05		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11
ICAL Workgroup: WG269466 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.411	3.07		
Dimethylphthalate		1.337	3.14		
Fluorene		1.450	6.38		
Hexachlorobenzene		0.2639	8.27		
Hexachloroethane		0.6253	4.95		
Indeno[1,2,3-cd]pyrene		1.329	12.2		
Isophorone		0.7407	4.75		
Naphthalene		1.124	6.22		
Nitrobenzene		0.4858	5.44		
Phenanthrene		1.147	7.41		
Pyrene		1.286	5.08		
bis(2-Chloroethoxy)methane		0.4267	3.78		
bis(2-Chloroethyl)ether		0.8758	4.88		
bis(2-Chloroisopropyl)ether		1.246	2.66		
bis(2-Ethylhexyl)phthalate		0.6818	12.8		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20
ICAL Workgroup: WG270026 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.3588	6.13		
2,4-Dichlorophenol	CCC	0.2962	4.39		
2-Nitrophenol	CCC	0.2044	5.80		
4-Chloro-3-Methylphenol	CCC	0.2984	2.41		
Acenaphthene	CCC	1.185	2.88		
Benzo[a]pyrene	CCC	1.246	5.32		
Di-n-Octyl Phthalate	CCC	1.631	6.55		
Fluoranthene	CCC	1.267	4.25		
Hexachlorobutadiene	CCC	0.1622	4.25		
Pentachlorophenol	CCC	0.1190	20.7	0.997	
Phenol	CCC	1.653	1.98		
n-Nitrosodiphenylamine	CCC	0.7417	3.76		
2,4-Dinitrophenol	SPCC	0.1473	33.6	0.998	
4-Nitrophenol	SPCC	0.2498	5.07		
Hexachlorocyclopentadiene	SPCC	0.1921	33.9	0.999	
n-Nitrosodipropylamine	SPCC	0.8873	2.89		
2,4,5-Trichlorophenol		0.3851	5.16		
2,4-Dimethylphenol		0.3403	2.18		
2,4-Dinitrotoluene		0.4093	6.22		
2,6-Dinitrotoluene		0.3244	3.55		
2-Chloronaphthalene		1.356	1.97		
2-Chlorophenol		1.491	2.86		
2-Methylnaphthalene		0.7034	2.42		
2-Methylphenol		1.084	2.03		
2-Nitroaniline		0.3246	3.80		
3,3'-Dichlorobenzidine		0.4463	4.24		
3-,4-Methylphenol		1.450	2.53		
3-Nitroaniline		0.3563	1.89		
4,6-Dinitro-2-Methylphenol		0.1550	13.5		
4-Bromophenyl Phenyl Ether		0.2243	4.85		
4-Chloroaniline		0.4693	2.39		
4-Chlorophenyl Phenyl Ether		0.6379	3.20		
4-Nitroaniline		0.3869	2.35		
Acenaphthylene		1.894	1.93		
Anthracene		1.255	3.77		
Benzo[a]anthracene		1.254	3.53		
Benzo[b]fluoranthene		1.433	5.35		
Benzo[ghi]perylene		1.216	5.82		
Benzo[k]fluoranthene		1.213	7.39		
Butyl Benzyl Phthalate		0.6538	6.52		
Carbazole		1.161	3.58		
Chrysene		1.199	3.81		
Di-n-Butyl Phthalate		1.432	3.45		
Dibenz[ah]anthracene		1.229	5.70		
Dibenzofuran		1.647	2.16		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L08050050 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20
ICAL Workgroup: WG270026 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R^2)
Diethylphthalate		1.320	1.55		
Dimethylphthalate		1.300	1.87		
Fluorene		1.388	2.37		
Hexachlorobenzene		0.2428	5.37		
Hexachloroethane		0.5953	1.75		
Indeno[1,2,3-cd]pyrene		1.439	5.44		
Isophorone		0.5440	2.44		
Naphthalene		1.075	1.63		
Nitrobenzene		0.3357	2.21		
Phenanthrene		1.248	4.04		
Pyrene		1.368	4.55		
bis(2-Chloroethoxy)methane		0.5007	2.28		
bis(2-Chloroethyl)ether		0.8929	3.12		
bis(2-Chloroisopropyl)ether		1.955	4.71		
bis(2-Ethylhexyl)phthalate		0.9064	5.57		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11

Column ID: F

Analyte	WG269466-02			WG269466-03			WG269466-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	136367.000	0.4388	3.00	5918.00000	0.3142	10.0	23239.0000	0.3862
2,4-Dichlorophenol	50.0	158754.000	0.3588	3.00	7927.00000	0.2918	10.0	26920.0000	0.3173
2-Nitrophenol	50.0	86369.0000	0.1952	3.00	3432.00000	0.1263	10.0	14327.0000	0.1689
4-Chloro-3-Methylphenol	50.0	178838.000	0.4042	3.00	8857.00000	0.3260	10.0	30942.0000	0.3647
Acenaphthene	50.0	375627.000	1.209	3.00	18689.0000	0.9923	10.0	64516.0000	1.072
Benzo[a]pyrene	50.0	697864.000	1.374	3.00	32607.0000	1.036	10.0	123380.000	1.125
Di-n-Octyl Phthalate	50.0	749327.000	1.475	3.00	29699.0000	0.9436	10.0	111236.000	1.014
Fluoranthene	50.0	810612.000	1.296	3.00	42795.0000	1.234	10.0	154789.000	1.366
Hexachlorobutadiene	50.0	148516.000	0.3356	3.00	8617.00000	0.3172	10.0	28017.0000	0.3302
Pentachlorophenol	50.0	92466.0000	0.1479	NA	NA	NA	10.0	9878.00000	0.08720
Phenol	50.0	222209.000	1.683	3.00	12237.0000	1.552	10.0	38761.0000	1.581
n-Nitrosodiphenylamine	50.0	392845.000	0.6283	3.00	20330.0000	0.5860	10.0	72097.0000	0.6364
2,4-Dinitrophenol	50.0	39482.0000	0.1271	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	108610.000	0.3495	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	141345.000	0.4548	3.00	4274.00000	0.2269	10.0	19516.0000	0.3243
n-Nitrosodipropylamine	50.0	145764.000	1.104	3.00	7583.00000	0.9620	10.0	25176.0000	1.027
2,4,5-Trichlorophenol	50.0	144110.000	0.4637	3.00	6389.00000	0.3392	10.0	24278.0000	0.4035
2,4-Dimethylphenol	50.0	162609.000	0.3675	3.00	8024.00000	0.2954	10.0	28316.0000	0.3337
2,4-Dinitrotoluene	50.0	121879.000	0.3922	3.00	5034.00000	0.2673	10.0	20446.0000	0.3398
2,6-Dinitrotoluene	50.0	94251.0000	0.3033	3.00	4342.00000	0.2306	10.0	16831.0000	0.2797
2-Chloronaphthalene	50.0	407576.000	1.312	3.00	23579.0000	1.252	10.0	77192.0000	1.283
2-Chlorophenol	50.0	163796.000	1.241	3.00	8755.00000	1.111	10.0	29242.0000	1.193
2-Methylnaphthalene	50.0	340978.000	0.7706	3.00	19262.0000	0.7091	10.0	63484.0000	0.7482
2-Methylphenol	50.0	139033.000	1.053	3.00	7022.00000	0.8908	10.0	23075.0000	0.9411
2-Nitroaniline	50.0	122870.000	0.3954	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	50.0	252297.000	0.4242	3.00	9541.00000	0.2593	10.0	38536.0000	0.3037
3-,4-Methylphenol	50.0	174305.000	1.320	3.00	9115.00000	1.156	10.0	29102.0000	1.187
3-Nitroaniline	50.0	90495.0000	0.2912	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	71843.0000	0.1149	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	160280.000	0.2563	3.00	8943.00000	0.2578	10.0	29851.0000	0.2635
4-Chloroaniline	50.0	256808.000	0.5804	3.00	14696.0000	0.5410	10.0	44482.0000	0.5243
4-Chlorophenyl Phenyl Ether	50.0	268008.000	0.8624	3.00	15432.0000	0.8194	10.0	49083.0000	0.8157
4-Nitroaniline	50.0	90495.0000	0.2912	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	556722.000	1.792	3.00	30007.0000	1.593	10.0	99847.0000	1.659
Anthracene	50.0	659857.000	1.055	3.00	33177.0000	0.9564	10.0	122454.000	1.081
Benzo[a]anthracene	50.0	856517.000	1.440	3.00	44797.0000	1.217	10.0	155466.000	1.225
Benzo[b]fluoranthene	50.0	744041.000	1.465	3.00	35475.0000	1.127	10.0	137001.000	1.249
Benzo[ghi]perylene	50.0	634281.000	1.249	3.00	28793.0000	0.9148	10.0	110138.000	1.004
Benzo[k]fluoranthene	50.0	720586.000	1.418	3.00	36969.0000	1.175	10.0	135918.000	1.239
Butyl Benzyl Phthalate	50.0	353129.000	0.5938	3.00	16206.0000	0.4404	10.0	60984.0000	0.4806
Carbazole	50.0	583195.000	0.9327	3.00	27605.0000	0.7957	10.0	97064.0000	0.8567
Chrysene	50.0	780963.000	1.313	3.00	41677.0000	1.133	10.0	142455.000	1.123

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8270C

Instrument ID: HPMS12
Initial Calibration Date: 25-APR-08 17:11
Column ID: F

Analyte	WG269466-02			WG269466-03			WG269466-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	785864.000	1.257	3.00	37116.0000	1.070	10.0	136904.000	1.208
Dibenz[ah]anthracene	50.0	668824.000	1.317	3.00	15272.0000	0.4852	10.0	111770.000	1.019
Dibenzofuran	50.0	530596.000	1.707	3.00	29342.0000	1.558	10.0	100820.000	1.676
Diethylphthalate	50.0	452344.000	1.456	3.00	24871.0000	1.321	10.0	83818.0000	1.393
Dimethylphthalate	50.0	420899.000	1.354	3.00	23726.0000	1.260	10.0	78749.0000	1.309
Fluorene	50.0	454404.000	1.462	3.00	24326.0000	1.292	10.0	83747.0000	1.392
Hexachlorobenzene	50.0	147756.000	0.2363	3.00	8064.00000	0.2325	10.0	29006.0000	0.2560
Hexachloroethane	50.0	84931.0000	0.6433	3.00	4341.00000	0.5507	10.0	15476.0000	0.6312
Indeno[1,2,3-cd]pyrene	50.0	771409.000	1.519	3.00	32705.0000	1.039	10.0	128253.000	1.169
Isophorone	50.0	356238.000	0.8051	3.00	18428.0000	0.6784	10.0	61327.0000	0.7228
Naphthalene	50.0	496713.000	1.123	3.00	27895.0000	1.027	10.0	89924.0000	1.060
Nitrobenzene	50.0	230519.000	0.5210	3.00	12396.0000	0.4563	10.0	43364.0000	0.5111
Phenanthrene	50.0	673951.000	1.078	3.00	36064.0000	1.040	10.0	122363.000	1.080
Pyrene	50.0	858213.000	1.443	3.00	45464.0000	1.236	10.0	159485.000	1.257
bis(2-Chloroethoxy)methane	50.0	196099.000	0.4432	3.00	10594.0000	0.3900	10.0	36560.0000	0.4309
bis(2-Chloroethyl)ether	50.0	120076.000	0.9095	3.00	7560.00000	0.9591	10.0	21099.0000	0.8605
bis(2-Chloroisopropyl)ether	50.0	168561.000	1.277	3.00	9772.00000	1.240	10.0	31239.0000	1.274
bis(2-Ethylhexyl)phthalate	50.0	473337.000	0.7959	3.00	19278.0000	0.5239	10.0	77603.0000	0.6115

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11

Column ID: F

Analyte	WG269466-05			WG269466-06			WG269466-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	37239.0000	0.3892	25.0	98728.0000	0.4309	80.0	279987.000	0.4502
2,4-Dichlorophenol	15.0	43596.0000	0.3229	25.0	114408.000	0.3521	80.0	319185.000	0.3681
2-Nitrophenol	15.0	24186.0000	0.1791	25.0	61605.0000	0.1896	80.0	175038.000	0.2019
4-Chloro-3-Methylphenol	15.0	52064.0000	0.3856	25.0	127250.000	0.3916	80.0	344375.000	0.3972
Acenaphthene	15.0	108002.000	1.129	25.0	270752.000	1.182	80.0	782768.000	1.259
Benzo[a]pyrene	15.0	211381.000	1.155	25.0	535905.000	1.219	80.0	1534154.00	1.240
Di-n-Octyl Phthalate	15.0	196277.000	1.073	25.0	533784.000	1.214	80.0	1600340.00	1.293
Fluoranthene	15.0	249915.000	1.365	25.0	615392.000	1.436	80.0	1671315.00	1.481
Hexachlorobutadiene	15.0	45100.0000	0.3340	25.0	107508.000	0.3309	80.0	278572.000	0.3213
Pentachlorophenol	15.0	20553.0000	0.1123	25.0	62391.0000	0.1456	80.0	200096.000	0.1773
Phenol	15.0	63090.0000	1.595	25.0	160868.000	1.683	80.0	427551.000	1.710
n-Nitrosodiphenylamine	15.0	118973.000	0.6498	25.0	290222.000	0.6772	80.0	791950.000	0.7018
2,4-Dinitrophenol	15.0	5805.00000	0.06070	25.0	25500.0000	0.1113	80.0	104015.000	0.1673
4-Nitrophenol	15.0	28275.0000	0.2955	25.0	68859.0000	0.3005	80.0	190640.000	0.3065
Hexachlorocyclopentadiene	15.0	35338.0000	0.3694	25.0	99354.0000	0.4336	80.0	288927.000	0.4646
n-Nitrosodipropylamine	15.0	40475.0000	1.023	25.0	100435.000	1.051	80.0	258884.000	1.036
2,4,5-Trichlorophenol	15.0	40465.0000	0.4230	25.0	104764.000	0.4572	80.0	293599.000	0.4721
2,4-Dimethylphenol	15.0	51431.0000	0.3809	25.0	130875.000	0.4028	80.0	324020.000	0.3737
2,4-Dinitrotoluene	15.0	35097.0000	0.3669	25.0	91689.0000	0.4001	80.0	253364.000	0.4074
2,6-Dinitrotoluene	15.0	28223.0000	0.2950	25.0	69700.0000	0.3042	80.0	190771.000	0.3068
2-Chloronaphthalene	15.0	124189.000	1.298	25.0	302662.000	1.321	80.0	817846.000	1.315
2-Chlorophenol	15.0	46771.0000	1.182	25.0	119193.000	1.247	80.0	321563.000	1.286
2-Methylnaphthalene	15.0	100887.000	0.7471	25.0	253922.000	0.7815	80.0	705363.000	0.8136
2-Methylphenol	15.0	38574.0000	0.9750	25.0	99916.0000	1.045	80.0	265250.000	1.061
2-Nitroaniline	15.0	33956.0000	0.3549	25.0	82121.0000	0.3584	80.0	218250.000	0.3509
3,3'-Dichlorobenzidine	15.0	67580.0000	0.3290	25.0	185573.000	0.3758	80.0	538090.000	0.3943
3-,4-Methylphenol	15.0	50298.0000	1.271	25.0	124501.000	1.302	80.0	338084.000	1.352
3-Nitroaniline	15.0	26366.0000	0.2756	25.0	67223.0000	0.2934	80.0	195965.000	0.3151
4,6-Dinitro-2-Methylphenol	15.0	14678.0000	0.08020	25.0	48640.0000	0.1135	80.0	172873.000	0.1532
4-Bromophenyl Phenyl Ether	15.0	49966.0000	0.2729	25.0	122137.000	0.2850	80.0	332607.000	0.2947
4-Chloroaniline	15.0	75575.0000	0.5597	25.0	190168.000	0.5853	80.0	521274.000	0.6012
4-Chlorophenyl Phenyl Ether	15.0	82230.0000	0.8595	25.0	200371.000	0.8745	80.0	537412.000	0.8642
4-Nitroaniline	15.0	26366.0000	0.2756	25.0	67223.0000	0.2934	80.0	195965.000	0.3151
Acenaphthylene	15.0	164778.000	1.722	25.0	413595.000	1.805	80.0	1135611.00	1.826
Anthracene	15.0	197050.000	1.076	25.0	491615.000	1.147	80.0	1366240.00	1.211
Benzo[a]anthracene	15.0	264299.000	1.287	25.0	650627.000	1.318	80.0	1796598.00	1.317
Benzo[b]fluoranthene	15.0	235779.000	1.289	25.0	590199.000	1.343	80.0	1595206.00	1.289
Benzo[ghi]perylene	15.0	196842.000	1.076	25.0	499944.000	1.137	80.0	1411076.00	1.140
Benzo[k]fluoranthene	15.0	224378.000	1.226	25.0	553580.000	1.259	80.0	1553835.00	1.256
Butyl Benzyl Phthalate	15.0	102371.000	0.4984	25.0	253670.000	0.5137	80.0	713612.000	0.5229
Carbazole	15.0	171716.000	0.9379	25.0	428714.000	1.000	80.0	1208224.00	1.071
Chrysene	15.0	235937.000	1.149	25.0	579470.000	1.174	80.0	1618976.00	1.186

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11

Column ID: F

Analyte	WG269466-05			WG269466-06			WG269466-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	232437.000	1.270	25.0	563217.000	1.314	80.0	1547150.00	1.371
Dibenz[ah]anthracene	15.0	200539.000	1.096	25.0	505358.000	1.150	80.0	1505496.00	1.217
Dibenzofuran	15.0	162303.000	1.697	25.0	394959.000	1.724	80.0	1074465.00	1.728
Diethylphthalate	15.0	137877.000	1.441	25.0	328909.000	1.435	80.0	868238.000	1.396
Dimethylphthalate	15.0	127130.000	1.329	25.0	312530.000	1.364	80.0	830445.000	1.335
Fluorene	15.0	134267.000	1.403	25.0	330753.000	1.444	80.0	920136.000	1.480
Hexachlorobenzene	15.0	48740.0000	0.2662	25.0	113654.000	0.2652	80.0	311857.000	0.2764
Hexachloroethane	15.0	25151.0000	0.6357	25.0	61542.0000	0.6437	80.0	158937.000	0.6357
Indeno[1,2,3-cd]pyrene	15.0	230092.000	1.257	25.0	599639.000	1.364	80.0	1731397.00	1.399
Isophorone	15.0	99381.0000	0.7360	25.0	245328.000	0.7550	80.0	642420.000	0.7410
Naphthalene	15.0	146165.000	1.082	25.0	361079.000	1.111	80.0	1006802.00	1.161
Nitrobenzene	15.0	69269.0000	0.5130	25.0	159759.000	0.4917	80.0	402450.000	0.4642
Phenanthrene	15.0	202627.000	1.107	25.0	493338.000	1.151	80.0	1370037.00	1.214
Pyrene	15.0	259537.000	1.264	25.0	637423.000	1.291	80.0	1725768.00	1.265
bis(2-Chloroethoxy)methane	15.0	57561.0000	0.4263	25.0	138912.000	0.4275	80.0	369360.000	0.4260
bis(2-Chloroethyl)ether	15.0	35230.0000	0.8905	25.0	82944.0000	0.8676	80.0	210681.000	0.8427
bis(2-Chloroisopropyl)ether	15.0	50752.0000	1.283	25.0	121163.000	1.267	80.0	303941.000	1.216
bis(2-Ethylhexyl)phthalate	15.0	131164.000	0.6386	25.0	339497.000	0.6876	80.0	972062.000	0.7123

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11

Column ID: F

Analyte	WG269466-08			WG269466-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	377204.000	0.4596	120	482469.000	0.4781
2,4-Dichlorophenol	100	440715.000	0.3829	120	570611.000	0.3965
2-Nitrophenol	100	239517.000	0.2081	120	311803.000	0.2166
4-Chloro-3-Methylphenol	100	469454.000	0.4079	120	602506.000	0.4186
Acenaphthene	100	1079901.00	1.316	120	1396579.00	1.384
Benzo[a]pyrene	100	2086082.00	1.270	120	2632858.00	1.319
Di-n-Octyl Phthalate	100	2184046.00	1.329	120	2800418.00	1.403
Fluoranthene	100	2215701.00	1.492	120	2755326.00	1.509
Hexachlorobutadiene	100	373087.000	0.3242	120	470703.000	0.3270
Pentachlorophenol	100	283307.000	0.1908	120	367345.000	0.2012
Phenol	100	580096.000	1.707	120	749079.000	1.774
n-Nitrosodiphenylamine	100	1066689.00	0.7182	120	1356134.00	0.7428
2,4-Dinitrophenol	100	157333.000	0.1917	120	213452.000	0.2115
4-Nitrophenol	100	252092.000	0.3072	120	323723.000	0.3208
Hexachlorocyclopentadiene	100	387575.000	0.4723	120	489911.000	0.4855
n-Nitrosodipropylamine	100	344175.000	1.013	120	438122.000	1.037
2,4,5-Trichlorophenol	100	394373.000	0.4806	120	508384.000	0.5038
2,4-Dimethylphenol	100	456542.000	0.3967	120	585962.000	0.4071
2,4-Dinitrotoluene	100	344032.000	0.4192	120	444879.000	0.4409
2,6-Dinitrotoluene	100	255107.000	0.3109	120	325195.000	0.3223
2-Chloronaphthalene	100	1099288.00	1.340	120	1413873.00	1.401
2-Chlorophenol	100	439835.000	1.294	120	563310.000	1.334
2-Methylnaphthalene	100	970956.000	0.8437	120	1256929.00	0.8733
2-Methylphenol	100	365442.000	1.076	120	472314.000	1.118
2-Nitroaniline	100	284645.000	0.3468	120	357321.000	0.3541
3,3'-Dichlorobenzidine	100	733235.000	0.4024	120	940493.000	0.4198
3-,4-Methylphenol	100	465577.000	1.370	120	602765.000	1.427
3-Nitroaniline	100	268149.000	0.3267	120	354827.000	0.3516
4,6-Dinitro-2-Methylphenol	100	246356.000	0.1659	120	329033.000	0.1802
4-Bromophenyl Phenyl Ether	100	451448.000	0.3040	120	574210.000	0.3145
4-Chloroaniline	100	718485.000	0.6243	120	926485.000	0.6437
4-Chlorophenyl Phenyl Ether	100	723357.000	0.8814	120	920890.000	0.9126
4-Nitroaniline	100	268149.000	0.3267	120	354827.000	0.3516
Acenaphthylene	100	1529219.00	1.863	120	1960028.00	1.942
Anthracene	100	1822066.00	1.227	120	2287957.00	1.253
Benzo[a]anthracene	100	2405433.00	1.320	120	3012702.00	1.345
Benzo[b]fluoranthene	100	2336636.00	1.422	120	2840065.00	1.423
Benzo[ghi]perylene	100	1892297.00	1.152	120	2342145.00	1.173
Benzo[k]fluoranthene	100	2043397.00	1.244	120	2665882.00	1.335
Butyl Benzyl Phthalate	100	970519.000	0.5326	120	1230823.00	0.5494
Carbazole	100	1604741.00	1.081	120	2037702.00	1.116
Chrysene	100	2170926.00	1.191	120	2734443.00	1.221

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 25-APR-08 17:11

Column ID: F

Analyte	WG269466-08			WG269466-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	2062132.00	1.389	120	2572387.00	1.409
Dibenz[ah]anthracene	100	2048294.00	1.247	120	2575721.00	1.290
Dibenzofuran	100	1433623.00	1.747	120	1812183.00	1.796
Diethylphthalate	100	1153162.00	1.405	120	1453341.00	1.440
Dimethylphthalate	100	1103240.00	1.344	120	1416244.00	1.404
Fluorene	100	1257267.00	1.532	120	1611047.00	1.597
Hexachlorobenzene	100	420081.000	0.2828	120	539403.000	0.2955
Hexachloroethane	100	211552.000	0.6226	120	270148.000	0.6397
Indeno[1,2,3-cd]pyrene	100	2335820.00	1.422	120	2927052.00	1.466
Isophorone	100	848363.000	0.7371	120	1079868.00	0.7503
Naphthalene	100	1372849.00	1.193	120	1779526.00	1.236
Nitrobenzene	100	535447.000	0.4652	120	667562.000	0.4638
Phenanthrene	100	1836910.00	1.237	120	2321323.00	1.272
Pyrene	100	2295342.00	1.260	120	2860075.00	1.277
bis(2-Chloroethoxy)methane	100	495133.000	0.4302	120	633036.000	0.4398
bis(2-Chloroethyl)ether	100	281115.000	0.8273	120	358453.000	0.8488
bis(2-Chloroisopropyl)ether	100	407669.000	1.200	120	512593.000	1.214
bis(2-Ethylhexyl)phthalate	100	1331118.00	0.7305	120	1689210.00	0.7541

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-02			WG270026-03			WG270026-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	213896.000	0.3594	3.00	9658.00000	0.3162	10.0	37176.0000	0.3372
2,4-Dichlorophenol	50.0	303612.000	0.2951	3.00	14450.0000	0.2704	10.0	55274.0000	0.2881
2-Nitrophenol	50.0	214221.000	0.2082	3.00	9663.00000	0.1808	10.0	36906.0000	0.1923
4-Chloro-3-Methylphenol	50.0	314036.000	0.3052	3.00	15363.0000	0.2875	10.0	55370.0000	0.2886
Acenaphthene	50.0	700740.000	1.178	3.00	34202.0000	1.120	10.0	127870.000	1.160
Benzo[a]pyrene	50.0	1063055.00	1.386	3.00	51746.0000	1.160	10.0	200911.000	1.201
Di-n-Octyl Phthalate	50.0	1445487.00	1.885	3.00	69888.0000	1.567	10.0	265511.000	1.587
Fluoranthene	50.0	1166672.00	1.152	3.00	59807.0000	1.260	10.0	221245.000	1.263
Hexachlorobutadiene	50.0	160849.000	0.1563	3.00	8055.00000	0.1507	10.0	31114.0000	0.1622
Pentachlorophenol	50.0	111604.000	0.1102	NA	NA	NA	NA	NA	NA
Phenol	50.0	433066.000	1.667	3.00	21975.0000	1.626	10.0	79484.0000	1.639
n-Nitrosodiphenylamine	50.0	694371.000	0.6856	3.00	34390.0000	0.7243	10.0	130230.000	0.7433
2,4-Dinitrophenol	50.0	85650.0000	0.1439	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	152557.000	0.2563	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	130310.000	0.2190	3.00	2242.00000	0.07340	10.0	14488.0000	0.1314
n-Nitrosodipropylamine	50.0	234796.000	0.9038	3.00	12093.0000	0.8949	10.0	42389.0000	0.8739
2,4,5-Trichlorophenol	50.0	231094.000	0.3883	3.00	10635.0000	0.3482	10.0	40488.0000	0.3672
2,4-Dimethylphenol	50.0	352554.000	0.3427	3.00	17512.0000	0.3277	10.0	64944.0000	0.3385
2,4-Dinitrotoluene	50.0	248146.000	0.4170	3.00	10715.0000	0.3508	10.0	43832.0000	0.3976
2,6-Dinitrotoluene	50.0	192581.000	0.3236	3.00	9105.00000	0.2981	10.0	35485.0000	0.3219
2-Chloronaphthalene	50.0	793211.000	1.333	3.00	40953.0000	1.341	10.0	149574.000	1.357
2-Chlorophenol	50.0	384841.000	1.481	3.00	19019.0000	1.408	10.0	71548.0000	1.475
2-Methylnaphthalene	50.0	715732.000	0.6957	3.00	36208.0000	0.6776	10.0	132472.000	0.6904
2-Methylphenol	50.0	282682.000	1.088	3.00	14107.0000	1.044	10.0	51876.0000	1.070
2-Nitroaniline	50.0	201691.000	0.3389	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	50.0	399640.000	0.4819	3.00	21879.0000	0.4616	10.0	77754.0000	0.4395
3-,4-Methylphenol	50.0	378839.000	1.458	3.00	18625.0000	1.378	10.0	69585.0000	1.435
3-Nitroaniline	50.0	209857.000	0.3526	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	141369.000	0.1396	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	205389.000	0.2028	3.00	10248.0000	0.2158	10.0	39426.0000	0.2250
4-Chloroaniline	50.0	485133.000	0.4715	3.00	23840.0000	0.4461	10.0	89078.0000	0.4642
4-Chlorophenyl Phenyl Ether	50.0	370004.000	0.6217	3.00	18515.0000	0.6062	10.0	70851.0000	0.6427
4-Nitroaniline	50.0	232425.000	0.3906	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	1115522.00	1.875	3.00	56108.0000	1.837	10.0	207526.000	1.882
Anthracene	50.0	1174602.00	1.160	3.00	58613.0000	1.235	10.0	220977.000	1.261
Benzo[a]anthracene	50.0	1122413.00	1.354	3.00	58630.0000	1.237	10.0	216124.000	1.222
Benzo[b]fluoranthene	50.0	1226825.00	1.600	3.00	62477.0000	1.401	10.0	231857.000	1.386
Benzo[ghi]perylene	50.0	1037410.00	1.353	3.00	49281.0000	1.105	10.0	196037.000	1.172
Benzo[k]fluoranthene	50.0	1057128.00	1.379	3.00	51197.0000	1.148	10.0	202960.000	1.213
Butyl Benzyl Phthalate	50.0	615514.000	0.7423	3.00	31102.0000	0.6562	10.0	114990.000	0.6499
Carbazole	50.0	1098814.00	1.085	3.00	54974.0000	1.158	10.0	197844.000	1.129
Chrysene	50.0	1075576.00	1.297	3.00	55168.0000	1.164	10.0	207637.000	1.174

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-08 18:20
Column ID: F

Analyte	WG270026-02			WG270026-03			WG270026-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	50.0	1372456.00	1.355	3.00	65506.0000	1.380	10.0	248048.000	1.416
Dibenz[ah]anthracene	50.0	1040721.00	1.357	3.00	50233.0000	1.126	10.0	193942.000	1.160
Dibenzofuran	50.0	964865.000	1.621	3.00	50162.0000	1.642	10.0	182957.000	1.660
Diethylphthalate	50.0	779228.000	1.309	3.00	39751.0000	1.302	10.0	145296.000	1.318
Dimethylphthalate	50.0	766532.000	1.288	3.00	38800.0000	1.270	10.0	144282.000	1.309
Fluorene	50.0	810170.000	1.361	3.00	41216.0000	1.350	10.0	151427.000	1.374
Hexachlorobenzene	50.0	220339.000	0.2176	3.00	11084.0000	0.2334	10.0	42445.0000	0.2423
Hexachloroethane	50.0	155507.000	0.5986	3.00	7747.00000	0.5733	10.0	28827.0000	0.5943
Indeno[1,2,3-cd]pyrene	50.0	1218831.00	1.589	3.00	59442.0000	1.333	10.0	228209.000	1.364
Isophorone	50.0	575324.000	0.5592	3.00	28381.0000	0.5311	10.0	101861.000	0.5309
Naphthalene	50.0	1094999.00	1.064	3.00	56991.0000	1.067	10.0	205019.000	1.069
Nitrobenzene	50.0	353230.000	0.3433	3.00	17890.0000	0.3348	10.0	63888.0000	0.3330
Phenanthrene	50.0	1156019.00	1.142	3.00	58725.0000	1.237	10.0	219575.000	1.253
Pyrene	50.0	1247953.00	1.505	3.00	62334.0000	1.315	10.0	237233.000	1.341
bis(2-Chloroethoxy)methane	50.0	523968.000	0.5093	3.00	27390.0000	0.5125	10.0	95419.0000	0.4973
bis(2-Chloroethyl)ether	50.0	238876.000	0.9195	3.00	12143.0000	0.8986	10.0	43374.0000	0.8942
bis(2-Chloroisopropyl)ether	50.0	532416.000	2.049	3.00	27487.0000	2.034	10.0	94773.0000	1.954
bis(2-Ethylhexyl)phthalate	50.0	846687.000	1.021	3.00	42789.0000	0.9028	10.0	154954.000	0.8758

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-05			WG270026-06			WG270026-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	57373.0000	0.3582	25.0	161608.000	0.3736	80.0	410109.000	0.3749
2,4-Dichlorophenol	15.0	82505.0000	0.2965	25.0	227916.000	0.3114	80.0	558306.000	0.3001
2-Nitrophenol	15.0	57305.0000	0.2059	25.0	156849.000	0.2143	80.0	387173.000	0.2081
4-Chloro-3-Methylphenol	15.0	84367.0000	0.3031	25.0	223392.000	0.3052	80.0	548629.000	0.2949
Acenaphthene	15.0	189721.000	1.185	25.0	528961.000	1.223	80.0	1314341.00	1.201
Benzo[a]pyrene	15.0	292158.000	1.224	25.0	859582.000	1.256	80.0	2124611.00	1.232
Di-n-Octyl Phthalate	15.0	388336.000	1.628	25.0	1083533.00	1.584	80.0	2670591.00	1.548
Fluoranthene	15.0	325362.000	1.294	25.0	925148.000	1.341	80.0	2247918.00	1.270
Hexachlorobutadiene	15.0	45219.0000	0.1625	25.0	126752.000	0.1732	80.0	306557.000	0.1648
Pentachlorophenol	15.0	19495.0000	0.07750	25.0	77043.0000	0.1116	80.0	237196.000	0.1340
Phenol	15.0	119795.000	1.699	25.0	309383.000	1.691	80.0	746208.000	1.600
n-Nitrosodiphenylamine	15.0	192983.000	0.7673	25.0	535227.000	0.7755	80.0	1306154.00	0.7380
2,4-Dinitrophenol	15.0	9899.00000	0.06180	25.0	53746.0000	0.1242	80.0	190683.000	0.1743
4-Nitrophenol	15.0	37265.0000	0.2327	25.0	104297.000	0.2411	80.0	265917.000	0.2431
Hexachlorocyclopentadiene	15.0	24701.0000	0.1542	25.0	94480.0000	0.2184	80.0	268121.000	0.2451
n-Nitrosodipropylamine	15.0	65600.0000	0.9302	25.0	163680.000	0.8944	80.0	393892.000	0.8443
2,4,5-Trichlorophenol	15.0	60593.0000	0.3783	25.0	172988.000	0.3999	80.0	433004.000	0.3958
2,4-Dimethylphenol	15.0	96018.0000	0.3450	25.0	257308.000	0.3516	80.0	620635.000	0.3336
2,4-Dinitrotoluene	15.0	66390.0000	0.4145	25.0	186327.000	0.4307	80.0	460002.000	0.4205
2,6-Dinitrotoluene	15.0	52199.0000	0.3259	25.0	144999.000	0.3352	80.0	358894.000	0.3280
2-Chloronaphthalene	15.0	219832.000	1.372	25.0	611038.000	1.413	80.0	1477136.00	1.350
2-Chlorophenol	15.0	106500.000	1.510	25.0	281781.000	1.540	80.0	686300.000	1.471
2-Methylnaphthalene	15.0	198076.000	0.7117	25.0	533827.000	0.7294	80.0	1309509.00	0.7039
2-Methylphenol	15.0	76621.0000	1.086	25.0	203494.000	1.112	80.0	498712.000	1.069
2-Nitroaniline	15.0	54078.0000	0.3376	25.0	137071.000	0.3169	80.0	337875.000	0.3088
3,3'-Dichlorobenzidine	15.0	108305.000	0.4309	25.0	326029.000	0.4580	80.0	782664.000	0.4297
3-,4-Methylphenol	15.0	103719.000	1.471	25.0	272863.000	1.491	80.0	664697.000	1.425
3-Nitroaniline	15.0	55519.0000	0.3466	25.0	153515.000	0.3549	80.0	389825.000	0.3563
4,6-Dinitro-2-Methylphenol	15.0	30842.0000	0.1226	25.0	105490.000	0.1529	80.0	293051.000	0.1656
4-Bromophenyl Phenyl Ether	15.0	57370.0000	0.2281	25.0	164649.000	0.2386	80.0	400854.000	0.2265
4-Chloroaniline	15.0	132889.000	0.4775	25.0	353564.000	0.4831	80.0	869969.000	0.4676
4-Chlorophenyl Phenyl Ether	15.0	103892.000	0.6486	25.0	290877.000	0.6724	80.0	708165.000	0.6473
4-Nitroaniline	15.0	59667.0000	0.3725	25.0	173218.000	0.4004	80.0	421116.000	0.3849
Acenaphthylene	15.0	308590.000	1.927	25.0	847050.000	1.958	80.0	2073166.00	1.895
Anthracene	15.0	324639.000	1.291	25.0	911660.000	1.321	80.0	2212043.00	1.250
Benzo[a]anthracene	15.0	314944.000	1.253	25.0	906430.000	1.273	80.0	2226123.00	1.222
Benzo[b]fluoranthene	15.0	328239.000	1.376	25.0	963914.000	1.409	80.0	2530262.00	1.467
Benzo[ghi]perylene	15.0	284789.000	1.194	25.0	849718.000	1.242	80.0	2088490.00	1.211
Benzo[k]fluoranthene	15.0	268226.000	1.124	25.0	773851.000	1.131	80.0	2007308.00	1.164
Butyl Benzyl Phthalate	15.0	170877.000	0.6799	25.0	461465.000	0.6482	80.0	1108649.00	0.6087
Carbazole	15.0	290310.000	1.154	25.0	844699.000	1.224	80.0	2062029.00	1.165
Chrysene	15.0	305943.000	1.217	25.0	870053.000	1.222	80.0	2122067.00	1.165

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050
Analytical Method: 8270C

Instrument ID: HPMS4
Initial Calibration Date: 01-MAY-08 18:20
Column ID: F

Analyte	WG270026-05			WG270026-06			WG270026-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	15.0	375484.000	1.493	25.0	1032640.00	1.496	80.0	2524280.00	1.426
Dibenz[ah]anthracene	15.0	287666.000	1.206	25.0	856309.000	1.252	80.0	2118876.00	1.228
Dibenzofuran	15.0	270269.000	1.687	25.0	738548.000	1.707	80.0	1775249.00	1.623
Diethylphthalate	15.0	215347.000	1.344	25.0	587611.000	1.358	80.0	1435508.00	1.312
Dimethylphthalate	15.0	211038.000	1.318	25.0	581700.000	1.345	80.0	1413921.00	1.292
Fluorene	15.0	225807.000	1.410	25.0	628019.000	1.452	80.0	1521889.00	1.391
Hexachlorobenzene	15.0	61194.0000	0.2433	25.0	179303.000	0.2598	80.0	435758.000	0.2462
Hexachloroethane	15.0	42676.0000	0.6051	25.0	110175.000	0.6021	80.0	274039.000	0.5874
Indeno[1,2,3-cd]pyrene	15.0	336237.000	1.409	25.0	995201.000	1.455	80.0	2474832.00	1.435
Isophorone	15.0	156964.000	0.5640	25.0	399195.000	0.5455	80.0	983542.000	0.5287
Naphthalene	15.0	304035.000	1.093	25.0	810399.000	1.107	80.0	1966338.00	1.057
Nitrobenzene	15.0	96776.0000	0.3477	25.0	246316.000	0.3366	80.0	601558.000	0.3234
Phenanthrene	15.0	325361.000	1.294	25.0	902996.000	1.308	80.0	2191416.00	1.238
Pyrene	15.0	350219.000	1.394	25.0	985403.000	1.384	80.0	2393241.00	1.314
bis(2-Chloroethoxy)methane	15.0	142693.000	0.5127	25.0	369937.000	0.5055	80.0	893452.000	0.4803
bis(2-Chloroethyl)ether	15.0	65918.0000	0.9347	25.0	162267.000	0.8867	80.0	394748.000	0.8461
bis(2-Chloroisopropyl)ether	15.0	145603.000	2.065	25.0	350578.000	1.916	80.0	844098.000	1.809
bis(2-Ethylhexyl)phthalate	15.0	233093.000	0.9275	25.0	634439.000	0.8912	80.0	1567419.00	0.8606

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-08			WG270026-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	447858.000	0.3697	120	643690.000	0.3815
2,4-Dichlorophenol	100	618048.000	0.2973	120	882977.000	0.3104
2-Nitrophenol	100	436005.000	0.2097	120	613171.000	0.2156
4-Chloro-3-Methylphenol	100	625012.000	0.3006	120	858638.000	0.3019
Acenaphthene	100	1445655.00	1.193	120	2063246.00	1.223
Benzo[a]pyrene	100	2233225.00	1.234	120	3274407.00	1.275
Di-n-Octyl Phthalate	100	2957962.00	1.635	120	4137987.00	1.612
Fluoranthene	100	2399644.00	1.259	120	3471315.00	1.295
Hexachlorobutadiene	100	332769.000	0.1601	120	478165.000	0.1681
Pentachlorophenol	100	260266.000	0.1365	120	387183.000	0.1444
Phenol	100	856657.000	1.653	120	1169326.00	1.653
n-Nitrosodiphenylamine	100	1420595.00	0.7453	120	2022769.00	0.7544
2,4-Dinitrophenol	100	222143.000	0.1834	120	330526.000	0.1959
4-Nitrophenol	100	320994.000	0.2650	120	439441.000	0.2605
Hexachlorocyclopentadiene	100	295135.000	0.2436	120	425111.000	0.2520
n-Nitrosodipropylamine	100	460426.000	0.8883	120	614434.000	0.8688
2,4,5-Trichlorophenol	100	475425.000	0.3924	120	692229.000	0.4103
2,4-Dimethylphenol	100	703802.000	0.3385	120	980909.000	0.3449
2,4-Dinitrotoluene	100	507795.000	0.4192	120	715156.000	0.4239
2,6-Dinitrotoluene	100	398822.000	0.3292	120	561974.000	0.3331
2-Chloronaphthalene	100	1610245.00	1.329	120	2283628.00	1.354
2-Chlorophenol	100	778848.000	1.503	120	1087390.00	1.538
2-Methylnaphthalene	100	1449004.00	0.6969	120	2053060.00	0.7218
2-Methylphenol	100	567586.000	1.095	120	781322.000	1.105
2-Nitroaniline	100	398379.000	0.3288	120	534374.000	0.3167
3,3'-Dichlorobenzidine	100	830270.000	0.4303	120	1205729.00	0.4388
3-,4-Methylphenol	100	757389.000	1.461	120	1049176.00	1.484
3-Nitroaniline	100	438292.000	0.3618	120	616809.000	0.3656
4,6-Dinitro-2-Methylphenol	100	328692.000	0.1724	120	474464.000	0.1769
4-Bromophenyl Phenyl Ether	100	428386.000	0.2247	120	623995.000	0.2327
4-Chloroaniline	100	973744.000	0.4684	120	1354510.00	0.4762
4-Chlorophenyl Phenyl Ether	100	754413.000	0.6227	120	1082359.00	0.6416
4-Nitroaniline	100	466595.000	0.3851	120	654736.000	0.3881
Acenaphthylene	100	2270577.00	1.874	120	3210161.00	1.903
Anthracene	100	2380422.00	1.249	120	3422728.00	1.277
Benzo[a]anthracene	100	2356284.00	1.221	120	3438911.00	1.252
Benzo[b]fluoranthene	100	2472693.00	1.367	120	3743306.00	1.458
Benzo[ghi]perylene	100	2188227.00	1.209	120	3194506.00	1.244
Benzo[k]fluoranthene	100	2314600.00	1.279	120	3259773.00	1.270
Butyl Benzyl Phthalate	100	1218920.00	0.6317	120	1685704.00	0.6135
Carbazole	100	2245331.00	1.178	120	3198016.00	1.193
Chrysene	100	2257031.00	1.170	120	3249287.00	1.183

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L08050050 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 01-MAY-08 18:20

Column ID: F

Analyte	WG270026-08			WG270026-09		
	CONC	RESP	RF	CONC	RESP	RF
Di-n-Butyl Phthalate	100	2762453.00	1.449	120	3855498.00	1.438
Dibenz[ah]anthracene	100	2234944.00	1.235	120	3253472.00	1.267
Dibenzofuran	100	1945135.00	1.606	120	2743594.00	1.626
Diethylphthalate	100	1579825.00	1.304	120	2212035.00	1.311
Dimethylphthalate	100	1543449.00	1.274	120	2198254.00	1.303
Fluorene	100	1655932.00	1.367	120	2363407.00	1.401
Hexachlorobenzene	100	466141.000	0.2446	120	684926.000	0.2554
Hexachloroethane	100	311853.000	0.6016	120	424057.000	0.5996
Indeno[1,2,3-cd]pyrene	100	2602910.00	1.438	120	3818123.00	1.487
Isophorone	100	1141843.00	0.5492	120	1544513.00	0.5430
Naphthalene	100	2206391.00	1.061	120	3080519.00	1.083
Nitrobenzene	100	696846.000	0.3352	120	942356.000	0.3313
Phenanthrene	100	2369275.00	1.243	120	3402926.00	1.269
Pyrene	100	2583901.00	1.339	120	3718540.00	1.353
bis(2-Chloroethoxy)methane	100	1031581.00	0.4962	120	1398653.00	0.4918
bis(2-Chloroethyl)ether	100	464881.000	0.8969	120	612765.000	0.8664
bis(2-Chloroisopropyl)ether	100	1014370.00	1.957	120	1313850.00	1.858
bis(2-Ethylhexyl)phthalate	100	1725473.00	0.8942	120	2411629.00	0.8776

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 04/25/2008 Sample ID: WG269466-10
Instrument ID: HPMS12 Run Time: 17:46 Method: 8270C
File ID: 12M21404 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269466 Cal ID: HPMS12 - 25-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	53700	ug/L	0.449	7.40	25	
2,4-Dichlorophenol	CCC	50000	49600	ug/L	0.346	0.900	25	
4-Chloro-3-Methylphenol	CCC	50000	50500	ug/L	0.391	1.00	25	
Acenaphthene	CCC	50000	49200	ug/L	1.17	1.60	25	
Benzo[a]pyrene	CCC	50000	56600	ug/L	1.38	13.2	25	
Di-n-Octyl Phthalate	CCC	50000	51100	ug/L	1.36	2.20	25	
Fluoranthene	CCC	50000	57200	ug/L	1.60	14.5	25	
Hexachlorobutadiene	CCC	50000	54300	ug/L	0.356	8.60	25	
n-Nitrosodiphenylamine	CCC	50000	51600	ug/L	0.689	3.20	25	
Pentachlorophenol	CCC	50000	57800	ug/L	0.205	15.5	25	
Phenol	CCC	50000	49100	ug/L	1.63	1.80	25	
2,4-Dinitrophenol	SPCC	50000	62900	ug/L	0.186	25.8	25	*
4-Nitrophenol	SPCC	50000	44900	ug/L	0.282	10.2	25	
Hexachlorocyclopentadiene	SPCC	50000	47600	ug/L	0.437	4.80	25	
n-Nitrosodipropylamine	SPCC	50000	44200	ug/L	0.911	11.7	25	
2,4,5-Trichlorophenol		50000	53500	ug/L	0.474	7.00	25	
2,4-Dimethylphenol		50000	47100	ug/L	0.349	5.70	25	
2,4-Dinitrotoluene		50000	57500	ug/L	0.436	15.0	25	
2,6-Dinitrotoluene		50000	54700	ug/L	0.322	9.30	25	
2-Chloronaphthalene		50000	46100	ug/L	1.21	7.70	25	
2-Chlorophenol		50000	49800	ug/L	1.23	0.400	25	
2-Methylnaphthalene		50000	53500	ug/L	0.840	6.90	25	
2-Nitroaniline		50000	55100	ug/L	0.397	10.3	25	
3,3'-Dichlorobenzidine		50000	31900	ug/L	0.249	36.2	25	*
3-,4-Methylphenol		50000	48300	ug/L	1.25	3.50	25	
3-Nitroaniline		50000	47800	ug/L	0.295	4.40	25	
4,6-Dinitro-2-Methylphenol		50000	61500	ug/L	0.165	23.1	25	
4-Bromophenyl Phenyl Ether		50000	44700	ug/L	0.251	10.6	25	
4-Chloroaniline		50000	51100	ug/L	0.596	2.30	25	
4-Chlorophenyl Phenyl Ether		50000	48600	ug/L	0.837	2.90	25	
4-Nitroaniline		50000	47800	ug/L	0.295	4.40	25	
Acenaphthylene		50000	55700	ug/L	1.98	11.3	25	
Anthracene		50000	56000	ug/L	1.26	12.1	25	
Benzo[a]anthracene		50000	54000	ug/L	1.41	7.90	25	
Benzo[b]fluoranthene		50000	54100	ug/L	1.43	8.20	25	
Benzo[ghi]perylene		50000	55700	ug/L	1.23	11.4	25	
Benzo[k]fluoranthene		50000	55600	ug/L	1.41	11.3	25	
bis(2-Chloroethoxy)methane		50000	48400	ug/L	0.413	3.30	25	
bis(2-Chloroethyl)ether		50000	43500	ug/L	0.763	12.9	25	
bis(2-Chloroisopropyl)ether		50000	45300	ug/L	1.13	9.40	25	
bis(2-Ethylhexyl)phthalate		50000	53800	ug/L	0.733	7.50	25	
Butyl Benzyl Phthalate		50000	54000	ug/L	0.558	8.00	25	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1091909
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 04/25/2008 Sample ID: WG269466-10
Instrument ID: HPMS12 Run Time: 17:46 Method: 8270C
File ID: 12M21404 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269466 Cal ID: HPMS12 - 25-APR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Carbazole		50000	53800	ug/L	1.05	7.60	25	
Chrysene		50000	53500	ug/L	1.27	6.90	25	
Dibenz[ah]anthracene		50000	51200	ug/L	1.27	2.30	25	
Dibenzofuran		50000	53400	ug/L	1.82	6.70	25	
Diethylphthalate		50000	47500	ug/L	1.34	5.00	25	
Dimethylphthalate		50000	50400	ug/L	1.35	0.800	25	
Di-n-Butyl Phthalate		50000	48100	ug/L	1.24	3.80	25	
Fluorene		50000	54300	ug/L	1.58	8.70	25	
Hexachlorobenzene		50000	56800	ug/L	0.300	13.6	25	
Hexachloroethane		50000	49300	ug/L	0.617	1.40	25	
Indeno[1,2,3-cd]pyrene		50000	55300	ug/L	1.47	10.7	25	
Isophorone		50000	55400	ug/L	0.820	10.7	25	
Naphthalene		50000	53000	ug/L	1.19	6.10	25	
Nitrobenzene		50000	47600	ug/L	0.463	4.80	25	
Phenanthrene		50000	54500	ug/L	1.25	8.90	25	
Pyrene		50000	55800	ug/L	1.44	11.6	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1091909
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 04/25/2008 Sample ID: WG269466-11
Instrument ID: HPMS12 Run Time: 18:21 Method: 8270C
File ID: 12M21405 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG269466 Cal ID: HPMS12 - 25-APR-08

Analyte	Expected	Found	Units	RF	%D	UCL	Q

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1091909
Report generated 05/19/2008 10:16

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/01/2008 Sample ID: WG270026-10
Instrument ID: HPMS4 Run Time: 18:52 Method: 8270C
File ID: 4M42596 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	52600	ug/L	0.377	5.10	25	
2,4-Dichlorophenol	CCC	50000	49800	ug/L	0.295	0.400	25	
2-Nitrophenol	CCC	50000	51400	ug/L	0.210	2.80	25	
4-Chloro-3-Methylphenol	CCC	50000	50400	ug/L	0.301	0.800	25	
Acenaphthene	CCC	50000	54700	ug/L	1.30	9.40	25	
Benzo[a]pyrene	CCC	50000	55900	ug/L	1.39	11.8	25	
Di-n-Octyl Phthalate	CCC	50000	52000	ug/L	1.70	4.10	25	
Fluoranthene	CCC	50000	57100	ug/L	1.45	14.2	25	
Hexachlorobutadiene	CCC	50000	56700	ug/L	0.184	13.5	25	
n-Nitrosodiphenylamine	CCC	50000	52400	ug/L	0.777	4.70	25	
Pentachlorophenol	CCC	50000	61600	ug/L	0.160	23.1	25	
Phenol	CCC	50000	48100	ug/L	1.59	3.80	25	
2,4-Dinitrophenol	SPCC	50000	55600	ug/L	0.183	11.1	25	
4-Nitrophenol	SPCC	50000	49200	ug/L	0.246	1.60	25	
Hexachlorocyclopentadiene	SPCC	50000	51700	ug/L	0.243	3.40	25	
n-Nitrosodipropylamine	SPCC	50000	47000	ug/L	0.834	6.00	25	
2,4,5-Trichlorophenol		50000	53400	ug/L	0.411	6.70	25	
2,4-Dimethylphenol		50000	48000	ug/L	0.327	4.00	25	
2,4-Dinitrotoluene		50000	56400	ug/L	0.461	12.7	25	
2,6-Dinitrotoluene		50000	53700	ug/L	0.348	7.30	25	
2-Chloronaphthalene		50000	45400	ug/L	1.23	9.10	25	
2-Chlorophenol		50000	48100	ug/L	1.43	3.90	25	
2-Methylnaphthalene		50000	53200	ug/L	0.749	6.40	25	
2-Methylphenol		50000	50300	ug/L	1.09	0.600	25	
2-Nitroaniline		50000	55000	ug/L	0.357	10.0	25	
3,3'-Dichlorobenzidine		50000	44200	ug/L	0.395	11.6	25	
3-,4-Methylphenol		50000	48100	ug/L	1.39	3.90	25	
3-Nitroaniline		50000	56400	ug/L	0.402	12.8	25	
4,6-Dinitro-2-Methylphenol		50000	58800	ug/L	0.182	17.5	25	
4-Bromophenyl Phenyl Ether		50000	44700	ug/L	0.201	10.5	25	
4-Chloroaniline		50000	52300	ug/L	0.491	4.70	25	
4-Chlorophenyl Phenyl Ether		50000	49600	ug/L	0.633	0.700	25	
4-Nitroaniline		50000	54100	ug/L	0.419	8.30	25	
Acenaphthylene		50000	54800	ug/L	2.08	9.60	25	
Anthracene		50000	56600	ug/L	1.42	13.1	25	
Benzo[a]anthracene		50000	53500	ug/L	1.34	6.90	25	
Benzo[b]fluoranthene		50000	54000	ug/L	1.55	8.10	25	
Benzo[ghi]perylene		50000	55500	ug/L	1.35	10.9	25	
Benzo[k]fluoranthene		50000	54300	ug/L	1.32	8.50	25	
bis(2-Chloroethoxy)methane		50000	38200	ug/L	0.383	23.6	25	
bis(2-Chloroethyl)ether		50000	46300	ug/L	0.827	7.40	25	
bis(2-Chloroisopropyl)ether		50000	47100	ug/L	1.84	5.80	25	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1091909
Report generated 05/19/2008 10:16

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/01/2008 Sample ID: WG270026-10
Instrument ID: HPMS4 Run Time: 18:52 Method: 8270C
File ID: 4M42596 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.916	1.10	25	
Butyl Benzyl Phthalate		50000	52700	ug/L	0.689	5.40	25	
Carbazole		50000	55300	ug/L	1.28	10.6	25	
Chrysene		50000	53500	ug/L	1.28	6.90	25	
Dibenz[ah]anthracene		50000	55400	ug/L	1.36	10.8	25	
Dibenzofuran		50000	53400	ug/L	1.76	6.80	25	
Diethylphthalate		50000	48900	ug/L	1.29	2.20	25	
Dimethylphthalate		50000	49800	ug/L	1.30	0.300	25	
Di-n-Butyl Phthalate		50000	49300	ug/L	1.41	1.50	25	
Fluorene		50000	54500	ug/L	1.51	9.00	25	
Hexachlorobenzene		50000	54800	ug/L	0.266	9.70	25	
Hexachloroethane		50000	51100	ug/L	0.608	2.20	25	
Indeno[1,2,3-cd]pyrene		50000	55500	ug/L	1.60	11.1	25	
Isophorone		50000	56600	ug/L	0.616	13.2	25	
Naphthalene		50000	52800	ug/L	1.14	5.70	25	
Nitrobenzene		50000	50400	ug/L	0.338	0.800	25	
Phenanthrene		50000	54600	ug/L	1.36	9.30	25	
Pyrene		50000	54700	ug/L	1.50	9.40	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L08050050 Run Date: 05/01/2008 Sample ID: WG270026-11
Instrument ID: HPMS4 Run Time: 19:23 Method: 8270C
File ID: 4M42597 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG270026 Cal ID: HPMS4 - 01-MAY-08

Analyte	Expected	Found	Units	RF	%D	UCL	Q

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1091909
Report generated 05/19/2008 10:16

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/07/2008 Sample ID: WG270575-02
Instrument ID: HPMS4 Run Time: 09:58 Method: 8270C
File ID: 4M42675 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG270646 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	51800	ug/L	0.372	3.62	20	
2,4-Dichlorophenol	CCC	50000	49500	ug/L	0.293	1.01	20	
2-Nitrophenol	CCC	50000	49800	ug/L	0.204	0.308	20	
4-Chloro-3-Methylphenol	CCC	50000	49500	ug/L	0.296	0.901	20	
Acenaphthene	CCC	50000	50200	ug/L	1.19	0.424	20	
Benzo[a]pyrene	CCC	50000	57500	ug/L	1.43	14.9	20	
Di-n-Octyl Phthalate	CCC	50000	59000	ug/L	1.92	17.9	20	
Fluoranthene	CCC	50000	44900	ug/L	1.14	10.3	20	
Hexachlorobutadiene	CCC	50000	53500	ug/L	0.174	6.97	20	
n-Nitrosodiphenylamine	CCC	50000	45300	ug/L	0.673	9.33	20	
Pentachlorophenol	CCC	50000	44000	ug/L	0.107	12.1	20	
Phenol	CCC	50000	46800	ug/L	1.55	6.40	20	
1,4-Dichlorobenzene	CCC	50000	49300	ug/L	1.60	1.47	25	
2,4-Dinitrophenol	SPCC	50000	49000	ug/L	0.156	1.95	25	
4-Nitrophenol	SPCC	50000	48200	ug/L	0.241	3.56	25	
Hexachlorocyclopentadiene	SPCC	50000	53000	ug/L	0.250	6.00	25	
n-Nitrosodipropylamine	SPCC	50000	46500	ug/L	0.825	7.02	25	
2,4,5-Trichlorophenol		50000	51400	ug/L	0.396	2.71	25	
2,4-Dimethylphenol		50000	47700	ug/L	0.325	4.63	25	
2,4-Dinitrotoluene		50000	50100	ug/L	0.410	0.222	25	
2,6-Dinitrotoluene		50000	49400	ug/L	0.320	1.24	25	
2-Chloronaphthalene		50000	48700	ug/L	1.32	2.61	25	
2-Chlorophenol		50000	48500	ug/L	1.45	2.95	25	
2-Methylnaphthalene		50000	49400	ug/L	0.695	1.27	25	
2-Methylphenol		50000	47800	ug/L	1.04	4.32	25	
2-Nitroaniline		50000	47800	ug/L	0.310	4.45	25	
3,3'-Dichlorobenzidine		50000	53300	ug/L	0.476	6.69	25	
3-,4-Methylphenol		50000	47000	ug/L	1.36	5.96	25	
3-Nitroaniline		50000	51400	ug/L	0.366	2.71	25	
4,6-Dinitro-2-Methylphenol		50000	44500	ug/L	0.138	11.0	25	
4-Bromophenyl Phenyl Ether		50000	46000	ug/L	0.206	8.07	25	
4-Chloroaniline		50000	48700	ug/L	0.457	2.58	25	
4-Chlorophenyl Phenyl Ether		50000	49700	ug/L	0.634	0.696	25	
4-Nitroaniline		50000	51100	ug/L	0.396	2.26	25	
Acenaphthylene		50000	49300	ug/L	1.87	1.33	25	
Anthracene		50000	46000	ug/L	1.15	8.00	25	
Benzo[a]anthracene		50000	53300	ug/L	1.34	6.69	25	
Benzo[b]fluoranthene		50000	61000	ug/L	1.75	22.0	25	
Benzo[ghi]perylene		50000	56100	ug/L	1.36	12.2	25	
Benzo[k]fluoranthene		50000	55600	ug/L	1.35	11.2	25	
bis(2-Chloroethoxy)methane		50000	46100	ug/L	0.462	7.76	25	
bis(2-Chloroethyl)ether		50000	45600	ug/L	0.814	8.82	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/07/2008 Sample ID: WG270575-02
Instrument ID: HPMS4 Run Time: 09:58 Method: 8270C
File ID: 4M42675 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG270646 Cal ID: HPMS4 - 01-MAY-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroisopropyl)ether		50000	40500	ug/L	1.59	18.9	25	
bis(2-Ethylhexyl)phthalate		50000	52600	ug/L	0.953	5.12	25	
Butyl Benzyl Phthalate		50000	49400	ug/L	0.647	1.11	25	
Carbazole		50000	45600	ug/L	1.06	8.88	25	
Chrysene		50000	53200	ug/L	1.28	6.45	25	
Dibenz[ah]anthracene		50000	56300	ug/L	1.38	12.6	25	
Dibenzofuran		50000	47700	ug/L	1.57	4.53	25	
Diethylphthalate		50000	51000	ug/L	1.35	1.95	25	
Dimethylphthalate		50000	49800	ug/L	1.29	0.425	25	
Di-n-Butyl Phthalate		50000	46200	ug/L	1.32	7.54	25	
Fluorene		50000	48500	ug/L	1.35	3.01	25	
Hexachlorobenzene		50000	44900	ug/L	0.218	10.1	25	
Hexachloroethane		50000	50200	ug/L	0.598	0.491	25	
Indeno[1,2,3-cd]pyrene		50000	56500	ug/L	1.63	13.0	25	
Isophorone		50000	49300	ug/L	0.536	1.39	25	
Naphthalene		50000	47500	ug/L	1.02	4.90	25	
Nitrobenzene		50000	47800	ug/L	0.321	4.44	25	
Phenanthrene		50000	45600	ug/L	1.14	8.82	25	
Pyrene		50000	51300	ug/L	1.40	2.52	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/09/2008 Sample ID: WG270810-02
Instrument ID: HPMS12 Run Time: 09:06 Method: 8270C
File ID: 12M21660 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG270949 Cal ID: HPMS12 - 25-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	55400	ug/L	0.463	10.7	20	
2,4-Dichlorophenol	CCC	50000	52200	ug/L	0.365	4.50	20	
2-Nitrophenol	CCC	50000	51100	ug/L	0.209	2.26	20	
4-Chloro-3-Methylphenol	CCC	50000	52700	ug/L	0.408	5.31	20	
Acenaphthene	CCC	50000	52600	ug/L	1.26	5.25	20	
Benzo[a]pyrene	CCC	50000	57500	ug/L	1.40	15.1	20	
Di-n-Octyl Phthalate	CCC	50000	59800	ug/L	1.61	19.5	20	
Fluoranthene	CCC	50000	48900	ug/L	1.37	2.20	20	
Hexachlorobutadiene	CCC	50000	54400	ug/L	0.357	8.88	20	
n-Nitrosodiphenylamine	CCC	50000	48200	ug/L	0.643	3.65	20	
Pentachlorophenol	CCC	50000	44600	ug/L	0.150	10.9	20	
Phenol	CCC	50000	50900	ug/L	1.69	1.82	20	
1,4-Dichlorobenzene	CCC	50000	50300	ug/L	1.54	0.627	25	
2,4-Dinitrophenol	SPCC	50000	42200	ug/L	0.103	15.7	25	
4-Nitrophenol	SPCC	50000	55000	ug/L	0.345	9.95	25	
Hexachlorocyclopentadiene	SPCC	50000	52300	ug/L	0.483	4.56	25	
n-Nitrosodipropylamine	SPCC	50000	53000	ug/L	1.09	5.99	25	
2,4,5-Trichlorophenol		50000	54100	ug/L	0.479	8.14	25	
2,4-Dimethylphenol		50000	50000	ug/L	0.370	0.0772	25	
2,4-Dinitrotoluene		50000	54600	ug/L	0.414	9.15	25	
2,6-Dinitrotoluene		50000	52200	ug/L	0.307	4.43	25	
2-Chloronaphthalene		50000	50700	ug/L	1.33	1.44	25	
2-Chlorophenol		50000	51400	ug/L	1.27	2.71	25	
2-Methylnaphthalene		50000	50000	ug/L	0.786	0.0384	25	
2-Methylphenol		50000	51600	ug/L	1.05	3.13	25	
2-Nitroaniline		50000	55700	ug/L	0.401	11.4	25	
3,3'-Dichlorobenzidine		50000	52600	ug/L	0.422	5.18	25	
3-,4-Methylphenol		50000	50700	ug/L	1.32	1.47	25	
3-Nitroaniline		50000	50000	ug/L	0.309	0.0958	25	
4,6-Dinitro-2-Methylphenol		50000	50400	ug/L	0.126	0.731	25	
4-Bromophenyl Phenyl Ether		50000	49600	ug/L	0.279	0.889	25	
4-Chloroaniline		50000	51400	ug/L	0.599	2.79	25	
4-Chlorophenyl Phenyl Ether		50000	50500	ug/L	0.870	0.994	25	
4-Nitroaniline		50000	50000	ug/L	0.309	0.0958	25	
Acenaphthylene		50000	51000	ug/L	1.81	1.94	25	
Anthracene		50000	47800	ug/L	1.08	4.43	25	
Benzo[a]anthracene		50000	55000	ug/L	1.44	10.0	25	
Benzo[b]fluoranthene		50000	56100	ug/L	1.49	12.1	25	
Benzo[ghi]perylene		50000	54900	ug/L	1.21	9.85	25	
Benzo[k]fluoranthene		50000	56700	ug/L	1.44	13.5	25	
bis(2-Chloroethoxy)methane		50000	50900	ug/L	0.434	1.75	25	
bis(2-Chloroethyl)ether		50000	51300	ug/L	0.898	2.51	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L08050050 Run Date: 05/09/2008 Sample ID: WG270810-02
Instrument ID: HPMS12 Run Time: 09:06 Method: 8270C
File ID: 12M21660 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG270949 Cal ID: HPMS12 - 25-APR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroisopropyl)ether		50000	51300	ug/L	1.28	2.63	25	
bis(2-Ethylhexyl)phthalate		50000	59600	ug/L	0.812	19.1	25	
Butyl Benzyl Phthalate		50000	56300	ug/L	0.582	12.6	25	
Carbazole		50000	48900	ug/L	0.953	2.11	25	
Chrysene		50000	55200	ug/L	1.31	10.3	25	
Dibenz[ah]anthracene		50000	53500	ug/L	1.33	6.90	25	
Dibenzofuran		50000	50800	ug/L	1.73	1.55	25	
Diethylphthalate		50000	52600	ug/L	1.48	5.24	25	
Dimethylphthalate		50000	52600	ug/L	1.41	5.15	25	
Di-n-Butyl Phthalate		50000	50500	ug/L	1.30	1.09	25	
Fluorene		50000	51000	ug/L	1.48	2.06	25	
Hexachlorobenzene		50000	49000	ug/L	0.258	2.06	25	
Hexachloroethane		50000	52800	ug/L	0.661	5.68	25	
Indeno[1,2,3-cd]pyrene		50000	57400	ug/L	1.53	14.8	25	
Isophorone		50000	53200	ug/L	0.788	6.36	25	
Naphthalene		50000	50800	ug/L	1.14	1.50	25	
Nitrobenzene		50000	53200	ug/L	0.516	6.31	25	
Phenanthrene		50000	47600	ug/L	1.09	4.81	25	
Pyrene		50000	51800	ug/L	1.33	3.54	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1091920
Report generated 05/13/2008 11:23

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS12
Workgroup (AAB#): WG270949

ICAL CCV Number: WG269466-02
CAL ID: HPMS12-25-APR-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269466-02	NA	NA	105623	248605	475757	353994	406408	500222
Upper Limit	NA	NA	211246	497210	951514	707988	812816	1000444
Lower Limit	NA	NA	52812	124303	237879	176997	203204	250111
L08050050-07	1.00	RE1	79360	185819	412413	266125	355571	371604
WG270668-01	1.00	01	89412	206742	428857	301817	365162	412383
WG270668-02	1.00	01	99818	232260	504018	359377	432004	464788
WG270668-03	1.00	01	114520	260051	562606	402496	491296	515373

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1091926
Report generated 05/13/2008 11:25

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050 ICAL CCV Number: WG270026-02

Instrument ID: HPMS4 CAL ID: HPMS4-01-MAY-08

Workgroup (AAB#): WG270646 Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG270026-02	NA	NA	207840	476090	663378	823046	613487	810191
Upper Limit	NA	NA	415680	952180	1326756	1646092	1226974	1620382
Lower Limit	NA	NA	103920	238045	331689	411523	306744	405096
L08050050-01	1.00	01	201689	469564	710258	821012	636447	796175
L08050050-02	1.00	01	217230	517656	798359	957272	697477	892222
L08050050-03	1.00	01	202971	473159	706390	890762	614843	801121
L08050050-04	1.00	01	221919	512148	835356	895247	734068	878777
L08050050-05	1.00	01	241797	566034	879209	970570	792649	967973
L08050050-06	1.00	01	185048	422371	627899	749901	560942	714281
L08050050-07	1.00	01	231142	538583	837355	925604	747070	924388
L08050050-08	1.00	01	227043	527241	802403	917424	710441	902263
L08050050-09	1.00	01	231415	545787	849282	937552	754951	937268
L08050050-10	1.00	01	223170	515996	792283	899612	713485	879367
WG270285-02	1.00	01	190990	441952	650659	775384	579528	745161
WG270285-03	1.00	01	239597	574164	895039	1046812	782244	987151

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1091926
Report generated 05/13/2008 11:25

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L08050050
Instrument ID: HPMS12
Workgroup (AAB#): WG270949

ICAL CCV Number: WG269466-02
CAL ID: HPMS12-25-APR-08
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG269466-02	NA	NA	9.63	13.31	17.91	11.24	20.8	14.94
Upper Limit	NA	NA	10.13	13.81	18.41	11.74	21.3	15.44
Lower Limit	NA	NA	9.13	12.81	17.41	10.74	20.3	14.44
L08050050-07	1.00	RE1	9.63	13.3	17.9	11.23	20.77	14.93
WG270668-01	1.00	01	9.62	13.3	17.9	11.23	20.76	14.93
WG270668-02	1.00	01	9.63	13.3	17.9	11.23	20.76	14.93
WG270668-03	1.00	01	9.63	13.3	17.9	11.23	20.76	14.93

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1091927
Report generated: 05/13/2008 11:27

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number:L08050050 ICAL CCV Number:WG270026-02
Instrument ID:HPMS4 CAL ID: HPMS4-01-MAY-08
Workgroup (AAB#):WG270646 Matrix:SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG270026-02	NA	NA	7.72	11.09	15.44	9.19	17.63	12.65
Upper Limit	NA	NA	8.22	11.59	15.94	9.69	18.13	13.15
Lower Limit	NA	NA	7.22	10.59	14.94	8.69	17.13	12.15
L08050050-01	1.00	01	7.73	11.1	15.45	9.19	17.63	12.65
L08050050-02	1.00	01	7.73	11.1	15.45	9.18	17.63	12.65
L08050050-03	1.00	01	7.73	11.1	15.45	9.19	17.63	12.65
L08050050-04	1.00	01	7.73	11.1	15.45	9.19	17.64	12.65
L08050050-05	1.00	01	7.73	11.1	15.45	9.19	17.63	12.65
L08050050-06	1.00	01	7.73	11.1	15.45	9.19	17.64	12.65
L08050050-07	1.00	01	7.73	11.1	15.45	9.19	17.64	12.65
L08050050-08	1.00	01	7.73	11.1	15.45	9.18	17.63	12.65
L08050050-09	1.00	01	7.73	11.1	15.45	9.19	17.63	12.65
L08050050-10	1.00	01	7.73	11.1	15.45	9.19	17.64	12.65
WG270285-02	1.00	01	7.72	11.09	15.44	9.18	17.62	12.64
WG270285-03	1.00	01	7.72	11.09	15.44	9.18	17.63	12.64

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1091927
Report generated: 05/13/2008 11:27

2.3 General Chemistry Data

2.3.1 Percent Solids Data

2.3.1.1 Raw Data

Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:	
WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

% Moisture = 100 - % Solids from 1.0 calculation

Microbac Laboratories Inc.

PERCENT SOLIDS

Workgroup (AAB#):WG270514 Analyst:DLP ADT(on):05/06/2008 14:33
Method:D2216-90 Instrument:BAL001 ADT(off):05/07/2008 08:47
SOP:K0003 Rev:9

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L08050024-01	1.28	30.58	26.3			85.39	
L08050024-02	1.24	23.23	20.19			86.18	
L08050024-03	1.26	22.19	17			75.20	
L08050024-04	1.25	24.01	18.7			76.67	
L08050024-05	1.29	26.16	21.13			79.77	
L08050024-06	1.27	26.48	22.84			85.56	
L08050024-07	1.28	24.38	19.92			80.69	
L08050024-08	1.3	25.51	20.47			79.18	
L08050024-09	1.29	27.13	21.87			79.64	
L08050024-10	1.28	27.68	22.74			81.29	
L08050050-01	1.28	24.95	21.12			83.82	
L08050050-02	1.28	24.95	21.12			83.82	
L08050050-03	1.28	24.95	21.12			83.82	
L08050050-04	1.27	26.77	23.68			87.88	
L08050050-05	1.31	31.59	27.9			87.81	
L08050050-06	1.27	24.55	22.15			89.69	
L08050050-07	1.3	28.41	23.59			82.22	
L08050050-08	1.28	25.6	21.43			82.85	
L08050050-09	1.28	30.29	24.5			80.04	
L08050050-10	1.29	25.56	23.19			90.23	
L08050081-01	1.3	20.59	17.44			83.67	
L08050081-02	1.3	19.61	16.7			84.11	
L08050081-03	1.3	22.55	19.4			85.18	
L08050081-04	1.27	23.19	20.83			89.23	
L08050081-05	1.28	20.2	17.09			83.56	
L08050081-06	1.28	26.74	24.78			92.30	
L08050081-07	1.28	17.08	14.81			85.63	
L08050081-08	1.28	17.08	14.81			85.63	
L08050081-09	1.27	19.11	16.26			84.02	
L08050081-10	1.26	29.13	24.8			84.46	
L08050082-01	1.3	20.59	17.44			83.67	
L08050082-02	1.3	19.61	16.7			84.11	
L08050082-03	1.3	22.55	19.4			85.18	
L08050082-04	1.27	23.19	20.83			89.23	
L08050082-05	1.28	20.2	17.09			83.56	
L08050082-06	1.28	26.74	24.78			92.30	
L08050082-07	1.28	17.08	14.81			85.63	
L08050082-08	1.28	17.08	14.81			85.63	
L08050082-09	1.27	19.11	16.26			84.02	
L08050082-10	1.26	29.13	24.8			84.46	
L08050082-11	1.26	29.13	24.8			84.46	
L08050082-12	1.26	29.13	24.8			84.46	
WG270514-01	1.3	20.59	17.44			83.67	16.33

PERCENT_SOLIDS - Modified 04/24/2008
PDF ID: 1087123
Report generated: 05/07/2008 08:59

PERCENT SOLIDS

WG270514-02	1.29	21.34	18.19			84.29	15.71
WG270514-03	1.28	24.95	21.12			83.82	16.18
WG270514-04	1.27	26.48	22.34			83.58	16.42

Analyst: Dorothy Payne

PERCENT_SOLIDS - Modified 04/24/2008
PDF ID: 1087123
Report generated: 05/07/2008 08:59

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
May 27, 2008

ADC – ANTHONY D. CANTER	AJF – AMANDA J. FICKIESEN	ALB – ANNIE L. BROWN
AML – ANTHONY M. LONG	ASP – AARON S. PETRIE	BRG – BRENDA R. GREGORY
CAA – CASSIE A. AUGENSTEIN	CAF – CHERYL A. FLOWERS	CAH – CHARLES A. HALL
CEB – CHAD E. BARNES	CLC – CHRYS L. CRAWFORD	CLW – CHARISSA L. WINTERS
CMS – CRYSTAL M. STEPHENS	CPD – CHAD P. DAVIS	CSH – CHRIS S. HILL
CTB – CHRIS T. BUCINA	DDE – DEBRA D. ELLIOTT	DEL – DON E. LIGHTFRITZ
DEV – DAVID E. VANDENBERG	DGB – DOUGLAS G. BUTCHER	DIH – DEANNA I. HESSON
DLB – DAVID L. BUMGARNER	DLP – DOROTHY L. PAYNE	DLR – DIANNA L. RAUCH
DR – DEANNA ROBERTS	DSF – DEBRA S. FREDERICK	ECL – ERIC C. LAWSON
ED – EMILY E. DECKER	ERE – ERIN R. ELDER	FJB – FRANCES J. BOLDEN
HAV – HEMA VILASAGAR	HJR – HOLLY J. REED	JBK – JEREMY B. KINNEY
JDH – JUSTIN D. HESSON	JKP – JACQUELINE K. PARSONS	JKT – JANE K. THOMPSON
JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES	JYH – JI Y. HU
KEB – KATHRYN E. BARNES	KHR – KIM H. RHODES	KJW – KATIE J. WIEFERICH
KRA – KATHY R. ALBERTSON	LKN – LINDA K. NEDEFF	LSB – LESLIE S. BUCINA
MDA – MIKE D. ALBERTSON	MDC – MICHAEL D. COCHRAN	MES – MARY E. SCHILLING
MMB – MAREN M. BEERY	MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON
NPM – NATHANIEL P. MILLER	RAH – ROY A. HALSTEAD	RB – ROBERT BUCHANAN
REK – ROBERT E. KYER	RLK – ROBIN L. KLINGER	RWC – RODNEY W. CAMPBELL
SDH – SHANA D. HINYARD	SDL – SHELLY D. LENT	SLM – STEPHANIE L. MOSSBURG
SLP – SHERI L. PFALZGRAF	SMH – SHAUNA M. HYDE	TDH – TRICIA D. HUCK
TIP – TAE I. PARRISH	TMB – TIFFANY M. BAILEY	TMM – TAMMY M. MORRIS
VC – VICKI COLLIER	WTD – WADE T. DELONG	

Microbac Laboratories Inc.
List of Valid Qualifiers
May 27, 2008

Qualkey: CLP

Qualifier	Description
E	Estimated concentration due to interference
E	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
U	Not detected at or above the reporting limit

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

COC No. A 82101

156 Starlite Drive
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES
CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: Citam Hill

Project Contact: Emil Fic
Contact Phone #: 937-220-2953

Turn Around Requirements: 14 DAY
Location: South Charleston Facility
PO#: 592987

Project ID: SCF Source Area Delineation PN: 367695.BS.FI

Sampler (print): Gavin Olness
Signature:

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	VOC	SVOC	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
B025-S001-050108(MS)		MSD	05/01/08	1010	Soil	12		X	X		16-17
3025-S002-050108				1040		4		X	X		27-28
3023-S001-050108	FD			1245		8		X	X		32-33
3015-S001-050108				1515		4		X	X		23-24
3015-S002-050108				1525		5		X	X		30-31
3014-S001-050108				1705		5		X	X		25-26
3014-S002-050108				1720		4		X	X		30.5-31.5
TB01-050108			05/01/08	1630	Water	2		X			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	05/01/08	1841			5-2-08	1200	
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:	
	5-2-08	1330		5-2-08	1330		

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other

Page _____ of _____

Microbac Laboratories, Inc.

SAMPLE RECEIPT FORM

158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

Client:	CH2MHill
Workorder Number:	B 11321
Date Received:	5-2-08
Delivered by:	( ) Fedx ( ) UPS ( ) Client (✓) Courier **Time:** 1330
Opened by:	RLK
IR Temp Gun:	(✓) D ( ) G
Logged by:	RLK L 08050050

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
1082	6	—	82101	Soil - Encores

Inspection Checklist	**Y**	**N**	**NA**	**Discrepancy ID**
Were shipping coolers sealed?	✓			
Were custody seals intact?	✓			
Were cooler temperatures in range of 0 - 6?	✓			
Was ice present?	✓			
Were COC's received/ information complete/signed and dated?	✓			
Were sample containers and labels intact and match COC?	✓			
Were the correct containers and volumes received?	✓			
Were correct preservatives used? (water only)			✓	
Were pH ranges acceptable? (voa's excluded)			✓	
Were VOA samples free of headspace (< 6mm)?	✓			
Were samples received within EPA hold times?	✓			

Discrepancy/Comments/Other Problems

Distribution

Name of Microbac representative:	
Client/Company:	
Person Contacted:	
Date contacted:	

Resolution/other comments:

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-01	454478	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Samplenum	Container ID	Products
L08050050-01	454479	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-02	454481	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Samplenum	Container ID	Products
L08050050-02	454482	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-04	454487	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	07-MAY-2008 11:18	RLK	MRT

Samplenum	Container ID	Products
L08050050-04	454489	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-08	454500	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-04	454488	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

Samplenum	Container ID	Products
L08050050-06	454495	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-08	454499	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-03	454485	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT

Samplenum	Container ID	Products
L08050050-09	454504	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:42	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	STORE	W1	A2	20-MAY-2008 14:24	ERE	ERE

Samplenum	Container ID	Products
L08050050-11	454508	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	02-MAY-2008 15:38	RLK	
2	ANALYZ	V1	ORG4	05-MAY-2008 11:26	MRT	RLK
3	STORE	ORG4	A2	19-MAY-2008 09:50	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	02-MAY-2008 15:38	RLK	
2	ANALYZ	V1	ORG4	05-MAY-2008 11:26	MRT	RLK
3	STORE	ORG4	A2	19-MAY-2008 09:50	ERE	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-03	454486	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-05	454490	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Samplenum	Container ID	Products
L08050050-05	454491	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-07	454496	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Samplenum	Container ID	Products
L08050050-01	454480	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-06	454493	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Samplenum	Container ID	Products
L08050050-06	454494	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

Samplenum	Container ID	Products
L08050050-07	454497	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-07	454498	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	PREP	W1	EXT	08-MAY-2008 10:46	CEB	RLK
7	STORE	EXT	W1	08-MAY-2008 10:54	RLK	CEB
8	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-09	454503	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

Samplenum	Container ID	Products
L08050050-03	454484	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:51	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-05	454492	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-08	454501	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:42	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	STORE	W1	A2	20-MAY-2008 14:24	ERE	ERE

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-09	454502	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:29	ERE	MRT

Samplenum	Container ID	Products
L08050050-10	454505	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:37	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT
3	STORE	VOAY	A2	16-MAY-2008 09:30	ERE	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L08050050
Account: 2736
Project: 2736.012
Samples: 11
Due Date: 16-MAY-2008

Samplenum	Container ID	Products
L08050050-10	454507	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:38	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:42	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-02	454483	827-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	02-MAY-2008 15:37	RLK	
2	PREP	W1	EXT	05-MAY-2008 06:41	CEB	JKT
3	STORE	EXT	W1	05-MAY-2008 09:15	JKT	CEB
4	ANALYZ	W1	WET	06-MAY-2008 10:36	DIH	RLK
5	STORE	WET	A2	07-MAY-2008 08:15	RLK	DIH
6	STORE	W1	A2	19-MAY-2008 13:26	ERE	ERE

Samplenum	Container ID	Products
L08050050-10	454506	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	02-MAY-2008 15:38	RLK	
2	ANALYZ	L1	ORG1	02-MAY-2008 15:50	ASP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • http://www.microbac.com

Laboratory Report Number: L09100717

Client: Shane Lowe, CH2MHILL, Richmond Heights, MO, 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

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Annie Brown	*Client Services Specialist*	abrown@microbac.com

This report was reviewed on November 17, 2009.

Kathy Albertson - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on November 17, 2009.

David Vandenberg - Managing Director

State of origin: West Virginia
Accrediting authority: Department of Environmental Protection ID:361
QAPP: DOW-WVO
This report contains a total of 393 pages.

Look closer. Go further. Do more.

Microbac

Microbac Laboratories, Inc.
Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750

Phone: 800.373.4071
Fax: 740.373.4835

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LOOK CLOSER, GO FURTHER, DO MORE.

Microbac REPORT L09100717
PREPARED FOR CH2MHILL, Inc
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L09100717

CHAIN OF CUSTODY: The chain of custody number was 13068.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperatures were 3 and 3 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

L09100717-01	4013-S001-102809
L09100717-02	4013-S001-102809-MS
L09100717-03	4013-S001-102809-MSD
L09100717-04	4013-S002-102809
L09100717-05	4013-GW-102809
L09100717-06	4014-S001-102809
L09100717-07	4014-S001-102809D
L09100717-08	4014-S002-102809
L09100717-09	4014-GW-102809
L09100717-10	4014-GW-102809D
L09100717-11	4011-S001-102809
L09100717-12	4011-S002-102809
L09100717-13	4011-GW-102809
L09100717-14	TB01-102809

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: KRA

Approved: 30-OCT-09

Kathy Albertson

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Loginnum: L09100717

Department: Volatiles

Analyst: Mary Schilling

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Samples were collected via 5035 preserved by freezing. Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All analytes met the ICV acceptance criteria, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG314645-12	HPMS6	10/16/2009	VINYL ACETATE	REG		(+)56.7	*	25
WG316150-12	HPMS9	11/02/2009	VINYL ACETATE	REG		(-)28.2	*	25

Continuing Calibration and Tune: All analytes met the CCV acceptance criteria for % drift, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG315943-02	HPMS6	10/30/2009	BROMOMETHANE	REG		(+)21.3	*	20
WG315943-02	HPMS6	10/30/2009	CHLOROETHANE	REG		(+)20.2	*	20
WG316128-02	HPMS6	11/02/2009	VINYL ACETATE	REG		(+)64.3	*	20
WG316561-02	HPMS10	11/05/2009	2-BUTANONE	REG		(-)21.3	*	20
WG316561-02	HPMS10	11/05/2009	2-HEXANONE	REG		(-)24.8	*	20
WG316825-02	HPMS9	11/07/2009	VINYL ACETATE	REG		(-)23.2	*	20
WG316886-02	HPMS9	11/09/2009	VINYL ACETATE	REG		(-)20.6	*	20

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of sample 01.

SAMPLES

Internal Standards: All acceptance criteria were met, except for the following analytes:

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG315944-05	HPMS6	10/30/2009	CHLOROBENZENE-D5	ISTD		48600	239421.0	957684.0
WG315944-06	HPMS6	10/30/2009	CHLOROBENZENE-D5	ISTD		49500	239421.0	957684.0

The above referenced analyses were not associated with this SDG.

Surrogates: All acceptance criteria were met.

Other: Sample 05 required a dilution analysis. The ICV and CCV outliers were acceptable in the associated LCSs.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

LABORATORY REPORT

L09100717

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4013-S001-102809	L09100717-01	8260B	1	29-OCT-09
4013-S001-102809-MS	L09100717-02	8260B	1	29-OCT-09
4013-S001-102809-MSD	L09100717-03	8260B	1	29-OCT-09
4013-S002-102809	L09100717-04	8260B	1	29-OCT-09
4013-GW-102809	L09100717-05	8260B	25	29-OCT-09
4013-GW-102809	L09100717-05	8260B	1	29-OCT-09
4014-S001-102809	L09100717-06	8260B	1	29-OCT-09
4014-S001-102809D	L09100717-07	8260B	1	29-OCT-09
4014-S002-102809	L09100717-08	8260B	1	29-OCT-09
4014-GW-102809	L09100717-09	8260B	1	29-OCT-09
4014-GW-102809D	L09100717-10	8260B	1	29-OCT-09
4011-S001-102809	L09100717-11	8260B	1	29-OCT-09
4011-S002-102809	L09100717-12	8260B	1	29-OCT-09
4011-GW-102809	L09100717-13	8260B	1	29-OCT-09
TB01-102809	L09100717-14	8260B	1	29-OCT-09

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-01**
Client ID: **4013-S001-102809**
Matrix: **Soil**
Workgroup Number: **WG316701**
Collect Date: **10/28/2009 09:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:18**
Cal Date: **11/02/2009 20:52**
Run Date: **11/07/2009 00:37**
File ID: **9M73404**
Percent Solid: **82.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.25	0.525
1,1,2,2-Tetrachloroethane	79-34-5		U	5.25	0.525
1,1,2-Trichloroethane	79-00-5		U	5.25	0.525
1,1-Dichloroethane	75-34-3		U	5.25	1.05
1,1-Dichloroethene	75-35-4		U	5.25	0.525
1,2,4-Trichlorobenzene	120-82-1		U	5.25	0.525
1,2-Dichlorobenzene	95-50-1		U	5.25	0.525
1,2-Dichloroethane	107-06-2		U	5.25	0.525
1,2-Dichloropropane	78-87-5		U	5.25	0.525
1,3-Dichlorobenzene	541-73-1		U	5.25	0.525
1,4-Dichlorobenzene	106-46-7		U	5.25	0.525
1,4-Dioxane	123-91-1		U	1790	52.5
2-Butanone	78-93-3		U	26.3	2.63
2-Hexanone	591-78-6		U	10.5	2.63
4-Methyl-2-pentanone	108-10-1		U	10.5	2.63
Acetone	67-64-1		U	105	5.25
Acrylonitrile	107-13-1		U	105	2.63
Benzene	71-43-2		U	5.25	0.525
Bromodichloromethane	75-27-4		U	5.25	0.525
Bromoform	75-25-2		U	5.25	0.525
Bromomethane	74-83-9		U	10.5	1.05
Carbon disulfide	75-15-0		U	5.25	0.525
Carbon tetrachloride	56-23-5		U	5.25	0.525
Chlorobenzene	108-90-7		U	5.25	0.525
Dibromochloromethane	124-48-1		U	5.25	0.525
Chloroethane	75-00-3		U	10.5	1.05
Chloroform	67-66-3		U	5.25	0.525
Chloromethane	74-87-3		U	10.5	2.10
cis-1,2-Dichloroethene	156-59-2		U	5.25	0.525
cis-1,3-Dichloropropene	10061-01-5		U	5.25	0.525
Ethylbenzene	100-41-4		U	5.25	0.525
Methylene chloride	75-09-2		U	5.25	1.05
Methyltert-butyl ether	1634-04-4		U	10.5	0.525
Styrene	100-42-5		U	5.25	0.525
Tetrachloroethene	127-18-4		U	5.25	0.525
Toluene	108-88-3		U	5.25	0.525
trans-1,2-Dichloroethene	156-60-5		U	5.25	0.525
trans-1,3-Dichloropropene	10061-02-6		U	5.25	0.525
Trichloroethene	79-01-6		U	5.25	0.525
Vinyl acetate	108-05-4		U	10.5	1.05
Vinyl chloride	75-01-4		U	10.5	1.05
Xylenes	1330-20-7		U	10.5	0.525

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	96.2	70	121	
4-Bromofluorobenzene	107	59	113	
Dibromofluoromethane	99.3	65	135	
Toluene-d8	104	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-02**
Client ID: **4013-S001-102809-MS**
Matrix: **Soil**
Workgroup Number: **WG316701**
Collect Date: **10/28/2009 09:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:20**
Cal Date: **11/02/2009 20:52**
Run Date: **11/06/2009 17:44**
File ID: **9M73391**
Percent Solid: **82.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6	23.4		5.62	0.562
1,1,2,2-Tetrachloroethane	79-34-5	22.1		5.62	0.562
1,1,2-Trichloroethane	79-00-5	22.5		5.62	0.562
1,1-Dichloroethane	75-34-3	22.8		5.62	1.12
1,1-Dichloroethene	75-35-4	23.5		5.62	0.562
1,2,4-Trichlorobenzene	120-82-1	19.8		5.62	0.562
1,2-Dichlorobenzene	95-50-1	22.7		5.62	0.562
1,2-Dichloroethane	107-06-2	21.1		5.62	0.562
1,2-Dichloropropane	78-87-5	22.1		5.62	0.562
1,3-Dichlorobenzene	541-73-1	23.5		5.62	0.562
1,4-Dichlorobenzene	106-46-7	22.7		5.62	0.562
1,4-Dioxane	123-91-1	235	J	1910	56.2
2-Butanone	78-93-3	23.2	J	28.1	2.81
2-Hexanone	591-78-6	23.5		11.2	2.81
4-Methyl-2-pentanone	108-10-1	22.2		11.2	2.81
Acetone	67-64-1	29.9	J	112	5.62
Acrylonitrile	107-13-1	22.7	J	112	2.81
Benzene	71-43-2	22.8		5.62	0.562
Bromodichloromethane	75-27-4	22.9		5.62	0.562
Bromoform	75-25-2	19.3		5.62	0.562
Bromomethane	74-83-9	25.8		11.2	1.12
Carbon disulfide	75-15-0	21.9		5.62	0.562
Carbon tetrachloride	56-23-5	23.7		5.62	0.562
Chlorobenzene	108-90-7	22.4		5.62	0.562
Dibromochloromethane	124-48-1	21.2		5.62	0.562
Chloroethane	75-00-3	26.5		11.2	1.12
Chloroform	67-66-3	22.9		5.62	0.562
Chloromethane	74-87-3	25.5		11.2	2.25
cis-1,2-Dichloroethene	156-59-2	22.8		5.62	0.562
cis-1,3-Dichloropropene	10061-01-5	21.7		5.62	0.562
Ethylbenzene	100-41-4	23.3		5.62	0.562
Methylene chloride	75-09-2	22.1		5.62	1.12
Methyltert-butyl ether	1634-04-4	22.9		11.2	0.562
Styrene	100-42-5	21.8		5.62	0.562
Tetrachloroethene	127-18-4	23.7		5.62	0.562
Toluene	108-88-3	23.4		5.62	0.562
trans-1,2-Dichloroethene	156-60-5	23.1		5.62	0.562
trans-1,3-Dichloropropene	10061-02-6	18.7		5.62	0.562
Trichloroethene	79-01-6	22.7		5.62	0.562
Vinyl acetate	108-05-4	20.8		11.2	1.12
Vinyl chloride	75-01-4	27.0		11.2	1.12
Xylenes	1330-20-7	70.4		11.2	0.562

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	91.0	70	121	
4-Bromofluorobenzene	108	59	113	
Dibromofluoromethane	96.8	65	135	
Toluene-d8	104	86	138	

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-03**
Client ID: **4013-S001-102809-MSD**
Matrix: **Soil**
Workgroup Number: **WG316701**
Collect Date: **10/28/2009 09:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:21**
Cal Date: **11/02/2009 20:52**
Run Date: **11/06/2009 18:15**
File ID: **9M73392**
Percent Solid: **82.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6	20.9		5.49	0.549
1,1,2,2-Tetrachloroethane	79-34-5	19.7		5.49	0.549
1,1,2-Trichloroethane	79-00-5	21.0		5.49	0.549
1,1-Dichloroethane	75-34-3	21.0		5.49	1.10
1,1-Dichloroethene	75-35-4	21.9		5.49	0.549
1,2,4-Trichlorobenzene	120-82-1	16.8		5.49	0.549
1,2-Dichlorobenzene	95-50-1	18.8		5.49	0.549
1,2-Dichloroethane	107-06-2	20.3		5.49	0.549
1,2-Dichloropropane	78-87-5	20.3		5.49	0.549
1,3-Dichlorobenzene	541-73-1	18.1		5.49	0.549
1,4-Dichlorobenzene	106-46-7	17.6		5.49	0.549
1,4-Dioxane	123-91-1	234	J	1870	54.9
2-Butanone	78-93-3	22.1	J	27.4	2.74
2-Hexanone	591-78-6	22.6		11.0	2.74
4-Methyl-2-pentanone	108-10-1	22.1		11.0	2.74
Acetone	67-64-1	23.5	J	110	5.49
Acrylonitrile	107-13-1	21.7	J	110	2.74
Benzene	71-43-2	20.6		5.49	0.549
Bromodichloromethane	75-27-4	21.2		5.49	0.549
Bromoform	75-25-2	18.6		5.49	0.549
Bromomethane	74-83-9	23.3		11.0	1.10
Carbon disulfide	75-15-0	19.7		5.49	0.549
Carbon tetrachloride	56-23-5	21.2		5.49	0.549
Chlorobenzene	108-90-7	19.5		5.49	0.549
Dibromochloromethane	124-48-1	20.3		5.49	0.549
Chloroethane	75-00-3	24.2		11.0	1.10
Chloroform	67-66-3	20.5		5.49	0.549
Chloromethane	74-87-3	22.8		11.0	2.20
cis-1,2-Dichloroethene	156-59-2	21.3		5.49	0.549
cis-1,3-Dichloropropene	10061-01-5	19.8		5.49	0.549
Ethylbenzene	100-41-4	20.4		5.49	0.549
Methylene chloride	75-09-2	20.2		5.49	1.10
Methyltert-butyl ether	1634-04-4	22.6		11.0	0.549
Styrene	100-42-5	18.8		5.49	0.549
Tetrachloroethene	127-18-4	20.5		5.49	0.549
Toluene	108-88-3	22.1		5.49	0.549
trans-1,2-Dichloroethene	156-60-5	21.1		5.49	0.549
trans-1,3-Dichloropropene	10061-02-6	17.4		5.49	0.549
Trichloroethene	79-01-6	20.6		5.49	0.549
Vinyl acetate	108-05-4	21.3		11.0	1.10
Vinyl chloride	75-01-4	23.4		11.0	1.10
Xylenes	1330-20-7	60.0		11.0	0.549

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	97.7	70	121	
4-Bromofluorobenzene	108	59	113	
Dibromofluoromethane	100	65	135	
Toluene-d8	104	86	138	

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-04**
Client ID: **4013-S002-102809**
Matrix: **Soil**
Workgroup Number: **WG316701**
Collect Date: **10/28/2009 10:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:23**
Cal Date: **11/02/2009 20:52**
Run Date: **11/07/2009 01:08**
File ID: **9M73405**
Percent Solid: **93.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.05	0.505
1,1,2,2-Tetrachloroethane	79-34-5		U	5.05	0.505
1,1,2-Trichloroethane	79-00-5	8.33		5.05	0.505
1,1-Dichloroethane	75-34-3		U	5.05	1.01
1,1-Dichloroethene	75-35-4		U	5.05	0.505
1,2,4-Trichlorobenzene	120-82-1		U	5.05	0.505
1,2-Dichlorobenzene	95-50-1		U	5.05	0.505
1,2-Dichloroethane	107-06-2	103		5.05	0.505
1,2-Dichloropropane	78-87-5	22.5		5.05	0.505
1,3-Dichlorobenzene	541-73-1		U	5.05	0.505
1,4-Dichlorobenzene	106-46-7		U	5.05	0.505
1,4-Dioxane	123-91-1		U	1720	50.5
2-Butanone	78-93-3		U	25.2	2.52
2-Hexanone	591-78-6		U	10.1	2.52
4-Methyl-2-pentanone	108-10-1		U	10.1	2.52
Acetone	67-64-1		U	101	5.05
Acrylonitrile	107-13-1		U	101	2.52
Benzene	71-43-2	63.5		5.05	0.505
Bromodichloromethane	75-27-4		U	5.05	0.505
Bromoform	75-25-2		U	5.05	0.505
Bromomethane	74-83-9		U	10.1	1.01
Carbon disulfide	75-15-0		U	5.05	0.505
Carbon tetrachloride	56-23-5		U	5.05	0.505
Chlorobenzene	108-90-7		U	5.05	0.505
Dibromochloromethane	124-48-1		U	5.05	0.505
Chloroethane	75-00-3		U	10.1	1.01
Chloroform	67-66-3	8.58		5.05	0.505
Chloromethane	74-87-3		U	10.1	2.02
cis-1,2-Dichloroethene	156-59-2	24.2		5.05	0.505
cis-1,3-Dichloropropene	10061-01-5		U	5.05	0.505
Ethylbenzene	100-41-4		U	5.05	0.505
Methylene chloride	75-09-2		U	5.05	1.01
Methyltert-butyl ether	1634-04-4		U	10.1	0.505
Styrene	100-42-5		U	5.05	0.505
Tetrachloroethene	127-18-4		U	5.05	0.505
Toluene	108-88-3		U	5.05	0.505
trans-1,2-Dichloroethene	156-60-5		U	5.05	0.505
trans-1,3-Dichloropropene	10061-02-6		U	5.05	0.505
Trichloroethene	79-01-6	30.3		5.05	0.505
Vinyl acetate	108-05-4		U	10.1	1.01
Vinyl chloride	75-01-4		U	10.1	1.01
Xylenes	1330-20-7		U	10.1	0.505

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	93.8	70	121	
4-Bromofluorobenzene	110	59	113	
Dibromofluoromethane	99.2	65	135	
Toluene-d8	106	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-05**
Client ID: **4013-GW-102809**
Matrix: **Water**
Workgroup Number: **WG316129**
Collect Date: **10/28/2009 12:20**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **25**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **11/02/2009 13:25**
Cal Date: **10/16/2009 20:56**
Run Date: **11/02/2009 13:25**
File ID: **6M87025**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	25.0	6.25
1,1,2,2-Tetrachloroethane	79-34-5		U	25.0	3.13
1,1,2-Trichloroethane	79-00-5		U	25.0	6.25
1,1-Dichloroethane	75-34-3		U	25.0	3.13
1,1-Dichloroethene	75-35-4		U	25.0	12.5
1,2,4-Trichlorobenzene	120-82-1		U	25.0	5.00
1,2-Dichlorobenzene	95-50-1		U	25.0	3.13
1,2-Dichloroethane	107-06-2	1280		25.0	6.25
1,2-Dichloropropane	78-87-5	290		25.0	5.00
1,3-Dichlorobenzene	541-73-1		U	25.0	6.25
1,4-Dichlorobenzene	106-46-7		U	25.0	3.13
1,4-Dioxane	123-91-1		U	2500	1250
2-Butanone	78-93-3		U	250	62.5
2-Hexanone	591-78-6		U	125	62.5
4-Methyl-2-pentanone	108-10-1		U	125	62.5
Acetone	67-64-1		U	625	62.5
Acrylonitrile	107-13-1		U	250	62.5
Benzene	71-43-2	195		25.0	3.13
Bromodichloromethane	75-27-4		U	25.0	6.25
Bromoform	75-25-2		U	25.0	12.5
Bromomethane	74-83-9		U	25.0	12.5
Carbon disulfide	75-15-0		U	25.0	12.5
Carbon tetrachloride	56-23-5		U	25.0	6.25
Chlorobenzene	108-90-7		U	25.0	3.13
Chlorodibromomethane	124-48-1		U	25.0	6.25
Chloroethane	75-00-3		U	25.0	12.5
Chloroform	67-66-3	200		25.0	3.13
Chloromethane	74-87-3		U	25.0	6.25
cis-1,2-Dichloroethene	156-59-2	431		25.0	6.25
cis-1,3-Dichloropropene	10061-01-5		U	25.0	6.25
Ethylbenzene	100-41-4		U	25.0	6.25
Methyl t-butyl ether (MTBE)	1634-04-4		U	125	12.5
Methylene chloride	75-09-2		U	125	6.25
Styrene	100-42-5		U	25.0	3.13
Tetrachloroethene	127-18-4		U	25.0	6.25
Toluene	108-88-3		U	25.0	6.25
trans-1,2-Dichloroethene	156-60-5		U	25.0	6.25
trans-1,3-Dichloropropene	10061-02-6		U	25.0	12.5
Trichloroethene	79-01-6	116		25.0	6.25
Vinyl acetate	108-05-4		U	250	62.5
Vinyl chloride	75-01-4	53.3		25.0	6.25
Xylenes	1330-20-7		U	125	12.5

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	99.7	76	114	
4-Bromofluorobenzene	101	86	115	
Dibromofluoromethane	107	85	115	
Toluene-d8	102	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-05**
Client ID: **4013-GW-102809**
Matrix: **Water**
Workgroup Number: **WG315944**
Collect Date: **10/28/2009 12:20**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **10/30/2009 18:37**
Cal Date: **10/16/2009 20:56**
Run Date: **10/30/2009 18:37**
File ID: **6M86981**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5	17.1		1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2	1710	E	1.00	0.250
1,2-Dichloropropane	78-87-5	342	E	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2	232	E	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3	1.59		1.00	0.500
Chloroform	67-66-3	222	E	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2	520	E	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4	33.2		5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4	1.22		1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5	1.26		1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6	124		1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4	41.4		1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	97.0	76	114	
4-Bromofluorobenzene	101	86	115	
Dibromofluoromethane	105	85	115	
Toluene-d8	103	88	110	

E Semiquantitative result (out of instrument calibration range)
U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-06**
Client ID: **4014-S001-102809**
Matrix: **Soil**
Workgroup Number: **WG316826**
Collect Date: **10/28/2009 12:55**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:25**
Cal Date: **11/02/2009 20:52**
Run Date: **11/07/2009 17:15**
File ID: **9M73426**
Percent Solid: **81.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.38	0.538
1,1,2,2-Tetrachloroethane	79-34-5		U	5.38	0.538
1,1,2-Trichloroethane	79-00-5		U	5.38	0.538
1,1-Dichloroethane	75-34-3		U	5.38	1.08
1,1-Dichloroethene	75-35-4		U	5.38	0.538
1,2,4-Trichlorobenzene	120-82-1		U	5.38	0.538
1,2-Dichlorobenzene	95-50-1		U	5.38	0.538
1,2-Dichloroethane	107-06-2		U	5.38	0.538
1,2-Dichloropropane	78-87-5		U	5.38	0.538
1,3-Dichlorobenzene	541-73-1		U	5.38	0.538
1,4-Dichlorobenzene	106-46-7		U	5.38	0.538
1,4-Dioxane	123-91-1		U	1830	53.8
2-Butanone	78-93-3		U	26.9	2.69
2-Hexanone	591-78-6		U	10.8	2.69
4-Methyl-2-pentanone	108-10-1		U	10.8	2.69
Acetone	67-64-1		U	108	5.38
Acrylonitrile	107-13-1		U	108	2.69
Benzene	71-43-2		U	5.38	0.538
Bromodichloromethane	75-27-4		U	5.38	0.538
Bromoform	75-25-2		U	5.38	0.538
Bromomethane	74-83-9		U	10.8	1.08
Carbon disulfide	75-15-0		U	5.38	0.538
Carbon tetrachloride	56-23-5		U	5.38	0.538
Chlorobenzene	108-90-7		U	5.38	0.538
Dibromochloromethane	124-48-1		U	5.38	0.538
Chloroethane	75-00-3		U	10.8	1.08
Chloroform	67-66-3		U	5.38	0.538
Chloromethane	74-87-3		U	10.8	2.15
cis-1,2-Dichloroethene	156-59-2		U	5.38	0.538
cis-1,3-Dichloropropene	10061-01-5		U	5.38	0.538
Ethylbenzene	100-41-4		U	5.38	0.538
Methylene chloride	75-09-2		U	5.38	1.08
Methyltert-butyl ether	1634-04-4		U	10.8	0.538
Styrene	100-42-5		U	5.38	0.538
Tetrachloroethene	127-18-4		U	5.38	0.538
Toluene	108-88-3		U	5.38	0.538
trans-1,2-Dichloroethene	156-60-5		U	5.38	0.538
trans-1,3-Dichloropropene	10061-02-6		U	5.38	0.538
Trichloroethene	79-01-6		U	5.38	0.538
Vinyl acetate	108-05-4		U	10.8	1.08
Vinyl chloride	75-01-4		U	10.8	1.08
Xylenes	1330-20-7		U	10.8	0.538

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	97.4	70	121	
4-Bromofluorobenzene	112	59	113	
Dibromofluoromethane	100	65	135	
Toluene-d8	107	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-07	PrePrep Method:	NONE	Instrument:	HPMS9
Client ID:	4014-S001-102809D	Prep Method:	5035A	Prep Date:	10/29/2009 15:26
Matrix:	Soil	Analytical Method:	8260B	Cal Date:	11/02/2009 20:52
Workgroup Number:	WG316826	Analyst:	MES	Run Date:	11/07/2009 17:46
Collect Date:	10/28/2009 12:55	Dilution:	1	File ID:	9M73427
Sample Tag:	01	Units:	ug/kg	Percent Solid:	76.6

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.62	0.562
1,1,2,2-Tetrachloroethane	79-34-5		U	5.62	0.562
1,1,2-Trichloroethane	79-00-5		U	5.62	0.562
1,1-Dichloroethane	75-34-3		U	5.62	1.12
1,1-Dichloroethene	75-35-4		U	5.62	0.562
1,2,4-Trichlorobenzene	120-82-1		U	5.62	0.562
1,2-Dichlorobenzene	95-50-1		U	5.62	0.562
1,2-Dichloroethane	107-06-2		U	5.62	0.562
1,2-Dichloropropane	78-87-5		U	5.62	0.562
1,3-Dichlorobenzene	541-73-1		U	5.62	0.562
1,4-Dichlorobenzene	106-46-7		U	5.62	0.562
1,4-Dioxane	123-91-1		U	1910	56.2
2-Butanone	78-93-3		U	28.1	2.81
2-Hexanone	591-78-6		U	11.2	2.81
4-Methyl-2-pentanone	108-10-1		U	11.2	2.81
Acetone	67-64-1		U	112	5.62
Acrylonitrile	107-13-1		U	112	2.81
Benzene	71-43-2		U	5.62	0.562
Bromodichloromethane	75-27-4		U	5.62	0.562
Bromoform	75-25-2		U	5.62	0.562
Bromomethane	74-83-9		U	11.2	1.12
Carbon disulfide	75-15-0		U	5.62	0.562
Carbon tetrachloride	56-23-5		U	5.62	0.562
Chlorobenzene	108-90-7		U	5.62	0.562
Dibromochloromethane	124-48-1		U	5.62	0.562
Chloroethane	75-00-3		U	11.2	1.12
Chloroform	67-66-3		U	5.62	0.562
Chloromethane	74-87-3		U	11.2	2.25
cis-1,2-Dichloroethene	156-59-2		U	5.62	0.562
cis-1,3-Dichloropropene	10061-01-5		U	5.62	0.562
Ethylbenzene	100-41-4		U	5.62	0.562
Methylene chloride	75-09-2		U	5.62	1.12
Methyltert-butyl ether	1634-04-4		U	11.2	0.562
Styrene	100-42-5		U	5.62	0.562
Tetrachloroethene	127-18-4		U	5.62	0.562
Toluene	108-88-3		U	5.62	0.562
trans-1,2-Dichloroethene	156-60-5		U	5.62	0.562
trans-1,3-Dichloropropene	10061-02-6		U	5.62	0.562
Trichloroethene	79-01-6		U	5.62	0.562
Vinyl acetate	108-05-4		U	11.2	1.12
Vinyl chloride	75-01-4		U	11.2	1.12
Xylenes	1330-20-7		U	11.2	0.562

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	98.0	70	121	
4-Bromofluorobenzene	108	59	113	
Dibromofluoromethane	102	65	135	
Toluene-d8	105	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-08**
Client ID: **4014-S002-102809**
Matrix: **Soil**
Workgroup Number: **WG316889**
Collect Date: **10/28/2009 13:20**
Sample Tag: **02**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:28**
Cal Date: **11/02/2009 20:52**
Run Date: **11/09/2009 19:11**
File ID: **9M73464**
Percent Solid: **90.6**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	6.13	0.613
1,1,2,2-Tetrachloroethane	79-34-5		U	6.13	0.613
1,1,2-Trichloroethane	79-00-5		U	6.13	0.613
1,1-Dichloroethane	75-34-3		U	6.13	1.23
1,1-Dichloroethene	75-35-4		U	6.13	0.613
1,2,4-Trichlorobenzene	120-82-1		U	6.13	0.613
1,2-Dichlorobenzene	95-50-1		U	6.13	0.613
1,2-Dichloroethane	107-06-2		U	6.13	0.613
1,2-Dichloropropane	78-87-5		U	6.13	0.613
1,3-Dichlorobenzene	541-73-1		U	6.13	0.613
1,4-Dichlorobenzene	106-46-7		U	6.13	0.613
1,4-Dioxane	123-91-1		U	2080	61.3
2-Butanone	78-93-3		U	30.7	3.07
2-Hexanone	591-78-6		U	12.3	3.07
4-Methyl-2-pentanone	108-10-1		U	12.3	3.07
Acetone	67-64-1		U	123	6.13
Acrylonitrile	107-13-1		U	123	3.07
Benzene	71-43-2		U	6.13	0.613
Bromodichloromethane	75-27-4		U	6.13	0.613
Bromoform	75-25-2		U	6.13	0.613
Bromomethane	74-83-9		U	12.3	1.23
Carbon disulfide	75-15-0		U	6.13	0.613
Carbon tetrachloride	56-23-5		U	6.13	0.613
Chlorobenzene	108-90-7		U	6.13	0.613
Dibromochloromethane	124-48-1		U	6.13	0.613
Chloroethane	75-00-3		U	12.3	1.23
Chloroform	67-66-3		U	6.13	0.613
Chloromethane	74-87-3		U	12.3	2.45
cis-1,2-Dichloroethene	156-59-2		U	6.13	0.613
cis-1,3-Dichloropropene	10061-01-5		U	6.13	0.613
Ethylbenzene	100-41-4		U	6.13	0.613
Methylene chloride	75-09-2		U	6.13	1.23
Methyltert-butyl ether	1634-04-4		U	12.3	0.613
Styrene	100-42-5		U	6.13	0.613
Tetrachloroethene	127-18-4		U	6.13	0.613
Toluene	108-88-3		U	6.13	0.613
trans-1,2-Dichloroethene	156-60-5		U	6.13	0.613
trans-1,3-Dichloropropene	10061-02-6		U	6.13	0.613
Trichloroethene	79-01-6		U	6.13	0.613
Vinyl acetate	108-05-4		U	12.3	1.23
Vinyl chloride	75-01-4		U	12.3	1.23
Xylenes	1330-20-7		U	12.3	0.613

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	92.7	70	121	
4-Bromofluorobenzene	109	59	113	
Dibromofluoromethane	99.3	65	135	
Toluene-d8	104	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-09**
Client ID: **4014-GW-102809**
Matrix: **Water**
Workgroup Number: **WG315944**
Collect Date: **10/28/2009 14:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **10/30/2009 16:29**
Cal Date: **10/16/2009 20:56**
Run Date: **10/30/2009 16:29**
File ID: **6M86977**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	99.0	76	114	
4-Bromofluorobenzene	101	86	115	
Dibromofluoromethane	106	85	115	
Toluene-d8	105	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-10**
Client ID: **4014-GW-102809D**
Matrix: **Water**
Workgroup Number: **WG315944**
Collect Date: **10/28/2009 14:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **10/30/2009 17:01**
Cal Date: **10/16/2009 20:56**
Run Date: **10/30/2009 17:01**
File ID: **6M86978**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	101	76	114	
4-Bromofluorobenzene	103	86	115	
Dibromofluoromethane	108	85	115	
Toluene-d8	104	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-11**
Client ID: **4011-S001-102809**
Matrix: **Soil**
Workgroup Number: **WG316826**
Collect Date: **10/28/2009 15:15**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:29**
Cal Date: **11/02/2009 20:52**
Run Date: **11/07/2009 18:49**
File ID: **9M73429**
Percent Solid: **83.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.20	0.520
1,1,2,2-Tetrachloroethane	79-34-5		U	5.20	0.520
1,1,2-Trichloroethane	79-00-5		U	5.20	0.520
1,1-Dichloroethane	75-34-3		U	5.20	1.04
1,1-Dichloroethene	75-35-4		U	5.20	0.520
1,2,4-Trichlorobenzene	120-82-1		U	5.20	0.520
1,2-Dichlorobenzene	95-50-1		U	5.20	0.520
1,2-Dichloroethane	107-06-2		U	5.20	0.520
1,2-Dichloropropane	78-87-5		U	5.20	0.520
1,3-Dichlorobenzene	541-73-1		U	5.20	0.520
1,4-Dichlorobenzene	106-46-7		U	5.20	0.520
1,4-Dioxane	123-91-1		U	1770	52.0
2-Butanone	78-93-3		U	26.0	2.60
2-Hexanone	591-78-6		U	10.4	2.60
4-Methyl-2-pentanone	108-10-1		U	10.4	2.60
Acetone	67-64-1		U	104	5.20
Acrylonitrile	107-13-1		U	104	2.60
Benzene	71-43-2		U	5.20	0.520
Bromodichloromethane	75-27-4		U	5.20	0.520
Bromoform	75-25-2		U	5.20	0.520
Bromomethane	74-83-9		U	10.4	1.04
Carbon disulfide	75-15-0		U	5.20	0.520
Carbon tetrachloride	56-23-5		U	5.20	0.520
Chlorobenzene	108-90-7		U	5.20	0.520
Dibromochloromethane	124-48-1		U	5.20	0.520
Chloroethane	75-00-3		U	10.4	1.04
Chloroform	67-66-3		U	5.20	0.520
Chloromethane	74-87-3		U	10.4	2.08
cis-1,2-Dichloroethene	156-59-2		U	5.20	0.520
cis-1,3-Dichloropropene	10061-01-5		U	5.20	0.520
Ethylbenzene	100-41-4		U	5.20	0.520
Methylene chloride	75-09-2		U	5.20	1.04
Methyltert-butyl ether	1634-04-4		U	10.4	0.520
Styrene	100-42-5		U	5.20	0.520
Tetrachloroethene	127-18-4		U	5.20	0.520
Toluene	108-88-3		U	5.20	0.520
trans-1,2-Dichloroethene	156-60-5		U	5.20	0.520
trans-1,3-Dichloropropene	10061-02-6		U	5.20	0.520
Trichloroethene	79-01-6	17.3		5.20	0.520
Vinyl acetate	108-05-4		U	10.4	1.04
Vinyl chloride	75-01-4		U	10.4	1.04
Xylenes	1330-20-7		U	10.4	0.520

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	94.0	70	121	
4-Bromofluorobenzene	103	59	113	
Dibromofluoromethane	97.2	65	135	
Toluene-d8	99.4	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-12**
Client ID: **4011-S002-102809**
Matrix: **Soil**
Workgroup Number: **WG316826**
Collect Date: **10/28/2009 15:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5035A**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/29/2009 15:30**
Cal Date: **11/02/2009 20:52**
Run Date: **11/07/2009 19:20**
File ID: **9M73430**
Percent Solid: **95.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.47	0.547
1,1,2,2-Tetrachloroethane	79-34-5		U	5.47	0.547
1,1,2-Trichloroethane	79-00-5		U	5.47	0.547
1,1-Dichloroethane	75-34-3		U	5.47	1.09
1,1-Dichloroethene	75-35-4		U	5.47	0.547
1,2,4-Trichlorobenzene	120-82-1		U	5.47	0.547
1,2-Dichlorobenzene	95-50-1		U	5.47	0.547
1,2-Dichloroethane	107-06-2		U	5.47	0.547
1,2-Dichloropropane	78-87-5		U	5.47	0.547
1,3-Dichlorobenzene	541-73-1		U	5.47	0.547
1,4-Dichlorobenzene	106-46-7		U	5.47	0.547
1,4-Dioxane	123-91-1		U	1860	54.7
2-Butanone	78-93-3		U	27.4	2.74
2-Hexanone	591-78-6		U	10.9	2.74
4-Methyl-2-pentanone	108-10-1		U	10.9	2.74
Acetone	67-64-1		U	109	5.47
Acrylonitrile	107-13-1		U	109	2.74
Benzene	71-43-2		U	5.47	0.547
Bromodichloromethane	75-27-4		U	5.47	0.547
Bromoform	75-25-2		U	5.47	0.547
Bromomethane	74-83-9		U	10.9	1.09
Carbon disulfide	75-15-0		U	5.47	0.547
Carbon tetrachloride	56-23-5		U	5.47	0.547
Chlorobenzene	108-90-7		U	5.47	0.547
Dibromochloromethane	124-48-1		U	5.47	0.547
Chloroethane	75-00-3		U	10.9	1.09
Chloroform	67-66-3		U	5.47	0.547
Chloromethane	74-87-3		U	10.9	2.19
cis-1,2-Dichloroethene	156-59-2		U	5.47	0.547
cis-1,3-Dichloropropene	10061-01-5		U	5.47	0.547
Ethylbenzene	100-41-4		U	5.47	0.547
Methylene chloride	75-09-2		U	5.47	1.09
Methyltert-butyl ether	1634-04-4		U	10.9	0.547
Styrene	100-42-5		U	5.47	0.547
Tetrachloroethene	127-18-4		U	5.47	0.547
Toluene	108-88-3		U	5.47	0.547
trans-1,2-Dichloroethene	156-60-5		U	5.47	0.547
trans-1,3-Dichloropropene	10061-02-6		U	5.47	0.547
Trichloroethene	79-01-6	28.3		5.47	0.547
Vinyl acetate	108-05-4		U	10.9	1.09
Vinyl chloride	75-01-4		U	10.9	1.09
Xylenes	1330-20-7		U	10.9	0.547

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	92.5	70	121	
4-Bromofluorobenzene	110	59	113	
Dibromofluoromethane	98.8	65	135	
Toluene-d8	107	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-13**
Client ID: **4011-GW-102809**
Matrix: **Water**
Workgroup Number: **WG315944**
Collect Date: **10/28/2009 16:15**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **10/30/2009 17:33**
Cal Date: **10/16/2009 20:56**
Run Date: **10/30/2009 17:33**
File ID: **6M86979**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	98.7	76	114	
4-Bromofluorobenzene	99.4	86	115	
Dibromofluoromethane	108	85	115	
Toluene-d8	104	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-14**
Client ID: **TB01-102809**
Matrix: **Water**
Workgroup Number: **WG315944**
Collect Date: **10/28/2009 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **10/30/2009 11:08**
Cal Date: **10/16/2009 20:56**
Run Date: **10/30/2009 11:08**
File ID: **6M86967**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	102	76	114	
4-Bromofluorobenzene	101	86	115	
Dibromofluoromethane	108	85	115	
Toluene-d8	104	88	110	

U Not detected at or above the reporting limit (RL).

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

Microbac Laboratories Inc.
VOA Preparation/Preservation/Extraction Log

Batch #: WG315908 **Analyst:** MRT
Method: 5035A **Run Date:** 10/29/2009 15:18
Purge and trap methanol COA14043
Sand Lot #: COA14158

SAMPLE #	Fraction	Collected	Preserved	PCT-S	Tare Wt	Total Wt	Sample Wt	Water	MeOH	Vt	Comments
L09100717-01	A	10/28/09 09:45	10/29/09 15:18	82.1			5.80	5		5	5
L09100717-01	B	10/28/09 09:45	10/29/09 15:18	82.1			5.69	5		5	5
L09100717-01	C	10/28/09 09:45	10/29/09 15:31	82.1			5.63		10	11.009363	5
L09100717-02	A	10/28/09 09:45	10/29/09 15:20	82.1			5.42	5		5	5
L09100717-02	B	10/28/09 09:45	10/29/09 15:20	82.1			5.70	5		5	5
L09100717-02	C	10/28/09 09:45	10/29/09 15:31	82.1			5.82		10	11.043426	5
L09100717-03	A	10/28/09 09:45	10/29/09 15:21	82.1			5.55	5		5	5
L09100717-03	B	10/28/09 09:45	10/29/09 15:22	82.1			5.41	5		5	5
L09100717-03	C	10/28/09 09:45	10/29/09 15:31	82.1			5.56		10	10.996813	5
L09100717-04	A	10/28/09 10:30	10/29/09 15:23	93.8			5.28	5		5	5
L09100717-04	B	10/28/09 10:30	10/29/09 15:23	93.8			5.20	5		5	5
L09100717-04	C	10/28/09 10:30	10/29/09 15:31	93.8			5.53		10	10.340850	5
L09100717-06	A	10/28/09 12:55	10/29/09 15:25	81.2			5.67	5		5	5
L09100717-06	B	10/28/09 12:55	10/29/09 15:25	81.2			5.72	5		5	5
L09100717-06	C	10/28/09 12:55	10/29/09 15:31	81.2			5.75		10	11.078256	5
L09100717-07	A	10/28/09 12:55	10/29/09 15:26	76.6			5.80	5		5	5
L09100717-07	B	10/28/09 12:55	10/29/09 15:27	76.6			5.90	5		5	5
L09100717-07	C	10/28/09 12:55	10/29/09 15:31	76.6			5.12		10	11.196318	5
L09100717-08	A	10/28/09 13:20	10/29/09 15:28	90.6			4.84	5		5	5
L09100717-08	B	10/28/09 13:20	10/29/09 15:28	90.6			4.50	5		5	5
L09100717-08	C	10/28/09 13:20	10/29/09 15:31	90.6			4.44		10	10.417073	5
L09100717-11	A	10/28/09 15:15	10/29/09 15:29	83.5			5.76	5		5	5
L09100717-11	B	10/28/09 15:15	10/29/09 15:29	83.5			5.68	5		5	5
L09100717-11	C	10/28/09 15:15	10/29/09 15:31	83.5			5.56		10	10.917499	5
L09100717-12	A	10/28/09 15:40	10/29/09 15:30	95.7			4.77	5		5	5
L09100717-12	B	10/28/09 15:40	10/29/09 15:30	95.7			4.89	5		5	5
L09100717-12	C	10/28/09 15:40	10/29/09 15:31	95.7			4.65		10	10.197834	5

Comments:
1 = improperly sealed cap
2 = preserved out of hold
3 = effervesced
4 = preserved with NaHSO4
5 = preserved by freezing
6 = preserved in field

Analyst: Michelle Taylor

VOA_EXT - Modified 05/22/2008
PDF ID: 1526195
Report generated: 11/06/2009 15:41

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Instrument Run Log

Instrument: HPMS6 Dataset: 101609
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 624 SOP: MSV10 Rev: 7
Method: 5030C/5035A SOP: PAT01 Rev: 12
Maintenance Log ID: 30646

Internal Standard: STD35617 Surrogate Standard: STD35832
CCV: STD35936 LCS: STD35935 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG314645

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M86644	WG314645-01 50NG BFB STD 8260	NA	1	1	STD35720	10/16/09 08:03
2	6M86645	WG314645-02 50ug/L WATER STD 8260	NA	1	1	STD35655	10/16/09 08:27
3	6M86646	WG314645-02 50ug/L WATER STD 8260	NA	1	1	STD35655	10/16/09 09:01
4	6M86647	RINSE	NA	1	1		10/16/09 09:34
5	6M86648	RINSE	NA	1	1		10/16/09 10:07
6	6M86662	WG314645-01 50NG BFB STD 8260	NA	1	1	STD35687	10/16/09 15:41
7	6M86663	WG314645-02 0.3 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 16:06
8	6M86664	WG314645-03 0.4 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 16:38
9	6M86665	WG314645-04 1 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 17:10
10	6M86666	WG314645-05 2 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 17:43
11	6M86667	WG314645-06 5 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 18:15
12	6M86668	WG314645-07 20 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 18:47
13	6M86669	WG314645-08 50 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 19:20
14	6M86670	WG314645-09 100 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 19:52
15	6M86671	WG314645-10 200 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 20:24
16	6M86672	WG314645-11 300 ug/L WATER STD 8260	NA	1	1	STD35838	10/16/09 20:56
17	6M86673	RINSE	NA	1	1	STD35838	10/16/09 21:28
18	6M86674	WG314645-12 50ug/L ALT SOURCE	NA	1	1	STD35720	10/16/09 22:00

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
File ID: 6M86645				
	RR, vc is low.			
3				
File ID: 6M86646				
	vc is low-running a curve.			

Approved: October 26, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 103009
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 12

Maintenance Log ID: 30755

Internal Standard: STD35617 Surrogate Standard: STD35832
CCV: STD35987/STD35525 LCS: STD35935/STD35818 MS/MSD: STD36088

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG315944

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M86961	WG315943-01 50ng BFB STD 8260	NA	1	1	STD35687	10/30/09 08:01
2	6M86962	WG315943-02 50ug/L CCV 8260	NA	1	1	STD35987	10/30/09 08:25
3	6M86963	WG315942-01 100ug/L APPIX/FOO STD	NA	1	1	STD35525	10/30/09 09:01
4	6M86964	WG315944-01 VBLK1030 BLANK 8260	NA	1	1		10/30/09 09:33
5	6M86965	WG315944-02 20ug/L LCS 8260	NA	1	1	STD35935	10/30/09 10:05
6	6M86966	WG315944-03 100ug/L APPIX/FOO LCS	NA	1	1	STD35818	10/30/09 10:37
7	6M86967	L09100717-14 A 826-SPE	<2	1	1		10/30/09 11:08
8	6M86968	L09100687-09 A 826-SPE	<2	1	1		10/30/09 11:40
9	6M86969	L09100675-03 B 2.5X 826-SPE	7	1	2.5		10/30/09 12:13
10	6M86970	L09100675-04 B 2.5X 826-SPE	7	1	2.5		10/30/09 12:45
11	6M86971	L09100687-04 A 826-SPE	<2	1	1		10/30/09 13:17
12	6M86972	L09100687-06 A 826-SPE	7	1	1		10/30/09 13:49
16	6M86976	L09100687-05 A D1 10X 826-SPE	7	1	10		10/30/09 15:57
17	6M86977	L09100717-09 A 826-SPE	<2	1	1		10/30/09 16:29
18	6M86978	L09100717-10 A 826-SPE	<2	1	1		10/30/09 17:01
19	6M86979	L09100717-13 A 826-SPE	<2	1	1		10/30/09 17:33
20	6M86980	L09100687-07 A 826-SPE	6	1	1		10/30/09 18:05
21	6M86981	L09100717-05 A 826-SPE	<2	1	1		10/30/09 18:37
22	6M86982	L09100687-08 A 826-SPE	<2	1	1		10/30/09 19:10
23	6M86983	RINSE	NA	1	1		10/30/09 19:42
24	6M86984	RINSE	NA	1	1		10/30/09 20:15
25	6M86985	SYSTEM CHECK	NA	1	1		10/30/09 20:48
26	6M86973	L09100712-03 A 826-SPE	NA	1	1		10/30/09 14:21
27	6M86974	L09100712-04 MS A 826-SPE	NA	1	1	STD36088	10/30/09 14:54
28	6M86975	L09100712-05 MSD A 826-SPE	NA	1	1	STD36088	10/30/09 15:25

Comments

Seq.	Rerun	Dil.	Reason	Analytes
16	X	2	Analyzed too dilute	
File ID: 6M86976				
21	X	25	Over Calibration Range	cis-1,2-DCE,chloroform,12-DCA,benzene,12-DCP
File ID: 6M86981				

Approved: November 04, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 103009
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 12

Maintenance Log ID: 30755

Internal Standard: STD35617 Surrogate Standard: STD35832
CCV: STD35987/STD35525 LCS: STD35935/STD35818 MS/MSD: STD36088

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG315944

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
22	X	1	Carry-over contamination	DNR
File ID: 6M86982				

Approved: November 04, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 110209
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 12
Method: 624 SOP: MSV10 Rev: 7
Maintenance Log ID: 30778

Internal Standard: STD35617 Surrogate Standard: STD35832
CCV: STD35987 LCS: STD35935 MS/MSD: STD35935

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316129

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M87016	WG316128-01 50ng BFB STD 8260	NA	1	1	STD35687	11/02/09 09:06
2	6M87017	WG316128-01 50ng BFB STD 8260	NA	1	1	STD35687	11/02/09 09:24
3	6M87018	WG316128-01 50ng BFB STD 8260	NA	1	1	STD35687	11/02/09 09:39
4	6M87019	WG316128-01 50ng BFB STD 8260	NA	1	1	STD35687	11/02/09 10:17
5	6M87020	WG316128-02 50ug/L CCV 8260	NA	1	1	STD35987	11/02/09 10:46
6	6M87021	WG316128-02 50ug/L CCV 8260	NA	1	1	STD35987	11/02/09 11:18
7	6M87022	WG316130-01 100ug/L APPIX/FOO STD	NA	1	1	STD36074	11/02/09 11:49
8	6M87023	WG316129-01 VBLK1102 BLANK 8260	NA	1	1		11/02/09 12:21
9	6M87024	WG316129-02 20ug/L LCS 8260	NA	1	1	STD35935	11/02/09 12:53
10	6M87025	L09100717-05 B D1 25X 826-SPE	<2	1	25		11/02/09 13:25
11	6M87026	L09100775-33 A 826-SPE	<2	1	1		11/02/09 13:58
12	6M87027	L09100775-34 A 826-SPE	<2	1	1		11/02/09 14:30
13	6M87028	L09100775-35 A 826-SPE	<2	1	1		11/02/09 15:01
14	6M87029	L09100714-06 B 826-SPE	<2	1	1		11/02/09 15:33
15	6M87030	L09100687-05 B 2X 826-SPE	7	1	2		11/02/09 16:04
16	6M87031	L09100769-12 A 826-SPE	7	1	1		11/02/09 16:37
17	6M87032	L09100759-02 A 826-SPE	<2	1	1		11/02/09 17:09
18	6M87033	L09100759-03 MS A 826-SPE	<2	1	1	STD35935	11/02/09 17:41
19	6M87034	L09100759-04 MSD A 826-SPE	<2	1	1	STD35935	11/02/09 18:13
20	6M87035	L09100757-03 B D1 10X 826-A9-SPE	7	1	10		11/02/09 18:46
21	6M87036	L09100697-19 A 826-SPE	<2	1	1		11/02/09 19:18
22	6M87037	L09100769-11 A 826-SPE	7	1	1		11/02/09 19:50
23	6M87038	L09100687-08 B 826-SPE	<2	1	1		11/02/09 20:22
24	6M87039	L09100754-01 A 826-SPE	<2	1	1		11/02/09 20:55
25	6M87040	L09100759-08 A 826-SPE	<2	1	1		11/02/09 21:27
26	6M87041	L09100759-09 A 826-SPE	<2	1	1		11/02/09 21:59
27	6M87042	RINSE	NA	1	1		11/02/09 22:32
28	6M87043	WG316129-06 624 BLANK	NA	1	1		11/02/09 23:04
29	6M87044	L09110012-06 A 624-SPE	7	2	1		11/02/09 23:36
30	6M87045	SYSTEM CHECK	NA	1	1		11/03/09 00:08
31	6M87046	SYSTEM CHECK	NA	1	1		11/03/09 00:40

Comments

Approved: November 04, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS6 Dataset: 110209
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 12
Method: 624 SOP: MSV10 Rev: 7
Maintenance Log ID: 30778

Internal Standard: STD35617 Surrogate Standard: STD35832
CCV: STD35987 LCS: STD35935 MS/MSD: STD35935

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316129

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
File ID: 6M87016				
	RR BFB failed.			
2				
File ID: 6M87017				
	RR BFB failed. Replaced the septum.			
3				
File ID: 6M87018				
	RR BFB failed. Baked for 30 minutes.			
5				
File ID: 6M87020				
	RR, vc is high.			
15	X	10	Over Calibration Range	SS and 4-methyl-2-pentanone
File ID: 6M87030				
24	X	1		
File ID: 6M87039				
	RR, DCDF was high in ALT source.			

Approved: November 04, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110209
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30779

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD35935 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316150

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M73244	RINSE	NA	7	1		11/02/09 09:24
2	9M73245	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 09:53
3	9M73246	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 10:07
4	9M73247	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 10:22
5	9M73248	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 10:46
6	9M73249	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 11:23
7	9M73250	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 12:34
8	9M73251	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 13:02
9	9M73252	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 13:35
10	9M73253	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 14:03
11	9M73254	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 14:18
12	9M73255	rinse	NA	7	1		11/02/09 15:44
13	9M73256	WG316150-01 50ng BFB STD 8260	NA	7	1		11/02/09 16:16
14	9M73257	WG316150-03 0.5ug/Kg STD 8260	NA	7	1		11/02/09 16:41
15	9M73258	WG316150-04 1ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 17:13
16	9M73259	WG316150-05 2ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 17:43
17	9M73260	WG316150-06 5ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 18:14
18	9M73261	WG316150-07 20ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 18:46
19	9M73262	WG316150-08 50ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 19:17
20	9M73263	WG316150-09 100ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 19:49
21	9M73264	WG316150-10 200ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 20:20
22	9M73265	WG316150-11 300ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 20:52
23	9M73266	RINSE	NA	7	1		11/02/09 21:24
24	9M73267	RINSE	NA	7	1		11/02/09 21:55
25	9M73268	WG316150-12 50ug/Kg ALT SRC STD 826	NA	7	1	STD35935	11/02/09 22:26
26	9M73269	CCV CHECK	NA	7	1	STD36102	11/02/09 22:57
27	9M73270	RINSE	NA	7	1		11/02/09 23:29

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
File ID: 9M73245				
Tune failed. DNR.				

Approved: November 04, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110209
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30779

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD35935 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316150

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X			
File ID: 9M73246				
	Tune failed. DNR.			
4	X			
File ID: 9M73247				
	Tune failed. DNR. Changed the septa.			
5	X		Over Linear Range	gases
File ID: 9M73248				
	Vc was high. DNR.			
6	X		Over Linear Range	vc
File ID: 9M73249				
	Vc was high. DNR.			
8	X		Over Linear Range	vc
File ID: 9M73251				
	Vc was high. DNR.			
9	X		Over Linear Range	vc
File ID: 9M73252				
	Vc was high, DNR.			
10	X			
File ID: 9M73253				
	Increased the voltage. Tune failed. DNR.			
11	X			
File ID: 9M73254				
	Tune failed. DNR.			

Approved: November 04, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 110509
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30868

Internal Standard: STD36010 Surrogate Standard: STD35832
CCV: STD36102 LCS: STD36167 MS/MSD: STD36167

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316562

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M75965	WG316561-01 50ng BFB STD 8260	NA	1	1	STD35687	11/05/09 08:33
2	10M75966	WG316561-02 50ug/L CCV STD 8260	NA	1	1	STD36102	11/05/09 08:57
3	10M75967	RINSE	NA	1	1		11/05/09 09:29
4	10M75968	WG316562-01 VBLK1105 BLANK STD 826	NA	1	1		11/05/09 10:00
5	10M75969	WG316562-02 20ug/L LCS STD 8260	NA	1	1	STD36167	11/05/09 10:32
8	10M75972	WG316562-09 FBLK 10X STD 8260	NA	1	10		11/05/09 12:08
9	10M75973	L09110061-03 A 826-SPE	<2	1	1		11/05/09 12:40
10	10M75974	L09110031-08 A 826-SPE1	<2	1	1		11/05/09 13:12
11	10M75975	L09110056-21 A 826-SPE	<2	1	1		11/05/09 13:44
12	10M75976	L09110056-22 A 826-SPE	<2	1	1		11/05/09 14:15
13	10M75977	L09110031-09 B 826-SPE1	<2	1	1		11/05/09 14:47
14	10M75978	L09110061-01 A 826-SPE	<2	1	1		11/05/09 15:19
15	10M75979	L09110061-02 A 826-SPE	<2	1	1		11/05/09 15:51
17	10M75981	L09110017-01 A 10X 826-TC	NA	17	10		11/05/09 16:55
19	10M75983	L09110056-18 A 826-SPE	<2	1	1		11/05/09 17:59
22	10M75986	L09110035-01 A 826-BETX	<2	1	1		11/05/09 19:34
24	10M75988	L09100717-04 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 20:38
25	10M75989	L09100717-06 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 21:10
26	10M75990	L09100717-07 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 21:42
27	10M75991	L09100717-08 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 22:13
28	10M75992	L09100717-11 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 22:45
29	10M75993	L09100717-12 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 23:17
30	10M75994	L09100771-02 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 23:49
31	10M75995	L09100771-03 C 100X 826-SPE	NA	7	50	SCREEN	11/06/09 00:21
32	10M75996	L09100771-07 C 100X 826-SPE	NA	7	50	SCREEN	11/06/09 00:52
33	10M75997	L09100771-08 C 100X 826-SPE	NA	7	50	SCREEN	11/06/09 01:24
34	10M75998	L09100771-10 C 100X 826-SPE	NA	7	50	SCREEN	11/06/09 01:56
35	10M75999	L09100771-11 C 100X 826-SPE	NA	7	50	SCREEN	11/06/09 02:27
36	10M76000	RINSE	NA	7	50	SCREEN	11/06/09 02:59
37	10M76001	RINSE	NA	1	1		11/06/09 03:31
38	10M76002	RINSE	NA	1	1		11/06/09 04:03
39	10M76003	RINSE	NA	1	1		11/06/09 04:34
40	10M75970	L09110031-06 A MS 826-SPE1	<2	1	1	STD36167	11/05/09 11:04
41	10M75971	L09110031-07 A MSD 826-SPE1	<2	1	1	STD36167	11/05/09 11:36

Approved: November 10, 2009

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 110509
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30868

Internal Standard: STD36010 Surrogate Standard: STD35832
CCV: STD36102 LCS: STD36167 MS/MSD: STD36167

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316562

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
42	10M75980	L09110031-05 A 826-SPE1	<2	1	1		11/05/09 16:23
43	10M75982	L09110056-01 A 826-SPE	<2	1	1		11/05/09 17:27
44	10M75984	L09110056-19 A MS 826-SPE	<2	1	1	STD36167	11/05/09 18:30
45	10M75985	L09110056-20 A MSD 826-SPE	<2	1	1	STD36167	11/05/09 19:02
46	10M75987	L09100717-01 C 100X 826-SPE	NA	7	50	SCREEN	11/05/09 20:06

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X	1	Carry-over contamination	
File ID: 10M75967				
Carry over from ccv, DNR.				
46	X	1	Analyzed too dilute	
File ID: 10M75987				
All of the soils I screened can run straight. DNR.				

Approved: November 10, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110609
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30866

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: STD36245

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316701

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M73383	WG316699-01 50ng BFB STD 8260	NA	7	1	STD35687	11/06/09 13:38
2	9M73384	WG316699-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/06/09 14:04
3	9M73385	WG316701-01 VBLK1106 BLANK STD 826	NA	7	1		11/06/09 14:36
4	9M73386	WG316701-07 5ug/Kg QCMRL STD 8260	NA	7	1	STD36031	11/06/09 15:08
5	9M73387	L09100686-01 A 826-SPE 5.82g	NA	7	1		11/06/09 15:40
6	9M73388	L09100686-05 A 826-SPE 7.02g	NA	7	1		11/06/09 16:11
7	9M73389	WG316701-08 5ug/Kg QCMRL CHECK STD	NA	7	1	STD36031	11/06/09 16:42
8	9M73390	WG316701-02 20ug/Kg LCS STD 8260	NA	7	1	STD36245	11/06/09 17:13
9	9M73391	L09100717-02 A MS 826-SPE 5.42g	NA	10	1	STD36245	11/06/09 17:44
10	9M73392	L09100717-03 A MSD 826-SPE 5.55g	NA	10	1	STD36245	11/06/09 18:15
11	9M73393	L09100775-29 5X 826-SPE 1.05g D1	NA	7	1		11/06/09 18:47
12	9M73394	L09100775-30 5X 826-SPE 0.96g D1	NA	7	1		11/06/09 19:19
13	9M73395	L09100775-31 5X 826-SPE 1.05g D1	NA	7	1		11/06/09 19:50
14	9M73396	L09100775-27 5X 826-SPE 0.96g D1	NA	7	1		11/06/09 20:22
15	9M73397	L09100775-17 826-SPE 5.23g 00	NA	7	1		11/06/09 20:54
16	9M73398	L09100775-36 826-SPE 5.25g	NA	7	1		11/06/09 21:26
17	9M73399	L09110007-10 826-SPE 5.19g A1	NA	7	1		11/06/09 21:58
18	9M73400	L09110007-14 826-SPE 4.88g 00	NA	7	1		11/06/09 22:30
19	9M73401	L09110007-15 826-SPE 5.04g A1	NA	7	1		11/06/09 23:02
20	9M73402	L09110007-17 826-SPE 5.23g A1	NA	7	1		11/06/09 23:33
21	9M73403	L09110098-01 8260 5.29g	NA	10	1		11/07/09 00:05
22	9M73404	L09100717-01 A 826-SPE 5.80g	NA	10	1		11/07/09 00:37
23	9M73405	L09100717-04 A 826-SPE 5.28g	NA	7	1		11/07/09 01:08
24	9M73406	L09100717-06 A 826-SPE 5.67g	NA	7	1		11/07/09 01:40
25	9M73407	RINSE	NA	7	1		11/07/09 02:12
26	9M73408	RINSE	NA	7	1		11/07/09 02:43
27	9M73409	L09100554-05 A 826-REF-BLK 4.99g	NA	7	1		11/07/09 03:15
28	9M73410	L09100554-06 A 826-REF-BLK 5.05g	NA	7	1		11/07/09 03:46
29	9M73411	L09100554-07 A 826-REF-BLK 4.98g	NA	7	1		11/07/09 04:18
30	9M73412	ENCORE BLK A 10-29-09	NA	7	1		11/07/09 04:49
31	9M73413	ENCORE BLK A 10-30-09	NA	7	1		11/07/09 05:21

Comments

Approved: November 10, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110609
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30866

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: STD36245

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316701

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
11	X	100	Over Calibration Range	CB
File ID: 9M73393				
24	X	1	Missed Tune	
File ID: 9M73406				
DNR.				

Approved: November 10, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110709
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30855

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316826; WG316831

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M73415	RINSE	NA	7	1	STD35687	11/07/09 11:40
2	9M73416	WG316825-01 50ng BFB STD 8260	NA	7	1	STD35687	11/07/09 12:09
3	9M73417	WG316825-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/07/09 12:33
4	9M73418	WG316831-01 EXT VBLK1107 BLANK 826	NA	7	50		11/07/09 13:04
5	9M73419	WG316826-01 VBLK1107 BLANK 8260	NA	7	1		11/07/09 13:35
6	9M73420	WG316826-02 20ug/Kg LCS 8260	NA	7	1	STD36245	11/07/09 14:06
7	9M73421	WG316826-03 20ug/Kg LCSDUP 8260	NA	7	1	STD36245	11/07/09 14:38
8	9M73422	WG316831-02 20ug/L EXT LCS 8260	NA	7	50	STD36245	11/07/09 15:09
9	9M73423	WG316831-03 20ug/L EXT LCSDUP 8260	NA	7	50	STD36245	11/07/09 15:40
10	9M73424	L09100775-32 826-SPE 4.85g	NA	7	1		11/07/09 16:12
11	9M73425	L09100775-29 100X 826-SPE 5.09g/10mL M	NA	7	50		11/07/09 16:43
12	9M73426	L09100717-06 B 826-SPE 5.72g	NA	7	1		11/07/09 17:15
13	9M73427	L09100717-07 A 826-SPE 5.80g	NA	7	1		11/07/09 17:46
14	9M73428	L09100717-08 A 826-SPE 4.84g	NA	7	1		11/07/09 18:17
15	9M73429	L09100717-11 A 826-SPE 5.76g	NA	7	1		11/07/09 18:49
16	9M73430	L09100717-12 A 826-SPE 4.77g	NA	7	1		11/07/09 19:20
17	9M73431	L09110114-02 A 826-SPE 6.20g	NA	7	1		11/07/09 19:51
18	9M73432	L09110114-04 A 826-SPE 5.95g	NA	7	1		11/07/09 20:23
19	9M73433	L09110114-06 A 826-SPE 6.03g	NA	7	1		11/07/09 20:55
20	9M73434	L09110114-01 826-SPE 4.76g	NA	7	1		11/07/09 21:27
21	9M73435	L09110114-03 826-SPE 4.58g	NA	7	1		11/07/09 21:58
22	9M73436	L09110114-05 826-SPE 4.77g	NA	7	1		11/07/09 22:30
23	9M73437	L09110028-01 826-BETX 4.73g	NA	7	1		11/07/09 23:02
24	9M73438	L09110028-02 826-BETX 5.06g	NA	7	1		11/07/09 23:34
25	9M73439	L09110028-03 826-BETX 4.98g	NA	7	1		11/08/09 00:05
26	9M73440	RINSE	NA	7	1		11/08/09 00:37
27	9M73441	RINSE	NA	7	1		11/08/09 01:08

Comments

Seq.	Rerun	Dil.	Reason	Analytes
14	X	1	Surrogate standard failure	
File ID: 9M73428				

Approved: November 09, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110709
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30855

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316826; WG316831

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
20	X	1	Internal standard and surrogate standard failure	
File ID: 9M73434				
22	X	1	Internal standard and surrogate standard failure	
File ID: 9M73436				
23	X	1	Surrogate standard failure	
File ID: 9M73437				
24	X	1	Internal standard and surrogate standard failure	
File ID: 9M73438				

Approved: November 09, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110909
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30867

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316888; WG316889

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M73443	RINSE	NA	7	1		11/09/09 08:44
2	9M73444	RINSE	NA	7	1		11/09/09 09:15
3	9M73445	RINSE	NA	7	1		11/09/09 09:47
4	9M73446	WG316886-01 50ng BFB STD 8260	NA	7	1	STD36263	11/09/09 10:16
5	9M73447	WG316886-01 50ng BFB STD 8260	NA	7	1	STD36263	11/09/09 10:31
6	9M73448	WG316886-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/09/09 10:56
7	9M73449	WG316888-01 EXT BLK 100X 8260 5g/10m	NA	11	50		11/09/09 11:27
8	9M73450	WG316886-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/09/09 11:59
9	9M73451	WG316889-01 VBLK1109 BLANK 8260	NA	7	1		11/09/09 12:29
10	9M73452	WG316889-02 20ug/L LCS 8260	NA	7	1	STD36245	11/09/09 13:01
11	9M73453	WG316889-03 20ug/L LCSDUP 8260	NA	7	1	STD36245	11/09/09 13:31
12	9M73454	WG316888-02 EXT LCS 100X 8260 5g/10m	NA	11	50		11/09/09 14:02
13	9M73455	WG316888-03 EXT LCSDUP 100X 8260 5g/	NA	11	50		11/09/09 14:33
14	9M73456	L09100760-01 8260 4.72g	NA	7	1		11/09/09 15:04
15	9M73457	L09100767-01 8260 4.65g	NA	7	1		11/09/09 15:35
16	9M73458	L09100674-05 500,000X 8260 1.02g	NA	11	50000		11/09/09 16:05
17	9M73459	L09110102-05 50,000X 8260 1.03g	NA	11	50000		11/09/09 16:36
18	9M73460	L09110028-01 826-BETX 4.73g A1	NA	7	1		11/09/09 17:07
19	9M73461	L09110028-02 826-BETX 5.06g A1	NA	7	1		11/09/09 17:38
20	9M73462	L09110114-01 826-SPE 4.82g A1	NA	7	1		11/09/09 18:09
21	9M73463	L09110114-05 826-SPE 4.63g	NA	7	1		11/09/09 18:40
22	9M73464	L09100717-08 B 826-SPE 4.50g	NA	7	1		11/09/09 19:11
23	9M73465	L09100771-02 A 826-SPE 6.31g	NA	7	1		11/09/09 19:42
24	9M73466	L09100771-03 A 826-SPE 4.36g	NA	7	1		11/09/09 20:13
25	9M73467	L09100771-07 A 826-SPE 5.54g	NA	7	1		11/09/09 20:44
26	9M73468	L09100771-08 A 826-SPE 6.08g	NA	7	1		11/09/09 21:15
27	9M73469	L09100771-10 A 826-SPE 5.85g	NA	7	1		11/09/09 21:46
28	9M73470	L09100771-11 A 826-SPE 5.78g	NA	7	1		11/09/09 22:17
29	9M73471	RINSE	NA	7	1		11/09/09 22:48
30	9M73472	RINSE	NA	7	1		11/09/09 23:19

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: November 10, 2009

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110909
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30867

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316888; WG316889

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
4	X			
File ID: 9M73446				
	Tune failed. DNR.			
6	X		Surrogate standard failure	
File ID: 9M73448				
	Last ss was high for DOWWV. DNR.			
17	X	100000	Over Calibration Range	ACE
File ID: 9M73459				

Approved: November 10, 2009

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Microbac Laboratories Inc.

Data Checklist

Date: 16-OCT-2009
Analyst: MES
Analyst: NA
Method: 8260/624
Instrument: HPMS6
Curve Workgroup: NA
Runlog ID: 30760
Analytical Workgroups: WG314645

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	NA
TCL's	NA
Surrogates	NA
LCS (Laboratory Control Sample)	NA
Recoveries	NA
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	NA
TCL Hits	NA
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Library Searches	NA
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	NA
Manual Integrations	X
Case Narrative	NA
Results Reporting/Data Qualifiers	NA
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
26-OCT-2009

Secondary Reviewer:
26-OCT-2009

CHECKLIST1 - Modified 03/05/2008
Generated: OCT-26-2009 09:38:49

Microbac Laboratories Inc.

Data Checklist

Date: 30-OCT-2009
Analyst: MES
Analyst: NA
Method: 8260
Instrument: HPMS6
Curve Workgroup: NA
Runlog ID: 30968
Analytical Workgroups: WG315944

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer: 02-NOV-2009

Secondary Reviewer: 04-NOV-2009

CHECKLIST1 - Modified 03/05/2008

Generated: NOV-04-2009 11:12:27

Microbac Laboratories Inc.

Data Checklist

Date: 02-NOV-2009
Analyst: MES
Analyst: NA
Method: 8260/624
Instrument: HPMS6
Curve Workgroup: NA
Runlog ID: 31000
Analytical Workgroups: WG316129

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
03-NOV-2009

Secondary Reviewer:
04-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-05-2009 08:53:50

Microbac Laboratories Inc.

Data Checklist

Date: 02-NOV-2009
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 31003
Analytical Workgroups: WG316150

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
03-NOV-2009

Tiffany Bailey

Secondary Reviewer:
04-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-04-2009 13:15:46

Microbac Laboratories Inc.

Data Checklist

Date: 05-NOV-2009
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 31130
Analytical Workgroups: WG316562

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
10-NOV-2009
Tiffany Bailey

Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 12:46:28

Microbac Laboratories Inc.

Data Checklist

Date: 06-NOV-2009
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 31118
Analytical Workgroups: WG316701

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
09-NOV-2009
Tiffany Bailey

Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 11:01:41

Microbac Laboratories Inc.

Data Checklist

Date: 07-NOV-2009
Analyst: MES
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 31106
Analytical Workgroups: WG316826; WG316831

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	X
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
09-NOV-2009
Tiffany Bailey

Secondary Reviewer:
09-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-09-2009 16:03:40

Microbac Laboratories Inc.

Data Checklist

Date: 09-NOV-2009
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 31119
Analytical Workgroups: WG316888; WG316889

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
09-NOV-2009
Tiffany Bailey

Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 10:15:23

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG315944

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-GW-102809	05	10/28/09							14		10/30/09	2.3	14	
4014-GW-102809	09	10/28/09							14		10/30/09	2.1	14	
4014-GW-102809D	10	10/28/09							14		10/30/09	2.1	14	
4011-GW-102809	13	10/28/09							14		10/30/09	2.1	14	
TB01-102809	14	10/28/09							14		10/30/09	2.5	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538789
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG316129

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-GW-102809	05	10/28/09							14		11/02/09	5	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538789
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG316701

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-S001-102809	01	10/28/09							14		11/07/09	9.6	14	
4013-S001-102809-MS	02	10/28/09							14		11/06/09	9.3	14	
4013-S001-102809-MSD	03	10/28/09							14		11/06/09	9.4	14	
4013-S002-102809	04	10/28/09							14		11/07/09	9.6	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538789
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG316826

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4014-S001-102809	06	10/28/09							14		11/07/09	10.2	14	
4014-S001-102809D	07	10/28/09							14		11/07/09	10.2	14	
4011-S001-102809	11	10/28/09							14		11/07/09	10.1	14	
4011-S002-102809	12	10/28/09							14		11/07/09	10.2	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538789
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG316889

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4014-S002-102809	08	10/28/09							14		11/09/09	12.2	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538789
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS6
Workgroup (AAB#): WG315944

Method: 8260
CAL ID: HPMS6-16-OCT-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09100717-05	1.00	01	97.0	105	101	103
L09100717-09	1.00	01	99.0	106	101	105
L09100717-10	1.00	01	101	108	103	104
L09100717-13	1.00	01	98.7	108	99.4	104
L09100717-14	1.00	01	102	108	101	104
WG315944-01	1.00	01	99.9	108	105	101
WG315944-02	1.00	01	97.9	103	99.7	101
WG315944-03	1.00	01	101	111	104	106

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	76	-	114
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528269
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS9
Workgroup (AAB#): WG316701

Method: 8260
CAL ID: HPMS9-02-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L09100717-01	1.00	01	96.2	99.3	107	104
L09100717-02	1.00	01	91.0	96.8	108	104
L09100717-03	1.00	01	97.7	100	108	104
L09100717-04	1.00	01	93.8	99.2	110	106
WG316701-01	1.00	01	99.4	103	113	106
WG316701-02	1.00	01	97.0	100	108	103
WG316701-07	1.00	01	93.6	98.4	110	105
WG316701-08	1.00	01	94.5	101	113	106

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528269
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS9
Workgroup (AAB#): WG316889

Method: 8260
CAL ID: HPMS9-02-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L09100717-08	1.00	02	92.7	99.3	109	104
WG316889-01	1.00	01	91.5	98.1	110	104
WG316889-02	1.00	01	96.2	98.7	109	105
WG316889-03	1.00	01	96.9	100	110	105

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528269
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS9
Workgroup (AAB#): WG316826

Method: 8260
CAL ID: HPMS9-02-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L09100717-06	1.00	01	97.4	100	112	107
L09100717-07	1.00	01	98.0	102	108	105
L09100717-11	1.00	01	94.0	97.2	103	99.4
L09100717-12	1.00	01	92.5	98.8	110	107
WG316826-01	1.00	01	93.7	97.8	109	105
WG316826-02	1.00	01	94.5	97.8	104	101
WG316826-03	1.00	01	94.0	98.3	106	103

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528269
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS6
Workgroup (AAB#): WG316129

Method: 8260
CAL ID: HPMS6-16-OCT-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09100717-05	25.0	DL01	99.7	107	101	102
WG316129-01	1.00	01	100	108	105	104
WG316129-02	1.00	01	105	109	102	104
WG316129-06	1.00	01	100	105	98.1	101

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	76	-	114
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528269
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100717
Work Group: WG315944
Blank File ID: 6M86964
Blank Sample ID: WG315944-01
Prep Date: 10/30/09 09:33
Instrument ID: HPMS6
Analyzed Date: 10/30/09 09:33
Method: 8260B
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG315944-02	6M86965	10/30/09 10:05	01
LCS	WG315944-03	6M86966	10/30/09 10:37	01
TB01-102809	L09100717-14	6M86967	10/30/09 11:08	01
4014-GW-102809	L09100717-09	6M86977	10/30/09 16:29	01
4014-GW-102809D	L09100717-10	6M86978	10/30/09 17:01	01
4011-GW-102809	L09100717-13	6M86979	10/30/09 17:33	01
4013-GW-102809	L09100717-05	6M86981	10/30/09 18:37	01

Report Name: BLANK_SUMMARY
PDF File ID: 1538790
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100717	Work Group:	WG316129
Blank File ID:	6M87023	Blank Sample ID:	WG316129-01
Prep Date:	11/02/09 12:21	Instrument ID:	HPMS6
Analyzed Date:	11/02/09 12:21	Method:	8260B
Analyst:	MES		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316129-02	6M87024	11/02/09 12:53	01
4013-GW-102809	L09100717-05	6M87025	11/02/09 13:25	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1538790
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100717
Work Group: WG316701
Blank File ID: 9M73385
Blank Sample ID: WG316701-01
Prep Date: 11/06/09 14:36
Instrument ID: HPMS9
Analyzed Date: 11/06/09 14:36
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG316701-07	9M73386	11/06/09 15:08	01
QCMRL	WG316701-08	9M73389	11/06/09 16:42	01
LCS	WG316701-02	9M73390	11/06/09 17:13	01
4013-S001-102809-MS	L09100717-02	9M73391	11/06/09 17:44	01
4013-S001-102809-MSD	L09100717-03	9M73392	11/06/09 18:15	01
4013-S001-102809	L09100717-01	9M73404	11/07/09 00:37	01
4013-S002-102809	L09100717-04	9M73405	11/07/09 01:08	01

Report Name: BLANK_SUMMARY
PDF File ID: 1538790
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100717
Work Group: WG316826
Blank File ID: 9M73419
Blank Sample ID: WG316826-01
Prep Date: 11/07/09 13:35
Instrument ID: HPMS9
Analyzed Date: 11/07/09 13:35
Method: 8260B
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316826-02	9M73420	11/07/09 14:06	01
LCS2	WG316826-03	9M73421	11/07/09 14:38	01
4014-S001-102809	L09100717-06	9M73426	11/07/09 17:15	01
4014-S001-102809D	L09100717-07	9M73427	11/07/09 17:46	01
4011-S001-102809	L09100717-11	9M73429	11/07/09 18:49	01
4011-S002-102809	L09100717-12	9M73430	11/07/09 19:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1538790
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100717	Work Group:	WG316889
Blank File ID:	9M73451	Blank Sample ID:	WG316889-01
Prep Date:	11/09/09 12:29	Instrument ID:	HPMS9
Analyzed Date:	11/09/09 12:29	Method:	8260B
Analyst:	TMB		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316889-02	9M73452	11/09/09 13:01	01
LCS2	WG316889-03	9M73453	11/09/09 13:31	01
4014-S002-102809	L09100717-08	9M73464	11/09/09 19:11	02

Report Name: BLANK_SUMMARY
PDF File ID: 1538790
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 10/30/09 09:33 Sample ID: WG315944-01
Instrument ID: HPMS6 Run Date: 10/30/09 09:33 Prep Method: 5030C
File ID: 6M86964 Analyst: MES Method: 8260B
Workgroup (AAB#): WG315944 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS6-16-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	1.00	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	1.00	1	U
1,1,2-Trichloroethane	0.250	1.00	1.00	1	U
1,1-Dichloroethane	0.125	1.00	1.00	1	U
1,1-Dichloroethene	0.500	1.00	1.00	1	U
1,2,4-Trichlorobenzene	0.200	1.00	1.00	1	U
1,2-Dichlorobenzene	0.125	1.00	1.00	1	U
1,2-Dichloroethane	0.250	1.00	1.00	1	U
1,2-Dichloropropane	0.200	1.00	1.00	1	U
1,3-Dichlorobenzene	0.250	1.00	1.00	1	U
1,4-Dichlorobenzene	0.125	1.00	1.00	1	U
1,4-Dioxane	50.0	100	100	1	U
2-Butanone	2.50	10.0	10.0	1	U
2-Hexanone	2.50	5.00	5.00	1	U
4-Methyl-2-pentanone	2.50	5.00	5.00	1	U
Acetone	2.50	25.0	25.0	1	U
Acrylonitrile	2.50	10.0	10.0	1	U
Benzene	0.125	1.00	1.00	1	U
Bromodichloromethane	0.250	1.00	1.00	1	U
Bromoform	0.500	1.00	1.00	1	U
Bromomethane	0.500	1.00	1.00	1	U
Carbon disulfide	0.500	1.00	1.00	1	U
Carbon tetrachloride	0.250	1.00	1.00	1	U
Chlorobenzene	0.125	1.00	1.00	1	U
Chlorodibromomethane	0.250	1.00	1.00	1	U
Chloroethane	0.500	1.00	1.00	1	U
Chloroform	0.125	1.00	1.00	1	U
Chloromethane	0.250	1.00	1.00	1	U
cis-1,2-Dichloroethene	0.250	1.00	1.00	1	U
cis-1,3-Dichloropropene	0.250	1.00	1.00	1	U
Ethylbenzene	0.250	1.00	1.00	1	U
Methyl t-butyl ether (MTBE)	0.500	5.00	5.00	1	U
Methylene chloride	0.250	5.00	5.00	1	U
Styrene	0.125	1.00	1.00	1	U
Tetrachloroethene	0.250	1.00	1.00	1	U
Toluene	0.250	1.00	1.00	1	U
trans-1,2-Dichloroethene	0.250	1.00	1.00	1	U
trans-1,3-Dichloropropene	0.500	1.00	1.00	1	U
Trichloroethene	0.250	1.00	1.00	1	U
Vinyl acetate	2.50	10.0	10.0	1	U
Vinyl chloride	0.250	1.00	1.00	1	U
Xylenes	0.500	5.00	5.00	1	U

Report Name:BLANK
PDF ID: 1538791
12-NOV-2009 12:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 10/30/09 09:33 Sample ID: WG315944-01
Instrument ID: HPMS6 Run Date: 10/30/09 09:33 Prep Method: 5030C
File ID: 6M86964 Analyst: MES Method: 8260B
Workgroup (AAB#): WG315944 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS6-16-OCT-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	99.9	76 - 114	PASS
4-Bromofluorobenzene	105	86 - 115	PASS
Dibromofluoromethane	108	85 - 115	PASS
Toluene-d8	101	88 - 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1538791
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/02/09 12:21 Sample ID:WG316129-01
Instrument ID:HPMS6 Run Date:11/02/09 12:21 Prep Method:5030C
File ID:6M87023 Analyst:MES Method:8260B
Workgroup (AAB#):WG316129 Matrix:Water Units:ug/L
Contract #: Cal ID: HPMS6-16-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	1.00	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	1.00	1	U
1,1,2-Trichloroethane	0.250	1.00	1.00	1	U
1,1-Dichloroethane	0.125	1.00	1.00	1	U
1,1-Dichloroethene	0.500	1.00	1.00	1	U
1,2,4-Trichlorobenzene	0.200	1.00	1.00	1	U
1,2-Dichlorobenzene	0.125	1.00	1.00	1	U
1,2-Dichloroethane	0.250	1.00	1.00	1	U
1,2-Dichloropropane	0.200	1.00	1.00	1	U
1,3-Dichlorobenzene	0.250	1.00	1.00	1	U
1,4-Dichlorobenzene	0.125	1.00	1.00	1	U
1,4-Dioxane	50.0	100	100	1	U
2-Butanone	2.50	10.0	10.0	1	U
2-Hexanone	2.50	5.00	5.00	1	U
4-Methyl-2-pentanone	2.50	5.00	5.00	1	U
Acetone	2.50	25.0	25.0	1	U
Acrylonitrile	2.50	10.0	10.0	1	U
Benzene	0.125	1.00	1.00	1	U
Bromodichloromethane	0.250	1.00	1.00	1	U
Bromoform	0.500	1.00	1.00	1	U
Bromomethane	0.500	1.00	1.00	1	U
Carbon disulfide	0.500	1.00	1.00	1	U
Carbon tetrachloride	0.250	1.00	1.00	1	U
Chlorobenzene	0.125	1.00	1.00	1	U
Chlorodibromomethane	0.250	1.00	1.00	1	U
Chloroethane	0.500	1.00	1.00	1	U
Chloroform	0.125	1.00	1.00	1	U
Chloromethane	0.250	1.00	1.00	1	U
cis-1,2-Dichloroethene	0.250	1.00	1.00	1	U
cis-1,3-Dichloropropene	0.250	1.00	1.00	1	U
Ethylbenzene	0.250	1.00	1.00	1	U
Methyl t-butyl ether (MTBE)	0.500	5.00	5.00	1	U
Methylene chloride	0.250	5.00	5.00	1	U
Styrene	0.125	1.00	1.00	1	U
Tetrachloroethene	0.250	1.00	1.00	1	U
Toluene	0.250	1.00	1.00	1	U
trans-1,2-Dichloroethene	0.250	1.00	1.00	1	U
trans-1,3-Dichloropropene	0.500	1.00	1.00	1	U
Trichloroethene	0.250	1.00	1.00	1	U
Vinyl acetate	2.50	10.0	10.0	1	U
Vinyl chloride	0.250	1.00	1.00	1	U
Xylenes	0.500	5.00	5.00	1	U

Report Name:BLANK
PDF ID: 1538791
12-NOV-2009 12:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/02/09 12:21 Sample ID: WG316129-01
Instrument ID: HPMS6 Run Date: 11/02/09 12:21 Prep Method: 5030C
File ID: 6M87023 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316129 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS6-16-OCT-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	100	76 - 114	PASS
4-Bromofluorobenzene	105	86 - 115	PASS
Dibromofluoromethane	108	85 - 115	PASS
Toluene-d8	104	88 - 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1538791
12-NOV-2009 12:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/06/09 14:36 Sample ID: WG316701-01
Instrument ID: HPMS9 Run Date: 11/06/09 14:36 Prep Method: 5030C/5035A
File ID: 9M73385 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316701 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/06/09 14:36 Sample ID: WG316701-01
Instrument ID: HPMS9 Run Date: 11/06/09 14:36 Prep Method: 5030C/5035A
File ID: 9M73385 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316701 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	99.4	70 - 121	PASS
4-Bromofluorobenzene	113	59 - 113	PASS
Dibromofluoromethane	103	65 - 135	PASS
Toluene-d8	106	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/07/09 13:35 Sample ID: WG316826-01
Instrument ID: HPMS9 Run Date: 11/07/09 13:35 Prep Method: 5030C
File ID: 9M73419 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316826 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/07/09 13:35 Sample ID: WG316826-01
Instrument ID: HPMS9 Run Date: 11/07/09 13:35 Prep Method: 5030C
File ID: 9M73419 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316826 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	93.7	70 - 121	PASS
4-Bromofluorobenzene	109	59 - 113	PASS
Dibromofluoromethane	97.8	65 - 135	PASS
Toluene-d8	105	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/09/09 12:29 Sample ID:WG316889-01
Instrument ID:HPMS9 Run Date:11/09/09 12:29 Prep Method:5030C/5035A
File ID:9M73451 Analyst:TMB Method:8260B
Workgroup (AAB#):WG316889 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/09/09 12:29 Sample ID: WG316889-01
Instrument ID: HPMS9 Run Date: 11/09/09 12:29 Prep Method: 5030C/5035A
File ID: 9M73451 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316889 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	91.5	70 - 121	PASS
4-Bromofluorobenzene	110	59 - 113	PASS
Dibromofluoromethane	98.1	65 - 135	PASS
Toluene-d8	104	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 10/30/2009 Sample ID: WG315944-02
Instrument ID: HPMS6 Run Time: 10:05 Prep Method: 5030C
File ID: 6M86965 Analyst: MES Method: 8260B
Workgroup (AAB#): WG315944 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35935 Cal ID: HPMS6-16-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	21.0	105	67 - 132	
1,1,2,2-Tetrachloroethane	20.0	18.3	91.4	63 - 128	
1,1,2-Trichloroethane	20.0	19.4	97.0	70 - 125	
1,1-Dichloroethane	20.0	20.1	101	67 - 133	
1,1-Dichloroethene	20.0	20.0	100	68 - 130	
1,2,4-Trichlorobenzene	20.0	18.1	90.7	65 - 134	
1,2-Dichlorobenzene	20.0	19.4	97.0	71 - 122	
1,2-Dichloroethane	20.0	20.5	103	69 - 132	
1,2-Dichloropropane	20.0	20.8	104	75 - 125	
1,3-Dichlorobenzene	20.0	19.1	95.5	75 - 124	
1,4-Dichlorobenzene	20.0	19.0	94.8	74 - 123	
1,4-Dioxane	200	145	72.4	70 - 130	
2-Butanone	20.0	20.6	103	49 - 136	
2-Hexanone	20.0	17.9	89.4	65 - 135	
4-Methyl-2-pentanone	20.0	18.9	94.3	58 - 134	
Acetone	20.0	20.4	102	30 - 135	
Acrylonitrile	20.0	19.8	99.0	60 - 135	
Benzene	20.0	20.5	102	81 - 122	
Bromodichloromethane	20.0	21.4	107	76 - 121	
Bromoform	20.0	19.1	95.5	69 - 128	
Bromomethane	20.0	20.2	101	53 - 141	
Carbon disulfide	20.0	16.8	83.9	70 - 130	
Carbon tetrachloride	20.0	19.5	97.3	66 - 138	
Chlorobenzene	20.0	19.0	95.2	81 - 122	
Chlorodibromomethane	20.0	19.4	97.0	66 - 133	
Chloroethane	20.0	21.6	108	58 - 133	
Chloroform	20.0	20.7	103	69 - 128	
Chloromethane	20.0	20.8	104	56 - 131	
cis-1,2-Dichloroethene	20.0	20.1	100	72 - 126	
cis-1,3-Dichloropropene	20.0	20.6	103	69 - 131	
Ethylbenzene	20.0	19.1	95.7	73 - 127	
Methyl t-butyl ether (MTBE)	20.0	19.5	97.5	65 - 123	
Methylene chloride	20.0	19.0	95.2	63 - 137	
Styrene	20.0	19.3	96.6	65 - 134	
Tetrachloroethene	20.0	20.0	100	66 - 128	
Toluene	20.0	19.1	95.6	77 - 122	
trans-1,2-Dichloroethene	20.0	21.0	105	63 - 137	
trans-1,3-Dichloropropene	20.0	16.7	83.3	59 - 135	
Trichloroethene	20.0	20.2	101	70 - 127	
Vinyl acetate	20.0	24.4	122	65 - 130	
Vinyl chloride	20.0	22.9	114	50 - 134	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 10/30/2009 Sample ID: WG315944-02
Instrument ID: HPMS6 Run Time: 10:05 Prep Method: 5030C
File ID: 6M86965 Analyst: MES Method: 8260B
Workgroup (AAB#): WG315944 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35935 Cal ID: HPMS6-16-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	57.0	95.0	75 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	97.9	76 - 114	PASS
4-Bromofluorobenzene	99.7	86 - 115	PASS
Dibromofluoromethane	103	85 - 115	PASS
Toluene-d8	101	88 - 110	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/02/2009 Sample ID: WG316129-02
Instrument ID: HPMS6 Run Time: 12:53 Prep Method: 5030C
File ID: 6M87024 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316129 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35935 Cal ID: HPMS6-16-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	22.0	110	67 - 132	
1,1,2,2-Tetrachloroethane	20.0	19.2	96.0	63 - 128	
1,1,2-Trichloroethane	20.0	20.6	103	70 - 125	
1,1-Dichloroethane	20.0	21.5	108	67 - 133	
1,1-Dichloroethene	20.0	21.1	106	68 - 130	
1,2,4-Trichlorobenzene	20.0	18.5	92.4	65 - 134	
1,2-Dichlorobenzene	20.0	19.5	97.3	71 - 122	
1,2-Dichloroethane	20.0	22.2	111	69 - 132	
1,2-Dichloropropane	20.0	21.6	108	75 - 125	
1,3-Dichlorobenzene	20.0	19.4	97.0	75 - 124	
1,4-Dichlorobenzene	20.0	18.9	94.6	74 - 123	
1,4-Dioxane	200	184	92.1	70 - 130	
2-Butanone	20.0	23.3	116	49 - 136	
2-Hexanone	20.0	19.7	98.7	65 - 135	
4-Methyl-2-pentanone	20.0	20.8	104	58 - 134	
Acetone	20.0	24.2	121	30 - 135	
Acrylonitrile	20.0	21.9	110	60 - 135	
Benzene	20.0	21.6	108	81 - 122	
Bromodichloromethane	20.0	22.6	113	76 - 121	
Bromoform	20.0	20.4	102	69 - 128	
Bromomethane	20.0	18.0	89.9	53 - 141	
Carbon disulfide	20.0	18.4	92.0	70 - 130	
Carbon tetrachloride	20.0	20.8	104	66 - 138	
Chlorobenzene	20.0	19.4	96.9	81 - 122	
Chlorodibromomethane	20.0	20.7	103	66 - 133	
Chloroethane	20.0	22.4	112	58 - 133	
Chloroform	20.0	22.0	110	69 - 128	
Chloromethane	20.0	21.2	106	56 - 131	
cis-1,2-Dichloroethene	20.0	21.4	107	72 - 126	
cis-1,3-Dichloropropene	20.0	21.8	109	69 - 131	
Ethylbenzene	20.0	19.5	97.3	73 - 127	
Methyl t-butyl ether (MTBE)	20.0	21.5	108	65 - 123	
Methylene chloride	20.0	20.0	99.9	63 - 137	
Styrene	20.0	19.7	98.5	65 - 134	
Tetrachloroethene	20.0	20.5	102	66 - 128	
Toluene	20.0	19.5	97.4	77 - 122	
trans-1,2-Dichloroethene	20.0	21.9	110	63 - 137	
trans-1,3-Dichloropropene	20.0	17.4	87.1	59 - 135	
Trichloroethene	20.0	21.2	106	70 - 127	
Vinyl acetate	20.0	25.9	129	65 - 130	
Vinyl chloride	20.0	24.2	121	50 - 134	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/02/2009 Sample ID: WG316129-02
Instrument ID: HPMS6 Run Time: 12:53 Prep Method: 5030C
File ID: 6M87024 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316129 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35935 Cal ID: HPMS6-16-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	58.2	97.0	75 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	105	76 - 114	PASS
4-Bromofluorobenzene	102	86 - 115	PASS
Dibromofluoromethane	109	85 - 115	PASS
Toluene-d8	104	88 - 110	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1528265
Report generated: 11/09/2009 15:41

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316701-02
Instrument ID: HPMS9 Run Time: 17:13 Prep Method: 5030C/5035A
File ID: 9M73390 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316701 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD36245 Cal ID: HPMS9-02-NOV-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	18.7	93.4	68 - 130	
1,1,2,2-Tetrachloroethane	20.0	19.5	97.5	59 - 140	
1,1,2-Trichloroethane	20.0	18.9	94.5	62 - 127	
1,1-Dichloroethane	20.0	18.8	93.9	73 - 125	
1,1-Dichloroethene	20.0	18.5	92.7	65 - 136	
1,2,4-Trichlorobenzene	20.0	16.2	80.8	65 - 131	
1,2-Dichlorobenzene	20.0	18.8	94.1	74 - 120	
1,2-Dichloroethane	20.0	18.5	92.3	72 - 137	
1,2-Dichloropropane	20.0	18.8	93.9	71 - 120	
1,3-Dichlorobenzene	20.0	18.1	90.3	72 - 124	
1,4-Dichlorobenzene	20.0	17.7	88.7	72 - 125	
1,4-Dioxane	200	192	95.8	50 - 150	
2-Butanone	20.0	20.3	101	40 - 135	
2-Hexanone	20.0	19.8	98.8	50 - 140	
4-Methyl-2-pentanone	20.0	19.3	96.7	50 - 140	
Acetone	20.0	20.1	101	40 - 141	
Acrylonitrile	20.0	20.1	101	60 - 140	
Benzene	20.0	18.8	94.1	73 - 126	
Bromodichloromethane	20.0	19.3	96.3	72 - 128	
Bromoform	20.0	17.6	88.1	60 - 137	
Bromomethane	20.0	21.5	107	45 - 141	
Carbon disulfide	20.0	16.8	84.0	65 - 135	
Carbon tetrachloride	20.0	18.4	91.8	67 - 133	
Chlorobenzene	20.0	18.3	91.7	75 - 123	
Dibromochloromethane	20.0	18.8	94.0	66 - 130	
Chloroethane	20.0	21.3	106	41 - 141	
Chloroform	20.0	18.7	93.4	72 - 124	
Chloromethane	20.0	21.3	107	51 - 129	
cis-1,2-Dichloroethene	20.0	19.0	94.8	67 - 125	
cis-1,3-Dichloropropene	20.0	18.2	91.2	72 - 126	
Ethylbenzene	20.0	18.5	92.6	74 - 127	
Methylene chloride	20.0	18.4	92.2	63 - 137	
Methyltert-butyl ether	20.0	19.7	98.3	50 - 135	
Styrene	20.0	18.1	90.4	74 - 128	
Tetrachloroethene	20.0	17.8	88.8	67 - 139	
Toluene	20.0	18.8	94.2	71 - 127	
trans-1,2-Dichloroethene	20.0	18.8	93.8	66 - 134	
trans-1,3-Dichloropropene	20.0	16.0	80.0	65 - 127	
Trichloroethene	20.0	18.4	91.9	77 - 124	
Vinyl acetate	20.0	19.6	97.9	55 - 130	
Vinyl chloride	20.0	19.3	96.6	58 - 126	

LCS - Modified 03/06/2008
PDF File ID: 1528265
Report generated: 11/09/2009 15:41

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316701-02
Instrument ID: HPMS9 Run Time: 17:13 Prep Method: 5030C/5035A
File ID: 9M73390 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316701 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD36245 Cal ID: HPMS9-02-NOV-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	56.1	93.5	75 - 130	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	97.0	70 - 121	PASS
4-Bromofluorobenzene	108	59 - 113	PASS
Dibromofluoromethane	100	65 - 135	PASS
Toluene-d8	103	86 - 138	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1528265
Report generated: 11/09/2009 15:41

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Analyst: MES Prep Method: 5035A
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG316826 Units: ug/kg
QC Key: DOWWV2006 Lot #:

Sample ID: WG316826-02 LCS File ID: 9M73420 Run Date: 11/07/2009 14:06
Sample ID: WG316826-03 LCS2 File ID: 9M73421 Run Date: 11/07/2009 14:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	19.0	94.9	20.0	19.0	95.2	0.330	68 - 130	30	
1,1,2,2-Tetrachloroethane	20.0	21.4	107	20.0	21.0	105	2.01	59 - 140	30	
1,1,2-Trichloroethane	20.0	20.4	102	20.0	20.1	101	1.33	62 - 127	30	
1,1-Dichloroethane	20.0	19.2	95.8	20.0	19.1	95.6	0.153	73 - 125	30	
1,1-Dichloroethene	20.0	19.4	97.0	20.0	19.3	96.7	0.231	65 - 136	30	
1,2,4-Trichlorobenzene	20.0	20.5	102	20.0	21.0	105	2.29	65 - 131	30	
1,2-Dichlorobenzene	20.0	21.8	109	20.0	21.5	108	1.24	74 - 120	30	
1,2-Dichloroethane	20.0	19.0	94.9	20.0	18.3	91.7	3.47	72 - 137	30	
1,2-Dichloropropane	20.0	19.4	96.8	20.0	18.9	94.3	2.57	71 - 120	30	
1,3-Dichlorobenzene	20.0	21.1	106	20.0	21.1	106	0.0091	72 - 124	30	
1,4-Dichlorobenzene	20.0	20.8	104	20.0	20.5	103	1.53	72 - 125	30	
1,4-Dioxane	200	192	96.1	200	164	81.9	15.9	50 - 150	30	
2-Butanone	20.0	19.0	94.8	20.0	20.0	100	5.41	40 - 135	30	
2-Hexanone	20.0	19.5	97.5	20.0	21.7	108	10.5	50 - 140	30	
4-Methyl-2-pentanone	20.0	19.0	95.1	20.0	20.2	101	5.87	50 - 140	30	
Acetone	20.0	19.2	96.2	20.0	20.3	102	5.54	40 - 141	30	
Acrylonitrile	20.0	19.2	96.0	20.0	19.9	99.5	3.61	60 - 140	30	
Benzene	20.0	19.1	95.3	20.0	19.0	95.2	0.0862	73 - 126	30	
Bromodichloromethane	20.0	20.3	101	20.0	19.8	99.0	2.28	72 - 128	30	
Bromoform	20.0	19.7	98.4	20.0	19.0	94.8	3.78	60 - 137	30	
Bromomethane	20.0	22.0	110	20.0	21.5	107	2.60	45 - 141	30	
Carbon disulfide	20.0	17.6	87.8	20.0	17.7	88.7	0.909	65 - 135	30	
Carbon tetrachloride	20.0	19.5	97.4	20.0	19.1	95.5	1.93	67 - 133	30	
Chlorobenzene	20.0	20.1	100	20.0	20.1	100	0.0559	75 - 123	30	
Dibromochloromethane	20.0	20.3	102	20.0	19.9	99.5	2.09	66 - 130	30	
Chloroethane	20.0	22.7	113	20.0	22.1	110	2.55	41 - 141	30	
Chloroform	20.0	19.5	97.5	20.0	19.5	97.3	0.236	72 - 124	30	
Chloromethane	20.0	21.4	107	20.0	21.8	109	1.87	51 - 129	30	
cis-1,2-Dichloroethene	20.0	19.5	97.5	20.0	19.3	96.4	1.11	67 - 125	30	
cis-1,3-Dichloropropene	20.0	19.2	96.1	20.0	18.7	93.6	2.64	72 - 126	30	
Ethylbenzene	20.0	20.4	102	20.0	19.8	98.8	3.17	74 - 127	30	
Methylene chloride	20.0	18.6	93.1	20.0	18.5	92.5	0.613	63 - 137	30	
Methyltert-butyl ether	20.0	19.2	95.8	20.0	19.7	98.4	2.74	50 - 135	30	
Styrene	20.0	20.5	102	20.0	19.9	99.4	2.91	74 - 128	30	
Tetrachloroethene	20.0	20.4	102	20.0	19.9	99.5	2.73	67 - 139	30	
Toluene	20.0	20.0	100	20.0	19.6	98.1	2.12	71 - 127	30	
trans-1,2-Dichloroethene	20.0	19.2	95.8	20.0	19.5	97.5	1.73	66 - 134	30	
trans-1,3-Dichloropropene	20.0	17.2	86.0	20.0	16.9	84.3	2.04	65 - 127	30	
Trichloroethene	20.0	19.3	96.7	20.0	18.9	94.6	2.25	77 - 124	30	
Vinyl acetate	20.0	18.9	94.6	20.0	19.3	96.3	1.87	55 - 130	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1534894
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Analyst: MES Prep Method: 5035A
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG316826 Units: ug/kg
QC Key: DOWWV2006 Lot #:

Sample ID: WG316826-02 LCS File ID: 9M73420 Run Date: 11/07/2009 14:06
Sample ID: WG316826-03 LCS2 File ID: 9M73421 Run Date: 11/07/2009 14:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	20.9	105	20.0	20.6	103	1.71	58 - 126	30	
Xylenes	60.0	61.5	103	60.0	61.2	102	0.495	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	94.5	94.0	70 - 121	PASS
Dibromofluoromethane	97.8	98.3	65 - 135	PASS
4-Bromofluorobenzene	104	106	59 - 113	PASS
Toluene-d8	101	103	86 - 138	PASS

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1534894
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Analyst: TMB Prep Method: 5035A
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG316889 Units: ug/kg
QC Key: DOWWV2006 Lot #:

Sample ID: WG316889-02 LCS File ID: 9M73452 Run Date: 11/09/2009 13:01
Sample ID: WG316889-03 LCS2 File ID: 9M73453 Run Date: 11/09/2009 13:31

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	17.4	87.1	20.0	18.6	92.9	6.51	68 - 130	30	
1,1,2,2-Tetrachloroethane	20.0	17.1	85.3	20.0	19.1	95.7	11.5	59 - 140	30	
1,1,2-Trichloroethane	20.0	17.2	85.8	20.0	19.4	96.9	12.2	62 - 127	30	
1,1-Dichloroethane	20.0	17.2	85.9	20.0	19.0	94.8	9.87	73 - 125	30	
1,1-Dichloroethene	20.0	17.0	85.2	20.0	18.4	91.9	7.53	65 - 136	30	
1,2,4-Trichlorobenzene	20.0	16.8	83.8	20.0	19.0	95.2	12.7	65 - 131	30	
1,2-Dichlorobenzene	20.0	17.9	89.7	20.0	19.6	97.9	8.74	74 - 120	30	
1,2-Dichloroethane	20.0	16.9	84.4	20.0	18.4	91.9	8.59	72 - 137	30	
1,2-Dichloropropane	20.0	16.9	84.7	20.0	18.6	93.1	9.38	71 - 120	30	
1,3-Dichlorobenzene	20.0	17.7	88.4	20.0	19.1	95.7	7.98	72 - 124	30	
1,4-Dichlorobenzene	20.0	17.4	86.9	20.0	18.9	94.3	8.13	72 - 125	30	
1,4-Dioxane	200	165	82.4	200	168	83.8	1.65	50 - 150	30	
2-Butanone	20.0	18.3	91.4	20.0	18.9	94.3	3.13	40 - 135	30	
2-Hexanone	20.0	18.0	90.1	20.0	20.5	102	12.6	50 - 140	30	
4-Methyl-2-pentanone	20.0	17.9	89.6	20.0	20.0	100	11.1	50 - 140	30	
Acetone	20.0	15.5	77.4	20.0	17.8	88.9	13.8	40 - 141	30	
Acrylonitrile	20.0	17.9	89.4	20.0	19.7	98.4	9.57	60 - 140	30	
Benzene	20.0	17.0	85.0	20.0	18.8	93.9	9.92	73 - 126	30	
Bromodichloromethane	20.0	17.1	85.7	20.0	19.0	95.2	10.5	72 - 128	30	
Bromoform	20.0	16.1	80.3	20.0	17.6	87.8	8.91	60 - 137	30	
Bromomethane	20.0	19.0	95.0	20.0	20.4	102	7.32	45 - 141	30	
Carbon disulfide	20.0	16.1	80.4	20.0	17.3	86.5	7.29	65 - 135	30	
Carbon tetrachloride	20.0	17.4	87.2	20.0	19.0	94.8	8.38	67 - 133	30	
Chlorobenzene	20.0	17.1	85.4	20.0	19.0	94.8	10.4	75 - 123	30	
Dibromochloromethane	20.0	16.6	83.1	20.0	18.7	93.7	12.1	66 - 130	30	
Chloroethane	20.0	19.9	99.3	20.0	20.8	104	4.36	41 - 141	30	
Chloroform	20.0	17.1	85.7	20.0	18.9	94.4	9.75	72 - 124	30	
Chloromethane	20.0	18.7	93.5	20.0	20.2	101	7.52	51 - 129	30	
cis-1,2-Dichloroethene	20.0	17.2	85.8	20.0	19.0	95.0	10.2	67 - 125	30	
cis-1,3-Dichloropropene	20.0	16.7	83.4	20.0	18.4	92.1	9.94	72 - 126	30	
Ethylbenzene	20.0	17.6	88.2	20.0	18.7	93.6	6.02	74 - 127	30	
Methylene chloride	20.0	16.8	83.9	20.0	18.6	92.9	10.2	63 - 137	30	
Methyltert-butyl ether	20.0	18.1	90.7	20.0	20.0	99.9	9.63	50 - 135	30	
Styrene	20.0	17.0	85.2	20.0	18.6	93.1	8.96	74 - 128	30	
Tetrachloroethene	20.0	18.2	91.0	20.0	19.1	95.6	4.85	67 - 139	30	
Toluene	20.0	17.8	89.0	20.0	19.1	95.3	6.89	71 - 127	30	
trans-1,2-Dichloroethene	20.0	17.5	87.4	20.0	19.1	95.6	8.95	66 - 134	30	
trans-1,3-Dichloropropene	20.0	14.8	73.9	20.0	16.5	82.3	10.7	65 - 127	30	
Trichloroethene	20.0	17.2	86.0	20.0	18.8	94.1	8.95	77 - 124	30	
Vinyl acetate	20.0	17.2	86.0	20.0	18.9	94.7	9.70	55 - 130	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1534894
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Analyst: TMB Prep Method: 5035A
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG316889 Units: ug/kg
QC Key: DOWWV2006 Lot #:

Sample ID: WG316889-02 LCS File ID: 9M73452 Run Date: 11/09/2009 13:01
Sample ID: WG316889-03 LCS2 File ID: 9M73453 Run Date: 11/09/2009 13:31

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	17.3	86.6	20.0	17.9	89.7	3.53	58 - 126	30	
Xylenes	60.0	52.8	88.0	60.0	58.1	96.8	9.54	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	96.2	96.9	70 - 121	PASS
Dibromofluoromethane	98.7	100	65 - 135	PASS
4-Bromofluorobenzene	109	110	59 - 113	PASS
Toluene-d8	105	105	86 - 138	PASS

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1534894
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L09100717 Cal ID: HPMS9- 02-NOV-09 Worknum: WG316701

Instrument ID: HPMS9 Contract #: Prep Method: 5035A

Parent ID: L09100717-01 File ID: 9M73404 Dil: 1 Method: 8260B

Sample ID: L09100717-02 MS File ID: 9M73391 Dil: 1 Matrix: Soil

Sample ID: L09100717-03 MSD File ID: 9M73392 Dil: 1 Units: ug/kg

Percent Solid: 82.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
1,1,1-Trichloroethane	U	22.5	23.4	104	22.0	20.9	95.4	11.0	68 - 130	30	
1,1,2,2-Tetrachloroethane	U	22.5	22.1	98.3	22.0	19.7	89.6	11.6	59 - 140	30	
1,1,2-Trichloroethane	U	22.5	22.5	100	22.0	21.0	95.7	6.94	62 - 127	30	
1,1-Dichloroethane	U	22.5	22.8	102	22.0	21.0	95.5	8.47	73 - 125	30	
1,1-Dichloroethene	U	22.5	23.5	105	22.0	21.9	99.7	7.24	65 - 136	30	
1,2,4-Trichlorobenzene	U	22.5	19.8	87.9	22.0	16.8	76.6	16.2	65 - 131	30	
1,2-Dichlorobenzene	U	22.5	22.7	101	22.0	18.8	85.4	18.9	74 - 120	30	
1,2-Dichloroethane	U	22.5	21.1	93.7	22.0	20.3	92.6	3.52	72 - 137	30	
1,2-Dichloropropane	U	22.5	22.1	98.4	22.0	20.3	92.6	8.41	71 - 120	30	
1,3-Dichlorobenzene	U	22.5	23.5	104	22.0	18.1	82.5	25.8	72 - 124	30	
1,4-Dichlorobenzene	U	22.5	22.7	101	22.0	17.6	80.1	25.4	72 - 125	30	
1,4-Dioxane	U	225	235	104	220	234	106	0.479	50 - 150	30	
2-Butanone	U	22.5	23.2	103	22.0	22.1	101	4.99	40 - 135	30	
2-Hexanone	U	22.5	23.5	104	22.0	22.6	103	3.68	50 - 140	30	
4-Methyl-2-pentanone	U	22.5	22.2	99	22.0	22.1	101	0.527	50 - 140	30	
Acetone	U	22.5	29.9	133	22.0	23.5	107	24.0	40 - 141	30	
Acrylonitrile	U	22.5	22.7	101	22.0	21.7	98.9	4.47	60 - 140	30	
Benzene	U	22.5	22.8	101	22.0	20.6	93.8	10.2	73 - 126	30	
Bromodichloromethane	U	22.5	22.9	102	22.0	21.2	96.7	7.54	72 - 128	30	
Bromoform	U	22.5	19.3	86	22.0	18.6	84.9	3.70	60 - 137	30	
Bromomethane	U	22.5	25.8	115	22.0	23.3	106	10.1	45 - 141	30	
Carbon disulfide	U	22.5	21.9	97.3	22.0	19.7	89.7	10.5	65 - 135	30	
Carbon tetrachloride	U	22.5	23.7	105	22.0	21.2	96.7	10.9	67 - 133	30	
Chlorobenzene	U	22.5	22.4	99.7	22.0	19.5	88.8	13.9	75 - 123	30	
Dibromochloromethane	U	22.5	21.2	94.3	22.0	20.3	92.5	4.36	66 - 130	30	
Chloroethane	U	22.5	26.5	118	22.0	24.2	110	8.86	41 - 141	30	
Chloroform	U	22.5	22.9	102	22.0	20.5	93.3	11.0	72 - 124	30	
Chloromethane	U	22.5	25.5	113	22.0	22.8	104	11.2	51 - 129	30	
cis-1,2-Dichloroethene	U	22.5	22.8	101	22.0	21.3	97.1	6.77	67 - 125	30	
cis-1,3-Dichloropropene	U	22.5	21.7	96.4	22.0	19.8	90.1	9.18	72 - 126	30	
Ethylbenzene	U	22.5	23.3	104	22.0	20.4	92.8	13.4	74 - 127	30	
Methylene chloride	U	22.5	22.1	98.2	22.0	20.2	91.9	9.00	63 - 137	30	
Methyltert-butyl ether	U	22.5	22.9	102	22.0	22.6	103	1.40	50 - 135	30	
Styrene	U	22.5	21.8	96.9	22.0	18.8	85.7	14.6	74 - 128	30	
Tetrachloroethene	U	22.5	23.7	105	22.0	20.5	93.3	14.5	67 - 139	30	
Toluene	U	22.5	23.4	104	22.0	22.1	100	6.05	71 - 127	30	
trans-1,2-Dichloroethene	U	22.5	23.1	103	22.0	21.1	96	8.93	66 - 134	30	
trans-1,3-Dichloropropene	U	22.5	18.7	83.3	22.0	17.4	79.2	7.39	65 - 127	30	
Trichloroethene	U	22.5	22.7	101	22.0	20.6	93.8	9.65	77 - 124	30	
Vinyl acetate	U	22.5	20.8	92.6	22.0	21.3	97.1	2.37	55 - 130	30	
Vinyl chloride	U	22.5	27.0	120	22.0	23.4	106	14.5	58 - 126	30	

MS_MSD - Modified 09/13/2009

PDF File ID: 1535113

Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L09100717 Cal ID: HPMS9 02-NOV-09 Worknum: WG316701

Instrument ID: HPMS9 Contract #: Prep Method: 5035A

Parent ID: L09100717-01 File ID: 9M73404 Dil: 1 Method: 8260B

Sample ID: L09100717-02 MS File ID: 9M73391 Dil: 1 Matrix: Soil

Sample ID: L09100717-03 MSD File ID: 9M73392 Dil: 1 Units: ug/kg

Percent Solid: 82.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Xylenes	U	67.4	70.4	104	65.9	60.0	91.1	16.0	75 - 130	30	

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

MS_MSD - Modified 09/13/2009

PDF File ID: 1535113

Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS6
Analyst: MES
Workgroup: WG314645

Tune ID: WG314645-01
Run Date: 10/16/2009
Run Time: 15:41
File ID: 6M86662
Cal ID: HPMS6 -

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	29.0	4566	PASS
75.0	95.0	30.0	60.0	48.2	7590	PASS
95.0	95.0	100	100	100	15757	PASS
96.0	95.0	5.00	9.00	6.29	991	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	97.3	15329	PASS
175	174	5.00	9.00	7.11	1090	PASS
176	174	95.0	101	95.7	14671	PASS
177	176	5.00	9.00	6.84	1003	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG314645-02	STD	01	10/16/2009 16:06	
WG314645-03	STD	01	10/16/2009 16:38	
WG314645-04	STD	01	10/16/2009 17:10	
WG314645-05	STD	01	10/16/2009 17:43	
WG314645-06	STD	01	10/16/2009 18:15	
WG314645-07	STD	01	10/16/2009 18:47	
WG314645-08	STD-CCV	01	10/16/2009 19:20	
WG314645-09	STD	01	10/16/2009 19:52	
WG314645-10	STD	01	10/16/2009 20:24	
WG314645-11	STD	01	10/16/2009 20:56	
WG314645-12	SSCV	01	10/16/2009 22:00	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS6
Analyst: MES
Workgroup: WG315943

Tune ID: WG315943-01
Run Date: 10/30/2009
Run Time: 08:01
File ID: 6M86961
Cal ID: HPMS6-16-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	31.0	7441	PASS
75.0	95.0	30.0	60.0	51.5	12346	PASS
95.0	95.0	100	100	100	23976	PASS
96.0	95.0	5.00	9.00	6.88	1649	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	87.4	20946	PASS
175	174	5.00	9.00	7.39	1547	PASS
176	174	95.0	101	99.6	20862	PASS
177	176	5.00	9.00	5.42	1131	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG315943-02	CCV	01	10/30/2009 08:25	
WG315944-01	BLANK	01	10/30/2009 09:33	
WG315944-01	BLANK	01	10/30/2009 09:33	
WG315944-02	LCS	01	10/30/2009 10:05	
WG315944-03	LCS	01	10/30/2009 10:37	
L09100717-14	TB01-102809	01	10/30/2009 11:08	
WG315944-04	REF	01	10/30/2009 14:21	
WG315944-05	MS	01	10/30/2009 14:54	
WG315944-06	MSD	01	10/30/2009 15:25	
L09100717-09	4014-GW-102809	01	10/30/2009 16:29	
L09100717-10	4014-GW-102809D	01	10/30/2009 17:01	
L09100717-13	4011-GW-102809	01	10/30/2009 17:33	
L09100717-05	4013-GW-102809	01	10/30/2009 18:37	

* Sample past 12 hour tune limit

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Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS6
Analyst: MES
Workgroup: WG316128

Tune ID: WG316128-01
Run Date: 11/02/2009
Run Time: 10:17
File ID: 6M87019
Cal ID: HPMS6-16-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	29.0	9660	PASS
75.0	95.0	30.0	60.0	50.2	16749	PASS
95.0	95.0	100	100	100	33362	PASS
96.0	95.0	5.00	9.00	6.46	2155	PASS
173	174	0	2.00	0.398	123	PASS
174	95.0	50.0	100	92.6	30909	PASS
175	174	5.00	9.00	7.65	2364	PASS
176	174	95.0	101	101	31133	PASS
177	176	5.00	9.00	6.56	2042	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316128-02	CCV	01	11/02/2009 11:18	
WG316129-01	BLANK	01	11/02/2009 12:21	
WG316129-01	BLANK	01	11/02/2009 12:21	
WG316129-02	LCS	01	11/02/2009 12:53	
L09100717-05	4013-GW-102809	DL01	11/02/2009 13:25	
WG316129-03	REF	01	11/02/2009 17:09	
WG316129-04	MS	01	11/02/2009 17:41	
WG316129-05	MSD	01	11/02/2009 18:13	
WG316129-06	BLANK2	01	11/02/2009 23:04	*

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS9
Analyst: TMB
Workgroup: WG316150

Tune ID: WG316150-01
Run Date: 11/02/2009
Run Time: 16:16
File ID: 9M73256
Cal ID: HPMS9-02-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	23.9	5349	PASS
75.0	95.0	30.0	60.0	44.8	10026	PASS
95.0	95.0	100	100	100	22389	PASS
96.0	95.0	5.00	9.00	6.63	1485	PASS
173	174	0	2.00	0.586	122	PASS
174	95.0	50.0	100	93.0	20827	PASS
175	174	5.00	9.00	7.66	1596	PASS
176	174	95.0	101	97.0	20204	PASS
177	176	5.00	9.00	6.53	1320	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316150-03	STD-S	01	11/02/2009 16:41	
WG316150-04	STD-S	01	11/02/2009 17:13	
WG316150-05	STD-S	01	11/02/2009 17:43	
WG316150-06	STD-S	01	11/02/2009 18:14	
WG316150-07	STD-S	01	11/02/2009 18:46	
WG316150-08	STD-CCV-S	01	11/02/2009 19:17	
WG316150-09	STD-S	01	11/02/2009 19:49	
WG316150-10	STD-S	01	11/02/2009 20:20	
WG316150-11	STD-S	01	11/02/2009 20:52	
WG316150-12	SSCV-S	01	11/02/2009 22:26	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS9
Analyst: TMB
Workgroup: WG316699

Tune ID: WG316699-01
Run Date: 11/06/2009
Run Time: 13:38
File ID: 9M73383
Cal ID: HPMS9-02-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	24.9	8039	PASS
75.0	95.0	30.0	60.0	46.5	15017	PASS
95.0	95.0	100	100	100	32274	PASS
96.0	95.0	5.00	9.00	5.87	1894	PASS
173	174	0	2.00	0.354	112	PASS
174	95.0	50.0	100	98.1	31666	PASS
175	174	5.00	9.00	7.08	2241	PASS
176	174	95.0	101	95.7	30301	PASS
177	176	5.00	9.00	6.50	1969	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316699-02	CCV-S	01	11/06/2009 14:04	
WG316701-01	BLANK	01	11/06/2009 14:36	
WG316701-01	BLANK	01	11/06/2009 14:36	
WG316701-07	QCMRL	01	11/06/2009 15:08	
WG316701-08	QCMRL	01	11/06/2009 16:42	
WG316701-02	LCS	01	11/06/2009 17:13	
L09100717-02	4013-S001-102809-MS	01	11/06/2009 17:44	
WG316701-05	MS	01	11/06/2009 17:44	
L09100717-03	4013-S001-102809-MSD	01	11/06/2009 18:15	
WG316701-06	MSD	01	11/06/2009 18:15	
L09100717-01	4013-S001-102809	01	11/07/2009 00:37	
WG316701-03	REF	01	11/07/2009 00:37	
L09100717-04	4013-S002-102809	01	11/07/2009 01:08	

* Sample past 12 hour tune limit

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Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS9
Analyst: MES
Workgroup: WG316825

Tune ID: WG316825-01
Run Date: 11/07/2009
Run Time: 12:09
File ID: 9M73416
Cal ID: HPMS9-02-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	26.1	3436	PASS
75.0	95.0	30.0	60.0	46.6	6136	PASS
95.0	95.0	100	100	100	13175	PASS
96.0	95.0	5.00	9.00	6.57	866	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	98.1	12925	PASS
175	174	5.00	9.00	6.69	865	PASS
176	174	95.0	101	96.2	12433	PASS
177	176	5.00	9.00	6.90	858	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316825-02	CCV-S	01	11/07/2009 12:33	
WG316826-01	BLANK	01	11/07/2009 13:35	
WG316826-01	BLANK	01	11/07/2009 13:35	
WG316826-02	LCS	01	11/07/2009 14:06	
WG316826-03	LCS2	01	11/07/2009 14:38	
L09100717-06	4014-S001-102809	01	11/07/2009 17:15	
L09100717-07	4014-S001-102809D	01	11/07/2009 17:46	
L09100717-11	4011-S001-102809	01	11/07/2009 18:49	
L09100717-12	4011-S002-102809	01	11/07/2009 19:20	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538793
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100717
Instrument: HPMS9
Analyst: TMB
Workgroup: WG316886

Tune ID: WG316886-01
Run Date: 11/09/2009
Run Time: 10:31
File ID: 9M73447
Cal ID: HPMS9-02-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	25.2	3552	PASS
75.0	95.0	30.0	60.0	49.3	6949	PASS
95.0	95.0	100	100	100	14105	PASS
96.0	95.0	5.00	9.00	7.47	1054	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	98.7	13925	PASS
175	174	5.00	9.00	7.74	1078	PASS
176	174	95.0	101	97.3	13555	PASS
177	176	5.00	9.00	6.99	948	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316886-02	CCV-S	01	11/09/2009 11:59	
WG316889-01	BLANK	01	11/09/2009 12:29	
WG316889-02	LCS	01	11/09/2009 13:01	
WG316889-03	LCS2	01	11/09/2009 13:31	
L09100717-08	4014-S002-102809	02	11/09/2009 19:11	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS6
Analytical Method: 8260B **Initial Calibration Date:** 16-OCT-09 20:56
ICAL Workgroup: WG314645 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.4643	11.8		
1,2-Dichloropropane	CCC	0.2853	9.61		
Chloroform	CCC	0.4169	7.50		
Ethylbenzene	CCC	0.4272	10.2		
Toluene	CCC	1.149	3.45		
Vinyl Chloride	CCC	0.3926	14.4		
1,1,2,2-Tetrachloroethane	SPCC	0.3584	4.10		
1,1-Dichloroethane	SPCC	0.5305	4.80		
Bromoform	SPCC	0.1740	14.7		
Chlorobenzene	SPCC	0.7901	4.78		
Chloromethane	SPCC	0.7637	4.07		
1,1,1-Trichloroethane		0.3722	9.51		
1,1,2-Trichloroethane		0.1791	9.25		
1,2,4-Trichlorobenzene		0.7517	8.26		
1,2-Dichlorobenzene		1.077	6.15		
1,2-Dichloroethane		0.3442	7.75		
1,3-Dichlorobenzene		1.193	6.69		
1,4-Dichlorobenzene		1.238	4.95		
1,4-Dioxane		0.001560	8.97		
2-Butanone		0.1046	0.736		
2-Hexanone		0.1723	4.59		
4-Methyl-2-Pentanone		0.07497	4.55		
Acetone		0.06532	5.00		
Acrylonitrile		0.08752	6.39		
Benzene		0.9211	4.82		
Bromodichloromethane		0.3053	7.09		
Bromomethane		0.2000	9.34		
Carbon Disulfide		0.7462	7.04		
Carbon Tetrachloride		0.3541	16.9	1.00000	
Chloroethane		0.2139	9.66		
Dibromochloromethane		0.2550	8.16		
Methyl Tert Butyl Ether		0.5109	2.36		
Methylene Chloride		0.2699	8.15		
Styrene		0.8765	13.5		
Tetrachloroethene		0.3187	10.1		
Trichloroethene		0.2690	7.46		
Vinyl Acetate		0.3862	4.78		
cis-1,2-Dichloroethene		0.2647	5.43		
cis-1,3-Dichloropropene		0.3493	8.13		
m-,p-Xylene		0.5445	9.16		
o-Xylene		0.5137	8.80		
trans-1,2-Dichloroethene		0.2291	11.9		
trans-1,3-Dichloropropene		0.3569	7.21		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L09100717
Analytical Method: 8260B
ICAL Workgroup: WG314645

Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS9
Analytical Method: 8260B **Initial Calibration Date:** 02-NOV-09 20:52
ICAL Workgroup: WG316150 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.6441	3.55		
1,2-Dichloropropane	CCC	0.3760	1.92		
Chloroform	CCC	0.5154	2.35		
Ethylbenzene	CCC	0.5483	5.92		
Toluene	CCC	1.578	5.82		
Vinyl Chloride	CCC	0.3097	27.2		0.99900
1,1,2,2-Tetrachloroethane	SPCC	0.6535	6.78		
1,1-Dichloroethane	SPCC	0.7095	3.60		
Bromoform	SPCC	0.2630	7.26		
Chlorobenzene	SPCC	1.066	0.947		
Chloromethane	SPCC	0.6378	10.3		
1,1,1-Trichloroethane		0.4675	6.45		
1,1,2-Trichloroethane		0.2885	2.08		
1,2,4-Trichlorobenzene		0.9339	4.30		
1,2-Dichlorobenzene		1.362	1.42		
1,2-Dichloroethane		0.4527	1.79		
1,3-Dichlorobenzene		1.514	1.50		
1,4-Dichlorobenzene		1.536	2.19		
1,4-Dioxane		0.002460	3.62		
2-Butanone		0.1659	10.1		
2-Hexanone		0.2712	5.62		
4-Methyl-2-Pentanone		0.1262	3.44		
Acetone		0.1172	33.4		1.00000
Acrylonitrile		0.1407	3.76		
Benzene		1.193	3.26		
Bromodichloromethane		0.3567	4.18		
Bromomethane		0.2718	7.22		
Carbon Disulfide		0.8541	3.03		
Carbon Tetrachloride		0.4340	6.41		
Chloroethane		0.2651	4.78		
Dibromochloromethane		0.3569	5.52		
Methyl Tert Butyl Ether		0.6732	4.14		
Methylene Chloride		0.3382	15.1		1.00000
Styrene		1.016	8.20		
Tetrachloroethene		0.3551	2.75		
Trichloroethene		0.3375	3.58		
Vinyl Acetate		0.7121	4.76		
cis-1,2-Dichloroethene		0.3394	4.16		
cis-1,3-Dichloropropene		0.4149	6.49		
m-,p-Xylene		0.6447	7.38		
o-Xylene		0.6051	7.72		
trans-1,2-Dichloroethene		0.3184	4.35		
trans-1,3-Dichloropropene		0.4977	6.80		

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Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L09100717
Analytical Method: 8260B
ICAL Workgroup: WG316150

Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 1538792
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	WG314645-02			WG314645-03			WG314645-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2836.00000	0.3461	1.00	9312.00000	0.4647
1,2-Dichloropropane	NA	NA	NA	0.400	1839.00000	0.2244	1.00	5510.00000	0.2749
Chloroform	0.300	1786.00000	0.3413	0.400	3479.00000	0.4245	1.00	8426.00000	0.4205
Ethylbenzene	NA	NA	NA	0.400	2577.00000	0.3489	1.00	7671.00000	0.4245
Toluene	NA	NA	NA	0.400	8227.00000	1.114	1.00	20521.0000	1.136
Vinyl Chloride	NA	NA	NA	0.400	3190.00000	0.3892	1.00	8560.00000	0.4271
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1589.00000	0.3727	1.00	3555.00000	0.3391
1,1-Dichloroethane	NA	NA	NA	0.400	4050.00000	0.4942	1.00	10587.0000	0.5283
Bromoform	NA	NA	NA	NA	NA	NA	1.00	2479.00000	0.1372
Chlorobenzene	NA	NA	NA	0.400	5455.00000	0.7385	1.00	13640.0000	0.7547
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	15476.0000	0.7723
1,1,1-Trichloroethane	NA	NA	NA	0.400	2460.00000	0.3002	1.00	7162.00000	0.3574
1,1,2-Trichloroethane	NA	NA	NA	0.400	1051.00000	0.1423	1.00	3153.00000	0.1745
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	3287.00000	0.7709	1.00	7320.00000	0.6982
1,2-Dichlorobenzene	0.300	2546.00000	0.9474	0.400	4568.00000	1.071	1.00	11488.0000	1.096
1,2-Dichloroethane	NA	NA	NA	0.400	2342.00000	0.2858	1.00	6733.00000	0.3360
1,3-Dichlorobenzene	NA	NA	NA	0.400	4595.00000	1.078	1.00	11855.0000	1.131
1,4-Dichlorobenzene	0.300	3426.00000	1.275	0.400	4896.00000	1.148	1.00	12783.0000	1.219
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	6923.00000	0.8447	1.00	17847.0000	0.8906
Bromodichloromethane	NA	NA	NA	0.400	2278.00000	0.2780	1.00	5837.00000	0.2913
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	3398.00000	0.1696
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	13077.0000	0.6525
Carbon Tetrachloride	NA	NA	NA	0.400	1912.00000	0.2333	1.00	6933.00000	0.3460
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	3479.00000	0.1736
Dibromochloromethane	NA	NA	NA	0.400	1706.00000	0.2309	1.00	4079.00000	0.2257
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	1.00	9805.00000	0.4893
Methylene Chloride	NA	NA	NA	NA	NA	NA	1.00	6293.00000	0.3140
Styrene	NA	NA	NA	0.400	5042.00000	0.6825	1.00	14179.0000	0.7846
Tetrachloroethene	NA	NA	NA	0.400	1906.00000	0.2580	1.00	5254.00000	0.2907
Trichloroethene	NA	NA	NA	0.400	2031.00000	0.2478	1.00	5455.00000	0.2722
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	2215.00000	0.2703	1.00	4751.00000	0.2371
cis-1,3-Dichloropropene	NA	NA	NA	0.400	2518.00000	0.3072	1.00	6602.00000	0.3294
m-,p-Xylene	NA	NA	NA	0.800	7216.00000	0.4884	2.00	18279.0000	0.5057
o-Xylene	NA	NA	NA	0.400	3303.00000	0.4471	1.00	8943.00000	0.4948
trans-1,2-Dichloroethene	NA	NA	NA	0.400	1462.00000	0.1784	1.00	4108.00000	0.2050

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS6

Analytical Method: 8260B **Initial Calibration Date:** 16-OCT-09 20:56

Column ID: F

Analyte	WG314645-05			WG314645-06			WG314645-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	18137.0000	0.4403	5.00	46351.0000	0.4526	20.0	207159.000	0.4996
1,2-Dichloropropane	2.00	11535.0000	0.2800	5.00	29472.0000	0.2878	20.0	125968.000	0.3038
Chloroform	2.00	16549.0000	0.4017	5.00	42254.0000	0.4126	20.0	183121.000	0.4416
Ethylbenzene	2.00	14671.0000	0.3961	5.00	36666.0000	0.3994	20.0	166033.000	0.4456
Toluene	2.00	41157.0000	1.111	5.00	100569.000	1.096	20.0	444677.000	1.193
Vinyl Chloride	2.00	18577.0000	0.4510	5.00	44778.0000	0.4372	20.0	178943.000	0.4315
1,1,2,2-Tetrachloroethane	2.00	7200.00000	0.3337	5.00	19686.0000	0.3703	20.0	79769.0000	0.3548
1,1-Dichloroethane	2.00	20580.0000	0.4996	5.00	52482.0000	0.5125	20.0	230126.000	0.5550
Bromoform	2.00	5486.00000	0.1481	5.00	14665.0000	0.1597	20.0	68141.0000	0.1829
Chlorobenzene	2.00	27946.0000	0.7545	5.00	71453.0000	0.7784	20.0	303655.000	0.8149
Chloromethane	2.00	32817.0000	0.7967	5.00	80081.0000	0.7820	20.0	323023.000	0.7790
1,1,1-Trichloroethane	2.00	14575.0000	0.3538	5.00	37713.0000	0.3683	20.0	164293.000	0.3962
1,1,2-Trichloroethane	2.00	6465.00000	0.1745	5.00	16452.0000	0.1792	20.0	70450.0000	0.1891
1,2,4-Trichlorobenzene	2.00	14406.0000	0.6677	5.00	36694.0000	0.6901	20.0	167661.000	0.7458
1,2-Dichlorobenzene	2.00	21470.0000	0.9951	5.00	56855.0000	1.069	20.0	247641.000	1.102
1,2-Dichloroethane	2.00	13930.0000	0.3382	5.00	34924.0000	0.3410	20.0	152042.000	0.3667
1,3-Dichlorobenzene	2.00	23859.0000	1.106	5.00	63131.0000	1.187	20.0	275282.000	1.225
1,4-Dichlorobenzene	2.00	25097.0000	1.163	5.00	62913.0000	1.183	20.0	284137.000	1.264
1,4-Dioxane	NA	NA	NA	100	2793.00000	0.001400	150	4560.00000	0.001500
2-Butanone	NA	NA	NA	5.00	10761.0000	0.1051	20.0	43091.0000	0.1039
2-Hexanone	NA	NA	NA	5.00	17180.0000	0.1871	20.0	61214.0000	0.1643
4-Methyl-2-Pentanone	NA	NA	NA	5.00	8305.00000	0.08110	20.0	29649.0000	0.07150
Acetone	NA	NA	NA	5.00	7127.00000	0.06960	20.0	26797.0000	0.06460
Acrylonitrile	NA	NA	NA	5.00	7982.00000	0.07790	20.0	35332.0000	0.08520
Benzene	2.00	37004.0000	0.8983	5.00	91915.0000	0.8975	20.0	395331.000	0.9534
Bromodichloromethane	2.00	11580.0000	0.2811	5.00	29892.0000	0.2919	20.0	134320.000	0.3239
Bromomethane	2.00	7804.00000	0.1894	5.00	19842.0000	0.1938	20.0	82322.0000	0.1985
Carbon Disulfide	2.00	30125.0000	0.7313	5.00	74288.0000	0.7254	20.0	303838.000	0.7327
Carbon Tetrachloride	2.00	13891.0000	0.3372	5.00	37009.0000	0.3614	20.0	164311.000	0.3962
Chloroethane	2.00	8346.00000	0.2026	5.00	21477.0000	0.2097	20.0	93761.0000	0.2261
Dibromochloromethane	2.00	9036.00000	0.2440	5.00	22692.0000	0.2472	20.0	99100.0000	0.2660
Methyl Tert Butyl Ether	2.00	21837.0000	0.5301	5.00	52032.0000	0.5081	20.0	213796.000	0.5156
Methylene Chloride	2.00	11485.0000	0.2788	5.00	25105.0000	0.2451	20.0	106684.000	0.2573
Styrene	2.00	29044.0000	0.7841	5.00	77856.0000	0.8481	20.0	354032.000	0.9501
Tetrachloroethene	2.00	11161.0000	0.3013	5.00	29973.0000	0.3265	20.0	128441.000	0.3447
Trichloroethene	2.00	9621.00000	0.2336	5.00	26587.0000	0.2596	20.0	116720.000	0.2815
Vinyl Acetate	NA	NA	NA	5.00	42280.0000	0.4129	20.0	157987.000	0.3810
cis-1,2-Dichloroethene	2.00	10635.0000	0.2582	5.00	25778.0000	0.2517	20.0	112883.000	0.2722
cis-1,3-Dichloropropene	2.00	13155.0000	0.3194	5.00	35107.0000	0.3428	20.0	151807.000	0.3661
m-,p-Xylene	4.00	36994.0000	0.4994	10.0	92621.0000	0.5045	40.0	420760.000	0.5646
o-Xylene	2.00	17118.0000	0.4622	5.00	45500.0000	0.4956	20.0	198688.000	0.5332
trans-1,2-Dichloroethene	2.00	8767.00000	0.2128	5.00	24236.0000	0.2367	20.0	102419.000	0.2470

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	WG314645-08			WG314645-09			WG314645-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	526507.000	0.4969	100	1098233.00	0.4939	200	2425706.00	0.5206
1,2-Dichloropropane	50.0	317738.000	0.2999	100	672822.000	0.3026	200	1439173.00	0.3089
Chloroform	50.0	465875.000	0.4397	100	968137.000	0.4354	200	2026457.00	0.4349
Ethylbenzene	50.0	439257.000	0.4587	100	932077.000	0.4653	200	2049888.00	0.4787
Toluene	50.0	1138774.00	1.189	100	2378254.00	1.187	200	4985974.00	1.164
Vinyl Chloride	50.0	399241.000	0.3768	100	759253.000	0.3415	200	1335135.00	0.2865
1,1,2,2-Tetrachloroethane	50.0	208860.000	0.3649	100	448279.000	0.3691	200	916299.000	0.3622
1,1-Dichloroethane	50.0	585641.000	0.5527	100	1227630.00	0.5521	200	2561676.00	0.5498
Bromoform	50.0	182503.000	0.1906	100	399230.000	0.1993	200	856603.000	0.2000
Chlorobenzene	50.0	788423.000	0.8233	100	1656621.00	0.8269	200	3553720.00	0.8299
Chloromethane	50.0	821008.000	0.7749	100	1623952.00	0.7303	200	3311152.00	0.7106
1,1,1-Trichloroethane	50.0	427742.000	0.4037	100	883227.000	0.3972	200	1867064.00	0.4007
1,1,2-Trichloroethane	50.0	183603.000	0.1917	100	383501.000	0.1914	200	812257.000	0.1897
1,2,4-Trichlorobenzene	50.0	450127.000	0.7864	100	989485.000	0.8147	200	2123846.00	0.8395
1,2-Dichlorobenzene	50.0	648835.000	1.134	100	1377917.00	1.135	200	2885619.00	1.141
1,2-Dichloroethane	50.0	384831.000	0.3632	100	802958.000	0.3611	200	1684994.00	0.3616
1,3-Dichlorobenzene	50.0	725462.000	1.268	100	1532123.00	1.262	200	3252229.00	1.286
1,4-Dichlorobenzene	50.0	737130.000	1.288	100	1567226.00	1.290	200	3324666.00	1.314
1,4-Dioxane	200	7343.00000	0.001700	400	15386.0000	0.001700	NA	NA	NA
2-Butanone	50.0	110463.000	0.1043	100	233608.000	0.1051	200	482775.000	0.1036
2-Hexanone	50.0	162140.000	0.1693	100	346674.000	0.1730	200	719225.000	0.1680
4-Methyl-2-Pentanone	50.0	77459.0000	0.07310	100	164258.000	0.07390	200	343430.000	0.07370
Acetone	50.0	70840.0000	0.06690	100	149888.000	0.06740	200	291242.000	0.06250
Acrylonitrile	50.0	95304.0000	0.08990	100	204316.000	0.09190	200	434897.000	0.09330
Benzene	50.0	1013820.00	0.9568	100	2144687.00	0.9645	200	4485827.00	0.9627
Bromodichloromethane	50.0	344358.000	0.3250	100	718463.000	0.3231	200	1528968.00	0.3281
Bromomethane	50.0	216918.000	0.2047	100	485143.000	0.2182	200	1051677.00	0.2257
Carbon Disulfide	50.0	836439.000	0.7894	100	1758443.00	0.7908	200	3735144.00	0.8016
Carbon Tetrachloride	50.0	425769.000	0.4018	100	894990.000	0.4025	NA	NA	NA
Chloroethane	50.0	243554.000	0.2299	100	512161.000	0.2303	200	1047787.00	0.2249
Dibromochloromethane	50.0	258061.000	0.2695	100	557420.000	0.2782	200	1191382.00	0.2782
Methyl Tert Butyl Ether	50.0	543636.000	0.5131	100	1132419.00	0.5093	200	2379504.00	0.5107
Methylene Chloride	50.0	276965.000	0.2614	100	587706.000	0.2643	200	1249108.00	0.2681
Styrene	50.0	936133.000	0.9775	100	1994798.00	0.9957	200	4236644.00	0.9894
Tetrachloroethene	50.0	331752.000	0.3464	100	684531.000	0.3417	200	1455511.00	0.3399
Trichloroethene	50.0	302375.000	0.2854	100	630042.000	0.2833	200	1344827.00	0.2886
Vinyl Acetate	50.0	397782.000	0.3754	100	902010.000	0.4057	200	1714201.00	0.3679
cis-1,2-Dichloroethene	50.0	292554.000	0.2761	100	611541.000	0.2750	200	1290177.00	0.2769
cis-1,3-Dichloropropene	50.0	394987.000	0.3728	100	833509.000	0.3749	200	1778936.00	0.3818
m-,p-Xylene	100	1124190.00	0.5869	200	2411461.00	0.6019	400	5179024.00	0.6047
o-Xylene	50.0	530710.000	0.5542	100	1121761.00	0.5599	200	2408194.00	0.5624
trans-1,2-Dichloroethene	50.0	265956.000	0.2510	100	556591.000	0.2503	200	1172951.00	0.2517

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	WG314645-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	21887.0000	0.001500
2-Butanone	300	763250.000	0.1056
2-Hexanone	300	1106063.00	0.1719
4-Methyl-2-Pentanone	300	552998.000	0.07650
Acetone	300	439955.000	0.06090
Acrylonitrile	300	628022.000	0.08690
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	300	2707237.00	0.3745
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	WG314645-02			WG314645-03			WG314645-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	5894.00000	0.3261

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INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS6
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Analyte	WG314645-05			WG314645-06			WG314645-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	12282.0000	0.3316	5.00	30440.0000	0.3316	20.0	139144.000	0.3734

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INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	WG314645-08			WG314645-09			WG314645-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	357193.000	0.3730	100	762469.000	0.3806	200	1637183.00	0.3823

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INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS6
Initial Calibration Date: 16-OCT-09 20:56
Column ID: F

Analyte	WG314645-11		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 02-NOV-09 20:52

Column ID: F

Analyte	WG316150-03			WG316150-04			WG316150-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	2.00	19170.0000	0.6150
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	2.00	11591.0000	0.3719
Chloroform	NA	NA	NA	NA	NA	NA	2.00	15452.0000	0.4957
Ethylbenzene	0.500	3599.00000	0.5722	1.00	6155.00000	0.5078	2.00	12309.0000	0.5141
Toluene	0.500	10968.0000	1.744	1.00	17483.0000	1.442	2.00	35908.0000	1.500
Vinyl Chloride	NA	NA	NA	NA	NA	NA	2.00	12769.0000	0.4096
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	2.00	8431.00000	0.7030
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	2.00	20959.0000	0.6724
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	2.00	25219.0000	1.053
Chloromethane	NA	NA	NA	NA	NA	NA	2.00	22944.0000	0.7361
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	2.00	13122.0000	0.4210
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	2.00	6725.00000	0.2809
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	10936.0000	0.9119
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	15937.0000	1.329
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	2.00	14538.0000	0.4664
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	18555.0000	1.547
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	18856.0000	1.572
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.500	10350.0000	1.261	1.00	17993.0000	1.145	2.00	36085.0000	1.158
Bromodichloromethane	NA	NA	NA	NA	NA	NA	2.00	10347.0000	0.3319
Bromomethane	NA	NA	NA	NA	NA	NA	2.00	9321.00000	0.2990
Carbon Disulfide	NA	NA	NA	NA	NA	NA	2.00	27563.0000	0.8843
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	2.00	12038.0000	0.3862
Chloroethane	NA	NA	NA	NA	NA	NA	2.00	8075.00000	0.2591
Dibromochloromethane	NA	NA	NA	NA	NA	NA	2.00	7666.00000	0.3202
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	2.00	19697.0000	0.6319
Methylene Chloride	NA	NA	NA	NA	NA	NA	2.00	13406.0000	0.4301
Styrene	NA	NA	NA	NA	NA	NA	2.00	21315.0000	0.8903
Tetrachloroethene	NA	NA	NA	NA	NA	NA	2.00	8524.00000	0.3560
Trichloroethene	NA	NA	NA	NA	NA	NA	2.00	10208.0000	0.3275
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	2.00	9732.00000	0.3122
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	2.00	11871.0000	0.3808
m-,p-Xylene	1.00	7673.00000	0.6099	2.00	13933.0000	0.5747	4.00	30114.0000	0.6289
o-Xylene	0.500	4002.00000	0.6362	1.00	6746.00000	0.5565	2.00	12670.0000	0.5292
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	2.00	9375.00000	0.3008

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 02-NOV-09 20:52

Column ID: F

Analyte	WG316150-06			WG316150-07			WG316150-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	5.00	48340.0000	0.6215	20.0	212790.000	0.6733	50.0	521771.000	0.6578
1,2-Dichloropropane	5.00	28438.0000	0.3656	20.0	121800.000	0.3854	50.0	301425.000	0.3800
Chloroform	5.00	39697.0000	0.5104	20.0	166740.000	0.5276	50.0	413958.000	0.5219
Ethylbenzene	5.00	30842.0000	0.5116	20.0	136716.000	0.5536	50.0	348312.000	0.5602
Toluene	5.00	91550.0000	1.519	20.0	399705.000	1.619	50.0	991560.000	1.595
Vinyl Chloride	5.00	28704.0000	0.3690	20.0	107663.000	0.3407	50.0	246781.000	0.3111
1,1,2,2-Tetrachloroethane	5.00	20621.0000	0.6737	20.0	88020.0000	0.6770	50.0	212651.000	0.6443
1,1-Dichloroethane	5.00	54067.0000	0.6951	20.0	233789.000	0.7397	50.0	574551.000	0.7243
Bromoform	5.00	14227.0000	0.2360	20.0	62649.0000	0.2537	50.0	164254.000	0.2642
Chlorobenzene	5.00	63981.0000	1.061	20.0	267304.000	1.083	50.0	660486.000	1.062
Chloromethane	5.00	52209.0000	0.6712	20.0	202992.000	0.6423	50.0	511134.000	0.6444
1,1,1-Trichloroethane	5.00	34105.0000	0.4385	20.0	156208.000	0.4943	50.0	382895.000	0.4827
1,1,2-Trichloroethane	5.00	17218.0000	0.2856	20.0	73421.0000	0.2973	50.0	178923.000	0.2878
1,2,4-Trichlorobenzene	5.00	27527.0000	0.8994	20.0	123535.000	0.9502	50.0	299707.000	0.9081
1,2-Dichlorobenzene	5.00	41646.0000	1.361	20.0	178590.000	1.374	50.0	451243.000	1.367
1,2-Dichloroethane	5.00	34786.0000	0.4472	20.0	142886.000	0.4521	50.0	358049.000	0.4514
1,3-Dichlorobenzene	5.00	45418.0000	1.484	20.0	195202.000	1.502	50.0	495759.000	1.502
1,4-Dichlorobenzene	5.00	48147.0000	1.573	20.0	200049.000	1.539	50.0	490250.000	1.485
1,4-Dioxane	100	3764.00000	0.002400	150	6033.00000	0.002500	200	8248.00000	0.002600
2-Butanone	5.00	15262.0000	0.1962	20.0	51956.0000	0.1644	50.0	132377.000	0.1669
2-Hexanone	5.00	17012.0000	0.2822	20.0	65796.0000	0.2664	50.0	178209.000	0.2866
4-Methyl-2-Pentanone	5.00	10051.0000	0.1292	20.0	38850.0000	0.1229	50.0	102400.000	0.1291
Acetone	5.00	15174.0000	0.1951	20.0	36103.0000	0.1142	50.0	86709.0000	0.1093
Acrylonitrile	5.00	11061.0000	0.1422	20.0	44605.0000	0.1411	50.0	113776.000	0.1434
Benzene	5.00	89887.0000	1.156	20.0	383535.000	1.214	50.0	950606.000	1.198
Bromodichloromethane	5.00	26913.0000	0.3460	20.0	113840.000	0.3602	50.0	290953.000	0.3668
Bromomethane	5.00	22131.0000	0.2845	20.0	84056.0000	0.2660	50.0	219502.000	0.2767
Carbon Disulfide	5.00	63806.0000	0.8203	20.0	264298.000	0.8363	50.0	690816.000	0.8709
Carbon Tetrachloride	5.00	32191.0000	0.4139	20.0	141572.000	0.4479	50.0	359731.000	0.4535
Chloroethane	5.00	21236.0000	0.2730	20.0	86033.0000	0.2722	50.0	220442.000	0.2779
Dibromochloromethane	5.00	21239.0000	0.3523	20.0	88782.0000	0.3595	50.0	227001.000	0.3651
Methyl Tert Butyl Ether	5.00	52045.0000	0.6691	20.0	206770.000	0.6542	50.0	549327.000	0.6925
Methylene Chloride	5.00	28369.0000	0.3647	20.0	101187.000	0.3202	50.0	247831.000	0.3124
Styrene	5.00	57172.0000	0.9483	20.0	249648.000	1.011	50.0	658193.000	1.059
Tetrachloroethene	5.00	20244.0000	0.3358	20.0	89042.0000	0.3606	50.0	222047.000	0.3571
Trichloroethene	5.00	24734.0000	0.3180	20.0	110516.000	0.3497	50.0	271956.000	0.3429
Vinyl Acetate	5.00	58144.0000	0.7475	20.0	232466.000	0.7355	50.0	571229.000	0.7202
cis-1,2-Dichloroethene	5.00	26364.0000	0.3390	20.0	110564.000	0.3498	50.0	273851.000	0.3452
cis-1,3-Dichloropropene	5.00	29618.0000	0.3808	20.0	134167.000	0.4245	50.0	341070.000	0.4300
m-,p-Xylene	10.0	72933.0000	0.6049	40.0	325543.000	0.6592	100	839947.000	0.6755
o-Xylene	5.00	34214.0000	0.5675	20.0	157097.000	0.6362	50.0	386028.000	0.6209
trans-1,2-Dichloroethene	5.00	23421.0000	0.3011	20.0	104238.000	0.3298	50.0	260361.000	0.3282

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-09			WG316150-10			WG316150-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	100	1069176.00	0.6580	200	2203673.00	0.6389	NA	NA	NA
1,2-Dichloropropane	100	618305.000	0.3805	200	1285428.00	0.3727	NA	NA	NA
Chloroform	100	854301.000	0.5258	200	1762418.00	0.5110	NA	NA	NA
Ethylbenzene	100	742936.000	0.5810	200	1595759.00	0.5859	NA	NA	NA
Toluene	100	2067050.00	1.617	200	4318909.00	1.586	NA	NA	NA
Vinyl Chloride	100	406964.000	0.2505	200	610682.000	0.1771	NA	NA	NA
1,1,2,2-Tetrachloroethane	100	433378.000	0.6488	200	822200.000	0.5741	NA	NA	NA
1,1-Dichloroethane	100	1184247.00	0.7289	200	2401527.00	0.6963	NA	NA	NA
Bromoform	100	362277.000	0.2833	200	757248.000	0.2780	NA	NA	NA
Chlorobenzene	100	1370326.00	1.072	200	2894398.00	1.063	NA	NA	NA
Chloromethane	100	949925.000	0.5846	200	1890807.00	0.5482	NA	NA	NA
1,1,1-Trichloroethane	100	793993.000	0.4887	200	1654207.00	0.4796	NA	NA	NA
1,1,2-Trichloroethane	100	375592.000	0.2937	200	778409.000	0.2858	NA	NA	NA
1,2,4-Trichlorobenzene	100	618674.000	0.9262	200	1442803.00	1.007	NA	NA	NA
1,2-Dichlorobenzene	100	926015.000	1.386	200	1943175.00	1.357	NA	NA	NA
1,2-Dichloroethane	100	740873.000	0.4560	200	1527332.00	0.4428	NA	NA	NA
1,3-Dichlorobenzene	100	1021176.00	1.529	200	2178739.00	1.521	NA	NA	NA
1,4-Dichlorobenzene	100	1020797.00	1.528	200	2174246.00	1.518	NA	NA	NA
1,4-Dioxane	400	17125.0000	0.002600	NA	NA	NA	600	23728.0000	0.002200
2-Butanone	100	270547.000	0.1665	200	508997.000	0.1476	300	814065.000	0.1535
2-Hexanone	100	362203.000	0.2833	200	676828.000	0.2485	300	1064671.00	0.2602
4-Methyl-2-Pentanone	100	212364.000	0.1307	200	411965.000	0.1194	300	667462.000	0.1259
Acetone	100	163622.000	0.1007	200	320251.000	0.09290	300	483711.000	0.09120
Acrylonitrile	100	238929.000	0.1471	200	478821.000	0.1388	300	696668.000	0.1314
Benzene	100	1979325.00	1.218	200	4115102.00	1.193	NA	NA	NA
Bromodichloromethane	100	603590.000	0.3715	200	1254398.00	0.3637	NA	NA	NA
Bromomethane	100	426447.000	0.2625	200	835428.000	0.2422	NA	NA	NA
Carbon Disulfide	100	1421374.00	0.8748	200	2890248.00	0.8380	NA	NA	NA
Carbon Tetrachloride	100	735721.000	0.4528	200	1550879.00	0.4496	NA	NA	NA
Chloroethane	100	430739.000	0.2651	200	838081.000	0.2430	NA	NA	NA
Dibromochloromethane	100	481399.000	0.3765	200	1001304.00	0.3676	NA	NA	NA
Methyl Tert Butyl Ether	100	1153852.00	0.7101	200	2351048.00	0.6816	NA	NA	NA
Methylene Chloride	100	497522.000	0.3062	200	1018667.00	0.2953	NA	NA	NA
Styrene	100	1405185.00	1.099	200	2972098.00	1.091	NA	NA	NA
Tetrachloroethene	100	458545.000	0.3586	200	987904.000	0.3627	NA	NA	NA
Trichloroethene	100	557645.000	0.3432	200	1186197.00	0.3439	NA	NA	NA
Vinyl Acetate	100	1184341.00	0.7289	200	2332609.00	0.6763	300	3520497.00	0.6640
cis-1,2-Dichloroethene	100	568910.000	0.3501	200	1173405.00	0.3402	NA	NA	NA
cis-1,3-Dichloropropene	100	716780.000	0.4411	200	1489555.00	0.4319	NA	NA	NA
m-,p-Xylene	200	1776721.00	0.6948	400	3866406.00	0.7098	NA	NA	NA
o-Xylene	100	823463.000	0.6440	200	1770999.00	0.6502	NA	NA	NA
trans-1,2-Dichloroethene	100	534595.000	0.3290	200	1109204.00	0.3216	NA	NA	NA

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INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-03			WG316150-04			WG316150-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	2.00	10413.0000	0.4349

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-06			WG316150-07			WG316150-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	5.00	29331.0000	0.4865	20.0	125121.000	0.5067	50.0	316250.000	0.5086

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8260B
Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-09			WG316150-10			WG316150-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	100	674190.000	0.5273	200	1421982.00	0.5221	NA	NA	NA

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 10/16/2009 Sample ID: WG314645-12
Instrument ID: HPMS6 Run Time: 22:00 Method: 8260B
File ID: 6M86674 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG314645 Cal ID: HPMS6 - 16-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	51.4	ug/L	0.478	2.80	25	
1,2-Dichloropropane	CCC	50.0	53.4	ug/L	0.305	6.80	25	
Chloroform	CCC	50.0	52.5	ug/L	0.438	5.10	25	
Ethylbenzene	CCC	50.0	49.1	ug/L	0.419	1.90	25	
Toluene	CCC	50.0	47.7	ug/L	1.10	4.50	25	
Vinyl Chloride	CCC	50.0	47.4	ug/L	0.372	5.30	25	
1,1,2,2-Tetrachloroethane	SPCC	50.0	50.8	ug/L	0.364	1.60	25	
1,1-Dichloroethane	SPCC	50.0	51.9	ug/L	0.551	3.90	25	
Bromoform	SPCC	50.0	52.4	ug/L	0.183	4.90	25	
Chlorobenzene	SPCC	50.0	48.2	ug/L	0.762	3.50	25	
Chloromethane	SPCC	50.0	52.8	ug/L	0.806	5.50	25	
1,1,1-Trichloroethane		50.0	52.9	ug/L	0.394	5.70	25	
1,1,2-Trichloroethane		50.0	51.5	ug/L	0.184	3.00	25	
1,2,4-Trichlorobenzene		50.0	48.1	ug/L	0.722	3.90	25	
1,2-Dichlorobenzene		50.0	49.8	ug/L	1.07	0.400	25	
1,2-Dichloroethane		50.0	52.9	ug/L	0.364	5.80	25	
1,3-Dichlorobenzene		50.0	48.9	ug/L	1.17	2.10	25	
1,4-Dichlorobenzene		50.0	47.8	ug/L	1.18	4.40	25	
1,4-Dioxane		200	243	ug/L	0.00190	21.6	25	
2-Butanone		50.0	57.5	ug/L	0.120	15.0	25	
2-Hexanone		50.0	52.6	ug/L	0.181	5.20	25	
4-Methyl-2-Pentanone		50.0	54.5	ug/L	0.0817	9.00	25	
Acetone		50.0	55.4	ug/L	0.0724	10.8	25	
Acrylonitrile		50.0	56.7	ug/L	0.0992	13.3	25	
Benzene		50.0	52.1	ug/L	0.960	4.20	25	
Bromodichloromethane		50.0	55.2	ug/L	0.337	10.3	25	
Bromomethane		50.0	49.5	ug/L	0.198	1.10	25	
Carbon Disulfide		50.0	45.1	ug/L	0.673	9.80	25	
Carbon Tetrachloride		50.0	48.5	ug/L	0.389	3.10	25	
Dibromochloromethane		50.0	51.6	ug/L	0.263	3.20	25	
Chloroethane		50.0	58.4	ug/L	0.250	16.8	25	
cis-1,2-Dichloroethene		50.0	51.6	ug/L	0.273	3.30	25	
cis-1,3-Dichloropropene		50.0	53.0	ug/L	0.370	6.00	25	
Methyl Tert Butyl Ether		50.0	53.5	ug/L	0.546	7.00	25	
Methylene Chloride		50.0	49.3	ug/L	0.266	1.40	25	
Styrene		50.0	51.5	ug/L	0.902	2.90	25	
Tetrachloroethene		50.0	48.5	ug/L	0.309	2.90	25	
trans-1,2-Dichloroethene		50.0	53.9	ug/L	0.247	7.80	25	
trans-1,3-Dichloropropene		50.0	43.3	ug/L	0.309	13.5	25	
Trichloroethene		50.0	51.3	ug/L	0.276	2.60	25	
Vinyl Acetate		50.0	78.3	ug/L	0.605	56.7	25	*
Xylenes		150	148	ug/L	0.523	1.10	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 10/16/2009 Sample ID: WG314645-12
Instrument ID: HPMS6 Run Time: 22:00 Method: 8260B
File ID: 6M86674 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG314645 Cal ID: HPMS6 - 16-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
o-Xylene		50.0	49.4	ug/L	0.508	1.10	25	
m-,p-Xylene		100	98.9	ug/L	0.538	1.10	25	
1,2-Dichloroethene		100	106	ug/L	0.260	5.60	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/02/2009 Sample ID: WG316150-12
Instrument ID: HPMS9 Run Time: 22:26 Method: 8260B
File ID: 9M73268 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG316150 Cal ID: HPMS9 - 02-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	51.7	ug/kg	0.666	3.50	25	
1,2-Dichloropropane	CCC	50.0	51.6	ug/kg	0.388	3.30	25	
Chloroform	CCC	50.0	52.0	ug/kg	0.536	4.10	25	
Ethylbenzene	CCC	50.0	50.3	ug/kg	0.552	0.700	25	
Toluene	CCC	50.0	49.3	ug/kg	1.56	1.40	25	
Vinyl Chloride	CCC	50.0	51.7	ug/kg	0.307	3.40	25	
1,1,2,2-Tetrachloroethane	SPCC	50.0	45.4	ug/kg	0.594	9.10	25	
1,1-Dichloroethane	SPCC	50.0	51.9	ug/kg	0.737	3.90	25	
Bromoform	SPCC	50.0	47.0	ug/kg	0.247	6.00	25	
Chlorobenzene	SPCC	50.0	47.9	ug/kg	1.02	4.20	25	
Chloromethane	SPCC	50.0	50.0	ug/kg	0.637	0.100	25	
1,1,1-Trichloroethane		50.0	52.0	ug/kg	0.486	4.00	25	
1,1,2-Trichloroethane		50.0	49.8	ug/kg	0.288	0.300	25	
1,2,4-Trichlorobenzene		50.0	45.9	ug/kg	0.857	8.30	25	
1,2-Dichlorobenzene		50.0	48.5	ug/kg	1.32	2.90	25	
1,2-Dichloroethane		50.0	50.8	ug/kg	0.460	1.60	25	
1,3-Dichlorobenzene		50.0	46.3	ug/kg	1.40	7.40	25	
1,4-Dichlorobenzene		50.0	46.1	ug/kg	1.42	7.80	25	
1,4-Dioxane		200	206	ug/kg	0.00260	3.00	25	
2-Butanone		50.0	49.3	ug/kg	0.164	1.40	25	
2-Hexanone		50.0	50.3	ug/kg	0.273	0.600	25	
4-Methyl-2-Pentanone		50.0	52.1	ug/kg	0.132	4.20	25	
Acetone		50.0	52.5	ug/kg	0.110	5.00	25	
Acrylonitrile		50.0	52.0	ug/kg	0.146	4.00	25	
Benzene		50.0	51.5	ug/kg	1.23	2.90	25	
Bromodichloromethane		50.0	53.8	ug/kg	0.384	7.60	25	
Bromomethane		50.0	52.0	ug/kg	0.283	4.00	25	
Carbon Disulfide		50.0	48.3	ug/kg	0.825	3.40	25	
Carbon Tetrachloride		50.0	52.8	ug/kg	0.458	5.60	25	
Dibromochloromethane		50.0	50.1	ug/kg	0.358	0.300	25	
Chloroethane		50.0	55.9	ug/kg	0.296	11.8	25	
cis-1,2-Dichloroethene		50.0	52.2	ug/kg	0.354	4.40	25	
cis-1,3-Dichloropropene		50.0	51.5	ug/kg	0.427	3.00	25	
Methylene Chloride		50.0	52.2	ug/kg	0.326	4.40	25	
Methyl Tert Butyl Ether		50.0	54.6	ug/kg	0.735	9.10	25	
Styrene		50.0	49.5	ug/kg	1.01	0.900	25	
Tetrachloroethene		50.0	48.2	ug/kg	0.342	3.60	25	
trans-1,2-Dichloroethene		50.0	52.3	ug/kg	0.333	4.60	25	
trans-1,3-Dichloropropene		50.0	42.3	ug/kg	0.421	15.4	25	
Trichloroethene		50.0	51.2	ug/kg	0.346	2.40	25	
Vinyl Acetate		50.0	35.9	ug/kg	0.511	28.2	25	*
Xylenes		150	151	ug/kg	0.631	1.00	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/02/2009 Sample ID: WG316150-12
Instrument ID: HPMS9 Run Time: 22:26 Method: 8260B
File ID: 9M73268 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG316150 Cal ID: HPMS9 - 02-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,2-Dichloroethene		100	104	ug/kg	0.344	4.50	25	
o-Xylene		50.0	50.6	ug/kg	0.613	1.30	25	
m-,p-Xylene		100	101	ug/kg	0.650	0.800	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1528266
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 10/30/2009 Sample ID: WG315943-02
Instrument ID: HPMS6 Run Time: 08:25 Method: 8260B
File ID: 6M86962 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG315944 Cal ID: HPMS6 - 16-OCT-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	57.9	ug/L	0.538	15.9	20	
1,2-Dichloropropane	CCC	50.0	53.0	ug/L	0.303	6.08	20	
Chloroform	CCC	50.0	54.8	ug/L	0.457	9.69	20	
Ethylbenzene	CCC	50.0	52.0	ug/L	0.444	3.95	20	
Toluene	CCC	50.0	52.1	ug/L	1.20	4.19	20	
Vinyl Chloride	CCC	50.0	50.9	ug/L	0.400	1.77	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	45.9	ug/L	0.329	8.27	20	
1,1-Dichloroethane	SPCC	50.0	54.8	ug/L	0.582	9.64	20	
Bromoform	SPCC	50.0	49.5	ug/L	0.172	1.03	20	
Chlorobenzene	SPCC	50.0	49.9	ug/L	0.789	0.147	20	
Chloromethane	SPCC	50.0	53.8	ug/L	0.821	7.56	20	
1,1,1-Trichloroethane		50.0	55.4	ug/L	0.413	10.9	20	
1,1,2-Trichloroethane		50.0	47.9	ug/L	0.171	4.28	20	
1,2,4-Trichlorobenzene		50.0	50.9	ug/L	0.765	1.74	20	
1,2-Dichlorobenzene		50.0	49.8	ug/L	1.07	0.436	20	
1,2-Dichloroethane		50.0	51.6	ug/L	0.355	3.20	20	
1,3-Dichlorobenzene		50.0	51.8	ug/L	1.23	3.52	20	
1,4-Dichlorobenzene		50.0	50.6	ug/L	1.25	1.12	20	
1,4-Dioxane		200	230	ug/L	0.00180	15.0	20	
2-Butanone		50.0	48.3	ug/L	0.101	3.46	20	
2-Hexanone		50.0	43.1	ug/L	0.149	13.8	20	
4-Methyl-2-Pentanone		50.0	44.1	ug/L	0.0662	11.8	20	
Acetone		50.0	50.9	ug/L	0.0665	1.86	20	
Acrylonitrile		50.0	49.2	ug/L	0.0862	1.50	20	
Benzene		50.0	53.9	ug/L	0.993	7.79	20	
Bromodichloromethane		50.0	52.0	ug/L	0.318	3.99	20	
Bromomethane		50.0	60.7	ug/L	0.243	21.3	20	*
Carbon Disulfide		50.0	46.9	ug/L	0.700	6.20	20	
Carbon Tetrachloride		50.0	50.4	ug/L	0.405	0.782	20	
Dibromochloromethane		50.0	48.7	ug/L	0.248	2.69	20	
Chloroethane		50.0	60.1	ug/L	0.257	20.2	20	*
cis-1,2-Dichloroethene		50.0	54.2	ug/L	0.287	8.44	20	
cis-1,3-Dichloropropene		50.0	52.5	ug/L	0.367	4.99	20	
Methyl Tert Butyl Ether		50.0	46.2	ug/L	0.472	7.59	20	
Methylene Chloride		50.0	51.4	ug/L	0.278	2.82	20	
Styrene		50.0	52.8	ug/L	0.926	5.62	20	
Tetrachloroethene		50.0	53.3	ug/L	0.340	6.59	20	
trans-1,2-Dichloroethene		50.0	57.4	ug/L	0.263	14.9	20	
trans-1,3-Dichloropropene		50.0	49.1	ug/L	0.351	1.71	20	
Trichloroethene		50.0	53.0	ug/L	0.285	6.09	20	
Vinyl Acetate		50.0	45.7	ug/L	0.353	8.62	20	
Xylenes		150	156	ug/L	0.551	4.22	20	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 10/30/2009 Sample ID: WG315943-02

Instrument ID: HPMS6 Run Time: 08:25 Method: 8260B

File ID: 6M86962 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG315944 Cal ID: HPMS6 - 16-OCT-09

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	112	ug/L	0.275	11.7	20	
m-,p-Xylene		100	104	ug/L	0.568	4.39	20	
o-Xylene		50.0	51.9	ug/L	0.534	3.86	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/02/2009 Sample ID: WG316128-02

Instrument ID: HPMS6 Run Time: 11:18 Method: 8260B

File ID: 6M87021 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG316129 Cal ID: HPMS6 - 16-OCT-09

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	54.1	ug/L	0.503	8.22	20	
1,2-Dichloropropane	CCC	50.0	54.6	ug/L	0.311	9.13	20	
Chloroform	CCC	50.0	55.2	ug/L	0.460	10.4	20	
Ethylbenzene	CCC	50.0	50.8	ug/L	0.434	1.53	20	
Toluene	CCC	50.0	50.0	ug/L	1.15	0.0282	20	
Vinyl Chloride	CCC	50.0	59.0	ug/L	0.464	18.1	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	48.5	ug/L	0.348	2.94	20	
1,1-Dichloroethane	SPCC	50.0	54.4	ug/L	0.577	8.77	20	
Bromoform	SPCC	50.0	55.1	ug/L	0.192	10.2	20	
Chlorobenzene	SPCC	50.0	50.0	ug/L	0.791	0.0772	20	
Chloromethane	SPCC	50.0	58.2	ug/L	0.888	16.3	20	
1,1,1-Trichloroethane		50.0	54.7	ug/L	0.407	9.40	20	
1,1,2-Trichloroethane		50.0	51.4	ug/L	0.184	2.81	20	
1,2,4-Trichlorobenzene		50.0	49.3	ug/L	0.741	1.40	20	
1,2-Dichlorobenzene		50.0	49.7	ug/L	1.07	0.617	20	
1,2-Dichloroethane		50.0	55.2	ug/L	0.380	10.5	20	
1,3-Dichlorobenzene		50.0	50.1	ug/L	1.19	0.152	20	
1,4-Dichlorobenzene		50.0	49.5	ug/L	1.23	1.07	20	
1,4-Dioxane		200	227	ug/L	0.00180	13.5	20	
2-Butanone		50.0	50.6	ug/L	0.106	1.19	20	
2-Hexanone		50.0	47.0	ug/L	0.162	5.95	20	
4-Methyl-2-Pentanone		50.0	49.2	ug/L	0.0738	1.53	20	
Acetone		50.0	53.8	ug/L	0.0703	7.60	20	
Acrylonitrile		50.0	53.9	ug/L	0.0943	7.77	20	
Benzene		50.0	54.2	ug/L	0.999	8.41	20	
Bromodichloromethane		50.0	54.5	ug/L	0.333	9.04	20	
Bromomethane		50.0	51.4	ug/L	0.206	2.82	20	
Carbon Disulfide		50.0	43.7	ug/L	0.652	12.7	20	
Carbon Tetrachloride		50.0	50.4	ug/L	0.405	0.811	20	
Dibromochloromethane		50.0	52.0	ug/L	0.265	3.95	20	
Chloroethane		50.0	57.6	ug/L	0.246	15.1	20	
cis-1,2-Dichloroethene		50.0	54.4	ug/L	0.288	8.87	20	
cis-1,3-Dichloropropene		50.0	55.2	ug/L	0.386	10.4	20	
Methyl Tert Butyl Ether		50.0	48.6	ug/L	0.496	2.89	20	
Methylene Chloride		50.0	49.7	ug/L	0.268	0.559	20	
Styrene		50.0	53.5	ug/L	0.937	6.90	20	
Tetrachloroethene		50.0	51.5	ug/L	0.328	3.04	20	
trans-1,2-Dichloroethene		50.0	56.5	ug/L	0.259	13.1	20	
trans-1,3-Dichloropropene		50.0	51.3	ug/L	0.366	2.58	20	
Trichloroethene		50.0	53.6	ug/L	0.289	7.28	20	
Vinyl Acetate		50.0	82.1	ug/L	0.634	64.3	20	*
Xylenes		150	154	ug/L	0.541	2.35	20	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/02/2009 Sample ID: WG316128-02

Instrument ID: HPMS6 Run Time: 11:18 Method: 8260B

File ID: 6M87021 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG316129 Cal ID: HPMS6 - 16-OCT-09

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	111	ug/L	0.274	11.0	20	
m-,p-Xylene		100	102	ug/L	0.558	2.43	20	
o-Xylene		50.0	51.1	ug/L	0.525	2.19	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316699-02
Instrument ID: HPMS9 Run Time: 14:04 Method: 8260B
File ID: 9M73384 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG316701 Cal ID: HPMS9 - 02-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	51.1	ug/kg	0.658	2.13	20	
1,2-Dichloropropane	CCC	50.0	47.3	ug/kg	0.356	5.42	20	
Chloroform	CCC	50.0	48.4	ug/kg	0.499	3.24	20	
Ethylbenzene	CCC	50.0	51.7	ug/kg	0.566	3.31	20	
Toluene	CCC	50.0	50.6	ug/kg	1.60	1.24	20	
Vinyl Chloride	CCC	50.0	48.3	ug/kg	0.289	3.48	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	53.0	ug/kg	0.693	5.97	20	
1,1-Dichloroethane	SPCC	50.0	48.8	ug/kg	0.692	2.50	20	
Bromoform	SPCC	50.0	50.4	ug/kg	0.265	0.840	20	
Chlorobenzene	SPCC	50.0	49.5	ug/kg	1.05	1.09	20	
Chloromethane	SPCC	50.0	47.9	ug/kg	0.611	4.19	20	
1,1,1-Trichloroethane		50.0	48.6	ug/kg	0.455	2.72	20	
1,1,2-Trichloroethane		50.0	49.6	ug/kg	0.286	0.865	20	
1,2,4-Trichlorobenzene		50.0	50.1	ug/kg	0.936	0.194	20	
1,2-Dichlorobenzene		50.0	51.4	ug/kg	1.40	2.80	20	
1,2-Dichloroethane		50.0	48.3	ug/kg	0.437	3.48	20	
1,3-Dichlorobenzene		50.0	51.7	ug/kg	1.57	3.39	20	
1,4-Dichlorobenzene		50.0	51.1	ug/kg	1.57	2.23	20	
1,4-Dioxane		200	216	ug/kg	0.00270	8.02	20	
2-Butanone		50.0	52.5	ug/kg	0.174	4.96	20	
2-Hexanone		50.0	56.9	ug/kg	0.308	13.7	20	
4-Methyl-2-Pentanone		50.0	52.7	ug/kg	0.133	5.47	20	
Acetone		50.0	57.4	ug/kg	0.119	14.8	20	
Acrylonitrile		50.0	53.4	ug/kg	0.150	6.82	20	
Benzene		50.0	47.5	ug/kg	1.13	4.95	20	
Bromodichloromethane		50.0	47.7	ug/kg	0.340	4.57	20	
Bromomethane		50.0	49.4	ug/kg	0.269	1.11	20	
Carbon Disulfide		50.0	46.9	ug/kg	0.801	6.24	20	
Carbon Tetrachloride		50.0	49.7	ug/kg	0.431	0.680	20	
Dibromochloromethane		50.0	50.4	ug/kg	0.360	0.826	20	
Chloroethane		50.0	49.7	ug/kg	0.264	0.599	20	
cis-1,2-Dichloroethene		50.0	48.9	ug/kg	0.332	2.19	20	
cis-1,3-Dichloropropene		50.0	48.4	ug/kg	0.401	3.29	20	
Methylene Chloride		50.0	48.9	ug/kg	0.306	2.27	20	
Methyl Tert Butyl Ether		50.0	49.7	ug/kg	0.670	0.517	20	
Styrene		50.0	51.9	ug/kg	1.05	3.74	20	
Tetrachloroethene		50.0	51.7	ug/kg	0.367	3.45	20	
trans-1,2-Dichloroethene		50.0	50.4	ug/kg	0.321	0.817	20	
trans-1,3-Dichloropropene		50.0	51.4	ug/kg	0.512	2.88	20	
Trichloroethene		50.0	48.7	ug/kg	0.329	2.67	20	
Vinyl Acetate		50.0	47.2	ug/kg	0.672	5.67	20	
Xylenes		150	156	ug/kg	0.649	4.06	20	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316699-02

Instrument ID: HPMS9 Run Time: 14:04 Method: 8260B

File ID: 9M73384 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG316701 Cal ID: HPMS9 - 02-NOV-09

Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	99.3	ug/kg	0.327	0.687	20	
m-,p-Xylene		100	105	ug/kg	0.674	4.60	20	
o-Xylene		50.0	51.5	ug/kg	0.623	2.99	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/07/2009 Sample ID: WG316825-02
Instrument ID: HPMS9 Run Time: 12:33 Method: 8260B
File ID: 9M73417 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG316826 Cal ID: HPMS9 - 02-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	49.1	ug/kg	0.633	1.72	20	
1,2-Dichloropropane	CCC	50.0	47.2	ug/kg	0.355	5.59	20	
Chloroform	CCC	50.0	47.8	ug/kg	0.492	4.47	20	
Ethylbenzene	CCC	50.0	52.4	ug/kg	0.574	4.76	20	
Toluene	CCC	50.0	50.7	ug/kg	1.60	1.38	20	
Vinyl Chloride	CCC	50.0	49.1	ug/kg	0.293	1.87	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	57.0	ug/kg	0.745	13.9	20	
1,1-Dichloroethane	SPCC	50.0	47.0	ug/kg	0.667	6.02	20	
Bromoform	SPCC	50.0	54.9	ug/kg	0.289	9.87	20	
Chlorobenzene	SPCC	50.0	51.2	ug/kg	1.09	2.32	20	
Chloromethane	SPCC	50.0	46.1	ug/kg	0.588	7.83	20	
1,1,1-Trichloroethane		50.0	48.0	ug/kg	0.449	3.97	20	
1,1,2-Trichloroethane		50.0	53.2	ug/kg	0.307	6.37	20	
1,2,4-Trichlorobenzene		50.0	54.2	ug/kg	1.01	8.34	20	
1,2-Dichlorobenzene		50.0	56.1	ug/kg	1.53	12.2	20	
1,2-Dichloroethane		50.0	47.6	ug/kg	0.431	4.76	20	
1,3-Dichlorobenzene		50.0	55.8	ug/kg	1.69	11.6	20	
1,4-Dichlorobenzene		50.0	54.8	ug/kg	1.68	9.58	20	
1,4-Dioxane		200	207	ug/kg	0.00260	3.56	20	
2-Butanone		50.0	49.0	ug/kg	0.163	1.91	20	
2-Hexanone		50.0	54.9	ug/kg	0.298	9.90	20	
4-Methyl-2-Pentanone		50.0	52.6	ug/kg	0.133	5.17	20	
Acetone		50.0	55.0	ug/kg	0.115	10.1	20	
Acrylonitrile		50.0	51.4	ug/kg	0.145	2.86	20	
Benzene		50.0	47.2	ug/kg	1.13	5.51	20	
Bromodichloromethane		50.0	48.6	ug/kg	0.347	2.83	20	
Bromomethane		50.0	49.6	ug/kg	0.269	0.893	20	
Carbon Disulfide		50.0	44.9	ug/kg	0.767	10.2	20	
Carbon Tetrachloride		50.0	49.3	ug/kg	0.428	1.49	20	
Dibromochloromethane		50.0	53.9	ug/kg	0.385	7.74	20	
Chloroethane		50.0	49.5	ug/kg	0.262	1.06	20	
cis-1,2-Dichloroethene		50.0	48.0	ug/kg	0.326	3.91	20	
cis-1,3-Dichloropropene		50.0	49.4	ug/kg	0.410	1.12	20	
Methylene Chloride		50.0	46.4	ug/kg	0.291	7.22	20	
Methyl Tert Butyl Ether		50.0	45.8	ug/kg	0.617	8.30	20	
Styrene		50.0	54.3	ug/kg	1.10	8.69	20	
Tetrachloroethene		50.0	51.6	ug/kg	0.366	3.16	20	
trans-1,2-Dichloroethene		50.0	49.2	ug/kg	0.313	1.57	20	
trans-1,3-Dichloropropene		50.0	52.3	ug/kg	0.521	4.70	20	
Trichloroethene		50.0	47.8	ug/kg	0.323	4.31	20	
Vinyl Acetate		50.0	38.4	ug/kg	0.547	23.2	20	*
Xylenes		150	161	ug/kg	0.671	7.47	20	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/07/2009 Sample ID: WG316825-02

Instrument ID: HPMS9 Run Time: 12:33 Method: 8260B

File ID: 9M73417 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG316826 Cal ID: HPMS9 - 02-NOV-09

Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	97.3	ug/kg	0.320	2.74	20	
m-,p-Xylene		100	108	ug/kg	0.695	7.77	20	
o-Xylene		50.0	53.4	ug/kg	0.647	6.87	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316886-02
Instrument ID: HPMS9 Run Time: 11:59 Method: 8260B
File ID: 9M73450 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG316889 Cal ID: HPMS9 - 02-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	48.0	ug/kg	0.619	3.95	20	
1,2-Dichloropropane	CCC	50.0	45.3	ug/kg	0.341	9.33	20	
Chloroform	CCC	50.0	46.3	ug/kg	0.477	7.50	20	
Ethylbenzene	CCC	50.0	51.0	ug/kg	0.560	2.09	20	
Toluene	CCC	50.0	49.4	ug/kg	1.56	1.25	20	
Vinyl Chloride	CCC	50.0	46.7	ug/kg	0.281	6.62	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	46.1	ug/kg	0.602	7.89	20	
1,1-Dichloroethane	SPCC	50.0	46.4	ug/kg	0.658	7.21	20	
Bromoform	SPCC	50.0	46.5	ug/kg	0.244	7.09	20	
Chlorobenzene	SPCC	50.0	48.3	ug/kg	1.03	3.40	20	
Chloromethane	SPCC	50.0	44.4	ug/kg	0.567	11.2	20	
1,1,1-Trichloroethane		50.0	47.8	ug/kg	0.447	4.34	20	
1,1,2-Trichloroethane		50.0	46.5	ug/kg	0.268	7.06	20	
1,2,4-Trichlorobenzene		50.0	51.3	ug/kg	0.958	2.54	20	
1,2-Dichlorobenzene		50.0	50.4	ug/kg	1.37	0.849	20	
1,2-Dichloroethane		50.0	44.3	ug/kg	0.401	11.4	20	
1,3-Dichlorobenzene		50.0	50.4	ug/kg	1.53	0.726	20	
1,4-Dichlorobenzene		50.0	49.6	ug/kg	1.52	0.793	20	
1,4-Dioxane		200	163	ug/kg	0.00200	18.5	20	
2-Butanone		50.0	41.2	ug/kg	0.137	17.6	20	
2-Hexanone		50.0	46.0	ug/kg	0.249	8.09	20	
4-Methyl-2-Pentanone		50.0	43.0	ug/kg	0.109	13.9	20	
Acetone		50.0	41.7	ug/kg	0.0900	16.5	20	
Acrylonitrile		50.0	44.5	ug/kg	0.125	11.1	20	
Benzene		50.0	46.5	ug/kg	1.11	6.95	20	
Bromodichloromethane		50.0	45.1	ug/kg	0.322	9.85	20	
Bromomethane		50.0	49.5	ug/kg	0.269	1.05	20	
Carbon Disulfide		50.0	44.6	ug/kg	0.762	10.8	20	
Carbon Tetrachloride		50.0	48.6	ug/kg	0.422	2.83	20	
Dibromochloromethane		50.0	46.8	ug/kg	0.334	6.48	20	
Chloroethane		50.0	48.8	ug/kg	0.259	2.45	20	
cis-1,2-Dichloroethene		50.0	47.2	ug/kg	0.320	5.69	20	
cis-1,3-Dichloropropene		50.0	46.6	ug/kg	0.387	6.79	20	
Methylene Chloride		50.0	45.2	ug/kg	0.284	9.66	20	
Methyl Tert Butyl Ether		50.0	44.2	ug/kg	0.595	11.7	20	
Styrene		50.0	50.6	ug/kg	1.03	1.19	20	
Tetrachloroethene		50.0	51.4	ug/kg	0.365	2.78	20	
trans-1,2-Dichloroethene		50.0	48.2	ug/kg	0.307	3.56	20	
trans-1,3-Dichloropropene		50.0	47.8	ug/kg	0.475	4.49	20	
Trichloroethene		50.0	48.0	ug/kg	0.324	3.99	20	
Vinyl Acetate		50.0	39.7	ug/kg	0.566	20.6	20	*
Xylenes		150	153	ug/kg	0.637	2.15	20	

CCV - Modified 03/05/2008
PDF File ID: 1528267
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316886-02
Instrument ID: HPMS9 Run Time: 11:59 Method: 8260B
File ID: 9M73450 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG316889 Cal ID: HPMS9 - 02-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	95.4	ug/kg	0.314	4.62	20	
m-,p-Xylene		100	103	ug/kg	0.662	2.74	20	
o-Xylene		50.0	50.5	ug/kg	0.611	0.984	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1528267
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS6
Workgroup (AAB#): WG315944

ICAL CCV Number: WG314645-08
CAL ID: HPMS6-16-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG314645-08	NA	NA	286189	478842	529779
Upper Limit	NA	NA	572378	957684	1059558
Lower Limit	NA	NA	143095	239421	264890
L09100717-05	1.00	01	172510	292556	312265
L09100717-09	1.00	01	191237	317495	332803
L09100717-10	1.00	01	179815	302294	314224
L09100717-13	1.00	01	176924	293483	303626
L09100717-14	1.00	01	198849	332024	344780
WG315944-01	1.00	01	213879	360742	376556
WG315944-02	1.00	01	228031	376783	384987
WG315944-03	1.00	01	210531	358658	372498

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1538794
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS6
Workgroup (AAB#): WG316129

ICAL CCV Number: WG314645-08
CAL ID: HPMS6-16-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG314645-08	NA	NA	286189	478842	529779
Upper Limit	NA	NA	572378	957684	1059558
Lower Limit	NA	NA	143095	239421	264890
L09100717-05	25.0	DL01	301050	498038	512997
WG316129-01	1.00	01	294139	497133	515099
WG316129-02	1.00	01	317092	519496	522567

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1538794
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS9
Workgroup (AAB#): WG316701

ICAL CCV Number: WG316150-08
CAL ID: HPMS9-02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	330046	621754	793206
Upper Limit	NA	NA	660092	1243508	1586412
Lower Limit	NA	NA	165023	310877	396603
L09100717-01	1.00	01	294627	560088	727858
L09100717-02	1.00	01	252961	503875	659068
L09100717-03	1.00	01	291872	548076	704078
L09100717-04	1.00	01	267771	527152	696008
WG316701-01	1.00	01	273576	536955	697841
WG316701-02	1.00	01	284139	542311	693246

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1538794
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS9
Workgroup (AAB#): WG316826

ICAL CCV Number: WG316150-08
CAL ID: HPMS9 - 02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	330046	621754	793206
Upper Limit	NA	NA	660092	1243508	1586412
Lower Limit	NA	NA	165023	310877	396603
L09100717-06	1.00	01	277387	542279	712126
L09100717-07	1.00	01	278621	540337	702091
L09100717-11	1.00	01	270887	516369	662545
L09100717-12	1.00	01	247735	487844	642745
WG316826-01	1.00	01	260402	517258	688783
WG316826-02	1.00	01	287925	547232	704643
WG316826-03	1.00	01	290696	552263	713076

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1538794
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS9
Workgroup (AAB#): WG316889

ICAL CCV Number: WG316150-08
CAL ID: HPMS9-02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	330046	621754	793206
Upper Limit	NA	NA	660092	1243508	1586412
Lower Limit	NA	NA	165023	310877	396603
L09100717-08	1.00	02	282771	550184	713324
WG316889-01	1.00	01	295456	589412	768235
WG316889-02	1.00	01	315561	606041	786299
WG316889-03	1.00	01	317598	606257	779550

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1538794
Report generated 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY

(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717

Instrument ID: HPMS6

Workgroup (AAB#): WG315944

ICAL CCV Number: WG314645-08

CAL ID: HPMS6-16-OCT-09

Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG314645-08	NA	NA	18.53	14.99	10.52
Upper Limit	NA	NA	19.03	15.49	11.02
Lower Limit	NA	NA	18.03	14.49	10.02
L09100717-05	1.00	01	18.52	14.98	10.52
L09100717-09	1.00	01	18.52	14.98	10.51
L09100717-10	1.00	01	18.52	14.98	10.51
L09100717-13	1.00	01	18.52	14.98	10.51
L09100717-14	1.00	01	18.52	14.98	10.51
WG315944-01	1.00	01	18.52	14.98	10.51
WG315944-02	1.00	01	18.52	14.98	10.51
WG315944-03	1.00	01	18.52	14.98	10.51

IS-1 - 1,4-Dichlorobenzene-d4

IS-2 - Chlorobenzene-d5

IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008

PDF File ID: 1538795

Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS6
Workgroup (AAB#): WG316129

ICAL CCV Number: WG314645-08
CAL ID: HPMS6-16-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG314645-08	NA	NA	18.53	14.99	10.52
Upper Limit	NA	NA	19.03	15.49	11.02
Lower Limit	NA	NA	18.03	14.49	10.02
L09100717-05	25.0	DL01	18.52	14.98	10.51
WG316129-01	1.00	01	18.53	14.98	10.51
WG316129-02	1.00	01	18.53	14.98	10.51

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1538795
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS9
Workgroup (AAB#): WG316701

ICAL CCV Number: WG316150-08
CAL ID: HPMS9-02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	15.07	12.11	8.26
Upper Limit	NA	NA	15.57	12.61	8.76
Lower Limit	NA	NA	14.57	11.61	7.76
L09100717-01	1.00	01	15.08	12.1	8.27
L09100717-02	1.00	01	15.08	12.11	8.27
L09100717-03	1.00	01	15.08	12.1	8.27
L09100717-04	1.00	01	15.08	12.11	8.27
WG316701-01	1.00	01	15.08	12.12	8.27
WG316701-02	1.00	01	15.08	12.1	8.27

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1538795
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS9
Workgroup (AAB#): WG316826

ICAL CCV Number: WG316150-08
CAL ID: HPMS9-02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	15.07	12.11	8.26
Upper Limit	NA	NA	15.57	12.61	8.76
Lower Limit	NA	NA	14.57	11.61	7.76
L09100717-06	1.00	01	15.07	12.11	8.26
L09100717-07	1.00	01	15.08	12.1	8.27
L09100717-11	1.00	01	15.08	12.11	8.27
L09100717-12	1.00	01	15.08	12.1	8.27
WG316826-01	1.00	01	15.08	12.11	8.27
WG316826-02	1.00	01	15.08	12.1	8.27
WG316826-03	1.00	01	15.08	12.11	8.27

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1538795
Report generated: 11/12/2009 12:25

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS9
Workgroup (AAB#): WG316889

ICAL CCV Number: WG316150-08
CAL ID: HPMS9-02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	15.07	12.11	8.26
Upper Limit	NA	NA	15.57	12.61	8.76
Lower Limit	NA	NA	14.57	11.61	7.76
L09100717-08	1.00	02	15.08	12.11	8.27
WG316889-01	1.00	01	15.08	12.1	8.27
WG316889-02	1.00	01	15.08	12.1	8.27
WG316889-03	1.00	01	15.08	12.1	8.27

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1538795
Report generated: 11/12/2009 12:25

2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data

Loginnum: L09100717

Department: Semivolatiles

Analyst: Cassie A. Augenstein

METHOD

Preparation 3520C/3545

Analysis SW-846 8270C/40 CFR 264 App. IX

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All analytes met the ICV acceptance criteria, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG315933-10	HPMS12	10/31/2009	3,3'-DICHLOROBENZIDINE	REG		(-)38.2	*	25
WG315933-10	HPMS12	10/31/2009	4-CHLOROPHENYL PHENYL ETHER	REG		(-)26.7	*	25
WG315933-10	HPMS12	10/31/2009	4-NITROANILINE	REG		(-)26.6	*	25
WG315933-10	HPMS12	10/31/2009	BIS(2-CHLOROETHOXY)METHANE	REG		(-)39.5	*	25
WG316255-10	HPMS4	11/03/2009	3,3'-DICHLOROBENZIDINE	REG		(-)45.9	*	25
WG316255-10	HPMS4	11/03/2009	PENTACHLOROPHENOL	REG	CCC	(+)25.6	*	25
WG316819-10	HPMS12	11/08/2009	3,3'-DICHLOROBENZIDINE	REG		(-)47.5	*	25
WG316819-10	HPMS12	11/08/2009	BIS(2-CHLOROETHOXY)METHANE	REG		(-)36.6	*	25
WG316839-10	HPMS4	11/09/2009	2,4-DINITROPHENOL	REG	SPCC	(+)26.4	*	25
WG316839-10	HPMS4	11/09/2009	3,3'-DICHLOROBENZIDINE	REG		(-)32.5	*	25
WG316839-10	HPMS4	11/09/2009	4,6-DINITRO-2-METHYLPHENOL	REG		(+)27.1	*	25

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All reporting limit criteria were met, except for the following analytes:

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG316113-02	HPMS12	11/06/2009	2-FLUOROBIPHENYL	SURR		42.9	43	116

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: Samples 05-07, 09, 10 and 13 were run at a dilution due to extract appearance.

Internal Standards: All acceptance criteria were met.

Surrogates: All surrogate compounds met the acceptance criteria for % recovery, except for the following samples.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
L09100717-05	HPMS12	11/13/2009	P-TERPHENYL-D14	SURR		20.4	33	141

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac

Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

LABORATORY REPORT

L09100717

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4013-S001-102809	L09100717-01	8270C	1	29-OCT-09
4013-S001-102809-MS	L09100717-02	8270C	1	29-OCT-09
4013-S001-102809-MSD	L09100717-03	8270C	1	29-OCT-09
4013-S002-102809	L09100717-04	8270C	1	29-OCT-09
4013-GW-102809	L09100717-05	8270C	2	29-OCT-09
4014-S001-102809	L09100717-06	8270C	2	29-OCT-09
4014-S001-102809D	L09100717-07	8270C	2	29-OCT-09
4014-S002-102809	L09100717-08	8270C	1	29-OCT-09
4014-GW-102809	L09100717-09	8270C	2	29-OCT-09
4014-GW-102809D	L09100717-10	8270C	2	29-OCT-09
4011-S001-102809	L09100717-11	8270C	1	29-OCT-09
4011-S002-102809	L09100717-12	8270C	1	29-OCT-09
4011-GW-102809	L09100717-13	8270C	2	29-OCT-09

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-01**
Client ID: **4013-S001-102809**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 09:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 11:40**
File ID: **4M49029**
Percent Solid: **82.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	234	117
2,4,5-Trichlorophenol	95-95-4		U	234	117
2,4,6-Trichlorophenol	88-06-2		U	234	117
2,4-Dichlorophenol	120-83-2		U	234	117
2,4-Dimethylphenol	105-67-9		U	234	117
2,4-Dinitrophenol	51-28-5		U	1170	584
2,4-Dinitrotoluene	121-14-2		U	234	117
2,6-Dinitrotoluene	606-20-2		U	234	117
2-Chloronaphthalene	91-58-7		U	234	117
2-Chlorophenol	95-57-8		U	234	117
2-Methylnaphthalene	91-57-6		U	234	117
2-Methylphenol	95-48-7		U	234	117
2-Nitroaniline	88-74-4		U	1170	584
2-Nitrophenol	88-75-5		U	234	117
3,3'-Dichlorobenzidine	91-94-1		U	468	234
3-,4-Methylphenol	106-44-5		U	234	117
3-Nitroaniline	99-09-2		U	1170	584
4,6-Dinitro-2-methylphenol	534-52-1		U	1170	584
4-Bromophenyl phenyl ether	101-55-3		U	234	117
4-Chloro-3-methylphenol	59-50-7		U	234	117
4-Chloroaniline	106-47-8		U	234	117
4-Chlorophenyl phenyl ether	7005-72-3		U	234	117
4-Nitroaniline	100-01-6		U	1170	584
4-Nitrophenol	100-02-7		U	1170	584
Acenaphthene	83-32-9		U	234	117
Acenaphthylene	208-96-8		U	234	117
Anthracene	120-12-7		U	234	117
Benzo(a)anthracene	56-55-3		U	234	117
Benzo(a)pyrene	50-32-8		U	234	117
Benzo(b)fluoranthene	205-99-2		U	234	117
Benzo(g,h,i)Perylene	191-24-2		U	234	117
Benzo(k)fluoranthene	207-08-9		U	234	117
Bis(2-Chloroethoxy)Methane	111-91-1		U	234	117
Bis(2-Chloroethyl)ether	111-44-4		U	234	117
bis(2-Chloroisopropyl)ether	108-60-1		U	234	117
bis(2-Ethylhexyl)phthalate	117-81-7		U	234	117
Butyl benzyl phthalate	85-68-7		U	234	117
Carbazole	86-74-8		U	234	117
Chrysene	218-01-9		U	234	117
Dibenz(a,h)anthracene	53-70-3		U	234	117
Dibenzofuran	132-64-9		U	234	117
Diethyl phthalate	84-66-2		U	234	117
Dimethyl phthalate	131-11-3		U	234	117
Di-N-Butylphthalate	84-74-2		U	234	117
Di-n-octyl phthalate	117-84-0		U	234	117
Fluoranthene	206-44-0		U	234	117
Fluorene	86-73-7		U	234	117
Hexachlorobenzene	118-74-1		U	234	117
Hexachlorobutadiene	87-68-3		U	234	117
Hexachlorocyclopentadiene	77-47-4		U	234	117
Hexachloroethane	67-72-1		U	234	117
Indeno(1,2,3-cd)pyrene	193-39-5		U	234	117
Isophorone	78-59-1		U	234	117
Naphthalene	91-20-3		U	234	117
Nitrobenzene	98-95-3		U	234	117
N-Nitrosodiphenylamine	86-30-6		U	234	117
N-Nitrosodipropylamine	621-64-7		U	234	117
Pentachlorophenol	87-86-5		U	1170	584
Phenanthrene	85-01-8		U	234	117

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-01	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4013-S001-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 11:40
Collect Date:	10/28/2009 09:45	Dilution:	1	File ID:	4M49029
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	234	117
Pyrene	129-00-0		U	234	117

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	62.1	19	122	
2-Fluorobiphenyl	51.0	30	115	
2-Fluorophenol	52.2	25	121	
Nitrobenzene-d5	51.0	23	120	
p-Terphenyl-d14	88.4	18	137	
Phenol-d5	53.2	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-02**
Client ID: **4013-S001-102809-MS**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 09:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/14/2009 15:09**
File ID: **4M49052**
Percent Solid: **82.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1	1500		228	114
2,4,5-Trichlorophenol	95-95-4	2670		228	114
2,4,6-Trichlorophenol	88-06-2	2320		228	114
2,4-Dichlorophenol	120-83-2	2240		228	114
2,4-Dimethylphenol	105-67-9	1900		228	114
2,4-Dinitrophenol	51-28-5	2940		1140	569
2,4-Dinitrotoluene	121-14-2	3110		228	114
2,6-Dinitrotoluene	606-20-2	2630		228	114
2-Chloronaphthalene	91-58-7	1910		228	114
2-Chlorophenol	95-57-8	1980		228	114
2-Methylnaphthalene	91-57-6	2180		228	114
2-Methylphenol	95-48-7	2170		228	114
2-Nitroaniline	88-74-4	2720		1140	569
2-Nitrophenol	88-75-5	2190		228	114
3,3'-Dichlorobenzidine	91-94-1	1830		456	228
3-,4-Methylphenol	106-44-5	2110		228	114
3-Nitroaniline	99-09-2	2850		1140	569
4,6-Dinitro-2-methylphenol	534-52-1	3240		1140	569
4-Bromophenyl phenyl ether	101-55-3	2490		228	114
4-Chloro-3-methylphenol	59-50-7	2520		228	114
4-Chloroaniline	106-47-8	2000		228	114
4-Chlorophenyl phenyl ether	7005-72-3	2360		228	114
4-Nitroaniline	100-01-6	2910		1140	569
4-Nitrophenol	100-02-7	2880		1140	569
Acenaphthene	83-32-9	2280		228	114
Acenaphthylene	208-96-8	2230		228	114
Anthracene	120-12-7	2870		228	114
Benzo(a)anthracene	56-55-3	2820		228	114
Benzo(a)pyrene	50-32-8	2640		228	114
Benzo(b)fluoranthene	205-99-2	2400		228	114
Benzo(g,h,i)Perylene	191-24-2	2340		228	114
Benzo(k)fluoranthene	207-08-9	2750		228	114
Bis(2-Chloroethoxy)Methane	111-91-1	1650		228	114
Bis(2-Chloroethyl)ether	111-44-4	1910		228	114
bis(2-Chloroisopropyl)ether	108-60-1	1940		228	114
bis(2-Ethylhexyl)phthalate	117-81-7	2830		228	114
Butyl benzyl phthalate	85-68-7	3040		228	114
Carbazole	86-74-8	2910		228	114
Chrysene	218-01-9	2920		228	114
Dibenz(a,h)anthracene	53-70-3	2810		228	114
Dibenzofuran	132-64-9	2360		228	114
Diethyl phthalate	84-66-2	2810		228	114
Dimethyl phthalate	131-11-3	2610		228	114
Di-N-Butylphthalate	84-74-2	2690		228	114
Di-n-octyl phthalate	117-84-0	3150		228	114
Fluoranthene	206-44-0	2880		228	114
Fluorene	86-73-7	2480		228	114
Hexachlorobenzene	118-74-1	2610		228	114
Hexachlorobutadiene	87-68-3	2080		228	114
Hexachlorocyclopentadiene	77-47-4	1120		228	114
Hexachloroethane	67-72-1	1830		228	114
Indeno(1,2,3-cd)pyrene	193-39-5	2500		228	114
Isophorone	78-59-1	2010		228	114
Naphthalene	91-20-3	2060		228	114
Nitrobenzene	98-95-3	2100		228	114
N-Nitrosodiphenylamine	86-30-6	2280		228	114
N-Nitrosodipropylamine	621-64-7	2220		228	114
Pentachlorophenol	87-86-5	3230		1140	569
Phenanthrene	85-01-8	2820		228	114

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-02	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4013-S001-102809-MS	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MDC	Run Date:	11/14/2009 15:09
Collect Date:	10/28/2009 09:45	Dilution:	1	File ID:	4M49052
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2	2090		228	114
Pyrene	129-00-0	2770		228	114

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	88.0	19	122	
2-Fluorobiphenyl	57.3	30	115	
2-Fluorophenol	56.4	25	121	
Nitrobenzene-d5	57.0	23	120	
p-Terphenyl-d14	83.2	18	137	
Phenol-d5	59.1	24	113	

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-03**
Client ID: **4013-S001-102809-MSD**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 09:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 12:51**
File ID: **4M49031**
Percent Solid: **82.1**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1	1450		232	116
2,4,5-Trichlorophenol	95-95-4	2620		232	116
2,4,6-Trichlorophenol	88-06-2	2350		232	116
2,4-Dichlorophenol	120-83-2	2340		232	116
2,4-Dimethylphenol	105-67-9	1880		232	116
2,4-Dinitrophenol	51-28-5	3000		1160	579
2,4-Dinitrotoluene	121-14-2	2950		232	116
2,6-Dinitrotoluene	606-20-2	2480		232	116
2-Chloronaphthalene	91-58-7	1980		232	116
2-Chlorophenol	95-57-8	2040		232	116
2-Methylnaphthalene	91-57-6	2270		232	116
2-Methylphenol	95-48-7	2220		232	116
2-Nitroaniline	88-74-4	2560		1160	579
2-Nitrophenol	88-75-5	2200		232	116
3,3'-Dichlorobenzidine	91-94-1	1600		464	232
3-,4-Methylphenol	106-44-5	2230		232	116
3-Nitroaniline	99-09-2	2640		1160	579
4,6-Dinitro-2-methylphenol	534-52-1	2940		1160	579
4-Bromophenyl phenyl ether	101-55-3	2410		232	116
4-Chloro-3-methylphenol	59-50-7	2550		232	116
4-Chloroaniline	106-47-8	2060		232	116
4-Chlorophenyl phenyl ether	7005-72-3	2310		232	116
4-Nitroaniline	100-01-6	2720		1160	579
4-Nitrophenol	100-02-7	2970		1160	579
Acenaphthene	83-32-9	2330		232	116
Acenaphthylene	208-96-8	2280		232	116
Anthracene	120-12-7	2840		232	116
Benzo(a)anthracene	56-55-3	2840		232	116
Benzo(a)pyrene	50-32-8	2630		232	116
Benzo(b)fluoranthene	205-99-2	2460		232	116
Benzo(g,h,i)Perylene	191-24-2	2540		232	116
Benzo(k)fluoranthene	207-08-9	2840		232	116
Bis(2-Chloroethoxy)Methane	111-91-1	1720		232	116
Bis(2-Chloroethyl)ether	111-44-4	1930		232	116
bis(2-Chloroisopropyl)ether	108-60-1	2000		232	116
bis(2-Ethylhexyl)phthalate	117-81-7	2840		232	116
Butyl benzyl phthalate	85-68-7	3050		232	116
Carbazole	86-74-8	2860		232	116
Chrysene	218-01-9	2930		232	116
Dibenz(a,h)anthracene	53-70-3	2920		232	116
Dibenzofuran	132-64-9	2360		232	116
Diethyl phthalate	84-66-2	2710		232	116
Dimethyl phthalate	131-11-3	2500		232	116
Di-N-Butylphthalate	84-74-2	2720		232	116
Di-n-octyl phthalate	117-84-0	3070		232	116
Fluoranthene	206-44-0	2880		232	116
Fluorene	86-73-7	2420		232	116
Hexachlorobenzene	118-74-1	2570		232	116
Hexachlorobutadiene	87-68-3	2170		232	116
Hexachlorocyclopentadiene	77-47-4	1140		232	116
Hexachloroethane	67-72-1	1830		232	116
Indeno(1,2,3-cd)pyrene	193-39-5	2640		232	116
Isophorone	78-59-1	2120		232	116
Naphthalene	91-20-3	2130		232	116
Nitrobenzene	98-95-3	2150		232	116
N-Nitrosodiphenylamine	86-30-6	2120		232	116
N-Nitrosodipropylamine	621-64-7	2330		232	116
Pentachlorophenol	87-86-5	3190		1160	579
Phenanthrene	85-01-8	2760		232	116

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-03	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4013-S001-102809-MSD	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 12:51
Collect Date:	10/28/2009 09:45	Dilution:	1	File ID:	4M49031
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2	2180		232	116
Pyrene	129-00-0	2770		232	116

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	81.0	19	122	
2-Fluorobiphenyl	58.9	30	115	
2-Fluorophenol	56.5	25	121	
Nitrobenzene-d5	57.5	23	120	
p-Terphenyl-d14	79.5	18	137	
Phenol-d5	60.9	24	113	

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-04**
Client ID: **4013-S002-102809**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 10:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 13:26**
File ID: **4M49032**
Percent Solid: **93.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	203	102
2,4,5-Trichlorophenol	95-95-4		U	203	102
2,4,6-Trichlorophenol	88-06-2		U	203	102
2,4-Dichlorophenol	120-83-2		U	203	102
2,4-Dimethylphenol	105-67-9		U	203	102
2,4-Dinitrophenol	51-28-5		U	1020	507
2,4-Dinitrotoluene	121-14-2		U	203	102
2,6-Dinitrotoluene	606-20-2		U	203	102
2-Chloronaphthalene	91-58-7		U	203	102
2-Chlorophenol	95-57-8		U	203	102
2-Methylnaphthalene	91-57-6		U	203	102
2-Methylphenol	95-48-7		U	203	102
2-Nitroaniline	88-74-4		U	1020	507
2-Nitrophenol	88-75-5		U	203	102
3,3'-Dichlorobenzidine	91-94-1		U	406	203
3-,4-Methylphenol	106-44-5		U	203	102
3-Nitroaniline	99-09-2		U	1020	507
4,6-Dinitro-2-methylphenol	534-52-1		U	1020	507
4-Bromophenyl phenyl ether	101-55-3		U	203	102
4-Chloro-3-methylphenol	59-50-7		U	203	102
4-Chloroaniline	106-47-8		U	203	102
4-Chlorophenyl phenyl ether	7005-72-3		U	203	102
4-Nitroaniline	100-01-6		U	1020	507
4-Nitrophenol	100-02-7		U	1020	507
Acenaphthene	83-32-9		U	203	102
Acenaphthylene	208-96-8		U	203	102
Anthracene	120-12-7		U	203	102
Benzo(a)anthracene	56-55-3		U	203	102
Benzo(a)pyrene	50-32-8		U	203	102
Benzo(b)fluoranthene	205-99-2		U	203	102
Benzo(g,h,i)Perylene	191-24-2		U	203	102
Benzo(k)fluoranthene	207-08-9		U	203	102
Bis(2-Chloroethoxy)Methane	111-91-1		U	203	102
Bis(2-Chloroethyl)ether	111-44-4		U	203	102
bis(2-Chloroisopropyl)ether	108-60-1		U	203	102
bis(2-Ethylhexyl)phthalate	117-81-7		U	203	102
Butyl benzyl phthalate	85-68-7		U	203	102
Carbazole	86-74-8		U	203	102
Chrysene	218-01-9		U	203	102
Dibenz(a,h)anthracene	53-70-3		U	203	102
Dibenzofuran	132-64-9		U	203	102
Diethyl phthalate	84-66-2		U	203	102
Dimethyl phthalate	131-11-3		U	203	102
Di-N-Butylphthalate	84-74-2		U	203	102
Di-n-octyl phthalate	117-84-0		U	203	102
Fluoranthene	206-44-0		U	203	102
Fluorene	86-73-7		U	203	102
Hexachlorobenzene	118-74-1		U	203	102
Hexachlorobutadiene	87-68-3		U	203	102
Hexachlorocyclopentadiene	77-47-4		U	203	102
Hexachloroethane	67-72-1		U	203	102
Indeno(1,2,3-cd)pyrene	193-39-5		U	203	102
Isophorone	78-59-1		U	203	102
Naphthalene	91-20-3		U	203	102
Nitrobenzene	98-95-3		U	203	102
N-Nitrosodiphenylamine	86-30-6		U	203	102
N-Nitrosodipropylamine	621-64-7		U	203	102
Pentachlorophenol	87-86-5		U	1020	507
Phenanthrene	85-01-8		U	203	102

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-04	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4013-S002-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 13:26
Collect Date:	10/28/2009 10:30	Dilution:	1	File ID:	4M49032
Sample Tag:	01	Units:	ug/kg	Percent Solid:	93.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	203	102
Pyrene	129-00-0		U	203	102

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	67.3	19	122	
2-Fluorobiphenyl	55.3	30	115	
2-Fluorophenol	57.1	25	121	
Nitrobenzene-d5	56.3	23	120	
p-Terphenyl-d14	84.7	18	137	
Phenol-d5	58.2	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-05**
Client ID: **4013-GW-102809**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/28/2009 12:20**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **2**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 15:15**
File ID: **12M28033**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	20.4	10.2
2,4,5-Trichlorophenol	95-95-4		U	10.2	5.10
2,4,6-Trichlorophenol	88-06-2		U	10.2	5.10
2,4-Dichlorophenol	120-83-2		U	10.2	5.10
2,4-Dimethylphenol	105-67-9		U	10.2	5.10
2,4-Dinitrophenol	51-28-5		U	51.0	25.5
2,4-Dinitrotoluene	121-14-2		U	10.2	5.10
2,6-Dinitrotoluene	606-20-2		U	10.2	5.10
2-Chloronaphthalene	91-58-7		U	10.2	5.10
2-Chlorophenol	95-57-8		U	10.2	5.10
2-Methylnaphthalene	91-57-6		U	10.2	5.10
2-Methylphenol	95-48-7		U	10.2	5.10
2-Nitroaniline	88-74-4		U	51.0	25.5
2-Nitrophenol	88-75-5		U	10.2	5.10
3,3'-Dichlorobenzidine	91-94-1		U	10.2	5.10
3-,4-Methylphenol	106-44-5		U	20.4	5.10
3-Nitroaniline	99-09-2		U	51.0	25.5
4,6-Dinitro-2-methylphenol	534-52-1		U	51.0	25.5
4-Bromophenyl phenyl ether	101-55-3		U	10.2	5.10
4-Chloro-3-methylphenol	59-50-7		U	10.2	5.10
4-Chloroaniline	106-47-8		U	40.8	5.10
4-Chlorophenyl phenyl ether	7005-72-3		U	10.2	5.10
4-Nitroaniline	100-01-6		U	51.0	25.5
4-Nitrophenol	100-02-7		U	51.0	25.5
Acenaphthene	83-32-9		U	10.2	5.10
Acenaphthylene	208-96-8		U	10.2	5.10
Anthracene	120-12-7		U	10.2	5.10
Benzo(a)anthracene	56-55-3		U	10.2	5.10
Benzo(a)pyrene	50-32-8		U	10.2	5.10
Benzo(b)fluoranthene	205-99-2		U	10.2	5.10
Benzo(g,h,i)Perylene	191-24-2		U	10.2	5.10
Benzo(k)fluoranthene	207-08-9		U	10.2	5.10
Bis(2-Chloroethoxy)Methane	111-91-1		U	10.2	5.10
Bis(2-Chloroethyl)ether	111-44-4		U	10.2	5.10
bis(2-Chloroisopropyl)ether	108-60-1		U	10.2	5.10
bis(2-Ethylhexyl)phthalate	117-81-7		U	10.2	5.10
Butyl benzyl phthalate	85-68-7		U	10.2	5.10
Carbazole	86-74-8		U	40.8	5.10
Chrysene	218-01-9		U	10.2	5.10
Dibenz(a,h)anthracene	53-70-3		U	10.2	5.10
Dibenzofuran	132-64-9		U	10.2	5.10
Diethyl phthalate	84-66-2		U	10.2	5.10
Dimethyl phthalate	131-11-3		U	10.2	5.10
Di-N-Butylphthalate	84-74-2		U	10.2	5.10
Di-n-octyl phthalate	117-84-0		U	10.2	5.10
Fluoranthene	206-44-0		U	10.2	5.10
Fluorene	86-73-7		U	10.2	5.10
Hexachlorobenzene	118-74-1		U	10.2	5.10
Hexachlorobutadiene	87-68-3		U	10.2	5.10
Hexachlorocyclopentadiene	77-47-4		U	10.2	5.10
Hexachloroethane	67-72-1		U	10.2	5.10
Indeno(1,2,3-cd)pyrene	193-39-5		U	10.2	5.10
Isophorone	78-59-1		U	10.2	5.10
Naphthalene	91-20-3		U	10.2	5.10
Nitrobenzene	98-95-3		U	10.2	5.10
N-Nitrosodiphenylamine	86-30-6		U	10.2	5.10
N-Nitrosodipropylamine	621-64-7		U	10.2	5.10
Pentachlorophenol	87-86-5		U	51.0	25.5
Phenanthrene	85-01-8		U	10.2	5.10

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-05	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4013-GW-102809	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 15:15
Collect Date:	10/28/2009 12:20	Dilution:	2	File ID:	12M28033
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	10.2	5.10
Pyrene	129-00-0		U	10.2	5.10

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	75.9	10	123	
2-Fluorobiphenyl	64.8	43	116	
2-Fluorophenol	83.0	21	110	
Nitrobenzene-d5	72.7	35	114	
p-Terphenyl-d14	20.4	33	141	*
Phenol-d5	78.2	10	110	

* Surrogate or spike compound out of range
U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-06**
Client ID: **4014-S001-102809**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 12:55**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **2**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 18:43**
File ID: **4M49041**
Percent Solid: **81.2**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	412	206
2,4,5-Trichlorophenol	95-95-4		U	412	206
2,4,6-Trichlorophenol	88-06-2		U	412	206
2,4-Dichlorophenol	120-83-2		U	412	206
2,4-Dimethylphenol	105-67-9		U	412	206
2,4-Dinitrophenol	51-28-5		U	2060	1030
2,4-Dinitrotoluene	121-14-2		U	412	206
2,6-Dinitrotoluene	606-20-2		U	412	206
2-Chloronaphthalene	91-58-7		U	412	206
2-Chlorophenol	95-57-8		U	412	206
2-Methylnaphthalene	91-57-6		U	412	206
2-Methylphenol	95-48-7		U	412	206
2-Nitroaniline	88-74-4		U	2060	1030
2-Nitrophenol	88-75-5		U	412	206
3,3'-Dichlorobenzidine	91-94-1		U	824	412
3-,4-Methylphenol	106-44-5		U	412	206
3-Nitroaniline	99-09-2		U	2060	1030
4,6-Dinitro-2-methylphenol	534-52-1		U	2060	1030
4-Bromophenyl phenyl ether	101-55-3		U	412	206
4-Chloro-3-methylphenol	59-50-7		U	412	206
4-Chloroaniline	106-47-8		U	412	206
4-Chlorophenyl phenyl ether	7005-72-3		U	412	206
4-Nitroaniline	100-01-6		U	2060	1030
4-Nitrophenol	100-02-7		U	2060	1030
Acenaphthene	83-32-9		U	412	206
Acenaphthylene	208-96-8		U	412	206
Anthracene	120-12-7		U	412	206
Benzo(a)anthracene	56-55-3		U	412	206
Benzo(a)pyrene	50-32-8		U	412	206
Benzo(b)fluoranthene	205-99-2		U	412	206
Benzo(g,h,i)Perylene	191-24-2		U	412	206
Benzo(k)fluoranthene	207-08-9		U	412	206
Bis(2-Chloroethoxy)Methane	111-91-1		U	412	206
Bis(2-Chloroethyl)ether	111-44-4		U	412	206
bis(2-Chloroisopropyl)ether	108-60-1		U	412	206
bis(2-Ethylhexyl)phthalate	117-81-7		U	412	206
Butyl benzyl phthalate	85-68-7		U	412	206
Carbazole	86-74-8		U	412	206
Chrysene	218-01-9		U	412	206
Dibenz(a,h)anthracene	53-70-3		U	412	206
Dibenzofuran	132-64-9		U	412	206
Diethyl phthalate	84-66-2		U	412	206
Dimethyl phthalate	131-11-3		U	412	206
Di-N-Butylphthalate	84-74-2		U	412	206
Di-n-octyl phthalate	117-84-0		U	412	206
Fluoranthene	206-44-0		U	412	206
Fluorene	86-73-7		U	412	206
Hexachlorobenzene	118-74-1		U	412	206
Hexachlorobutadiene	87-68-3		U	412	206
Hexachlorocyclopentadiene	77-47-4		U	412	206
Hexachloroethane	67-72-1		U	412	206
Indeno(1,2,3-cd)pyrene	193-39-5		U	412	206
Isophorone	78-59-1		U	412	206
Naphthalene	91-20-3		U	412	206
Nitrobenzene	98-95-3		U	412	206
N-Nitrosodiphenylamine	86-30-6		U	412	206
N-Nitrosodipropylamine	621-64-7		U	412	206
Pentachlorophenol	87-86-5		U	2060	1030
Phenanthrene	85-01-8		U	412	206

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-06	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4014-S001-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 18:43
Collect Date:	10/28/2009 12:55	Dilution:	2	File ID:	4M49041
Sample Tag:	DL01	Units:	ug/kg	Percent Solid:	81.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	412	206
Pyrene	129-00-0		U	412	206

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	64.4	19	122	
2-Fluorobiphenyl	51.3	30	115	
2-Fluorophenol	56.5	25	121	
Nitrobenzene-d5	56.8	23	120	
p-Terphenyl-d14	90.4	18	137	
Phenol-d5	58.9	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-07**
Client ID: **4014-S001-102809D**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 12:55**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **2**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 19:17**
File ID: **4M49042**
Percent Solid: **76.6**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	464	232
2,4,5-Trichlorophenol	95-95-4		U	464	232
2,4,6-Trichlorophenol	88-06-2		U	464	232
2,4-Dichlorophenol	120-83-2		U	464	232
2,4-Dimethylphenol	105-67-9		U	464	232
2,4-Dinitrophenol	51-28-5		U	2320	1160
2,4-Dinitrotoluene	121-14-2		U	464	232
2,6-Dinitrotoluene	606-20-2		U	464	232
2-Chloronaphthalene	91-58-7		U	464	232
2-Chlorophenol	95-57-8		U	464	232
2-Methylnaphthalene	91-57-6		U	464	232
2-Methylphenol	95-48-7		U	464	232
2-Nitroaniline	88-74-4		U	2320	1160
2-Nitrophenol	88-75-5		U	464	232
3,3'-Dichlorobenzidine	91-94-1		U	928	464
3-,4-Methylphenol	106-44-5		U	464	232
3-Nitroaniline	99-09-2		U	2320	1160
4,6-Dinitro-2-methylphenol	534-52-1		U	2320	1160
4-Bromophenyl phenyl ether	101-55-3		U	464	232
4-Chloro-3-methylphenol	59-50-7		U	464	232
4-Chloroaniline	106-47-8		U	464	232
4-Chlorophenyl phenyl ether	7005-72-3		U	464	232
4-Nitroaniline	100-01-6		U	2320	1160
4-Nitrophenol	100-02-7		U	2320	1160
Acenaphthene	83-32-9		U	464	232
Acenaphthylene	208-96-8		U	464	232
Anthracene	120-12-7		U	464	232
Benzo(a)anthracene	56-55-3		U	464	232
Benzo(a)pyrene	50-32-8		U	464	232
Benzo(b)fluoranthene	205-99-2		U	464	232
Benzo(g,h,i)Perylene	191-24-2		U	464	232
Benzo(k)fluoranthene	207-08-9		U	464	232
Bis(2-Chloroethoxy)Methane	111-91-1		U	464	232
Bis(2-Chloroethyl)ether	111-44-4		U	464	232
bis(2-Chloroisopropyl)ether	108-60-1		U	464	232
bis(2-Ethylhexyl)phthalate	117-81-7		U	464	232
Butyl benzyl phthalate	85-68-7		U	464	232
Carbazole	86-74-8		U	464	232
Chrysene	218-01-9		U	464	232
Dibenz(a,h)anthracene	53-70-3		U	464	232
Dibenzofuran	132-64-9		U	464	232
Diethyl phthalate	84-66-2		U	464	232
Dimethyl phthalate	131-11-3		U	464	232
Di-N-Butylphthalate	84-74-2		U	464	232
Di-n-octyl phthalate	117-84-0		U	464	232
Fluoranthene	206-44-0		U	464	232
Fluorene	86-73-7		U	464	232
Hexachlorobenzene	118-74-1		U	464	232
Hexachlorobutadiene	87-68-3		U	464	232
Hexachlorocyclopentadiene	77-47-4		U	464	232
Hexachloroethane	67-72-1		U	464	232
Indeno(1,2,3-cd)pyrene	193-39-5		U	464	232
Isophorone	78-59-1		U	464	232
Naphthalene	91-20-3		U	464	232
Nitrobenzene	98-95-3		U	464	232
N-Nitrosodiphenylamine	86-30-6		U	464	232
N-Nitrosodipropylamine	621-64-7		U	464	232
Pentachlorophenol	87-86-5		U	2320	1160
Phenanthrene	85-01-8		U	464	232

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-07	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4014-S001-102809D	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 19:17
Collect Date:	10/28/2009 12:55	Dilution:	2	File ID:	4M49042
Sample Tag:	DL01	Units:	ug/kg	Percent Solid:	76.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	464	232
Pyrene	129-00-0		U	464	232

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	61.6	19	122	
2-Fluorobiphenyl	49.4	30	115	
2-Fluorophenol	54.5	25	121	
Nitrobenzene-d5	53.1	23	120	
p-Terphenyl-d14	82.7	18	137	
Phenol-d5	55.7	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-08**
Client ID: **4014-S002-102809**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 13:20**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 14:01**
File ID: **4M49033**
Percent Solid: **90.6**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	202	101
2,4,5-Trichlorophenol	95-95-4		U	202	101
2,4,6-Trichlorophenol	88-06-2		U	202	101
2,4-Dichlorophenol	120-83-2		U	202	101
2,4-Dimethylphenol	105-67-9		U	202	101
2,4-Dinitrophenol	51-28-5		U	1010	504
2,4-Dinitrotoluene	121-14-2		U	202	101
2,6-Dinitrotoluene	606-20-2		U	202	101
2-Chloronaphthalene	91-58-7		U	202	101
2-Chlorophenol	95-57-8		U	202	101
2-Methylnaphthalene	91-57-6		U	202	101
2-Methylphenol	95-48-7		U	202	101
2-Nitroaniline	88-74-4		U	1010	504
2-Nitrophenol	88-75-5		U	202	101
3,3'-Dichlorobenzidine	91-94-1		U	403	202
3-,4-Methylphenol	106-44-5		U	202	101
3-Nitroaniline	99-09-2		U	1010	504
4,6-Dinitro-2-methylphenol	534-52-1		U	1010	504
4-Bromophenyl phenyl ether	101-55-3		U	202	101
4-Chloro-3-methylphenol	59-50-7		U	202	101
4-Chloroaniline	106-47-8		U	202	101
4-Chlorophenyl phenyl ether	7005-72-3		U	202	101
4-Nitroaniline	100-01-6		U	1010	504
4-Nitrophenol	100-02-7		U	1010	504
Acenaphthene	83-32-9		U	202	101
Acenaphthylene	208-96-8		U	202	101
Anthracene	120-12-7		U	202	101
Benzo(a)anthracene	56-55-3		U	202	101
Benzo(a)pyrene	50-32-8		U	202	101
Benzo(b)fluoranthene	205-99-2		U	202	101
Benzo(g,h,i)Perylene	191-24-2		U	202	101
Benzo(k)fluoranthene	207-08-9		U	202	101
Bis(2-Chloroethoxy)Methane	111-91-1		U	202	101
Bis(2-Chloroethyl)ether	111-44-4		U	202	101
bis(2-Chloroisopropyl)ether	108-60-1		U	202	101
bis(2-Ethylhexyl)phthalate	117-81-7		U	202	101
Butyl benzyl phthalate	85-68-7		U	202	101
Carbazole	86-74-8		U	202	101
Chrysene	218-01-9		U	202	101
Dibenz(a,h)anthracene	53-70-3		U	202	101
Dibenzofuran	132-64-9		U	202	101
Diethyl phthalate	84-66-2		U	202	101
Dimethyl phthalate	131-11-3		U	202	101
Di-N-Butylphthalate	84-74-2		U	202	101
Di-n-octyl phthalate	117-84-0		U	202	101
Fluoranthene	206-44-0		U	202	101
Fluorene	86-73-7		U	202	101
Hexachlorobenzene	118-74-1		U	202	101
Hexachlorobutadiene	87-68-3		U	202	101
Hexachlorocyclopentadiene	77-47-4		U	202	101
Hexachloroethane	67-72-1		U	202	101
Indeno(1,2,3-cd)pyrene	193-39-5		U	202	101
Isophorone	78-59-1		U	202	101
Naphthalene	91-20-3		U	202	101
Nitrobenzene	98-95-3		U	202	101
N-Nitrosodiphenylamine	86-30-6		U	202	101
N-Nitrosodipropylamine	621-64-7		U	202	101
Pentachlorophenol	87-86-5		U	1010	504
Phenanthrene	85-01-8		U	202	101

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-08	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4014-S002-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 14:01
Collect Date:	10/28/2009 13:20	Dilution:	1	File ID:	4M49033
Sample Tag:	01	Units:	ug/kg	Percent Solid:	90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	202	101
Pyrene	129-00-0		U	202	101

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	77.1	19	122	
2-Fluorobiphenyl	57.5	30	115	
2-Fluorophenol	64.3	25	121	
Nitrobenzene-d5	60.5	23	120	
p-Terphenyl-d14	87.4	18	137	
Phenol-d5	65.0	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-09**
Client ID: **4014-GW-102809**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/28/2009 14:00**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **2**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 15:49**
File ID: **12M28034**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	21.5	10.8
2,4,5-Trichlorophenol	95-95-4		U	10.8	5.38
2,4,6-Trichlorophenol	88-06-2		U	10.8	5.38
2,4-Dichlorophenol	120-83-2		U	10.8	5.38
2,4-Dimethylphenol	105-67-9		U	10.8	5.38
2,4-Dinitrophenol	51-28-5		U	53.8	26.9
2,4-Dinitrotoluene	121-14-2		U	10.8	5.38
2,6-Dinitrotoluene	606-20-2		U	10.8	5.38
2-Chloronaphthalene	91-58-7		U	10.8	5.38
2-Chlorophenol	95-57-8		U	10.8	5.38
2-Methylnaphthalene	91-57-6		U	10.8	5.38
2-Methylphenol	95-48-7		U	10.8	5.38
2-Nitroaniline	88-74-4		U	53.8	26.9
2-Nitrophenol	88-75-5		U	10.8	5.38
3,3'-Dichlorobenzidine	91-94-1		U	10.8	5.38
3-,4-Methylphenol	106-44-5		U	21.5	5.38
3-Nitroaniline	99-09-2		U	53.8	26.9
4,6-Dinitro-2-methylphenol	534-52-1		U	53.8	26.9
4-Bromophenyl phenyl ether	101-55-3		U	10.8	5.38
4-Chloro-3-methylphenol	59-50-7		U	10.8	5.38
4-Chloroaniline	106-47-8		U	43.0	5.38
4-Chlorophenyl phenyl ether	7005-72-3		U	10.8	5.38
4-Nitroaniline	100-01-6		U	53.8	26.9
4-Nitrophenol	100-02-7		U	53.8	26.9
Acenaphthene	83-32-9		U	10.8	5.38
Acenaphthylene	208-96-8		U	10.8	5.38
Anthracene	120-12-7		U	10.8	5.38
Benzo(a)anthracene	56-55-3		U	10.8	5.38
Benzo(a)pyrene	50-32-8		U	10.8	5.38
Benzo(b)fluoranthene	205-99-2		U	10.8	5.38
Benzo(g,h,i)Perylene	191-24-2		U	10.8	5.38
Benzo(k)fluoranthene	207-08-9		U	10.8	5.38
Bis(2-Chloroethoxy)Methane	111-91-1		U	10.8	5.38
Bis(2-Chloroethyl)ether	111-44-4		U	10.8	5.38
bis(2-Chloroisopropyl)ether	108-60-1		U	10.8	5.38
bis(2-Ethylhexyl)phthalate	117-81-7		U	10.8	5.38
Butyl benzyl phthalate	85-68-7		U	10.8	5.38
Carbazole	86-74-8		U	43.0	5.38
Chrysene	218-01-9		U	10.8	5.38
Dibenz(a,h)anthracene	53-70-3		U	10.8	5.38
Dibenzofuran	132-64-9		U	10.8	5.38
Diethyl phthalate	84-66-2		U	10.8	5.38
Dimethyl phthalate	131-11-3		U	10.8	5.38
Di-N-Butylphthalate	84-74-2		U	10.8	5.38
Di-n-octyl phthalate	117-84-0		U	10.8	5.38
Fluoranthene	206-44-0		U	10.8	5.38
Fluorene	86-73-7		U	10.8	5.38
Hexachlorobenzene	118-74-1		U	10.8	5.38
Hexachlorobutadiene	87-68-3		U	10.8	5.38
Hexachlorocyclopentadiene	77-47-4		U	10.8	5.38
Hexachloroethane	67-72-1		U	10.8	5.38
Indeno(1,2,3-cd)pyrene	193-39-5		U	10.8	5.38
Isophorone	78-59-1		U	10.8	5.38
Naphthalene	91-20-3		U	10.8	5.38
Nitrobenzene	98-95-3		U	10.8	5.38
N-Nitrosodiphenylamine	86-30-6		U	10.8	5.38
N-Nitrosodipropylamine	621-64-7		U	10.8	5.38
Pentachlorophenol	87-86-5		U	53.8	26.9
Phenanthrene	85-01-8		U	10.8	5.38

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-09	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4014-GW-102809	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 15:49
Collect Date:	10/28/2009 14:00	Dilution:	2	File ID:	12M28034
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	10.8	5.38
Pyrene	129-00-0		U	10.8	5.38

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	80.3	10	123	
2-Fluorobiphenyl	66.4	43	116	
2-Fluorophenol	65.4	21	110	
Nitrobenzene-d5	57.5	35	114	
p-Terphenyl-d14	59.6	33	141	
Phenol-d5	61.3	10	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-10**
Client ID: **4014-GW-102809D**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/28/2009 14:00**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **2**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 16:23**
File ID: **12M28035**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	21.5	10.8
2,4,5-Trichlorophenol	95-95-4		U	10.8	5.38
2,4,6-Trichlorophenol	88-06-2		U	10.8	5.38
2,4-Dichlorophenol	120-83-2		U	10.8	5.38
2,4-Dimethylphenol	105-67-9		U	10.8	5.38
2,4-Dinitrophenol	51-28-5		U	53.8	26.9
2,4-Dinitrotoluene	121-14-2		U	10.8	5.38
2,6-Dinitrotoluene	606-20-2		U	10.8	5.38
2-Chloronaphthalene	91-58-7		U	10.8	5.38
2-Chlorophenol	95-57-8		U	10.8	5.38
2-Methylnaphthalene	91-57-6		U	10.8	5.38
2-Methylphenol	95-48-7		U	10.8	5.38
2-Nitroaniline	88-74-4		U	53.8	26.9
2-Nitrophenol	88-75-5		U	10.8	5.38
3,3'-Dichlorobenzidine	91-94-1		U	10.8	5.38
3-,4-Methylphenol	106-44-5		U	21.5	5.38
3-Nitroaniline	99-09-2		U	53.8	26.9
4,6-Dinitro-2-methylphenol	534-52-1		U	53.8	26.9
4-Bromophenyl phenyl ether	101-55-3		U	10.8	5.38
4-Chloro-3-methylphenol	59-50-7		U	10.8	5.38
4-Chloroaniline	106-47-8		U	43.0	5.38
4-Chlorophenyl phenyl ether	7005-72-3		U	10.8	5.38
4-Nitroaniline	100-01-6		U	53.8	26.9
4-Nitrophenol	100-02-7		U	53.8	26.9
Acenaphthene	83-32-9		U	10.8	5.38
Acenaphthylene	208-96-8		U	10.8	5.38
Anthracene	120-12-7		U	10.8	5.38
Benzo(a)anthracene	56-55-3		U	10.8	5.38
Benzo(a)pyrene	50-32-8		U	10.8	5.38
Benzo(b)fluoranthene	205-99-2		U	10.8	5.38
Benzo(g,h,i)Perylene	191-24-2		U	10.8	5.38
Benzo(k)fluoranthene	207-08-9		U	10.8	5.38
Bis(2-Chloroethoxy)Methane	111-91-1		U	10.8	5.38
Bis(2-Chloroethyl)ether	111-44-4		U	10.8	5.38
bis(2-Chloroisopropyl)ether	108-60-1		U	10.8	5.38
bis(2-Ethylhexyl)phthalate	117-81-7		U	10.8	5.38
Butyl benzyl phthalate	85-68-7		U	10.8	5.38
Carbazole	86-74-8		U	43.0	5.38
Chrysene	218-01-9		U	10.8	5.38
Dibenz(a,h)anthracene	53-70-3		U	10.8	5.38
Dibenzofuran	132-64-9		U	10.8	5.38
Diethyl phthalate	84-66-2		U	10.8	5.38
Dimethyl phthalate	131-11-3		U	10.8	5.38
Di-N-Butylphthalate	84-74-2		U	10.8	5.38
Di-n-octyl phthalate	117-84-0		U	10.8	5.38
Fluoranthene	206-44-0		U	10.8	5.38
Fluorene	86-73-7		U	10.8	5.38
Hexachlorobenzene	118-74-1		U	10.8	5.38
Hexachlorobutadiene	87-68-3		U	10.8	5.38
Hexachlorocyclopentadiene	77-47-4		U	10.8	5.38
Hexachloroethane	67-72-1		U	10.8	5.38
Indeno(1,2,3-cd)pyrene	193-39-5		U	10.8	5.38
Isophorone	78-59-1		U	10.8	5.38
Naphthalene	91-20-3		U	10.8	5.38
Nitrobenzene	98-95-3		U	10.8	5.38
N-Nitrosodiphenylamine	86-30-6		U	10.8	5.38
N-Nitrosodipropylamine	621-64-7		U	10.8	5.38
Pentachlorophenol	87-86-5		U	53.8	26.9
Phenanthrene	85-01-8		U	10.8	5.38

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-10	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4014-GW-102809D	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 16:23
Collect Date:	10/28/2009 14:00	Dilution:	2	File ID:	12M28035
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	10.8	5.38
Pyrene	129-00-0		U	10.8	5.38

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	80.3	10	123	
2-Fluorobiphenyl	64.7	43	116	
2-Fluorophenol	64.4	21	110	
Nitrobenzene-d5	58.4	35	114	
p-Terphenyl-d14	66.1	33	141	
Phenol-d5	61.4	10	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-11**
Client ID: **4011-S001-102809**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 15:15**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 14:36**
File ID: **4M49034**
Percent Solid: **83.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	226	113
2,4,5-Trichlorophenol	95-95-4		U	226	113
2,4,6-Trichlorophenol	88-06-2		U	226	113
2,4-Dichlorophenol	120-83-2		U	226	113
2,4-Dimethylphenol	105-67-9		U	226	113
2,4-Dinitrophenol	51-28-5		U	1130	564
2,4-Dinitrotoluene	121-14-2		U	226	113
2,6-Dinitrotoluene	606-20-2		U	226	113
2-Chloronaphthalene	91-58-7		U	226	113
2-Chlorophenol	95-57-8		U	226	113
2-Methylnaphthalene	91-57-6		U	226	113
2-Methylphenol	95-48-7		U	226	113
2-Nitroaniline	88-74-4		U	1130	564
2-Nitrophenol	88-75-5		U	226	113
3,3'-Dichlorobenzidine	91-94-1		U	452	226
3-,4-Methylphenol	106-44-5		U	226	113
3-Nitroaniline	99-09-2		U	1130	564
4,6-Dinitro-2-methylphenol	534-52-1		U	1130	564
4-Bromophenyl phenyl ether	101-55-3		U	226	113
4-Chloro-3-methylphenol	59-50-7		U	226	113
4-Chloroaniline	106-47-8		U	226	113
4-Chlorophenyl phenyl ether	7005-72-3		U	226	113
4-Nitroaniline	100-01-6		U	1130	564
4-Nitrophenol	100-02-7		U	1130	564
Acenaphthene	83-32-9		U	226	113
Acenaphthylene	208-96-8		U	226	113
Anthracene	120-12-7		U	226	113
Benzo(a)anthracene	56-55-3		U	226	113
Benzo(a)pyrene	50-32-8		U	226	113
Benzo(b)fluoranthene	205-99-2		U	226	113
Benzo(g,h,i)Perylene	191-24-2		U	226	113
Benzo(k)fluoranthene	207-08-9		U	226	113
Bis(2-Chloroethoxy)Methane	111-91-1		U	226	113
Bis(2-Chloroethyl)ether	111-44-4		U	226	113
bis(2-Chloroisopropyl)ether	108-60-1		U	226	113
bis(2-Ethylhexyl)phthalate	117-81-7		U	226	113
Butyl benzyl phthalate	85-68-7		U	226	113
Carbazole	86-74-8		U	226	113
Chrysene	218-01-9		U	226	113
Dibenz(a,h)anthracene	53-70-3		U	226	113
Dibenzofuran	132-64-9		U	226	113
Diethyl phthalate	84-66-2		U	226	113
Dimethyl phthalate	131-11-3		U	226	113
Di-N-Butylphthalate	84-74-2		U	226	113
Di-n-octyl phthalate	117-84-0		U	226	113
Fluoranthene	206-44-0		U	226	113
Fluorene	86-73-7		U	226	113
Hexachlorobenzene	118-74-1		U	226	113
Hexachlorobutadiene	87-68-3		U	226	113
Hexachlorocyclopentadiene	77-47-4		U	226	113
Hexachloroethane	67-72-1		U	226	113
Indeno(1,2,3-cd)pyrene	193-39-5		U	226	113
Isophorone	78-59-1		U	226	113
Naphthalene	91-20-3		U	226	113
Nitrobenzene	98-95-3		U	226	113
N-Nitrosodiphenylamine	86-30-6		U	226	113
N-Nitrosodipropylamine	621-64-7		U	226	113
Pentachlorophenol	87-86-5		U	1130	564
Phenanthrene	85-01-8		U	226	113

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-11	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4011-S001-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 14:36
Collect Date:	10/28/2009 15:15	Dilution:	1	File ID:	4M49034
Sample Tag:	01	Units:	ug/kg	Percent Solid:	83.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	226	113
Pyrene	129-00-0		U	226	113

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	56.6	19	122	
2-Fluorobiphenyl	51.0	30	115	
2-Fluorophenol	53.0	25	121	
Nitrobenzene-d5	52.1	23	120	
p-Terphenyl-d14	92.2	18	137	
Phenol-d5	55.4	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-12**
Client ID: **4011-S002-102809**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/28/2009 15:40**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 15:12**
File ID: **4M49035**
Percent Solid: **95.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	199	99.5
2,4,5-Trichlorophenol	95-95-4		U	199	99.5
2,4,6-Trichlorophenol	88-06-2		U	199	99.5
2,4-Dichlorophenol	120-83-2		U	199	99.5
2,4-Dimethylphenol	105-67-9		U	199	99.5
2,4-Dinitrophenol	51-28-5		U	995	497
2,4-Dinitrotoluene	121-14-2		U	199	99.5
2,6-Dinitrotoluene	606-20-2		U	199	99.5
2-Chloronaphthalene	91-58-7		U	199	99.5
2-Chlorophenol	95-57-8		U	199	99.5
2-Methylnaphthalene	91-57-6		U	199	99.5
2-Methylphenol	95-48-7		U	199	99.5
2-Nitroaniline	88-74-4		U	995	497
2-Nitrophenol	88-75-5		U	199	99.5
3,3'-Dichlorobenzidine	91-94-1		U	398	199
3-,4-Methylphenol	106-44-5		U	199	99.5
3-Nitroaniline	99-09-2		U	995	497
4,6-Dinitro-2-methylphenol	534-52-1		U	995	497
4-Bromophenyl phenyl ether	101-55-3		U	199	99.5
4-Chloro-3-methylphenol	59-50-7		U	199	99.5
4-Chloroaniline	106-47-8		U	199	99.5
4-Chlorophenyl phenyl ether	7005-72-3		U	199	99.5
4-Nitroaniline	100-01-6		U	995	497
4-Nitrophenol	100-02-7		U	995	497
Acenaphthene	83-32-9		U	199	99.5
Acenaphthylene	208-96-8		U	199	99.5
Anthracene	120-12-7		U	199	99.5
Benzo(a)anthracene	56-55-3		U	199	99.5
Benzo(a)pyrene	50-32-8		U	199	99.5
Benzo(b)fluoranthene	205-99-2		U	199	99.5
Benzo(g,h,i)Perylene	191-24-2		U	199	99.5
Benzo(k)fluoranthene	207-08-9		U	199	99.5
Bis(2-Chloroethoxy)Methane	111-91-1		U	199	99.5
Bis(2-Chloroethyl)ether	111-44-4		U	199	99.5
bis(2-Chloroisopropyl)ether	108-60-1		U	199	99.5
bis(2-Ethylhexyl)phthalate	117-81-7		U	199	99.5
Butyl benzyl phthalate	85-68-7		U	199	99.5
Carbazole	86-74-8		U	199	99.5
Chrysene	218-01-9		U	199	99.5
Dibenz(a,h)anthracene	53-70-3		U	199	99.5
Dibenzofuran	132-64-9		U	199	99.5
Diethyl phthalate	84-66-2		U	199	99.5
Dimethyl phthalate	131-11-3		U	199	99.5
Di-N-Butylphthalate	84-74-2		U	199	99.5
Di-n-octyl phthalate	117-84-0		U	199	99.5
Fluoranthene	206-44-0		U	199	99.5
Fluorene	86-73-7		U	199	99.5
Hexachlorobenzene	118-74-1		U	199	99.5
Hexachlorobutadiene	87-68-3		U	199	99.5
Hexachlorocyclopentadiene	77-47-4		U	199	99.5
Hexachloroethane	67-72-1		U	199	99.5
Indeno(1,2,3-cd)pyrene	193-39-5		U	199	99.5
Isophorone	78-59-1		U	199	99.5
Naphthalene	91-20-3		U	199	99.5
Nitrobenzene	98-95-3		U	199	99.5
N-Nitrosodiphenylamine	86-30-6		U	199	99.5
N-Nitrosodipropylamine	621-64-7		U	199	99.5
Pentachlorophenol	87-86-5		U	995	497
Phenanthrene	85-01-8		U	199	99.5

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-12	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4011-S002-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 15:12
Collect Date:	10/28/2009 15:40	Dilution:	1	File ID:	4M49035
Sample Tag:	01	Units:	ug/kg	Percent Solid:	95.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	199	99.5
Pyrene	129-00-0		U	199	99.5

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	54.8	19	122	
2-Fluorobiphenyl	61.0	30	115	
2-Fluorophenol	57.7	25	121	
Nitrobenzene-d5	59.5	23	120	
p-Terphenyl-d14	89.1	18	137	
Phenol-d5	61.5	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number: **L09100717-13**
Client ID: **4011-GW-102809**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/28/2009 16:15**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **2**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 16:56**
File ID: **12M28036**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	22.2	11.1
2,4,5-Trichlorophenol	95-95-4		U	11.1	5.56
2,4,6-Trichlorophenol	88-06-2		U	11.1	5.56
2,4-Dichlorophenol	120-83-2		U	11.1	5.56
2,4-Dimethylphenol	105-67-9		U	11.1	5.56
2,4-Dinitrophenol	51-28-5		U	55.6	27.8
2,4-Dinitrotoluene	121-14-2		U	11.1	5.56
2,6-Dinitrotoluene	606-20-2		U	11.1	5.56
2-Chloronaphthalene	91-58-7		U	11.1	5.56
2-Chlorophenol	95-57-8		U	11.1	5.56
2-Methylnaphthalene	91-57-6		U	11.1	5.56
2-Methylphenol	95-48-7		U	11.1	5.56
2-Nitroaniline	88-74-4		U	55.6	27.8
2-Nitrophenol	88-75-5		U	11.1	5.56
3,3'-Dichlorobenzidine	91-94-1		U	11.1	5.56
3-,4-Methylphenol	106-44-5		U	22.2	5.56
3-Nitroaniline	99-09-2		U	55.6	27.8
4,6-Dinitro-2-methylphenol	534-52-1		U	55.6	27.8
4-Bromophenyl phenyl ether	101-55-3		U	11.1	5.56
4-Chloro-3-methylphenol	59-50-7		U	11.1	5.56
4-Chloroaniline	106-47-8		U	44.4	5.56
4-Chlorophenyl phenyl ether	7005-72-3		U	11.1	5.56
4-Nitroaniline	100-01-6		U	55.6	27.8
4-Nitrophenol	100-02-7		U	55.6	27.8
Acenaphthene	83-32-9		U	11.1	5.56
Acenaphthylene	208-96-8		U	11.1	5.56
Anthracene	120-12-7		U	11.1	5.56
Benzo(a)anthracene	56-55-3		U	11.1	5.56
Benzo(a)pyrene	50-32-8		U	11.1	5.56
Benzo(b)fluoranthene	205-99-2		U	11.1	5.56
Benzo(g,h,i)Perylene	191-24-2		U	11.1	5.56
Benzo(k)fluoranthene	207-08-9		U	11.1	5.56
Bis(2-Chloroethoxy)Methane	111-91-1		U	11.1	5.56
Bis(2-Chloroethyl)ether	111-44-4		U	11.1	5.56
bis(2-Chloroisopropyl)ether	108-60-1		U	11.1	5.56
bis(2-Ethylhexyl)phthalate	117-81-7		U	11.1	5.56
Butyl benzyl phthalate	85-68-7		U	11.1	5.56
Carbazole	86-74-8		U	44.4	5.56
Chrysene	218-01-9		U	11.1	5.56
Dibenz(a,h)anthracene	53-70-3		U	11.1	5.56
Dibenzofuran	132-64-9		U	11.1	5.56
Diethyl phthalate	84-66-2		U	11.1	5.56
Dimethyl phthalate	131-11-3		U	11.1	5.56
Di-N-Butylphthalate	84-74-2		U	11.1	5.56
Di-n-octyl phthalate	117-84-0		U	11.1	5.56
Fluoranthene	206-44-0		U	11.1	5.56
Fluorene	86-73-7		U	11.1	5.56
Hexachlorobenzene	118-74-1		U	11.1	5.56
Hexachlorobutadiene	87-68-3		U	11.1	5.56
Hexachlorocyclopentadiene	77-47-4		U	11.1	5.56
Hexachloroethane	67-72-1		U	11.1	5.56
Indeno(1,2,3-cd)pyrene	193-39-5		U	11.1	5.56
Isophorone	78-59-1		U	11.1	5.56
Naphthalene	91-20-3		U	11.1	5.56
Nitrobenzene	98-95-3		U	11.1	5.56
N-Nitrosodiphenylamine	86-30-6		U	11.1	5.56
N-Nitrosodipropylamine	621-64-7		U	11.1	5.56
Pentachlorophenol	87-86-5		U	55.6	27.8
Phenanthrene	85-01-8		U	11.1	5.56

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-13	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4011-GW-102809	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 16:56
Collect Date:	10/28/2009 16:15	Dilution:	2	File ID:	12M28036
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	11.1	5.56
Pyrene	129-00-0		U	11.1	5.56

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	37.9	10	123	
2-Fluorobiphenyl	64.0	43	116	
2-Fluorophenol	38.5	21	110	
Nitrobenzene-d5	58.3	35	114	
p-Terphenyl-d14	44.3	33	141	
Phenol-d5	40.3	10	110	

U Not detected at or above the reporting limit (RL).

2.2.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG316113
Analyst: RAH
Spike Analyst: RAH
Method: 3520C
Run Date: 11/02/2009 10:30
SOP: EXB01 Revison 15
Spike Witness: CAF
Surr Solution: STD35890

Methylene Chloride Lot #: COA14222
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1:1 H2SO4 Lot #: RGT14328
10N NaOH Lot #: RGT14307

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100714-01	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Colored
2	L09100714-02	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Colored
3	L09100714-03	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Transparent
4	L09100714-04	SAMP		827-SPE-DIO	980 mL	.5 mL			1 mL	Colored
5	L09100714-05	SAMP		827-SPE-DIO	850 mL	.5 mL			1 mL	Colored
6	L09100717-05	SAMP		827-SPE-DIO	980 mL	.5 mL			1 mL	Colored
7	L09100717-09	SAMP		827-SPE-DIO	930 mL	.5 mL			1 mL	Colored
8	L09100717-10	SAMP		827-SPE-DIO	930 mL	.5 mL			1 mL	Colored
9	L09100717-13	SAMP		827-SPE-DIO	900 mL	.5 mL			1 mL	Colored
10	L09100754-01	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Colored
11	L09100754-02	SAMP		827-SPE-DIO	910 mL	.5 mL			1 mL	Colored
12	L09100770-05	SAMP		827-SPE	900 mL	.5 mL			1 mL	Transparent
13	L09100771-04	RS01		827-SPE-DIO	900 mL	.5 mL			1 mL	Colored
14	L09100771-05	MS01	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
15	L09100771-06	SD01	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
16	L09100771-09	SAMP		827-SPE-DIO	920 mL	.5 mL			1 mL	Colored
17	L09100771-12	SAMP		827-SPE-DIO	830 mL	.5 mL			1 mL	Colored
18	L09100775-33	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Transparent
19	L09100775-34	SAMP		827-SPE-DIO	900 mL	.5 mL			1 mL	Transparent
20	WG316113-01	REF	L09100771-04	827-SPE-DIO	900 mL	.5 mL			1 mL	Colored
21	WG316113-02	BLANK		827-SPE-DIO	1000 mL	.5 mL			1 mL	Transparent
22	WG316113-03	LCS		827-SPE-DIO	1000 mL	.5 mL	1 mL	STD35870	1 mL	Colored
23	WG316113-04	MS	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
24	WG316113-05	MSD	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored

Analyst: [signature]

Reviewer: Cheryl A. Flowers

EXTRACT - Modified 10/22/2008
PDF ID: 1530973
Report generated: 11/16/2009 09:10

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG316397
Analyst: CPD
Spike Analyst: CPD
Method: 3545
Run Date: 11/04/2009 08:11
SOP: ASE01 Revison 7
Spike Witness: CAF
Surr Solution: STD35890

Methylene Chloride Lot #: COA14222
Purified Lab Sand Lot #: COA13873
Diatomaceous Earth Lot #: COA13977
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1% Acetic Acid Lot #: RGT14192

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100552-03	SAMP		827-SPE	19.44 g	.5 mL			4 mL	Colored
2	L09100717-01	RS01		827-SPE-DIO	17.19 g	.5 mL			1 mL	Colored
3	L09100717-02	MS01	L09100717-01	827-SPE-DIO	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
4	L09100717-03	SD01	L09100717-01	827-SPE-DIO	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored
5	L09100717-04	SAMP		827-SPE-DIO	17.31 g	.5 mL			1 mL	Colored
6	L09100717-06	SAMP		827-SPE-DIO	19.71 g	.5 mL			1 mL	Colored
7	L09100717-07	SAMP		827-SPE-DIO	18.57 g	.5 mL			1 mL	Colored
8	L09100717-08	SAMP		827-SPE-DIO	18.06 g	.5 mL			1 mL	Colored
9	L09100717-11	SAMP		827-SPE-DIO	17.5 g	.5 mL			1 mL	Transparent
10	L09100717-12	SAMP		827-SPE-DIO	17.32 g	.5 mL			1 mL	Colored
11	L09100760-01	SAMP		8270	18.55 g	.5 mL			1 mL	Opaque
12	L09100767-01	SAMP		8270	17.72 g	.5 mL			1 mL	Opaque
13	L09100771-02	SAMP		827-SPE-DIO	19.72 g	.5 mL			1 mL	Colored
14	L09100771-03	SAMP		827-SPE-DIO	18.64 g	.5 mL			1 mL	Transparent
15	L09100771-07	SAMP		827-SPE-DIO	20.93 g	.5 mL			1 mL	Transparent
16	L09100771-08	SAMP		827-SPE-DIO	18.04 g	.5 mL			1 mL	Colored
17	L09100771-10	SAMP		827-SPE-DIO	18.72 g	.5 mL			1 mL	Colored
18	L09100771-11	SAMP		827-SPE-DIO	17.92 g	.5 mL			1 mL	Colored
19	WG316397-01	REF	L09100717-01	827-SPE-DIO	17.19 g	.5 mL			1 mL	Colored
20	WG316397-02	BLANK		8270	20 g	.5 mL			1 mL	Transparent
21	WG316397-03	LCS		8270	20 g	.5 mL	.5 mL	STD35739	1 mL	Colored
22	WG316397-04	MS	L09100717-01	827-SPE-DIO	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
23	WG316397-05	MSD	L09100717-01	827-SPE-DIO	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored

L09100552-03	REEXT OUT OF HOLD LEFT RESIDUE ON INSIDE OF ZYMARK TUBE

Analyst:

Reviewer:

EXTRACT - Modified 10/22/2008
PDF ID: 1531001
Report generated: 11/16/2009 14:36

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 103109
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30744

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD22692 Surrogate STD: NA Calibration STD

Comments: Daylight savings time ended between 12M27685 and 12M27686.
12M27658-12M27663: see maintenance log.
ICAL: #24, 77, 97, 130, 131 calibrated to 100ppm. #64, 110 calibrated to 80ppm.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27658	BAKEOUT	1	1	STD36018	10/31/09 09:36
2	12M27659	PRIMER	1	1	STD36018	10/31/09 09:54
3	12M27660	WG315933-01 50PPM DFTPP	1	1	STD35357	10/31/09 10:53
4	12M27661	WG315933-02 50PPM BNA STD	1	1	STD36018	10/31/09 11:12
5	12M27662	50PPM TCL STD	1	1	STD34192	10/31/09 11:44
6	12M27663	WG315933-05 15PPM BNA STD	1	1	STD36018	10/31/09 12:13
7	12M27664	WG315933-01 50PPM DFTPP	1	1	STD35357	10/31/09 14:21
8	12M27665	WG315933-01 50PPM DFTPP	1	1	STD35357	10/31/09 14:39
9	12M27666	WG315933-02 50PPM BNA STD	1	1	STD36018	10/31/09 14:58
10	12M27667	WG315933-03 3PPM BNA STD	1	1	STD36018	10/31/09 15:32
11	12M27668	WG315933-04 10PPM BNA STD	1	1	STD36018	10/31/09 16:06
12	12M27669	WG315933-05 15PPM BNA STD	1	1	STD36018	10/31/09 16:40
13	12M27670	WG315933-06 25PPM BNA STD	1	1	STD36018	10/31/09 17:15
14	12M27671	WG315933-07 80PPM BNA STD	1	1	STD36018	10/31/09 17:49
15	12M27672	WG315933-08 100PPM BNA STD	1	1	STD36018	10/31/09 18:24
16	12M27673	WG315933-09 120PPM BNA STD	1	1	STD36018	10/31/09 18:58
17	12M27674	WG315933-10 50PPM BNA Alt source	1	1	STD34085	10/31/09 19:32
18	12M27675	WG315933-11 50PPM A9 Alt source	1	1	STD34874	10/31/09 20:06
19	12M27676	WG315933-12 50PPM 1,4-dioxane Alt source	1	1	STD34874	10/31/09 20:40
20	12M27677	WG316004-01 50ppm TCL std	1	1	STD34192	10/31/09 21:15
21	12M27678	WG316004-02 3ppm TCL std	1	1	STD34192	10/31/09 21:49
22	12M27679	WG316004-03 10ppm TCL std	1	1	STD34192	10/31/09 22:22
23	12M27680	WG316004-04 25ppm TCL std	1	1	STD34192	10/31/09 22:56
24	12M27681	WG316004-05 80ppm TCL std	1	1	STD34192	10/31/09 23:31
25	12M27682	WG316004-06 100ppm TCL std	1	1	STD34192	11/01/09 00:05
26	12M27683	WG316004-07 50ppm TCL Alt source std	1	1	STD34903	11/01/09 00:39
27	12M27684	WG316005-01 50PPM DFTPP	1	1	STD35357	11/01/09 01:12
28	12M27685	WG316005-02 50PPM BNA STD	1	1	STD36018	11/01/09 01:31
29	12M27686	WG316006-01 50ppm TCL std	1	1	STD34192	11/01/09 01:05
30	12M27687	WG315223-02 BLK 10/23	1	1		11/01/09 01:39
31	12M27688	WG315223-03 LCS 10/23	1	1		11/01/09 02:13
32	12M27689	L09100586-23 RR	1	1		11/01/09 02:47
33	12M27690	L09100418-01	1	1		11/01/09 03:20
34	12M27691	L09100418-03	1	1		11/01/09 03:55

Page: 1 Approved: 02-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 103109
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30744

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD22692 Surrogate STD: NA

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
35	12M27692	L09100418-05	1	1		11/01/09 04:29
36	12M27693	L09100418-07	1	1		11/01/09 05:03
37	12M27694	L09100418-09	1	1		11/01/09 05:37
38	12M27695	L09100418-11	1	1		11/01/09 06:11
39	12M27696	L09100418-13	1	1		11/01/09 06:45
51	12M27697	L09100418-15 RS	1	1		11/01/09 07:19
49	12M27698	WG315223-04 L09100418-17 MS	1	1		11/01/09 07:53
50	12M27699	WG315223-05 L09100418-19 MSD	1	1		11/01/09 08:27
43	12M27700	L09100418-21	1	1		11/01/09 09:01
44	12M27701	L09100478-01	1	1		11/01/09 09:35
45	12M27702	L09100478-02	1	1		11/01/09 10:10
46	12M27703	L09100478-03	1	1		11/01/09 10:44
47	12M27704	L09100478-04	1	1		11/01/09 11:18

Comments

Seq.	Rerun	Dil.	Reason	Analytes
7	X			
	Mass 68 high due to background noise.			
17				
	#38, 114, 125 >30%D.			
18				
	#7, 49, 78, 109, 110, 122, 130 >30%D.			
28				
	#39 >20%D.			
44	X		Internal standard failure	
	All ISTD ~2x high. Need RR, insufficient extract for remix.			

 Approved: 02-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110309
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30786

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG315641, WG315785, WG316249
Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M48780	WG316255-01 50ppm DFTPP	1	1	STD31842	11/03/09 08:46
2	4M48781	WG316255-01 50ppm DFTPP	1	1	STD31842	11/03/09 09:03
3	4M48782	WG316255-01 50ppm DFTPP	1	1	STD31842	11/03/09 09:29
4	4M48783	WG316255-02 50ppm MEGAMIX STD	1	1	STD34003	11/03/09 09:49
5	4M48784	WG316255-03 3ppm MEGAMIX STD	1	1	STD36018	11/03/09 10:28
6	4M48785	WG316255-04 10ppm MEGAMIX STD	1	1	STD36018	11/03/09 11:06
7	4M48786	WG316255-05 15ppm MEGAMIX STD	1	1	STD36018	11/03/09 11:45
8	4M48787	WG316255-06 25ppm MEGAMIX STD	1	1	STD36018	11/03/09 12:24
9	4M48788	WG316255-07 80ppm MEGAMIX STD	1	1	STD36018	11/03/09 13:02
10	4M48789	WG316255-08 100ppm MEGAMIX STD	1	1	STD36018	11/03/09 13:41
11	4M48790	WG316255-09 120ppm MEGAMIX STD	1	1	STD36018	11/03/09 14:19
12	4M48791	WG316351-01 50ppm DFTPP	1	1	STD31842	11/03/09 14:52
13	4M48792	WG316351-02 50ppm MEGAMIX STD	1	1	STD36018	11/03/09 15:13
14	4M48793	WG316255-10 50ppm BNA Alt Src STD	1	1	STD34085	11/03/09 15:50
15	4M48794	WG316255-11 50ppm A9 Alt Src STD	1	1	STD34874	11/03/09 16:28
16	4M48795	WG316255-12 50ppm 1,4-Dioxane Alt Src ST	1	1	STD34360	11/03/09 17:06
17	4M48796	WG316353-01 50ppm TCL STD	1	1	STD34192	11/03/09 17:42
18	4M48797	WG316353-02 3ppm TCL STD	1	1	STD34192	11/03/09 18:20
19	4M48798	WG316353-03 10ppm TCL STD	1	1	STD34192	11/03/09 18:56
20	4M48799	WG316353-04 25ppm TCL STD	1	1	STD34192	11/03/09 19:33
21	4M48800	WG316353-05 80ppm TCL STD	1	1	STD34192	11/03/09 20:10
22	4M48801	WG316353-06 100ppm TCL STD	1	1	STD34192	11/03/09 20:47
23	4M48802	WG316353-07 50ppm TCL Alt Src STD	1	1	STD34903	11/03/09 21:23
24	4M48803	WG316249-02 BLK 11/3	7	1	SOIL	11/03/09 22:00
25	4M48804	WG316249-03 LCS 11/3	7	1	SOIL	11/03/09 22:37
26	4M48805	L09100552-14 1000X	1	1000		11/03/09 23:13
27	4M48806	L09100584-04	1	1		11/03/09 23:50
28	4M48807	L09100584-01 2X	1	2		11/04/09 00:26
29	4M48808	L09100584-02 2X	1	2		11/04/09 01:03
30	4M48809	L09100584-03 20X	1	20		11/04/09 01:40
31	4M48810	L09110010-01 5X	7	5	SOIL	11/04/09 02:16

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110309

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30786

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG315641, WG315785, WG316249

Internal STD: COA14210 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	WG316255-01 50ppm DFTPP - Tune failed.			
2	X			
	WG316255-01 50ppm DFTPP - Tune failed.			
14				
	WG316255-10 50ppm BNA Alt Src STD - Pentachlorophenol >25% but <30% biased high.			
28				
	L09100584-01 2X - Sample was analyzed at a dilution due to extract apperance.			
29				
	L09100584-02 2X - SS 2FP ND - SMI; Sample was analyzed at a dilution due to extract apperance.			
30	X	40	Over Calibration Range	#18
	L09100584-03 20X - Sample was analyzed at a dilution due to extract apperance, viscosity, and elevated final volume.			
31				
	L09110010-01 5X - Sample was analyzed at a dilution due to the extract's dark color and viscosity.			

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110509
Analyst1: CAA Analyst2: NA
Method: 82670C SOP: MSS01 Rev: 14

Maintenance Log ID: 30827

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG315857,WG316572,WG316363
Internal STD: COA13404 Surrogate STD: NA Calibration STD

Comments: Files 4M48853 to 4M48857 are not running more conc. due to dark, viscous matrices.
Files 4M48845 to 4M48853 need to run straight-5X run is not being reported.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M48834	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 08:14
2	4M48835	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 08:30
3	4M48836	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 08:47
4	4M48837	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 09:15
5	4M48838	WG316533-02 50ppm MEGAMIX STD	1	1	STD36018	11/05/09 09:36
6	4M48839	WG316534-01 50ppm TCL STD	1	1	STD34192	11/05/09 10:13
7	4M48840	50ppm 2-Ethoxyethanol STD	1	1	STD35229	11/05/09 10:47
8	4M48841	WG316397-02 BLK 11/4	7	1	SOIL	11/05/09 11:25
9	4M48842	WG316397-03 LCS 11/4	7	1	SOIL	11/05/09 12:02
10	4M48843	WG315658-02 BLK 10/28	7	1	SOIL	11/05/09 12:40
11	4M48844	WG315658-03 LCS 10/28	7	1	SOIL	11/05/09 13:17
12	4M48845	L09100616-30 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 13:54
13	4M48846	L09100616-31 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 14:31
14	4M48847	L09100616-24 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 15:09
15	4M48848	L09100616-26 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 15:46
16	4M48849	L09100616-27 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 16:23
17	4M48850	L09100616-25 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 17:01
18	4M48851	L09100616-29 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 17:38
19	4M48852	L09100616-28 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 18:15
20	4M48853	L09100636-01 20X	10	20	SOIL	11/05/09 18:52
21	4M48854	L09100760-01 20X	7	20	SOIL	11/05/09 19:29
22	4M48855	L09100767-01 20X	7	20	SOIL	11/05/09 20:06
23	4M48856	L09100616-34 10X 827-SPE-DIOX	7	10	SOIL	11/05/09 20:42
24	4M48857	L09100616-36 10X 827-SPE-DIOX	7	10	SOIL	11/05/09 21:19

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed.			
2				
	RR, DFTPP failed. Quicktune			
3				
	RR, DFTPP failed-retuned.			
23				
	FBP is low.			

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Hema Vilasagar

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110509

Analyst1: CAA Analyst2: NA

Method: 82670C SOP: MSS01 Rev: 14

Maintenance Log ID: 30827

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG315857,WG316572,WG316363

Internal STD: COA13404 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
24				
	FBP is low.			

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Hema Vilasagar

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Instrument Run Log

Instrument: HPMS12 Dataset: 110609
Analyst1: CAA Analyst2: MES
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID:

Column 1 ID: Column 2 ID: NA

Workgroups: WG316754, WG316580

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments: L09110114 needs re-extracted due to low LCS/LCS DUP.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27849	WG316683-01 50PPM DFTPP	1	1	STD35357	11/06/09 08:21
25	12M27850	WG316683-02 50PPM BNA STD	1	1	STD36018	11/06/09 08:41
2	12M27851	WG316683-01 50PPM DFTPP	1	1	STD35357	11/06/09 10:19
3	12M27852	WG316683-02 50PPM BNA STD	1	1	STD36018	11/06/09 10:38
4	12M27853	WG316684-01 50PPM TCL STD	1	1	STD34192	11/06/09 11:11
5	12M27854	WG316580-01 3PPM QCMRL CHECK	1	1	STD36018	11/06/09 11:44
6	12M27855	WG316580-02 15PPM QCMRL CHECK	1	1	STD36018	11/06/09 12:18
7	12M27856	WG316113-02 BLANK	1	1		11/06/09 12:51
8	12M27857	WG316113-03 LCS	1	1		11/06/09 13:24
9	12M27858	WG316671-01 BLANK	7	1	SOIL	11/06/09 13:58
10	12M27859	WG316671-02 LCS	7	1	SOIL	11/06/09 14:32
11	12M27860	WG316671-03 LCSDUP	7	1	SOIL	11/06/09 15:06
12	12M27861	L09100770-05	1	1		11/06/09 15:39
13	12M27862	WG316580-03 3PPM QCMRL CHECK	1	1	STD36018	11/06/09 16:13
14	12M27863	WG316580-04 15PPM QCMRL CHECK	1	1	STD36018	11/06/09 16:46
15	12M27864	L09110114-01	7	1	SOIL	11/06/09 17:20
16	12M27865	L09110114-02	7	1	SOIL	11/06/09 17:53
17	12M27866	L09110114-04	7	1	SOIL	11/06/09 18:26
18	12M27867	L09110114-06	7	1	SOIL	11/06/09 18:59
19	12M27868	L09110114-03 2X	7	2	SOIL	11/06/09 19:32
20	12M27869	L09110114-05 2X	7	2	SOIL	11/06/09 20:05
21	12M27870	L09100714-01	1	1		11/06/09 20:38
22	12M27871	L09100714-02	1	1		11/06/09 21:11
23	12M27872	BAKEOUT	1	1		11/06/09 21:44
24	12M27873	BAKEOUT	1	1		11/06/09 22:17

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG316683-01 50PPM DFTPP			
25	X			
	WG316683-02 50PPM BNA STD - PCP low.			
8				
	WG316113-03 LCS - SS FBP low.			
19				

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 110609

Analyst1: CAA Analyst2: MES

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID:

Column 1 ID: Column 2 ID: NA

Workgroups: WG316754, WG316580

Internal STD: COA14210 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	L09110114-03 2X - SS TBP, FBP low; Sample was analyzed at a dilution due to extract apperance.			
20				
	L09110114-05 2X - SS FBP low; Sample was analyzed at a dilution due to extract apperance.			
22				
	L09100714-02 - Istd 2 low - SMI; SS NBZ high.			

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Instrument Run Log

Instrument: HPMS12 Dataset: 110809

Analyst1: MDC Analyst2: CAA

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30864

Column 1 ID: Column 2 ID: NA

Workgroups:

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments: Alt Src: bis(2-chloroethoxy)methane >25% biased low.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27901	BAKEOUT	1	1		11/08/09 15:58
2	12M27902	WG316819-01 50PPM DFTPP	1	1	STD35357	11/08/09 16:30
3	12M27903	WG316819-02 50PPM BNA STD	1	1	STD36018	11/08/09 16:49
4	12M27904	WG316819-03 120PPM BNA STD	1	1	STD36018	11/08/09 17:22
5	12M27905	WG316819-04 100PPM BNA STD	1	1	STD36018	11/08/09 17:55
6	12M27906	WG316819-05 80PPM BNA STD	1	1	STD36018	11/08/09 18:28
7	12M27907	WG316819-06 25PPM BNA STD	1	1	STD36018	11/08/09 19:01
8	12M27908	WG316819-07 15PPM BNA STD	1	1	STD36018	11/08/09 22:03
9	12M27909	WG316819-08 10PPM BNA STD	1	1	STD36018	11/08/09 22:35
10	12M27910	WG316819-09 3PPM BNA STD	1	1	STD36018	11/08/09 23:08
11	12M27911	WG316819-10 50PPM BNA Alt Src STD	1	1	STD34085	11/08/09 23:40
12	12M27912	WG316819-11 50PPM A9 Alt Src STD	1	1	STD34874	11/09/09 00:13
13	12M27913	WG316819-12 50PPM 1,4-Dioxane Alt Src ST	1	1	STD34360	11/09/09 00:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: 11-NOV-09

Hema Vilasagar

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 110909
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30880

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316868, WG316193, WG315383, WG316046

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27914	WG316884-01 50PPM DFTPP	1	1	STD35357	11/09/09 09:24
2	12M27915	WG316884-02 50PPM BNA STD	1	1	STD36018	11/09/09 09:43
3	12M27916	WG316885-01 50PPM TCL STD	1	1	STD34192	11/09/09 10:17
4	12M27917	WG316885-02 3PPM TCL STD	1	1	STD34192	11/09/09 10:51
5	12M27918	WG316885-03 10PPM TCL STD	1	1	STD34192	11/09/09 11:24
6	12M27919	WG316885-04 25PPM TCL STD	1	1	STD34192	11/09/09 11:58
7	12M27920	WG316885-05 80PPM TCL STD	1	1	STD34192	11/09/09 12:31
8	12M27921	WG316885-06 100PPM TCL STD	1	1	STD34192	11/09/09 13:05
9	12M27922	WG316885-07 50PPM TCL Alt Src STD	1	1	STD34903	11/09/09 13:40
10	12M27923	WG316009-02 BLK 10/30	7	1	SOIL	11/09/09 14:14
11	12M27924	WG316009-03 LCS 10/30	7	1	SOIL	11/09/09 14:48
12	12M27925	WG316925-01 50PPM DFTPP	1	1	STD35357	11/09/09 15:20
13	12M27926	WG316925-02 50PPM BNA STD	1	1	STD36018	11/09/09 15:40
14	12M27927	WG316932-01 50PPM TCL STD	1	1	STD34192	11/09/09 16:14
15	12M27928	WG316674-01 BLK 11/6	10	1	SOIL	11/09/09 16:45
16	12M27929	WG316674-02 LCS 11/6	10	1	SOIL	11/09/09 17:18
17	12M27930	WG316674-03 LCS DUP 11/6	10	1	SOIL	11/09/09 17:51
18	12M27931	L09100610-03 RR	1	1		11/09/09 18:24
19	12M27932	L09100610-05 RR	1	1		11/09/09 18:57
20	12M27933	L09100524-01 10X RR	7	10		11/09/09 19:30
21	12M27934	L09100524-07 RR	7	1		11/09/09 20:02
22	12M27935	L09100524-08 10X RR	7	10		11/09/09 20:35
23	12M27936	L09100524-12 10X RR	7	10		11/09/09 21:08
24	12M27937	L09110098-01 10X	10	10		11/09/09 21:41
25	12M27938	L09110123-01 10X	10	10		11/09/09 22:14
26	12M27939	L09100733-02 2X	7	2		11/09/09 22:46
27	12M27940	L09100733-05 2X	7	2		11/09/09 23:19
28	12M27941	L09100733-08 2X	7	2		11/09/09 23:52
29	12M27942	L09100733-09	7	1		11/10/09 00:25
30	12M27943	L09100733-11 2X	7	2		11/10/09 00:58
31	12M27944	L09100733-12 2X	7	2		11/10/09 01:30
32	12M27945	L09100733-13 2X	7	2		11/10/09 02:03
33	12M27946	L09100733-14 2X	7	2		11/10/09 02:36
34	12M27947	BAKEOUT	7	2		11/10/09 03:08
35	12M27948	BAKEOUT	7	2		11/10/09 03:41

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Instrument Run Log

Instrument: HPMS12 Dataset: 110909
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30880

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316868, WG316193, WG315383, WG316046

Internal STD: COA14210 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
10	X	1	Internal standard failure	Istd 3, 4, 5, 6 low.
	WG316009-02 BLK 10/30			
11				
	WG316009-03 LCS 10/30 - Istd 5 low.			
15	X	1	Internal standard failure	Istd 3, 4, 5, 6 low.
	WG316674-01 BLK 11/6			
18	X	1	Internal standard failure	Istd 6 low.
	L09100610-03 RR			
20	X	10	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100524-01 10X RR			
22	X	10	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100524-08 10X RR			
23	X	10	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100524-12 10X RR			
24	X	1	Analyzed too dilute	
	L09110098-01 10X - Analyzed at a dilution due to extract apperance.			
25				
	L09110123-01 10X - Sample was analyzed at a dilution due to extract apperance, viscosity and elevated final volume.			
26	X	2	Internal standard failure	Istd 4, 5, 6 low.
	L09100733-02 2X			
27	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-05 2X			
28	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-08 2X			
29	X	1	Internal standard failure	Istd 4, 5, 6 low.
	L09100733-09			
30	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-11 2X			
31	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-12 2X			
32				
	L09100733-13 2X - Sample was analyzed at a dilution due to extract apperance.			
33	X	2	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100733-14 2X			

 Approved: 10-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110909

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30889

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments: ICAL: p-phenylendiamine, 2-naphthylamine, methapyrilene, benzidine fails.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M48933	3ppm MEGAMIX STD CHECK	1	1	STD36018	11/09/09 11:03
2	4M48934	WG316839-01 50ppm DFTPP STD	1	1	STD35357	11/09/09 11:33
3	4M48935	WG316839-02 50ppm MEGAMIX STD	1	1	STD36018	11/09/09 11:53
4	4M48936	WG316839-03 3ppm MEGAMIX STD	1	1	STD36018	11/09/09 12:28
5	4M48937	WG316839-04 10ppm MEGAMIX STD	1	1	STD36018	11/09/09 13:03
6	4M48938	WG316839-05 15ppm MEGAMIX STD	1	1	STD36018	11/09/09 13:39
7	4M48939	WG316839-06 25ppm MEGAMIX STD	1	1	STD36018	11/09/09 14:15
8	4M48940	WG316839-07 80ppm MEGAMIX STD	1	1	STD36018	11/09/09 14:50
9	4M48941	WG316839-08 100ppm MEGAMIX STD	1	1	STD36018	11/09/09 15:26
10	4M48942	WG316839-09 120ppm MEGAMIX STD	1	1	STD36018	11/09/09 16:01
11	4M48943	WG316839-10 50ppm BNA STD	1	1	STD34085	11/09/09 16:37
12	4M48944	WG316839-11 50ppm A9 STD	1	1	STD34874	11/09/09 17:12
13	4M48945	WG316839-12 50ppm 1,4-Dioxane STD	1	1	STD34360	11/09/09 17:46
14	4M48946	WG316935-01 50ppm TCL STD	1	1	STD34192	11/09/09 18:21
15	4M48947	WG316935-02 3ppm TCL STD	1	1	STD34192	11/09/09 18:56
16	4M48948	WG316935-03 10ppm TCL STD	1	1	STD34192	11/09/09 19:31
17	4M48949	WG316935-04 25ppm TCL STD	1	1	STD34192	11/09/09 20:05
18	4M48950	WG316935-05 80ppm TCL STD	1	1	STD34192	11/09/09 20:40
19	4M48951	WG316935-06 100ppm TCL STD	1	1	STD34192	11/09/09 21:15
20	4M48952	WG316935-07 50ppm TCL Alt Src STD	1	1	STD34903	11/09/09 21:50

Comments

Seq.	Rerun	Dil.	Reason	Analytes

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 111309
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30939

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD22692 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M28022	WG317340-01 50PPM DFTPP	1	1	STD35357	11/13/09 09:05
2	12M28023	WG317340-02 50PPM BNA STD	1	1	STD36018	11/13/09 09:24
9	12M28024	WG317445-01 50PPM TCL STD	1	1	STD34903	11/13/09 10:12
10	12M28025	L09100754-01	1	1		11/13/09 10:45
11	12M28026	L09100754-02	1	1		11/13/09 11:18
4	12M28027	WG317324-02 BLK 11/13	1	1		11/13/09 11:52
5	12M28028	WG317324-03 LCS 11/13	1	1		11/13/09 12:25
6	12M28029	WG317303-01 FBLK	17	1		11/13/09 12:59
7	12M28030	L09110259-01 TCLP	17	1		11/13/09 13:33
8	12M28031	L09110260-01 TCLP	17	1		11/13/09 14:07
12	12M28032	L09100733-18 2X RR	7	1	SOIL	11/13/09 14:41
13	12M28033	L09100717-05 2X	1	2		11/13/09 15:15
14	12M28034	L09100717-09 2X	1	2		11/13/09 15:49
15	12M28035	L09100717-10 2X	1	2		11/13/09 16:23
16	12M28036	L09100717-13 2X	1	2		11/13/09 16:56
24	12M28037	L09100771-04	1	1		11/13/09 17:29
25	12M28038	WG316113-04 L09100771-05 MS	1	1		11/13/09 18:02
26	12M28039	WG316113-05 L09100771-06 MSD	1	1		11/13/09 18:34
20	12M28040	L09100771-09	1	1		11/13/09 19:07
21	12M28041	L09100771-12	1	1		11/13/09 19:40
22	12M28042	L09100775-33	1	1		11/13/09 20:13
23	12M28043	L09100775-34	1	1		11/13/09 20:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes
12				
	L09100733-18: surr. FBP <LCL.			
13				
	L09100717-05: surr. TPH <LCL.			
24				
	L09100771-04: surr. 2FP <LCL.			
25				
	L09100771-05: surr. TPH <LCL.			
26				
	L09100771-06: surr. TPH, 2FP <LCL.			

Page: 1 Approved: 16-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 111309
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30950

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316572, WG316358
Internal STD: STD20900 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M49025	WG317340-01 50ppm DFTPP STD	1	1	STD35357	11/13/09 09:30
2	4M49026	WG317340-02 50ppm MEGAMIX STD	1	1	STD36018	11/13/09 09:48
3	4M49027	WG317345-01 50ppm TCL STD	1	1	STD34192	11/13/09 10:30
4	4M49028	L09100734-12 5X	7	5	SOIL	11/13/09 11:05
5	4M49029	L09100717-01	7	1	SOIL	11/13/09 11:40
6	4M49030	WG316397-04 L09100717-02 MS	7	1	SOIL	11/13/09 12:15
7	4M49031	WG316397-05 L09110717-03 MSD	7	1	SOIL	11/13/09 12:51
8	4M49032	L09100717-04	7	1	SOIL	11/13/09 13:26
9	4M49033	L09100717-08	7	1	SOIL	11/13/09 14:01
10	4M49034	L09100717-11	7	1	SOIL	11/13/09 14:36
11	4M49035	L09100717-12	7	1	SOIL	11/13/09 15:12
12	4M49036	L09100771-02	7	1	SOIL	11/13/09 15:47
13	4M49037	L09100771-03	7	1	SOIL	11/13/09 16:23
14	4M49038	L09100771-07	7	1	SOIL	11/13/09 16:58
15	4M49039	L09100771-08	7	1	SOIL	11/13/09 17:33
16	4M49040	L09100771-11	7	1	SOIL	11/13/09 18:07
17	4M49041	L09100717-06 2X	7	2	SOIL	11/13/09 18:43
18	4M49042	L09100717-07 2X	7	2	SOIL	11/13/09 19:17
19	4M49043	L09100771-10 2X	7	2	SOIL	11/13/09 19:52
20	4M49044	BAKEOUT	1	1		11/13/09 20:26
21	4M49045	BAKEOUT	1	1		11/13/09 21:01

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	CCV: #49, 109 >20% D.			
4				
	L09100734-12: surr. FBP < LCL.			
6	X		Internal standard failure	
14	X		Internal standard failure	
16	X		Internal standard failure	
19				

Page: 1 Approved: 16-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 111309

Analyst1: MDC Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30950

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316572, WG316358

Internal STD: STD20900 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
			L09100771-10: surr. FBP <LCL.	

Approved: 16-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 111409
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30946

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316702, WG316572
Internal STD: STD22692 Surrogate STD: NA Calibration STD

Comments: All L09100775 & L09110007 samples need RE due to LCS failures.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M28044	WG317444-01 50PPM DFTPP	1	1	STD35357	11/14/09 11:11
2	12M28045	WG317444-02 50PPM BNA STD	1	1	STD36018	11/14/09 11:30
3	12M28046	WG317511-01 50PPM TCL STD	1	1	STD34903	11/14/09 12:02
4	12M28047	WG316397-02 BLK 11/4 RR	7	1	SOIL	11/14/09 12:35
5	12M28048	WG316361-01 BLK 11/3	7	1	SOIL	11/14/09 13:08
6	12M28049	WG316491-02 LCS 11/3	7	1	SOIL	11/14/09 13:41
7	12M28050	WG316491-03 LCS DUP 11/3	7	1	SOIL	11/14/09 14:14
8	12M28051	L09100771-07 RR	7	1	SOIL	11/14/09 14:47
9	12M28052	L09100771-11 RR	7	1	SOIL	11/14/09 15:20
10	12M28053	L09100775-22 2X	7	2	SOIL	11/14/09 15:53
11	12M28054	L09110007-21	7	1	SOIL	11/14/09 16:26
12	12M28055	L09100775-29 2X	7	2	SOIL	11/14/09 16:59
13	12M28056	L09100775-21 2X	7	2	SOIL	11/14/09 17:31
14	12M28057	L09100775-23 2X	7	2	SOIL	11/14/09 18:04
15	12M28058	L09100775-31 2X	7	2	SOIL	11/14/09 18:37
16	12M28059	L09100775-27 5X	7	5	SOIL	11/14/09 19:10
17	12M28060	L09100775-30 5X	7	5	SOIL	11/14/09 19:43
18	12M28061	L09100775-32 5X	7	5	SOIL	11/14/09 20:16
19	12M28062	L09100775-36 2X	7	2	SOIL	11/14/09 20:49
20	12M28063	L09100775-24 2X	7	2	SOIL	11/14/09 21:22
21	12M28064	L09100775-25 5X	7	5	SOIL	11/14/09 21:54
22	12M28065	L09100775-26 10X	7	10	SOIL	11/14/09 22:27
23	12M28066	BAKEOUT	7	10	SOIL	11/14/09 23:00
24	12M28067	BAKEOUT	7	10	SOIL	11/14/09 23:33
25	12M28068	BAKEOUT	7	10	SOIL	11/15/09 00:05

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	#22, 39, 72, 109 >20%D.			
6				
	LCS WG316491-02: 51 compounds & 4 surr. <LCL.			
7				
	LCS DUP WG316491-03: 30 compounds <LCL.			
10				

 Approved: 16-NOV-09

Hema Vilasagar

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Instrument Run Log

Instrument: HPMS12 Dataset: 111409

Analyst1: MDC Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30946

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316702, WG316572

Internal STD: STD22692 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
			L09100775-22: Surr. FBP <LCL.	
12				
			L09100775-29: Surr. FBP, NBZ <LCL.	
14				
			L09100775-23: Surr. FBP <LCL.	
15				
			L09100775-31: Surr. FBP <LCL.	
17				
			L09100775-30: Surr. NBZ, FBP <LCL.	
18				
			L09100775-23: Surr. TBP, FBP <LCL.	
19				
			L09100775-36: Surr. FBP <LCL.	
20				
			L09100775-24: Surr. FBP <LCL.	
21				
			L09100775-23: Surr.NBZ, FBP <LCL.	

Page: 2 Approved: 16-NOV-09

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Instrument Run Log

Instrument: HPMS4 Dataset: 111409
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30954

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD20900 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M49046	WG317446-01 50ppm DFTPP STD	1	1	STD35357	11/14/09 11:55
2	4M49047	WG317446-02 50ppm MEGAMIX STD	1	1	STD36018	11/14/09 12:14
3	4M49048	WG317559-01 50ppm TCL STD	1	1	STD34192	11/14/09 12:49
4	4M49049	WG316361-01 BLK 11/3	7	1	SOIL	11/14/09 13:24
5	4M49050	WG316361-02 LCS 11/3	7	1	SOIL	11/14/09 13:59
6	4M49051	WG316361-03 LCS DUP 11/3	7	1	SOIL	11/14/09 14:34
7	4M49052	WG316397-04 L09100717-02 MS RR	7	1	SOIL	11/14/09 15:09
8	4M49053	L09100775-08	7	1	SOIL	11/14/09 15:44
9	4M49054	L09100775-09	7	1	SOIL	11/14/09 16:18
10	4M49055	L09100775-17	7	1	SOIL	11/14/09 16:53
11	4M49056	L09100775-06 2X	7	2	SOIL	11/14/09 17:28
12	4M49057	L09100775-07 2X	7	2	SOIL	11/14/09 18:03
13	4M49058	L09100775-03 2X	7	2	SOIL	11/14/09 18:37
14	4M49059	L09100775-04 2X	7	2	SOIL	11/14/09 19:12
15	4M49060	L09100775-05 2X	7	2	SOIL	11/14/09 19:46
16	4M49061	L09100775-12 2X	7	2	SOIL	11/14/09 20:21
17	4M49062	L09100775-14 5X	7	5	SOIL	11/14/09 20:56
18	4M49063	L09100775-16 5X	7	5	SOIL	11/14/09 21:30
19	4M49064	L09100775-10 5X	7	5	SOIL	11/14/09 22:05
20	4M49065	L09100775-13 5X	7	5	SOIL	11/14/09 22:40
21	4M49066	L09100775-11 5X	7	5	SOIL	11/14/09 23:14
22	4M49067	L09100775-20 5X	7	5	SOIL	11/14/09 23:48
23	4M49068	BAKEOUT	7	5	SOIL	11/15/09 00:23
24	4M49069	BAKEOUT	7	5	SOIL	11/15/09 00:58
25	4M49070	BAKEOUT	7	5	SOIL	11/15/09 01:32

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	CCV: #39, 109 >20% D.			
16				
	L09100775-12: surr. FBP <LCL.			
18				
	L09100775-12: surr. FBP <LCL.			
19				

Page: 1 Approved: 16-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 111409

Analyst1: MDC Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30954

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD20900 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	L09100775-12: surr. FBP <LCL.			
20				
	L09100775-13: surr. FBP <LCL.			
21				
	L09100775-11: surr. FBP <LCL.			
22				
	L09100775-20: surr. FBP <LCL.			

Approved: 16-NOV-09

Microbac Laboratories Inc.

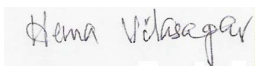
Data Checklist

Date: 31-OCT-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 30952
Analytical Workgroups: L09100418 (11/2), L09100478 (11/4), L09100586 (10/30)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
02-NOV-2009

Secondary Reviewer:
02-NOV-2009



CHECKLIST1 - Modified 03/05/2008
Generated: NOV-02-2009 10:29:44

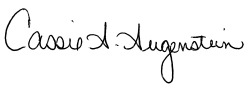
Microbac Laboratories Inc.

Data Checklist

Date: 03-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31007
Analytical Workgroups: L09100552, L09100584, L09110010

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
04-NOV-2009



Secondary Reviewer:
04-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-04-2009 12:13:06

Microbac Laboratories Inc.

Data Checklist

Date: 05-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31067
Analytical Workgroups: L09100616,L09100760,L09100767,L09100636

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
06-NOV-2009

Secondary Reviewer:
06-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-06-2009 15:18:09

Microbac Laboratories Inc.

Data Checklist

Date: 06-NOV-2009
Analyst: CAA
Analyst: MES
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31082
Analytical Workgroups: L09100770, L09110114, L09100714

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
07-NOV-2009

Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 08:29:27

Microbac Laboratories Inc.

Data Checklist

Date: 08-NOV-2009
Analyst: CAA
Analyst: MDC
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31116
Analytical Workgroups: ICAL ONLY

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
09-NOV-2009
Cassie L. Augenstein

Secondary Reviewer:
11-NOV-2009
Hema Velasquez

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 14:42:18

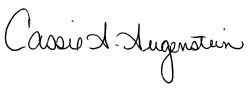
Microbac Laboratories Inc.

Data Checklist

Date: 09-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31142
Analytical Workgroups: L09100610, L09100524, L09110098, L09110123, L09100733

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
10-NOV-2009



Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 15:17:24

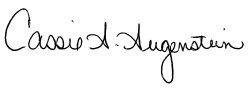
Microbac Laboratories Inc.

Data Checklist

Date: 09-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31156
Analytical Workgroups: ICAL ONLY

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
11-NOV-2009



Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 13:59:52

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31220
Analytical Workgroups: L09100754, 100733, 100717, 100771, 100775, L09110259, 0260

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 11:39:53

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31251
Analytical Workgroups: L09100734, L09100717, L09100771

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 13:54:41

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31246
Analytical Workgroups: L09100771, L09100775

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 14:06:44

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31256
Analytical Workgroups: L09100717, L09100775

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 15:03:50

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316572

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-S001-102809	01	10/28/09					11/04/09	6.9	14		11/13/09	9.1	40	
4013-S001-102809-MS	02	10/28/09					11/04/09	6.9	14		11/14/09	10.3	40	
4013-S001-102809-MSD	03	10/28/09					11/04/09	6.9	14		11/13/09	9.2	40	
4013-S002-102809	04	10/28/09					11/04/09	6.9	14		11/13/09	9.2	40	
4014-S001-102809	06	10/28/09					11/04/09	6.8	14		11/13/09	9.4	40	
4014-S001-102809D	07	10/28/09					11/04/09	6.8	14		11/13/09	9.5	40	
4014-S002-102809	08	10/28/09					11/04/09	6.8	14		11/13/09	9.2	40	
4011-S001-102809	11	10/28/09					11/04/09	6.7	14		11/13/09	9.3	40	
4011-S002-102809	12	10/28/09					11/04/09	6.7	14		11/13/09	9.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1542061
Report generated 11/17/2009 08:05

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316580

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-GW-102809	05	10/28/09					11/02/09	4.9	7		11/13/09	11.2	40	
4014-GW-102809	09	10/28/09					11/02/09	4.9	7		11/13/09	11.2	40	
4014-GW-102809D	10	10/28/09					11/02/09	4.9	7		11/13/09	11.2	40	
4011-GW-102809	13	10/28/09					11/02/09	4.8	7		11/13/09	11.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1542061
Report generated 11/17/2009 08:05

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS12
Workgroup (AAB#): WG316580

Method: 8270
CAL ID: HPMS12-31-OCT-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
WG316113-02	1.00	01	49.4	42.9	48.5	48.4	101	49.6
WG316113-03	1.00	01	75.1	72.4	82.6	74.5	91.8	84.5
WG316580-01	1.00	01	2.20	2.78	2.94	2.94	2.68	2.94
WG316580-02	1.00	01	11.1	13.9	14.5	14.9	13.8	14.1
WG316580-03	1.00	01	1.93	2.90	2.98	2.90	2.83	2.93
WG316580-04	1.00	01	11.8	13.9	14.4	15.2	13.9	13.6

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	10	-	123
2 - 2-Fluorobiphenyl	43	-	116
3 - 2-Fluorophenol	21	-	110
4 - Nitrobenzene-d5	35	-	114
5 - p-Terphenyl-d14	33	-	141
6 - Phenol-d5	10	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540803
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS12
Workgroup (AAB#): WG316580

Method: 8270
CAL ID: HPMS12-08-NOV-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
L09100717-05	2.00	DL01	75.9	64.8	83.0	72.7	20.4	78.2
L09100717-09	2.00	DL01	80.3	66.4	65.4	57.5	59.6	61.3
L09100717-10	2.00	DL01	80.3	64.7	64.4	58.4	66.1	61.4
L09100717-13	2.00	DL01	37.9	64.0	38.5	58.3	44.3	40.3

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	10	-	123
2 - 2-Fluorobiphenyl	43	-	116
3 - 2-Fluorophenol	21	-	110
4 - Nitrobenzene-d5	35	-	114
5 - p-Terphenyl-d14	33	-	141
6 - Phenol-d5	10	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540803
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS4
Workgroup (AAB#): WG316572

Method: 8270
CAL ID: HPMS4-03-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
WG316397-02	1.00	01	72.1	61.5	69.6	63.2	91.4	68.8
WG316397-03	1.00	01	80.3	58.1	60.0	55.7	82.7	60.7

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540803
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS12
Workgroup (AAB#): WG316572

Method: 8270
CAL ID: HPMS12-08-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
WG316397-02	1.00	02	82.0	63.6	67.8	57.6	104	65.0

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540803
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100717
Instrument Id: HPMS4
Workgroup (AAB#): WG316572

Method: 8270
CAL ID: HPMS4-09-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L09100717-01	1.00	01	62.1	51.0	52.2	51.0	88.4	53.2
L09100717-02	1.00	01	88.0	57.3	56.4	57.0	83.2	59.1
L09100717-03	1.00	01	81.0	58.9	56.5	57.5	79.5	60.9
L09100717-04	1.00	01	67.3	55.3	57.1	56.3	84.7	58.2
L09100717-06	2.00	DL01	64.4	51.3	56.5	56.8	90.4	58.9
L09100717-07	2.00	DL01	61.6	49.4	54.5	53.1	82.7	55.7
L09100717-08	1.00	01	77.1	57.5	64.3	60.5	87.4	65.0
L09100717-11	1.00	01	56.6	51.0	53.0	52.1	92.2	55.4
L09100717-12	1.00	01	54.8	61.0	57.7	59.5	89.1	61.5

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540803
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100717	Work Group:	WG316580
Blank File ID:	12M27856	Blank Sample ID:	WG316113-02
Prep Date:	11/02/09 10:30	Instrument ID:	HPMS12
Analyzed Date:	11/06/09 12:51	Method:	8270C
Analyst:	CAA/MES		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316113-03	12M27857	11/06/09 13:24	01
4013-GW-102809	L09100717-05	12M28033	11/13/09 15:15	DL01
4014-GW-102809	L09100717-09	12M28034	11/13/09 15:49	DL01
4014-GW-102809D	L09100717-10	12M28035	11/13/09 16:23	DL01
4011-GW-102809	L09100717-13	12M28036	11/13/09 16:56	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1542062
Report generated 11/17/2009 08:05

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100717
Work Group: WG316572
Blank File ID: 4M48841
Blank Sample ID: WG316397-02
Prep Date: 11/04/09 08:11
Instrument ID: HPMS4
Analyzed Date: 11/05/09 11:25
Method: 8270C
Analyst: CAA

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316397-03	4M48842	11/05/09 12:02	01
4013-S001-102809	L09100717-01	4M49029	11/13/09 11:40	01
4013-S001-102809-MSD	L09100717-03	4M49031	11/13/09 12:51	01
4013-S002-102809	L09100717-04	4M49032	11/13/09 13:26	01
4014-S002-102809	L09100717-08	4M49033	11/13/09 14:01	01
4011-S001-102809	L09100717-11	4M49034	11/13/09 14:36	01
4011-S002-102809	L09100717-12	4M49035	11/13/09 15:12	01
4014-S001-102809	L09100717-06	4M49041	11/13/09 18:43	DL01
4014-S001-102809D	L09100717-07	4M49042	11/13/09 19:17	DL01
4013-S001-102809-MS	L09100717-02	4M49052	11/14/09 15:09	01

Report Name: BLANK_SUMMARY
PDF File ID: 1542062
Report generated 11/17/2009 08:05

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS4 Run Date:11/05/09 11:25 Prep Method:3545
File ID:4M48841 Analyst:CAA Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-03-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	82.5	165	165	1	U
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS4 Run Date:11/05/09 11:25 Prep Method:3545
File ID:4M48841 Analyst:CAA Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-03-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dimethyl phthalate	82.5	165	165	1	U
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	72.1	19 - 122	PASS
2-Fluorobiphenyl	61.5	30 - 115	PASS
2-Fluorophenol	69.6	25 - 121	PASS
Nitrobenzene-d5	63.2	23 - 120	PASS
p-Terphenyl-d14	91.4	18 - 137	PASS
Phenol-d5	68.8	24 - 113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/02/09 10:30 Sample ID:WG316113-02
Instrument ID:HPMS12 Run Date:11/06/09 12:51 Prep Method:3520C
File ID:12M27856 Analyst:CAA/MES Method:8270C
Workgroup (AAB#):WG316580 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS12-31-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	5.00	10.0	10.0	1	U
2,4,5-Trichlorophenol	2.50	5.00	5.00	1	U
2,4,6-Trichlorophenol	2.50	5.00	5.00	1	U
2,4-Dichlorophenol	2.50	5.00	5.00	1	U
2,4-Dimethylphenol	2.50	5.00	5.00	1	U
2,4-Dinitrophenol	12.5	25.0	25.0	1	U
2,4-Dinitrotoluene	2.50	5.00	5.00	1	U
2,6-Dinitrotoluene	2.50	5.00	5.00	1	U
2-Chloronaphthalene	2.50	5.00	5.00	1	U
2-Chlorophenol	2.50	5.00	5.00	1	U
2-Methylnaphthalene	2.50	5.00	5.00	1	U
2-Methylphenol	2.50	5.00	5.00	1	U
2-Nitroaniline	12.5	25.0	25.0	1	U
2-Nitrophenol	2.50	5.00	5.00	1	U
3,3'-Dichlorobenzidine	2.50	5.00	5.00	1	U
3-,4-Methylphenol	2.50	10.0	10.0	1	U
3-Nitroaniline	12.5	25.0	25.0	1	U
4,6-Dinitro-2-methylphenol	12.5	25.0	25.0	1	U
4-Bromophenyl phenyl ether	2.50	5.00	5.00	1	U
4-Chloro-3-methylphenol	2.50	5.00	5.00	1	U
4-Chloroaniline	2.50	20.0	20.0	1	U
4-Chlorophenyl phenyl ether	2.50	5.00	5.00	1	U
4-Nitroaniline	12.5	25.0	25.0	1	U
4-Nitrophenol	12.5	25.0	25.0	1	U
Acenaphthene	2.50	5.00	5.00	1	U
Acenaphthylene	2.50	5.00	5.00	1	U
Anthracene	2.50	5.00	5.00	1	U
Benzo(a)anthracene	2.50	5.00	5.00	1	U
Benzo(a)pyrene	2.50	5.00	5.00	1	U
Benzo(b)fluoranthene	2.50	5.00	5.00	1	U
Benzo(g,h,i)Perylene	2.50	5.00	5.00	1	U
Benzo(k)fluoranthene	2.50	5.00	5.00	1	U
Bis(2-Chloroethoxy)Methane	2.50	5.00	5.00	1	U
Bis(2-Chloroethyl)ether	2.50	5.00	5.00	1	U
bis(2-Chloroisopropyl)ether	2.50	5.00	5.00	1	U
bis(2-Ethylhexyl)phthalate	2.50	5.00	5.00	1	U
Butyl benzyl phthalate	2.50	5.00	5.00	1	U
Carbazole	2.50	20.0	20.0	1	U
Chrysene	2.50	5.00	5.00	1	U
Dibenz(a,h)anthracene	2.50	5.00	5.00	1	U
Dibenzofuran	2.50	5.00	5.00	1	U
Diethyl phthalate	2.50	5.00	5.00	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/02/09 10:30 Sample ID:WG316113-02
Instrument ID:HPMS12 Run Date:11/06/09 12:51 Prep Method:3520C
File ID:12M27856 Analyst:CAA/MES Method:8270C
Workgroup (AAB#):WG316580 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS12-31-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dimethyl phthalate	2.50	5.00	5.00	1	U
Di-N-Butylphthalate	2.50	5.00	5.00	1	U
Di-n-octyl phthalate	2.50	5.00	5.00	1	U
Fluoranthene	2.50	5.00	5.00	1	U
Fluorene	2.50	5.00	5.00	1	U
Hexachlorobenzene	2.50	5.00	5.00	1	U
Hexachlorobutadiene	2.50	5.00	5.00	1	U
Hexachlorocyclopentadiene	2.50	5.00	5.00	1	U
Hexachloroethane	2.50	5.00	5.00	1	U
Indeno(1,2,3-cd)pyrene	2.50	5.00	5.00	1	U
Isophorone	2.50	5.00	5.00	1	U
Naphthalene	2.50	5.00	5.00	1	U
Nitrobenzene	2.50	5.00	5.00	1	U
N-Nitrosodiphenylamine	2.50	5.00	5.00	1	U
N-Nitrosodipropylamine	2.50	5.00	5.00	1	U
Pentachlorophenol	12.5	25.0	25.0	1	U
Phenanthrene	2.50	5.00	5.00	1	U
Phenol	2.50	5.00	5.00	1	U
Pyrene	2.50	5.00	5.00	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	49.4	10	-	123	PASS
2-Fluorobiphenyl	42.9	43	-	116	FAIL
2-Fluorophenol	48.5	21	-	110	PASS
Nitrobenzene-d5	48.4	35	-	114	PASS
p-Terphenyl-d14	101	33	-	141	PASS
Phenol-d5	49.6	10	-	110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS12 Run Date:11/14/09 12:35 Prep Method:3545
File ID:12M28047 Analyst:MDC Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID:HPMS12-08-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	82.5	165	165	1	U
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100717 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS12 Run Date:11/14/09 12:35 Prep Method:3545
File ID:12M28047 Analyst:MDC Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID:HPMS12-08-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dimethyl phthalate	82.5	165	165	1	U
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	82.0	19 - 122	PASS
2-Fluorobiphenyl	63.6	30 - 115	PASS
2-Fluorophenol	67.8	25 - 121	PASS
Nitrobenzene-d5	57.6	23 - 120	PASS
p-Terphenyl-d14	104	18 - 137	PASS
Phenol-d5	65.0	24 - 113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/05/2009 Sample ID: WG316397-03
Instrument ID: HPMS4 Run Time: 12:02 Prep Method: 3545
File ID: 4M48842 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316572 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD35739 Cal ID: HPMS4-03-NOV-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	2500	1230	49.3	40 - 140	
2,4,5-Trichlorophenol	2500	1850	74.0	49 - 125	
2,4,6-Trichlorophenol	2500	1670	66.8	43 - 125	
2,4-Dichlorophenol	2500	1540	61.8	45 - 125	
2,4-Dimethylphenol	2500	1640	65.7	32 - 125	
2,4-Dinitrophenol	2500	2000	79.9	25 - 132	
2,4-Dinitrotoluene	2500	2240	89.6	48 - 125	
2,6-Dinitrotoluene	2500	1960	78.3	48 - 125	
2-Chloronaphthalene	2500	1390	55.7	45 - 125	
2-Chlorophenol	2500	1430	57.1	44 - 125	
2-Methylnaphthalene	2500	1520	60.8	47 - 125	
2-Methylphenol	2500	1590	63.4	40 - 125	
2-Nitroaniline	2500	1970	78.8	44 - 125	
2-Nitrophenol	2500	1580	63.2	42 - 125	
3,3'-Dichlorobenzidine	2500	2420	97.0	20 - 128	
3-,4-Methylphenol	2500	1560	62.5	50 - 120	
3-Nitroaniline	2500	2120	84.8	27 - 125	
4,6-Dinitro-2-methylphenol	2500	2080	83.2	29 - 137	
4-Bromophenyl phenyl ether	2500	1840	73.8	46 - 125	
4-Chloro-3-methylphenol	2500	1710	68.3	46 - 125	
4-Chloroaniline	2500	1470	58.9	20 - 120	
4-Chlorophenyl phenyl ether	2500	1750	69.8	47 - 125	
4-Nitroaniline	2500	2220	88.7	34 - 125	
4-Nitrophenol	2500	2470	98.8	25 - 138	
Acenaphthene	2500	1630	65.4	46 - 125	
Acenaphthylene	2500	1590	63.7	44 - 125	
Anthracene	2500	2130	85.2	53 - 125	
Benzo(a)anthracene	2500	2200	88.1	52 - 125	
Benzo(a)pyrene	2500	2160	86.4	50 - 125	
Benzo(b)fluoranthene	2500	2190	87.6	45 - 125	
Benzo(g,h,i)Perylene	2500	2160	86.4	38 - 126	
Benzo(k)fluoranthene	2500	2190	87.7	45 - 125	
Bis(2-Chloroethoxy)Methane	2500	1230	49.3	43 - 125	
Bis(2-Chloroethyl)ether	2500	1490	59.4	38 - 125	
bis(2-Chloroisopropyl)ether	2500	1520	60.9	25 - 125	
bis(2-Ethylhexyl)phthalate	2500	2320	92.8	47 - 127	
Butyl benzyl phthalate	2500	2660	107	49 - 125	
Carbazole	2500	2100	84.1	40 - 135	
Chrysene	2500	2240	89.6	53 - 125	
Dibenz(a,h)anthracene	2500	2170	86.8	41 - 125	
Dibenzofuran	2500	1690	67.5	51 - 125	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/05/2009 Sample ID: WG316397-03
Instrument ID: HPMS4 Run Time: 12:02 Prep Method: 3545
File ID: 4M48842 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316572 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD35739 Cal ID: HPMS4-03-NOV-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Diethyl phthalate	2500	2110	84.4	50 - 125	
Dimethyl phthalate	2500	1880	75.4	49 - 125	
Di-N-Butylphthalate	2500	2210	88.6	56 - 125	
Di-n-octyl phthalate	2500	2440	97.4	41 - 132	
Fluoranthene	2500	2180	87.0	54 - 125	
Fluorene	2500	1800	72.2	49 - 125	
Hexachlorobenzene	2500	1970	78.8	47 - 125	
Hexachlorobutadiene	2500	1480	59.3	40 - 125	
Hexachlorocyclopentadiene	2500	849	34.0	10 - 150	
Hexachloroethane	2500	1360	54.5	34 - 125	
Indeno(1,2,3-cd)pyrene	2500	2160	86.5	38 - 125	
Isophorone	2500	1400	55.9	43 - 125	
Naphthalene	2500	1480	59.4	40 - 125	
Nitrobenzene	2500	1460	58.4	41 - 125	
N-Nitrosodiphenylamine	2500	2040	81.6	49 - 125	
N-Nitrosodipropylamine	2500	1600	64.0	40 - 125	
Pentachlorophenol	2500	2740	109	25 - 125	
Phenanthrene	2500	2070	82.9	50 - 125	
Phenol	2500	1530	61.2	39 - 125	
Pyrene	2500	2170	86.7	46 - 125	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	80.3	19 - 122	PASS
2-Fluorobiphenyl	58.1	30 - 115	PASS
2-Fluorophenol	60.0	25 - 121	PASS
Nitrobenzene-d5	55.7	23 - 120	PASS
p-Terphenyl-d14	82.7	18 - 137	PASS
Phenol-d5	60.7	24 - 113	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1542064
Report generated: 11/17/2009 08:05

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316113-03
Instrument ID: HPMS12 Run Time: 13:24 Prep Method: 3520C
File ID: 12M27857 Analyst: CAA/MES Method: 8270C
Workgroup (AAB#): WG316580 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35870 Cal ID: HPMS12-31-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	50.0	28.4	56.7	50 - 150	
2,4,5-Trichlorophenol	50.0	41.4	82.8	49 - 120	
2,4,6-Trichlorophenol	50.0	39.7	79.3	49 - 126	
2,4-Dichlorophenol	50.0	39.2	78.3	48 - 120	
2,4-Dimethylphenol	50.0	37.8	75.6	28 - 120	
2,4-Dinitrophenol	50.0	42.2	84.4	25 - 130	
2,4-Dinitrotoluene	50.0	40.8	81.6	51 - 120	
2,6-Dinitrotoluene	50.0	40.1	80.2	49 - 120	
2-Chloronaphthalene	50.0	36.9	73.7	49 - 120	
2-Chlorophenol	50.0	37.7	75.5	37 - 120	
2-Methylnaphthalene	50.0	34.8	69.6	46 - 120	
2-Methylphenol	50.0	38.1	76.2	38 - 120	
2-Nitroaniline	50.0	42.8	85.7	48 - 120	
2-Nitrophenol	50.0	39.1	78.2	39 - 123	
3,3'-Dichlorobenzidine	50.0	32.9	65.7	30 - 120	
3-,4-Methylphenol	50.0	44.4	88.9	50 - 120	
3-Nitroaniline	50.0	40.5	80.9	20 - 126	
4,6-Dinitro-2-methylphenol	50.0	45.3	90.5	40 - 130	
4-Bromophenyl phenyl ether	50.0	44.1	88.2	52 - 120	
4-Chloro-3-methylphenol	50.0	41.3	82.7	47 - 120	
4-Chloroaniline	50.0	33.4	66.9	30 - 120	
4-Chlorophenyl phenyl ether	50.0	37.5	75.1	50 - 120	
4-Nitroaniline	50.0	40.8	81.5	36 - 120	
4-Nitrophenol	50.0	39.7	79.4	20 - 120	
Acenaphthene	50.0	36.9	73.8	47 - 120	
Acenaphthylene	50.0	39.6	79.3	50 - 120	
Anthracene	50.0	43.2	86.4	54 - 120	
Benzo(a)anthracene	50.0	43.4	86.8	56 - 100	
Benzo(a)pyrene	50.0	42.5	85.1	53 - 120	
Benzo(b)fluoranthene	50.0	44.2	88.4	45 - 124	
Benzo(g,h,i)Perylene	50.0	41.6	83.3	38 - 123	
Benzo(k)fluoranthene	50.0	43.9	87.8	45 - 124	
Bis(2-Chloroethoxy)Methane	50.0	29.7	59.4	46 - 120	
Bis(2-Chloroethyl)ether	50.0	43.0	86.0	37 - 120	
bis(2-Chloroisopropyl)ether	50.0	46.9	93.7	26 - 131	
bis(2-Ethylhexyl)phthalate	50.0	48.7	97.5	42 - 126	
Butyl benzyl phthalate	50.0	46.9	93.7	46 - 120	
Carbazole	50.0	43.0	86.0	50 - 120	
Chrysene	50.0	44.7	89.3	55 - 120	
Dibenz(a,h)anthracene	50.0	42.2	84.5	42 - 127	
Dibenzofuran	50.0	40.7	81.4	54 - 120	

LCS - Modified 03/06/2008
PDF File ID: 1542064
Report generated: 11/17/2009 08:05

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316113-03
Instrument ID: HPMS12 Run Time: 13:24 Prep Method: 3520C
File ID: 12M27857 Analyst: CAA/MES Method: 8270C
Workgroup (AAB#): WG316580 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35870 Cal ID: HPMS12-31-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Diethyl phthalate	50.0	48.5	96.9	41 - 120	
Dimethyl phthalate	50.0	47.0	94.0	25 - 127	
Di-N-Butylphthalate	50.0	46.5	93.1	54 - 120	
Di-n-octyl phthalate	50.0	51.3	103	37 - 137	
Fluoranthene	50.0	44.3	88.6	54 - 120	
Fluorene	50.0	43.5	87.0	50 - 120	
Hexachlorobenzene	50.0	37.5	74.9	52 - 120	
Hexachlorobutadiene	50.0	28.7	57.5	27 - 120	
Hexachlorocyclopentadiene	50.0	23.5	47.0	20 - 120	
Hexachloroethane	50.0	20.7	41.5	28 - 120	
Indeno(1,2,3-cd)pyrene	50.0	42.0	83.9	43 - 125	
Isophorone	50.0	37.5	74.9	50 - 120	
Naphthalene	50.0	35.6	71.1	39 - 120	
Nitrobenzene	50.0	37.5	75.1	44 - 120	
N-Nitrosodiphenylamine	100	92.6	92.6	48 - 120	
N-Nitrosodipropylamine	50.0	50.1	100	34 - 128	
Pentachlorophenol	50.0	34.8	69.7	38 - 120	
Phenanthrene	50.0	41.9	83.8	51 - 120	
Phenol	50.0	40.3	80.6	20 - 120	
Pyrene	50.0	42.3	84.5	49 - 128	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	75.1	10 - 123	PASS
2-Fluorobiphenyl	72.4	43 - 116	PASS
2-Fluorophenol	82.6	21 - 110	PASS
Nitrobenzene-d5	74.5	35 - 114	PASS
p-Terphenyl-d14	91.8	33 - 141	PASS
Phenol-d5	84.5	10 - 110	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1542064
Report generated: 11/17/2009 08:05

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L09100717 Cal ID:HPMS4- 09-NOV-09 Worknum:WG316572

Instrument ID:HPMS4 Contract #: Prep Method:3545

Parent ID:L09100717-01 File ID:4M49029 Dil:1 Method:8270C

Sample ID:L09100717-02 MS File ID:4M49052 Dil:1 Matrix:Soil

Sample ID:L09100717-03 MSD File ID:4M49031 Dil:1 Units:ug/kg

Percent Solid:82.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
1,4-Dioxane	U	3460	1500	43.4	3510	1450	41.3	3.34	40 - 140	40	
2,4,5-Trichlorophenol	U	3460	2670	77.3	3510	2620	74.5	2.08	49 - 125	30	
2,4,6-Trichlorophenol	U	3460	2320	67.2	3510	2350	67	1.45	43 - 125	30	
2,4-Dichlorophenol	U	3460	2240	64.8	3510	2340	66.7	4.50	45 - 125	30	
2,4-Dimethylphenol	U	3460	1900	54.9	3510	1880	53.6	0.727	32 - 125	30	
2,4-Dinitrophenol	U	3460	2940	85.1	3510	3000	85.4	1.97	25 - 132	30	
2,4-Dinitrotoluene	U	3460	3110	90	3510	2950	84.1	5.15	48 - 125	30	
2,6-Dinitrotoluene	U	3460	2630	76.1	3510	2480	70.5	5.97	48 - 125	30	
2-Chloronaphthalene	U	3460	1910	55.1	3510	1980	56.5	4.06	45 - 125	30	
2-Chlorophenol	U	3460	1980	57.4	3510	2040	58	2.71	44 - 125	30	
2-Methylnaphthalene	U	3460	2180	63.2	3510	2270	64.7	4.05	47 - 125	30	
2-Methylphenol	U	3460	2170	62.8	3510	2220	63.1	2.15	40 - 125	30	
2-Nitroaniline	U	3460	2720	78.6	3510	2560	72.8	6.09	44 - 125	30	
2-Nitrophenol	U	3460	2190	63.3	3510	2200	62.7	0.851	42 - 125	30	
3,3'-Dichlorobenzidine	U	3460	1830	53	3510	1600	45.6	13.3	20 - 128	30	
3-,4-Methylphenol	U	3460	2110	61	3510	2230	63.5	5.63	50 - 120	30	
3-Nitroaniline	U	3460	2850	82.5	3510	2640	75.2	7.64	27 - 125	30	
4,6-Dinitro-2-methylphenol	U	3460	3240	93.7	3510	2940	83.7	9.70	29 - 137	30	
4-Bromophenyl phenyl ether	U	3460	2490	72.2	3510	2410	68.7	3.31	46 - 125	30	
4-Chloro-3-methylphenol	U	3460	2520	73	3510	2550	72.4	0.821	46 - 125	30	
4-Chloroaniline	U	3460	2000	58	3510	2060	58.5	2.55	20 - 120	30	
4-Chlorophenyl phenyl ether	U	3460	2360	68.4	3510	2310	65.7	2.25	47 - 125	30	
4-Nitroaniline	U	3460	2910	84.1	3510	2720	77.5	6.44	34 - 125	30	
4-Nitrophenol	U	3460	2880	83.3	3510	2970	84.4	3.04	25 - 138	30	
Acenaphthene	U	3460	2280	66.1	3510	2330	66.3	1.95	46 - 125	30	
Acenaphthylene	U	3460	2230	64.4	3510	2280	64.8	2.28	44 - 125	30	
Anthracene	U	3460	2870	83.1	3510	2840	81	1.00	53 - 125	30	
Benzo(a)anthracene	U	3460	2820	81.5	3510	2840	80.8	0.873	52 - 125	30	
Benzo(a)pyrene	U	3460	2640	76.5	3510	2630	74.9	0.489	50 - 125	30	
Benzo(b)fluoranthene	U	3460	2400	69.4	3510	2460	70	2.53	45 - 125	30	
Benzo(g,h,i)Perylene	U	3460	2340	67.8	3510	2540	72.3	8.00	38 - 126	30	
Benzo(k)fluoranthene	U	3460	2750	79.6	3510	2840	80.7	3.05	45 - 125	30	
Bis(2-Chloroethoxy)Methane	U	3460	1650	47.9	3510	1720	48.8	3.60	43 - 125	30	
Bis(2-Chloroethyl)ether	U	3460	1910	55.3	3510	1930	54.9	0.942	38 - 125	30	
bis(2-Chloroisopropyl)ether	U	3460	1940	56.2	3510	2000	56.8	2.78	25 - 125	30	
bis(2-Ethylhexyl)phthalate	U	3460	2830	82	3510	2840	80.8	0.175	47 - 127	30	
Butyl benzyl phthalate	U	3460	3040	88	3510	3050	86.9	0.371	49 - 125	30	
Carbazole	U	3460	2910	84.2	3510	2860	81.3	1.83	40 - 135	30	
Chrysene	U	3460	2920	84.6	3510	2930	83.4	0.139	53 - 125	30	
Dibenz(a,h)anthracene	U	3460	2810	81.2	3510	2920	83.2	4.13	41 - 125	30	
Dibenzofuran	U	3460	2360	68.2	3510	2360	67.1	0.0011	51 - 125	30	

MS_MSD - Modified 09/13/2009

PDF File ID: 1541623

Report generated 11/17/2009 08:05

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L09100717 Cal ID:HPMS4 09-NOV-09 Worknum:WG316572

Instrument ID:HPMS4 Contract #: Prep Method:3545

Parent ID:L09100717-01 File ID:4M49029 Dil:1 Method:8270C

Sample ID:L09100717-02 MS File ID:4M49052 Dil:1 Matrix:Soil

Sample ID:L09100717-03 MSD File ID:4M49031 Dil:1 Units:ug/kg

Percent Solid:82.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Diethyl phthalate	U	3460	2810	81.3	3510	2710	77.1	3.69	50 - 125	30	
Dimethyl phthalate	U	3460	2610	75.6	3510	2500	71.1	4.36	49 - 125	30	
Di-N-Butylphthalate	U	3460	2690	77.9	3510	2720	77.5	1.07	56 - 125	30	
Di-n-octyl phthalate	U	3460	3150	91.1	3510	3070	87.3	2.58	41 - 132	30	
Fluoranthene	U	3460	2880	83.5	3510	2880	82.1	0.0544	54 - 125	30	
Fluorene	U	3460	2480	71.8	3510	2420	68.8	2.59	49 - 125	30	
Hexachlorobenzene	U	3460	2610	75.5	3510	2570	73.1	1.52	47 - 125	30	
Hexachlorobutadiene	U	3460	2080	60.1	3510	2170	61.8	4.40	40 - 125	30	
Hexachlorocyclopentadiene	U	3460	1120	32.3	3510	1140	32.5	2.04	10 - 150	30	
Hexachloroethane	U	3460	1830	53.1	3510	1830	52	0.282	34 - 125	30	
Indeno(1,2,3-cd)pyrene	U	3460	2500	72.4	3510	2640	75.2	5.43	38 - 125	30	
Isophorone	U	3460	2010	58.3	3510	2120	60.4	5.22	43 - 125	30	
Naphthalene	U	3460	2060	59.5	3510	2130	60.7	3.65	40 - 125	30	
Nitrobenzene	U	3460	2100	60.9	3510	2150	61.1	1.93	41 - 125	30	
N-Nitrosodiphenylamine	U	3460	2280	66	3510	2120	60.3	7.40	49 - 125	30	
N-Nitrosodipropylamine	U	3460	2220	64.2	3510	2330	66.3	4.78	40 - 125	30	
Pentachlorophenol	U	3460	3230	93.5	3510	3190	90.8	1.21	25 - 125	30	
Phenanthrene	U	3460	2820	81.5	3510	2760	78.5	2.12	50 - 125	30	
Phenol	U	3460	2090	60.6	3510	2180	62.1	4.22	39 - 125	30	
Pyrene	U	3460	2770	80.1	3510	2770	78.9	0.0416	46 - 125	30	

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

MS_MSD - Modified 09/13/2009

PDF File ID: 1541623

Report generated 11/17/2009 08:05

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS12
Analyst: MDC
Workgroup: WG315933

Tune ID: WG315933-01
Run Date: 10/31/2009
Run Time: 14:39
File ID: 12M27665
Cal ID: HPMS12 - 28-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	46.2	77005	PASS
68.0	69.0	0	2.00	0.495	345	PASS
69.0	198	0	100	41.8	69634	PASS
70.0	69.0	0	2.00	0.584	407	PASS
127	198	40.0	60.0	49.2	81989	PASS
197	198	0	1.00	0.242	403	PASS
198	198	100	100	100	166637	PASS
199	198	5.00	9.00	6.88	11467	PASS
275	198	10.0	30.0	28.7	47826	PASS
365	198	1.00	100	3.88	6462	PASS
441	443	0.0100	100	73.2	21749	PASS
442	198	40.0	100	92.7	154517	PASS
443	442	17.0	23.0	19.2	29709	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG315933-02	STD-CCV	01	10/31/2009 14:58	
WG315933-03	STD	01	10/31/2009 15:32	
WG315933-04	STD	01	10/31/2009 16:06	
WG315933-05	STD	01	10/31/2009 16:40	
WG315933-06	STD	01	10/31/2009 17:15	
WG315933-07	STD	01	10/31/2009 17:49	
WG315933-08	STD	01	10/31/2009 18:24	
WG315933-09	STD	01	10/31/2009 18:58	
WG315933-10	SSCV	01	10/31/2009 19:32	
WG315933-11	SSCV	01	10/31/2009 20:06	
WG315933-12	SSCV	01	10/31/2009 20:40	
WG316004-01	STD-CCV	01	10/31/2009 21:15	
WG316004-02	STD	01	10/31/2009 21:49	
WG316004-03	STD	01	10/31/2009 22:22	
WG316004-04	STD	01	10/31/2009 22:56	
WG316004-05	STD	01	10/31/2009 23:31	
WG316004-06	STD	01	11/01/2009 00:05	
WG316004-07	SSCV	01	11/01/2009 00:39	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS12
Analyst: CAA/MES
Workgroup: WG316683

Tune ID: WG316683-01
Run Date: 11/06/2009
Run Time: 10:19
File ID: 12M27851
Cal ID: HPMS12 - 31-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	56.0	122250	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	46.6	101677	PASS
70.0	69.0	0	2.00	0.634	645	PASS
127	198	40.0	60.0	51.4	112109	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	218154	PASS
199	198	5.00	9.00	6.78	14785	PASS
275	198	10.0	30.0	27.1	59056	PASS
365	198	1.00	100	3.55	7755	PASS
441	443	0.0100	100	74.9	23816	PASS
442	198	40.0	100	75.1	163861	PASS
443	442	17.0	23.0	19.4	31789	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316683-02	CCV	01	11/06/2009 10:38	
WG316580-01	QCMRL	01	11/06/2009 11:44	
WG316580-02	QCMRL	01	11/06/2009 12:18	
WG316113-02	BLANK	01	11/06/2009 12:51	
WG316113-02	BLANK	01	11/06/2009 12:51	
WG316113-03	LCS	01	11/06/2009 13:24	
WG316580-03	QCMRL	01	11/06/2009 16:13	
WG316580-04	QCMRL	01	11/06/2009 16:46	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS12
Analyst: MDC
Workgroup: WG316819

Tune ID: WG316819-01
Run Date: 11/08/2009
Run Time: 16:30
File ID: 12M27902
Cal ID: HPMS12-08-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	52.8	82808	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.5	65106	PASS
70.0	69.0	0	2.00	0.789	514	PASS
127	198	40.0	60.0	48.0	75226	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	156698	PASS
199	198	5.00	9.00	6.79	10636	PASS
275	198	10.0	30.0	26.2	41026	PASS
365	198	1.00	100	2.82	4417	PASS
441	443	0.0100	100	76.1	15037	PASS
442	198	40.0	100	65.4	102429	PASS
443	442	17.0	23.0	19.3	19749	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316819-02	STD-CCV	01	11/08/2009 16:49	
WG316819-03	STD	01	11/08/2009 17:22	
WG316819-04	STD	01	11/08/2009 17:55	
WG316819-05	STD	01	11/08/2009 18:28	
WG316819-06	STD	01	11/08/2009 19:01	
WG316819-07	STD	01	11/08/2009 22:03	
WG316819-08	STD	01	11/08/2009 22:35	
WG316819-09	STD	01	11/08/2009 23:08	
WG316819-10	SSCV	01	11/08/2009 23:40	
WG316819-11	SSCV	01	11/09/2009 00:13	
WG316819-12	SSCV	01	11/09/2009 00:46	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS12
Analyst: MDC
Workgroup: WG317340

Tune ID: WG317340-01
Run Date: 11/13/2009
Run Time: 09:05
File ID: 12M28022
Cal ID: HPMS12-08-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	49.4	67122	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.1	55784	PASS
70.0	69.0	0	2.00	0.418	233	PASS
127	198	40.0	60.0	45.8	62280	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	135864	PASS
199	198	5.00	9.00	7.22	9812	PASS
275	198	10.0	30.0	26.0	35320	PASS
365	198	1.00	100	2.83	3846	PASS
441	443	0.0100	100	84.0	13195	PASS
442	198	40.0	100	62.5	84960	PASS
443	442	17.0	23.0	18.5	15699	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317340-02	CCV	01	11/13/2009 09:24	
L09100717-05	4013-GW-102809	DL01	11/13/2009 15:15	
L09100717-09	4014-GW-102809	DL01	11/13/2009 15:49	
L09100717-10	4014-GW-102809D	DL01	11/13/2009 16:23	
L09100717-13	4011-GW-102809	DL01	11/13/2009 16:56	
WG316113-01	REF	01	11/13/2009 17:29	
WG316113-04	MS	01	11/13/2009 18:02	
WG316113-05	MSD	01	11/13/2009 18:34	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS12
Analyst: MDC
Workgroup: WG317444

Tune ID: WG317444-01
Run Date: 11/14/2009
Run Time: 11:11
File ID: 12M28044
Cal ID: HPMS12-08-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	50.8	102896	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.9	85040	PASS
70.0	69.0	0	2.00	0.636	541	PASS
127	198	40.0	60.0	47.9	97034	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	202730	PASS
199	198	5.00	9.00	7.25	14701	PASS
275	198	10.0	30.0	25.2	51152	PASS
365	198	1.00	100	2.55	5166	PASS
441	443	0.0100	100	76.6	17489	PASS
442	198	40.0	100	56.4	114394	PASS
443	442	17.0	23.0	19.9	22817	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317444-02	CCV	01	11/14/2009 11:30	
WG316397-02	BLANK	02	11/14/2009 12:35	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316351

Tune ID: WG316351-01
Run Date: 11/03/2009
Run Time: 14:52
File ID: 4M48791
Cal ID: HPMS4-03-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	40.3	256085	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	43.7	277888	PASS
70.0	69.0	0	2.00	0.343	954	PASS
127	198	40.0	60.0	53.1	337237	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	635477	PASS
199	198	5.00	9.00	6.50	41290	PASS
275	198	10.0	30.0	21.8	138309	PASS
365	198	1.00	100	2.42	15352	PASS
441	443	0.0100	100	69.9	66722	PASS
442	198	40.0	100	76.6	487082	PASS
443	442	17.0	23.0	19.6	95512	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316255-10	SSCV	01	11/03/2009 15:50	
WG316255-11	SSCV	01	11/03/2009 16:28	
WG316255-12	SSCV	01	11/03/2009 17:06	
WG316353-01	STD-CCV	01	11/03/2009 17:42	
WG316353-02	STD	01	11/03/2009 18:20	
WG316353-03	STD	01	11/03/2009 18:56	
WG316353-04	STD	01	11/03/2009 19:33	
WG316353-05	STD	01	11/03/2009 20:10	
WG316353-06	STD	01	11/03/2009 20:47	
WG316353-07	SSCV	01	11/03/2009 21:23	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316255

Tune ID: WG316255-01
Run Date: 11/03/2009
Run Time: 09:29
File ID: 4M48782
Cal ID: HPMS4-03-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	41.0	278954	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	43.8	298283	PASS
70.0	69.0	0	2.00	0.683	2036	PASS
127	198	40.0	60.0	53.7	365226	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	680576	PASS
199	198	5.00	9.00	6.70	45624	PASS
275	198	10.0	30.0	21.8	148197	PASS
365	198	1.00	100	2.24	15232	PASS
441	443	0.0100	100	83.0	81704	PASS
442	198	40.0	100	72.1	490730	PASS
443	442	17.0	23.0	20.1	98405	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316255-02	STD-CCV	01	11/03/2009 09:49	
WG316255-03	STD	01	11/03/2009 10:28	
WG316255-04	STD	01	11/03/2009 11:06	
WG316255-05	STD	01	11/03/2009 11:45	
WG316255-06	STD	01	11/03/2009 12:24	
WG316255-07	STD	01	11/03/2009 13:02	
WG316255-08	STD	01	11/03/2009 13:41	
WG316255-09	STD	01	11/03/2009 14:19	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316533

Tune ID: WG316533-01
Run Date: 11/05/2009
Run Time: 09:15
File ID: 4M48837
Cal ID: HPMS4-03-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	45.7	263317	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	46.7	269035	PASS
70.0	69.0	0	2.00	0.509	1369	PASS
127	198	40.0	60.0	55.7	320874	PASS
197	198	0	1.00	0.291	1680	PASS
198	198	100	100	100	576554	PASS
199	198	5.00	9.00	7.05	40634	PASS
275	198	10.0	30.0	21.0	121202	PASS
365	198	1.00	100	2.28	13138	PASS
441	443	0.0100	100	82.6	65226	PASS
442	198	40.0	100	69.0	397952	PASS
443	442	17.0	23.0	19.8	78941	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316533-02	CCV	01	11/05/2009 09:36	
WG316397-02	BLANK	01	11/05/2009 11:25	
WG316397-03	LCS	01	11/05/2009 12:02	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316839

Tune ID: WG316839-01
Run Date: 11/09/2009
Run Time: 11:33
File ID: 4M48934
Cal ID: HPMS4-09-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	38.4	167330	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	39.9	173717	PASS
70.0	69.0	0	2.00	0.539	936	PASS
127	198	40.0	60.0	56.0	243968	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	435754	PASS
199	198	5.00	9.00	6.72	29282	PASS
275	198	10.0	30.0	23.3	101442	PASS
365	198	1.00	100	2.79	12177	PASS
441	443	0.0100	100	85.9	48813	PASS
442	198	40.0	100	68.6	298837	PASS
443	442	17.0	23.0	19.0	56842	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316839-02	STD-CCV	01	11/09/2009 11:53	
WG316839-03	STD	01	11/09/2009 12:28	
WG316839-04	STD	01	11/09/2009 13:03	
WG316839-05	STD	01	11/09/2009 13:39	
WG316839-06	STD	01	11/09/2009 14:15	
WG316839-07	STD	01	11/09/2009 14:50	
WG316839-08	STD	01	11/09/2009 15:26	
WG316839-09	STD	01	11/09/2009 16:01	
WG316839-10	SSCV	01	11/09/2009 16:37	
WG316839-11	SSCV	01	11/09/2009 17:12	
WG316839-12	SSCV	01	11/09/2009 17:46	
WG316935-01	STD-CCV	01	11/09/2009 18:21	
WG316935-02	STD	01	11/09/2009 18:56	
WG316935-03	STD	01	11/09/2009 19:31	
WG316935-04	STD	01	11/09/2009 20:05	
WG316935-05	STD	01	11/09/2009 20:40	
WG316935-06	STD	01	11/09/2009 21:15	
WG316935-07	SSCV	01	11/09/2009 21:50	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542072
Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS4
Analyst: MES
Workgroup: WG317340

Tune ID: WG317340-01
Run Date: 11/13/2009
Run Time: 09:30
File ID: 4M49025
Cal ID: HPMS4-09-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	40.9	172437	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.8	176320	PASS
70.0	69.0	0	2.00	0.306	539	PASS
127	198	40.0	60.0	58.8	248085	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	421802	PASS
199	198	5.00	9.00	6.96	29349	PASS
275	198	10.0	30.0	23.5	99234	PASS
365	198	1.00	100	2.74	11547	PASS
441	443	0.0100	100	86.7	44696	PASS
442	198	40.0	100	63.4	267242	PASS
443	442	17.0	23.0	19.3	51578	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317340-02	CCV	02	11/13/2009 09:48	
L09100717-01	4013-S001-102809	01	11/13/2009 11:40	
WG316397-01	REF	01	11/13/2009 11:40	
L09100717-03	4013-S001-102809-MSD	01	11/13/2009 12:51	
WG316397-05	MSD	01	11/13/2009 12:51	
L09100717-04	4013-S002-102809	01	11/13/2009 13:26	
L09100717-08	4014-S002-102809	01	11/13/2009 14:01	
L09100717-11	4011-S001-102809	01	11/13/2009 14:36	
L09100717-12	4011-S002-102809	01	11/13/2009 15:12	
L09100717-06	4014-S001-102809	DL01	11/13/2009 18:43	
L09100717-07	4014-S001-102809D	DL01	11/13/2009 19:17	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Report generated 11/17/2009 08:19

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS4
Analyst: MDC
Workgroup: WG317446

Tune ID: WG317446-01
Run Date: 11/14/2009
Run Time: 11:55
File ID: 4M49046
Cal ID: HPMS4-09-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	39.3	164360	PASS
68.0	69.0	0	2.00	0.375	639	PASS
69.0	198	0	100	40.7	170192	PASS
70.0	69.0	0	2.00	0.573	975	PASS
127	198	40.0	60.0	58.7	245269	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	417728	PASS
199	198	5.00	9.00	6.85	28634	PASS
275	198	10.0	30.0	23.5	98344	PASS
365	198	1.00	100	3.07	12831	PASS
441	443	0.0100	100	87.4	47845	PASS
442	198	40.0	100	68.1	284501	PASS
443	442	17.0	23.0	19.2	54744	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317446-02	CCV	01	11/14/2009 12:14	
L09100717-02	4013-S001-102809-MS	01	11/14/2009 15:09	
WG316397-04	MS	01	11/14/2009 15:09	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58
ICAL Workgroup: WG315933 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4972	9.19		
2,4-Dichlorophenol	CCC	0.3290	7.81		
2-Nitrophenol	CCC	0.1988	8.85		
4-Chloro-3-Methylphenol	CCC	0.4146	5.80		
Acenaphthene	CCC	1.584	16.3	0.99700	
Benzo[a]pyrene	CCC	1.144	8.45		
Di-n-Octyl Phthalate	CCC	1.654	5.37		
Fluoranthene	CCC	1.459	8.71		
Hexachlorobutadiene	CCC	0.2874	4.72		
Pentachlorophenol	CCC	0.1686	18.3		
Phenol	CCC	1.753	5.97		
2,4-Dinitrophenol	SPCC	0.2230	43.7		0.99800
4-Nitrophenol	SPCC	0.5104	7.66		
Hexachlorocyclopentadiene	SPCC	0.4615	13.5		
n-Nitrosodipropylamine	SPCC	1.298	6.56		
1,4-Dioxane		0.5792	6.75		
2,4,5-Trichlorophenol		0.5209	10.1		
2,4-Dimethylphenol		0.3592	9.11		
2,4-Dinitrotoluene		0.5479	17.6	0.99300	
2,6-Dinitrotoluene		0.3727	7.86		
2-Chloronaphthalene		1.643	11.0		
2-Chlorophenol		1.372	4.09		
2-Methylnaphthalene		0.7947	10.9		
2-Methylphenol		1.239	6.55		
2-Nitroaniline		0.6415	3.05		
3,3'-Dichlorobenzidine		0.3548	8.23		
3-Nitroaniline		0.3486	11.5		
4,6-Dinitro-2-Methylphenol		0.1328	23.0		1.00000
4-Bromophenyl Phenyl Ether		0.2886	9.40		
4-Chloroaniline		0.4795	9.14		
4-Chlorophenyl Phenyl Ether		1.076	17.0	0.99400	
4-Nitroaniline		0.4356	13.1		
Acenaphthylene		2.311	10.0		
Anthracene		1.249	10.3		
Benzo[a]anthracene		1.135	6.10		
Benzo[b]fluoranthene		1.449	15.0		
Benzo[ghi]perylene		1.023	4.42		
Benzo[k]fluoranthene		1.134	8.70		
Butyl Benzyl Phthalate		0.6255	5.15		
Carbazole		1.131	12.3		
Chrysene		1.079	6.55		
Di-n-Butyl Phthalate		1.587	4.24		
Dibenz[ah]anthracene		1.135	12.4		
Dibenzofuran		2.252	12.5		
Diethylphthalate		1.950	5.90		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58
ICAL Workgroup: WG315933 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.731	6.74		
Fluorene		1.935	13.3		
Hexachlorobenzene		0.2787	10.2		
Hexachloroethane		0.7035	3.00		
Indeno[1,2,3-cd]pyrene		1.349	10.2		
Isophorone		0.9290	2.29		
Naphthalene		1.170	7.05		
Nitrobenzene		0.5189	1.57		
Phenanthrene		1.253	8.41		
Pyrene		1.233	5.91		
bis(2-Chloroethoxy)methane		0.7049	11.4		
bis(2-Chloroethyl)ether		1.435	2.00		
bis(2-Chloroisopropyl)ether		2.936	8.63		
bis(2-Ethylhexyl)phthalate		0.8215	3.25		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19
ICAL Workgroup: WG316255 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4107	5.90		
2,4-Dichlorophenol	CCC	0.3059	5.61		
2-Nitrophenol	CCC	0.2073	3.82		
4-Chloro-3-Methylphenol	CCC	0.3147	5.40		
Acenaphthene	CCC	1.395	12.7		
Benzo[a]pyrene	CCC	1.111	6.10		
Di-n-Octyl Phthalate	CCC	1.723	11.3		
Fluoranthene	CCC	1.312	11.5		
Hexachlorobutadiene	CCC	0.1619	8.32		
Pentachlorophenol	CCC	0.1280	9.93		
Phenol	CCC	1.681	3.99		
2,4-Dinitrophenol	SPCC	0.1108	33.4	0.99200	
4-Nitrophenol	SPCC	0.2259	7.81		
Hexachlorocyclopentadiene	SPCC	0.2165	13.8		
n-Nitrosodipropylamine	SPCC	0.9450	12.9		
1,4-Dioxane		0.5356	7.36		
2,4,5-Trichlorophenol		0.4206	7.42		
2,4-Dimethylphenol		0.3586	7.36		
2,4-Dinitrotoluene		0.4697	6.72		
2,6-Dinitrotoluene		0.3800	6.29		
2-Chloronaphthalene		1.510	12.7		
2-Chlorophenol		1.514	4.13		
2-Methylnaphthalene		0.7685	12.3		
2-Methylphenol		1.136	5.48		
2-Nitroaniline		0.3623	3.63		
3,3'-Dichlorobenzidine		0.3043	7.62		
3-Nitroaniline		0.3618	6.22		
4,6-Dinitro-2-Methylphenol		0.1113	17.7	0.99600	
4-Bromophenyl Phenyl Ether		0.2078	10.6		
4-Chloroaniline		0.6076	7.02		
4-Chlorophenyl Phenyl Ether		0.7293	11.1		
4-Nitroaniline		0.3527	4.44		
Acenaphthylene		2.200	13.9		
Anthracene		1.291	12.8		
Benzo[a]anthracene		1.139	10.1		
Benzo[b]fluoranthene		1.200	12.1		
Benzo[ghi]perylene		0.9493	4.06		
Benzo[k]fluoranthene		1.108	10.8		
Butyl Benzyl Phthalate		0.6456	18.8		0.99900
Carbazole		1.187	8.82		
Chrysene		1.102	11.2		
Di-n-Butyl Phthalate		1.528	14.5		
Dibenz[ah]anthracene		0.9443	4.25		
Dibenzofuran		1.925	12.3		
Diethylphthalate		1.525	14.5		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19
ICAL Workgroup: WG316255 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.544	11.2		
Fluorene		1.603	14.6		
Hexachlorobenzene		0.2076	10.3		
Hexachloroethane		0.5892	5.20		
Indeno[1,2,3-cd]pyrene		1.128	4.03		
Isophorone		0.7207	8.35		
Naphthalene		1.156	12.9		
Nitrobenzene		0.3685	6.33		
Phenanthrene		1.283	13.9		
Pyrene		1.382	14.0		
bis(2-Chloroethoxy)methane		0.5174	14.4		
bis(2-Chloroethyl)ether		1.004	4.34		
bis(2-Chloroisopropyl)ether		1.609	2.33		
bis(2-Ethylhexyl)phthalate		0.9440	13.9		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08
ICAL Workgroup: WG316819 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4749	6.69		
2,4-Dichlorophenol	CCC	0.3203	4.66		
2-Nitrophenol	CCC	0.2038	5.56		
4-Chloro-3-Methylphenol	CCC	0.3809	2.55		
Acenaphthene	CCC	1.476	7.23		
Benzo[a]pyrene	CCC	1.192	3.40		
Di-n-Octyl Phthalate	CCC	1.669	3.33		
Fluoranthene	CCC	1.414	3.74		
Hexachlorobutadiene	CCC	0.2509	1.20		
Pentachlorophenol	CCC	0.1509	13.8		
Phenol	CCC	1.797	3.19		
2,4-Dinitrophenol	SPCC	0.1737	31.0		0.99000
4-Nitrophenol	SPCC	0.4115	6.48		
Hexachlorocyclopentadiene	SPCC	0.3388	19.1	0.99700	
n-Nitrosodipropylamine	SPCC	1.160	3.48		
1,4-Dioxane		0.5596	6.09		
2,4,5-Trichlorophenol		0.5035	6.74		
2,4-Dimethylphenol		0.3728	3.84		
2,4-Dinitrotoluene		0.5171	8.75		
2,6-Dinitrotoluene		0.3793	3.96		
2-Chloronaphthalene		1.588	3.71		
2-Chlorophenol		1.435	2.25		
2-Methylnaphthalene		0.7775	4.37		
2-Methylphenol		1.255	3.78		
2-Nitroaniline		0.5263	2.10		
3,3'-Dichlorobenzidine		0.3526	5.65		
3-Nitroaniline		0.3678	8.14		
4,6-Dinitro-2-Methylphenol		0.1287	16.2	0.99100	
4-Bromophenyl Phenyl Ether		0.2620	3.80		
4-Chloroaniline		0.4770	4.67		
4-Chlorophenyl Phenyl Ether		0.9690	5.72		
4-Nitroaniline		0.4308	7.10		
Acenaphthylene		2.292	3.61		
Anthracene		1.231	2.80		
Benzo[a]anthracene		1.204	2.19		
Benzo[b]fluoranthene		1.464	7.08		
Benzo[ghi]perylene		1.010	2.73		
Benzo[k]fluoranthene		1.196	4.01		
Butyl Benzyl Phthalate		0.6094	2.93		
Carbazole		1.141	4.53		
Chrysene		1.141	2.39		
Di-n-Butyl Phthalate		1.492	3.36		
Dibenz[ah]anthracene		1.090	6.20		
Dibenzofuran		2.113	3.78		
Diethylphthalate		1.769	2.27		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08
ICAL Workgroup: WG316819 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.661	2.18		
Fluorene		1.795	4.97		
Hexachlorobenzene		0.2348	3.09		
Hexachloroethane		0.6586	1.97		
Indeno[1,2,3-cd]pyrene		1.280	5.18		
Isophorone		0.8285	2.18		
Naphthalene		1.167	2.32		
Nitrobenzene		0.4505	2.55		
Phenanthrene		1.219	2.68		
Pyrene		1.278	5.93		
bis(2-Chloroethoxy)methane		0.6381	5.87		
bis(2-Chloroethyl)ether		1.255	3.20		
bis(2-Chloroisopropyl)ether		2.477	6.50		
bis(2-Ethylhexyl)phthalate		0.8165	2.01		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01
ICAL Workgroup: WG316839 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4044	3.79		
2,4-Dichlorophenol	CCC	0.3043	4.87		
2-Nitrophenol	CCC	0.2135	4.83		
4-Chloro-3-Methylphenol	CCC	0.3141	4.74		
Acenaphthene	CCC	1.314	11.0		
Benzo[a]pyrene	CCC	1.101	3.26		
Di-n-Octyl Phthalate	CCC	1.674	9.87		
Fluoranthene	CCC	1.229	10.3		
Hexachlorobutadiene	CCC	0.1701	7.04		
Pentachlorophenol	CCC	0.1315	18.5	0.99800	
Phenol	CCC	1.629	4.21		
2,4-Dinitrophenol	SPCC	0.1115	32.6		0.99000
4-Nitrophenol	SPCC	0.2301	13.6		
Hexachlorocyclopentadiene	SPCC	0.1463	37.3		0.99400
n-Nitrosodipropylamine	SPCC	0.9004	12.0		
1,4-Dioxane		0.5828	5.83		
2,4,5-Trichlorophenol		0.4175	5.84		
2,4-Dimethylphenol		0.3739	5.68		
2,4-Dinitrotoluene		0.4434	9.64		
2,6-Dinitrotoluene		0.3693	3.81		
2-Chloronaphthalene		1.462	11.9		
2-Chlorophenol		1.477	3.17		
2-Methylnaphthalene		0.7521	12.6		
2-Methylphenol		1.117	5.85		
2-Nitroaniline		0.3545	4.68		
3,3'-Dichlorobenzidine		0.3400	3.73		
3-Nitroaniline		0.3596	6.85		
4,6-Dinitro-2-Methylphenol		0.1116	13.6		
4-Bromophenyl Phenyl Ether		0.2236	6.35		
4-Chloroaniline		0.4679	5.70		
4-Chlorophenyl Phenyl Ether		0.6802	12.3		
4-Nitroaniline		0.3674	3.40		
Acenaphthylene		2.114	15.0		
Anthracene		1.218	13.2		
Benzo[a]anthracene		1.117	7.48		
Benzo[b]fluoranthene		1.277	7.35		
Benzo[ghi]perylene		0.8888	2.55		
Benzo[k]fluoranthene		1.140	3.81		
Butyl Benzyl Phthalate		0.6646	13.8		
Carbazole		1.163	9.61		
Chrysene		1.064	8.07		
Di-n-Butyl Phthalate		1.576	13.1		
Dibenz[ah]anthracene		0.9396	4.16		
Dibenzofuran		1.809	14.4		
Diethylphthalate		1.503	13.4		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01
ICAL Workgroup: WG316839 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.469	11.2		
Fluorene		1.548	12.3		
Hexachlorobenzene		0.2328	5.63		
Hexachloroethane		0.5896	4.06		
Indeno[1,2,3-cd]pyrene		1.105	2.91		
Isophorone		0.7036	8.98		
Naphthalene		1.199	13.5		
Nitrobenzene		0.3720	6.82		
Phenanthrene		1.223	13.7		
Pyrene		1.253	13.3		
bis(2-Chloroethoxy)methane		0.5503	12.9		
bis(2-Chloroethyl)ether		0.9972	8.06		
bis(2-Chloroisopropyl)ether		1.867	9.64		
bis(2-Ethylhexyl)phthalate		0.9649	8.88		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C

Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-02			WG315933-03			WG315933-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	179523.000	0.5067	3.00	11219.0000	0.4556	10.0	36755.0000	0.4581
2,4-Dichlorophenol	50.0	218267.000	0.3417	3.00	13979.0000	0.3151	10.0	43166.0000	0.2974
2-Nitrophenol	50.0	131335.000	0.2056	3.00	7815.00000	0.1762	10.0	26473.0000	0.1824
4-Chloro-3-Methylphenol	50.0	264013.000	0.4133	3.00	17508.0000	0.3947	10.0	56746.0000	0.3909
Acenaphthene	50.0	577857.000	1.631	3.00	31918.0000	1.296	10.0	106641.000	1.329
Benzo[a]pyrene	50.0	917929.000	1.134	3.00	55132.0000	1.076	10.0	189062.000	1.055
Di-n-Octyl Phthalate	50.0	1380141.00	1.705	3.00	82174.0000	1.604	10.0	278511.000	1.555
Fluoranthene	50.0	1154947.00	1.523	3.00	67281.0000	1.345	10.0	225690.000	1.329
Hexachlorobutadiene	50.0	185157.000	0.2898	3.00	12350.0000	0.2784	10.0	38944.0000	0.2683
Pentachlorophenol	50.0	132614.000	0.1748	NA	NA	NA	10.0	21571.0000	0.1270
Phenol	50.0	302779.000	1.798	3.00	19619.0000	1.657	10.0	63272.0000	1.664
2,4-Dinitrophenol	50.0	64520.0000	0.1821	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	171591.000	0.4844	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	172683.000	0.4874	3.00	8718.00000	0.3540	10.0	32699.0000	0.4075
n-Nitrosodipropylamine	50.0	222582.000	1.322	3.00	14270.0000	1.205	10.0	46052.0000	1.211
1,4-Dioxane	50.0	102506.000	0.6089	NA	NA	NA	10.0	23943.0000	0.6297
2,4,5-Trichlorophenol	50.0	186937.000	0.5277	3.00	11118.0000	0.4515	10.0	38997.0000	0.4860
2,4-Dimethylphenol	50.0	230546.000	0.3609	3.00	14661.0000	0.3305	10.0	48134.0000	0.3316
2,4-Dinitrotoluene	50.0	194948.000	0.5503	3.00	10681.0000	0.4337	10.0	37493.0000	0.4673
2,6-Dinitrotoluene	50.0	135496.000	0.3825	3.00	8435.00000	0.3425	10.0	27623.0000	0.3443
2-Chloronaphthalene	50.0	591910.000	1.671	3.00	36289.0000	1.474	10.0	118150.000	1.473
2-Chlorophenol	50.0	242501.000	1.440	3.00	16248.0000	1.372	10.0	50385.0000	1.325
2-Methylnaphthalene	50.0	510297.000	0.7988	3.00	32847.0000	0.7405	10.0	102219.000	0.7042
2-Methylphenol	50.0	219624.000	1.305	3.00	13659.0000	1.154	10.0	43900.0000	1.155
2-Nitroaniline	50.0	221555.000	0.6254	NA	NA	NA	10.0	49874.0000	0.6216
3,3'-Dichlorobenzidine	50.0	355005.000	0.3652	3.00	20606.0000	0.3380	10.0	67087.0000	0.3174
3-Nitroaniline	50.0	122580.000	0.3460	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	91733.0000	0.1209	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	220139.000	0.2902	3.00	13370.0000	0.2673	10.0	44946.0000	0.2647
4-Chloroaniline	50.0	311469.000	0.4876	3.00	19971.0000	0.4502	10.0	62649.0000	0.4316
4-Chlorophenyl Phenyl Ether	50.0	376187.000	1.062	3.00	22523.0000	0.9146	10.0	73252.0000	0.9129
4-Nitroaniline	50.0	154372.000	0.4358	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	847813.000	2.393	3.00	51457.0000	2.089	10.0	167292.000	2.085
Anthracene	50.0	978931.000	1.291	3.00	56308.0000	1.126	10.0	188467.000	1.110
Benzo[a]anthracene	50.0	1134208.00	1.167	3.00	66718.0000	1.094	10.0	224371.000	1.062
Benzo[b]fluoranthene	50.0	1222937.00	1.511	3.00	68124.0000	1.330	10.0	219042.000	1.223
Benzo[ghi]perylene	50.0	840037.000	1.038	3.00	49511.0000	0.9663	10.0	175668.000	0.9806
Benzo[k]fluoranthene	50.0	958235.000	1.184	3.00	52583.0000	1.026	10.0	187767.000	1.048
Butyl Benzyl Phthalate	50.0	631481.000	0.6497	3.00	36967.0000	0.6063	10.0	123226.000	0.5831
Carbazole	50.0	888421.000	1.171	3.00	49725.0000	0.9940	10.0	166680.000	0.9815
Chrysene	50.0	1074588.00	1.106	3.00	62099.0000	1.019	10.0	211210.000	0.9994
Di-n-Butyl Phthalate	50.0	1254684.00	1.654	3.00	76850.0000	1.536	10.0	258949.000	1.525

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-02			WG315933-03			WG315933-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	918679.000	1.135	3.00	50767.0000	0.9908	10.0	177163.000	0.9889
Dibenzofuran	50.0	804267.000	2.270	3.00	49502.0000	2.010	10.0	161092.000	2.008
Diethylphthalate	50.0	707797.000	1.998	3.00	44892.0000	1.823	10.0	146901.000	1.831
Dimethylphthalate	50.0	626705.000	1.769	3.00	40169.0000	1.631	10.0	130629.000	1.628
Fluorene	50.0	708371.000	2.000	3.00	39804.0000	1.616	10.0	136126.000	1.697
Hexachlorobenzene	50.0	212245.000	0.2798	3.00	13271.0000	0.2653	10.0	43068.0000	0.2536
Hexachloroethane	50.0	119194.000	0.7080	3.00	8135.00000	0.6871	10.0	26465.0000	0.6960
Indeno[1,2,3-cd]pyrene	50.0	1095660.00	1.354	3.00	62432.0000	1.218	10.0	215944.000	1.205
Isophorone	50.0	601651.000	0.9418	3.00	40919.0000	0.9224	10.0	131677.000	0.9071
Naphthalene	50.0	752780.000	1.178	3.00	50397.0000	1.136	10.0	156788.000	1.080
Nitrobenzene	50.0	325327.000	0.5093	3.00	22917.0000	0.5166	10.0	74431.0000	0.5128
Phenanthrene	50.0	967074.000	1.275	3.00	58752.0000	1.175	10.0	194606.000	1.146
Pyrene	50.0	1295600.00	1.333	3.00	71984.0000	1.181	10.0	244748.000	1.158
bis(2-Chloroethoxy)methane	50.0	459029.000	0.7185	3.00	26988.0000	0.6084	10.0	91638.0000	0.6313
bis(2-Chloroethyl)ether	50.0	235393.000	1.398	3.00	17152.0000	1.449	10.0	55754.0000	1.466
bis(2-Chloroisopropyl)ether	50.0	456733.000	2.713	3.00	38213.0000	3.228	10.0	119833.000	3.151
bis(2-Ethylhexyl)phthalate	50.0	826929.000	0.8508	3.00	50787.0000	0.8330	10.0	169345.000	0.8013

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58

Column ID: F

Analyte	WG315933-05			WG315933-06			WG315933-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	58014.0000	0.4562	25.0	96928.0000	0.4642	80.0	347908.000	0.5201
2,4-Dichlorophenol	15.0	68093.0000	0.3003	25.0	116642.000	0.3135	80.0	410689.000	0.3471
2-Nitrophenol	15.0	42208.0000	0.1861	25.0	71172.0000	0.1913	80.0	245492.000	0.2075
4-Chloro-3-Methylphenol	15.0	90560.0000	0.3994	25.0	146804.000	0.3946	80.0	510920.000	0.4318
Acenaphthene	15.0	173811.000	1.367	25.0	300751.000	1.441	80.0	1229272.00	1.838
Benzo[a]pyrene	15.0	300553.000	1.049	25.0	514340.000	1.081	80.0	1933706.00	1.208
Di-n-Octyl Phthalate	15.0	445267.000	1.554	25.0	752086.000	1.581	80.0	2780158.00	1.737
Fluoranthene	15.0	356681.000	1.331	25.0	607964.000	1.368	80.0	2324161.00	1.604
Hexachlorobutadiene	15.0	62947.0000	0.2776	25.0	104051.000	0.2797	80.0	351283.000	0.2969
Pentachlorophenol	15.0	36676.0000	0.1368	25.0	67097.0000	0.1509	80.0	271082.000	0.1871
Phenol	15.0	101155.000	1.663	25.0	165542.000	1.677	80.0	564508.000	1.797
2,4-Dinitrophenol	15.0	12348.0000	0.09710	25.0	29146.0000	0.1396	80.0	180850.000	0.2704
4-Nitrophenol	15.0	57743.0000	0.4541	25.0	103412.000	0.4953	80.0	364755.000	0.5453
Hexachlorocyclopentadiene	15.0	54128.0000	0.4257	25.0	95273.0000	0.4563	80.0	354307.000	0.5297
n-Nitrosodipropylamine	15.0	74066.0000	1.218	25.0	124037.000	1.256	80.0	440645.000	1.403
1,4-Dioxane	15.0	36476.0000	0.5996	25.0	58929.0000	0.5969	80.0	174201.000	0.5545
2,4,5-Trichlorophenol	15.0	61133.0000	0.4808	25.0	103041.000	0.4935	80.0	370353.000	0.5537
2,4-Dimethylphenol	15.0	75520.0000	0.3331	25.0	123377.000	0.3316	80.0	449786.000	0.3801
2,4-Dinitrotoluene	15.0	60706.0000	0.4774	25.0	102498.000	0.4909	80.0	413001.000	0.6174
2,6-Dinitrotoluene	15.0	44351.0000	0.3488	25.0	73878.0000	0.3538	80.0	262857.000	0.3930
2-Chloronaphthalene	15.0	187563.000	1.475	25.0	318845.000	1.527	80.0	1194240.00	1.785
2-Chlorophenol	15.0	78938.0000	1.298	25.0	130830.000	1.325	80.0	434632.000	1.384
2-Methylnaphthalene	15.0	160710.000	0.7088	25.0	273069.000	0.7340	80.0	1008467.00	0.8523
2-Methylphenol	15.0	70916.0000	1.166	25.0	118271.000	1.198	80.0	409296.000	1.303
2-Nitroaniline	15.0	79919.0000	0.6285	25.0	134453.000	0.6440	80.0	443394.000	0.6629
3,3'-Dichlorobenzidine	15.0	111582.000	0.3311	25.0	189698.000	0.3298	80.0	760923.000	0.3803
3-Nitroaniline	15.0	38142.0000	0.3000	25.0	63737.0000	0.3053	80.0	242238.000	0.3621
4,6-Dinitro-2-Methylphenol	15.0	24867.0000	0.09280	25.0	47984.0000	0.1079	80.0	210009.000	0.1450
4-Bromophenyl Phenyl Ether	15.0	70259.0000	0.2621	25.0	119300.000	0.2684	80.0	445134.000	0.3072
4-Chloroaniline	15.0	99216.0000	0.4376	25.0	167906.000	0.4513	80.0	593832.000	0.5019
4-Chlorophenyl Phenyl Ether	15.0	116561.000	0.9167	25.0	197605.000	0.9464	80.0	825582.000	1.234
4-Nitroaniline	15.0	44748.0000	0.3519	25.0	80696.0000	0.3865	80.0	310619.000	0.4644
Acenaphthylene	15.0	264942.000	2.084	25.0	450623.000	2.158	80.0	1686509.00	2.521
Anthracene	15.0	302619.000	1.129	25.0	519794.000	1.169	80.0	2022962.00	1.396
Benzo[a]anthracene	15.0	359332.000	1.066	25.0	614158.000	1.068	80.0	2419476.00	1.209
Benzo[b]fluoranthene	15.0	359905.000	1.256	25.0	645729.000	1.357	80.0	2663118.00	1.664
Benzo[ghi]perylene	15.0	284414.000	0.9928	25.0	474183.000	0.9966	80.0	1707988.00	1.067
Benzo[k]fluoranthene	15.0	289985.000	1.012	25.0	536057.000	1.127	80.0	1928324.00	1.205
Butyl Benzyl Phthalate	15.0	201894.000	0.5990	25.0	344853.000	0.5996	80.0	1345420.00	0.6723
Carbazole	15.0	271431.000	1.013	25.0	462583.000	1.041	80.0	1828895.00	1.262
Chrysene	15.0	343322.000	1.019	25.0	590051.000	1.026	80.0	2326412.00	1.163
Di-n-Butyl Phthalate	15.0	407420.000	1.520	25.0	684813.000	1.541	80.0	2463676.00	1.701

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-05			WG315933-06			WG315933-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	15.0	293715.000	1.025	25.0	504051.000	1.059	80.0	2023634.00	1.264
Dibenzofuran	15.0	251325.000	1.977	25.0	425715.000	2.039	80.0	1672262.00	2.500
Diethylphthalate	15.0	236043.000	1.856	25.0	392944.000	1.882	80.0	1374581.00	2.055
Dimethylphthalate	15.0	205559.000	1.617	25.0	342283.000	1.639	80.0	1217422.00	1.820
Fluorene	15.0	217515.000	1.711	25.0	379223.000	1.816	80.0	1468585.00	2.196
Hexachlorobenzene	15.0	66765.0000	0.2491	25.0	112218.000	0.2524	80.0	435009.000	0.3002
Hexachloroethane	15.0	41207.0000	0.6774	25.0	67699.0000	0.6857	80.0	225902.000	0.7191
Indeno[1,2,3-cd]pyrene	15.0	351005.000	1.225	25.0	607452.000	1.277	80.0	2353494.00	1.471
Isophorone	15.0	205256.000	0.9052	25.0	338147.000	0.9089	80.0	1129054.00	0.9542
Naphthalene	15.0	246722.000	1.088	25.0	407833.000	1.096	80.0	1463410.00	1.237
Nitrobenzene	15.0	117055.000	0.5162	25.0	191601.000	0.5150	80.0	628250.000	0.5310
Phenanthrene	15.0	307520.000	1.147	25.0	521321.000	1.173	80.0	1981931.00	1.368
Pyrene	15.0	395944.000	1.175	25.0	686910.000	1.194	80.0	2695841.00	1.347
bis(2-Chloroethoxy)methane	15.0	144424.000	0.6369	25.0	246265.000	0.6619	80.0	926679.000	0.7832
bis(2-Chloroethyl)ether	15.0	87364.0000	1.436	25.0	145178.000	1.471	80.0	452089.000	1.439
bis(2-Chloroisopropyl)ether	15.0	190350.000	3.129	25.0	311281.000	3.153	80.0	888040.000	2.827
bis(2-Ethylhexyl)phthalate	15.0	268160.000	0.7957	25.0	448887.000	0.7805	80.0	1712144.00	0.8556

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58

Column ID: F

Analyte	WG315933-08			WG315933-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	534125.000	0.5418	120	657516.000	0.5746
2,4-Dichlorophenol	100	606905.000	0.3494	120	751514.000	0.3671
2-Nitrophenol	100	372431.000	0.2144	120	464945.000	0.2271
4-Chloro-3-Methylphenol	100	757139.000	0.4359	120	933302.000	0.4559
Acenaphthene	100	1824316.00	1.851	120	2200421.00	1.923
Benzo[a]pyrene	100	2855602.00	1.240	120	3592051.00	1.307
Di-n-Octyl Phthalate	100	3995404.00	1.734	120	4842107.00	1.762
Fluoranthene	100	3378334.00	1.578	120	4027958.00	1.597
Hexachlorobutadiene	100	521009.000	0.3000	120	630881.000	0.3082
Pentachlorophenol	100	415672.000	0.1942	120	527352.000	0.2091
Phenol	100	854906.000	1.830	120	1051632.00	1.942
2,4-Dinitrophenol	100	309228.000	0.3137	120	383703.000	0.3353
4-Nitrophenol	100	520225.000	0.5277	120	635954.000	0.5557
Hexachlorocyclopentadiene	100	508439.000	0.5157	120	590253.000	0.5158
n-Nitrosodipropylamine	100	639684.000	1.369	120	756523.000	1.397
1,4-Dioxane	100	248090.000	0.5311	120	288953.000	0.5335
2,4,5-Trichlorophenol	100	556875.000	0.5649	120	696960.000	0.6090
2,4-Dimethylphenol	100	680606.000	0.3919	120	846531.000	0.4136
2,4-Dinitrotoluene	100	639450.000	0.6486	120	798074.000	0.6974
2,6-Dinitrotoluene	100	389996.000	0.3956	120	481715.000	0.4209
2-Chloronaphthalene	100	1800378.00	1.826	120	2193164.00	1.916
2-Chlorophenol	100	642378.000	1.375	120	789463.000	1.458
2-Methylnaphthalene	100	1546870.00	0.8907	120	1899826.00	0.9281
2-Methylphenol	100	595550.000	1.275	120	737413.000	1.362
2-Nitroaniline	100	626315.000	0.6353	120	769815.000	0.6727
3,3'-Dichlorobenzidine	100	1136358.00	0.3810	120	1430194.00	0.3955
3-Nitroaniline	100	370570.000	0.3759	120	460363.000	0.4023
4,6-Dinitro-2-Methylphenol	100	341524.000	0.1595	120	430697.000	0.1708
4-Bromophenyl Phenyl Ether	100	677856.000	0.3166	120	836956.000	0.3319
4-Chloroaniline	100	911304.000	0.5247	120	1127947.00	0.5510
4-Chlorophenyl Phenyl Ether	100	1256678.00	1.275	120	1545347.00	1.350
4-Nitroaniline	100	463608.000	0.4703	120	577732.000	0.5048
Acenaphthylene	100	2488859.00	2.525	120	3010085.00	2.630
Anthracene	100	2939489.00	1.373	120	3520313.00	1.396
Benzo[a]anthracene	100	3554209.00	1.192	120	4419516.00	1.222
Benzo[b]fluoranthene	100	4147762.00	1.801	NA	NA	NA
Benzo[ghi]perylene	100	2436053.00	1.058	120	2992590.00	1.089
Benzo[k]fluoranthene	100	2971855.00	1.290	120	3250352.00	1.183
Butyl Benzyl Phthalate	100	1939359.00	0.6502	120	2329285.00	0.6441
Carbazole	100	2714388.00	1.268	120	3314155.00	1.314
Chrysene	100	3409148.00	1.143	120	4199956.00	1.161
Di-n-Butyl Phthalate	100	3458842.00	1.616	120	4050767.00	1.606

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58

Column ID: F

Analyte	WG315933-08			WG315933-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	100	2947846.00	1.280	120	3679610.00	1.339
Dibenzofuran	100	2517056.00	2.553	120	3042245.00	2.658
Diethylphthalate	100	2008025.00	2.037	120	2422833.00	2.117
Dimethylphthalate	100	1799509.00	1.825	120	2194421.00	1.918
Fluorene	100	2151813.00	2.183	120	2592930.00	2.266
Hexachlorobenzene	100	653138.000	0.3051	120	817548.000	0.3242
Hexachloroethane	100	333199.000	0.7132	120	401597.000	0.7415
Indeno[1,2,3-cd]pyrene	100	3425916.00	1.487	120	4265574.00	1.552
Isophorone	100	1621452.00	0.9336	120	1961755.00	0.9584
Naphthalene	100	2171142.00	1.250	120	2647668.00	1.294
Nitrobenzene	100	900986.000	0.5188	120	1088139.00	0.5316
Phenanthrene	100	2901257.00	1.355	120	3501891.00	1.389
Pyrene	100	3753713.00	1.258	120	4406205.00	1.218
bis(2-Chloroethoxy)methane	100	1376694.00	0.7927	120	1650279.00	0.8062
bis(2-Chloroethyl)ether	100	649591.000	1.391	120	776794.000	1.434
bis(2-Chloroisopropyl)ether	100	1228187.00	2.629	120	1439662.00	2.658
bis(2-Ethylhexyl)phthalate	100	2460936.00	0.8250	120	3002128.00	0.8301

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-02			WG316255-03			WG316255-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	219900.000	0.4286	3.00	11202.0000	0.4119	10.0	38679.0000	0.4319
2,4-Dichlorophenol	50.0	303513.000	0.3076	3.00	16947.0000	0.3288	10.0	54202.0000	0.3201
2-Nitrophenol	50.0	213718.000	0.2166	3.00	10082.0000	0.1956	10.0	35689.0000	0.2108
4-Chloro-3-Methylphenol	50.0	317972.000	0.3223	3.00	16883.0000	0.3276	10.0	55723.0000	0.3291
Acenaphthene	50.0	708190.000	1.380	3.00	43010.0000	1.582	10.0	135500.000	1.513
Benzo[a]pyrene	50.0	954842.000	1.128	3.00	48429.0000	1.194	10.0	164121.000	1.162
Di-n-Octyl Phthalate	50.0	1477346.00	1.745	3.00	78613.0000	1.938	10.0	267784.000	1.896
Fluoranthene	50.0	1216907.00	1.303	3.00	70530.0000	1.500	10.0	230242.000	1.457
Hexachlorobutadiene	50.0	160292.000	0.1625	3.00	9180.00000	0.1781	10.0	29261.0000	0.1728
Pentachlorophenol	50.0	129305.000	0.1385	NA	NA	NA	10.0	16695.0000	0.1057
Phenol	50.0	439350.000	1.716	3.00	23973.0000	1.758	10.0	77488.0000	1.737
2,4-Dinitrophenol	50.0	48910.0000	0.09530	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	128155.000	0.2498	NA	NA	NA	10.0	17775.0000	0.1985
Hexachlorocyclopentadiene	50.0	129305.000	0.2520	3.00	4534.00000	0.1667	10.0	20150.0000	0.2250
n-Nitrosodipropylamine	50.0	244991.000	0.9566	3.00	15096.0000	1.107	10.0	45806.0000	1.027
1,4-Dioxane	50.0	144799.000	0.5654	3.00	6062.00000	0.4445	10.0	23372.0000	0.5239
2,4,5-Trichlorophenol	50.0	227527.000	0.4435	3.00	11721.0000	0.4310	10.0	39857.0000	0.4451
2,4-Dimethylphenol	50.0	361065.000	0.3660	3.00	19845.0000	0.3850	10.0	62806.0000	0.3709
2,4-Dinitrotoluene	50.0	256230.000	0.4994	3.00	12714.0000	0.4675	10.0	43516.0000	0.4859
2,6-Dinitrotoluene	50.0	202175.000	0.3941	3.00	10687.0000	0.3930	10.0	35325.0000	0.3945
2-Chloronaphthalene	50.0	777085.000	1.515	3.00	47563.0000	1.749	10.0	149997.000	1.675
2-Chlorophenol	50.0	392405.000	1.532	3.00	22014.0000	1.614	10.0	68625.0000	1.538
2-Methylnaphthalene	50.0	756392.000	0.7667	3.00	45880.0000	0.8901	10.0	144108.000	0.8511
2-Methylphenol	50.0	295889.000	1.155	3.00	16393.0000	1.202	10.0	52899.0000	1.186
2-Nitroaniline	50.0	195966.000	0.3820	3.00	9832.00000	0.3615	10.0	32584.0000	0.3639
3,3'-Dichlorobenzidine	50.0	300809.000	0.3190	3.00	15773.0000	0.3445	10.0	47800.0000	0.3063
3-Nitroaniline	50.0	202518.000	0.3947	3.00	9703.00000	0.3568	10.0	29500.0000	0.3294
4,6-Dinitro-2-Methylphenol	50.0	95586.0000	0.1024	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	193956.000	0.2077	3.00	11261.0000	0.2395	10.0	35721.0000	0.2261
4-Chloroaniline	50.0	610007.000	0.6183	3.00	34245.0000	0.6644	10.0	107673.000	0.6359
4-Chlorophenyl Phenyl Ether	50.0	379177.000	0.7390	3.00	22237.0000	0.8177	10.0	71313.0000	0.7963
4-Nitroaniline	50.0	186324.000	0.3632	NA	NA	NA	10.0	31853.0000	0.3557
Acenaphthylene	50.0	1089162.00	2.123	3.00	68169.0000	2.507	10.0	219321.000	2.449
Anthracene	50.0	1201456.00	1.287	3.00	70458.0000	1.498	10.0	226033.000	1.431
Benzo[a]anthracene	50.0	1072765.00	1.138	3.00	59366.0000	1.297	10.0	194696.000	1.248
Benzo[b]fluoranthene	50.0	1010565.00	1.194	3.00	58146.0000	1.434	10.0	188896.000	1.338
Benzo[ghi]perylene	50.0	830922.000	0.9815	3.00	39902.0000	0.9839	10.0	137684.000	0.9749
Benzo[k]fluoranthene	50.0	975610.000	1.152	3.00	50545.0000	1.246	10.0	169301.000	1.199
Butyl Benzyl Phthalate	50.0	592402.000	0.6282	3.00	36558.0000	0.7985	10.0	119346.000	0.7648
Carbazole	50.0	1133265.00	1.214	3.00	61477.0000	1.307	10.0	198341.000	1.255
Chrysene	50.0	1036862.00	1.100	3.00	57743.0000	1.261	10.0	190311.000	1.220
Di-n-Butyl Phthalate	50.0	1405080.00	1.505	3.00	85081.0000	1.809	10.0	273556.000	1.731

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 03-NOV-09 14:19
Column ID: F

Analyte	WG316255-02			WG316255-03			WG316255-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	826356.000	0.9761	3.00	38917.0000	0.9596	10.0	138232.000	0.9787
Dibenzofuran	50.0	967892.000	1.887	3.00	59346.0000	2.182	10.0	188208.000	2.102
Diethylphthalate	50.0	790752.000	1.541	3.00	48910.0000	1.799	10.0	153006.000	1.709
Dimethylphthalate	50.0	800969.000	1.561	3.00	47894.0000	1.761	10.0	150072.000	1.676
Fluorene	50.0	776897.000	1.514	3.00	50971.0000	1.874	10.0	160173.000	1.789
Hexachlorobenzene	50.0	192967.000	0.2067	3.00	11258.0000	0.2394	10.0	35282.0000	0.2233
Hexachloroethane	50.0	153733.000	0.6003	3.00	8610.00000	0.6314	10.0	26830.0000	0.6014
Indeno[1,2,3-cd]pyrene	50.0	978591.000	1.156	3.00	46881.0000	1.156	10.0	164095.000	1.162
Isophorone	50.0	718426.000	0.7282	3.00	41771.0000	0.8104	10.0	130310.000	0.7696
Naphthalene	50.0	1134537.00	1.150	3.00	70087.0000	1.360	10.0	218394.000	1.290
Nitrobenzene	50.0	372600.000	0.3777	3.00	20437.0000	0.3965	10.0	66100.0000	0.3904
Phenanthrene	50.0	1177463.00	1.261	3.00	71796.0000	1.527	10.0	227318.000	1.439
Pyrene	50.0	1284071.00	1.362	3.00	75652.0000	1.652	10.0	244174.000	1.565
bis(2-Chloroethoxy)methane	50.0	512398.000	0.5194	3.00	31429.0000	0.6098	10.0	98264.0000	0.5803
bis(2-Chloroethyl)ether	50.0	261905.000	1.023	3.00	14619.0000	1.072	10.0	45854.0000	1.028
bis(2-Chloroisopropyl)ether	50.0	421985.000	1.648	3.00	22885.0000	1.678	10.0	72151.0000	1.617
bis(2-Ethylhexyl)phthalate	50.0	857378.000	0.9091	3.00	49574.0000	1.083	10.0	165185.000	1.059

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-05			WG316255-06			WG316255-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	60646.0000	0.4316	25.0	96657.0000	0.4310	80.0	283499.000	0.3955
2,4-Dichlorophenol	15.0	85100.0000	0.3175	25.0	133527.000	0.3130	80.0	398726.000	0.2923
2-Nitrophenol	15.0	56469.0000	0.2107	25.0	92850.0000	0.2177	80.0	280084.000	0.2053
4-Chloro-3-Methylphenol	15.0	88036.0000	0.3285	25.0	138391.000	0.3244	80.0	416165.000	0.3051
Acenaphthene	15.0	211866.000	1.508	25.0	327837.000	1.462	80.0	882922.000	1.232
Benzo[a]pyrene	15.0	257465.000	1.161	25.0	414857.000	1.137	80.0	1296735.00	1.073
Di-n-Octyl Phthalate	15.0	415425.000	1.873	25.0	663301.000	1.818	80.0	1922526.00	1.590
Fluoranthene	15.0	354576.000	1.415	25.0	553205.000	1.383	80.0	1572944.00	1.210
Hexachlorobutadiene	15.0	45942.0000	0.1714	25.0	72262.0000	0.1694	80.0	208727.000	0.1530
Pentachlorophenol	15.0	28947.0000	0.1155	25.0	51155.0000	0.1278	80.0	179965.000	0.1384
Phenol	15.0	120339.000	1.716	25.0	188848.000	1.707	80.0	566565.000	1.636
2,4-Dinitrophenol	15.0	7890.00000	0.05610	25.0	19313.0000	0.08610	80.0	99698.0000	0.1391
4-Nitrophenol	15.0	29353.0000	0.2089	25.0	51210.0000	0.2284	80.0	172589.000	0.2408
Hexachlorocyclopentadiene	15.0	33971.0000	0.2417	25.0	53462.0000	0.2384	80.0	161012.000	0.2246
n-Nitrosodipropylamine	15.0	72070.0000	1.027	25.0	111648.000	1.009	80.0	301080.000	0.8695
1,4-Dioxane	15.0	39682.0000	0.5657	25.0	59776.0000	0.5403	80.0	188240.000	0.5436
2,4,5-Trichlorophenol	15.0	62329.0000	0.4436	25.0	99287.0000	0.4428	80.0	294626.000	0.4110
2,4-Dimethylphenol	15.0	98187.0000	0.3664	25.0	167075.000	0.3917	80.0	467176.000	0.3425
2,4-Dinitrotoluene	15.0	69856.0000	0.4971	25.0	110899.000	0.4946	80.0	334278.000	0.4663
2,6-Dinitrotoluene	15.0	56650.0000	0.4031	25.0	88877.0000	0.3963	80.0	264336.000	0.3688
2-Chloronaphthalene	15.0	231833.000	1.650	25.0	358902.000	1.601	80.0	986604.000	1.376
2-Chlorophenol	15.0	108234.000	1.543	25.0	170655.000	1.543	80.0	510805.000	1.475
2-Methylnaphthalene	15.0	223602.000	0.8343	25.0	346542.000	0.8124	80.0	956936.000	0.7016
2-Methylphenol	15.0	82621.0000	1.178	25.0	129957.000	1.175	80.0	380264.000	1.098
2-Nitroaniline	15.0	52147.0000	0.3711	25.0	83012.0000	0.3702	80.0	259358.000	0.3618
3,3'-Dichlorobenzidine	15.0	76103.0000	0.3051	25.0	127136.000	0.3132	80.0	398815.000	0.2972
3-Nitroaniline	15.0	47715.0000	0.3396	25.0	77888.0000	0.3473	80.0	275445.000	0.3843
4,6-Dinitro-2-Methylphenol	15.0	20351.0000	0.08120	25.0	40213.0000	0.1005	80.0	167711.000	0.1290
4-Bromophenyl Phenyl Ether	15.0	55342.0000	0.2209	25.0	86426.0000	0.2160	80.0	250957.000	0.1930
4-Chloroaniline	15.0	170090.000	0.6346	25.0	267988.000	0.6283	80.0	788835.000	0.5783
4-Chlorophenyl Phenyl Ether	15.0	111323.000	0.7922	25.0	173343.000	0.7730	80.0	489345.000	0.6827
4-Nitroaniline	15.0	52450.0000	0.3733	25.0	81826.0000	0.3649	80.0	246884.000	0.3444
Acenaphthylene	15.0	338715.000	2.410	25.0	519225.000	2.316	80.0	1355087.00	1.890
Anthracene	15.0	352218.000	1.406	25.0	551148.000	1.377	80.0	1537314.00	1.182
Benzo[a]anthracene	15.0	303243.000	1.216	25.0	475459.000	1.171	80.0	1420765.00	1.059
Benzo[b]fluoranthene	15.0	280731.000	1.266	25.0	443878.000	1.217	80.0	1304934.00	1.079
Benzo[ghi]perylene	15.0	215055.000	0.9698	25.0	351049.000	0.9621	80.0	1136407.00	0.9399
Benzo[k]fluoranthene	15.0	263282.000	1.187	25.0	417097.000	1.143	80.0	1256661.00	1.039
Butyl Benzyl Phthalate	15.0	183119.000	0.7342	25.0	282080.000	0.6949	80.0	750879.000	0.5596
Carbazole	15.0	315776.000	1.261	25.0	501466.000	1.253	80.0	1467232.00	1.128
Chrysene	15.0	295810.000	1.186	25.0	465255.000	1.146	80.0	1360679.00	1.014
Di-n-Butyl Phthalate	15.0	421887.000	1.684	25.0	651878.000	1.629	80.0	1787523.00	1.375

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 03-NOV-09 14:19
Column ID: F

Analyte	WG316255-05			WG316255-06			WG316255-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	15.0	216681.000	0.9772	25.0	352387.000	0.9657	80.0	1120338.00	0.9266
Dibenzofuran	15.0	291520.000	2.075	25.0	450452.000	2.009	80.0	1215915.00	1.696
Diethylphthalate	15.0	236394.000	1.682	25.0	364312.000	1.625	80.0	996740.000	1.391
Dimethylphthalate	15.0	236400.000	1.682	25.0	362008.000	1.614	80.0	1022924.00	1.427
Fluorene	15.0	247016.000	1.758	25.0	375182.000	1.673	80.0	977576.000	1.364
Hexachlorobenzene	15.0	55590.0000	0.2219	25.0	86011.0000	0.2150	80.0	251113.000	0.1931
Hexachloroethane	15.0	42554.0000	0.6067	25.0	67275.0000	0.6081	80.0	197746.000	0.5711
Indeno[1,2,3-cd]pyrene	15.0	259203.000	1.169	25.0	420503.000	1.152	80.0	1340200.00	1.109
Isophorone	15.0	201446.000	0.7516	25.0	315797.000	0.7404	80.0	919991.000	0.6745
Naphthalene	15.0	335458.000	1.252	25.0	518233.000	1.215	80.0	1430357.00	1.049
Nitrobenzene	15.0	102222.000	0.3814	25.0	160342.000	0.3759	80.0	479189.000	0.3513
Phenanthrene	15.0	350431.000	1.399	25.0	544787.000	1.362	80.0	1510992.00	1.162
Pyrene	15.0	374905.000	1.503	25.0	586695.000	1.445	80.0	1675727.00	1.249
bis(2-Chloroethoxy)methane	15.0	153622.000	0.5732	25.0	234899.000	0.5507	80.0	639568.000	0.4689
bis(2-Chloroethyl)ether	15.0	71632.0000	1.021	25.0	112174.000	1.014	80.0	338860.000	0.9786
bis(2-Chloroisopropyl)ether	15.0	113018.000	1.611	25.0	175575.000	1.587	80.0	547413.000	1.581
bis(2-Ethylhexyl)phthalate	15.0	255331.000	1.024	25.0	400758.000	0.9872	80.0	1092589.00	0.8142

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-08			WG316255-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	364148.000	0.3834	120	418266.000	0.3719
2,4-Dichlorophenol	100	506705.000	0.2849	120	590722.000	0.2830
2-Nitrophenol	100	358123.000	0.2014	120	418686.000	0.2006
4-Chloro-3-Methylphenol	100	518622.000	0.2916	120	602336.000	0.2886
Acenaphthene	100	1032149.00	1.087	NA	NA	NA
Benzo[a]pyrene	100	1637096.00	1.021	120	1924868.00	1.013
Di-n-Octyl Phthalate	100	2378547.00	1.483	120	2730431.00	1.438
Fluoranthene	100	1935589.00	1.128	120	2213051.00	1.102
Hexachlorobutadiene	100	257973.000	0.1451	120	297417.000	0.1425
Pentachlorophenol	100	231028.000	0.1347	120	271576.000	0.1352
Phenol	100	715584.000	1.591	120	835299.000	1.585
2,4-Dinitrophenol	100	136261.000	0.1435	120	162537.000	0.1445
4-Nitrophenol	100	219338.000	0.2309	120	252231.000	0.2243
Hexachlorocyclopentadiene	100	186737.000	0.1966	120	210695.000	0.1873
n-Nitrosodipropylamine	100	360854.000	0.8023	120	401213.000	0.7613
1,4-Dioxane	100	244634.000	0.5439	120	293891.000	0.5577
2,4,5-Trichlorophenol	100	362636.000	0.3818	120	411667.000	0.3661
2,4-Dimethylphenol	100	580297.000	0.3263	120	667418.000	0.3197
2,4-Dinitrotoluene	100	411136.000	0.4329	120	465764.000	0.4142
2,6-Dinitrotoluene	100	331045.000	0.3485	120	383787.000	0.3413
2-Chloronaphthalene	100	1209732.00	1.274	120	1396817.00	1.242
2-Chlorophenol	100	644988.000	1.434	120	754556.000	1.432
2-Methylnaphthalene	100	1166075.00	0.6557	120	1327452.00	0.6359
2-Methylphenol	100	474214.000	1.054	120	549869.000	1.043
2-Nitroaniline	100	327985.000	0.3453	120	385105.000	0.3424
3,3'-Dichlorobenzidine	100	493347.000	0.2772	120	566942.000	0.2717
3-Nitroaniline	100	352261.000	0.3709	120	417703.000	0.3714
4,6-Dinitro-2-Methylphenol	100	217448.000	0.1267	120	257193.000	0.1281
4-Bromophenyl Phenyl Ether	100	310577.000	0.1810	120	357379.000	0.1780
4-Chloroaniline	100	986361.000	0.5546	120	1140247.00	0.5463
4-Chlorophenyl Phenyl Ether	100	597596.000	0.6292	120	679223.000	0.6040
4-Nitroaniline	100	316319.000	0.3330	120	376344.000	0.3346
Acenaphthylene	100	1617054.00	1.703	NA	NA	NA
Anthracene	100	1871796.00	1.091	120	2117799.00	1.055
Benzo[a]anthracene	100	1778267.00	0.9991	120	2061158.00	0.9879
Benzo[b]fluoranthene	100	1674651.00	1.044	120	1948784.00	1.026
Benzo[ghi]perylene	100	1438516.00	0.8967	120	1682102.00	0.8856
Benzo[k]fluoranthene	100	1414431.00	0.8817	120	1932386.00	1.017
Butyl Benzyl Phthalate	100	895790.000	0.5033	120	1004330.00	0.4814
Carbazole	100	1804553.00	1.052	120	2064161.00	1.028
Chrysene	100	1694630.00	0.9521	120	1953631.00	0.9364
Di-n-Butyl Phthalate	100	2172311.00	1.266	120	2452386.00	1.221

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-08			WG316255-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	100	1424662.00	0.8880	120	1675781.00	0.8823
Dibenzofuran	100	1451482.00	1.528	NA	NA	NA
Diethylphthalate	100	1198171.00	1.262	120	1337349.00	1.189
Dimethylphthalate	100	1262463.00	1.329	120	1459496.00	1.298
Fluorene	100	1183160.00	1.246	NA	NA	NA
Hexachlorobenzene	100	312552.000	0.1822	120	360258.000	0.1794
Hexachloroethane	100	245890.000	0.5467	120	288640.000	0.5477
Indeno[1,2,3-cd]pyrene	100	1708231.00	1.065	120	2007037.00	1.057
Isophorone	100	1153437.00	0.6486	120	1340373.00	0.6421
Naphthalene	100	1735776.00	0.9760	120	1995333.00	0.9559
Nitrobenzene	100	601469.000	0.3382	120	702336.000	0.3365
Phenanthrene	100	1839511.00	1.072	120	2090007.00	1.041
Pyrene	100	2054621.00	1.154	120	2343935.00	1.124
bis(2-Chloroethoxy)methane	100	768437.000	0.4321	120	845509.000	0.4051
bis(2-Chloroethyl)ether	100	426551.000	0.9484	120	497511.000	0.9440
bis(2-Chloroisopropyl)ether	100	706319.000	1.570	120	833715.000	1.582
bis(2-Ethylhexyl)phthalate	100	1303489.00	0.7324	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-02			WG316819-03			WG316819-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	228642.000	0.4943	120	718588.000	0.5201	100	404935.000	0.4919
2,4-Dichlorophenol	50.0	279713.000	0.3312	120	850058.000	0.3407	100	488613.000	0.3287
2-Nitrophenol	50.0	176840.000	0.2094	120	552886.000	0.2216	100	308052.000	0.2072
4-Chloro-3-Methylphenol	50.0	329780.000	0.3904	120	984268.000	0.3945	100	565196.000	0.3802
Acenaphthene	50.0	731459.000	1.582	120	2150429.00	1.557	100	1287440.00	1.564
Benzo[a]pyrene	50.0	1146896.00	1.217	120	3572181.00	1.242	100	1985655.00	1.219
Di-n-Octyl Phthalate	50.0	1651224.00	1.752	120	4783285.00	1.663	100	2771040.00	1.701
Fluoranthene	50.0	1442939.00	1.503	120	3816381.00	1.330	100	2381228.00	1.408
Hexachlorobutadiene	50.0	212189.000	0.2512	120	637907.000	0.2557	100	369177.000	0.2484
Pentachlorophenol	50.0	153007.000	0.1593	120	504932.000	0.1759	100	275559.000	0.1630
Phenol	50.0	403140.000	1.858	120	1205078.00	1.888	100	687305.000	1.807
2,4-Dinitrophenol	50.0	77839.0000	0.1683	120	310673.000	0.2249	100	164077.000	0.1993
4-Nitrophenol	50.0	202372.000	0.4375	120	597111.000	0.4322	100	339057.000	0.4119
Hexachlorocyclopentadiene	50.0	192309.000	0.4158	120	526639.000	0.3812	100	304951.000	0.3704
n-Nitrosodipropylamine	50.0	264892.000	1.221	120	750690.000	1.176	100	449584.000	1.182
1,4-Dioxane	50.0	124458.000	0.5737	120	331928.000	0.5201	100	202407.000	0.5322
2,4,5-Trichlorophenol	50.0	245584.000	0.5310	120	763019.000	0.5523	100	426052.000	0.5175
2,4-Dimethylphenol	50.0	309732.000	0.3667	120	992756.000	0.3979	100	560445.000	0.3770
2,4-Dinitrotoluene	50.0	249592.000	0.5396	120	797712.000	0.5774	100	448727.000	0.5451
2,6-Dinitrotoluene	50.0	179102.000	0.3872	120	559348.000	0.4049	100	315497.000	0.3832
2-Chloronaphthalene	50.0	757075.000	1.637	120	2306767.00	1.670	100	1330414.00	1.616
2-Chlorophenol	50.0	317530.000	1.464	120	944156.000	1.479	100	548902.000	1.443
2-Methylnaphthalene	50.0	674476.000	0.7985	120	2052831.00	0.8228	100	1180524.00	0.7942
2-Methylphenol	50.0	283899.000	1.309	120	832088.000	1.304	100	487110.000	1.281
2-Nitroaniline	50.0	252883.000	0.5468	120	716147.000	0.5184	100	423087.000	0.5139
3,3'-Dichlorobenzidine	50.0	425571.000	0.3681	120	1355695.00	0.3740	100	734679.000	0.3593
3-Nitroaniline	50.0	172417.000	0.3728	120	557628.000	0.4036	100	312378.000	0.3794
4,6-Dinitro-2-Methylphenol	50.0	122459.000	0.1275	120	432586.000	0.1507	100	225433.000	0.1333
4-Bromophenyl Phenyl Ether	50.0	255990.000	0.2666	120	794490.000	0.2768	100	450739.000	0.2666
4-Chloroaniline	50.0	407985.000	0.4830	120	1290031.00	0.5171	100	722557.000	0.4861
4-Chlorophenyl Phenyl Ether	50.0	470050.000	1.016	120	1410711.00	1.021	100	833188.000	1.012
4-Nitroaniline	50.0	205632.000	0.4446	120	643885.000	0.4661	100	358608.000	0.4356
Acenaphthylene	50.0	1116195.00	2.413	120	3205535.00	2.320	100	1929601.00	2.344
Anthracene	50.0	1229927.00	1.281	120	3443974.00	1.200	100	2112249.00	1.249
Benzo[a]anthracene	50.0	1426502.00	1.234	120	4252201.00	1.173	100	2459658.00	1.203
Benzo[b]fluoranthene	50.0	1453850.00	1.542	NA	NA	NA	100	2600740.00	1.597
Benzo[ghi]perylene	50.0	997756.000	1.059	120	2965479.00	1.031	100	1651319.00	1.014
Benzo[k]fluoranthene	50.0	1144748.00	1.214	120	3514443.00	1.222	100	1919358.00	1.178
Butyl Benzyl Phthalate	50.0	733582.000	0.6345	120	2069873.00	0.5711	100	1256320.00	0.6143
Carbazole	50.0	1152848.00	1.201	120	3324916.00	1.159	100	1987484.00	1.175
Chrysene	50.0	1361428.00	1.178	120	3983309.00	1.099	100	2342048.00	1.145
Di-n-Butyl Phthalate	50.0	1502041.00	1.564	120	3988657.00	1.390	100	2501365.00	1.479

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 08-NOV-09 23:08
Column ID: F

Analyte	WG316819-02			WG316819-03			WG316819-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	1083936.00	1.150	120	3340290.00	1.162	100	1846383.00	1.134
Dibenzofuran	50.0	1017194.00	2.199	120	2990128.00	2.164	100	1786217.00	2.170
Diethylphthalate	50.0	844864.000	1.827	120	2448495.00	1.772	100	1433260.00	1.741
Dimethylphthalate	50.0	791203.000	1.711	120	2327495.00	1.685	100	1367958.00	1.662
Fluorene	50.0	894136.000	1.933	120	2512876.00	1.819	100	1519473.00	1.846
Hexachlorobenzene	50.0	229854.000	0.2394	120	704891.000	0.2456	100	398725.000	0.2358
Hexachloroethane	50.0	145362.000	0.6701	120	432862.000	0.6782	100	248680.000	0.6539
Indeno[1,2,3-cd]pyrene	50.0	1267646.00	1.345	120	3893166.00	1.354	100	2144497.00	1.317
Isophorone	50.0	716160.000	0.8479	120	2037252.00	0.8166	100	1210098.00	0.8141
Naphthalene	50.0	1005509.00	1.190	120	2966268.00	1.189	100	1733420.00	1.166
Nitrobenzene	50.0	387315.000	0.4585	120	1099468.00	0.4407	100	647632.000	0.4357
Phenanthrene	50.0	1218455.00	1.269	120	3426132.00	1.194	100	2076201.00	1.228
Pyrene	50.0	1560374.00	1.350	120	4026735.00	1.111	100	2585983.00	1.265
bis(2-Chloroethoxy)methane	50.0	561660.000	0.6650	120	1712010.00	0.6862	100	983900.000	0.6619
bis(2-Chloroethyl)ether	50.0	279725.000	1.290	120	788982.000	1.236	100	457488.000	1.203
bis(2-Chloroisopropyl)ether	50.0	546134.000	2.518	120	1444237.00	2.263	100	880767.000	2.316
bis(2-Ethylhexyl)phthalate	50.0	981930.000	0.8493	120	2881317.00	0.7950	100	1670481.00	0.8169

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-05			WG316819-06			WG316819-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	80.0	432022.000	0.4977	25.0	124480.000	0.4699	15.0	54569.0000	0.4578
2,4-Dichlorophenol	80.0	518357.000	0.3331	25.0	152094.000	0.3155	15.0	67312.0000	0.3078
2-Nitrophenol	80.0	329617.000	0.2118	25.0	97719.0000	0.2027	15.0	43391.0000	0.1984
4-Chloro-3-Methylphenol	80.0	603081.000	0.3875	25.0	180187.000	0.3738	15.0	80800.0000	0.3695
Acenaphthene	80.0	1374688.00	1.584	25.0	383261.000	1.447	15.0	162518.000	1.364
Benzo[a]pyrene	80.0	2155822.00	1.233	25.0	611178.000	1.167	15.0	270185.000	1.174
Di-n-Octyl Phthalate	80.0	2996309.00	1.714	25.0	866491.000	1.654	15.0	385960.000	1.678
Fluoranthene	80.0	2560145.00	1.438	25.0	762065.000	1.429	15.0	338242.000	1.403
Hexachlorobutadiene	80.0	392632.000	0.2523	25.0	118864.000	0.2466	15.0	54739.0000	0.2503
Pentachlorophenol	80.0	294958.000	0.1657	25.0	77044.0000	0.1445	15.0	30918.0000	0.1283
Phenol	80.0	726224.000	1.826	25.0	216442.000	1.733	15.0	100998.000	1.771
2,4-Dinitrophenol	80.0	193311.000	0.2227	25.0	37449.0000	0.1414	15.0	10197.0000	0.08560
4-Nitrophenol	80.0	369817.000	0.4260	25.0	104302.000	0.3938	15.0	43820.0000	0.3677
Hexachlorocyclopentadiene	80.0	332560.000	0.3831	25.0	89650.0000	0.3384	15.0	35936.0000	0.3015
n-Nitrosodipropylamine	80.0	473079.000	1.189	25.0	139127.000	1.114	15.0	64716.0000	1.135
1,4-Dioxane	80.0	213931.000	0.5378	25.0	69512.0000	0.5564	15.0	35359.0000	0.6201
2,4,5-Trichlorophenol	80.0	458283.000	0.5279	25.0	130243.000	0.4917	15.0	57365.0000	0.4813
2,4-Dimethylphenol	80.0	603817.000	0.3880	25.0	171659.000	0.3561	15.0	79975.0000	0.3658
2,4-Dinitrotoluene	80.0	486219.000	0.5601	25.0	132625.000	0.5007	15.0	58035.0000	0.4869
2,6-Dinitrotoluene	80.0	338956.000	0.3905	25.0	98502.0000	0.3719	15.0	42971.0000	0.3605
2-Chloronaphthalene	80.0	1421282.00	1.637	25.0	404726.000	1.528	15.0	181998.000	1.527
2-Chlorophenol	80.0	579505.000	1.457	25.0	176005.000	1.409	15.0	80440.0000	1.411
2-Methylnaphthalene	80.0	1269382.00	0.8157	25.0	363118.000	0.7532	15.0	161310.000	0.7377
2-Methylphenol	80.0	516325.000	1.298	25.0	153763.000	1.231	15.0	68447.0000	1.200
2-Nitroaniline	80.0	450063.000	0.5185	25.0	139413.000	0.5263	15.0	62956.0000	0.5282
3,3'-Dichlorobenzidine	80.0	810464.000	0.3733	25.0	225934.000	0.3563	15.0	91043.0000	0.3253
3-Nitroaniline	80.0	333206.000	0.3839	25.0	92310.0000	0.3485	15.0	37983.0000	0.3187
4,6-Dinitro-2-Methylphenol	80.0	262562.000	0.1475	25.0	63773.0000	0.1196	15.0	22586.0000	0.09370
4-Bromophenyl Phenyl Ether	80.0	485118.000	0.2725	25.0	135614.000	0.2543	15.0	60806.0000	0.2522
4-Chloroaniline	80.0	770840.000	0.4953	25.0	223280.000	0.4631	15.0	99262.0000	0.4540
4-Chlorophenyl Phenyl Ether	80.0	895112.000	1.031	25.0	243449.000	0.9191	15.0	109386.000	0.9178
4-Nitroaniline	80.0	385991.000	0.4447	25.0	110140.000	0.4158	15.0	45038.0000	0.3779
Acenaphthylene	80.0	2061066.00	2.374	25.0	598075.000	2.258	15.0	263724.000	2.213
Anthracene	80.0	2253760.00	1.266	25.0	665075.000	1.247	15.0	290623.000	1.206
Benzo[a]anthracene	80.0	2662226.00	1.226	25.0	751708.000	1.185	15.0	332148.000	1.187
Benzo[b]fluoranthene	80.0	2723962.00	1.558	25.0	764268.000	1.459	15.0	318992.000	1.387
Benzo[ghi]perylene	80.0	1790250.00	1.024	25.0	518452.000	0.9898	15.0	230712.000	1.003
Benzo[k]fluoranthene	80.0	2174751.00	1.244	25.0	609508.000	1.164	15.0	277719.000	1.207
Butyl Benzyl Phthalate	80.0	1343204.00	0.6187	25.0	386620.000	0.6096	15.0	171241.000	0.6119
Carbazole	80.0	2134803.00	1.199	25.0	608942.000	1.142	15.0	263809.000	1.094
Chrysene	80.0	2535081.00	1.168	25.0	720518.000	1.136	15.0	313213.000	1.119
Di-n-Butyl Phthalate	80.0	2668953.00	1.499	25.0	803401.000	1.507	15.0	361410.000	1.499

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 08-NOV-09 23:08
Column ID: F

Analyte	WG316819-05			WG316819-06			WG316819-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	80.0	2005646.00	1.147	25.0	557595.000	1.065	15.0	239749.000	1.042
Dibenzofuran	80.0	1910646.00	2.201	25.0	540304.000	2.040	15.0	242558.000	2.035
Diethylphthalate	80.0	1536709.00	1.770	25.0	461140.000	1.741	15.0	207134.000	1.738
Dimethylphthalate	80.0	1459835.00	1.682	25.0	430945.000	1.627	15.0	192576.000	1.616
Fluorene	80.0	1623502.00	1.870	25.0	475071.000	1.794	15.0	205696.000	1.726
Hexachlorobenzene	80.0	425528.000	0.2390	25.0	119969.000	0.2250	15.0	54739.0000	0.2271
Hexachloroethane	80.0	267722.000	0.6730	25.0	80731.0000	0.6462	15.0	36912.0000	0.6473
Indeno[1,2,3-cd]pyrene	80.0	2329310.00	1.332	25.0	651736.000	1.244	15.0	286404.000	1.245
Isophorone	80.0	1284573.00	0.8255	25.0	391287.000	0.8116	15.0	181928.000	0.8320
Naphthalene	80.0	1848316.00	1.188	25.0	551156.000	1.143	15.0	248939.000	1.139
Nitrobenzene	80.0	684854.000	0.4401	25.0	215817.000	0.4477	15.0	99717.0000	0.4560
Phenanthrene	80.0	2223118.00	1.249	25.0	648713.000	1.217	15.0	285349.000	1.184
Pyrene	80.0	2748149.00	1.266	25.0	823384.000	1.298	15.0	362829.000	1.297
bis(2-Chloroethoxy)methane	80.0	1051172.00	0.6755	25.0	294576.000	0.6110	15.0	133539.000	0.6107
bis(2-Chloroethyl)ether	80.0	489334.000	1.230	25.0	153100.000	1.226	15.0	73281.0000	1.285
bis(2-Chloroisopropyl)ether	80.0	931206.000	2.341	25.0	308311.000	2.468	15.0	149251.000	2.617
bis(2-Ethylhexyl)phthalate	80.0	1796551.00	0.8276	25.0	510292.000	0.8046	15.0	228070.000	0.8150

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-08			WG316819-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	10.0	47325.0000	0.4425	3.00	8768.00000	0.4251
2,4-Dichlorophenol	10.0	59588.0000	0.3039	3.00	11486.0000	0.3018
2-Nitrophenol	10.0	38215.0000	0.1949	3.00	7029.00000	0.1847
4-Chloro-3-Methylphenol	10.0	72252.0000	0.3685	3.00	14577.0000	0.3830
Acenaphthene	10.0	145602.000	1.362	3.00	27823.0000	1.349
Benzo[a]pyrene	10.0	237439.000	1.143	3.00	44674.0000	1.142
Di-n-Octyl Phthalate	10.0	333533.000	1.605	3.00	61971.0000	1.584
Fluoranthene	10.0	295907.000	1.359	3.00	59598.0000	1.438
Hexachlorobutadiene	10.0	48800.0000	0.2489	3.00	9658.00000	0.2538
Pentachlorophenol	10.0	26051.0000	0.1196	NA	NA	NA
Phenol	10.0	88731.0000	1.745	3.00	17561.0000	1.747
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	10.0	32992.0000	0.3085	3.00	4354.00000	0.2111
n-Nitrosodipropylamine	10.0	56069.0000	1.103	3.00	11633.0000	1.157
1,4-Dioxane	10.0	29334.0000	0.5770	NA	NA	NA
2,4,5-Trichlorophenol	10.0	50710.0000	0.4742	3.00	9325.00000	0.4521
2,4-Dimethylphenol	10.0	70440.0000	0.3593	3.00	14130.0000	0.3713
2,4-Dinitrotoluene	10.0	51402.0000	0.4807	3.00	9202.00000	0.4462
2,6-Dinitrotoluene	10.0	38786.0000	0.3627	3.00	7697.00000	0.3732
2-Chloronaphthalene	10.0	162752.000	1.522	3.00	32370.0000	1.570
2-Chlorophenol	10.0	70343.0000	1.384	3.00	14387.0000	1.431
2-Methylnaphthalene	10.0	145876.000	0.7440	3.00	28685.0000	0.7538
2-Methylphenol	10.0	61150.0000	1.203	3.00	12208.0000	1.215
2-Nitroaniline	10.0	56890.0000	0.5320	NA	NA	NA
3,3'-Dichlorobenzidine	10.0	83274.0000	0.3309	3.00	15676.0000	0.3333
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	10.0	54462.0000	0.2501	3.00	10639.0000	0.2568
4-Chloroaniline	10.0	89351.0000	0.4557	3.00	17569.0000	0.4617
4-Chlorophenyl Phenyl Ether	10.0	96734.0000	0.9046	3.00	19180.0000	0.9300
4-Nitroaniline	NA	NA	NA	NA	NA	NA
Acenaphthylene	10.0	233192.000	2.181	3.00	46109.0000	2.236
Anthracene	10.0	257849.000	1.184	3.00	50359.0000	1.215
Benzo[a]anthracene	10.0	297168.000	1.181	3.00	58352.0000	1.241
Benzo[b]fluoranthene	10.0	279040.000	1.343	3.00	53175.0000	1.359
Benzo[ghi]perylene	10.0	205410.000	0.9884	3.00	38054.0000	0.9726
Benzo[k]fluoranthene	10.0	228276.000	1.098	3.00	48426.0000	1.238
Butyl Benzyl Phthalate	10.0	152763.000	0.6069	3.00	28618.0000	0.6085
Carbazole	10.0	233649.000	1.073	3.00	44815.0000	1.082
Chrysene	10.0	281825.000	1.120	3.00	54614.0000	1.161
Di-n-Butyl Phthalate	10.0	320243.000	1.471	3.00	63144.0000	1.524

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-08			WG316819-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	10.0	216895.000	1.044	3.00	38189.0000	0.9761
Dibenzofuran	10.0	214419.000	2.005	3.00	43077.0000	2.089
Diethylphthalate	10.0	185333.000	1.733	3.00	37807.0000	1.833
Dimethylphthalate	10.0	173031.000	1.618	3.00	34774.0000	1.686
Fluorene	10.0	181537.000	1.698	3.00	34624.0000	1.679
Hexachlorobenzene	10.0	49674.0000	0.2281	3.00	9874.00000	0.2383
Hexachloroethane	10.0	32962.0000	0.6483	3.00	6554.00000	0.6521
Indeno[1,2,3-cd]pyrene	10.0	255863.000	1.231	3.00	45773.0000	1.170
Isophorone	10.0	160365.000	0.8179	3.00	32816.0000	0.8623
Naphthalene	10.0	221236.000	1.128	3.00	45496.0000	1.196
Nitrobenzene	10.0	89393.0000	0.4559	3.00	17875.0000	0.4697
Phenanthrene	10.0	256364.000	1.177	3.00	51342.0000	1.239
Pyrene	10.0	322281.000	1.281	3.00	63751.0000	1.356
bis(2-Chloroethoxy)methane	10.0	116703.000	0.5952	3.00	22813.0000	0.5995
bis(2-Chloroethyl)ether	10.0	63547.0000	1.250	3.00	13295.0000	1.323
bis(2-Chloroisopropyl)ether	10.0	130880.000	2.574	3.00	27360.0000	2.722
bis(2-Ethylhexyl)phthalate	10.0	203402.000	0.8081	3.00	38342.0000	0.8153

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01

Column ID: F

Analyte	WG316839-02			WG316839-03			WG316839-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	555683.000	0.4312	3.00	18227.0000	0.3897	10.0	64073.0000	0.4008
2,4-Dichlorophenol	50.0	780235.000	0.3254	3.00	27190.0000	0.3033	10.0	92416.0000	0.3025
2-Nitrophenol	50.0	551203.000	0.2299	3.00	17752.0000	0.1980	10.0	62206.0000	0.2036
4-Chloro-3-Methylphenol	50.0	788878.000	0.3290	3.00	28687.0000	0.3200	10.0	98482.0000	0.3223
Acenaphthene	50.0	1623889.00	1.260	3.00	69461.0000	1.485	10.0	225076.000	1.408
Benzo[a]pyrene	50.0	2335941.00	1.114	3.00	79023.0000	1.156	10.0	270640.000	1.127
Di-n-Octyl Phthalate	50.0	3488211.00	1.664	3.00	120565.000	1.764	10.0	443707.000	1.848
Fluoranthene	50.0	2656594.00	1.224	3.00	106696.000	1.363	10.0	354815.000	1.328
Hexachlorobutadiene	50.0	428277.000	0.1786	3.00	15991.0000	0.1784	10.0	53723.0000	0.1758
Pentachlorophenol	50.0	335227.000	0.1544	NA	NA	NA	10.0	22939.0000	0.08590
Phenol	50.0	1136610.00	1.673	3.00	41314.0000	1.677	10.0	140084.000	1.659
2,4-Dinitrophenol	50.0	164843.000	0.1279	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	307139.000	0.2383	NA	NA	NA	10.0	28995.0000	0.1814
Hexachlorocyclopentadiene	50.0	275542.000	0.2138	3.00	1709.00000	0.03650	10.0	16353.0000	0.1023
n-Nitrosodipropylamine	50.0	581366.000	0.8559	3.00	24718.0000	1.004	10.0	81437.0000	0.9646
1,4-Dioxane	50.0	395534.000	0.5823	NA	NA	NA	10.0	54474.0000	0.6452
2,4,5-Trichlorophenol	50.0	575017.000	0.4462	3.00	18756.0000	0.4010	10.0	67777.0000	0.4240
2,4-Dimethylphenol	50.0	916140.000	0.3821	3.00	35029.0000	0.3908	10.0	115563.000	0.3782
2,4-Dinitrotoluene	50.0	616534.000	0.4784	3.00	19519.0000	0.4173	10.0	72873.0000	0.4559
2,6-Dinitrotoluene	50.0	493815.000	0.3832	3.00	17361.0000	0.3712	10.0	60246.0000	0.3769
2-Chloronaphthalene	50.0	1877804.00	1.457	3.00	78589.0000	1.680	10.0	252973.000	1.583
2-Chlorophenol	50.0	1022076.00	1.505	3.00	37816.0000	1.535	10.0	126108.000	1.494
2-Methylnaphthalene	50.0	1824044.00	0.7607	3.00	76674.0000	0.8553	10.0	249574.000	0.8168
2-Methylphenol	50.0	760340.000	1.119	3.00	29607.0000	1.202	10.0	98486.0000	1.167
2-Nitroaniline	50.0	483419.000	0.3751	3.00	15074.0000	0.3223	10.0	56586.0000	0.3540
3,3'-Dichlorobenzidine	50.0	826893.000	0.3556	3.00	27997.0000	0.3639	10.0	90206.0000	0.3330
3-Nitroaniline	50.0	508256.000	0.3944	3.00	15400.0000	0.3292	10.0	53992.0000	0.3378
4,6-Dinitro-2-Methylphenol	50.0	281398.000	0.1296	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	497388.000	0.2291	3.00	18503.0000	0.2364	10.0	61949.0000	0.2319
4-Chloroaniline	50.0	1165949.00	0.4862	3.00	42354.0000	0.4725	10.0	144418.000	0.4726
4-Chlorophenyl Phenyl Ether	50.0	904057.000	0.7016	3.00	35250.0000	0.7536	10.0	118442.000	0.7410
4-Nitroaniline	50.0	501246.000	0.3890	NA	NA	NA	10.0	56127.0000	0.3511
Acenaphthylene	50.0	2529340.00	1.963	3.00	114420.000	2.446	10.0	373909.000	2.339
Anthracene	50.0	2618322.00	1.206	3.00	107880.000	1.378	10.0	362514.000	1.357
Benzo[a]anthracene	50.0	2611358.00	1.123	3.00	95123.0000	1.236	10.0	321007.000	1.185
Benzo[b]fluoranthene	50.0	2574743.00	1.228	3.00	98177.0000	1.436	10.0	305892.000	1.274
Benzo[ghi]perylene	50.0	1952468.00	0.9314	3.00	60160.0000	0.8801	10.0	215112.000	0.8957
Benzo[k]fluoranthene	50.0	2304407.00	1.099	3.00	82233.0000	1.203	10.0	270111.000	1.125
Butyl Benzyl Phthalate	50.0	1524440.00	0.6555	3.00	58316.0000	0.7580	10.0	203090.000	0.7497
Carbazole	50.0	2560213.00	1.179	3.00	99306.0000	1.269	10.0	328792.000	1.231
Chrysene	50.0	2503622.00	1.077	3.00	90948.0000	1.182	10.0	307416.000	1.135
Di-n-Butyl Phthalate	50.0	3215185.00	1.481	3.00	136685.000	1.746	10.0	464466.000	1.739

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Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte	WG316839-02			WG316839-03			WG316839-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	2105350.00	1.004	3.00	59384.0000	0.8688	10.0	220905.000	0.9199
Dibenzofuran	50.0	2205318.00	1.711	3.00	96113.0000	2.055	10.0	320012.000	2.002
Diethylphthalate	50.0	1914055.00	1.485	3.00	81194.0000	1.736	10.0	265625.000	1.662
Dimethylphthalate	50.0	1872643.00	1.453	3.00	78481.0000	1.678	10.0	255081.000	1.596
Fluorene	50.0	1885890.00	1.464	3.00	81575.0000	1.744	10.0	270373.000	1.691
Hexachlorobenzene	50.0	518463.000	0.2388	3.00	19579.0000	0.2501	10.0	64339.0000	0.2409
Hexachloroethane	50.0	406539.000	0.5985	3.00	15234.0000	0.6185	10.0	50427.0000	0.5973
Indeno[1,2,3-cd]pyrene	50.0	2450603.00	1.169	3.00	72209.0000	1.056	10.0	261307.000	1.088
Isophorone	50.0	1707701.00	0.7122	3.00	68522.0000	0.7644	10.0	228943.000	0.7493
Naphthalene	50.0	2722946.00	1.136	3.00	123513.000	1.378	10.0	399540.000	1.308
Nitrobenzene	50.0	919006.000	0.3833	3.00	35184.0000	0.3925	10.0	118446.000	0.3876
Phenanthrene	50.0	2596224.00	1.196	3.00	112240.000	1.434	10.0	364056.000	1.363
Pyrene	50.0	2810324.00	1.209	3.00	114636.000	1.490	10.0	380027.000	1.403
bis(2-Chloroethoxy)methane	50.0	1290665.00	0.5382	3.00	55358.0000	0.6175	10.0	181911.000	0.5953
bis(2-Chloroethyl)ether	50.0	683108.000	1.006	3.00	26967.0000	1.095	10.0	87925.0000	1.042
bis(2-Chloroisopropyl)ether	50.0	1248185.00	1.838	3.00	51941.0000	2.109	10.0	169902.000	2.012
bis(2-Ethylhexyl)phthalate	50.0	2169229.00	0.9328	3.00	81035.0000	1.053	10.0	280516.000	1.036

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INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte	WG316839-05			WG316839-06			WG316839-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	151975.000	0.4187	25.0	154731.000	0.4079	80.0	476347.000	0.4081
2,4-Dichlorophenol	15.0	217110.000	0.3232	25.0	222285.000	0.3086	80.0	667022.000	0.2997
2-Nitrophenol	15.0	151027.000	0.2248	25.0	151852.000	0.2108	80.0	477991.000	0.2147
4-Chloro-3-Methylphenol	15.0	222913.000	0.3319	25.0	227006.000	0.3151	80.0	685529.000	0.3080
Acenaphthene	15.0	506896.000	1.397	25.0	516556.000	1.362	80.0	1442292.00	1.236
Benzo[a]pyrene	15.0	639198.000	1.109	25.0	652147.000	1.109	80.0	2019249.00	1.094
Di-n-Octyl Phthalate	15.0	1027972.00	1.783	25.0	1056859.00	1.797	80.0	3118870.00	1.689
Fluoranthene	15.0	820344.000	1.345	25.0	828069.000	1.288	80.0	2363724.00	1.192
Hexachlorobutadiene	15.0	122666.000	0.1826	25.0	125272.000	0.1739	80.0	372205.000	0.1672
Pentachlorophenol	15.0	73065.0000	0.1198	25.0	77779.0000	0.1210	80.0	283607.000	0.1430
Phenol	15.0	323255.000	1.706	25.0	324126.000	1.655	80.0	975655.000	1.606
2,4-Dinitrophenol	15.0	24021.0000	0.06620	25.0	26032.0000	0.06860	80.0	135215.000	0.1158
4-Nitrophenol	15.0	80871.0000	0.2228	25.0	76866.0000	0.2026	80.0	271895.000	0.2329
Hexachlorocyclopentadiene	15.0	58217.0000	0.1604	25.0	56038.0000	0.1477	80.0	216488.000	0.1855
n-Nitrosodipropylamine	15.0	185480.000	0.9789	25.0	186041.000	0.9497	80.0	519694.000	0.8553
1,4-Dioxane	15.0	115245.000	0.6082	25.0	113305.000	0.5784	80.0	337009.000	0.5546
2,4,5-Trichlorophenol	15.0	161025.000	0.4436	25.0	163457.000	0.4309	80.0	493318.000	0.4226
2,4-Dimethylphenol	15.0	270508.000	0.4027	25.0	279041.000	0.3873	80.0	791064.000	0.3554
2,4-Dinitrotoluene	15.0	178554.000	0.4919	25.0	179050.000	0.4720	80.0	540358.000	0.4629
2,6-Dinitrotoluene	15.0	140368.000	0.3867	25.0	141351.000	0.3726	80.0	426403.000	0.3653
2-Chloronaphthalene	15.0	583558.000	1.608	25.0	580189.000	1.530	80.0	1642273.00	1.407
2-Chlorophenol	15.0	288857.000	1.525	25.0	289569.000	1.478	80.0	880255.000	1.449
2-Methylnaphthalene	15.0	563789.000	0.8393	25.0	570836.000	0.7924	80.0	1604286.00	0.7207
2-Methylphenol	15.0	220200.000	1.162	25.0	224816.000	1.148	80.0	659293.000	1.085
2-Nitroaniline	15.0	134602.000	0.3708	25.0	136890.000	0.3609	80.0	420131.000	0.3599
3,3'-Dichlorobenzidine	15.0	213906.000	0.3361	25.0	218703.000	0.3288	80.0	706730.000	0.3361
3-Nitroaniline	15.0	127558.000	0.3514	25.0	126772.000	0.3342	80.0	432587.000	0.3706
4,6-Dinitro-2-Methylphenol	15.0	57824.0000	0.09480	25.0	58897.0000	0.09160	80.0	226472.000	0.1142
4-Bromophenyl Phenyl Ether	15.0	145496.000	0.2385	25.0	147503.000	0.2295	80.0	431915.000	0.2178
4-Chloroaniline	15.0	344560.000	0.5129	25.0	341230.000	0.4737	80.0	1017156.00	0.4570
4-Chlorophenyl Phenyl Ether	15.0	269664.000	0.7430	25.0	272993.000	0.7197	80.0	792561.000	0.6790
4-Nitroaniline	15.0	137141.000	0.3778	25.0	137160.000	0.3616	80.0	430036.000	0.3684
Acenaphthylene	15.0	843985.000	2.325	25.0	852935.000	2.249	80.0	2248146.00	1.926
Anthracene	15.0	825122.000	1.353	25.0	838652.000	1.305	80.0	2326785.00	1.173
Benzo[a]anthracene	15.0	745067.000	1.171	25.0	751601.000	1.130	80.0	2273026.00	1.081
Benzo[b]fluoranthene	15.0	743485.000	1.290	25.0	790003.000	1.343	80.0	2253309.00	1.221
Benzo[ghi]perylene	15.0	521891.000	0.9054	25.0	519166.000	0.8826	80.0	1642173.00	0.8895
Benzo[k]fluoranthene	15.0	685977.000	1.190	25.0	657709.000	1.118	80.0	2016021.00	1.092
Butyl Benzyl Phthalate	15.0	464217.000	0.7295	25.0	472895.000	0.7110	80.0	1370313.00	0.6517
Carbazole	15.0	775400.000	1.271	25.0	782959.000	1.218	80.0	2273465.00	1.146
Chrysene	15.0	707452.000	1.112	25.0	719260.000	1.081	80.0	2175417.00	1.035
Di-n-Butyl Phthalate	15.0	1053590.00	1.727	25.0	1078586.00	1.678	80.0	2916750.00	1.471

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte	WG316839-05			WG316839-06			WG316839-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	15.0	543507.000	0.9429	25.0	542135.000	0.9216	80.0	1781331.00	0.9649
Dibenzofuran	15.0	718963.000	1.981	25.0	726359.000	1.915	80.0	1966089.00	1.684
Diethylphthalate	15.0	599679.000	1.652	25.0	609666.000	1.607	80.0	1693511.00	1.451
Dimethylphthalate	15.0	575393.000	1.585	25.0	585934.000	1.545	80.0	1650851.00	1.414
Fluorene	15.0	609121.000	1.678	25.0	614366.000	1.620	80.0	1664390.00	1.426
Hexachlorobenzene	15.0	148016.000	0.2427	25.0	150632.000	0.2343	80.0	447986.000	0.2259
Hexachloroethane	15.0	115453.000	0.6093	25.0	118063.000	0.6027	80.0	352999.000	0.5809
Indeno[1,2,3-cd]pyrene	15.0	639023.000	1.109	25.0	644408.000	1.096	80.0	2074664.00	1.124
Isophorone	15.0	517852.000	0.7709	25.0	523930.000	0.7273	80.0	1508819.00	0.6779
Naphthalene	15.0	888617.000	1.323	25.0	896204.000	1.244	80.0	2417913.00	1.086
Nitrobenzene	15.0	270516.000	0.4027	25.0	272497.000	0.3783	80.0	799157.000	0.3590
Phenanthrene	15.0	824086.000	1.351	25.0	831046.000	1.293	80.0	2309214.00	1.165
Pyrene	15.0	862955.000	1.356	25.0	872339.000	1.312	80.0	2506163.00	1.192
bis(2-Chloroethoxy)methane	15.0	405970.000	0.6044	25.0	410010.000	0.5691	80.0	1147467.00	0.5155
bis(2-Chloroethyl)ether	15.0	200515.000	1.058	25.0	202933.000	1.036	80.0	597408.000	0.9832
bis(2-Chloroisopropyl)ether	15.0	376186.000	1.985	25.0	381979.000	1.950	80.0	1095375.00	1.803
bis(2-Ethylhexyl)phthalate	15.0	641162.000	1.008	25.0	663034.000	0.9968	80.0	1941758.00	0.9235

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01

Column ID: F

Analyte	WG316839-08			WG316839-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	876032.000	0.3908	120	981421.000	0.3876
2,4-Dichlorophenol	100	1217368.00	0.2883	120	1357089.00	0.2834
2-Nitrophenol	100	898246.000	0.2127	120	1021417.00	0.2133
4-Chloro-3-Methylphenol	100	1248070.00	0.2956	120	1393570.00	0.2911
Acenaphthene	100	2360714.00	1.053	NA	NA	NA
Benzo[a]pyrene	100	3784902.00	1.052	120	4271578.00	1.050
Di-n-Octyl Phthalate	100	5180828.00	1.441	120	5726567.00	1.408
Fluoranthene	100	3970892.00	1.053	120	4367462.00	1.042
Hexachlorobutadiene	100	653704.000	0.1548	120	716671.000	0.1497
Pentachlorophenol	100	551868.000	0.1464	120	627620.000	0.1497
Phenol	100	1791367.00	1.533	120	2002100.00	1.522
2,4-Dinitrophenol	100	304619.000	0.1359	120	390791.000	0.1544
4-Nitrophenol	100	586044.000	0.2615	120	686113.000	0.2710
Hexachlorocyclopentadiene	100	378163.000	0.1687	120	393009.000	0.1552
n-Nitrosodipropylamine	100	811622.000	0.6946	NA	NA	NA
1,4-Dioxane	100	642049.000	0.5495	120	738512.000	0.5616
2,4,5-Trichlorophenol	100	882194.000	0.3936	120	957088.000	0.3780
2,4-Dimethylphenol	100	1480022.00	0.3505	120	1647766.00	0.3441
2,4-Dinitrotoluene	100	884701.000	0.3947	120	947266.000	0.3742
2,6-Dinitrotoluene	100	787047.000	0.3511	120	879937.000	0.3476
2-Chloronaphthalene	100	2793552.00	1.246	120	3010243.00	1.189
2-Chlorophenol	100	1651467.00	1.413	120	1861922.00	1.416
2-Methylnaphthalene	100	2661770.00	0.6304	120	2877504.00	0.6010
2-Methylphenol	100	1200345.00	1.027	120	1350460.00	1.027
2-Nitroaniline	100	779627.000	0.3478	120	874811.000	0.3455
3,3'-Dichlorobenzidine	100	1336184.00	0.3311	120	1522593.00	0.3350
3-Nitroaniline	100	844916.000	0.3770	120	967375.000	0.3821
4,6-Dinitro-2-Methylphenol	100	441301.000	0.1171	120	512809.000	0.1223
4-Bromophenyl Phenyl Ether	100	766558.000	0.2034	120	848758.000	0.2024
4-Chloroaniline	100	1869789.00	0.4428	120	2037572.00	0.4256
4-Chlorophenyl Phenyl Ether	100	1284746.00	0.5732	120	1343383.00	0.5306
4-Nitroaniline	100	812454.000	0.3625	120	914584.000	0.3612
Acenaphthylene	100	3475211.00	1.550	NA	NA	NA
Anthracene	100	3772927.00	1.001	120	4074898.00	0.9717
Benzo[a]anthracene	100	4076526.00	1.010	120	4537296.00	0.9981
Benzo[b]fluoranthene	100	4117913.00	1.145	NA	NA	NA
Benzo[ghi]perylene	100	3111026.00	0.8650	120	3501913.00	0.8607
Benzo[k]fluoranthene	100	4146906.00	1.153	NA	NA	NA
Butyl Benzyl Phthalate	100	2187923.00	0.5422	120	2359776.00	0.5191
Carbazole	100	3779412.00	1.003	120	4142922.00	0.9879
Chrysene	100	3834073.00	0.9502	120	4261243.00	0.9374
Di-n-Butyl Phthalate	100	4487323.00	1.190	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01

Column ID: F

Analyte	WG316839-08			WG316839-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	100	3416419.00	0.9499	120	3843735.00	0.9447
Dibenzofuran	100	2948227.00	1.315	NA	NA	NA
Diethylphthalate	100	2766240.00	1.234	120	3023787.00	1.194
Dimethylphthalate	100	2807132.00	1.252	120	3101577.00	1.225
Fluorene	100	2711934.00	1.210	NA	NA	NA
Hexachlorobenzene	100	810759.000	0.2151	120	898946.000	0.2144
Hexachloroethane	100	648112.000	0.5547	120	730030.000	0.5551
Indeno[1,2,3-cd]pyrene	100	3960956.00	1.101	120	4473542.00	1.100
Isophorone	100	2612712.00	0.6188	120	2910556.00	0.6079
Naphthalene	100	3867729.00	0.9160	NA	NA	NA
Nitrobenzene	100	1436653.00	0.3402	120	1592324.00	0.3326
Phenanthrene	100	3778438.00	1.002	120	4118600.00	0.9821
Pyrene	100	4226664.00	1.048	120	4634086.00	1.019
bis(2-Chloroethoxy)methane	100	1740590.00	0.4122	NA	NA	NA
bis(2-Chloroethyl)ether	100	1039977.00	0.8901	120	1141384.00	0.8679
bis(2-Chloroisopropyl)ether	100	1900811.00	1.627	120	2123443.00	1.615
bis(2-Ethylhexyl)phthalate	100	3246820.00	0.8046	NA	NA	NA

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 10/31/2009 Sample ID: WG315933-10
Instrument ID: HPMS12 Run Time: 19:32 Method: 8270C
File ID: 12M27674 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	44400	ug/L	0.442	11.2	25	
2,4-Dichlorophenol	CCC	50000	44000	ug/L	0.290	11.9	25	
2-Nitrophenol	CCC	50000	50500	ug/L	0.201	1.00	25	
4-Chloro-3-Methylphenol	CCC	50000	45300	ug/L	0.375	9.50	25	
Acenaphthene	CCC	50000	45400	ug/L	1.60	9.30	25	
Benzo[a]pyrene	CCC	50000	47800	ug/L	1.09	4.40	25	
Di-n-Octyl Phthalate	CCC	50000	48400	ug/L	1.60	3.20	25	
Fluoranthene	CCC	50000	50200	ug/L	1.47	0.400	25	
Hexachlorobutadiene	CCC	50000	49100	ug/L	0.282	1.80	25	
n-Nitrosodiphenylamine	CCC	50000	47900	ug/L	0.727	4.20	25	
Pentachlorophenol	CCC	50000	52500	ug/L	0.196	5.00	25	
Phenol	CCC	50000	42100	ug/L	1.48	15.8	25	
2,4-Dinitrophenol	SPCC	50000	56100	ug/L	0.244	12.1	25	
4-Nitrophenol	SPCC	50000	45400	ug/L	0.464	9.10	25	
Hexachlorocyclopentadiene	SPCC	50000	45400	ug/L	0.419	9.10	25	
n-Nitrosodipropylamine	SPCC	50000	37900	ug/L	0.983	24.3	25	
2,4,5-Trichlorophenol		50000	45900	ug/L	0.478	8.20	25	
2,4-Dimethylphenol		50000	46900	ug/L	0.337	6.30	25	
2,4-Dinitrotoluene		50000	43700	ug/L	0.535	12.5	25	
2,6-Dinitrotoluene		50000	45000	ug/L	0.336	9.90	25	
2-Chloronaphthalene		50000	39300	ug/L	1.29	21.4	25	
2-Chlorophenol		50000	42900	ug/L	1.18	14.2	25	
2-Methylnaphthalene		50000	48700	ug/L	0.775	2.50	25	
2-Methylphenol		50000	50900	ug/L	1.26	1.90	25	
2-Nitroaniline		50000	44700	ug/L	0.574	10.6	25	
3,3'-Dichlorobenzidine		50000	30900	ug/L	0.219	38.2	25	*
3-,4-Methylphenol		50000	43900	ug/L	1.35	12.3	25	
3-Nitroaniline		50000	43100	ug/L	0.300	13.9	25	
4,6-Dinitro-2-Methylphenol		50000	53100	ug/L	0.134	6.20	25	
4-Chloroaniline		50000	43200	ug/L	0.414	13.7	25	
4-Chlorophenyl Phenyl Ether		50000	36600	ug/L	0.854	26.7	25	*
4-Nitroaniline		50000	36700	ug/L	0.320	26.6	25	*
Acenaphthylene		50000	47500	ug/L	2.20	5.00	25	
Anthracene		50000	50200	ug/L	1.25	0.400	25	
Benzo[a]anthracene		50000	48100	ug/L	1.09	3.80	25	
Benzo[b]fluoranthene		50000	40600	ug/L	1.18	18.8	25	
Benzo[ghi]perylene		50000	46500	ug/L	0.951	7.10	25	
Benzo[k]fluoranthene		50000	49800	ug/L	1.13	0.300	25	
bis(2-Chloroethoxy)methane		50000	30300	ug/L	0.427	39.5	25	*
bis(2-Chloroethyl)ether		50000	41300	ug/L	1.19	17.4	25	
bis(2-Chloroisopropyl)ether		50000	42700	ug/L	2.51	14.6	25	
bis(2-Ethylhexyl)phthalate		50000	47200	ug/L	0.776	5.50	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 10/31/2009 Sample ID: WG315933-10
Instrument ID: HPMS12 Run Time: 19:32 Method: 8270C
File ID: 12M27674 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	48500	ug/L	0.607	3.00	25	
Carbazole		50000	43900	ug/L	0.993	12.1	25	
Chrysene		50000	49100	ug/L	1.06	1.80	25	
Dibenz[ah]anthracene		50000	48300	ug/L	1.10	3.40	25	
Dibenzofuran		50000	47900	ug/L	2.16	4.10	25	
Diethylphthalate		50000	42200	ug/L	1.65	15.6	25	
Dimethylphthalate		50000	42400	ug/L	1.47	15.2	25	
Di-n-Butyl Phthalate		50000	44600	ug/L	1.42	10.9	25	
Fluorene		50000	45700	ug/L	1.77	8.60	25	
Hexachlorobenzene		50000	47100	ug/L	0.262	5.90	25	
Hexachloroethane		50000	44200	ug/L	0.622	11.6	25	
Indeno[1,2,3-cd]pyrene		50000	47400	ug/L	1.28	5.30	25	
Isophorone		50000	44600	ug/L	0.828	10.8	25	
Naphthalene		50000	47200	ug/L	1.10	5.60	25	
Nitrobenzene		50000	43300	ug/L	0.449	13.5	25	
Phenanthrene		50000	48300	ug/L	1.21	3.40	25	
Pyrene		50000	46000	ug/L	1.13	8.10	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 10/31/2009 Sample ID: WG315933-11
Instrument ID: HPMS12 Run Time: 20:06 Method: 8270C
File ID: 12M27675 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	48800	ug/L	0.346	2.50	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1542066
Report generated 11/17/2009 08:09

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 10/31/2009 Sample ID: WG315933-12
Instrument ID: HPMS12 Run Time: 20:40 Method: 8270C
File ID: 12M27676 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	46200	ug/L	0.535	7.70	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1542066
Report generated 11/17/2009 08:09

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/03/2009 Sample ID: WG316255-10
Instrument ID: HPMS4 Run Time: 15:50 Method: 8270C
File ID: 4M48793 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	49600	ug/L	0.407	0.800	25	
2,4-Dichlorophenol	CCC	50000	48000	ug/L	0.294	4.00	25	
2-Nitrophenol	CCC	50000	57200	ug/L	0.237	14.4	25	
4-Chloro-3-Methylphenol	CCC	50000	48500	ug/L	0.305	3.00	25	
Acenaphthene	CCC	50000	46700	ug/L	1.30	6.60	25	
Benzo[a]pyrene	CCC	50000	47400	ug/L	1.05	5.20	25	
Di-n-Octyl Phthalate	CCC	50000	47000	ug/L	1.62	6.00	25	
Fluoranthene	CCC	50000	48000	ug/L	1.26	4.00	25	
Hexachlorobutadiene	CCC	50000	49500	ug/L	0.160	1.10	25	
n-Nitrosodiphenylamine	CCC	50000	45800	ug/L	0.698	8.50	25	
Pentachlorophenol	CCC	50000	62800	ug/L	0.161	25.6	25	*
Phenol	CCC	50000	47800	ug/L	1.61	4.40	25	
2,4-Dinitrophenol	SPCC	50000	61100	ug/L	0.156	22.1	25	
4-Nitrophenol	SPCC	50000	50000	ug/L	0.226	0.100	25	
Hexachlorocyclopentadiene	SPCC	50000	62100	ug/L	0.269	24.3	25	
n-Nitrosodipropylamine	SPCC	50000	49000	ug/L	0.926	2.00	25	
2,4,5-Trichlorophenol		50000	50900	ug/L	0.428	1.80	25	
2,4-Dimethylphenol		50000	47200	ug/L	0.339	5.60	25	
2,4-Dinitrotoluene		50000	52200	ug/L	0.491	4.50	25	
2,6-Dinitrotoluene		50000	50000	ug/L	0.380	0	25	
2-Chloronaphthalene		50000	41300	ug/L	1.25	17.4	25	
2-Chlorophenol		50000	45500	ug/L	1.38	9.10	25	
2-Methylnaphthalene		50000	46700	ug/L	0.718	6.50	25	
2-Methylphenol		50000	48200	ug/L	1.10	3.60	25	
2-Nitroaniline		50000	54100	ug/L	0.392	8.10	25	
3,3'-Dichlorobenzidine		50000	27100	ug/L	0.165	45.9	25	*
3-,4-Methylphenol		50000	46300	ug/L	1.38	7.30	25	
3-Nitroaniline		50000	47000	ug/L	0.340	6.00	25	
4,6-Dinitro-2-Methylphenol		50000	57600	ug/L	0.137	15.3	25	
4-Chloroaniline		50000	45300	ug/L	0.550	9.40	25	
4-Chlorophenyl Phenyl Ether		50000	45200	ug/L	0.660	9.50	25	
4-Nitroaniline		50000	45800	ug/L	0.323	8.50	25	
Acenaphthylene		50000	44600	ug/L	1.96	10.8	25	
Anthracene		50000	47600	ug/L	1.23	4.70	25	
Benzo[a]anthracene		50000	47200	ug/L	1.08	5.60	25	
Benzo[b]fluoranthene		50000	45500	ug/L	1.09	9.10	25	
Benzo[ghi]perylene		50000	47800	ug/L	0.908	4.40	25	
Benzo[k]fluoranthene		50000	45000	ug/L	0.998	9.90	25	
bis(2-Chloroethoxy)methane		50000	39300	ug/L	0.407	21.4	25	
bis(2-Chloroethyl)ether		50000	46000	ug/L	0.922	8.10	25	
bis(2-Chloroisopropyl)ether		50000	47700	ug/L	1.53	4.70	25	
bis(2-Ethylhexyl)phthalate		50000	45100	ug/L	0.852	9.70	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/03/2009 Sample ID: WG316255-10
Instrument ID: HPMS4 Run Time: 15:50 Method: 8270C
File ID: 4M48793 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	51600	ug/L	0.638	3.20	25	
Carbazole		50000	44600	ug/L	1.06	10.9	25	
Chrysene		50000	46800	ug/L	1.03	6.50	25	
Dibenz[ah]anthracene		50000	46800	ug/L	0.884	6.40	25	
Dibenzofuran		50000	46300	ug/L	1.78	7.40	25	
Diethylphthalate		50000	45200	ug/L	1.38	9.50	25	
Dimethylphthalate		50000	45800	ug/L	1.41	8.50	25	
Di-n-Butyl Phthalate		50000	44700	ug/L	1.37	10.6	25	
Fluorene		50000	46500	ug/L	1.49	6.90	25	
Hexachlorobenzene		50000	48300	ug/L	0.201	3.30	25	
Hexachloroethane		50000	46200	ug/L	0.544	7.60	25	
Indeno[1,2,3-cd]pyrene		50000	47000	ug/L	1.06	6.00	25	
Isophorone		50000	47400	ug/L	0.683	5.20	25	
Naphthalene		50000	45200	ug/L	1.04	9.70	25	
Nitrobenzene		50000	48800	ug/L	0.360	2.40	25	
Phenanthrene		50000	46000	ug/L	1.18	8.10	25	
Pyrene		50000	45500	ug/L	1.26	8.90	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/03/2009 Sample ID: WG316255-11
Instrument ID: HPMS4 Run Time: 16:28 Method: 8270C
File ID: 4M48794 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	56200	ug/L	0.342	12.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/03/2009 Sample ID: WG316255-12
Instrument ID: HPMS4 Run Time: 17:06 Method: 8270C
File ID: 4M48795 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	44700	ug/L	0.479	10.6	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/08/2009 Sample ID: WG316819-10
Instrument ID: HPMS12 Run Time: 23:40 Method: 8270C
File ID: 12M27911 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	47000	ug/L	0.447	5.90	25	
2,4-Dichlorophenol	CCC	50000	45500	ug/L	0.292	9.00	25	
2-Nitrophenol	CCC	50000	47900	ug/L	0.195	4.30	25	
4-Chloro-3-Methylphenol	CCC	50000	46100	ug/L	0.351	7.80	25	
Acenaphthene	CCC	50000	48400	ug/L	1.43	3.20	25	
Benzo[a]pyrene	CCC	50000	48100	ug/L	1.15	3.80	25	
Di-n-Octyl Phthalate	CCC	50000	48200	ug/L	1.61	3.70	25	
Fluoranthene	CCC	50000	48400	ug/L	1.37	3.20	25	
Hexachlorobutadiene	CCC	50000	49900	ug/L	0.250	0.200	25	
n-Nitrosodiphenylamine	CCC	50000	47800	ug/L	0.714	4.40	25	
Pentachlorophenol	CCC	50000	59600	ug/L	0.180	19.3	25	
Phenol	CCC	50000	43100	ug/L	1.55	13.9	25	
2,4-Dinitrophenol	SPCC	50000	55000	ug/L	0.205	10.0	25	
4-Nitrophenol	SPCC	50000	43000	ug/L	0.354	14.0	25	
Hexachlorocyclopentadiene	SPCC	50000	49800	ug/L	0.373	0.400	25	
n-Nitrosodipropylamine	SPCC	50000	39400	ug/L	0.915	21.1	25	
2,4,5-Trichlorophenol		50000	47100	ug/L	0.474	5.90	25	
2,4-Dimethylphenol		50000	47300	ug/L	0.353	5.30	25	
2,4-Dinitrotoluene		50000	49000	ug/L	0.507	2.00	25	
2,6-Dinitrotoluene		50000	45400	ug/L	0.345	9.10	25	
2-Chloronaphthalene		50000	40100	ug/L	1.27	19.8	25	
2-Chlorophenol		50000	43600	ug/L	1.25	12.7	25	
2-Methylnaphthalene		50000	48400	ug/L	0.753	3.20	25	
2-Methylphenol		50000	50100	ug/L	1.26	0.200	25	
2-Nitroaniline		50000	45700	ug/L	0.481	8.60	25	
3,3'-Dichlorobenzidine		50000	26200	ug/L	0.185	47.5	25	*
3-,4-Methylphenol		50000	43700	ug/L	1.38	12.6	25	
3-Nitroaniline		50000	45700	ug/L	0.336	8.60	25	
4,6-Dinitro-2-Methylphenol		50000	52000	ug/L	0.140	4.00	25	
4-Chloroaniline		50000	46600	ug/L	0.445	6.80	25	
4-Chlorophenyl Phenyl Ether		50000	42800	ug/L	0.830	14.3	25	
4-Nitroaniline		50000	43700	ug/L	0.376	12.7	25	
Acenaphthylene		50000	47000	ug/L	2.16	5.90	25	
Anthracene		50000	48700	ug/L	1.20	2.60	25	
Benzo[a]anthracene		50000	47500	ug/L	1.14	4.90	25	
Benzo[b]fluoranthene		50000	43800	ug/L	1.28	12.4	25	
Benzo[ghi]perylene		50000	47300	ug/L	0.955	5.40	25	
Benzo[k]fluoranthene		50000	48400	ug/L	1.16	3.20	25	
bis(2-Chloroethoxy)methane		50000	31700	ug/L	0.405	36.6	25	*
bis(2-Chloroethyl)ether		50000	39300	ug/L	0.988	21.3	25	
bis(2-Chloroisopropyl)ether		50000	40500	ug/L	2.00	19.1	25	
bis(2-Ethylhexyl)phthalate		50000	46900	ug/L	0.767	6.10	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/08/2009 Sample ID: WG316819-10
Instrument ID: HPMS12 Run Time: 23:40 Method: 8270C
File ID: 12M27911 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	48100	ug/L	0.587	3.80	25	
Carbazole		50000	42700	ug/L	0.975	14.6	25	
Chrysene		50000	48100	ug/L	1.10	3.90	25	
Dibenz[ah]anthracene		50000	48400	ug/L	1.06	3.20	25	
Dibenzofuran		50000	47100	ug/L	1.99	5.90	25	
Diethylphthalate		50000	42100	ug/L	1.49	15.8	25	
Dimethylphthalate		50000	42800	ug/L	1.42	14.5	25	
Di-n-Butyl Phthalate		50000	44300	ug/L	1.32	11.4	25	
Fluorene		50000	46000	ug/L	1.65	8.10	25	
Hexachlorobenzene		50000	48100	ug/L	0.226	3.80	25	
Hexachloroethane		50000	45100	ug/L	0.595	9.70	25	
Indeno[1,2,3-cd]pyrene		50000	47700	ug/L	1.22	4.50	25	
Isophorone		50000	44600	ug/L	0.739	10.9	25	
Naphthalene		50000	46600	ug/L	1.09	6.90	25	
Nitrobenzene		50000	43900	ug/L	0.395	12.3	25	
Phenanthrene		50000	47400	ug/L	1.16	5.10	25	
Pyrene		50000	45600	ug/L	1.17	8.70	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316819-11
Instrument ID: HPMS12 Run Time: 00:13 Method: 8270C
File ID: 12M27912 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	51600	ug/L	0.364	3.30	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316819-12
Instrument ID: HPMS12 Run Time: 00:46 Method: 8270C
File ID: 12M27913 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	44200	ug/L	0.495	11.6	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316839-10
Instrument ID: HPMS4 Run Time: 16:37 Method: 8270C
File ID: 4M48943 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	47600	ug/L	0.385	4.70	25	
2,4-Dichlorophenol	CCC	50000	48900	ug/L	0.298	2.20	25	
2-Nitrophenol	CCC	50000	54200	ug/L	0.232	8.40	25	
4-Chloro-3-Methylphenol	CCC	50000	50200	ug/L	0.315	0.400	25	
Acenaphthene	CCC	50000	41100	ug/L	1.08	17.8	25	
Benzo[a]pyrene	CCC	50000	47800	ug/L	1.05	4.40	25	
Di-n-Octyl Phthalate	CCC	50000	46300	ug/L	1.55	7.30	25	
Fluoranthene	CCC	50000	48200	ug/L	1.18	3.70	25	
Hexachlorobutadiene	CCC	50000	50300	ug/L	0.171	0.700	25	
n-Nitrosodiphenylamine	CCC	50000	46000	ug/L	0.708	8.00	25	
Pentachlorophenol	CCC	50000	58700	ug/L	0.169	17.5	25	
Phenol	CCC	50000	47200	ug/L	1.54	5.60	25	
2,4-Dinitrophenol	SPCC	50000	63200	ug/L	0.144	26.4	25	*
4-Nitrophenol	SPCC	50000	42600	ug/L	0.196	14.8	25	
Hexachlorocyclopentadiene	SPCC	50000	51800	ug/L	0.206	3.70	25	
n-Nitrosodipropylamine	SPCC	50000	47700	ug/L	0.859	4.50	25	
2,4,5-Trichlorophenol		50000	49500	ug/L	0.413	1.00	25	
2,4-Dimethylphenol		50000	47900	ug/L	0.358	4.30	25	
2,4-Dinitrotoluene		50000	49900	ug/L	0.442	0.200	25	
2,6-Dinitrotoluene		50000	48400	ug/L	0.358	3.10	25	
2-Chloronaphthalene		50000	39400	ug/L	1.15	21.2	25	
2-Chlorophenol		50000	46200	ug/L	1.36	7.60	25	
2-Methylnaphthalene		50000	47300	ug/L	0.711	5.40	25	
2-Methylphenol		50000	44900	ug/L	1.00	10.2	25	
2-Nitroaniline		50000	51900	ug/L	0.368	3.70	25	
3,3'-Dichlorobenzidine		50000	33800	ug/L	0.230	32.5	25	*
3-,4-Methylphenol		50000	46500	ug/L	1.33	7.00	25	
3-Nitroaniline		50000	48100	ug/L	0.346	3.90	25	
4,6-Dinitro-2-Methylphenol		50000	63500	ug/L	0.142	27.1	25	*
4-Chloroaniline		50000	49500	ug/L	0.464	0.900	25	
4-Chlorophenyl Phenyl Ether		50000	43300	ug/L	0.589	13.4	25	
4-Nitroaniline		50000	44500	ug/L	0.327	11.1	25	
Acenaphthylene		50000	41300	ug/L	1.74	17.5	25	
Anthracene		50000	47200	ug/L	1.15	5.70	25	
Benzo[a]anthracene		50000	47600	ug/L	1.06	4.80	25	
Benzo[b]fluoranthene		50000	43300	ug/L	1.11	13.4	25	
Benzo[ghi]perylene		50000	47900	ug/L	0.851	4.20	25	
Benzo[k]fluoranthene		50000	44200	ug/L	1.01	11.6	25	
bis(2-Chloroethoxy)methane		50000	38400	ug/L	0.422	23.3	25	
bis(2-Chloroethyl)ether		50000	46400	ug/L	0.926	7.10	25	
bis(2-Chloroisopropyl)ether		50000	44000	ug/L	1.64	12.1	25	
bis(2-Ethylhexyl)phthalate		50000	44800	ug/L	0.864	10.5	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316839-10
Instrument ID: HPMS4 Run Time: 16:37 Method: 8270C
File ID: 4M48943 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	49400	ug/L	0.657	1.20	25	
Carbazole		50000	48400	ug/L	1.13	3.10	25	
Chrysene		50000	48000	ug/L	1.02	4.00	25	
Dibenz[ah]anthracene		50000	48800	ug/L	0.917	2.40	25	
Dibenzofuran		50000	41600	ug/L	1.50	16.9	25	
Diethylphthalate		50000	41900	ug/L	1.26	16.2	25	
Dimethylphthalate		50000	42600	ug/L	1.25	14.7	25	
Di-n-Butyl Phthalate		50000	41900	ug/L	1.32	16.2	25	
Fluorene		50000	43100	ug/L	1.33	13.9	25	
Hexachlorobenzene		50000	48800	ug/L	0.227	2.50	25	
Hexachloroethane		50000	47000	ug/L	0.554	6.00	25	
Indeno[1,2,3-cd]pyrene		50000	48200	ug/L	1.07	3.50	25	
Isophorone		50000	47700	ug/L	0.671	4.70	25	
Naphthalene		50000	42500	ug/L	1.02	15.0	25	
Nitrobenzene		50000	49500	ug/L	0.368	1.00	25	
Phenanthrene		50000	45500	ug/L	1.11	9.00	25	
Pyrene		50000	44900	ug/L	1.12	10.3	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316839-11
Instrument ID: HPMS4 Run Time: 17:12 Method: 8270C
File ID: 4M48944 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	54900	ug/L	0.373	9.80	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 11/09/2009 Sample ID: WG316839-12
Instrument ID: HPMS4 Run Time: 17:46 Method: 8270C
File ID: 4M48945 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	42200	ug/L	0.492	15.6	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/05/2009 Sample ID: WG316533-02
Instrument ID: HPMS4 Run Time: 09:36 Method: 8270C
File ID: 4M48838 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 03-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	51900	ug/L	0.426	3.74	20	
2,4-Dichlorophenol	CCC	50000	50900	ug/L	0.312	1.86	20	
2-Nitrophenol	CCC	50000	53200	ug/L	0.221	6.43	20	
4-Chloro-3-Methylphenol	CCC	50000	51700	ug/L	0.326	3.49	20	
Acenaphthene	CCC	50000	47800	ug/L	1.33	4.44	20	
Benzo[a]pyrene	CCC	50000	50800	ug/L	1.13	1.63	20	
Di-n-Octyl Phthalate	CCC	50000	54000	ug/L	1.86	8.08	20	
Fluoranthene	CCC	50000	48200	ug/L	1.27	3.60	20	
Hexachlorobutadiene	CCC	50000	49300	ug/L	0.160	1.48	20	
n-Nitrosodiphenylamine	CCC	50000	49000	ug/L	0.747	2.05	20	
Pentachlorophenol	CCC	50000	55900	ug/L	0.143	11.7	20	
Phenol	CCC	50000	52900	ug/L	1.78	5.79	20	
1,4-Dichlorobenzene	CCC	50000	51400	ug/L	1.72	2.86	25	
2,4-Dinitrophenol	SPCC	50000	48300	ug/L	0.115	3.43	25	
4-Nitrophenol	SPCC	50000	58800	ug/L	0.266	17.6	25	
Hexachlorocyclopentadiene	SPCC	50000	41100	ug/L	0.178	17.8	25	
n-Nitrosodipropylamine	SPCC	50000	51400	ug/L	0.971	2.77	25	
1,4-Dioxane		50000	54000	ug/L	0.579	8.05	40	
2,4,5-Trichlorophenol		50000	52300	ug/L	0.440	4.51	25	
2,4-Dimethylphenol		50000	50700	ug/L	0.364	1.45	25	
2,4-Dinitrotoluene		50000	52900	ug/L	0.497	5.77	25	
2,6-Dinitrotoluene		50000	51700	ug/L	0.393	3.35	25	
2-Chloronaphthalene		50000	50000	ug/L	1.51	0.0570	25	
2-Chlorophenol		50000	51600	ug/L	1.56	3.15	25	
2-Methylnaphthalene		50000	49100	ug/L	0.755	1.82	25	
2-Methylphenol		50000	52900	ug/L	1.20	5.77	25	
2-Nitroaniline		50000	55000	ug/L	0.399	10.0	25	
3,3'-Dichlorobenzidine		50000	52200	ug/L	0.317	4.31	25	
3-,4-Methylphenol		50000	52800	ug/L	1.57	5.56	25	
3-Nitroaniline		50000	54600	ug/L	0.395	9.21	25	
4,6-Dinitro-2-Methylphenol		50000	51700	ug/L	0.121	3.49	25	
4-Bromophenyl Phenyl Ether		50000	49200	ug/L	0.204	1.67	25	
4-Chloroaniline		50000	51200	ug/L	0.622	2.30	25	
4-Chlorophenyl Phenyl Ether		50000	50100	ug/L	0.731	0.262	25	
4-Nitroaniline		50000	50100	ug/L	0.354	0.274	25	
Acenaphthylene		50000	46700	ug/L	2.05	6.59	25	
Anthracene		50000	49000	ug/L	1.26	2.04	25	
Benzo[a]anthracene		50000	50500	ug/L	1.15	0.974	25	
Benzo[b]fluoranthene		50000	49500	ug/L	1.19	0.965	25	
Benzo[ghi]perylene		50000	49100	ug/L	0.932	1.88	25	
Benzo[k]fluoranthene		50000	51100	ug/L	1.13	2.17	25	
bis(2-Chloroethoxy)methane		50000	50300	ug/L	0.521	0.605	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/05/2009 Sample ID: WG316533-02
Instrument ID: HPMS4 Run Time: 09:36 Method: 8270C
File ID: 4M48838 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 03-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	55700	ug/L	1.12	11.4	25	
bis(2-Chloroisopropyl)ether		50000	58200	ug/L	1.87	16.4	25	
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.954	1.05	25	
Butyl Benzyl Phthalate		50000	54300	ug/L	0.665	8.64	25	
Carbazole		50000	50100	ug/L	1.19	0.174	25	
Chrysene		50000	50100	ug/L	1.10	0.167	25	
Dibenz[ah]anthracene		50000	50700	ug/L	0.957	1.39	25	
Dibenzofuran		50000	47700	ug/L	1.84	4.66	25	
Diethylphthalate		50000	49900	ug/L	1.52	0.113	25	
Dimethylphthalate		50000	49900	ug/L	1.54	0.191	25	
Di-n-Butyl Phthalate		50000	50100	ug/L	1.53	0.196	25	
Fluorene		50000	45300	ug/L	1.45	9.35	25	
Hexachlorobenzene		50000	50100	ug/L	0.208	0.153	25	
Hexachloroethane		50000	52000	ug/L	0.613	3.99	25	
Indeno[1,2,3-cd]pyrene		50000	50000	ug/L	1.13	0.0368	25	
Isophorone		50000	50400	ug/L	0.726	0.773	25	
Naphthalene		50000	49500	ug/L	1.14	1.04	25	
Nitrobenzene		50000	51100	ug/L	0.376	2.14	25	
Phenanthrene		50000	48400	ug/L	1.24	3.24	25	
Pyrene		50000	49700	ug/L	1.37	0.584	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316683-02
Instrument ID: HPMS12 Run Time: 10:38 Method: 8270C
File ID: 12M27852 Analyst: CAA/MES QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 31-OCT-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50500	ug/L	0.503	1.08	20	
2,4-Dichlorophenol	CCC	50000	51100	ug/L	0.336	2.13	25	
2-Nitrophenol	CCC	50000	52600	ug/L	0.209	5.11	20	
4-Chloro-3-Methylphenol	CCC	50000	51300	ug/L	0.426	2.64	20	
Acenaphthene	CCC	50000	48000	ug/L	1.70	4.06	20	
Benzo[a]pyrene	CCC	50000	51500	ug/L	1.18	3.01	20	
Di-n-Octyl Phthalate	CCC	50000	53100	ug/L	1.76	6.17	20	
Fluoranthene	CCC	50000	55000	ug/L	1.61	10.1	25	
Hexachlorobutadiene	CCC	50000	51500	ug/L	0.296	2.93	20	
n-Nitrosodiphenylamine	CCC	50000	54600	ug/L	0.828	9.13	20	
Pentachlorophenol	CCC	50000	40800	ug/L	0.146	18.4	20	
Phenol	CCC	50000	50500	ug/L	1.77	1.07	20	
1,4-Dichlorobenzene	CCC	50000	50900	ug/L	1.65	1.82	20	
2,4-Dinitrophenol	SPCC	50000	52300	ug/L	0.219	4.54	25	
4-Nitrophenol	SPCC	50000	49700	ug/L	0.508	0.543	25	
Hexachlorocyclopentadiene	SPCC	50000	47000	ug/L	0.434	5.94	25	
n-Nitrosodipropylamine	SPCC	50000	55000	ug/L	1.43	10.0	25	
1,4-Dioxane		50000	48700	ug/L	0.564	2.64	40	
2,4,5-Trichlorophenol		50000	50300	ug/L	0.524	0.614	25	
2,4-Dimethylphenol		50000	51300	ug/L	0.368	2.56	25	
2,4-Dinitrotoluene		50000	50200	ug/L	0.625	0.456	25	
2,6-Dinitrotoluene		50000	49800	ug/L	0.371	0.482	25	
2-Chloronaphthalene		50000	52600	ug/L	1.73	5.17	25	
2-Chlorophenol		50000	49500	ug/L	1.36	1.09	25	
2-Methylnaphthalene		50000	53000	ug/L	0.842	5.94	25	
2-Methylphenol		50000	50500	ug/L	1.25	0.913	25	
2-Nitroaniline		50000	51100	ug/L	0.655	2.15	25	
3,3'-Dichlorobenzidine		50000	49400	ug/L	0.351	1.18	25	
3-,4-Methylphenol		50000	50500	ug/L	1.56	0.944	25	
3-Nitroaniline		50000	49100	ug/L	0.342	1.85	25	
4,6-Dinitro-2-Methylphenol		50000	53800	ug/L	0.136	7.51	25	
4-Bromophenyl Phenyl Ether		50000	51600	ug/L	0.298	3.26	25	
4-Chloroaniline		50000	51600	ug/L	0.495	3.26	25	
4-Chlorophenyl Phenyl Ether		50000	49200	ug/L	1.19	1.62	25	
4-Nitroaniline		50000	48400	ug/L	0.422	3.11	25	
Acenaphthylene		50000	51600	ug/L	2.39	3.26	25	
Anthracene		50000	54200	ug/L	1.35	8.41	25	
Benzo[a]anthracene		50000	51100	ug/L	1.16	2.20	25	
Benzo[b]fluoranthene		50000	58500	ug/L	1.70	17.1	25	
Benzo[ghi]perylene		50000	48500	ug/L	0.992	3.08	25	
Benzo[k]fluoranthene		50000	56700	ug/L	1.29	13.5	25	
bis(2-Chloroethoxy)methane		50000	55500	ug/L	0.782	11.0	25	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/06/2009 Sample ID: WG316683-02
Instrument ID: HPMS12 Run Time: 10:38 Method: 8270C
File ID: 12M27852 Analyst: CAA/MES QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 31-OCT-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	52000	ug/L	1.49	3.96	25	
bis(2-Chloroisopropyl)ether		50000	52500	ug/L	3.08	4.91	25	
bis(2-Ethylhexyl)phthalate		50000	50100	ug/L	0.824	0.251	25	
Butyl Benzyl Phthalate		50000	54500	ug/L	0.682	9.07	25	
Carbazole		50000	54300	ug/L	1.23	8.55	25	
Chrysene		50000	52500	ug/L	1.13	4.91	25	
Dibenz[ah]anthracene		50000	51400	ug/L	1.17	2.77	25	
Dibenzofuran		50000	55000	ug/L	2.48	10.1	25	
Diethylphthalate		50000	51100	ug/L	1.99	2.12	25	
Dimethylphthalate		50000	50500	ug/L	1.75	0.952	25	
Di-n-Butyl Phthalate		50000	52600	ug/L	1.67	5.21	25	
Fluorene		50000	53000	ug/L	2.05	6.04	20	
Hexachlorobenzene		50000	50500	ug/L	0.282	1.00	25	
Hexachloroethane		50000	51900	ug/L	0.730	3.71	25	
Indeno[1,2,3-cd]pyrene		50000	50900	ug/L	1.37	1.78	25	
Isophorone		50000	51200	ug/L	0.952	2.48	25	
Naphthalene		50000	52200	ug/L	1.22	4.35	25	
Nitrobenzene		50000	50900	ug/L	0.528	1.73	25	
Phenanthrene		50000	54100	ug/L	1.36	8.29	25	
Pyrene		50000	53200	ug/L	1.31	6.43	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS4 Run Time: 09:48 Method: 8270C
File ID: 4M49026 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50100	ug/L	0.406	0.292	20	
2,4-Dichlorophenol	CCC	50000	50700	ug/L	0.309	1.40	20	
2-Nitrophenol	CCC	50000	50200	ug/L	0.215	0.459	20	
4-Chloro-3-Methylphenol	CCC	50000	50000	ug/L	0.314	0.0760	20	
Acenaphthene	CCC	50000	50000	ug/L	1.31	0.0452	20	
Benzo[a]pyrene	CCC	50000	50100	ug/L	1.10	0.121	20	
Di-n-Octyl Phthalate	CCC	50000	52700	ug/L	1.76	5.33	20	
Fluoranthene	CCC	50000	50000	ug/L	1.23	0.0470	20	
Hexachlorobutadiene	CCC	50000	51100	ug/L	0.174	2.12	20	
n-Nitrosodiphenylamine	CCC	50000	51500	ug/L	0.793	2.99	20	
Pentachlorophenol	CCC	50000	46400	ug/L	0.131	7.28	20	
Phenol	CCC	50000	49100	ug/L	1.60	1.71	20	
1,4-Dichlorobenzene	CCC	50000	49800	ug/L	1.66	0.350	25	
2,4-Dinitrophenol	SPCC	50000	52200	ug/L	0.111	4.32	25	
4-Nitrophenol	SPCC	50000	48300	ug/L	0.222	3.48	25	
Hexachlorocyclopentadiene	SPCC	50000	52300	ug/L	0.207	4.59	25	
n-Nitrosodipropylamine	SPCC	50000	50600	ug/L	0.912	1.24	25	
1,4-Dioxane		50000	44500	ug/L	0.518	11.1	40	
2,4,5-Trichlorophenol		50000	51100	ug/L	0.426	2.11	25	
2,4-Dimethylphenol		50000	48300	ug/L	0.361	3.49	25	
2,4-Dinitrotoluene		50000	53900	ug/L	0.478	7.72	25	
2,6-Dinitrotoluene		50000	50000	ug/L	0.370	0.0324	25	
2-Chloronaphthalene		50000	50600	ug/L	1.48	1.15	25	
2-Chlorophenol		50000	48600	ug/L	1.44	2.71	25	
2-Methylnaphthalene		50000	50400	ug/L	0.759	0.869	25	
2-Methylphenol		50000	49800	ug/L	1.11	0.412	25	
2-Nitroaniline		50000	50800	ug/L	0.360	1.64	25	
3,3'-Dichlorobenzidine		50000	49200	ug/L	0.334	1.65	25	
3-,4-Methylphenol		50000	49200	ug/L	1.41	1.51	25	
3-Nitroaniline		50000	49500	ug/L	0.356	1.05	25	
4,6-Dinitro-2-Methylphenol		50000	54000	ug/L	0.121	7.97	25	
4-Bromophenyl Phenyl Ether		50000	50300	ug/L	0.225	0.563	25	
4-Chloroaniline		50000	51300	ug/L	0.480	2.51	25	
4-Chlorophenyl Phenyl Ether		50000	52400	ug/L	0.713	4.84	25	
4-Nitroaniline		50000	50300	ug/L	0.369	0.549	25	
Acenaphthylene		50000	49200	ug/L	2.08	1.68	25	
Anthracene		50000	50500	ug/L	1.23	1.08	25	
Benzo[a]anthracene		50000	50300	ug/L	1.12	0.589	25	
Benzo[b]fluoranthene		50000	49700	ug/L	1.27	0.675	25	
Benzo[ghi]perylene		50000	52100	ug/L	0.927	4.25	25	
Benzo[k]fluoranthene		50000	49100	ug/L	1.12	1.89	25	
bis(2-Chloroethoxy)methane		50000	49500	ug/L	0.545	0.915	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS4 Run Time: 09:48 Method: 8270C
File ID: 4M49026 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	49500	ug/L	0.987	1.01	25	
bis(2-Chloroisopropyl)ether		50000	47400	ug/L	1.77	5.19	25	
bis(2-Ethylhexyl)phthalate		50000	49900	ug/L	0.963	0.153	25	
Butyl Benzyl Phthalate		50000	52000	ug/L	0.692	4.08	25	
Carbazole		50000	51000	ug/L	1.19	2.09	25	
Chrysene		50000	49800	ug/L	1.06	0.349	25	
Dibenz[ah]anthracene		50000	54300	ug/L	1.02	8.54	25	
Dibenzofuran		50000	50400	ug/L	1.82	0.745	25	
Diethylphthalate		50000	51200	ug/L	1.54	2.47	25	
Dimethylphthalate		50000	50100	ug/L	1.47	0.286	25	
Di-n-Butyl Phthalate		50000	49200	ug/L	1.55	1.67	25	
Fluorene		50000	49500	ug/L	1.53	0.978	25	
Hexachlorobenzene		50000	49400	ug/L	0.230	1.10	25	
Hexachloroethane		50000	50100	ug/L	0.591	0.288	25	
Indeno[1,2,3-cd]pyrene		50000	53700	ug/L	1.19	7.37	25	
Isophorone		50000	49300	ug/L	0.694	1.38	25	
Naphthalene		50000	48100	ug/L	1.15	3.74	25	
Nitrobenzene		50000	50200	ug/L	0.373	0.338	25	
Phenanthrene		50000	49800	ug/L	1.22	0.445	25	
Pyrene		50000	49100	ug/L	1.23	1.71	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS12 Run Time: 09:24 Method: 8270C
File ID: 12M28023 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 08-NOV-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	49600	ug/L	0.471	0.793	20	
2,4-Dichlorophenol	CCC	50000	50200	ug/L	0.322	0.353	25	
2-Nitrophenol	CCC	50000	48900	ug/L	0.199	2.21	20	
4-Chloro-3-Methylphenol	CCC	50000	47000	ug/L	0.358	5.91	20	
Acenaphthene	CCC	50000	49400	ug/L	1.46	1.22	20	
Benzo[a]pyrene	CCC	50000	50100	ug/L	1.19	0.115	20	
Di-n-Octyl Phthalate	CCC	50000	49000	ug/L	1.64	1.95	20	
Fluoranthene	CCC	50000	51900	ug/L	1.47	3.80	25	
Hexachlorobutadiene	CCC	50000	51100	ug/L	0.257	2.30	20	
n-Nitrosodiphenylamine	CCC	50000	48900	ug/L	0.730	2.17	20	
Pentachlorophenol	CCC	50000	44500	ug/L	0.134	11.1	20	
Phenol	CCC	50000	46200	ug/L	1.66	7.56	20	
1,4-Dichlorobenzene	CCC	50000	48800	ug/L	1.61	2.46	20	
2,4-Dinitrophenol	SPCC	50000	42200	ug/L	0.146	15.5	25	
4-Nitrophenol	SPCC	50000	38600	ug/L	0.317	22.9	25	
Hexachlorocyclopentadiene	SPCC	50000	48600	ug/L	0.364	2.77	25	
n-Nitrosodipropylamine	SPCC	50000	43500	ug/L	1.01	13.0	25	
1,4-Dioxane		50000	47500	ug/L	0.532	4.91	40	
2,4,5-Trichlorophenol		50000	49600	ug/L	0.499	0.871	25	
2,4-Dimethylphenol		50000	49400	ug/L	0.368	1.21	25	
2,4-Dinitrotoluene		50000	48500	ug/L	0.502	2.99	25	
2,6-Dinitrotoluene		50000	49000	ug/L	0.372	2.00	25	
2-Chloronaphthalene		50000	49300	ug/L	1.57	1.40	25	
2-Chlorophenol		50000	48100	ug/L	1.38	3.82	25	
2-Methylnaphthalene		50000	49200	ug/L	0.765	1.63	25	
2-Methylphenol		50000	47000	ug/L	1.18	6.00	25	
2-Nitroaniline		50000	42300	ug/L	0.445	15.5	25	
3,3'-Dichlorobenzidine		50000	49900	ug/L	0.352	0.239	25	
3-,4-Methylphenol		50000	46300	ug/L	1.46	7.42	25	
3-Nitroaniline		50000	46300	ug/L	0.341	7.31	25	
4,6-Dinitro-2-Methylphenol		50000	46800	ug/L	0.124	6.37	25	
4-Bromophenyl Phenyl Ether		50000	51300	ug/L	0.269	2.58	25	
4-Chloroaniline		50000	48300	ug/L	0.461	3.42	25	
4-Chlorophenyl Phenyl Ether		50000	50000	ug/L	0.968	0.0928	25	
4-Nitroaniline		50000	44300	ug/L	0.381	11.5	25	
Acenaphthylene		50000	50200	ug/L	2.30	0.409	25	
Anthracene		50000	49900	ug/L	1.23	0.123	25	
Benzo[a]anthracene		50000	50200	ug/L	1.21	0.402	25	
Benzo[b]fluoranthene		50000	49900	ug/L	1.46	0.180	25	
Benzo[ghi]perylene		50000	49100	ug/L	0.993	1.72	25	
Benzo[k]fluoranthene		50000	51200	ug/L	1.22	2.40	25	
bis(2-Chloroethoxy)methane		50000	47100	ug/L	0.601	5.80	25	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS12 Run Time: 09:24 Method: 8270C
File ID: 12M28023 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 08-NOV-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	42400	ug/L	1.06	15.3	25	
bis(2-Chloroisopropyl)ether		50000	39600	ug/L	1.96	20.9	25	
bis(2-Ethylhexyl)phthalate		50000	49200	ug/L	0.804	1.55	25	
Butyl Benzyl Phthalate		50000	48600	ug/L	0.593	2.74	25	
Carbazole		50000	49700	ug/L	1.13	0.635	25	
Chrysene		50000	50500	ug/L	1.15	0.923	25	
Dibenz[ah]anthracene		50000	49600	ug/L	1.08	0.829	25	
Dibenzofuran		50000	49800	ug/L	2.10	0.461	25	
Diethylphthalate		50000	49600	ug/L	1.76	0.776	25	
Dimethylphthalate		50000	49900	ug/L	1.66	0.112	25	
Di-n-Butyl Phthalate		50000	50200	ug/L	1.50	0.365	25	
Fluorene		50000	50400	ug/L	1.81	0.811	20	
Hexachlorobenzene		50000	49800	ug/L	0.234	0.325	25	
Hexachloroethane		50000	46900	ug/L	0.618	6.18	25	
Indeno[1,2,3-cd]pyrene		50000	49300	ug/L	1.26	1.45	25	
Isophorone		50000	46200	ug/L	0.766	7.55	25	
Naphthalene		50000	49100	ug/L	1.15	1.74	25	
Nitrobenzene		50000	45300	ug/L	0.408	9.44	25	
Phenanthrene		50000	49800	ug/L	1.21	0.378	25	
Pyrene		50000	51800	ug/L	1.32	3.54	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/14/2009 Sample ID: WG317446-02
Instrument ID: HPMS4 Run Time: 12:14 Method: 8270C
File ID: 4M49047 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	49800	ug/L	0.403	0.337	20	
2,4-Dichlorophenol	CCC	50000	50800	ug/L	0.309	1.57	20	
2-Nitrophenol	CCC	50000	50400	ug/L	0.215	0.714	20	
4-Chloro-3-Methylphenol	CCC	50000	49900	ug/L	0.313	0.213	20	
Acenaphthene	CCC	50000	49600	ug/L	1.30	0.850	20	
Benzo[a]pyrene	CCC	50000	49700	ug/L	1.09	0.694	20	
Di-n-Octyl Phthalate	CCC	50000	54500	ug/L	1.83	9.07	20	
Fluoranthene	CCC	50000	50100	ug/L	1.23	0.233	20	
Hexachlorobutadiene	CCC	50000	52300	ug/L	0.178	4.61	20	
n-Nitrosodiphenylamine	CCC	50000	52100	ug/L	0.802	4.19	20	
Pentachlorophenol	CCC	50000	43500	ug/L	0.122	13.0	20	
Phenol	CCC	50000	48500	ug/L	1.58	3.07	20	
1,4-Dichlorobenzene	CCC	50000	50100	ug/L	1.67	0.196	25	
2,4-Dinitrophenol	SPCC	50000	44700	ug/L	0.0903	10.6	25	
4-Nitrophenol	SPCC	50000	45800	ug/L	0.211	8.49	25	
Hexachlorocyclopentadiene	SPCC	50000	45700	ug/L	0.183	8.60	25	
n-Nitrosodipropylamine	SPCC	50000	50900	ug/L	0.917	1.87	25	
1,4-Dioxane		50000	46100	ug/L	0.537	7.90	40	
2,4,5-Trichlorophenol		50000	50100	ug/L	0.418	0.137	25	
2,4-Dimethylphenol		50000	49100	ug/L	0.367	1.77	25	
2,4-Dinitrotoluene		50000	53200	ug/L	0.472	6.42	25	
2,6-Dinitrotoluene		50000	48900	ug/L	0.361	2.16	25	
2-Chloronaphthalene		50000	50400	ug/L	1.47	0.776	25	
2-Chlorophenol		50000	48700	ug/L	1.44	2.61	25	
2-Methylnaphthalene		50000	51000	ug/L	0.768	2.06	25	
2-Methylphenol		50000	49700	ug/L	1.11	0.526	25	
2-Nitroaniline		50000	49800	ug/L	0.353	0.459	25	
3,3'-Dichlorobenzidine		50000	47800	ug/L	0.325	4.30	25	
3-,4-Methylphenol		50000	48500	ug/L	1.38	3.03	25	
3-Nitroaniline		50000	47700	ug/L	0.343	4.56	25	
4,6-Dinitro-2-Methylphenol		50000	49200	ug/L	0.110	1.52	25	
4-Bromophenyl Phenyl Ether		50000	51300	ug/L	0.230	2.62	25	
4-Chloroaniline		50000	50700	ug/L	0.475	1.46	25	
4-Chlorophenyl Phenyl Ether		50000	52300	ug/L	0.711	4.59	25	
4-Nitroaniline		50000	49000	ug/L	0.360	2.00	25	
Acenaphthylene		50000	48400	ug/L	2.05	3.22	25	
Anthracene		50000	50500	ug/L	1.23	0.943	25	
Benzo[a]anthracene		50000	50000	ug/L	1.12	0.00440	25	
Benzo[b]fluoranthene		50000	50500	ug/L	1.29	1.07	25	
Benzo[ghi]perylene		50000	46100	ug/L	0.819	7.85	25	
Benzo[k]fluoranthene		50000	49000	ug/L	1.12	2.07	25	
bis(2-Chloroethoxy)methane		50000	50100	ug/L	0.552	0.252	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/14/2009 Sample ID: WG317446-02
Instrument ID: HPMS4 Run Time: 12:14 Method: 8270C
File ID: 4M49047 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	49400	ug/L	0.985	1.26	25	
bis(2-Chloroisopropyl)ether		50000	47300	ug/L	1.77	5.32	25	
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.975	1.03	25	
Butyl Benzyl Phthalate		50000	53400	ug/L	0.710	6.82	25	
Carbazole		50000	51100	ug/L	1.19	2.15	25	
Chrysene		50000	49400	ug/L	1.05	1.12	25	
Dibenz[ah]anthracene		50000	49600	ug/L	0.932	0.766	25	
Dibenzofuran		50000	49600	ug/L	1.80	0.740	25	
Diethylphthalate		50000	50800	ug/L	1.53	1.66	25	
Dimethylphthalate		50000	49700	ug/L	1.46	0.627	25	
Di-n-Butyl Phthalate		50000	49500	ug/L	1.56	1.06	25	
Fluorene		50000	49200	ug/L	1.52	1.52	25	
Hexachlorobenzene		50000	50400	ug/L	0.235	0.850	25	
Hexachloroethane		50000	50500	ug/L	0.595	0.959	25	
Indeno[1,2,3-cd]pyrene		50000	49000	ug/L	1.08	2.08	25	
Isophorone		50000	49600	ug/L	0.699	0.727	25	
Naphthalene		50000	48400	ug/L	1.16	3.28	25	
Nitrobenzene		50000	50300	ug/L	0.375	0.682	25	
Phenanthrene		50000	50200	ug/L	1.23	0.334	25	
Pyrene		50000	49200	ug/L	1.23	1.65	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/14/2009 Sample ID: WG317444-02
Instrument ID: HPMS12 Run Time: 11:30 Method: 8270C
File ID: 12M28045 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS12 - 08-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50600	ug/L	0.481	1.16	20	
2,4-Dichlorophenol	CCC	50000	50800	ug/L	0.325	1.59	20	
2-Nitrophenol	CCC	50000	50500	ug/L	0.206	0.919	20	
4-Chloro-3-Methylphenol	CCC	50000	47400	ug/L	0.361	5.13	20	
Acenaphthene	CCC	50000	50100	ug/L	1.48	0.165	20	
Benzo[a]pyrene	CCC	50000	50500	ug/L	1.20	0.905	20	
Di-n-Octyl Phthalate	CCC	50000	50000	ug/L	1.67	0.0458	20	
Fluoranthene	CCC	50000	51700	ug/L	1.46	3.42	20	
Hexachlorobutadiene	CCC	50000	50800	ug/L	0.255	1.58	20	
n-Nitrosodiphenylamine	CCC	50000	48600	ug/L	0.726	2.71	20	
Pentachlorophenol	CCC	50000	48000	ug/L	0.145	4.08	20	
Phenol	CCC	50000	46100	ug/L	1.66	7.86	20	
1,4-Dichlorobenzene	CCC	50000	48500	ug/L	1.61	2.95	25	
2,4-Dinitrophenol	SPCC	50000	49100	ug/L	0.178	1.84	25	
4-Nitrophenol	SPCC	50000	39900	ug/L	0.329	20.2	25	
Hexachlorocyclopentadiene	SPCC	50000	49800	ug/L	0.373	0.406	25	
n-Nitrosodipropylamine	SPCC	50000	43800	ug/L	1.02	12.5	25	
1,4-Dioxane		50000	48200	ug/L	0.540	3.51	40	
2,4,5-Trichlorophenol		50000	50500	ug/L	0.508	0.981	25	
2,4-Dimethylphenol		50000	47600	ug/L	0.355	4.87	25	
2,4-Dinitrotoluene		50000	49500	ug/L	0.512	0.906	25	
2,6-Dinitrotoluene		50000	49800	ug/L	0.378	0.375	25	
2-Chloronaphthalene		50000	49400	ug/L	1.57	1.21	25	
2-Chlorophenol		50000	47400	ug/L	1.36	5.26	25	
2-Methylnaphthalene		50000	49500	ug/L	0.770	1.01	25	
2-Methylphenol		50000	46300	ug/L	1.16	7.47	25	
2-Nitroaniline		50000	42300	ug/L	0.445	15.5	25	
3,3'-Dichlorobenzidine		50000	50400	ug/L	0.355	0.742	25	
3-,4-Methylphenol		50000	46300	ug/L	1.46	7.31	25	
3-Nitroaniline		50000	47200	ug/L	0.347	5.62	25	
4,6-Dinitro-2-Methylphenol		50000	50900	ug/L	0.137	1.88	25	
4-Bromophenyl Phenyl Ether		50000	51100	ug/L	0.268	2.25	25	
4-Chloroaniline		50000	48000	ug/L	0.458	4.03	25	
4-Chlorophenyl Phenyl Ether		50000	50600	ug/L	0.980	1.10	25	
4-Nitroaniline		50000	45100	ug/L	0.389	9.75	25	
Acenaphthylene		50000	50300	ug/L	2.31	0.558	25	
Anthracene		50000	50000	ug/L	1.23	0.0130	25	
Benzo[a]anthracene		50000	50100	ug/L	1.21	0.153	25	
Benzo[b]fluoranthene		50000	49300	ug/L	1.44	1.30	25	
Benzo[ghi]perylene		50000	47400	ug/L	0.958	5.18	25	
Benzo[k]fluoranthene		50000	48300	ug/L	1.16	3.31	25	
bis(2-Chloroethoxy)methane		50000	47100	ug/L	0.602	5.74	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/14/2009 Sample ID: WG317444-02
Instrument ID: HPMS12 Run Time: 11:30 Method: 8270C
File ID: 12M28045 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS12 - 08-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	42400	ug/L	1.07	15.1	25	
bis(2-Chloroisopropyl)ether		50000	38500	ug/L	1.91	23.0	25	
bis(2-Ethylhexyl)phthalate		50000	48600	ug/L	0.794	2.77	25	
Butyl Benzyl Phthalate		50000	47500	ug/L	0.580	4.90	25	
Carbazole		50000	50100	ug/L	1.14	0.194	25	
Chrysene		50000	50100	ug/L	1.14	0.273	25	
Dibenz[ah]anthracene		50000	48600	ug/L	1.06	2.86	25	
Dibenzofuran		50000	50400	ug/L	2.13	0.874	25	
Diethylphthalate		50000	48700	ug/L	1.72	2.64	25	
Dimethylphthalate		50000	49700	ug/L	1.65	0.612	25	
Di-n-Butyl Phthalate		50000	49800	ug/L	1.48	0.452	25	
Fluorene		50000	50500	ug/L	1.81	1.07	25	
Hexachlorobenzene		50000	49900	ug/L	0.234	0.297	25	
Hexachloroethane		50000	47000	ug/L	0.619	6.04	25	
Indeno[1,2,3-cd]pyrene		50000	48100	ug/L	1.23	3.83	25	
Isophorone		50000	45900	ug/L	0.761	8.18	25	
Naphthalene		50000	49000	ug/L	1.14	2.09	25	
Nitrobenzene		50000	44800	ug/L	0.404	10.3	25	
Phenanthrene		50000	49800	ug/L	1.21	0.385	25	
Pyrene		50000	51100	ug/L	1.31	2.27	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS12
Workgroup (AAB#): WG316580

ICAL CCV Number: WG315933-02
CAL ID: HPMS12 - 31-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG315933-02	NA	NA	134688	283413	777591	511063	647425	606815
Upper Limit	NA	NA	269376	566826	1555182	1022126	1294850	1213630
Lower Limit	NA	NA	67344	141707	388796	255532	323713	303408
WG316113-02	1.00	01	129787	275636	692821	485862	572963	572886
WG316113-03	1.00	01	142203	313320	881884	549210	692644	691244

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542075
Report generated 11/17/2009 08:12

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316255-02
CAL ID: HPMS4-03-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316255-02	NA	NA	204883	410453	754445	789246	677254	746952
Upper Limit	NA	NA	409766	820906	1508890	1578492	1354508	1493904
Lower Limit	NA	NA	102442	205227	377223	394623	338627	373476
WG316397-02	1.00	01	149359	307970	504055	587236	446981	523307
WG316397-03	1.00	01	146893	299060	534667	581938	486961	537198

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542075
Report generated 11/17/2009 08:12

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS12
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316819-02
CAL ID: HPMS12-08-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	173541	370011	924891	675723	754103	768236
Upper Limit	NA	NA	347082	740022	1849782	1351446	1508206	1536472
Lower Limit	NA	NA	86771	185006	462446	337862	377052	384118
WG316397-02	1.00	02	171667	351020	826052	630033	654087	712568

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542075
Report generated 11/17/2009 08:12

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS12
Workgroup (AAB#): WG316580

ICAL CCV Number: WG316819-02
CAL ID: HPMS12-08-NOV-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	173541	370011	924891	675723	754103	768236
Upper Limit	NA	NA	347082	740022	1849782	1351446	1508206	1536472
Lower Limit	NA	NA	86771	185006	462446	337862	377052	384118
L09100717-05	2.00	DL01	155312	322331	755891	576674	606498	649876
L09100717-09	2.00	DL01	115362	235439	542576	427520	433502	475765
L09100717-10	2.00	DL01	161614	331659	780509	598373	624434	668010
L09100717-13	2.00	DL01	155918	317437	759535	573721	604028	641526

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542075
Report generated 11/17/2009 08:12

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316839-02
CAL ID: HPMS4-09-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316839-02	NA	NA	543395	1030901	1860433	1918342	1677030	1736644
Upper Limit	NA	NA	1086790	2061802	3720866	3836684	3354060	3473288
Lower Limit	NA	NA	271698	515451	930217	959171	838515	868322
L09100717-01	1.00	01	372014	733886	1206424	1370057	1095364	1197413
L09100717-02	1.00	01	484344	944256	1676746	1761680	1449512	1579909
L09100717-03	1.00	01	366256	729024	1282588	1349150	1143724	1218809
L09100717-04	1.00	01	370222	733335	1206040	1368609	1086159	1206367
L09100717-06	2.00	DL01	360936	705482	1174626	1322485	1067002	1154689
L09100717-07	2.00	DL01	362029	712143	1193701	1330216	1070859	1163821
L09100717-08	1.00	01	353670	696472	1152201	1308754	1038226	1147247
L09100717-11	1.00	01	364785	729182	1189758	1367923	1071910	1198741
L09100717-12	1.00	01	359296	712269	1165226	1329453	1048490	1163266

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542075
Report generated 11/17/2009 08:12

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS12
Workgroup (AAB#): WG316580

ICAL CCV Number: WG315933-02
CAL ID: HPMS12 - 31-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG315933-02	NA	NA	8.52	12.21	16.78	10.11	19.47	13.82
Upper Limit	NA	NA	9.02	12.71	17.28	10.61	19.97	14.32
Lower Limit	NA	NA	8.02	11.71	16.28	9.61	18.97	13.32
WG316113-02	1.00	01	8.37	12.04	16.53	9.94	19.05	13.65
WG316113-03	1.00	01	8.367	12.048	16.536	9.949	19.052	13.656

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542077
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY

(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717 ICAL CCV Number: WG316255-02

Instrument ID: HPMS4 CAL ID: HPMS4-03-NOV-09

Workgroup (AAB#): WG316572 Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316255-02	NA	NA	8.1	11.24	17.8	9.41	21.27	13.01
Upper Limit	NA	NA	8.6	11.74	18.3	9.91	21.77	13.51
Lower Limit	NA	NA	7.6	10.74	17.3	8.91	20.77	12.51
WG316397-02	1.00	01	8.1	11.23	17.77	9.4	21.25	13
WG316397-03	1.00	01	8.1	11.24	17.78	9.4	21.25	13

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542077
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS12
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316819-02
CAL ID: HPMS12-08-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	8.54	12.23	16.78	10.14	19.47	13.84
Upper Limit	NA	NA	9.04	12.73	17.28	10.64	19.97	14.34
Lower Limit	NA	NA	8.04	11.73	16.28	9.64	18.97	13.34
WG316397-02	1.00	02	8.538	12.219	16.76	10.125	19.452	13.827

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542077
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717 ICAL CCV Number: WG316819-02

Instrument ID: HPMS12 CAL ID: HPMS12-08-NOV-09

Workgroup (AAB#): WG316580 Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	8.54	12.23	16.78	10.14	19.47	13.84
Upper Limit	NA	NA	9.04	12.73	17.28	10.64	19.97	14.34
Lower Limit	NA	NA	8.04	11.73	16.28	9.64	18.97	13.34
L09100717-05	2.00	DL01	8.538	12.219	16.76	10.125	19.453	13.827
L09100717-09	2.00	DL01	8.538	12.219	16.76	10.125	19.453	13.827
L09100717-10	2.00	DL01	8.538	12.219	16.76	10.125	19.453	13.827
L09100717-13	2.00	DL01	8.538	12.219	16.76	10.125	19.453	13.827

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542077
Report generated: 11/17/2009 08:14

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100717
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316839-02
CAL ID: HPMS4-09-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316839-02	NA	NA	7.69	10.79	16.97	8.99	20.07	12.44
Upper Limit	NA	NA	8.19	11.29	17.47	9.49	20.57	12.94
Lower Limit	NA	NA	7.19	10.29	16.47	8.49	19.57	11.94
L09100717-01	1.00	01	7.69	10.78	16.95	8.98	20.05	12.42
L09100717-02	1.00	01	7.69	10.79	16.96	8.98	20.06	12.43
L09100717-03	1.00	01	7.69	10.79	16.95	8.98	20.06	12.43
L09100717-04	1.00	01	7.69	10.79	16.95	8.98	20.05	12.43
L09100717-06	2.00	DL01	7.69	10.79	16.95	8.98	20.05	12.43
L09100717-07	2.00	DL01	7.69	10.79	16.95	8.98	20.05	12.43
L09100717-08	1.00	01	7.69	10.78	16.95	8.98	20.05	12.42
L09100717-11	1.00	01	7.69	10.79	16.95	8.98	20.05	12.43
L09100717-12	1.00	01	7.69	10.79	16.95	8.98	20.05	12.43

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542077
Report generated: 11/17/2009 08:14

2.2.2 GC/MS Semivolatiles Data (827 Dioxane)

2.2.2.1 Summary Data

Loginnum: L09100717

Department: Semivolatiles

Analyst: Cassie A. Augenstein

METHOD

Preparation 3520C/3545

Analysis SW-846 8270C SIM

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: There were no MS/MSD results associated with the SIM 1,4-dioxane analysis of this sample delivery group.

SAMPLES

Samples: Samples 05, 09, 10 and 13 were run at a dilution due to extract appearance.

Internal Standards: All acceptance criteria were met.

Surrogates: Not applicable.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

LABORATORY REPORT

L09100717

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4013-S001-102809	L09100717-01	8270C	1	29-OCT-09
4013-S002-102809	L09100717-04	8270C	1	29-OCT-09
4013-GW-102809	L09100717-05	8270C	2	29-OCT-09
4014-S001-102809	L09100717-06	8270C	1	29-OCT-09
4014-S001-102809D	L09100717-07	8270C	1	29-OCT-09
4014-S002-102809	L09100717-08	8270C	1	29-OCT-09
4014-GW-102809	L09100717-09	8270C	2	29-OCT-09
4014-GW-102809D	L09100717-10	8270C	2	29-OCT-09
4011-S001-102809	L09100717-11	8270C	1	29-OCT-09
4011-S002-102809	L09100717-12	8270C	1	29-OCT-09
4011-GW-102809	L09100717-13	8270C	2	29-OCT-09

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-01	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4013-S001-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 13:57
Collect Date:	10/28/2009 09:45	Dilution:	1	File ID:	15M01313
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.1

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	142	70.9

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-04	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4013-S002-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 15:45
Collect Date:	10/28/2009 10:30	Dilution:	1	File ID:	15M01317
Sample Tag:	01	Units:	ug/kg	Percent Solid:	93.8

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	123	61.6

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-05	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4013-GW-102809	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/07/2009 19:44
Collect Date:	10/28/2009 12:20	Dilution:	2	File ID:	15M01326
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1	2.33		2.04	1.02

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-06	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4014-S001-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 20:11
Collect Date:	10/28/2009 12:55	Dilution:	1	File ID:	15M01327
Sample Tag:	01	Units:	ug/kg	Percent Solid:	81.2

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	125	62.4

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-07	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4014-S001-102809D	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 21:56
Collect Date:	10/28/2009 12:55	Dilution:	1	File ID:	15M01331
Sample Tag:	01	Units:	ug/kg	Percent Solid:	76.6

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	141	70.3

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-08	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4014-S002-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 14:24
Collect Date:	10/28/2009 13:20	Dilution:	1	File ID:	15M01314
Sample Tag:	01	Units:	ug/kg	Percent Solid:	90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	122	61.1

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-09	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4014-GW-102809	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/07/2009 18:52
Collect Date:	10/28/2009 14:00	Dilution:	2	File ID:	15M01324
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	2.15	1.08

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-10	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4014-GW-102809D	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/07/2009 17:58
Collect Date:	10/28/2009 14:00	Dilution:	2	File ID:	15M01322
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	2.15	1.08

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-11	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4011-S001-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 14:52
Collect Date:	10/28/2009 15:15	Dilution:	1	File ID:	15M01315
Sample Tag:	01	Units:	ug/kg	Percent Solid:	83.5

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	137	68.4

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-12	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4011-S002-102809	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/07/2009 15:18
Collect Date:	10/28/2009 15:40	Dilution:	1	File ID:	15M01316
Sample Tag:	01	Units:	ug/kg	Percent Solid:	95.7

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	121	60.3

U Not detected at or above the reporting limit (RL).

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-13	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4011-GW-102809	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/08/2009 19:10
Collect Date:	10/28/2009 16:15	Dilution:	2	File ID:	15M01353
Sample Tag:	DL01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	2.22	1.11

U Not detected at or above the reporting limit (RL).

2.2.2.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG316398
Analyst: CPD
Spike Analyst: CPD
Method: 3545
Run Date: 11/04/2009 08:12
SOP: ASE01 Revison 7
Spike Witness: CAF
Surr Solution: STD35890

Methylene Chloride Lot #: COA14222
Purified Lab Sand Lot #: COA13873
Diatomaceous Earth Lot #: COA13977
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1% Acetic Acid Lot #: RGT14192

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100717-01	RS01		827-DIOX	17.19 g	.5 mL			1 mL	Colored
2	L09100717-02	MS01	L09100717-01	827-DIOX	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
3	L09100717-03	SD01	L09100717-01	827-DIOX	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored
4	L09100717-04	SAMP		827-DIOX	17.31 g	.5 mL			1 mL	Colored
5	L09100717-06	SAMP		827-DIOX	19.71 g	.5 mL			1 mL	Colored
6	L09100717-07	SAMP		827-DIOX	18.57 g	.5 mL			1 mL	Colored
7	L09100717-08	SAMP		827-DIOX	18.06 g	.5 mL			1 mL	Colored
8	L09100717-11	SAMP		827-DIOX	17.5 g	.5 mL			1 mL	Colored
9	L09100717-12	SAMP		827-DIOX	17.32 g	.5 mL			1 mL	Colored
10	L09100771-02	SAMP		827-DIOX	19.72 g	.5 mL			1 mL	Colored
11	L09100771-03	SAMP		827-DIOX	18.64 g	.5 mL			1 mL	Colored
12	L09100771-07	SAMP		827-DIOX	20.93 g	.5 mL			1 mL	Colored
13	L09100771-08	SAMP		827-DIOX	18.04 g	.5 mL			1 mL	Colored
14	L09100771-10	SAMP		827-DIOX	18.72 g	.5 mL			1 mL	Colored
15	L09100771-11	SAMP		827-DIOX	17.92 g	.5 mL			1 mL	Colored
16	WG316398-01	REF	L09100717-01	827-DIOX	17.19 g	.5 mL			1 mL	Colored
17	WG316398-02	BLANK		827-DIOX	20 g	.5 mL			1 mL	Transparent
18	WG316398-03	LCS		827-DIOX	20 g	.5 mL	.05 mL	STD35738	1 mL	Transparent
19	WG316398-04	MS	L09100717-01	827-DIOX	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
20	WG316398-05	MSD	L09100717-01	827-DIOX	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored

Analyst:

Reviewer:

EXTRACT - Modified 10/22/2008
PDF ID: 1531005
Report generated: 11/04/2009 20:04

Microbac Laboratories Inc.
Continuous Sample Extract Log

Workgroup: WG316114
Analyst: RAH
Spike Analyst: RAH
Method: 3520C
Run Date: 11/02/2009 10:31
SOP: EXB01 Revison 15
Spike Witness: CAF
Surr Solution: STD35890

TIME ON: 12:45 OFF: 08:00 ON: 10:30 OFF: 08:00
Methylene Chloride Lot #: COA14222
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1:1 H2SO4 Lot #: RGT14328
10N NaOH Lot #: RGT14307

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100714-01	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Colored
2	L09100714-02	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Colored
3	L09100714-03	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Transparent
4	L09100714-04	SAMP		827-DIOX	980 mL	.5 mL			1 mL	Colored
5	L09100714-05	SAMP		827-DIOX	950 mL	.5 mL			1 mL	Colored
6	L09100717-05	SAMP		827-DIOX	980 mL	.5 mL			1 mL	Colored
7	L09100717-09	SAMP		827-DIOX	930 mL	.5 mL			1 mL	Colored
8	L09100717-10	SAMP		827-DIOX	930 mL	.5 mL			1 mL	Colored
9	L09100717-13	SAMP		827-DIOX	900 mL	.5 mL			1 mL	Colored
10	L09100754-01	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Colored
11	L09100754-02	SAMP		827-DIOX	910 mL	.5 mL			1 mL	Colored
12	L09100771-04	RS01		827-DIOX	900 mL	.5 mL			1 mL	Colored
13	L09100771-05	MS01	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
14	L09100771-06	SD01	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
15	L09100771-09	SAMP		827-DIOX	920 mL	.5 mL			1 mL	Colored
16	L09100771-12	SAMP		827-DIOX	830 mL	.5 mL			1 mL	Colored
17	L09100775-33	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Transparent
18	L09100775-34	SAMP		827-DIOX	900 mL	.5 mL			1 mL	Transparent
19	WG316114-01	REF	L09100771-04	827-DIOX	900 mL	.5 mL			1 mL	Colored
20	WG316114-02	BLANK		827-DIOX	1000 mL	.5 mL			1 mL	Transparent
21	WG316114-03	LCS		827-DIOX	1000 mL	.5 mL	.1 mL	STD31462	1 mL	Transparent
22	WG316114-04	MS	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
23	WG316114-05	MSD	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored

Analyst: [signature]

Reviewer: Cheryl A. Flowers

EXTRACT - Modified 01/23/2009
PDF ID: 1530981
Report generated: 11/04/2009 18:51

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 070109
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 29319

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG306245, WG306246, WG603247
Internal STD: COA13229 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	15M00379	WG306031-01 5ppm DFTPP STD	1	1	STD31842	07/01/09 07:40
2	15M00380	WG306031-02 5ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 07:58
3	15M00381	WG306031-03 10ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 08:24
4	15M00382	WG306031-04 7.5ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 08:51
5	15M00383	WG306031-05 2.5ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 09:17
6	15M00384	WG306031-06 1ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 09:43
7	15M00385	WG306031-07 5ppm 1,4-Dioxane Alt Src STD	1	1	STD31350	07/01/09 10:09
8	15M00386	WG305528-02 BLK 6/24	1	1		07/01/09 10:35
9	15M00387	WG305528-03 LCS 6/24	1	1		07/01/09 11:01
10	15M00388	WG305732-01 BLK 6/26	7	1	SOIL	07/01/09 11:27
11	15M00389	WG305732-02 LCS 6/27	7	1	SOIL	07/01/09 11:53
12	15M00390	WG305950-02 BLK 6/30	7	1	SOIL	07/01/09 12:19
13	15M00391	WG305950-03 LCS 6/30	7	1	SOIL	07/01/09 12:45
14	15M00392	L09060622-01 REF 827-DIOXANE	1	1		07/01/09 13:11
15	15M00393	L09060622-03 MS 827-DIOXANE	1	1		07/01/09 13:37
16	15M00394	L09060622-05 MSD 827-DIOXANE	1	1		07/01/09 14:03
17	15M00395	L09060622-07 827-DIOXANE	1	1		07/01/09 14:29
18	15M00396	L09060710-01 827-DIOX	7	1	SOIL	07/01/09 14:55
19	15M00397	L09060622-07 2X 827-DIOXANE	1	2		07/01/09 15:22
20	15M00398	L09060667-02 20X 827-DIOX	7	20	SOIL	07/01/09 15:48
21	15M00399	L09060710-02 10X 827-DIOX	7	10	SOIL	07/01/09 16:14
22	15M00400	L09060710-04 10X 827-DIOX	7	10	SOIL	07/01/09 16:40
23	15M00401	L09060710-03 10X 827-DIOX	7	10	SOIL	07/01/09 17:06
24	15M00402	L09060739-01 5X 827-DIOX	7	5	SOIL	07/01/09 17:32
25	15M00403	L09060709-01 10X 827-DIOX	7	10	SOIL	07/01/09 17:58
26	15M00404	L09060667-01 20X 827-DIOX	7	20	SOIL	07/01/09 18:24

Comments

Seq.	Rerun	Dil.	Reason	Analytes
17	X	2	Over Calibration Range	1,4-Dioxane
	L09060622-07 827-DIOXANE - SS NBZ high.			

Page: 1 Approved: 02-JUL-09

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110709
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30842

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316359, WG316582, WG316575
Internal STD: COA13229 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	15M01306	WG316813-01 5ppm DFTPP STD	1	1	STD35357	11/07/09 11:00
2	15M01307	WG316813-01 5ppm DFTPP STD	1	1	STD35357	11/07/09 11:23
3	15M01308	WG316813-02 5ppm 1,4-Dioxane STD	1	1	STD34711	11/07/09 11:43
4	15M01309	WG316398-02 BLK 11/4	7	1	SOIL	11/07/09 12:10
5	15M01310	WG316398-03 LCS 11/4	7	1	SOIL	11/07/09 12:36
6	15M01311	WG316114-02 BLK 11/2	1	1		11/07/09 13:03
7	15M01312	WG316114-03 LCS 11/2	1	1		11/07/09 13:30
8	15M01313	L09100717-01 827-DIOX	7	1	SOIL	11/07/09 13:57
9	15M01314	L09100717-08 827-DIOX	7	1	SOIL	11/07/09 14:24
10	15M01315	L09100717-11 827-DIOX	7	1	SOIL	11/07/09 14:52
11	15M01316	L09100717-12 827-DIOX	7	1	SOIL	11/07/09 15:18
12	15M01317	L09100717-04 827-DIOX	7	1	SOIL	11/07/09 15:45
13	15M01318	L09100714-01 827-DIOX	1	1		11/07/09 16:11
14	15M01319	L09100714-03 827-DIOX	1	1		11/07/09 16:38
15	15M01320	L09100714-02 827-DIOX	1	1		11/07/09 17:05
16	15M01321	L09100734-20 827-DIOX	7	1	SOIL	11/07/09 17:32
17	15M01322	L09100717-10 2X 827-DIOX	1	2		11/07/09 17:58
18	15M01323	L09100714-05 2X 827-DIOX	1	2		11/07/09 18:25
19	15M01324	L09100717-09 2X 827-DIOX	1	2		11/07/09 18:52
20	15M01325	L09100714-04 2X 827-DIOX	1	2		11/07/09 19:18
21	15M01326	L09100717-05 2X 827-DIOX	1	2		11/07/09 19:44
22	15M01327	L09100717-06 827-DIOX	7	1	SOIL	11/07/09 20:11
23	15M01328	L09100734-15 827-DIOX	7	1	SOIL	11/07/09 20:37
24	15M01329	L09100734-19 5X 827-DIOX	7	5	SOIL	11/07/09 21:04
25	15M01330	L09100734-16 827-DIOX	7	1	SOIL	11/07/09 21:30
26	15M01331	L09100717-07 827-DIOX	7	1	SOIL	11/07/09 21:56
27	15M01332	L09100734-17 827-DIOX	7	1	SOIL	11/07/09 22:23
28	15M01333	L09100734-18 5X 827-DIOX	7	5	SOIL	11/07/09 22:49

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG316813-01 5ppm DFTPP STD - Tune failed.			
17				
	L09100717-10 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			

Page: 1 Approved: 11-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110709

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30842

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316359, WG316582, WG316575

Internal STD: COA13229 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
18				
	L09100714-05 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
19				
	L09100717-09 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
20				
	L09100714-04 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
21				
	L09100717-05 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
24				
	L09100734-19 5X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
28				
	L09100734-18 5X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			

Approved: 11-NOV-09

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110809
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30861

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316582, WG316575, WG316578
Internal STD: COA13229 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	15M01334	WG316841-01 5ppm DFTPP STD	1	1	STD35357	11/08/09 10:52
2	15M01335	WG316841-01 5ppm DFTPP STD	1	1	STD35357	11/08/09 11:07
3	15M01336	WG316841-02 5ppm 1,4-Dioxane STD	1	1	STD34711	11/08/09 11:32
4	15M01337	WG316362-01 BLK 11/3	7	1	SOIL	11/08/09 11:59
5	15M01338	WG316362-02 LCS 11/3	7	1	SOIL	11/08/09 12:27
6	15M01339	L09100775-08 827-DIOX	7	1	SOIL	11/08/09 12:53
7	15M01340	L09100771-02 827-DIOX	7	1	SOIL	11/08/09 13:21
8	15M01341	L09100771-03 827-DIOX	7	1	SOIL	11/08/09 13:48
9	15M01342	L09100771-07 827-DIOX	7	1	SOIL	11/08/09 14:15
10	15M01343	L09100771-08 827-DIOX	7	1	SOIL	11/08/09 14:42
11	15M01344	L09100771-11 827-DIOX	7	1	SOIL	11/08/09 15:09
12	15M01345	L09100754-01 827-DIOX	1	1		11/08/09 15:36
13	15M01346	L09100771-09 827-DIOX	1	1		11/08/09 16:03
14	15M01347	L09100775-33 827-DIOX	1	1		11/08/09 16:29
15	15M01348	L09100775-34 827-DIOX	1	1		11/08/09 16:56
16	15M01349	L09100754-02 827-DIOX	1	1		11/08/09 17:23
17	15M01350	L09100775-09 827-DIOX	7	1	SOIL	11/08/09 17:50
18	15M01351	L09100771-12 827-DIOX	1	1		11/08/09 18:16
19	15M01352	L09100771-04 827-DIOX	1	1		11/08/09 18:43
20	15M01353	L09100717-13 2X 827-DIOX	1	2		11/08/09 19:10
21	15M01354	L09100775-06 827-DIOX	7	1	SOIL	11/08/09 19:36
22	15M01355	L09100775-07 827-DIOX	7	1	SOIL	11/08/09 20:03
23	15M01356	L09100775-03 827-DIOX	7	1	SOIL	11/08/09 20:30
24	15M01357	L09100775-04 827-DIOX	7	1	SOIL	11/08/09 20:56
25	15M01358	L09100775-05 827-DIOX	7	1	SOIL	11/08/09 21:23
26	15M01359	L09100771-10 827-DIOX	7	1	SOIL	11/08/09 21:49
27	15M01360	L09100775-01 2X 827-DIOX	7	2	SOIL	11/08/09 22:16
28	15M01361	L09100775-02 20X 827-DIOX	7	20	SOIL	11/08/09 22:43

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG316841-01 5ppm DFTPP STD - Tune failed.			
20				
	L09100717-13 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			

Page: 1 Approved: 11-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110809

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30861

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316582, WG316575, WG316578

Internal STD: COA13229 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
27				
	L09100775-01 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
28				
	L09100775-02 20X 827-DIOX - Sample was analyzed at a dilution due to extract apperance and viscosity.			

Approved: 11-NOV-09

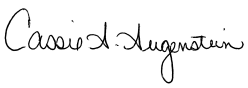
Microbac Laboratories Inc.

Data Checklist

Date: 01-JUL-2009
Analyst: CAA
Analyst: NA
Method: 827-DIOX
Instrument: HPMS15
Curve Workgroup: NA
Runlog ID: 28923
Analytical Workgroups: L09060622, L09060710, L09060667, L09060739, L09060709

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
02-JUL-2009



Secondary Reviewer:
02-JUL-2009

CHECKLIST1 - Modified 03/05/2008
Generated: JUL-02-2009 10:36:24

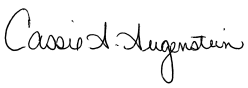
Microbac Laboratories Inc.

Data Checklist

Date: 07-NOV-2009
Analyst: CAA
Analyst: NA
Method: 827-DIOX
Instrument: HPMS15
Curve Workgroup: NA
Runlog ID: 31090
Analytical Workgroups: L09100717, L09100714, L09100734

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
08-NOV-2009



Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 11:18:23

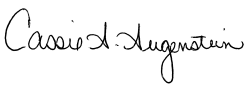
Microbac Laboratories Inc.

Data Checklist

Date: 08-NOV-2009
Analyst: CAA
Analyst: NA
Method: 827-DIOX
Instrument: HPMS15
Curve Workgroup: NA
Runlog ID: 31111
Analytical Workgroups: L09100775, L09100771, L09100754

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
09-NOV-2009



Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 11:57:24

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316575

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-S001-102809	01	10/28/09					11/04/09	6.9	14		11/07/09	3.2	40	
4013-S002-102809	04	10/28/09					11/04/09	6.9	14		11/07/09	3.3	40	
4014-S001-102809	06	10/28/09					11/04/09	6.8	14		11/07/09	3.5	40	
4014-S001-102809D	07	10/28/09					11/04/09	6.8	14		11/07/09	3.6	40	
4014-S002-102809	08	10/28/09					11/04/09	6.8	14		11/07/09	3.3	40	
4011-S001-102809	11	10/28/09					11/04/09	6.7	14		11/07/09	3.3	40	
4011-S002-102809	12	10/28/09					11/04/09	6.7	14		11/07/09	3.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538260
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316582

Login Number: L09100717

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4013-GW-102809	05	10/28/09					11/02/09	4.9	7		11/07/09	5.4	40	
4014-GW-102809	09	10/28/09					11/02/09	4.9	7		11/07/09	5.3	40	
4014-GW-102809D	10	10/28/09					11/02/09	4.9	7		11/07/09	5.3	40	
4011-GW-102809	13	10/28/09					11/02/09	4.8	7		11/08/09	6.4	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538260
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100717
Work Group: WG316575
Blank File ID: 15M01309
Blank Sample ID: WG316398-02
Prep Date: 11/04/09 08:12
Instrument ID: HPMS15
Analyzed Date: 11/07/09 12:10
Method: 8270C
Analyst: CAA

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316398-03	15M01310	11/07/09 12:36	01
4013-S001-102809	L09100717-01	15M01313	11/07/09 13:57	01
4014-S002-102809	L09100717-08	15M01314	11/07/09 14:24	01
4011-S001-102809	L09100717-11	15M01315	11/07/09 14:52	01
4011-S002-102809	L09100717-12	15M01316	11/07/09 15:18	01
4013-S002-102809	L09100717-04	15M01317	11/07/09 15:45	01
4014-S001-102809	L09100717-06	15M01327	11/07/09 20:11	01
4014-S001-102809D	L09100717-07	15M01331	11/07/09 21:56	01

Report Name: BLANK_SUMMARY
PDF File ID: 1538261
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100717	Work Group:	WG316582
Blank File ID:	15M01311	Blank Sample ID:	WG316114-02
Prep Date:	11/02/09 10:31	Instrument ID:	HPMS15
Analyzed Date:	11/07/09 13:03	Method:	8270C
Analyst:	CAA		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316114-03	15M01312	11/07/09 13:30	01
4014-GW-102809D	L09100717-10	15M01322	11/07/09 17:58	DL01
4014-GW-102809	L09100717-09	15M01324	11/07/09 18:52	DL01
4013-GW-102809	L09100717-05	15M01326	11/07/09 19:44	DL01
4011-GW-102809	L09100717-13	15M01353	11/08/09 19:10	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1538261
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/04/09 08:12 Sample ID: WG316398-02
Instrument ID: HPMS15 Run Date: 11/07/09 12:10 Prep Method: 3545
File ID: 15M01309 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316575 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS15-01-JUL-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	50.0	100	100	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1534109
12-NOV-2009 08:48

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100717 Prep Date: 11/02/09 10:31 Sample ID: WG316114-02
Instrument ID: HPMS15 Run Date: 11/07/09 13:03 Prep Method: 3520C
File ID: 15M01311 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316582 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS15-01-JUL-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	0.500	1.00	1.00	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1534109
12-NOV-2009 08:48

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/07/2009 Sample ID: WG316398-03
Instrument ID: HPMS15 Run Time: 12:36 Prep Method: 3545
File ID: 15M01310 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316575 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD35738 Cal ID: HPMS15-01-JUL-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	250	141	56.4	40 - 140	

LCS - Modified 03/06/2008
PDF File ID: 1534110
Report generated: 11/12/2009 08:48

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100717 Run Date: 11/07/2009 Sample ID: WG316114-03
Instrument ID: HPMS15 Run Time: 13:30 Prep Method: 3520C
File ID: 15M01312 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316582 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD31462 Cal ID: HPMS15-01-JUL-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	5.00	3.43	68.6	30 - 104	

LCS - Modified 03/06/2008
PDF File ID: 1534110
Report generated: 11/12/2009 08:48

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS15
Analyst: CAA
Workgroup: WG306031

Tune ID: WG306031-01
Run Date: 07/01/2009
Run Time: 07:40
File ID: 15M00379
Cal ID: HPMS15-01-JUL-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	47.5	50433	PASS
68.0	69.0	0	2.00	1.75	870	PASS
69.0	198	0	100	46.9	49824	PASS
70.0	69.0	0	2.00	0.751	374	PASS
127	198	40.0	60.0	54.6	57969	PASS
197	198	0	1.00	0.996	1057	PASS
198	198	100	100	100	106168	PASS
199	198	5.00	9.00	6.43	6830	PASS
275	198	10.0	30.0	22.5	23848	PASS
365	198	1.00	100	3.29	3488	PASS
441	443	0.0100	100	75.1	10606	PASS
442	198	40.0	100	73.2	77725	PASS
443	442	17.0	23.0	18.2	14122	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG306031-02	STD-CCV	01	07/01/2009 07:58	
WG306031-03	STD	01	07/01/2009 08:24	
WG306031-04	STD	01	07/01/2009 08:51	
WG306031-05	STD	01	07/01/2009 09:17	
WG306031-06	STD	01	07/01/2009 09:43	
WG306031-07	SSCV	01	07/01/2009 10:09	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538291
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS15
Analyst: CAA
Workgroup: WG316813

Tune ID: WG316813-01
Run Date: 11/07/2009
Run Time: 11:23
File ID: 15M01307
Cal ID: HPMS15-01-JUL-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	41.4	139140	PASS
68.0	69.0	0	2.00	1.70	2582	PASS
69.0	198	0	100	45.3	152106	PASS
70.0	69.0	0	2.00	0.359	546	PASS
127	198	40.0	60.0	56.8	190898	PASS
197	198	0	1.00	0.610	2049	PASS
198	198	100	100	100	336078	PASS
199	198	5.00	9.00	6.48	21774	PASS
275	198	10.0	30.0	22.6	76011	PASS
365	198	1.00	100	3.22	10831	PASS
441	443	0.0100	100	74.5	29384	PASS
442	198	40.0	100	61.5	206752	PASS
443	442	17.0	23.0	19.1	39456	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316813-02	CCV	01	11/07/2009 11:43	
WG316398-02	BLANK	01	11/07/2009 12:10	
WG316398-03	LCS	01	11/07/2009 12:36	
WG316114-02	BLANK	01	11/07/2009 13:03	
WG316114-03	LCS	01	11/07/2009 13:30	
L09100717-01	4013-S001-102809	01	11/07/2009 13:57	
WG316398-01	REF	01	11/07/2009 13:57	
L09100717-08	4014-S002-102809	01	11/07/2009 14:24	
L09100717-11	4011-S001-102809	01	11/07/2009 14:52	
L09100717-12	4011-S002-102809	01	11/07/2009 15:18	
L09100717-04	4013-S002-102809	01	11/07/2009 15:45	
L09100717-10	4014-GW-102809D	DL01	11/07/2009 17:58	
L09100717-09	4014-GW-102809	DL01	11/07/2009 18:52	
L09100717-05	4013-GW-102809	DL01	11/07/2009 19:44	
L09100717-06	4014-S001-102809	01	11/07/2009 20:11	
L09100717-07	4014-S001-102809D	01	11/07/2009 21:56	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538291
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100717
Instrument: HPMS15
Analyst: CAA
Workgroup: WG316841

Tune ID: WG316841-01
Run Date: 11/08/2009
Run Time: 11:07
File ID: 15M01335
Cal ID: HPMS15-01-JUL-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	45.1	112519	PASS
68.0	69.0	0	2.00	1.81	2142	PASS
69.0	198	0	100	47.4	118260	PASS
70.0	69.0	0	2.00	0.609	720	PASS
127	198	40.0	60.0	58.9	146813	PASS
197	198	0	1.00	0.756	1886	PASS
198	198	100	100	100	249408	PASS
199	198	5.00	9.00	6.81	16997	PASS
275	198	10.0	30.0	23.1	57584	PASS
365	198	1.00	100	3.06	7643	PASS
441	443	0.0100	100	72.5	19888	PASS
442	198	40.0	100	56.7	141339	PASS
443	442	17.0	23.0	19.4	27421	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316841-02	CCV	01	11/08/2009 11:32	
WG316114-01	REF	01	11/08/2009 18:43	
L09100717-13	4011-GW-102809	DL01	11/08/2009 19:10	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538291
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100717
Analytical Method: 8270C
ICAL Workgroup: WG306031
Instrument ID: HPMS15
Initial Calibration Date: 01-JUL-09 09:43
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
1,4-Dioxane		0.5491	2.69		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 1538278
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS15
Initial Calibration Date: 01-JUL-09 09:43
Column ID: F

Analyte	WG306031-02			WG306031-03			WG306031-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,4-Dioxane	5.00	251879.000	0.5703	10.0	640820.000	0.5424	7.50	434735.000	0.5393

INT_CAL - Modified 03/06/2008
PDF File ID: 1538278
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100717
Analytical Method: 8270C
Instrument ID: HPMS15
Initial Calibration Date: 01-JUL-09 09:43
Column ID: F

Analyte	WG306031-05			WG306031-06		
	CONC	RESP	RF	CONC	RESP	RF
1,4-Dioxane	2.50	129227.000	0.5583	1.00	50207.0000	0.5351

INT_CAL - Modified 03/06/2008
PDF File ID: 1538278
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100717 Run Date: 07/01/2009 Sample ID: WG306031-07
Instrument ID: HPMS15 Run Time: 10:09 Method: 8270C
File ID: 15M00385 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG306031 Cal ID: HPMS15 - 01-JUL-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		5000	5010	ug/L	0.550	0.100	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1538290
Report generated 11/12/2009 08:48

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/07/2009 Sample ID: WG316813-02
Instrument ID: HPMS15 Run Time: 11:43 Method: 8270C
File ID: 15M01308 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316582 Cal ID: HPMS15 - 01-JUL-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dioxane		5000	5030	ug/L	0.552	0.576	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1538292
Report generated 11/12/2009 08:49

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100717 Run Date: 11/08/2009 Sample ID: WG316841-02
Instrument ID: HPMS15 Run Time: 11:32 Method: 8270C
File ID: 15M01336 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316582 Cal ID: HPMS15 - 01-JUL-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dioxane		5000	5110	ug/L	0.561	2.20	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1538292
Report generated 11/12/2009 08:49

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L09100717
Instrument ID: HPMS15
Workgroup (AAB#): WG316575

CCV Number: WG316813-02
CAL ID: HPMS15-01-JUL-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1
WG316813-02	NA	NA	140787
Upper Limit	NA	NA	281574
Lower Limit	NA	NA	70394
L09100717-01	1.00	01	103158
L09100717-04	1.00	01	95851
L09100717-05	2.00	DL01	84112
L09100717-06	1.00	01	90503
L09100717-07	1.00	01	85754
L09100717-08	1.00	01	99105
L09100717-09	2.00	DL01	83908
L09100717-10	2.00	DL01	81672
L09100717-11	1.00	01	96976
L09100717-12	1.00	01	95375
WG316114-02	1.00	01	111920
WG316114-03	1.00	01	108891
WG316398-01	1.00	01	103158
WG316398-02	1.00	01	117984
WG316398-03	1.00	01	111887

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 1538293
Report generated 11/12/2009 08:49

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L09100717
Instrument ID: HPMS15
Workgroup (AAB#): WG316582

CCV Number: WG316841-02
CAL ID: HPMS15-01-JUL-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1
WG316841-02	NA	NA	105292
Upper Limit	NA	NA	210584
Lower Limit	NA	NA	52646
L09100717-13	2.00	DL01	67299
WG316114-01	1.00	01	67658

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 1538293
Report generated 11/12/2009 08:49

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L09100717
Instrument ID: HPMS15
Workgroup (AAB#): WG316575

CCV Number: WG316813-02
CAL ID: HPMS15-01-JUL-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1
WG316813-02	NA	NA	8.35
Upper Limit	NA	NA	8.85
Lower Limit	NA	NA	7.85
L09100717-01	1.00	01	8.353
L09100717-04	1.00	01	8.353
L09100717-05	2.00	DL01	8.353
L09100717-06	1.00	01	8.353
L09100717-07	1.00	01	8.353
L09100717-08	1.00	01	8.352
L09100717-09	2.00	DL01	8.353
L09100717-10	2.00	DL01	8.353
L09100717-11	1.00	01	8.353
L09100717-12	1.00	01	8.353
WG316114-02	1.00	01	8.353
WG316114-03	1.00	01	8.353
WG316398-01	1.00	01	8.353
WG316398-02	1.00	01	8.356
WG316398-03	1.00	01	8.353

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 1538294
Report generated 11/12/2009 08:49

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L09100717
Instrument ID: HPMS15
Workgroup (AAB#): WG316582

CCV Number: WG316841-02
CAL ID: HPMS15-01-JUL-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1
WG316841-02	NA	NA	8.35
Upper Limit	NA	NA	8.85
Lower Limit	NA	NA	7.85
L09100717-13	2.00	DL01	8.353
WG316114-01	1.00	01	8.352

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 1538294
Report generated 11/12/2009 08:49

2.3 General Chemistry Data

2.3.1 Percent Solids Data

2.3.1.1 Raw Data

LABORATORY REPORT

L09100717

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4013-S001-102809	L09100717-01	D2216-90	1	29-OCT-09
4013-S001-102809-MS	L09100717-02	D2216-90	1	29-OCT-09
4013-S001-102809-MSD	L09100717-03	D2216-90	1	29-OCT-09
4013-S002-102809	L09100717-04	D2216-90	1	29-OCT-09
4014-S001-102809	L09100717-06	D2216-90	1	29-OCT-09
4014-S001-102809D	L09100717-07	D2216-90	1	29-OCT-09
4014-S002-102809	L09100717-08	D2216-90	1	29-OCT-09
4011-S001-102809	L09100717-11	D2216-90	1	29-OCT-09
4011-S002-102809	L09100717-12	D2216-90	1	29-OCT-09

Microbac Laboratories Inc.

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	**L09100717-01**	PrePrep Method:	**NONE**	Instrument:	**BAL001**
Client ID:	**4013-S001-102809**	Prep Method:	**D2216-90**	Prep Date:	**11/06/2009 09:23**
Matrix:	**Soil**	Analytical Method:	**D2216-90**	Cal Date:	
Workgroup Number:	**WG316597**	Analyst:	**JDH**	Run Date:	**11/06/2009 09:23**
Collect Date:	**10/28/2009 09:45**	Dilution:	**1**	File ID:	**B1.316597-0101**
Sample Tag:	**01**	Units:	**weight %**		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	**10-02-6**	**82.1**		**1.00**	**1.00**

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-02	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4013-S001-102809-MS	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 09:45	Dilution:	1	File ID:	B1.316597-0102
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.1		1.00	1.00

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-03	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4013-S001-102809-MSD	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 09:45	Dilution:	1	File ID:	B1.316597-0103
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.1		1.00	1.00

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-04	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4013-S002-102809	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 10:30	Dilution:	1	File ID:	B1.316597-0104
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.8		1.00	1.00

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-06	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4014-S001-102809	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 12:55	Dilution:	1	File ID:	B1.316597-0105
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	81.2		1.00	1.00

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-07	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4014-S001-102809D	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 12:55	Dilution:	1	File ID:	B1.316597-0106
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	76.6		1.00	1.00

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	**L09100717-08**	PrePrep Method:	**NONE**	Instrument:	**BAL001**
Client ID:	**4014-S002-102809**	Prep Method:	**D2216-90**	Prep Date:	**11/06/2009 09:23**
Matrix:	**Soil**	Analytical Method:	**D2216-90**	Cal Date:	
Workgroup Number:	**WG316597**	Analyst:	**JDH**	Run Date:	**11/06/2009 09:23**
Collect Date:	**10/28/2009 13:20**	Dilution:	**1**	File ID:	**B1.316597-0107**
Sample Tag:	**01**	Units:	**weight %**		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	**10-02-6**	**90.6**		**1.00**	**1.00**

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-11	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4011-S001-102809	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 15:15	Dilution:	1	File ID:	B1.316597-0118
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	83.5		1.00	1.00

Report Number: **L09100717**
Report Date : **November 17, 2009**

Sample Number:	L09100717-12	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4011-S002-102809	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/28/2009 15:40	Dilution:	1	File ID:	B1.316597-0119
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.7		1.00	1.00

Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:	
WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

% Moisture = 100 - % Solids from 1.0 calculation

Microbac Laboratories Inc.

PERCENT SOLIDS

Workgroup (AAB#): WG316597 Analyst: JDH ADT(on): 11/05/2009 10:50

Method: D2216-90 Instrument: BAL001 ADT(off): 11/06/2009 09:23

SOP: K0003 Rev: 9

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L09100717-01	1.31	33.94	28.09			82.07	
L09100717-02	1.31	33.94	28.09			82.07	
L09100717-03	1.31	33.94	28.09			82.07	
L09100717-04	1.3	29.53	27.79			93.84	
L09100717-06	1.3	28.71	23.57			81.25	
L09100717-07	1.31	43.68	33.78			76.63	
L09100717-08	1.31	31.65	28.8			90.61	
L09100717-11	1.32	26.59	22.42			83.50	
L09100717-12	1.33	26.95	25.86			95.75	
L09100771-02	1.32	25.51	21.34			82.76	
L09100771-03	1.3	23.88	22			91.67	
L09100771-07	1.29	28.26	23.54			82.50	
L09100771-08	1.32	29.59	27.25			91.72	
L09100771-10	1.31	24.57	20.08			80.70	
L09100771-11	1.31	30.1	26.52			87.57	
L09110027-01	1.32	28.61	28.55			99.78	
L09110027-02	1.33	25.72	25.67			99.79	
L09110027-03	1.31	29.54	29.46			99.72	
L09110027-04	1.31	26.6	26.5			99.60	
L09110027-05	1.32	15.65	15.61			99.72	
L09110027-06	1.32	25.58	25.45			99.46	
L09110027-07	1.32	28.44	28.27			99.37	
L09110028-01	1.31	25.16	22.09			87.13	
L09110028-02	1.33	16.61	14.11			83.64	
L09110028-03	1.34	18.84	15.9			83.20	
L09110037-01	1.3	18.5	16.16			86.40	
L09110037-02	1.3	34.19	28.95			84.07	
L09110085-02	1.33	30.52	26.2			85.20	
L09110086-01	1.31	22.35	20.66			91.97	
L09110086-02	1.31	26.11	22.13			83.95	
L09110086-03	1.29	27.83	23.06			82.03	
WG316597-01	1.32	30.1	26.52			87.56	12.44
WG316597-02	1.3	28.77	25.11			86.68	13.32

Analyst: Justin Hasson

PERCENT_SOLIDS - Modified 04/24/2008

PDF ID: 1531309

Report generated: 11/06/2009 09:29

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
November 17, 2009

ADC – ANTHONY D. CANTER	AJF – AMANDA J. FICKIESEN	AJM – ANTHONY J. MOSSBURG
ALB – ANNIE L. BROWN	AML – ANTHONY M. LONG	BLG – BRENDA L. GREENWALT
BRG – BRENDA R. GREGORY	CAA – CASSIE A. AUGENSTEIN	CAF – CHERYL A. FLOWERS
CAH – CHARLES A. HALL	CEB – CHAD E. BARNES	CLC – CHRYS L. CRAWFORD
CLW – CHARISSA L. WINTERS	CPD – CHAD P. DAVIS	CSH – CHRIS S. HILL
DDE – DEBRA D. ELLIOTT	DEL – DON E. LIGHTFRITZ	DEV – DAVID E. VANDENBERG
DGB – DOUGLAS G. BUTCHER	DIH – DEANNA I. HESSON	DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE	DLR – DIANNA L. RAUCH	DR – DEANNA ROBERTS
ECL – ERIC C. LAWSON	EDA – ERIN D. AGEE	ERP – ERIN R. PORTER
FJB – FRANCES J. BOLDEN	HAV – HEMA VILASAGAR	HJR – HOLLY J. REED
JBK – JEREMY B. KINNEY	JDH – JUSTIN D. HESSON	JKT – JANE K. THOMPSON
JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES	JYH – JI Y. HU
KEB – KATHRYN E. BARNES	KHR – KIM H. RHODES	KRA – KATHY R. ALBERTSON
LKN – LINDA K. NEDEFF	LSB – LESLIE S. BUCINA	MDA – MIKE D. ALBERTSON
MDC – MICHAEL D. COCHRAN	MES – MARY E. SCHILLING	MMB – MAREN M. BEERY
MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON	NPM – NATHANIEL P. MILLER
PDM – PIERCE D. MORRIS	RAH – ROY A. HALSTEAD	RB – ROBERT BUCHANAN
REK – ROBERT E. KYER	RLK – ROBIN L. KLINGER	RWC – RODNEY W. CAMPBELL
SDH – SHANA D. HINYARD	SLM – STEPHANIE L. MOSSBURG	SLP – SHERI L. PFALZGRAF
TIP – TAE I. PARRISH	TMB – TIFFANY M. BAILEY	TMM – TAMMY M. MORRIS
VC – VICKI COLLIER	WTD – WADE T. DELONG	

Microbac Laboratories Inc.
List of Valid Qualifiers
November 17, 2009

Qualkey: CLP

Qualifier	Description
E	Estimated concentration due to interference
E	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
U	Not detected at or above the reporting limit (RL).

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

COC No. A 13068

158 Starlite Drive
Marietta, OH 45750

Microbac

Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: CH2M HILL

Project Contact: Paul Weber | Contact Phone #: (919)760-1778

Turn Around Requirements: Standard | Location: SCF

Project ID: Mainland Pre Design Investigation PN 383505.B5.FI

Sampler (print): Brian Wachter | Signature: Brian Wachter

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	VOCs	SVOCs	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
4013-S001-102809		X	10/28/09	0945	S	4		X	X		12.5-13'
4013-S001-102809MS		X	10/28/09	0945	S	4		X	X		↓
4013-S001-102809MSD		X	10/28/09	0945	S	4		X	X		
4013-S002-102809		X	10/28/09	1030	S	4		X	X		27.5-28'
4013-GW-102809		X	10/28/09	1220	W	4		X	X		Only one SVOC bottle, 36-40'
4014-S001-102809		X	10/28/09	1255	S	4		X	X		11-11.5'
4014-S001-102809D		X	10/28/09	1255	S	4		X	X		↓
4014-S002-102809		X	10/28/09	1320	S	4		X	X		26.5-27'
4014-GW-102809		X	10/28/09	1400	W	5		X	X		36-40'
4014-GW-102809D		X	10/28/09	1400	W	5		X	X		↓
4011-S001-102809		X	10/28/09	1515	S	4		X	X		14-14.5'
4011-S002-102809		X	10/28/09	1540	S	4		X	X		23.5-24'
4011-GW-102809		X	10/28/09	1615	W	5		X	X		36-40'
TB01-102809		X	10/28/09	—	W	2		X			

10/28/09

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Brian Wachter	10/28/09	1830			
Don Lightfritz	10-29-09	1135	Don Lightfritz	10-29-09	1000

Microbac OVD
Received: 10/29/2009 11:43
By: DON LIGHTFRITZ
221000002627

Don E Lightfritz

Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page _____ of _____

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1000002627

COOLER INSPECTION

Received: 10/29/2009 11:43
Delivery Method: Courier
Opened By: Don Lightfritz
Comments:

Login(s): L09100717

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0013613	H	3.0		COC13068	
001000385	H	3.0		COC13068	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were correct perservatives used? (water only)
9	NA	Were pH ranges acceptable? (voa's excluded)
10	Yes	Were VOA samples free of headspace (<6mm)?
11	Yes	Were samples received within EPA hold times?

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-01	629229	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:26	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-01	629230	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT

Samplenum	Container ID	Products
L09100717-01	629231	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:10	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:12	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-02	629232	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-02	629233	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT

Samplenum	Container ID	Products
L09100717-02	629234	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-03	629235	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-03	629236	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT

Samplenum	Container ID	Products
L09100717-03	629237	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-04	629238	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-04	629239	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT

Samplenum	Container ID	Products
L09100717-04	629240	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:10	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:12	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-05	629241	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:49	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:49	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:49	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Samplenum	Container ID	Products
L09100717-05	629242	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:36	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-06	629243	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-06	629244	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT

Samplenum	Container ID	Products
L09100717-06	629245	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:10	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-07	629246	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-07	629247	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT

Samplenum	Container ID	Products
L09100717-07	629248	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:10	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-08	629249	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-08	629250	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT

Samplenum	Container ID	Products
L09100717-08	629251	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:53	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-09	629252	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:49	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER		29-OCT-2009 14:23	JKT	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Samplenum	Container ID	Products
L09100717-09	629253	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:34	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

Sample extract/digestate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	STORE	W1	A1	29-OCT-2009 14:57	RLK	RLK

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-10	629254	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Samplenum	Container ID	Products
L09100717-10	629255	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:34	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

Sample extract/digestate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	STORE	W1	A1	29-OCT-2009 14:56	RLK	RLK

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-11	629256	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-11	629257	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:09	MRT	JKT

Samplenum	Container ID	Products
L09100717-11	629258	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:10	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-12	629259	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT
3	STORE	VOAY	A2	12-NOV-2009 09:27	JKT	MRT

Samplenum	Container ID	Products
L09100717-12	629260	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	VOAY	29-OCT-2009 15:08	MRT	JKT

Samplenum	Container ID	Products
L09100717-12	629261	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:10	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:17	BLG	BLG

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-13	629262	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

Samplenum	Container ID	Products
L09100717-13	629263	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:34	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

Sample extract/digestate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	29-OCT-2009 14:23	JKT	
2	STORE	W1	A1	02-NOV-2009 16:29	JKT	JKT

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100717
Account: 2736
Project: 2736.012
Samples: 14
Due Date: 12-NOV-2009

Samplenum	Container ID	Products
L09100717-14	629264	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	29-OCT-2009 14:23	JKT	
2	ANALYZ	V1	ORG4	30-OCT-2009 09:50	MRT	RLK
3	STORE	ORG4	A2	12-NOV-2009 09:28	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

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Laboratory Report Number: L09100771

Client: Shane Lowe, CH2MHILL, Richmond Heights, MO, 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

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This report was reviewed on November 17, 2009.

Kathy Albertson - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on November 17, 2009.

David Vandenberg - Managing Director

State of origin: West Virginia
Accrediting authority: Department of Environmental Protection ID:361
QAPP: DOW-WVO
This report contains a total of 335 pages.

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Microbac Laboratories, Inc.
Ohio Valley Division
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Marietta, OH 45750

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Microbac REPORT L09100771
PREPARED FOR CH2MHILL, Inc
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L09100771

CHAIN OF CUSTODY: The chain of custody number was 13067.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperatures were 3 and 2 degrees C.

SAMPLE MANAGEMENT: One trip blank VOC vial was received broken.

L09100771-03	4012-S002-102909
L09100771-04	4012-GW-102909
L09100771-05	4012-GW-102909-MS
L09100771-06	4012-GW-102909-MSD
L09100771-01	TB-1-102909
L09100771-02	4012-S001-102909
L09100771-07	4015-S001-102909
L09100771-08	4015-S002-102909
L09100771-09	4015-GW-102909
L09100771-10	4010-S001-102909
L09100771-11	4010-S002-102909
L09100771-12	4010-GW-102909

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: KRA

Approved: 03-NOV-09
Kathy Albertson

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Loginnum: L09100771

Department: Volatiles

Analyst: Mary Schilling

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Samples were collected via 5035 preserved by freezing. Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All analytes met the ICV acceptance criteria, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG313952-12	HPMS8	10/08/2009	VINYL ACETATE	REG		(+)27.2	*	25
WG316150-12	HPMS9	11/02/2009	VINYL ACETATE	REG		(-)28.2	*	25

Continuing Calibration and Tune: All analytes met the CCV acceptance criteria for % drift, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG316103-02	HPMS8	11/01/2009	VINYL ACETATE	REG		(+)49.1	*	20
WG316886-02	HPMS9	11/09/2009	VINYL ACETATE	REG		(-)20.6	*	20

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All analytes met the MS/MSD acceptance criteria for % recovery and relative percent difference, except those listed below. An astrisk (*) denotes that the value is relative percent difference.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
L09100771-05	HPMS8	11/01/2009	1,4-DIOXANE	REG		59.5	70	130
L09100771-06	HPMS8	11/01/2009	1,4-DIOXANE	REG		28.6	*	20

1,4-Dioxane was acceptable in the associated LCS.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: The ICV and CCV outlier was acceptbale in the associated LCSs.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

LABORATORY REPORT

L09100771

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
TB-1-102909	L09100771-01	8260B	1	30-OCT-09
4012-S001-102909	L09100771-02	8260B	1	30-OCT-09
4012-S002-102909	L09100771-03	8260B	1	30-OCT-09
4012-GW-102909	L09100771-04	8260B	1	30-OCT-09
4012-GW-102909-MS	L09100771-05	8260B	1	30-OCT-09
4012-GW-102909-MSD	L09100771-06	8260B	1	30-OCT-09
4015-S001-102909	L09100771-07	8260B	1	30-OCT-09
4015-S002-102909	L09100771-08	8260B	1	30-OCT-09
4015-GW-102909	L09100771-09	8260B	1	30-OCT-09
4010-S001-102909	L09100771-10	8260B	1	30-OCT-09
4010-S002-102909	L09100771-11	8260B	1	30-OCT-09
4010-GW-102909	L09100771-12	8260B	1	30-OCT-09

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-01**
Client ID: **TB-1-102909**
Matrix: **Water**
Workgroup Number: **WG316104**
Collect Date: **10/29/2009 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **11/01/2009 18:09**
Cal Date: **10/08/2009 17:12**
Run Date: **11/01/2009 18:09**
File ID: **8M357629**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	94.1	76	114	
4-Bromofluorobenzene	96.8	86	115	
Dibromofluoromethane	104	85	115	
Toluene-d8	103	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-02	PrePrep Method:	NONE	Instrument:	HPMS9
Client ID:	4012-S001-102909	Prep Method:	5030C/5035A	Prep Date:	10/30/2009 16:06
Matrix:	Soil	Analytical Method:	8260B	Cal Date:	11/02/2009 20:52
Workgroup Number:	WG316889	Analyst:	TMB	Run Date:	11/09/2009 19:42
Collect Date:	10/29/2009 08:45	Dilution:	1	File ID:	9M73465
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.8

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	4.79	0.479
1,1,2,2-Tetrachloroethane	79-34-5		U	4.79	0.479
1,1,2-Trichloroethane	79-00-5		U	4.79	0.479
1,1-Dichloroethane	75-34-3		U	4.79	0.957
1,1-Dichloroethene	75-35-4		U	4.79	0.479
1,2,4-Trichlorobenzene	120-82-1		U	4.79	0.479
1,2-Dichlorobenzene	95-50-1		U	4.79	0.479
1,2-Dichloroethane	107-06-2		U	4.79	0.479
1,2-Dichloropropane	78-87-5		U	4.79	0.479
1,3-Dichlorobenzene	541-73-1		U	4.79	0.479
1,4-Dichlorobenzene	106-46-7		U	4.79	0.479
1,4-Dioxane	123-91-1		U	1630	47.9
2-Butanone	78-93-3		U	23.9	2.39
2-Hexanone	591-78-6		U	9.57	2.39
4-Methyl-2-pentanone	108-10-1		U	9.57	2.39
Acetone	67-64-1		U	95.7	4.79
Acrylonitrile	107-13-1		U	95.7	2.39
Benzene	71-43-2		U	4.79	0.479
Bromodichloromethane	75-27-4		U	4.79	0.479
Bromoform	75-25-2		U	4.79	0.479
Bromomethane	74-83-9		U	9.57	0.957
Carbon disulfide	75-15-0		U	4.79	0.479
Carbon tetrachloride	56-23-5		U	4.79	0.479
Chlorobenzene	108-90-7		U	4.79	0.479
Dibromochloromethane	124-48-1		U	4.79	0.479
Chloroethane	75-00-3		U	9.57	0.957
Chloroform	67-66-3		U	4.79	0.479
Chloromethane	74-87-3		U	9.57	1.91
cis-1,2-Dichloroethene	156-59-2		U	4.79	0.479
cis-1,3-Dichloropropene	10061-01-5		U	4.79	0.479
Ethylbenzene	100-41-4		U	4.79	0.479
Methylene chloride	75-09-2		U	4.79	0.957
Methyltert-butyl ether	1634-04-4		U	9.57	0.479
Styrene	100-42-5		U	4.79	0.479
Tetrachloroethene	127-18-4		U	4.79	0.479
Toluene	108-88-3		U	4.79	0.479
trans-1,2-Dichloroethene	156-60-5		U	4.79	0.479
trans-1,3-Dichloropropene	10061-02-6		U	4.79	0.479
Trichloroethene	79-01-6		U	4.79	0.479
Vinyl acetate	108-05-4		U	9.57	0.957
Vinyl chloride	75-01-4		U	9.57	0.957
Xylenes	1330-20-7		U	9.57	0.479

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	98.5	70	121	
4-Bromofluorobenzene	111	59	113	
Dibromofluoromethane	100	65	135	
Toluene-d8	106	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-03**
Client ID: **4012-S002-102909**
Matrix: **Soil**
Workgroup Number: **WG316889**
Collect Date: **10/29/2009 09:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C/5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/30/2009 16:09**
Cal Date: **11/02/2009 20:52**
Run Date: **11/09/2009 20:13**
File ID: **9M73466**
Percent Solid: **91.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	6.25	0.625
1,1,2,2-Tetrachloroethane	79-34-5		U	6.25	0.625
1,1,2-Trichloroethane	79-00-5		U	6.25	0.625
1,1-Dichloroethane	75-34-3		U	6.25	1.25
1,1-Dichloroethene	75-35-4		U	6.25	0.625
1,2,4-Trichlorobenzene	120-82-1		U	6.25	0.625
1,2-Dichlorobenzene	95-50-1		U	6.25	0.625
1,2-Dichloroethane	107-06-2		U	6.25	0.625
1,2-Dichloropropane	78-87-5		U	6.25	0.625
1,3-Dichlorobenzene	541-73-1		U	6.25	0.625
1,4-Dichlorobenzene	106-46-7		U	6.25	0.625
1,4-Dioxane	123-91-1		U	2130	62.5
2-Butanone	78-93-3		U	31.3	3.13
2-Hexanone	591-78-6		U	12.5	3.13
4-Methyl-2-pentanone	108-10-1		U	12.5	3.13
Acetone	67-64-1		U	125	6.25
Acrylonitrile	107-13-1		U	125	3.13
Benzene	71-43-2		U	6.25	0.625
Bromodichloromethane	75-27-4		U	6.25	0.625
Bromoform	75-25-2		U	6.25	0.625
Bromomethane	74-83-9		U	12.5	1.25
Carbon disulfide	75-15-0		U	6.25	0.625
Carbon tetrachloride	56-23-5		U	6.25	0.625
Chlorobenzene	108-90-7		U	6.25	0.625
Dibromochloromethane	124-48-1		U	6.25	0.625
Chloroethane	75-00-3		U	12.5	1.25
Chloroform	67-66-3		U	6.25	0.625
Chloromethane	74-87-3		U	12.5	2.50
cis-1,2-Dichloroethene	156-59-2		U	6.25	0.625
cis-1,3-Dichloropropene	10061-01-5		U	6.25	0.625
Ethylbenzene	100-41-4		U	6.25	0.625
Methylene chloride	75-09-2		U	6.25	1.25
Methyltert-butyl ether	1634-04-4		U	12.5	0.625
Styrene	100-42-5		U	6.25	0.625
Tetrachloroethene	127-18-4		U	6.25	0.625
Toluene	108-88-3		U	6.25	0.625
trans-1,2-Dichloroethene	156-60-5		U	6.25	0.625
trans-1,3-Dichloropropene	10061-02-6		U	6.25	0.625
Trichloroethene	79-01-6	9.71		6.25	0.625
Vinyl acetate	108-05-4		U	12.5	1.25
Vinyl chloride	75-01-4		U	12.5	1.25
Xylenes	1330-20-7		U	12.5	0.625

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	95.3	70	121	
4-Bromofluorobenzene	109	59	113	
Dibromofluoromethane	98.2	65	135	
Toluene-d8	103	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-04**
Client ID: **4012-GW-102909**
Matrix: **Water**
Workgroup Number: **WG316104**
Collect Date: **10/29/2009 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **11/01/2009 21:21**
Cal Date: **10/08/2009 17:12**
Run Date: **11/01/2009 21:21**
File ID: **8M357635**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	92.9	76	114	
4-Bromofluorobenzene	98.2	86	115	
Dibromofluoromethane	102	85	115	
Toluene-d8	102	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-05**
Client ID: **4012-GW-102909-MS**
Matrix: **Water**
Workgroup Number: **WG316104**
Collect Date: **10/29/2009 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **11/01/2009 21:53**
Cal Date: **10/08/2009 17:12**
Run Date: **11/01/2009 21:53**
File ID: **8M357636**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6	18.6		1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5	18.2		1.00	0.125
1,1,2-Trichloroethane	79-00-5	18.4		1.00	0.250
1,1-Dichloroethane	75-34-3	18.7		1.00	0.125
1,1-Dichloroethene	75-35-4	18.1		1.00	0.500
1,2,4-Trichlorobenzene	120-82-1	15.8		1.00	0.200
1,2-Dichlorobenzene	95-50-1	16.5		1.00	0.125
1,2-Dichloroethane	107-06-2	18.7		1.00	0.250
1,2-Dichloropropane	78-87-5	18.3		1.00	0.200
1,3-Dichlorobenzene	541-73-1	16.5		1.00	0.250
1,4-Dichlorobenzene	106-46-7	16.1		1.00	0.125
1,4-Dioxane	123-91-1	119		100	50.0
2-Butanone	78-93-3	20.5		10.0	2.50
2-Hexanone	591-78-6	19.1		5.00	2.50
4-Methyl-2-pentanone	108-10-1	18.7		5.00	2.50
Acetone	67-64-1	22.5	J	25.0	2.50
Acrylonitrile	107-13-1	19.8		10.0	2.50
Benzene	71-43-2	18.4		1.00	0.125
Bromodichloromethane	75-27-4	19.5		1.00	0.250
Bromoform	75-25-2	19.5		1.00	0.500
Bromomethane	74-83-9	14.9		1.00	0.500
Carbon disulfide	75-15-0	15.1		1.00	0.500
Carbon tetrachloride	56-23-5	19.2		1.00	0.250
Chlorobenzene	108-90-7	17.2		1.00	0.125
Chlorodibromomethane	124-48-1	19.1		1.00	0.250
Chloroethane	75-00-3	17.1		1.00	0.500
Chloroform	67-66-3	19.0		1.00	0.125
Chloromethane	74-87-3	17.3		1.00	0.250
cis-1,2-Dichloroethene	156-59-2	19.2		1.00	0.250
cis-1,3-Dichloropropene	10061-01-5	18.2		1.00	0.250
Ethylbenzene	100-41-4	16.6		1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4	19.7		5.00	0.500
Methylene chloride	75-09-2	17.2		5.00	0.250
Styrene	100-42-5	16.7		1.00	0.125
Tetrachloroethene	127-18-4	17.9		1.00	0.250
Toluene	108-88-3	17.3		1.00	0.250
trans-1,2-Dichloroethene	156-60-5	18.1		1.00	0.250
trans-1,3-Dichloropropene	10061-02-6	15.3		1.00	0.500
Trichloroethene	79-01-6	18.3		1.00	0.250
Vinyl acetate	108-05-4	19.4		10.0	2.50
Vinyl chloride	75-01-4	20.8		1.00	0.250
Xylenes	1330-20-7	50.7		5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	98.3	76	114	
4-Bromofluorobenzene	92.6	86	115	
Dibromofluoromethane	104	85	115	
Toluene-d8	98.7	88	110	

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-06**
Client ID: **4012-GW-102909-MSD**
Matrix: **Water**
Workgroup Number: **WG316104**
Collect Date: **10/29/2009 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **11/01/2009 22:25**
Cal Date: **10/08/2009 17:12**
Run Date: **11/01/2009 22:25**
File ID: **8M357637**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6	17.9		1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5	17.7		1.00	0.125
1,1,2-Trichloroethane	79-00-5	18.5		1.00	0.250
1,1-Dichloroethane	75-34-3	19.1		1.00	0.125
1,1-Dichloroethene	75-35-4	16.8		1.00	0.500
1,2,4-Trichlorobenzene	120-82-1	16.2		1.00	0.200
1,2-Dichlorobenzene	95-50-1	16.7		1.00	0.125
1,2-Dichloroethane	107-06-2	19.0		1.00	0.250
1,2-Dichloropropane	78-87-5	18.4		1.00	0.200
1,3-Dichlorobenzene	541-73-1	16.7		1.00	0.250
1,4-Dichlorobenzene	106-46-7	16.2		1.00	0.125
1,4-Dioxane	123-91-1	159		100	50.0
2-Butanone	78-93-3	19.7		10.0	2.50
2-Hexanone	591-78-6	19.2		5.00	2.50
4-Methyl-2-pentanone	108-10-1	19.4		5.00	2.50
Acetone	67-64-1	23.4	J	25.0	2.50
Acrylonitrile	107-13-1	19.4		10.0	2.50
Benzene	71-43-2	18.2		1.00	0.125
Bromodichloromethane	75-27-4	19.7		1.00	0.250
Bromoform	75-25-2	19.7		1.00	0.500
Bromomethane	74-83-9	14.9		1.00	0.500
Carbon disulfide	75-15-0	15.5		1.00	0.500
Carbon tetrachloride	56-23-5	17.8		1.00	0.250
Chlorobenzene	108-90-7	17.1		1.00	0.125
Chlorodibromomethane	124-48-1	19.6		1.00	0.250
Chloroethane	75-00-3	16.7		1.00	0.500
Chloroform	67-66-3	18.9		1.00	0.125
Chloromethane	74-87-3	16.7		1.00	0.250
cis-1,2-Dichloroethene	156-59-2	19.0		1.00	0.250
cis-1,3-Dichloropropene	10061-01-5	18.0		1.00	0.250
Ethylbenzene	100-41-4	16.6		1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4	20.6		5.00	0.500
Methylene chloride	75-09-2	17.3		5.00	0.250
Styrene	100-42-5	16.9		1.00	0.125
Tetrachloroethene	127-18-4	17.5		1.00	0.250
Toluene	108-88-3	17.1		1.00	0.250
trans-1,2-Dichloroethene	156-60-5	17.8		1.00	0.250
trans-1,3-Dichloropropene	10061-02-6	15.3		1.00	0.500
Trichloroethene	79-01-6	18.6		1.00	0.250
Vinyl acetate	108-05-4	20.1		10.0	2.50
Vinyl chloride	75-01-4	18.2		1.00	0.250
Xylenes	1330-20-7	50.0		5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	97.8	76	114	
4-Bromofluorobenzene	90.7	86	115	
Dibromofluoromethane	104	85	115	
Toluene-d8	98.5	88	110	

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-07**
Client ID: **4015-S001-102909**
Matrix: **Soil**
Workgroup Number: **WG316889**
Collect Date: **10/29/2009 11:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C/5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/30/2009 16:11**
Cal Date: **11/02/2009 20:52**
Run Date: **11/09/2009 20:44**
File ID: **9M73467**
Percent Solid: **82.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.47	0.547
1,1,2,2-Tetrachloroethane	79-34-5		U	5.47	0.547
1,1,2-Trichloroethane	79-00-5		U	5.47	0.547
1,1-Dichloroethane	75-34-3		U	5.47	1.09
1,1-Dichloroethene	75-35-4		U	5.47	0.547
1,2,4-Trichlorobenzene	120-82-1		U	5.47	0.547
1,2-Dichlorobenzene	95-50-1		U	5.47	0.547
1,2-Dichloroethane	107-06-2		U	5.47	0.547
1,2-Dichloropropane	78-87-5		U	5.47	0.547
1,3-Dichlorobenzene	541-73-1		U	5.47	0.547
1,4-Dichlorobenzene	106-46-7		U	5.47	0.547
1,4-Dioxane	123-91-1		U	1860	54.7
2-Butanone	78-93-3		U	27.3	2.73
2-Hexanone	591-78-6		U	10.9	2.73
4-Methyl-2-pentanone	108-10-1		U	10.9	2.73
Acetone	67-64-1		U	109	5.47
Acrylonitrile	107-13-1		U	109	2.73
Benzene	71-43-2		U	5.47	0.547
Bromodichloromethane	75-27-4		U	5.47	0.547
Bromoform	75-25-2		U	5.47	0.547
Bromomethane	74-83-9		U	10.9	1.09
Carbon disulfide	75-15-0		U	5.47	0.547
Carbon tetrachloride	56-23-5		U	5.47	0.547
Chlorobenzene	108-90-7		U	5.47	0.547
Dibromochloromethane	124-48-1		U	5.47	0.547
Chloroethane	75-00-3		U	10.9	1.09
Chloroform	67-66-3		U	5.47	0.547
Chloromethane	74-87-3		U	10.9	2.19
cis-1,2-Dichloroethene	156-59-2		U	5.47	0.547
cis-1,3-Dichloropropene	10061-01-5		U	5.47	0.547
Ethylbenzene	100-41-4		U	5.47	0.547
Methylene chloride	75-09-2		U	5.47	1.09
Methyltert-butyl ether	1634-04-4		U	10.9	0.547
Styrene	100-42-5		U	5.47	0.547
Tetrachloroethene	127-18-4		U	5.47	0.547
Toluene	108-88-3		U	5.47	0.547
trans-1,2-Dichloroethene	156-60-5		U	5.47	0.547
trans-1,3-Dichloropropene	10061-02-6		U	5.47	0.547
Trichloroethene	79-01-6		U	5.47	0.547
Vinyl acetate	108-05-4		U	10.9	1.09
Vinyl chloride	75-01-4		U	10.9	1.09
Xylenes	1330-20-7		U	10.9	0.547

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	97.9	70	121	
4-Bromofluorobenzene	109	59	113	
Dibromofluoromethane	100	65	135	
Toluene-d8	105	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-08**
Client ID: **4015-S002-102909**
Matrix: **Soil**
Workgroup Number: **WG316889**
Collect Date: **10/29/2009 11:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C/5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/30/2009 16:16**
Cal Date: **11/02/2009 20:52**
Run Date: **11/09/2009 21:15**
File ID: **9M73468**
Percent Solid: **91.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	4.48	0.448
1,1,2,2-Tetrachloroethane	79-34-5		U	4.48	0.448
1,1,2-Trichloroethane	79-00-5		U	4.48	0.448
1,1-Dichloroethane	75-34-3		U	4.48	0.897
1,1-Dichloroethene	75-35-4		U	4.48	0.448
1,2,4-Trichlorobenzene	120-82-1		U	4.48	0.448
1,2-Dichlorobenzene	95-50-1		U	4.48	0.448
1,2-Dichloroethane	107-06-2		U	4.48	0.448
1,2-Dichloropropane	78-87-5		U	4.48	0.448
1,3-Dichlorobenzene	541-73-1		U	4.48	0.448
1,4-Dichlorobenzene	106-46-7		U	4.48	0.448
1,4-Dioxane	123-91-1		U	1520	44.8
2-Butanone	78-93-3		U	22.4	2.24
2-Hexanone	591-78-6		U	8.97	2.24
4-Methyl-2-pentanone	108-10-1		U	8.97	2.24
Acetone	67-64-1		U	89.7	4.48
Acrylonitrile	107-13-1		U	89.7	2.24
Benzene	71-43-2		U	4.48	0.448
Bromodichloromethane	75-27-4		U	4.48	0.448
Bromoform	75-25-2		U	4.48	0.448
Bromomethane	74-83-9		U	8.97	0.897
Carbon disulfide	75-15-0		U	4.48	0.448
Carbon tetrachloride	56-23-5		U	4.48	0.448
Chlorobenzene	108-90-7		U	4.48	0.448
Dibromochloromethane	124-48-1		U	4.48	0.448
Chloroethane	75-00-3		U	8.97	0.897
Chloroform	67-66-3		U	4.48	0.448
Chloromethane	74-87-3		U	8.97	1.79
cis-1,2-Dichloroethene	156-59-2		U	4.48	0.448
cis-1,3-Dichloropropene	10061-01-5		U	4.48	0.448
Ethylbenzene	100-41-4		U	4.48	0.448
Methylene chloride	75-09-2		U	4.48	0.897
Methyltert-butyl ether	1634-04-4		U	8.97	0.448
Styrene	100-42-5		U	4.48	0.448
Tetrachloroethene	127-18-4		U	4.48	0.448
Toluene	108-88-3		U	4.48	0.448
trans-1,2-Dichloroethene	156-60-5		U	4.48	0.448
trans-1,3-Dichloropropene	10061-02-6		U	4.48	0.448
Trichloroethene	79-01-6		U	4.48	0.448
Vinyl acetate	108-05-4		U	8.97	0.897
Vinyl chloride	75-01-4		U	8.97	0.897
Xylenes	1330-20-7		U	8.97	0.448

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	91.9	70	121	
4-Bromofluorobenzene	111	59	113	
Dibromofluoromethane	97.8	65	135	
Toluene-d8	104	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-09**
Client ID: **4015-GW-102909**
Matrix: **Water**
Workgroup Number: **WG316104**
Collect Date: **10/29/2009 12:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **11/01/2009 22:58**
Cal Date: **10/08/2009 17:12**
Run Date: **11/01/2009 22:58**
File ID: **8M357638**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	96.9	76	114	
4-Bromofluorobenzene	98.5	86	115	
Dibromofluoromethane	105	85	115	
Toluene-d8	103	88	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-10**
Client ID: **4010-S001-102909**
Matrix: **Soil**
Workgroup Number: **WG316889**
Collect Date: **10/29/2009 14:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C/5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/30/2009 16:18**
Cal Date: **11/02/2009 20:52**
Run Date: **11/09/2009 21:46**
File ID: **9M73469**
Percent Solid: **80.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	5.30	0.530
1,1,2,2-Tetrachloroethane	79-34-5		U	5.30	0.530
1,1,2-Trichloroethane	79-00-5		U	5.30	0.530
1,1-Dichloroethane	75-34-3		U	5.30	1.06
1,1-Dichloroethene	75-35-4		U	5.30	0.530
1,2,4-Trichlorobenzene	120-82-1		U	5.30	0.530
1,2-Dichlorobenzene	95-50-1		U	5.30	0.530
1,2-Dichloroethane	107-06-2		U	5.30	0.530
1,2-Dichloropropane	78-87-5		U	5.30	0.530
1,3-Dichlorobenzene	541-73-1		U	5.30	0.530
1,4-Dichlorobenzene	106-46-7		U	5.30	0.530
1,4-Dioxane	123-91-1		U	1800	53.0
2-Butanone	78-93-3		U	26.5	2.65
2-Hexanone	591-78-6		U	10.6	2.65
4-Methyl-2-pentanone	108-10-1		U	10.6	2.65
Acetone	67-64-1		U	106	5.30
Acrylonitrile	107-13-1		U	106	2.65
Benzene	71-43-2		U	5.30	0.530
Bromodichloromethane	75-27-4		U	5.30	0.530
Bromoform	75-25-2		U	5.30	0.530
Bromomethane	74-83-9		U	10.6	1.06
Carbon disulfide	75-15-0		U	5.30	0.530
Carbon tetrachloride	56-23-5		U	5.30	0.530
Chlorobenzene	108-90-7		U	5.30	0.530
Dibromochloromethane	124-48-1		U	5.30	0.530
Chloroethane	75-00-3		U	10.6	1.06
Chloroform	67-66-3		U	5.30	0.530
Chloromethane	74-87-3		U	10.6	2.12
cis-1,2-Dichloroethene	156-59-2		U	5.30	0.530
cis-1,3-Dichloropropene	10061-01-5		U	5.30	0.530
Ethylbenzene	100-41-4		U	5.30	0.530
Methylene chloride	75-09-2		U	5.30	1.06
Methyltert-butyl ether	1634-04-4		U	10.6	0.530
Styrene	100-42-5		U	5.30	0.530
Tetrachloroethene	127-18-4		U	5.30	0.530
Toluene	108-88-3		U	5.30	0.530
trans-1,2-Dichloroethene	156-60-5		U	5.30	0.530
trans-1,3-Dichloropropene	10061-02-6		U	5.30	0.530
Trichloroethene	79-01-6	12.5		5.30	0.530
Vinyl acetate	108-05-4		U	10.6	1.06
Vinyl chloride	75-01-4		U	10.6	1.06
Xylenes	1330-20-7		U	10.6	0.530

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	99.9	70	121	
4-Bromofluorobenzene	111	59	113	
Dibromofluoromethane	103	65	135	
Toluene-d8	107	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-11**
Client ID: **4010-S002-102909**
Matrix: **Soil**
Workgroup Number: **WG316889**
Collect Date: **10/29/2009 14:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C/5035A**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS9**
Prep Date: **10/30/2009 16:20**
Cal Date: **11/02/2009 20:52**
Run Date: **11/09/2009 22:17**
File ID: **9M73470**
Percent Solid: **87.6**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	4.94	0.494
1,1,2,2-Tetrachloroethane	79-34-5		U	4.94	0.494
1,1,2-Trichloroethane	79-00-5		U	4.94	0.494
1,1-Dichloroethane	75-34-3		U	4.94	0.988
1,1-Dichloroethene	75-35-4		U	4.94	0.494
1,2,4-Trichlorobenzene	120-82-1		U	4.94	0.494
1,2-Dichlorobenzene	95-50-1		U	4.94	0.494
1,2-Dichloroethane	107-06-2		U	4.94	0.494
1,2-Dichloropropane	78-87-5		U	4.94	0.494
1,3-Dichlorobenzene	541-73-1		U	4.94	0.494
1,4-Dichlorobenzene	106-46-7		U	4.94	0.494
1,4-Dioxane	123-91-1		U	1680	49.4
2-Butanone	78-93-3		U	24.7	2.47
2-Hexanone	591-78-6		U	9.88	2.47
4-Methyl-2-pentanone	108-10-1		U	9.88	2.47
Acetone	67-64-1		U	98.8	4.94
Acrylonitrile	107-13-1		U	98.8	2.47
Benzene	71-43-2		U	4.94	0.494
Bromodichloromethane	75-27-4		U	4.94	0.494
Bromoform	75-25-2		U	4.94	0.494
Bromomethane	74-83-9		U	9.88	0.988
Carbon disulfide	75-15-0		U	4.94	0.494
Carbon tetrachloride	56-23-5		U	4.94	0.494
Chlorobenzene	108-90-7		U	4.94	0.494
Dibromochloromethane	124-48-1		U	4.94	0.494
Chloroethane	75-00-3		U	9.88	0.988
Chloroform	67-66-3		U	4.94	0.494
Chloromethane	74-87-3		U	9.88	1.98
cis-1,2-Dichloroethene	156-59-2		U	4.94	0.494
cis-1,3-Dichloropropene	10061-01-5		U	4.94	0.494
Ethylbenzene	100-41-4		U	4.94	0.494
Methylene chloride	75-09-2		U	4.94	0.988
Methyltert-butyl ether	1634-04-4		U	9.88	0.494
Styrene	100-42-5		U	4.94	0.494
Tetrachloroethene	127-18-4		U	4.94	0.494
Toluene	108-88-3		U	4.94	0.494
trans-1,2-Dichloroethene	156-60-5		U	4.94	0.494
trans-1,3-Dichloropropene	10061-02-6		U	4.94	0.494
Trichloroethene	79-01-6	111		4.94	0.494
Vinyl acetate	108-05-4		U	9.88	0.988
Vinyl chloride	75-01-4		U	9.88	0.988
Xylenes	1330-20-7		U	9.88	0.494

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	98.3	70	121	
4-Bromofluorobenzene	110	59	113	
Dibromofluoromethane	101	65	135	
Toluene-d8	107	86	138	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-12**
Client ID: **4010-GW-102909**
Matrix: **Water**
Workgroup Number: **WG316104**
Collect Date: **10/29/2009 14:55**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030C**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **11/01/2009 23:30**
Cal Date: **10/08/2009 17:12**
Run Date: **11/01/2009 23:30**
File ID: **8M357639**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
1,4-Dioxane	123-91-1		U	100	50.0
2-Butanone	78-93-3		U	10.0	2.50
2-Hexanone	591-78-6		U	5.00	2.50
4-Methyl-2-pentanone	108-10-1		U	5.00	2.50
Acetone	67-64-1		U	25.0	2.50
Acrylonitrile	107-13-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
Methylene chloride	75-09-2		U	5.00	0.250
Styrene	100-42-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichloroethene	79-01-6	1.29		1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Xylenes	1330-20-7		U	5.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
1,2-Dichloroethane-d4	97.6	76	114	
4-Bromofluorobenzene	98.6	86	115	
Dibromofluoromethane	104	85	115	
Toluene-d8	103	88	110	

U Not detected at or above the reporting limit (RL).

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

Microbac Laboratories Inc.
VOA Preparation/Preservation/Extraction Log

Batch #: WG315974 **Analyst:** MRT
Method: 5030C/5035A **Run Date:** 10/30/2009 15:19
Purge and trap methanol COA14043
Sand Lot #: COA14158

SAMPLE #	Fraction	Collected	Preserved	PCT-S	Tare Wt	Total Wt	Sample Wt	Water	MeOH	Vt	Comments
L09100616-01	A	10/22/09 12:28	10/30/09 15:19	70.5			5.27	5		5	
L09100616-02	A	10/22/09 12:28	10/30/09 15:19	50.9			5.27	5		5	
L09100616-05	A	10/22/09 11:43	10/30/09 15:20	62.0			5.35	5		5	
L09100616-14	A	10/22/09 11:25	10/30/09 15:21	66.1			5.13	5		5	
L09100616-15	A	10/22/09 11:25	10/30/09 15:22	61.4			4.76	5		5	
L09100733-01	A	10/23/09 10:35	10/30/09 15:25				5.26	5		5	
L09100733-02	A	10/23/09 10:35	10/30/09 15:27				5.30	5		5	
L09100733-03	A	10/23/09 10:35	10/30/09 15:28				5.09	5		5	
L09100733-04	A	10/23/09 10:35	10/30/09 15:29				5.21	5		5	
L09100733-05	A	10/23/09 10:35	10/30/09 15:31				5.24	5		5	
L09100733-06	A	10/23/09 13:28	10/30/09 15:32				5.15	5		5	
L09100733-07	A	10/23/09 12:07	10/30/09 15:33				4.61	5		5	
L09100733-08	A	10/23/09 12:07	10/30/09 15:35				5.15	5		5	
L09100733-09	A	10/23/09 11:05	10/30/09 15:36				5.41	5		5	
L09100733-10	A	10/23/09 15:00	10/30/09 15:38				5.15	5		5	
L09100733-11	A	10/23/09 12:07	10/30/09 16:27				4.79	5		5	
L09100733-12	A	10/23/09 12:41	10/30/09 16:27				4.80	5		5	
L09100733-13	A	10/23/09 12:41	10/30/09 16:27				5.11	5		5	
L09100733-14	A	10/23/09 12:41	10/30/09 16:27				5.41	5		5	
L09100733-15	A	10/23/09 15:00	10/30/09 16:27				4.69	5		5	
L09100733-16	A	10/23/09 15:31	10/30/09 16:27				4.87	5		5	
L09100733-17	A	10/24/09 13:08	10/30/09 16:23				5.00	5		5	
L09100733-18	A	10/24/09 12:51	10/30/09 16:28				5.37	5		5	
L09100733-19	A	10/24/09 13:18	10/30/09 16:32				5.13	5		5	
L09100733-20	A	10/24/09 13:18	10/30/09 16:32				5.35	5		5	
L09100733-21	A	10/24/09 13:18	10/30/09 16:32				5.25	5		5	
L09100733-22	A	10/23/09 15:31	10/30/09 16:33				5.21	5		5	
L09100733-23	A	10/24/09 13:40	10/30/09 16:33				4.99	5		5	
L09100733-24	A	10/24/09 14:43	10/30/09 16:38				4.54	5		5	
L09100733-25	A	10/24/09 14:58	10/30/09 16:38				5.08	5		5	
L09100733-26	A	10/24/09 15:12	10/30/09 16:38				4.95	5		5	
L09100735-05	A	10/30/09 08:40	10/30/09 09:59	100			4.99	5		5	
L09100735-05	B	10/30/09 08:40	10/30/09 09:59	100			5.04	5		5	
L09100735-06	A	10/30/09 08:40	10/30/09 10:00	100			4.96	5		5	
L09100735-06	B	10/30/09 08:40	10/30/09 10:00	100			5.02	5		5	
L09100735-07	A	10/30/09 08:40	10/30/09 10:00	100			5.03	5		5	
L09100735-07	B	10/30/09 08:40	10/30/09 10:00	100			5.02	5		5	
L09100771-02	A	10/29/09 08:45	10/30/09 16:06				6.31	5		5	5
L09100771-02	B	10/29/09 08:45	10/30/09 16:07				5.84	5		5	5
L09100771-02	C	10/29/09 08:45	10/30/09 16:23				6.11		10		5
L09100771-03	A	10/29/09 09:10	10/30/09 16:09				4.36	5		5	5
L09100771-03	B	10/29/09 09:10	10/30/09 16:09				4.75	5		5	5

VOA_EXT - Modified 05/22/2008
PDF ID: 1527428
Report generated: 11/03/2009 10:16

Microbac Laboratories Inc.
VOA Preparation/Preservation/Extraction Log

Batch #: WG315974
Method: 5030C/5035A

Analyst: MRT
Run Date: 10/30/2009 16:23
Purge and trap methanol COA14043
Sand Lot #: COA14158

SAMPLE #	Fraction	Collected	Preserved	PCT-S	Tare Wt	Total Wt	Sample Wt	Water	MeOH	Vt	Comments
L09100771-03	C	10/29/09 09:10	10/30/09 16:23				4.56		10		5
L09100771-07	A	10/29/09 11:10	10/30/09 16:11				5.54	5		5	5
L09100771-07	B	10/29/09 11:10	10/30/09 16:11				5.47	5		5	5
L09100771-07	C	10/29/09 11:10	10/30/09 16:23				5.48		10		5
L09100771-08	A	10/29/09 11:30	10/30/09 16:16				6.08	5		5	5
L09100771-08	B	10/29/09 11:30	10/30/09 16:17				4.51	5		5	5
L09100771-08	C	10/29/09 11:30	10/30/09 16:23				4.55		10		5
L09100771-10	A	10/29/09 14:10	10/30/09 16:18				5.85	5		5	5
L09100771-10	B	10/29/09 14:10	10/30/09 16:19				5.73	5		5	5
L09100771-10	C	10/29/09 14:10	10/30/09 16:23				5.36		10		5
L09100771-11	A	10/29/09 14:30	10/30/09 16:20				5.78	5		5	5
L09100771-11	B	10/29/09 14:30	10/30/09 16:21				5.23	5		5	5
L09100771-11	C	10/29/09 14:30	10/30/09 16:23				4.47		10		5

Comments:
1 = improperly sealed cap
2 = preserved out of hold
3 = effervesced
4 = preserved with NaHSO4
5 = preserved by freezing
6 = preserved in field

Analyst: Michelle Taylor

VOA_EXT - Modified 05/22/2008
PDF ID: 1527428
Report generated: 11/03/2009 10:16

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 100809
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 624 SOP: MSV10 Rev: 7
Method: 5030C/5035A SOP: PAT01 Rev: 12
Maintenance Log ID: 30462

Internal Standard: STD35663 Surrogate Standard: STD35469
CCV: STD35655 LCS: STD35720 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG313952

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M356974	WG313952-01 BFB 50ng STD 8260	NA	1	1	STD35171	10/08/09 08:08
2	8M356975	WG313952-01 BFB 50ng STD 8260	NA	1	1	STD35171	10/08/09 08:25
3	8M356976	WG313952-02 0.3ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 09:11
4	8M356977	WG313952-03 0.4ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 09:43
5	8M356978	WG313952-04 1 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 10:16
6	8M356979	WG313952-02 0.3 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 10:48
7	8M356980	WG313952-05 2 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 11:20
8	8M356981	WG313952-06 5 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 11:52
9	8M356982	WG313952-07 20 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 12:24
10	8M356983	WG313952-08 50 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 12:56
11	8M356984	WG313952-09 100 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 13:28
12	8M356985	WG313952-10 200 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 14:00
13	8M356986	WG313952-11 300 ug/L WATER STD 8260	NA	1	1	STD35655	10/08/09 14:32
14	8M356987	RINSE	NA	1	1		10/08/09 15:04
15	8M356988	RINSE	NA	1	1		10/08/09 15:36
16	8M356989	WG313952-02 0.3ug/L WATER STD	NA	1	1	STD35655	10/08/09 16:08
17	8M356990	WG313952-04 1 ug/L WATER STD	NA	1	1	STD35655	10/08/09 16:40
18	8M356991	WG313952-05 2 ug/L WATER STD	NA	1	1	STD35655	10/08/09 17:12
19	8M356992	WG313952-12 50ug/L ALT SOURCE	NA	1	1	STD35431	10/08/09 17:44

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
File ID: 8M356974				
			RR, BFB failed.	
3				
File ID: 8M356976				
			DNR	
6				
File ID: 8M356979				
			DNR	
7				
File ID: 8M356980				
			DNR	

Approved: October 12, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument:	HPMS8	Dataset:	100809		
Analyst1:	MES	Analyst2:	NA		
Method:	8260B	SOP:	MSV01	Rev:	14
Method:	624	SOP:	MSV10	Rev:	7
Method:	5030C/5035A	SOP:	PAT01	Rev:	12
Maintenance Log ID:	30462				

Internal Standard:	STD35663	Surrogate Standard:	STD35469		
CCV:	STD35655	LCS:	STD35720	MS/MSD:	NA

Column 1 ID: RTX502.2 Column 2 ID: NA

Workgroups: WG313952

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
17				
File ID: 8M356990				
	DNR-oxygenates were not spiked.			

Approved: October 12, 2009

Page: 2

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 110109
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 12

Maintenance Log ID: 30758

Internal Standard: STD35816 Surrogate Standard: STD36049
CCV: STD36102/STD36074 LCS: STD35935/STD35818 MS/MSD: STD35935

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316104

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M357622	RINSE	NA	1	1		11/01/09 14:30
2	8M357623	WG316103-01 50NG BFB STD 8260	NA	1	1	STD35687	11/01/09 14:56
3	8M357624	WG316103-02 50ug/L WATER STD 8260	NA	1	1	STD36102	11/01/09 15:27
4	8M357625	WG316105-01 100ug/L APPIX/FOO STD	NA	1	1	STD36074	11/01/09 16:00
5	8M357626	WG316104-01 VBLK1101 BLANK 8260	NA	1	1		11/01/09 16:32
6	8M357627	WG316104-02 20ug/L LCS 8260	NA	1	1	STD35935	11/01/09 17:04
7	8M357628	WG316104-06 100ug/L APPIX/FOO LCS	NA	1	1	STD35818	11/01/09 17:36
8	8M357629	L09100771-01 A 826-SPE	<2	1	1		11/01/09 18:09
9	8M357630	L09100759-06 A 826-SPE	<2	1	1		11/01/09 18:41
10	8M357631	L09100757-01 A 826-A9-SPE	7	1	1		11/01/09 19:13
11	8M357632	L09100757-04 A 826-A9-SPE	7	1	1		11/01/09 19:45
12	8M357633	L09100759-01 A 826-SPE	<2	1	1		11/01/09 20:17
13	8M357634	L09100759-05 A 826-SPE	<2	1	1		11/01/09 20:49
14	8M357635	L09100771-04 A 826-SPE	<2	1	1		11/01/09 21:21
15	8M357636	L09100771-05 MS A 826-SPE	<2	1	1	STD35935	11/01/09 21:53
16	8M357637	L09100771-06 MSD A 826-SPE	<2	1	1	STD35935	11/01/09 22:25
17	8M357638	L09100771-09 A 826-SPE	<2	1	1		11/01/09 22:58
18	8M357639	L09100771-12 A 826-SPE	<2	1	1		11/01/09 23:30
19	8M357640	L09100759-07 A 826-SPE	<2	1	1		11/02/09 00:02
20	8M357641	L09100757-02 A 826-A9-SPE	7	1	1		11/02/09 00:34
21	8M357642	L09100757-03 A 826-A9-SPE	7	1	1		11/02/09 01:06
22	8M357643	L09100697-19 A 826-SPE	<2	1	1		11/02/09 01:38
23	8M357644	L09100697-20 A 826-SPE	<2	1	1		11/02/09 02:10
24	8M357645	L09100744-01 A 8260	<2	1	1		11/02/09 02:42
25	8M357646	RINSE	NA	1	1		11/02/09 03:14
26	8M357647	RINSE	NA	1	1		11/02/09 03:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes
21	X	10	Over Calibration Range	vinyl chloride
File ID: 8M357642				
22	X	1	Carry-over contamination	

Approved: November 02, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 110109
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 12

Maintenance Log ID: 30758

Internal Standard: STD35816 Surrogate Standard: STD36049
CCV: STD36102/STD36074 LCS: STD35935/STD35818 MS/MSD: STD35935

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316104

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 8M357643				
	DNR			

Approved: November 02, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110209
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30779

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD35935 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316150

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M73244	RINSE	NA	7	1		11/02/09 09:24
2	9M73245	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 09:53
3	9M73246	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 10:07
4	9M73247	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 10:22
5	9M73248	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 10:46
6	9M73249	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 11:23
7	9M73250	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 12:34
8	9M73251	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 13:02
9	9M73252	WG316150-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/02/09 13:35
10	9M73253	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 14:03
11	9M73254	WG316150-01 50ng BFB STD 8260	NA	7	1	STD35687	11/02/09 14:18
12	9M73255	rinse	NA	7	1		11/02/09 15:44
13	9M73256	WG316150-01 50ng BFB STD 8260	NA	7	1		11/02/09 16:16
14	9M73257	WG316150-03 0.5ug/Kg STD 8260	NA	7	1		11/02/09 16:41
15	9M73258	WG316150-04 1ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 17:13
16	9M73259	WG316150-05 2ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 17:43
17	9M73260	WG316150-06 5ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 18:14
18	9M73261	WG316150-07 20ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 18:46
19	9M73262	WG316150-08 50ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 19:17
20	9M73263	WG316150-09 100ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 19:49
21	9M73264	WG316150-10 200ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 20:20
22	9M73265	WG316150-11 300ug/Kg STD 8260	NA	7	1	STD36102	11/02/09 20:52
23	9M73266	RINSE	NA	7	1		11/02/09 21:24
24	9M73267	RINSE	NA	7	1		11/02/09 21:55
25	9M73268	WG316150-12 50ug/Kg ALT SRC STD 826	NA	7	1	STD35935	11/02/09 22:26
26	9M73269	CCV CHECK	NA	7	1	STD36102	11/02/09 22:57
27	9M73270	RINSE	NA	7	1		11/02/09 23:29

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
File ID: 9M73245				
Tune failed. DNR.				

Approved: November 04, 2009

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110209
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30779

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD35935 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316150

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X			
File ID: 9M73246				
	Tune failed. DNR.			
4	X			
File ID: 9M73247				
	Tune failed. DNR. Changed the septa.			
5	X		Over Linear Range	gases
File ID: 9M73248				
	Vc was high. DNR.			
6	X		Over Linear Range	vc
File ID: 9M73249				
	Vc was high. DNR.			
8	X		Over Linear Range	vc
File ID: 9M73251				
	Vc was high. DNR.			
9	X		Over Linear Range	vc
File ID: 9M73252				
	Vc was high, DNR.			
10	X			
File ID: 9M73253				
	Increased the voltage. Tune failed. DNR.			
11	X			
File ID: 9M73254				
	Tune failed. DNR.			

Approved: November 04, 2009

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110909
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30867

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316888; WG316889

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	9M73443	RINSE	NA	7	1		11/09/09 08:44
2	9M73444	RINSE	NA	7	1		11/09/09 09:15
3	9M73445	RINSE	NA	7	1		11/09/09 09:47
4	9M73446	WG316886-01 50ng BFB STD 8260	NA	7	1	STD36263	11/09/09 10:16
5	9M73447	WG316886-01 50ng BFB STD 8260	NA	7	1	STD36263	11/09/09 10:31
6	9M73448	WG316886-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/09/09 10:56
7	9M73449	WG316888-01 EXT BLK 100X 8260 5g/10m	NA	11	50		11/09/09 11:27
8	9M73450	WG316886-02 50ug/Kg CCV STD 8260	NA	7	1	STD36102	11/09/09 11:59
9	9M73451	WG316889-01 VBLK1109 BLANK 8260	NA	7	1		11/09/09 12:29
10	9M73452	WG316889-02 20ug/L LCS 8260	NA	7	1	STD36245	11/09/09 13:01
11	9M73453	WG316889-03 20ug/L LCSDUP 8260	NA	7	1	STD36245	11/09/09 13:31
12	9M73454	WG316888-02 EXT LCS 100X 8260 5g/10m	NA	11	50		11/09/09 14:02
13	9M73455	WG316888-03 EXT LCSDUP 100X 8260 5g/	NA	11	50		11/09/09 14:33
14	9M73456	L09100760-01 8260 4.72g	NA	7	1		11/09/09 15:04
15	9M73457	L09100767-01 8260 4.65g	NA	7	1		11/09/09 15:35
16	9M73458	L09100674-05 500,000X 8260 1.02g	NA	11	50000		11/09/09 16:05
17	9M73459	L09110102-05 50,000X 8260 1.03g	NA	11	50000		11/09/09 16:36
18	9M73460	L09110028-01 826-BETX 4.73g A1	NA	7	1		11/09/09 17:07
19	9M73461	L09110028-02 826-BETX 5.06g A1	NA	7	1		11/09/09 17:38
20	9M73462	L09110114-01 826-SPE 4.82g A1	NA	7	1		11/09/09 18:09
21	9M73463	L09110114-05 826-SPE 4.63g	NA	7	1		11/09/09 18:40
22	9M73464	L09100717-08 B 826-SPE 4.50g	NA	7	1		11/09/09 19:11
23	9M73465	L09100771-02 A 826-SPE 6.31g	NA	7	1		11/09/09 19:42
24	9M73466	L09100771-03 A 826-SPE 4.36g	NA	7	1		11/09/09 20:13
25	9M73467	L09100771-07 A 826-SPE 5.54g	NA	7	1		11/09/09 20:44
26	9M73468	L09100771-08 A 826-SPE 6.08g	NA	7	1		11/09/09 21:15
27	9M73469	L09100771-10 A 826-SPE 5.85g	NA	7	1		11/09/09 21:46
28	9M73470	L09100771-11 A 826-SPE 5.78g	NA	7	1		11/09/09 22:17
29	9M73471	RINSE	NA	7	1		11/09/09 22:48
30	9M73472	RINSE	NA	7	1		11/09/09 23:19

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: November 10, 2009

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS9 Dataset: 110909
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5035A SOP: PAT01 Rev: 11

Maintenance Log ID: 30867

Internal Standard: STD35835 Surrogate Standard: STD35834
CCV: STD36102 LCS: STD36245 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG316888; WG316889

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
4	X			
File ID: 9M73446				
	Tune failed. DNR.			
6	X		Surrogate standard failure	
File ID: 9M73448				
	Last ss was high for DOWWV. DNR.			
17	X	100000	Over Calibration Range	ACE
File ID: 9M73459				

Approved: November 10, 2009

Microbac Laboratories Inc.

Data Checklist

Date: 08-OCT-2009
Analyst: MES
Analyst: NA
Method: 8260/624
Instrument: HPMS8
Curve Workgroup: NA
Runlog ID: 30556
Analytical Workgroups: WG313952

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	NA
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	NA
TCL's	NA
Surrogates	NA
LCS (Laboratory Control Sample)	NA
Recoveries	NA
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	NA
TCL Hits	NA
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	NA
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
12-OCT-2009

Secondary Reviewer:
12-OCT-2009

CHECKLIST1 - Modified 03/05/2008
Generated: OCT-12-2009 13:09:01

Microbac Laboratories Inc.

Data Checklist

Date: 01-NOV-2009
Analyst: MES
Analyst: NA
Method: 8260
Instrument: HPMS8
Curve Workgroup: NA
Runlog ID: 30973
Analytical Workgroups: WG316104

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	WTD
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
02-NOV-2009

Secondary Reviewer:
02-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-03-2009 07:46:27

Microbac Laboratories Inc.

Data Checklist

Date: 02-NOV-2009
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 31003
Analytical Workgroups: WG316150

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
03-NOV-2009

Tiffany Bailey

Secondary Reviewer:
04-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-04-2009 13:15:46

Microbac Laboratories Inc.

Data Checklist

Date: 09-NOV-2009
Analyst: TMB
Analyst: NA
Method: 8260
Instrument: HPMS9
Curve Workgroup: NA
Runlog ID: 31119
Analytical Workgroups: WG316888; WG316889

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
09-NOV-2009
Tiffany Bailey

Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 10:15:23

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG316104

Login Number: L09100771

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
TB-1-102909	01	10/29/09							14		11/01/09	3.8	14	
4012-GW-102909	04	10/29/09							14		11/01/09	3.5	14	
4012-GW-102909-MS	05	10/29/09							14		11/01/09	3.5	14	
4012-GW-102909-MSD	06	10/29/09							14		11/01/09	3.5	14	
4015-GW-102909	09	10/29/09							14		11/01/09	3.4	14	
4010-GW-102909	12	10/29/09							14		11/01/09	3.4	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1535992
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B AAB#: WG316889

Login Number: L09100771

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4012-S001-102909	02	10/29/09							14		11/09/09	11.5	14	
4012-S002-102909	03	10/29/09							14		11/09/09	11.5	14	
4015-S001-102909	07	10/29/09							14		11/09/09	11.4	14	
4015-S002-102909	08	10/29/09							14		11/09/09	11.4	14	
4010-S001-102909	10	10/29/09							14		11/09/09	11.3	14	
4010-S002-102909	11	10/29/09							14		11/09/09	11.3	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1535992
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS8
Workgroup (AAB#): WG316104

Method: 8260
CAL ID: HPMS8-08-OCT-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09100771-01	1.00	01	94.1	104	96.8	103
L09100771-04	1.00	01	92.9	102	98.2	102
L09100771-05	1.00	01	98.3	104	92.6	98.7
L09100771-06	1.00	01	97.8	104	90.7	98.5
L09100771-09	1.00	01	96.9	105	98.5	103
L09100771-12	1.00	01	97.6	104	98.6	103
WG316104-01	1.00	01	96.5	104	96.8	102
WG316104-02	1.00	01	95.7	103	92.7	96.7
WG316104-06	1.00	01	98.9	106	98.0	104

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	76	-	114
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528609
Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS9
Workgroup (AAB#): WG316889

Method: 8260
CAL ID: HPMS9-02-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4
L09100771-02	1.00	01	98.5	100	111	106
L09100771-03	1.00	01	95.3	98.2	109	103
L09100771-07	1.00	01	97.9	100	109	105
L09100771-08	1.00	01	91.9	97.8	111	104
L09100771-10	1.00	01	99.9	103	111	107
L09100771-11	1.00	01	98.3	101	110	107
WG316889-01	1.00	01	91.5	98.1	110	104
WG316889-02	1.00	01	96.2	98.7	109	105
WG316889-03	1.00	01	96.9	100	110	105

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	121
2 - Dibromofluoromethane	65	-	135
3 - 4-Bromofluorobenzene	59	-	113
4 - Toluene-d8	86	-	138

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1528609
Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100771
Work Group: WG316104
Blank File ID: 8M357626
Blank Sample ID: WG316104-01
Prep Date: 11/01/09 16:32
Instrument ID: HPMS8
Analyzed Date: 11/01/09 16:32
Method: 8260B
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316104-02	8M357627	11/01/09 17:04	01
LCS	WG316104-06	8M357628	11/01/09 17:36	01
TB-1-102909	L09100771-01	8M357629	11/01/09 18:09	01
4012-GW-102909	L09100771-04	8M357635	11/01/09 21:21	01
4012-GW-102909-MS	L09100771-05	8M357636	11/01/09 21:53	01
4012-GW-102909-MSD	L09100771-06	8M357637	11/01/09 22:25	01
4015-GW-102909	L09100771-09	8M357638	11/01/09 22:58	01
4010-GW-102909	L09100771-12	8M357639	11/01/09 23:30	01

Report Name: BLANK_SUMMARY
PDF File ID: 1535993
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100771
Work Group: WG316889
Blank File ID: 9M73451
Blank Sample ID: WG316889-01
Prep Date: 11/09/09 12:29
Instrument ID: HPMS9
Analyzed Date: 11/09/09 12:29
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316889-02	9M73452	11/09/09 13:01	01
LCS2	WG316889-03	9M73453	11/09/09 13:31	01
4012-S001-102909	L09100771-02	9M73465	11/09/09 19:42	01
4012-S002-102909	L09100771-03	9M73466	11/09/09 20:13	01
4015-S001-102909	L09100771-07	9M73467	11/09/09 20:44	01
4015-S002-102909	L09100771-08	9M73468	11/09/09 21:15	01
4010-S001-102909	L09100771-10	9M73469	11/09/09 21:46	01
4010-S002-102909	L09100771-11	9M73470	11/09/09 22:17	01

Report Name: BLANK_SUMMARY
PDF File ID: 1535993
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/01/09 16:32 Sample ID:WG316104-01
Instrument ID:HPMS8 Run Date:11/01/09 16:32 Prep Method:5030C
File ID:8M357626 Analyst:MES Method:8260B
Workgroup (AAB#):WG316104 Matrix:Water Units:ug/L
Contract #: Cal ID: HPMS8-08-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.250	1.00	1.00	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	1.00	1	U
1,1,2-Trichloroethane	0.250	1.00	1.00	1	U
1,1-Dichloroethane	0.125	1.00	1.00	1	U
1,1-Dichloroethene	0.500	1.00	1.00	1	U
1,2,4-Trichlorobenzene	0.200	1.00	1.00	1	U
1,2-Dichlorobenzene	0.125	1.00	1.00	1	U
1,2-Dichloroethane	0.250	1.00	1.00	1	U
1,2-Dichloropropane	0.200	1.00	1.00	1	U
1,3-Dichlorobenzene	0.250	1.00	1.00	1	U
1,4-Dichlorobenzene	0.125	1.00	1.00	1	U
1,4-Dioxane	50.0	100	100	1	U
2-Butanone	2.50	10.0	10.0	1	U
2-Hexanone	2.50	5.00	5.00	1	U
4-Methyl-2-pentanone	2.50	5.00	5.00	1	U
Acetone	2.50	25.0	25.0	1	U
Acrylonitrile	2.50	10.0	10.0	1	U
Benzene	0.125	1.00	1.00	1	U
Bromodichloromethane	0.250	1.00	1.00	1	U
Bromoform	0.500	1.00	1.00	1	U
Bromomethane	0.500	1.00	1.00	1	U
Carbon disulfide	0.500	1.00	1.00	1	U
Carbon tetrachloride	0.250	1.00	1.00	1	U
Chlorobenzene	0.125	1.00	1.00	1	U
Chlorodibromomethane	0.250	1.00	1.00	1	U
Chloroethane	0.500	1.00	1.00	1	U
Chloroform	0.125	1.00	1.00	1	U
Chloromethane	0.250	1.00	1.00	1	U
cis-1,2-Dichloroethene	0.250	1.00	1.00	1	U
cis-1,3-Dichloropropene	0.250	1.00	1.00	1	U
Ethylbenzene	0.250	1.00	1.00	1	U
Methyl t-butyl ether (MTBE)	0.500	5.00	5.00	1	U
Methylene chloride	0.250	5.00	5.00	1	U
Styrene	0.125	1.00	1.00	1	U
Tetrachloroethene	0.250	1.00	1.00	1	U
Toluene	0.250	1.00	1.00	1	U
trans-1,2-Dichloroethene	0.250	1.00	1.00	1	U
trans-1,3-Dichloropropene	0.500	1.00	1.00	1	U
Trichloroethene	0.250	1.00	1.00	1	U
Vinyl acetate	2.50	10.0	10.0	1	U
Vinyl chloride	0.250	1.00	1.00	1	U
Xylenes	0.500	5.00	5.00	1	U

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100771 Prep Date: 11/01/09 16:32 Sample ID: WG316104-01
Instrument ID: HPMS8 Run Date: 11/01/09 16:32 Prep Method: 5030C
File ID: 8M357626 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316104 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS8-08-OCT-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	96.5	76 - 114	PASS
4-Bromofluorobenzene	96.8	86 - 115	PASS
Dibromofluoromethane	104	85 - 115	PASS
Toluene-d8	102	88 - 110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100771 Prep Date: 11/09/09 12:29 Sample ID: WG316889-01
Instrument ID: HPMS9 Run Date: 11/09/09 12:29 Prep Method: 5030C/5035A
File ID: 9M73451 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316889 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,1,1-Trichloroethane	0.500	5.00	5.00	1	U
1,1,2,2-Tetrachloroethane	0.500	5.00	5.00	1	U
1,1,2-Trichloroethane	0.500	5.00	5.00	1	U
1,1-Dichloroethane	1.00	5.00	5.00	1	U
1,1-Dichloroethene	0.500	5.00	5.00	1	U
1,2,4-Trichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichlorobenzene	0.500	5.00	5.00	1	U
1,2-Dichloroethane	0.500	5.00	5.00	1	U
1,2-Dichloropropane	0.500	5.00	5.00	1	U
1,3-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dichlorobenzene	0.500	5.00	5.00	1	U
1,4-Dioxane	50.0	1700	1700	1	U
2-Butanone	2.50	25.0	25.0	1	U
2-Hexanone	2.50	10.0	10.0	1	U
4-Methyl-2-pentanone	2.50	10.0	10.0	1	U
Acetone	5.00	100	100	1	U
Acrylonitrile	2.50	100	100	1	U
Benzene	0.500	5.00	5.00	1	U
Bromodichloromethane	0.500	5.00	5.00	1	U
Bromoform	0.500	5.00	5.00	1	U
Bromomethane	1.00	10.0	10.0	1	U
Carbon disulfide	0.500	5.00	5.00	1	U
Carbon tetrachloride	0.500	5.00	5.00	1	U
Chlorobenzene	0.500	5.00	5.00	1	U
Dibromochloromethane	0.500	5.00	5.00	1	U
Chloroethane	1.00	10.0	10.0	1	U
Chloroform	0.500	5.00	5.00	1	U
Chloromethane	2.00	10.0	10.0	1	U
cis-1,2-Dichloroethene	0.500	5.00	5.00	1	U
cis-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Ethylbenzene	0.500	5.00	5.00	1	U
Methylene chloride	1.00	5.00	5.00	1	U
Methyltert-butyl ether	0.500	10.0	10.0	1	U
Styrene	0.500	5.00	5.00	1	U
Tetrachloroethene	0.500	5.00	5.00	1	U
Toluene	0.500	5.00	5.00	1	U
trans-1,2-Dichloroethene	0.500	5.00	5.00	1	U
trans-1,3-Dichloropropene	0.500	5.00	5.00	1	U
Trichloroethene	0.500	5.00	5.00	1	U
Vinyl acetate	1.00	10.0	10.0	1	U
Vinyl chloride	1.00	10.0	10.0	1	U
Xylenes	0.500	10.0	10.0	1	U

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100771 Prep Date: 11/09/09 12:29 Sample ID: WG316889-01
Instrument ID: HPMS9 Run Date: 11/09/09 12:29 Prep Method: 5030C/5035A
File ID: 9M73451 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG316889 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS9-02-NOV-09

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	91.5	70 - 121	PASS
4-Bromofluorobenzene	110	59 - 113	PASS
Dibromofluoromethane	98.1	65 - 135	PASS
Toluene-d8	104	86 - 138	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1535994
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/01/2009 Sample ID: WG316104-02
Instrument ID: HPMS8 Run Time: 17:04 Prep Method: 5030C
File ID: 8M357627 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316104 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35935 Cal ID: HPMS8-08-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,1,1-Trichloroethane	20.0	20.6	103	67 - 132	
1,1,2,2-Tetrachloroethane	20.0	17.4	87.2	63 - 128	
1,1,2-Trichloroethane	20.0	18.2	91.1	70 - 125	
1,1-Dichloroethane	20.0	20.2	101	67 - 133	
1,1-Dichloroethene	20.0	20.2	101	68 - 130	
1,2,4-Trichlorobenzene	20.0	16.8	83.9	65 - 134	
1,2-Dichlorobenzene	20.0	17.3	86.7	71 - 122	
1,2-Dichloroethane	20.0	18.9	94.4	69 - 132	
1,2-Dichloropropane	20.0	19.0	95.2	75 - 125	
1,3-Dichlorobenzene	20.0	17.6	87.9	75 - 124	
1,4-Dichlorobenzene	20.0	17.0	85.1	74 - 123	
1,4-Dioxane	200	204	102	70 - 130	
2-Butanone	20.0	19.3	96.3	49 - 136	
2-Hexanone	20.0	17.9	89.6	65 - 135	
4-Methyl-2-pentanone	20.0	19.0	95.0	58 - 134	
Acetone	20.0	19.1	95.7	30 - 135	
Acrylonitrile	20.0	20.3	101	60 - 135	
Benzene	20.0	19.5	97.5	81 - 122	
Bromodichloromethane	20.0	20.5	102	76 - 121	
Bromoform	20.0	20.0	99.8	69 - 128	
Bromomethane	20.0	16.5	82.5	53 - 141	
Carbon disulfide	20.0	17.5	87.7	70 - 130	
Carbon tetrachloride	20.0	21.5	107	66 - 138	
Chlorobenzene	20.0	18.1	90.4	81 - 122	
Chlorodibromomethane	20.0	19.5	97.3	66 - 133	
Chloroethane	20.0	19.2	95.8	58 - 133	
Chloroform	20.0	20.1	100	69 - 128	
Chloromethane	20.0	18.0	90.0	56 - 131	
cis-1,2-Dichloroethene	20.0	20.1	101	72 - 126	
cis-1,3-Dichloropropene	20.0	19.0	95.0	69 - 131	
Ethylbenzene	20.0	18.0	90.1	73 - 127	
Methyl t-butyl ether (MTBE)	20.0	19.7	98.3	65 - 123	
Methylene chloride	20.0	18.0	89.8	63 - 137	
Styrene	20.0	17.6	87.8	65 - 134	
Tetrachloroethene	20.0	19.9	99.4	66 - 128	
Toluene	20.0	18.1	90.7	77 - 122	
trans-1,2-Dichloroethene	20.0	19.5	97.6	63 - 137	
trans-1,3-Dichloropropene	20.0	15.5	77.7	59 - 135	
Trichloroethene	20.0	20.7	104	70 - 127	
Vinyl acetate	20.0	21.9	110	65 - 130	
Vinyl chloride	20.0	21.7	108	50 - 134	

LCS - Modified 03/06/2008
PDF File ID: 1528605
Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/01/2009 Sample ID: WG316104-02
Instrument ID: HPMS8 Run Time: 17:04 Prep Method: 5030C
File ID: 8M357627 Analyst: MES Method: 8260B
Workgroup (AAB#): WG316104 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35935 Cal ID: HPMS8-08-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Xylenes	60.0	53.6	89.4	75 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	95.7	76 - 114	PASS
4-Bromofluorobenzene	92.7	86 - 115	PASS
Dibromofluoromethane	103	85 - 115	PASS
Toluene-d8	96.7	88 - 110	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1528605
Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Analyst: TMB Prep Method: 5030C/5035A
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG316889 Units: ug/kg
QC Key: DOWWV2006 Lot #:

Sample ID: WG316889-02 LCS File ID: 9M73452 Run Date: 11/09/2009 13:01
Sample ID: WG316889-03 LCS2 File ID: 9M73453 Run Date: 11/09/2009 13:31

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,1,1-Trichloroethane	20.0	17.4	87.1	20.0	18.6	92.9	6.51	68 - 130	30	
1,1,2,2-Tetrachloroethane	20.0	17.1	85.3	20.0	19.1	95.7	11.5	59 - 140	30	
1,1,2-Trichloroethane	20.0	17.2	85.8	20.0	19.4	96.9	12.2	62 - 127	30	
1,1-Dichloroethane	20.0	17.2	85.9	20.0	19.0	94.8	9.87	73 - 125	30	
1,1-Dichloroethene	20.0	17.0	85.2	20.0	18.4	91.9	7.53	65 - 136	30	
1,2,4-Trichlorobenzene	20.0	16.8	83.8	20.0	19.0	95.2	12.7	65 - 131	30	
1,2-Dichlorobenzene	20.0	17.9	89.7	20.0	19.6	97.9	8.74	74 - 120	30	
1,2-Dichloroethane	20.0	16.9	84.4	20.0	18.4	91.9	8.59	72 - 137	30	
1,2-Dichloropropane	20.0	16.9	84.7	20.0	18.6	93.1	9.38	71 - 120	30	
1,3-Dichlorobenzene	20.0	17.7	88.4	20.0	19.1	95.7	7.98	72 - 124	30	
1,4-Dichlorobenzene	20.0	17.4	86.9	20.0	18.9	94.3	8.13	72 - 125	30	
1,4-Dioxane	200	165	82.4	200	168	83.8	1.65	50 - 150	30	
2-Butanone	20.0	18.3	91.4	20.0	18.9	94.3	3.13	40 - 135	30	
2-Hexanone	20.0	18.0	90.1	20.0	20.5	102	12.6	50 - 140	30	
4-Methyl-2-pentanone	20.0	17.9	89.6	20.0	20.0	100	11.1	50 - 140	30	
Acetone	20.0	15.5	77.4	20.0	17.8	88.9	13.8	40 - 141	30	
Acrylonitrile	20.0	17.9	89.4	20.0	19.7	98.4	9.57	60 - 140	30	
Benzene	20.0	17.0	85.0	20.0	18.8	93.9	9.92	73 - 126	30	
Bromodichloromethane	20.0	17.1	85.7	20.0	19.0	95.2	10.5	72 - 128	30	
Bromoform	20.0	16.1	80.3	20.0	17.6	87.8	8.91	60 - 137	30	
Bromomethane	20.0	19.0	95.0	20.0	20.4	102	7.32	45 - 141	30	
Carbon disulfide	20.0	16.1	80.4	20.0	17.3	86.5	7.29	65 - 135	30	
Carbon tetrachloride	20.0	17.4	87.2	20.0	19.0	94.8	8.38	67 - 133	30	
Chlorobenzene	20.0	17.1	85.4	20.0	19.0	94.8	10.4	75 - 123	30	
Dibromochloromethane	20.0	16.6	83.1	20.0	18.7	93.7	12.1	66 - 130	30	
Chloroethane	20.0	19.9	99.3	20.0	20.8	104	4.36	41 - 141	30	
Chloroform	20.0	17.1	85.7	20.0	18.9	94.4	9.75	72 - 124	30	
Chloromethane	20.0	18.7	93.5	20.0	20.2	101	7.52	51 - 129	30	
cis-1,2-Dichloroethene	20.0	17.2	85.8	20.0	19.0	95.0	10.2	67 - 125	30	
cis-1,3-Dichloropropene	20.0	16.7	83.4	20.0	18.4	92.1	9.94	72 - 126	30	
Ethylbenzene	20.0	17.6	88.2	20.0	18.7	93.6	6.02	74 - 127	30	
Methylene chloride	20.0	16.8	83.9	20.0	18.6	92.9	10.2	63 - 137	30	
Methyltert-butyl ether	20.0	18.1	90.7	20.0	20.0	99.9	9.63	50 - 135	30	
Styrene	20.0	17.0	85.2	20.0	18.6	93.1	8.96	74 - 128	30	
Tetrachloroethene	20.0	18.2	91.0	20.0	19.1	95.6	4.85	67 - 139	30	
Toluene	20.0	17.8	89.0	20.0	19.1	95.3	6.89	71 - 127	30	
trans-1,2-Dichloroethene	20.0	17.5	87.4	20.0	19.1	95.6	8.95	66 - 134	30	
trans-1,3-Dichloropropene	20.0	14.8	73.9	20.0	16.5	82.3	10.7	65 - 127	30	
Trichloroethene	20.0	17.2	86.0	20.0	18.8	94.1	8.95	77 - 124	30	
Vinyl acetate	20.0	17.2	86.0	20.0	18.9	94.7	9.70	55 - 130	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1535995
Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Analyst: TMB Prep Method: 5030C/5035A
Instrument ID: HPMS9 Matrix: Soil Method: 8260B
Workgroup (AAB#): WG316889 Units: ug/kg
QC Key: DOWWV2006 Lot #:

Sample ID: WG316889-02 LCS File ID: 9M73452 Run Date: 11/09/2009 13:01
Sample ID: WG316889-03 LCS2 File ID: 9M73453 Run Date: 11/09/2009 13:31

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Vinyl chloride	20.0	17.3	86.6	20.0	17.9	89.7	3.53	58 - 126	30	
Xylenes	60.0	52.8	88.0	60.0	58.1	96.8	9.54	75 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	96.2	96.9	70 - 121	PASS
Dibromofluoromethane	98.7	100	65 - 135	PASS
4-Bromofluorobenzene	109	110	59 - 113	PASS
Toluene-d8	105	105	86 - 138	PASS

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1535995
Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L09100771 Cal ID: HPMS8- 08-OCT-09 Worknum: WG316104

Instrument ID: HPMS8 Contract #: Prep Method: 5030C

Parent ID: L09100771-04 File ID: 8M357635 Dil: 1 Method: 8260B

Sample ID: L09100771-05 MS File ID: 8M357636 Dil: 1 Matrix: Water

Sample ID: L09100771-06 MSD File ID: 8M357637 Dil: 1 Units: ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
1,1,1-Trichloroethane	U	20.0	18.6	92.9	20.0	17.9	89.4	3.80	67 - 132	20	
1,1,2,2-Tetrachloroethane	U	20.0	18.2	90.9	20.0	17.7	88.6	2.61	63 - 128	20	
1,1,2-Trichloroethane	U	20.0	18.4	92	20.0	18.5	92.6	0.729	70 - 125	20	
1,1-Dichloroethane	U	20.0	18.7	93.7	20.0	19.1	95.5	1.89	67 - 133	20	
1,1-Dichloroethene	U	20.0	18.1	90.4	20.0	16.8	84.1	7.20	68 - 130	20	
1,2,4-Trichlorobenzene	U	20.0	15.8	78.9	20.0	16.2	80.9	2.56	65 - 134	20	
1,2-Dichlorobenzene	U	20.0	16.5	82.3	20.0	16.7	83.3	1.17	71 - 122	20	
1,2-Dichloroethane	U	20.0	18.7	93.5	20.0	19.0	95	1.62	69 - 132	20	
1,2-Dichloropropane	U	20.0	18.3	91.7	20.0	18.4	92.2	0.536	75 - 125	20	
1,3-Dichlorobenzene	U	20.0	16.5	82.7	20.0	16.7	83.4	0.824	75 - 124	20	
1,4-Dichlorobenzene	U	20.0	16.1	80.5	20.0	16.2	81.1	0.736	74 - 123	20	
1,4-Dioxane	U	200	119	59.5	200	159	79.3	28.6	70 - 130	20	*#
2-Butanone	U	20.0	20.5	102	20.0	19.7	98.7	3.55	49 - 136	20	
2-Hexanone	U	20.0	19.1	95.3	20.0	19.2	96.1	0.856	65 - 135	20	
4-Methyl-2-pentanone	U	20.0	18.7	93.4	20.0	19.4	97	3.77	58 - 134	20	
Acetone	U	20.0	22.5	112	20.0	23.4	117	3.99	30 - 135	20	
Acrylonitrile	U	20.0	19.8	98.8	20.0	19.4	97.1	1.69	60 - 135	20	
Benzene	U	20.0	18.4	92	20.0	18.2	90.9	1.11	81 - 122	20	
Bromodichloromethane	U	20.0	19.5	97.5	20.0	19.7	98.5	1.08	76 - 121	20	
Bromoform	U	20.0	19.5	97.7	20.0	19.7	98.4	0.707	69 - 128	20	
Bromomethane	U	20.0	14.9	74.5	20.0	14.9	74.6	0.241	53 - 141	20	
Carbon disulfide	U	20.0	15.1	75.3	20.0	15.5	77.6	2.99	70 - 130	20	
Carbon tetrachloride	U	20.0	19.2	95.9	20.0	17.8	89.1	7.40	66 - 138	20	
Chlorobenzene	U	20.0	17.2	86.2	20.0	17.1	85.4	0.931	81 - 122	20	
Chlorodibromomethane	U	20.0	19.1	95.4	20.0	19.6	98.2	2.89	66 - 133	20	
Chloroethane	U	20.0	17.1	85.4	20.0	16.7	83.3	2.46	58 - 133	20	
Chloroform	U	20.0	19.0	94.9	20.0	18.9	94.6	0.263	69 - 128	20	
Chloromethane	U	20.0	17.3	86.4	20.0	16.7	83.5	3.38	56 - 131	20	
cis-1,2-Dichloroethene	U	20.0	19.2	96	20.0	19.0	95.2	0.814	72 - 126	20	
cis-1,3-Dichloropropene	U	20.0	18.2	90.9	20.0	18.0	90	0.930	69 - 131	20	
Ethylbenzene	U	20.0	16.6	83.1	20.0	16.6	83.2	0.0550	73 - 127	20	
Methyl t-butyl ether (MTBE)	U	20.0	19.7	98.5	20.0	20.6	103	4.43	65 - 123	20	
Methylene chloride	U	20.0	17.2	86.1	20.0	17.3	86.5	0.380	63 - 137	20	
Styrene	U	20.0	16.7	83.4	20.0	16.9	84.4	1.22	65 - 134	20	
Tetrachloroethene	U	20.0	17.9	89.4	20.0	17.5	87.6	2.09	66 - 128	20	
Toluene	U	20.0	17.3	86.7	20.0	17.1	85.3	1.61	77 - 122	20	
trans-1,2-Dichloroethene	U	20.0	18.1	90.6	20.0	17.8	89	1.78	63 - 137	20	
trans-1,3-Dichloropropene	U	20.0	15.3	76.7	20.0	15.3	76.4	0.459	59 - 135	20	
Trichloroethene	U	20.0	18.3	91.7	20.0	18.6	92.9	1.27	70 - 127	20	
Vinyl acetate	U	20.0	19.4	97.1	20.0	20.1	100	3.36	65 - 130	20	
Vinyl chloride	U	20.0	20.8	104	20.0	18.2	91.2	13.2	50 - 134	20	

MS_MSD - Modified 09/13/2009

PDF File ID: 1528606

Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L09100771 Cal ID: HPMS8 08-OCT-09 Worknum: WG316104

Instrument ID: HPMS8 Contract #: Prep Method: 5030C

Parent ID: L09100771-04 File ID: 8M357635 Dil: 1 Method: 8260B

Sample ID: L09100771-05 MS File ID: 8M357636 Dil: 1 Matrix: Water

Sample ID: L09100771-06 MSD File ID: 8M357637 Dil: 1 Units: ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Xylenes	U	60.0	50.7	84.5	60.0	50.0	83.3	1.33	75 - 120	20	

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

MS_MSD - Modified 09/13/2009

PDF File ID: 1528606

Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100771
Instrument: HPMS8
Analyst: MES
Workgroup: WG313952

Tune ID: WG313952-01
Run Date: 10/08/2009
Run Time: 08:25
File ID: 8M356975
Cal ID: HPMS8 -

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	20.5	12201	PASS
75.0	95.0	30.0	60.0	46.0	27410	PASS
95.0	95.0	100	100	100	59594	PASS
96.0	95.0	5.00	9.00	6.53	3893	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	78.7	46928	PASS
175	174	5.00	9.00	7.59	3564	PASS
176	174	95.0	101	98.3	46122	PASS
177	176	5.00	9.00	6.74	3108	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG313952-03	STD	01	10/08/2009 09:43	
WG313952-04	STD	01	10/08/2009 10:16	
WG313952-06	STD	01	10/08/2009 11:52	
WG313952-07	STD	01	10/08/2009 12:24	
WG313952-08	STD-CCV	01	10/08/2009 12:56	
WG313952-09	STD	01	10/08/2009 13:28	
WG313952-10	STD	01	10/08/2009 14:00	
WG313952-11	STD	01	10/08/2009 14:32	
WG313952-02	STD	01	10/08/2009 16:08	
WG313952-05	STD	01	10/08/2009 17:12	
WG313952-12	SSCV	01	10/08/2009 17:44	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1535997
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100771
Instrument: HPMS8
Analyst: MES
Workgroup: WG316103

Tune ID: WG316103-01
Run Date: 11/01/2009
Run Time: 14:56
File ID: 8M357623
Cal ID: HPMS8-08-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	21.1	7596	PASS
75.0	95.0	30.0	60.0	47.0	16966	PASS
95.0	95.0	100	100	100	36072	PASS
96.0	95.0	5.00	9.00	6.85	2472	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	88.6	31949	PASS
175	174	5.00	9.00	7.25	2315	PASS
176	174	95.0	101	96.9	30949	PASS
177	176	5.00	9.00	6.47	2003	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316103-02	CCV	01	11/01/2009 15:27	
WG316104-01	BLANK	01	11/01/2009 16:32	
WG316104-02	LCS	01	11/01/2009 17:04	
WG316104-06	LCS	01	11/01/2009 17:36	
L09100771-01	TB-1-102909	01	11/01/2009 18:09	
L09100771-04	4012-GW-102909	01	11/01/2009 21:21	
WG316104-03	REF	01	11/01/2009 21:21	
L09100771-05	4012-GW-102909-MS	01	11/01/2009 21:53	
WG316104-04	MS	01	11/01/2009 21:53	
L09100771-06	4012-GW-102909-MSD	01	11/01/2009 22:25	
WG316104-05	MSD	01	11/01/2009 22:25	
L09100771-09	4015-GW-102909	01	11/01/2009 22:58	
L09100771-12	4010-GW-102909	01	11/01/2009 23:30	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1535997
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100771
Instrument: HPMS9
Analyst: TMB
Workgroup: WG316150

Tune ID: WG316150-01
Run Date: 11/02/2009
Run Time: 16:16
File ID: 9M73256
Cal ID: HPMS9-02-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	23.9	5349	PASS
75.0	95.0	30.0	60.0	44.8	10026	PASS
95.0	95.0	100	100	100	22389	PASS
96.0	95.0	5.00	9.00	6.63	1485	PASS
173	174	0	2.00	0.586	122	PASS
174	95.0	50.0	100	93.0	20827	PASS
175	174	5.00	9.00	7.66	1596	PASS
176	174	95.0	101	97.0	20204	PASS
177	176	5.00	9.00	6.53	1320	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316150-03	STD-S	01	11/02/2009 16:41	
WG316150-04	STD-S	01	11/02/2009 17:13	
WG316150-05	STD-S	01	11/02/2009 17:43	
WG316150-06	STD-S	01	11/02/2009 18:14	
WG316150-07	STD-S	01	11/02/2009 18:46	
WG316150-08	STD-CCV-S	01	11/02/2009 19:17	
WG316150-09	STD-S	01	11/02/2009 19:49	
WG316150-10	STD-S	01	11/02/2009 20:20	
WG316150-11	STD-S	01	11/02/2009 20:52	
WG316150-12	SSCV-S	01	11/02/2009 22:26	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1535997
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L09100771
Instrument: HPMS9
Analyst: TMB
Workgroup: WG316886

Tune ID: WG316886-01
Run Date: 11/09/2009
Run Time: 10:31
File ID: 9M73447
Cal ID: HPMS9-02-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	25.2	3552	PASS
75.0	95.0	30.0	60.0	49.3	6949	PASS
95.0	95.0	100	100	100	14105	PASS
96.0	95.0	5.00	9.00	7.47	1054	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	98.7	13925	PASS
175	174	5.00	9.00	7.74	1078	PASS
176	174	95.0	101	97.3	13555	PASS
177	176	5.00	9.00	6.99	948	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316886-02	CCV-S	01	11/09/2009 11:59	
WG316889-01	BLANK	01	11/09/2009 12:29	
WG316889-02	LCS	01	11/09/2009 13:01	
WG316889-03	LCS2	01	11/09/2009 13:31	
L09100771-02	4012-S001-102909	01	11/09/2009 19:42	
L09100771-03	4012-S002-102909	01	11/09/2009 20:13	
L09100771-07	4015-S001-102909	01	11/09/2009 20:44	
L09100771-08	4015-S002-102909	01	11/09/2009 21:15	
L09100771-10	4010-S001-102909	01	11/09/2009 21:46	
L09100771-11	4010-S002-102909	01	11/09/2009 22:17	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1535997
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS8
Analytical Method: 8260B **Initial Calibration Date:** 08-OCT-09 17:12
ICAL Workgroup: WG313952 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.3787	10.7		
1,2-Dichloropropane	CCC	0.2664	2.51		
Chloroform	CCC	0.4400	1.95		
Ethylbenzene	CCC	0.4952	6.57		
Toluene	CCC	1.305	7.86		
Vinyl Chloride	CCC	0.3869	14.7		
1,1,2,2-Tetrachloroethane	SPCC	0.4850	21.2		1.00000
1,1-Dichloroethane	SPCC	0.4578	2.89		
Bromoform	SPCC	0.1925	14.0		
Chlorobenzene	SPCC	0.9340	8.45		
Chloromethane	SPCC	0.6123	11.4		
1,1,1-Trichloroethane		0.3901	9.10		
1,1,2-Trichloroethane		0.2242	11.0		
1,2,4-Trichlorobenzene		0.9598	13.0		
1,2-Dichlorobenzene		1.346	14.9		
1,2-Dichloroethane		0.3202	2.35		
1,3-Dichlorobenzene		1.423	12.9		
1,4-Dichlorobenzene		1.477	13.6		
1,4-Dioxane		0.001400	17.0	0.99800	
2-Butanone		0.07355	2.21		
2-Hexanone		0.06762	3.58		
4-Methyl-2-Pentanone		0.05963	6.54		
Acetone		0.04862	5.97		
Acrylonitrile		0.06502	6.10		
Benzene		0.9411	4.62		
Bromodichloromethane		0.3337	6.02		
Bromomethane		0.1945	9.25		
Carbon Disulfide		0.7284	4.04		
Carbon Tetrachloride		0.3636	11.5		
Chloroethane		0.1902	6.04		
Dibromochloromethane		0.3057	8.01		
Methyl Tert Butyl Ether		0.4946	4.40		
Methylene Chloride		0.2764	11.3		
Styrene		1.029	8.46		
Tetrachloroethene		0.2599	7.24		
Trichloroethene		0.2764	2.04		
Vinyl Acetate		0.2695	4.84		
cis-1,2-Dichloroethene		0.2697	2.12		
cis-1,3-Dichloropropene		0.3879	6.91		
m-,p-Xylene		0.6024	5.23		
o-Xylene		0.6024	6.62		
trans-1,2-Dichloroethene		0.3662	4.58		
trans-1,3-Dichloropropene		0.4365	9.77		

INT_CAL - Modified 03/06/2008
PDF File ID: 1535996
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L09100771
Analytical Method: 8260B
ICAL Workgroup: WG313952

Instrument ID: HPMS8
Initial Calibration Date: 08-OCT-09 17:12
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 1535996
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS9
Analytical Method: 8260B **Initial Calibration Date:** 02-NOV-09 20:52
ICAL Workgroup: WG316150 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
1,1-Dichloroethene	CCC	0.6441	3.55		
1,2-Dichloropropane	CCC	0.3760	1.92		
Chloroform	CCC	0.5154	2.35		
Ethylbenzene	CCC	0.5483	5.92		
Toluene	CCC	1.578	5.82		
Vinyl Chloride	CCC	0.3097	27.2		0.99900
1,1,2,2-Tetrachloroethane	SPCC	0.6535	6.78		
1,1-Dichloroethane	SPCC	0.7095	3.60		
Bromoform	SPCC	0.2630	7.26		
Chlorobenzene	SPCC	1.066	0.947		
Chloromethane	SPCC	0.6378	10.3		
1,1,1-Trichloroethane		0.4675	6.45		
1,1,2-Trichloroethane		0.2885	2.08		
1,2,4-Trichlorobenzene		0.9339	4.30		
1,2-Dichlorobenzene		1.362	1.42		
1,2-Dichloroethane		0.4527	1.79		
1,3-Dichlorobenzene		1.514	1.50		
1,4-Dichlorobenzene		1.536	2.19		
1,4-Dioxane		0.002460	3.62		
2-Butanone		0.1659	10.1		
2-Hexanone		0.2712	5.62		
4-Methyl-2-Pentanone		0.1262	3.44		
Acetone		0.1172	33.4		1.00000
Acrylonitrile		0.1407	3.76		
Benzene		1.193	3.26		
Bromodichloromethane		0.3567	4.18		
Bromomethane		0.2718	7.22		
Carbon Disulfide		0.8541	3.03		
Carbon Tetrachloride		0.4340	6.41		
Chloroethane		0.2651	4.78		
Dibromochloromethane		0.3569	5.52		
Methyl Tert Butyl Ether		0.6732	4.14		
Methylene Chloride		0.3382	15.1		1.00000
Styrene		1.016	8.20		
Tetrachloroethene		0.3551	2.75		
Trichloroethene		0.3375	3.58		
Vinyl Acetate		0.7121	4.76		
cis-1,2-Dichloroethene		0.3394	4.16		
cis-1,3-Dichloropropene		0.4149	6.49		
m-,p-Xylene		0.6447	7.38		
o-Xylene		0.6051	7.72		
trans-1,2-Dichloroethene		0.3184	4.35		
trans-1,3-Dichloropropene		0.4977	6.80		

INT_CAL - Modified 03/06/2008
PDF File ID: 1535996
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L09100771
Analytical Method: 8260B
ICAL Workgroup: WG316150

Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 1535996
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS8

Analytical Method: 8260B **Initial Calibration Date:** 08-OCT-09 17:12

Column ID: F

Analyte	WG313952-02			WG313952-03			WG313952-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2593.00000	0.2840	1.00	8461.00000	0.3701
1,2-Dichloropropane	NA	NA	NA	0.400	2502.00000	0.2740	1.00	6355.00000	0.2780
Chloroform	0.300	3144.00000	0.4287	0.400	4063.00000	0.4450	1.00	10232.0000	0.4476
Ethylbenzene	NA	NA	NA	0.400	3916.00000	0.5283	1.00	9837.00000	0.5265
Toluene	NA	NA	NA	0.400	10501.0000	1.417	1.00	27084.0000	1.450
Vinyl Chloride	NA	NA	NA	0.400	3684.00000	0.4035	1.00	10004.0000	0.4376
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	2487.00000	0.5892	1.00	7384.00000	0.6954
1,1-Dichloroethane	NA	NA	NA	0.400	4100.00000	0.4490	1.00	10031.0000	0.4388
Bromoform	NA	NA	NA	NA	NA	NA	1.00	4510.00000	0.2414
Chlorobenzene	NA	NA	NA	0.400	7635.00000	1.030	1.00	20120.0000	1.077
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	16396.0000	0.7173
1,1,1-Trichloroethane	NA	NA	NA	0.400	2830.00000	0.3099	1.00	8606.00000	0.3765
1,1,2-Trichloroethane	NA	NA	NA	0.400	1672.00000	0.2256	1.00	5293.00000	0.2833
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	4614.00000	1.093	1.00	12866.0000	1.212
1,2-Dichlorobenzene	0.300	5598.00000	1.657	0.400	6308.00000	1.494	1.00	17596.0000	1.657
1,2-Dichloroethane	NA	NA	NA	0.400	2878.00000	0.3152	1.00	7641.00000	0.3343
1,3-Dichlorobenzene	NA	NA	NA	0.400	7017.00000	1.662	1.00	18742.0000	1.765
1,4-Dichlorobenzene	0.300	6103.00000	1.806	0.400	6693.00000	1.586	1.00	19066.0000	1.796
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	9295.00000	1.018	1.00	21278.0000	0.9309
Bromodichloromethane	NA	NA	NA	0.400	3302.00000	0.3616	1.00	8159.00000	0.3569
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	3937.00000	0.1722
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	15761.0000	0.6895
Carbon Tetrachloride	NA	NA	NA	0.400	2482.00000	0.2718	1.00	7779.00000	0.3403
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	3861.00000	0.1689
Dibromochloromethane	NA	NA	NA	0.400	2253.00000	0.3039	1.00	6752.00000	0.3614
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	1.00	11012.0000	0.4817
Methylene Chloride	NA	NA	NA	NA	NA	NA	1.00	7630.00000	0.3338
Styrene	NA	NA	NA	0.400	8470.00000	1.143	1.00	21911.0000	1.173
Tetrachloroethene	NA	NA	NA	0.400	1610.00000	0.2172	1.00	5064.00000	0.2710
Trichloroethene	NA	NA	NA	0.400	2504.00000	0.2742	1.00	6224.00000	0.2723
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	2435.00000	0.2667	1.00	6205.00000	0.2715
cis-1,3-Dichloropropene	NA	NA	NA	0.400	3906.00000	0.4278	1.00	9632.00000	0.4214
m-,p-Xylene	NA	NA	NA	0.800	9502.00000	0.6409	2.00	24122.0000	0.6456
o-Xylene	NA	NA	NA	0.400	4871.00000	0.6571	1.00	12353.0000	0.6612
trans-1,2-Dichloroethene	NA	NA	NA	0.400	3168.00000	0.3470	1.00	7788.00000	0.3407

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS8

Analytical Method: 8260B **Initial Calibration Date:** 08-OCT-09 17:12

Column ID: F

Analyte	WG313952-05			WG313952-06			WG313952-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	17143.0000	0.3755	5.00	45333.0000	0.3946	20.0	182014.000	0.3961
1,2-Dichloropropane	2.00	11806.0000	0.2586	5.00	30877.0000	0.2688	20.0	121032.000	0.2634
Chloroform	2.00	19840.0000	0.4346	5.00	51342.0000	0.4469	20.0	203675.000	0.4432
Ethylbenzene	2.00	15951.0000	0.4284	5.00	44518.0000	0.4809	20.0	182549.000	0.4867
Toluene	2.00	48151.0000	1.293	5.00	125054.000	1.351	20.0	489613.000	1.306
Vinyl Chloride	2.00	19292.0000	0.4226	5.00	47117.0000	0.4102	20.0	196867.000	0.4284
1,1,2,2-Tetrachloroethane	2.00	8970.00000	0.4170	5.00	24079.0000	0.4544	20.0	98424.0000	0.4517
1,1-Dichloroethane	2.00	20175.0000	0.4420	5.00	54324.0000	0.4729	20.0	213487.000	0.4646
Bromoform	2.00	5747.00000	0.1543	5.00	15845.0000	0.1712	20.0	72176.0000	0.1924
Chlorobenzene	2.00	31050.0000	0.8338	5.00	83731.0000	0.9045	20.0	342487.000	0.9132
Chloromethane	2.00	29872.0000	0.6544	5.00	73115.0000	0.6365	20.0	289911.000	0.6309
1,1,1-Trichloroethane	2.00	17416.0000	0.3815	5.00	46923.0000	0.4085	20.0	189163.000	0.4117
1,1,2-Trichloroethane	2.00	7957.00000	0.2137	5.00	19963.0000	0.2157	20.0	82573.0000	0.2202
1,2,4-Trichlorobenzene	2.00	18333.0000	0.8522	5.00	47428.0000	0.8950	20.0	200725.000	0.9212
1,2-Dichlorobenzene	2.00	25452.0000	1.183	5.00	66241.0000	1.250	20.0	274317.000	1.259
1,2-Dichloroethane	2.00	14266.0000	0.3125	5.00	36965.0000	0.3218	20.0	147253.000	0.3205
1,3-Dichlorobenzene	2.00	27377.0000	1.273	5.00	70791.0000	1.336	20.0	300896.000	1.381
1,4-Dichlorobenzene	2.00	28185.0000	1.310	5.00	71303.0000	1.346	20.0	305928.000	1.404
1,4-Dioxane	50.0	1108.00000	0.001000	100	3092.00000	0.001300	150	4699.00000	0.001400
2-Butanone	NA	NA	NA	5.00	8363.00000	0.07280	20.0	32583.0000	0.07090
2-Hexanone	NA	NA	NA	5.00	6082.00000	0.06570	20.0	24653.0000	0.06570
4-Methyl-2-Pentanone	NA	NA	NA	5.00	6196.00000	0.05390	20.0	25609.0000	0.05570
Acetone	NA	NA	NA	5.00	6206.00000	0.05400	20.0	21775.0000	0.04740
Acrylonitrile	NA	NA	NA	5.00	6817.00000	0.05930	20.0	28233.0000	0.06140
Benzene	2.00	41414.0000	0.9072	5.00	112109.000	0.9759	20.0	438118.000	0.9534
Bromodichloromethane	2.00	13602.0000	0.2980	5.00	36667.0000	0.3192	20.0	151773.000	0.3303
Bromomethane	2.00	7912.00000	0.1733	5.00	21045.0000	0.1832	20.0	91992.0000	0.2002
Carbon Disulfide	2.00	31409.0000	0.6881	5.00	86669.0000	0.7545	20.0	348353.000	0.7581
Carbon Tetrachloride	2.00	16411.0000	0.3595	5.00	42725.0000	0.3719	20.0	175814.000	0.3826
Chloroethane	2.00	8468.00000	0.1855	5.00	21076.0000	0.1835	20.0	90337.0000	0.1966
Dibromochloromethane	2.00	10295.0000	0.2765	5.00	27169.0000	0.2935	20.0	111908.000	0.2984
Methyl Tert Butyl Ether	2.00	21122.0000	0.4627	5.00	59119.0000	0.5146	20.0	228836.000	0.4980
Methylene Chloride	2.00	13759.0000	0.3014	5.00	32302.0000	0.2812	20.0	116825.000	0.2542
Styrene	2.00	34009.0000	0.9133	5.00	89389.0000	0.9656	20.0	381095.000	1.016
Tetrachloroethene	2.00	9341.00000	0.2508	5.00	25100.0000	0.2711	20.0	102777.000	0.2740
Trichloroethene	2.00	12147.0000	0.2661	5.00	31541.0000	0.2746	20.0	128489.000	0.2796
Vinyl Acetate	NA	NA	NA	5.00	31672.0000	0.2757	20.0	121008.000	0.2633
cis-1,2-Dichloroethene	2.00	11766.0000	0.2577	5.00	31814.0000	0.2769	20.0	125451.000	0.2730
cis-1,3-Dichloropropene	2.00	15692.0000	0.3438	5.00	42528.0000	0.3702	20.0	176592.000	0.3843
m-,p-Xylene	4.00	40769.0000	0.5474	10.0	108690.000	0.5871	40.0	441628.000	0.5888
o-Xylene	2.00	20130.0000	0.5406	5.00	53852.0000	0.5817	20.0	220998.000	0.5893
trans-1,2-Dichloroethene	2.00	16326.0000	0.3576	5.00	44353.0000	0.3861	20.0	174367.000	0.3795

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS8

Analytical Method: 8260B **Initial Calibration Date:** 08-OCT-09 17:12

Column ID: F

Analyte	WG313952-08			WG313952-09			WG313952-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	469927.000	0.4025	100	987216.000	0.4049	200	2021021.00	0.4020
1,2-Dichloropropane	50.0	308923.000	0.2646	100	638079.000	0.2617	200	1316666.00	0.2619
Chloroform	50.0	525327.000	0.4500	100	1066874.00	0.4376	200	2143266.00	0.4263
Ethylbenzene	50.0	469603.000	0.4895	100	1026590.00	0.5038	200	2273183.00	0.5173
Toluene	50.0	1215904.00	1.267	100	2486699.00	1.220	200	4982276.00	1.134
Vinyl Chloride	50.0	457269.000	0.3917	100	795651.000	0.3264	200	1380072.00	0.2745
1,1,2,2-Tetrachloroethane	50.0	250951.000	0.4434	100	514534.000	0.4247	200	1035181.00	0.4039
1,1-Dichloroethane	50.0	551178.000	0.4721	100	1116700.00	0.4580	200	2339167.00	0.4653
Bromoform	50.0	189344.000	0.1973	100	404004.000	0.1983	200	845707.000	0.1925
Chlorobenzene	50.0	868723.000	0.9054	100	1850115.00	0.9079	200	3955164.00	0.9001
Chloromethane	50.0	688732.000	0.5900	100	1339264.00	0.5493	200	2553053.00	0.5079
1,1,1-Trichloroethane	50.0	483875.000	0.4145	100	1004538.00	0.4120	200	2040868.00	0.4060
1,1,2-Trichloroethane	50.0	208473.000	0.2173	100	434049.000	0.2130	200	899791.000	0.2048
1,2,4-Trichlorobenzene	50.0	517207.000	0.9139	100	1096138.00	0.9047	200	2271145.00	0.8861
1,2-Dichlorobenzene	50.0	698207.000	1.234	100	1460091.00	1.205	200	3004630.00	1.172
1,2-Dichloroethane	50.0	381367.000	0.3267	100	777340.000	0.3188	200	1568684.00	0.3120
1,3-Dichlorobenzene	50.0	757552.000	1.339	100	1601145.00	1.322	200	3358721.00	1.311
1,4-Dichlorobenzene	50.0	778396.000	1.375	100	1631386.00	1.347	200	3394063.00	1.324
1,4-Dioxane	200	7539.00000	0.001600	400	14611.0000	0.001500	NA	NA	NA
2-Butanone	50.0	88439.0000	0.07580	100	179726.000	0.07370	200	370381.000	0.07370
2-Hexanone	50.0	68295.0000	0.07120	100	141027.000	0.06920	200	286612.000	0.06520
4-Methyl-2-Pentanone	50.0	73787.0000	0.06320	100	148197.000	0.06080	200	307019.000	0.06110
Acetone	50.0	57689.0000	0.04940	100	116990.000	0.04800	200	237104.000	0.04720
Acrylonitrile	50.0	80869.0000	0.06930	100	166302.000	0.06820	200	338359.000	0.06730
Benzene	50.0	1105832.00	0.9473	100	2242761.00	0.9199	200	4404996.00	0.8763
Bromodichloromethane	50.0	391619.000	0.3355	100	815875.000	0.3346	200	1676038.00	0.3334
Bromomethane	50.0	241738.000	0.2071	100	513661.000	0.2107	200	1080656.00	0.2150
Carbon Disulfide	50.0	872494.000	0.7474	100	1799489.00	0.7381	200	3634459.00	0.7230
Carbon Tetrachloride	50.0	460377.000	0.3944	100	978247.000	0.4012	200	1943740.00	0.3867
Chloroethane	50.0	232547.000	0.1992	100	485506.000	0.1991	200	997716.000	0.1985
Dibromochloromethane	50.0	293958.000	0.3064	100	621491.000	0.3050	200	1318883.00	0.3001
Methyl Tert Butyl Ether	50.0	614788.000	0.5266	100	1215167.00	0.4984	200	2413573.00	0.4801
Methylene Chloride	50.0	296156.000	0.2537	100	619346.000	0.2540	200	1288659.00	0.2563
Styrene	50.0	978606.000	1.020	100	2068588.00	1.015	200	4342735.00	0.9883
Tetrachloroethene	50.0	257132.000	0.2680	100	544637.000	0.2673	200	1140593.00	0.2596
Trichloroethene	50.0	326945.000	0.2801	100	689899.000	0.2830	200	1414558.00	0.2814
Vinyl Acetate	50.0	334201.000	0.2863	100	670774.000	0.2751	200	1349989.00	0.2685
cis-1,2-Dichloroethene	50.0	318535.000	0.2729	100	658304.000	0.2700	200	1350240.00	0.2686
cis-1,3-Dichloropropene	50.0	453557.000	0.3885	100	935032.000	0.3835	200	1928417.00	0.3836
m-,p-Xylene	100	1149286.00	0.5989	200	2499500.00	0.6133	400	5246277.00	0.5970
o-Xylene	50.0	562198.000	0.5860	100	1222557.00	0.5999	200	2652696.00	0.6037
trans-1,2-Dichloroethene	50.0	446614.000	0.3826	100	906673.000	0.3719	200	1828772.00	0.3638

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 08-OCT-09 17:12
Column ID: F

Analyte	WG313952-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1,4-Dioxane	600	24595.0000	0.001600
2-Butanone	300	574325.000	0.07440
2-Hexanone	300	453818.000	0.06870
4-Methyl-2-Pentanone	300	487218.000	0.06310
Acetone	300	352981.000	0.04570
Acrylonitrile	300	498156.000	0.06460
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Methyl Tert Butyl Ether	NA	NA	NA
Methylene Chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl Acetate	300	1914464.00	0.2481
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
o-Xylene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA

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INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 08-OCT-09 17:12
Column ID: F

Analyte	WG313952-02			WG313952-03			WG313952-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	0.400	3540.00000	0.4775	1.00	9751.00000	0.5219

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INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 08-OCT-09 17:12
Column ID: F

Analyte	WG313952-05			WG313952-06			WG313952-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	2.00	14588.0000	0.3918	5.00	39589.0000	0.4277	20.0	156865.000	0.4183

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 08-OCT-09 17:12
Column ID: F

Analyte	WG313952-08			WG313952-09			WG313952-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	50.0	412552.000	0.4300	100	855544.000	0.4198	200	1778210.00	0.4047

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Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS8
Initial Calibration Date: 08-OCT-09 17:12
Column ID: F

Analyte	WG313952-11		
	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-03			WG316150-04			WG316150-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	2.00	19170.0000	0.6150
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	2.00	11591.0000	0.3719
Chloroform	NA	NA	NA	NA	NA	NA	2.00	15452.0000	0.4957
Ethylbenzene	0.500	3599.00000	0.5722	1.00	6155.00000	0.5078	2.00	12309.0000	0.5141
Toluene	0.500	10968.0000	1.744	1.00	17483.0000	1.442	2.00	35908.0000	1.500
Vinyl Chloride	NA	NA	NA	NA	NA	NA	2.00	12769.0000	0.4096
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	2.00	8431.00000	0.7030
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	2.00	20959.0000	0.6724
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	2.00	25219.0000	1.053
Chloromethane	NA	NA	NA	NA	NA	NA	2.00	22944.0000	0.7361
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	2.00	13122.0000	0.4210
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	2.00	6725.00000	0.2809
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	10936.0000	0.9119
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	15937.0000	1.329
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	2.00	14538.0000	0.4664
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	18555.0000	1.547
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	2.00	18856.0000	1.572
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.500	10350.0000	1.261	1.00	17993.0000	1.145	2.00	36085.0000	1.158
Bromodichloromethane	NA	NA	NA	NA	NA	NA	2.00	10347.0000	0.3319
Bromomethane	NA	NA	NA	NA	NA	NA	2.00	9321.00000	0.2990
Carbon Disulfide	NA	NA	NA	NA	NA	NA	2.00	27563.0000	0.8843
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	2.00	12038.0000	0.3862
Chloroethane	NA	NA	NA	NA	NA	NA	2.00	8075.00000	0.2591
Dibromochloromethane	NA	NA	NA	NA	NA	NA	2.00	7666.00000	0.3202
Methyl Tert Butyl Ether	NA	NA	NA	NA	NA	NA	2.00	19697.0000	0.6319
Methylene Chloride	NA	NA	NA	NA	NA	NA	2.00	13406.0000	0.4301
Styrene	NA	NA	NA	NA	NA	NA	2.00	21315.0000	0.8903
Tetrachloroethene	NA	NA	NA	NA	NA	NA	2.00	8524.00000	0.3560
Trichloroethene	NA	NA	NA	NA	NA	NA	2.00	10208.0000	0.3275
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	2.00	9732.00000	0.3122
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	2.00	11871.0000	0.3808
m-,p-Xylene	1.00	7673.00000	0.6099	2.00	13933.0000	0.5747	4.00	30114.0000	0.6289
o-Xylene	0.500	4002.00000	0.6362	1.00	6746.00000	0.5565	2.00	12670.0000	0.5292
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	2.00	9375.00000	0.3008

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 02-NOV-09 20:52

Column ID: F

Analyte	WG316150-06			WG316150-07			WG316150-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	5.00	48340.0000	0.6215	20.0	212790.000	0.6733	50.0	521771.000	0.6578
1,2-Dichloropropane	5.00	28438.0000	0.3656	20.0	121800.000	0.3854	50.0	301425.000	0.3800
Chloroform	5.00	39697.0000	0.5104	20.0	166740.000	0.5276	50.0	413958.000	0.5219
Ethylbenzene	5.00	30842.0000	0.5116	20.0	136716.000	0.5536	50.0	348312.000	0.5602
Toluene	5.00	91550.0000	1.519	20.0	399705.000	1.619	50.0	991560.000	1.595
Vinyl Chloride	5.00	28704.0000	0.3690	20.0	107663.000	0.3407	50.0	246781.000	0.3111
1,1,2,2-Tetrachloroethane	5.00	20621.0000	0.6737	20.0	88020.0000	0.6770	50.0	212651.000	0.6443
1,1-Dichloroethane	5.00	54067.0000	0.6951	20.0	233789.000	0.7397	50.0	574551.000	0.7243
Bromoform	5.00	14227.0000	0.2360	20.0	62649.0000	0.2537	50.0	164254.000	0.2642
Chlorobenzene	5.00	63981.0000	1.061	20.0	267304.000	1.083	50.0	660486.000	1.062
Chloromethane	5.00	52209.0000	0.6712	20.0	202992.000	0.6423	50.0	511134.000	0.6444
1,1,1-Trichloroethane	5.00	34105.0000	0.4385	20.0	156208.000	0.4943	50.0	382895.000	0.4827
1,1,2-Trichloroethane	5.00	17218.0000	0.2856	20.0	73421.0000	0.2973	50.0	178923.000	0.2878
1,2,4-Trichlorobenzene	5.00	27527.0000	0.8994	20.0	123535.000	0.9502	50.0	299707.000	0.9081
1,2-Dichlorobenzene	5.00	41646.0000	1.361	20.0	178590.000	1.374	50.0	451243.000	1.367
1,2-Dichloroethane	5.00	34786.0000	0.4472	20.0	142886.000	0.4521	50.0	358049.000	0.4514
1,3-Dichlorobenzene	5.00	45418.0000	1.484	20.0	195202.000	1.502	50.0	495759.000	1.502
1,4-Dichlorobenzene	5.00	48147.0000	1.573	20.0	200049.000	1.539	50.0	490250.000	1.485
1,4-Dioxane	100	3764.00000	0.002400	150	6033.00000	0.002500	200	8248.00000	0.002600
2-Butanone	5.00	15262.0000	0.1962	20.0	51956.0000	0.1644	50.0	132377.000	0.1669
2-Hexanone	5.00	17012.0000	0.2822	20.0	65796.0000	0.2664	50.0	178209.000	0.2866
4-Methyl-2-Pentanone	5.00	10051.0000	0.1292	20.0	38850.0000	0.1229	50.0	102400.000	0.1291
Acetone	5.00	15174.0000	0.1951	20.0	36103.0000	0.1142	50.0	86709.0000	0.1093
Acrylonitrile	5.00	11061.0000	0.1422	20.0	44605.0000	0.1411	50.0	113776.000	0.1434
Benzene	5.00	89887.0000	1.156	20.0	383535.000	1.214	50.0	950606.000	1.198
Bromodichloromethane	5.00	26913.0000	0.3460	20.0	113840.000	0.3602	50.0	290953.000	0.3668
Bromomethane	5.00	22131.0000	0.2845	20.0	84056.0000	0.2660	50.0	219502.000	0.2767
Carbon Disulfide	5.00	63806.0000	0.8203	20.0	264298.000	0.8363	50.0	690816.000	0.8709
Carbon Tetrachloride	5.00	32191.0000	0.4139	20.0	141572.000	0.4479	50.0	359731.000	0.4535
Chloroethane	5.00	21236.0000	0.2730	20.0	86033.0000	0.2722	50.0	220442.000	0.2779
Dibromochloromethane	5.00	21239.0000	0.3523	20.0	88782.0000	0.3595	50.0	227001.000	0.3651
Methyl Tert Butyl Ether	5.00	52045.0000	0.6691	20.0	206770.000	0.6542	50.0	549327.000	0.6925
Methylene Chloride	5.00	28369.0000	0.3647	20.0	101187.000	0.3202	50.0	247831.000	0.3124
Styrene	5.00	57172.0000	0.9483	20.0	249648.000	1.011	50.0	658193.000	1.059
Tetrachloroethene	5.00	20244.0000	0.3358	20.0	89042.0000	0.3606	50.0	222047.000	0.3571
Trichloroethene	5.00	24734.0000	0.3180	20.0	110516.000	0.3497	50.0	271956.000	0.3429
Vinyl Acetate	5.00	58144.0000	0.7475	20.0	232466.000	0.7355	50.0	571229.000	0.7202
cis-1,2-Dichloroethene	5.00	26364.0000	0.3390	20.0	110564.000	0.3498	50.0	273851.000	0.3452
cis-1,3-Dichloropropene	5.00	29618.0000	0.3808	20.0	134167.000	0.4245	50.0	341070.000	0.4300
m-,p-Xylene	10.0	72933.0000	0.6049	40.0	325543.000	0.6592	100	839947.000	0.6755
o-Xylene	5.00	34214.0000	0.5675	20.0	157097.000	0.6362	50.0	386028.000	0.6209
trans-1,2-Dichloroethene	5.00	23421.0000	0.3011	20.0	104238.000	0.3298	50.0	260361.000	0.3282

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS9

Analytical Method: 8260B **Initial Calibration Date:** 02-NOV-09 20:52

Column ID: F

Analyte	WG316150-09			WG316150-10			WG316150-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	100	1069176.00	0.6580	200	2203673.00	0.6389	NA	NA	NA
1,2-Dichloropropane	100	618305.000	0.3805	200	1285428.00	0.3727	NA	NA	NA
Chloroform	100	854301.000	0.5258	200	1762418.00	0.5110	NA	NA	NA
Ethylbenzene	100	742936.000	0.5810	200	1595759.00	0.5859	NA	NA	NA
Toluene	100	2067050.00	1.617	200	4318909.00	1.586	NA	NA	NA
Vinyl Chloride	100	406964.000	0.2505	200	610682.000	0.1771	NA	NA	NA
1,1,2,2-Tetrachloroethane	100	433378.000	0.6488	200	822200.000	0.5741	NA	NA	NA
1,1-Dichloroethane	100	1184247.00	0.7289	200	2401527.00	0.6963	NA	NA	NA
Bromoform	100	362277.000	0.2833	200	757248.000	0.2780	NA	NA	NA
Chlorobenzene	100	1370326.00	1.072	200	2894398.00	1.063	NA	NA	NA
Chloromethane	100	949925.000	0.5846	200	1890807.00	0.5482	NA	NA	NA
1,1,1-Trichloroethane	100	793993.000	0.4887	200	1654207.00	0.4796	NA	NA	NA
1,1,2-Trichloroethane	100	375592.000	0.2937	200	778409.000	0.2858	NA	NA	NA
1,2,4-Trichlorobenzene	100	618674.000	0.9262	200	1442803.00	1.007	NA	NA	NA
1,2-Dichlorobenzene	100	926015.000	1.386	200	1943175.00	1.357	NA	NA	NA
1,2-Dichloroethane	100	740873.000	0.4560	200	1527332.00	0.4428	NA	NA	NA
1,3-Dichlorobenzene	100	1021176.00	1.529	200	2178739.00	1.521	NA	NA	NA
1,4-Dichlorobenzene	100	1020797.00	1.528	200	2174246.00	1.518	NA	NA	NA
1,4-Dioxane	400	17125.0000	0.002600	NA	NA	NA	600	23728.0000	0.002200
2-Butanone	100	270547.000	0.1665	200	508997.000	0.1476	300	814065.000	0.1535
2-Hexanone	100	362203.000	0.2833	200	676828.000	0.2485	300	1064671.00	0.2602
4-Methyl-2-Pentanone	100	212364.000	0.1307	200	411965.000	0.1194	300	667462.000	0.1259
Acetone	100	163622.000	0.1007	200	320251.000	0.09290	300	483711.000	0.09120
Acrylonitrile	100	238929.000	0.1471	200	478821.000	0.1388	300	696668.000	0.1314
Benzene	100	1979325.00	1.218	200	4115102.00	1.193	NA	NA	NA
Bromodichloromethane	100	603590.000	0.3715	200	1254398.00	0.3637	NA	NA	NA
Bromomethane	100	426447.000	0.2625	200	835428.000	0.2422	NA	NA	NA
Carbon Disulfide	100	1421374.00	0.8748	200	2890248.00	0.8380	NA	NA	NA
Carbon Tetrachloride	100	735721.000	0.4528	200	1550879.00	0.4496	NA	NA	NA
Chloroethane	100	430739.000	0.2651	200	838081.000	0.2430	NA	NA	NA
Dibromochloromethane	100	481399.000	0.3765	200	1001304.00	0.3676	NA	NA	NA
Methyl Tert Butyl Ether	100	1153852.00	0.7101	200	2351048.00	0.6816	NA	NA	NA
Methylene Chloride	100	497522.000	0.3062	200	1018667.00	0.2953	NA	NA	NA
Styrene	100	1405185.00	1.099	200	2972098.00	1.091	NA	NA	NA
Tetrachloroethene	100	458545.000	0.3586	200	987904.000	0.3627	NA	NA	NA
Trichloroethene	100	557645.000	0.3432	200	1186197.00	0.3439	NA	NA	NA
Vinyl Acetate	100	1184341.00	0.7289	200	2332609.00	0.6763	300	3520497.00	0.6640
cis-1,2-Dichloroethene	100	568910.000	0.3501	200	1173405.00	0.3402	NA	NA	NA
cis-1,3-Dichloropropene	100	716780.000	0.4411	200	1489555.00	0.4319	NA	NA	NA
m-,p-Xylene	200	1776721.00	0.6948	400	3866406.00	0.7098	NA	NA	NA
o-Xylene	100	823463.000	0.6440	200	1770999.00	0.6502	NA	NA	NA
trans-1,2-Dichloroethene	100	534595.000	0.3290	200	1109204.00	0.3216	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B

Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-03			WG316150-04			WG316150-05		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	2.00	10413.0000	0.4349

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-06			WG316150-07			WG316150-08		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	5.00	29331.0000	0.4865	20.0	125121.000	0.5067	50.0	316250.000	0.5086

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8260B
Instrument ID: HPMS9
Initial Calibration Date: 02-NOV-09 20:52
Column ID: F

Analyte	WG316150-09			WG316150-10			WG316150-11		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
trans-1,3-Dichloropropene	100	674190.000	0.5273	200	1421982.00	0.5221	NA	NA	NA

INT_CAL - Modified 03/06/2008
PDF File ID: 1535996
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 10/08/2009 Sample ID: WG313952-12
Instrument ID: HPMS8 Run Time: 17:44 Method: 8260B
File ID: 8M356992 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG313952 Cal ID: HPMS8 - 08-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	49.0	ug/L	0.371	2.00	25	
1,2-Dichloropropane	CCC	50.0	48.2	ug/L	0.257	3.60	25	
Chloroform	CCC	50.0	49.2	ug/L	0.433	1.50	25	
Ethylbenzene	CCC	50.0	47.7	ug/L	0.473	4.60	25	
Toluene	CCC	50.0	46.8	ug/L	1.22	6.40	25	
Vinyl Chloride	CCC	50.0	45.8	ug/L	0.354	8.40	25	
1,1,2,2-Tetrachloroethane	SPCC	50.0	47.4	ug/L	0.417	5.20	25	
1,1-Dichloroethane	SPCC	50.0	49.4	ug/L	0.452	1.30	25	
Bromoform	SPCC	50.0	49.2	ug/L	0.189	1.70	25	
Chlorobenzene	SPCC	50.0	47.1	ug/L	0.881	5.70	25	
Chloromethane	SPCC	50.0	43.8	ug/L	0.537	12.3	25	
1,1,1-Trichloroethane		50.0	50.8	ug/L	0.397	1.70	25	
1,1,2-Trichloroethane		50.0	47.8	ug/L	0.215	4.30	25	
1,2,4-Trichlorobenzene		50.0	43.8	ug/L	0.840	12.4	25	
1,2-Dichlorobenzene		50.0	44.2	ug/L	1.19	11.5	25	
1,2-Dichloroethane		50.0	48.8	ug/L	0.312	2.50	25	
1,3-Dichlorobenzene		50.0	45.0	ug/L	1.28	10.0	25	
1,4-Dichlorobenzene		50.0	43.8	ug/L	1.29	12.5	25	
1,4-Dioxane		200	174	ug/L	0.00130	13.2	25	
2-Butanone		50.0	52.0	ug/L	0.0765	4.00	25	
2-Hexanone		50.0	51.5	ug/L	0.0696	2.90	25	
4-Methyl-2-Pentanone		50.0	50.0	ug/L	0.0597	0.100	25	
Acetone		50.0	51.7	ug/L	0.0502	3.30	25	
Acrylonitrile		50.0	51.4	ug/L	0.0668	2.80	25	
Benzene		50.0	48.3	ug/L	0.909	3.40	25	
Bromodichloromethane		50.0	50.7	ug/L	0.338	1.40	25	
Bromomethane		50.0	51.5	ug/L	0.200	2.90	25	
Carbon Disulfide		50.0	43.9	ug/L	0.640	12.2	25	
Carbon Tetrachloride		50.0	51.8	ug/L	0.377	3.60	25	
Dibromochloromethane		50.0	49.3	ug/L	0.301	1.40	25	
Chloroethane		50.0	52.0	ug/L	0.198	4.00	25	
cis-1,2-Dichloroethene		50.0	48.8	ug/L	0.263	2.40	25	
cis-1,3-Dichloropropene		50.0	47.6	ug/L	0.369	4.90	25	
Methyl Tert Butyl Ether		50.0	50.3	ug/L	0.498	0.600	25	
Methylene Chloride		50.0	45.2	ug/L	0.250	9.60	25	
Styrene		50.0	47.6	ug/L	0.979	4.90	25	
Tetrachloroethene		50.0	49.4	ug/L	0.257	1.20	25	
trans-1,2-Dichloroethene		50.0	49.2	ug/L	0.361	1.50	25	
trans-1,3-Dichloropropene		50.0	41.3	ug/L	0.360	17.5	25	
Trichloroethene		50.0	49.1	ug/L	0.272	1.70	25	
Vinyl Acetate		50.0	63.6	ug/L	0.343	27.2	25	*
Xylenes		150	144	ug/L	0.575	4.30	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 10/08/2009 Sample ID: WG313952-12
Instrument ID: HPMS8 Run Time: 17:44 Method: 8260B
File ID: 8M356992 Analyst: MES QC Key: DOWWV2006
ICal Workgroup: WG313952 Cal ID: HPMS8 - 08-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,2-Dichloroethene		100	98.1	ug/L	0.312	1.90	25	
m-,p-Xylene		100	96.1	ug/L	0.579	3.90	25	
o-Xylene		50.0	47.4	ug/L	0.571	5.20	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/02/2009 Sample ID: WG316150-12
Instrument ID: HPMS9 Run Time: 22:26 Method: 8260B
File ID: 9M73268 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG316150 Cal ID: HPMS9 - 02-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	51.7	ug/kg	0.666	3.50	25	
1,2-Dichloropropane	CCC	50.0	51.6	ug/kg	0.388	3.30	25	
Chloroform	CCC	50.0	52.0	ug/kg	0.536	4.10	25	
Ethylbenzene	CCC	50.0	50.3	ug/kg	0.552	0.700	25	
Toluene	CCC	50.0	49.3	ug/kg	1.56	1.40	25	
Vinyl Chloride	CCC	50.0	51.7	ug/kg	0.307	3.40	25	
1,1,2,2-Tetrachloroethane	SPCC	50.0	45.4	ug/kg	0.594	9.10	25	
1,1-Dichloroethane	SPCC	50.0	51.9	ug/kg	0.737	3.90	25	
Bromoform	SPCC	50.0	47.0	ug/kg	0.247	6.00	25	
Chlorobenzene	SPCC	50.0	47.9	ug/kg	1.02	4.20	25	
Chloromethane	SPCC	50.0	50.0	ug/kg	0.637	0.100	25	
1,1,1-Trichloroethane		50.0	52.0	ug/kg	0.486	4.00	25	
1,1,2-Trichloroethane		50.0	49.8	ug/kg	0.288	0.300	25	
1,2,4-Trichlorobenzene		50.0	45.9	ug/kg	0.857	8.30	25	
1,2-Dichlorobenzene		50.0	48.5	ug/kg	1.32	2.90	25	
1,2-Dichloroethane		50.0	50.8	ug/kg	0.460	1.60	25	
1,3-Dichlorobenzene		50.0	46.3	ug/kg	1.40	7.40	25	
1,4-Dichlorobenzene		50.0	46.1	ug/kg	1.42	7.80	25	
1,4-Dioxane		200	206	ug/kg	0.00260	3.00	25	
2-Butanone		50.0	49.3	ug/kg	0.164	1.40	25	
2-Hexanone		50.0	50.3	ug/kg	0.273	0.600	25	
4-Methyl-2-Pentanone		50.0	52.1	ug/kg	0.132	4.20	25	
Acetone		50.0	52.5	ug/kg	0.110	5.00	25	
Acrylonitrile		50.0	52.0	ug/kg	0.146	4.00	25	
Benzene		50.0	51.5	ug/kg	1.23	2.90	25	
Bromodichloromethane		50.0	53.8	ug/kg	0.384	7.60	25	
Bromomethane		50.0	52.0	ug/kg	0.283	4.00	25	
Carbon Disulfide		50.0	48.3	ug/kg	0.825	3.40	25	
Carbon Tetrachloride		50.0	52.8	ug/kg	0.458	5.60	25	
Dibromochloromethane		50.0	50.1	ug/kg	0.358	0.300	25	
Chloroethane		50.0	55.9	ug/kg	0.296	11.8	25	
cis-1,2-Dichloroethene		50.0	52.2	ug/kg	0.354	4.40	25	
cis-1,3-Dichloropropene		50.0	51.5	ug/kg	0.427	3.00	25	
Methylene Chloride		50.0	52.2	ug/kg	0.326	4.40	25	
Methyl Tert Butyl Ether		50.0	54.6	ug/kg	0.735	9.10	25	
Styrene		50.0	49.5	ug/kg	1.01	0.900	25	
Tetrachloroethene		50.0	48.2	ug/kg	0.342	3.60	25	
trans-1,2-Dichloroethene		50.0	52.3	ug/kg	0.333	4.60	25	
trans-1,3-Dichloropropene		50.0	42.3	ug/kg	0.421	15.4	25	
Trichloroethene		50.0	51.2	ug/kg	0.346	2.40	25	
Vinyl Acetate		50.0	35.9	ug/kg	0.511	28.2	25	*
Xylenes		150	151	ug/kg	0.631	1.00	25	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1528607
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/02/2009 Sample ID: WG316150-12
Instrument ID: HPMS9 Run Time: 22:26 Method: 8260B
File ID: 9M73268 Analyst: TMB QC Key: DOWWV2006
ICal Workgroup: WG316150 Cal ID: HPMS9 - 02-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,2-Dichloroethene		100	104	ug/kg	0.344	4.50	25	
o-Xylene		50.0	50.6	ug/kg	0.613	1.30	25	
m-,p-Xylene		100	101	ug/kg	0.650	0.800	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/01/2009 Sample ID: WG316103-02

Instrument ID: HPMS8 Run Time: 15:27 Method: 8260B

File ID: 8M357624 Analyst: MES QC Key: DOWWV2006

Workgroup (AAB#): WG316104 Cal ID: HPMS8 - 08-OCT-09

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	52.1	ug/L	0.394	4.13	20	
1,2-Dichloropropane	CCC	50.0	48.2	ug/L	0.257	3.54	20	
Chloroform	CCC	50.0	49.8	ug/L	0.438	0.369	20	
Ethylbenzene	CCC	50.0	47.6	ug/L	0.471	4.82	20	
Toluene	CCC	50.0	45.7	ug/L	1.19	8.65	20	
Vinyl Chloride	CCC	50.0	58.6	ug/L	0.454	17.2	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	44.6	ug/L	0.393	10.7	20	
1,1-Dichloroethane	SPCC	50.0	50.8	ug/L	0.465	1.60	20	
Bromoform	SPCC	50.0	54.7	ug/L	0.211	9.50	20	
Chlorobenzene	SPCC	50.0	47.5	ug/L	0.887	5.02	20	
Chloromethane	SPCC	50.0	48.2	ug/L	0.590	3.66	20	
1,1,1-Trichloroethane		50.0	51.4	ug/L	0.401	2.80	20	
1,1,2-Trichloroethane		50.0	46.9	ug/L	0.210	6.24	20	
1,2,4-Trichlorobenzene		50.0	45.2	ug/L	0.868	9.61	20	
1,2-Dichlorobenzene		50.0	44.3	ug/L	1.19	11.3	20	
1,2-Dichloroethane		50.0	47.3	ug/L	0.303	5.40	20	
1,3-Dichlorobenzene		50.0	45.5	ug/L	1.29	9.09	20	
1,4-Dichlorobenzene		50.0	44.7	ug/L	1.32	10.6	20	
1,4-Dioxane		200	219	ug/L	0.00160	9.74	20	
2-Butanone		50.0	43.8	ug/L	0.0644	12.4	20	
2-Hexanone		50.0	46.2	ug/L	0.0625	7.58	20	
4-Methyl-2-Pentanone		50.0	45.5	ug/L	0.0542	9.04	20	
Acetone		50.0	47.2	ug/L	0.0459	5.58	20	
Acrylonitrile		50.0	46.9	ug/L	0.0610	6.19	20	
Benzene		50.0	48.7	ug/L	0.917	2.58	20	
Bromodichloromethane		50.0	49.9	ug/L	0.333	0.120	20	
Bromomethane		50.0	44.7	ug/L	0.174	10.7	20	
Carbon Disulfide		50.0	40.1	ug/L	0.584	19.8	20	
Carbon Tetrachloride		50.0	53.8	ug/L	0.392	7.69	20	
Dibromochloromethane		50.0	50.4	ug/L	0.308	0.849	20	
Chloroethane		50.0	46.7	ug/L	0.178	6.54	20	
cis-1,2-Dichloroethene		50.0	51.1	ug/L	0.276	2.15	20	
cis-1,3-Dichloropropene		50.0	48.4	ug/L	0.376	3.13	20	
Methyl Tert Butyl Ether		50.0	44.6	ug/L	0.442	10.7	20	
Methylene Chloride		50.0	43.8	ug/L	0.242	12.4	20	
Styrene		50.0	48.4	ug/L	0.996	3.20	20	
Tetrachloroethene		50.0	51.3	ug/L	0.267	2.61	20	
trans-1,2-Dichloroethene		50.0	49.7	ug/L	0.364	0.548	20	
trans-1,3-Dichloropropene		50.0	46.6	ug/L	0.407	6.75	20	
Trichloroethene		50.0	51.8	ug/L	0.286	3.61	20	
Vinyl Acetate		50.0	74.5	ug/L	0.402	49.1	20	*
Xylenes		150	144	ug/L	0.576	4.07	20	

CCV - Modified 03/05/2008

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Report generated 11/11/2009 11:37

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/01/2009 Sample ID: WG316103-02
Instrument ID: HPMS8 Run Time: 15:27 Method: 8260B
File ID: 8M357624 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG316104 Cal ID: HPMS8 - 08-OCT-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	101	ug/L	0.320	0.803	20	
m-,p-Xylene		100	96.5	ug/L	0.581	3.55	20	
o-Xylene		50.0	47.4	ug/L	0.572	5.11	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316886-02
Instrument ID: HPMS9 Run Time: 11:59 Method: 8260B
File ID: 9M73450 Analyst: TMB QC Key: DOWWV2006
Workgroup (AAB#): WG316889 Cal ID: HPMS9 - 02-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	48.0	ug/kg	0.619	3.95	20	
1,2-Dichloropropane	CCC	50.0	45.3	ug/kg	0.341	9.33	20	
Chloroform	CCC	50.0	46.3	ug/kg	0.477	7.50	20	
Ethylbenzene	CCC	50.0	51.0	ug/kg	0.560	2.09	20	
Toluene	CCC	50.0	49.4	ug/kg	1.56	1.25	20	
Vinyl Chloride	CCC	50.0	46.7	ug/kg	0.281	6.62	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	46.1	ug/kg	0.602	7.89	20	
1,1-Dichloroethane	SPCC	50.0	46.4	ug/kg	0.658	7.21	20	
Bromoform	SPCC	50.0	46.5	ug/kg	0.244	7.09	20	
Chlorobenzene	SPCC	50.0	48.3	ug/kg	1.03	3.40	20	
Chloromethane	SPCC	50.0	44.4	ug/kg	0.567	11.2	20	
1,1,1-Trichloroethane		50.0	47.8	ug/kg	0.447	4.34	20	
1,1,2-Trichloroethane		50.0	46.5	ug/kg	0.268	7.06	20	
1,2,4-Trichlorobenzene		50.0	51.3	ug/kg	0.958	2.54	20	
1,2-Dichlorobenzene		50.0	50.4	ug/kg	1.37	0.849	20	
1,2-Dichloroethane		50.0	44.3	ug/kg	0.401	11.4	20	
1,3-Dichlorobenzene		50.0	50.4	ug/kg	1.53	0.726	20	
1,4-Dichlorobenzene		50.0	49.6	ug/kg	1.52	0.793	20	
1,4-Dioxane		200	163	ug/kg	0.00200	18.5	20	
2-Butanone		50.0	41.2	ug/kg	0.137	17.6	20	
2-Hexanone		50.0	46.0	ug/kg	0.249	8.09	20	
4-Methyl-2-Pentanone		50.0	43.0	ug/kg	0.109	13.9	20	
Acetone		50.0	41.7	ug/kg	0.0900	16.5	20	
Acrylonitrile		50.0	44.5	ug/kg	0.125	11.1	20	
Benzene		50.0	46.5	ug/kg	1.11	6.95	20	
Bromodichloromethane		50.0	45.1	ug/kg	0.322	9.85	20	
Bromomethane		50.0	49.5	ug/kg	0.269	1.05	20	
Carbon Disulfide		50.0	44.6	ug/kg	0.762	10.8	20	
Carbon Tetrachloride		50.0	48.6	ug/kg	0.422	2.83	20	
Dibromochloromethane		50.0	46.8	ug/kg	0.334	6.48	20	
Chloroethane		50.0	48.8	ug/kg	0.259	2.45	20	
cis-1,2-Dichloroethene		50.0	47.2	ug/kg	0.320	5.69	20	
cis-1,3-Dichloropropene		50.0	46.6	ug/kg	0.387	6.79	20	
Methylene Chloride		50.0	45.2	ug/kg	0.284	9.66	20	
Methyl Tert Butyl Ether		50.0	44.2	ug/kg	0.595	11.7	20	
Styrene		50.0	50.6	ug/kg	1.03	1.19	20	
Tetrachloroethene		50.0	51.4	ug/kg	0.365	2.78	20	
trans-1,2-Dichloroethene		50.0	48.2	ug/kg	0.307	3.56	20	
trans-1,3-Dichloropropene		50.0	47.8	ug/kg	0.475	4.49	20	
Trichloroethene		50.0	48.0	ug/kg	0.324	3.99	20	
Vinyl Acetate		50.0	39.7	ug/kg	0.566	20.6	20	*
Xylenes		150	153	ug/kg	0.637	2.15	20	

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316886-02

Instrument ID: HPMS9 Run Time: 11:59 Method: 8260B

File ID: 9M73450 Analyst: TMB QC Key: DOWWV2006

Workgroup (AAB#): WG316889 Cal ID: HPMS9 - 02-NOV-09

Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,2-Dichloroethene		100	95.4	ug/kg	0.314	4.62	20	
m-,p-Xylene		100	103	ug/kg	0.662	2.74	20	
o-Xylene		50.0	50.5	ug/kg	0.611	0.984	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1528608
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS8
Workgroup (AAB#): WG316104

ICAL CCV Number: WG313952-08
CAL ID: HPMS8-08-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG313952-08	NA	NA	282966	479720	583706
Upper Limit	NA	NA	565932	959440	1167412
Lower Limit	NA	NA	141483	239860	291853
L09100771-01	1.00	01	242521	419962	507426
L09100771-04	1.00	01	210140	369298	454538
L09100771-05	1.00	01	240792	392232	456532
L09100771-06	1.00	01	249430	411351	479732
L09100771-09	1.00	01	225957	393027	483204
L09100771-12	1.00	01	222475	388177	473552
WG316104-01	1.00	01	251995	432555	527489
WG316104-02	1.00	01	268000	447369	512642
WG316104-06	1.00	01	253738	435981	524914

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1535998
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS9
Workgroup (AAB#): WG316889

ICAL CCV Number: WG316150-08
CAL ID: HPMS9-02-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	330046	621754	793206
Upper Limit	NA	NA	660092	1243508	1586412
Lower Limit	NA	NA	165023	310877	396603
L09100771-02	1.00	01	301219	574508	743522
L09100771-03	1.00	01	286282	561229	709808
L09100771-07	1.00	01	286273	544279	694215
L09100771-08	1.00	01	263079	522361	673712
L09100771-10	1.00	01	260200	500342	652374
L09100771-11	1.00	01	240801	475834	616387
WG316889-01	1.00	01	295456	589412	768235
WG316889-02	1.00	01	315561	606041	786299
WG316889-03	1.00	01	317598	606257	779550

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1535998
Report generated 11/11/2009 11:37

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY

(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771

Instrument ID: HPMS8

Workgroup (AAB#): WG316104

ICAL CCV Number: WG313952-08

CAL ID: HPMS8-08-OCT-09

Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG313952-08	NA	NA	17.6	14.58	10.71
Upper Limit	NA	NA	18.1	15.08	11.21
Lower Limit	NA	NA	17.1	14.08	10.21
L09100771-01	1.00	01	17.6	14.58	10.71
L09100771-04	1.00	01	17.6	14.58	10.71
L09100771-05	1.00	01	17.6	14.58	10.71
L09100771-06	1.00	01	17.6	14.58	10.71
L09100771-09	1.00	01	17.6	14.58	10.71
L09100771-12	1.00	01	17.6	14.58	10.71
WG316104-01	1.00	01	17.6	14.58	10.71
WG316104-02	1.00	01	17.6	14.58	10.71
WG316104-06	1.00	01	17.6	14.58	10.71

IS-1 - 1,4-Dichlorobenzene-d4

IS-2 - Chlorobenzene-d5

IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008

PDF File ID: 1535999

Report generated: 11/11/2009 11:37

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY

(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771

Instrument ID: HPMS9

Workgroup (AAB#): WG316889

ICAL CCV Number: WG316150-08

CAL ID: HPMS9-02-NOV-09

Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG316150-08	NA	NA	15.07	12.11	8.26
Upper Limit	NA	NA	15.57	12.61	8.76
Lower Limit	NA	NA	14.57	11.61	7.76
L09100771-02	1.00	01	15.07	12.11	8.27
L09100771-03	1.00	01	15.08	12.1	8.27
L09100771-07	1.00	01	15.08	12.11	8.27
L09100771-08	1.00	01	15.08	12.12	8.27
L09100771-10	1.00	01	15.08	12.11	8.27
L09100771-11	1.00	01	15.08	12.11	8.27
WG316889-01	1.00	01	15.08	12.1	8.27
WG316889-02	1.00	01	15.08	12.1	8.27
WG316889-03	1.00	01	15.08	12.1	8.27

IS-1 - 1,4-Dichlorobenzene-d4

IS-2 - Chlorobenzene-d5

IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008

PDF File ID: 1535999

Report generated: 11/11/2009 11:37

2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data

Loginnum: L09100771

Department: Semivolatiles

Analyst: Cassie A. Augenstein

METHOD

Preparation 3520C/3545

Analysis SW-846 8270C/40 CFR 264 App. IX

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All analytes met the ICV acceptance criteria, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG315933-10	HPMS12	10/31/2009	3,3'-DICHLOROBENZIDINE	REG		(-)38.2	*	25
WG315933-10	HPMS12	10/31/2009	4-CHLOROPHENYL PHENYL ETHER	REG		(-)26.7	*	25
WG315933-10	HPMS12	10/31/2009	4-NITROANILINE	REG		(-)26.6	*	25
WG315933-10	HPMS12	10/31/2009	BIS(2-CHLOROETHOXY)METHANE	REG		(-)39.5	*	25
WG316255-10	HPMS4	11/03/2009	3,3'-DICHLOROBENZIDINE	REG		(-)45.9	*	25
WG316255-10	HPMS4	11/03/2009	PENTACHLOROPHENOL	REG	CCC	(+)25.6	*	25
WG316819-10	HPMS12	11/08/2009	3,3'-DICHLOROBENZIDINE	REG		(-)47.5	*	25
WG316819-10	HPMS12	11/08/2009	BIS(2-CHLOROETHOXY)METHANE	REG		(-)36.6	*	25
WG316839-10	HPMS4	11/09/2009	2,4-DINITROPHENOL	REG	SPCC	(+)26.4	*	25
WG316839-10	HPMS4	11/09/2009	3,3'-DICHLOROBENZIDINE	REG		(-)32.5	*	25
WG316839-10	HPMS4	11/09/2009	4,6-DINITRO-2-METHYLPHENOL	REG		(+)27.1	*	25

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All reporting limit criteria were met, except for the following analytes:

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG316113-02	HPMS12	11/06/2009	2-FLUOROBIPHENYL	SURR		42.9	43	116

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All analytes met the MS/MSD acceptance criteria for % recovery and relative percent difference, except those listed below. An astrisk (*) denotes that the value is relative percent difference.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
L09100771-05	HPMS12	11/13/2009	2,4,6-TRICHLOROPHENOL	REG	CCC	44.8	49	126
L09100771-05	HPMS12	11/13/2009	2,4-DIMETHYLPHENOL	REG		5.49	28	120
L09100771-05	HPMS12	11/13/2009	2-METHYLPHENOL	REG		19.8	38	120
L09100771-05	HPMS12	11/13/2009	3,3'-DICHLOROBENZIDINE	REG		0	30	120
L09100771-05	HPMS12	11/13/2009	3-,4-METHYLPHENOL	REG		18.8	50	120
L09100771-05	HPMS12	11/13/2009	4-CHLORO-3-METHYLPHENOL	REG	CCC	41.4	47	120
L09100771-05	HPMS12	11/13/2009	4-CHLOROANILINE	REG		0	30	120
L09100771-05	HPMS12	11/13/2009	ANTHRACENE	REG		53.3	54	120
L09100771-05	HPMS12	11/13/2009	CARBAZOLE	REG		42.2	50	120
L09100771-05	HPMS12	11/13/2009	N-NITROSODIPHENYLAMINE	REG	CCC	21.7	48	120
L09100771-06	HPMS12	11/13/2009	2,4,5-TRICHLOROPHENOL	REG		34.1	49	120
L09100771-06	HPMS12	11/13/2009	2,4,5-TRICHLOROPHENOL	REG		67.9	*	20
L09100771-06	HPMS12	11/13/2009	2,4,6-TRICHLOROPHENOL	REG	CCC	17.2	49	126
L09100771-06	HPMS12	11/13/2009	2,4,6-TRICHLOROPHENOL	REG	CCC	88.8	*	20
L09100771-06	HPMS12	11/13/2009	2,4-DICHLOROPHENOL	REG	CCC	17.3	48	120
L09100771-06	HPMS12	11/13/2009	2,4-DICHLOROPHENOL	REG	CCC	97.7	*	20
L09100771-06	HPMS12	11/13/2009	2,4-DIMETHYLPHENOL	REG		0	28	120
L09100771-06	HPMS12	11/13/2009	2,4-DIMETHYLPHENOL	REG		200	*	20
L09100771-06	HPMS12	11/13/2009	2-CHLOROPHENOL	REG		16.2	37	120
L09100771-06	HPMS12	11/13/2009	2-CHLOROPHENOL	REG		100	*	20
L09100771-06	HPMS12	11/13/2009	2-METHYLPHENOL	REG		5.99	38	120
L09100771-06	HPMS12	11/13/2009	2-METHYLPHENOL	REG		107	*	20
L09100771-06	HPMS12	11/13/2009	3,3'-DICHLOROBENZIDINE	REG		0	30	120
L09100771-06	HPMS12	11/13/2009	3-,4-METHYLPHENOL	REG		6.78	50	120
L09100771-06	HPMS12	11/13/2009	3-,4-METHYLPHENOL	REG		93.8	*	20
L09100771-06	HPMS12	11/13/2009	3-NITROANILINE	REG		0	20	126
L09100771-06	HPMS12	11/13/2009	3-NITROANILINE	REG		200	*	20
L09100771-06	HPMS12	11/13/2009	4-CHLORO-3-METHYLPHENOL	REG	CCC	12.7	47	120
L09100771-06	HPMS12	11/13/2009	4-CHLORO-3-METHYLPHENOL	REG	CCC	106	*	20
L09100771-06	HPMS12	11/13/2009	4-CHLOROANILINE	REG		0	30	120
L09100771-06	HPMS12	11/13/2009	4-NITROANILINE	REG		32.8	36	120
L09100771-06	HPMS12	11/13/2009	4-NITROANILINE	REG		56.4	*	20
L09100771-06	HPMS12	11/13/2009	ACENAPHTHENE	REG	CCC	43.2	47	120
L09100771-06	HPMS12	11/13/2009	ACENAPHTHENE	REG	CCC	32.9	*	20
L09100771-06	HPMS12	11/13/2009	ACENAPHTHYLENE	REG		40.3	50	120
L09100771-06	HPMS12	11/13/2009	ACENAPHTHYLENE	REG		41.3	*	20
L09100771-06	HPMS12	11/13/2009	ANTHRACENE	REG		49.2	54	120

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
L09100771-06	HPMS12	11/13/2009	BIS(2-ETHYLHEXYL)PHTHALATE	REG		141	42	126
L09100771-06	HPMS12	11/13/2009	BIS(2-ETHYLHEXYL)PHTHALATE	REG		63.3	*	20
L09100771-06	HPMS12	11/13/2009	CARBAZOLE	REG		26.1	50	120
L09100771-06	HPMS12	11/13/2009	CARBAZOLE	REG		47.2	*	20
L09100771-06	HPMS12	11/13/2009	N-NITROSODIPHENYLAMINE	REG	CCC	17.7	48	120
L09100771-06	HPMS12	11/13/2009	N-NITROSODIPHENYLAMINE	REG	CCC	20.6	*	20
L09100771-06	HPMS12	11/13/2009	PENTACHLOROPHENOL	REG	CCC	36.4	*	20
L09100771-06	HPMS12	11/13/2009	PHENOL	REG	CCC	11.1	20	120
L09100771-06	HPMS12	11/13/2009	PHENOL	REG	CCC	123	*	20

SAMPLES

Samples: Sample 10 was run at a dilution due to extract appearance.

Internal Standards: All acceptance criteria were met.

Surrogates: All surrogate compounds met the acceptance criteria for % recovery, except for the following samples.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
L09100771-04	HPMS12	11/13/2009	2-FLUOROPHENOL	SURR		15.0	21	110
L09100771-05	HPMS12	11/13/2009	P-TERPHENYL-D14	SURR		29.8	33	141
L09100771-06	HPMS12	11/13/2009	2-FLUOROPHENOL	SURR		9.50	21	110
L09100771-06	HPMS12	11/13/2009	P-TERPHENYL-D14	SURR		24.4	33	141
L09100771-10	HPMS4	11/13/2009	2-FLUOROBIPHENYL	SURR		29.5	30	115

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual

integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

LABORATORY REPORT

L09100771

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4012-S001-102909	L09100771-02	8270C	1	30-OCT-09
4012-S002-102909	L09100771-03	8270C	1	30-OCT-09
4012-GW-102909	L09100771-04	8270C	1	30-OCT-09
4012-GW-102909-MS	L09100771-05	8270C	1	30-OCT-09
4012-GW-102909-MSD	L09100771-06	8270C	1	30-OCT-09
4015-S001-102909	L09100771-07	8270C	1	30-OCT-09
4015-S002-102909	L09100771-08	8270C	1	30-OCT-09
4015-GW-102909	L09100771-09	8270C	1	30-OCT-09
4010-S001-102909	L09100771-10	8270C	2	30-OCT-09
4010-S002-102909	L09100771-11	8270C	1	30-OCT-09
4010-GW-102909	L09100771-12	8270C	1	30-OCT-09

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-02**
Client ID: **4012-S001-102909**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/29/2009 08:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 15:47**
File ID: **4M49036**
Percent Solid: **82.8**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	202	101
2,4,5-Trichlorophenol	95-95-4		U	202	101
2,4,6-Trichlorophenol	88-06-2		U	202	101
2,4-Dichlorophenol	120-83-2		U	202	101
2,4-Dimethylphenol	105-67-9		U	202	101
2,4-Dinitrophenol	51-28-5		U	1010	505
2,4-Dinitrotoluene	121-14-2		U	202	101
2,6-Dinitrotoluene	606-20-2		U	202	101
2-Chloronaphthalene	91-58-7		U	202	101
2-Chlorophenol	95-57-8		U	202	101
2-Methylnaphthalene	91-57-6		U	202	101
2-Methylphenol	95-48-7		U	202	101
2-Nitroaniline	88-74-4		U	1010	505
2-Nitrophenol	88-75-5		U	202	101
3,3'-Dichlorobenzidine	91-94-1		U	404	202
3-,4-Methylphenol	106-44-5		U	202	101
3-Nitroaniline	99-09-2		U	1010	505
4,6-Dinitro-2-methylphenol	534-52-1		U	1010	505
4-Bromophenyl phenyl ether	101-55-3		U	202	101
4-Chloro-3-methylphenol	59-50-7		U	202	101
4-Chloroaniline	106-47-8		U	202	101
4-Chlorophenyl phenyl ether	7005-72-3		U	202	101
4-Nitroaniline	100-01-6		U	1010	505
4-Nitrophenol	100-02-7		U	1010	505
Acenaphthene	83-32-9		U	202	101
Acenaphthylene	208-96-8		U	202	101
Anthracene	120-12-7		U	202	101
Benzo(a)anthracene	56-55-3		U	202	101
Benzo(a)pyrene	50-32-8		U	202	101
Benzo(b)fluoranthene	205-99-2		U	202	101
Benzo(g,h,i)Perylene	191-24-2		U	202	101
Benzo(k)fluoranthene	207-08-9		U	202	101
Bis(2-Chloroethoxy)Methane	111-91-1		U	202	101
Bis(2-Chloroethyl)ether	111-44-4		U	202	101
bis(2-Chloroisopropyl)ether	108-60-1		U	202	101
bis(2-Ethylhexyl)phthalate	117-81-7		U	202	101
Butyl benzyl phthalate	85-68-7		U	202	101
Carbazole	86-74-8		U	202	101
Chrysene	218-01-9		U	202	101
Dibenz(a,h)anthracene	53-70-3		U	202	101
Dibenzofuran	132-64-9		U	202	101
Diethyl phthalate	84-66-2		U	202	101
Dimethyl phthalate	131-11-3		U	202	101
Di-N-Butylphthalate	84-74-2		U	202	101
Di-n-octyl phthalate	117-84-0		U	202	101
Fluoranthene	206-44-0		U	202	101
Fluorene	86-73-7		U	202	101
Hexachlorobenzene	118-74-1		U	202	101
Hexachlorobutadiene	87-68-3		U	202	101
Hexachlorocyclopentadiene	77-47-4		U	202	101
Hexachloroethane	67-72-1		U	202	101
Indeno(1,2,3-cd)pyrene	193-39-5		U	202	101
Isophorone	78-59-1		U	202	101
Naphthalene	91-20-3		U	202	101
Nitrobenzene	98-95-3		U	202	101
N-Nitrosodiphenylamine	86-30-6		U	202	101
N-Nitrosodipropylamine	621-64-7		U	202	101
Pentachlorophenol	87-86-5		U	1010	505
Phenanthrene	85-01-8		U	202	101

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-02	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4012-S001-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 15:47
Collect Date:	10/29/2009 08:45	Dilution:	1	File ID:	4M49036
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	202	101
Pyrene	129-00-0		U	202	101

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	46.8	19	122	
2-Fluorobiphenyl	44.4	30	115	
2-Fluorophenol	45.7	25	121	
Nitrobenzene-d5	47.5	23	120	
p-Terphenyl-d14	90.5	18	137	
Phenol-d5	49.2	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-03**
Client ID: **4012-S002-102909**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/29/2009 09:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 16:23**
File ID: **4M49037**
Percent Solid: **91.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	193	96.6
2,4,5-Trichlorophenol	95-95-4		U	193	96.6
2,4,6-Trichlorophenol	88-06-2		U	193	96.6
2,4-Dichlorophenol	120-83-2		U	193	96.6
2,4-Dimethylphenol	105-67-9		U	193	96.6
2,4-Dinitrophenol	51-28-5		U	966	482
2,4-Dinitrotoluene	121-14-2		U	193	96.6
2,6-Dinitrotoluene	606-20-2		U	193	96.6
2-Chloronaphthalene	91-58-7		U	193	96.6
2-Chlorophenol	95-57-8		U	193	96.6
2-Methylnaphthalene	91-57-6		U	193	96.6
2-Methylphenol	95-48-7		U	193	96.6
2-Nitroaniline	88-74-4		U	966	482
2-Nitrophenol	88-75-5		U	193	96.6
3,3'-Dichlorobenzidine	91-94-1		U	386	193
3-,4-Methylphenol	106-44-5		U	193	96.6
3-Nitroaniline	99-09-2		U	966	482
4,6-Dinitro-2-methylphenol	534-52-1		U	966	482
4-Bromophenyl phenyl ether	101-55-3		U	193	96.6
4-Chloro-3-methylphenol	59-50-7		U	193	96.6
4-Chloroaniline	106-47-8		U	193	96.6
4-Chlorophenyl phenyl ether	7005-72-3		U	193	96.6
4-Nitroaniline	100-01-6		U	966	482
4-Nitrophenol	100-02-7		U	966	482
Acenaphthene	83-32-9		U	193	96.6
Acenaphthylene	208-96-8		U	193	96.6
Anthracene	120-12-7		U	193	96.6
Benzo(a)anthracene	56-55-3		U	193	96.6
Benzo(a)pyrene	50-32-8		U	193	96.6
Benzo(b)fluoranthene	205-99-2		U	193	96.6
Benzo(g,h,i)Perylene	191-24-2		U	193	96.6
Benzo(k)fluoranthene	207-08-9		U	193	96.6
Bis(2-Chloroethoxy)Methane	111-91-1		U	193	96.6
Bis(2-Chloroethyl)ether	111-44-4		U	193	96.6
bis(2-Chloroisopropyl)ether	108-60-1		U	193	96.6
bis(2-Ethylhexyl)phthalate	117-81-7		U	193	96.6
Butyl benzyl phthalate	85-68-7		U	193	96.6
Carbazole	86-74-8		U	193	96.6
Chrysene	218-01-9		U	193	96.6
Dibenz(a,h)anthracene	53-70-3		U	193	96.6
Dibenzofuran	132-64-9		U	193	96.6
Diethyl phthalate	84-66-2		U	193	96.6
Dimethyl phthalate	131-11-3		U	193	96.6
Di-N-Butylphthalate	84-74-2		U	193	96.6
Di-n-octyl phthalate	117-84-0		U	193	96.6
Fluoranthene	206-44-0		U	193	96.6
Fluorene	86-73-7		U	193	96.6
Hexachlorobenzene	118-74-1		U	193	96.6
Hexachlorobutadiene	87-68-3		U	193	96.6
Hexachlorocyclopentadiene	77-47-4		U	193	96.6
Hexachloroethane	67-72-1		U	193	96.6
Indeno(1,2,3-cd)pyrene	193-39-5		U	193	96.6
Isophorone	78-59-1		U	193	96.6
Naphthalene	91-20-3		U	193	96.6
Nitrobenzene	98-95-3		U	193	96.6
N-Nitrosodiphenylamine	86-30-6		U	193	96.6
N-Nitrosodipropylamine	621-64-7		U	193	96.6
Pentachlorophenol	87-86-5		U	966	482
Phenanthrene	85-01-8		U	193	96.6

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-03	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4012-S002-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 16:23
Collect Date:	10/29/2009 09:10	Dilution:	1	File ID:	4M49037
Sample Tag:	01	Units:	ug/kg	Percent Solid:	91.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	193	96.6
Pyrene	129-00-0		U	193	96.6

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	75.1	19	122	
2-Fluorobiphenyl	60.3	30	115	
2-Fluorophenol	65.3	25	121	
Nitrobenzene-d5	62.6	23	120	
p-Terphenyl-d14	77.8	18	137	
Phenol-d5	65.7	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-04**
Client ID: **4012-GW-102909**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/29/2009 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 17:29**
File ID: **12M28037**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	11.1	5.56
2,4,5-Trichlorophenol	95-95-4		U	5.56	2.78
2,4,6-Trichlorophenol	88-06-2		U	5.56	2.78
2,4-Dichlorophenol	120-83-2		U	5.56	2.78
2,4-Dimethylphenol	105-67-9		U	5.56	2.78
2,4-Dinitrophenol	51-28-5		U	27.8	13.9
2,4-Dinitrotoluene	121-14-2		U	5.56	2.78
2,6-Dinitrotoluene	606-20-2		U	5.56	2.78
2-Chloronaphthalene	91-58-7		U	5.56	2.78
2-Chlorophenol	95-57-8		U	5.56	2.78
2-Methylnaphthalene	91-57-6		U	5.56	2.78
2-Methylphenol	95-48-7		U	5.56	2.78
2-Nitroaniline	88-74-4		U	27.8	13.9
2-Nitrophenol	88-75-5		U	5.56	2.78
3,3'-Dichlorobenzidine	91-94-1		U	5.56	2.78
3-,4-Methylphenol	106-44-5		U	11.1	2.78
3-Nitroaniline	99-09-2		U	27.8	13.9
4,6-Dinitro-2-methylphenol	534-52-1		U	27.8	13.9
4-Bromophenyl phenyl ether	101-55-3		U	5.56	2.78
4-Chloro-3-methylphenol	59-50-7		U	5.56	2.78
4-Chloroaniline	106-47-8		U	22.2	2.78
4-Chlorophenyl phenyl ether	7005-72-3		U	5.56	2.78
4-Nitroaniline	100-01-6		U	27.8	13.9
4-Nitrophenol	100-02-7		U	27.8	13.9
Acenaphthene	83-32-9		U	5.56	2.78
Acenaphthylene	208-96-8		U	5.56	2.78
Anthracene	120-12-7		U	5.56	2.78
Benzo(a)anthracene	56-55-3		U	5.56	2.78
Benzo(a)pyrene	50-32-8		U	5.56	2.78
Benzo(b)fluoranthene	205-99-2		U	5.56	2.78
Benzo(g,h,i)Perylene	191-24-2		U	5.56	2.78
Benzo(k)fluoranthene	207-08-9		U	5.56	2.78
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.56	2.78
Bis(2-Chloroethyl)ether	111-44-4		U	5.56	2.78
bis(2-Chloroisopropyl)ether	108-60-1		U	5.56	2.78
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.56	2.78
Butyl benzyl phthalate	85-68-7		U	5.56	2.78
Carbazole	86-74-8		U	22.2	2.78
Chrysene	218-01-9		U	5.56	2.78
Dibenz(a,h)anthracene	53-70-3		U	5.56	2.78
Dibenzofuran	132-64-9		U	5.56	2.78
Diethyl phthalate	84-66-2		U	5.56	2.78
Dimethyl phthalate	131-11-3		U	5.56	2.78
Di-N-Butylphthalate	84-74-2		U	5.56	2.78
Di-n-octyl phthalate	117-84-0		U	5.56	2.78
Fluoranthene	206-44-0		U	5.56	2.78
Fluorene	86-73-7		U	5.56	2.78
Hexachlorobenzene	118-74-1		U	5.56	2.78
Hexachlorobutadiene	87-68-3		U	5.56	2.78
Hexachlorocyclopentadiene	77-47-4		U	5.56	2.78
Hexachloroethane	67-72-1		U	5.56	2.78
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.56	2.78
Isophorone	78-59-1		U	5.56	2.78
Naphthalene	91-20-3		U	5.56	2.78
Nitrobenzene	98-95-3		U	5.56	2.78
N-Nitrosodiphenylamine	86-30-6		U	5.56	2.78
N-Nitrosodipropylamine	621-64-7		U	5.56	2.78
Pentachlorophenol	87-86-5		U	27.8	13.9
Phenanthrene	85-01-8		U	5.56	2.78

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-04	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4012-GW-102909	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 17:29
Collect Date:	10/29/2009 09:50	Dilution:	1	File ID:	12M28037
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	5.56	2.78
Pyrene	129-00-0		U	5.56	2.78

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	13.2	10	123	
2-Fluorobiphenyl	63.8	43	116	
2-Fluorophenol	15.0	21	110	*
Nitrobenzene-d5	58.1	35	114	
p-Terphenyl-d14	45.8	33	141	
Phenol-d5	16.1	10	110	

* Surrogate or spike compound out of range
U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-05**
Client ID: **4012-GW-102909-MS**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/29/2009 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 18:02**
File ID: **12M28038**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1	29.8		11.1	5.56
2,4,5-Trichlorophenol	95-95-4	38.4		5.56	2.78
2,4,6-Trichlorophenol	88-06-2	24.9		5.56	2.78
2,4-Dichlorophenol	120-83-2	27.9		5.56	2.78
2,4-Dimethylphenol	105-67-9	3.05	J	5.56	2.78
2,4-Dinitrophenol	51-28-5	51.0		27.8	13.9
2,4-Dinitrotoluene	121-14-2	48.0		5.56	2.78
2,6-Dinitrotoluene	606-20-2	46.0		5.56	2.78
2-Chloronaphthalene	91-58-7	37.8		5.56	2.78
2-Chlorophenol	95-57-8	27.0		5.56	2.78
2-Methylnaphthalene	91-57-6	37.3		5.56	2.78
2-Methylphenol	95-48-7	11.0		5.56	2.78
2-Nitroaniline	88-74-4	35.9		27.8	13.9
2-Nitrophenol	88-75-5	46.3		5.56	2.78
3,3'-Dichlorobenzidine	91-94-1		U	5.56	2.78
3-,4-Methylphenol	106-44-5	10.4	J	11.1	2.78
3-Nitroaniline	99-09-2	31.3		27.8	13.9
4,6-Dinitro-2-methylphenol	534-52-1	51.4		27.8	13.9
4-Bromophenyl phenyl ether	101-55-3	43.9		5.56	2.78
4-Chloro-3-methylphenol	59-50-7	23.0		5.56	2.78
4-Chloroaniline	106-47-8		U	22.2	2.78
4-Chlorophenyl phenyl ether	7005-72-3	41.8		5.56	2.78
4-Nitroaniline	100-01-6	32.5		27.8	13.9
4-Nitrophenol	100-02-7	39.2		27.8	13.9
Acenaphthene	83-32-9	33.4		5.56	2.78
Acenaphthylene	208-96-8	34.0		5.56	2.78
Anthracene	120-12-7	29.6		5.56	2.78
Benzo(a)anthracene	56-55-3	35.1		5.56	2.78
Benzo(a)pyrene	50-32-8	34.0		5.56	2.78
Benzo(b)fluoranthene	205-99-2	36.3		5.56	2.78
Benzo(g,h,i)Perylene	191-24-2	32.2		5.56	2.78
Benzo(k)fluoranthene	207-08-9	37.1		5.56	2.78
Bis(2-Chloroethoxy)Methane	111-91-1	34.6		5.56	2.78
Bis(2-Chloroethyl)ether	111-44-4	39.6		5.56	2.78
bis(2-Chloroisopropyl)ether	108-60-1	36.8		5.56	2.78
bis(2-Ethylhexyl)phthalate	117-81-7	40.7		5.56	2.78
Butyl benzyl phthalate	85-68-7	41.8		5.56	2.78
Carbazole	86-74-8	23.5		22.2	2.78
Chrysene	218-01-9	36.6		5.56	2.78
Dibenz(a,h)anthracene	53-70-3	33.8		5.56	2.78
Dibenzofuran	132-64-9	40.1		5.56	2.78
Diethyl phthalate	84-66-2	53.5		5.56	2.78
Dimethyl phthalate	131-11-3	53.7		5.56	2.78
Di-N-Butylphthalate	84-74-2	45.0		5.56	2.78
Di-n-octyl phthalate	117-84-0	42.4		5.56	2.78
Fluoranthene	206-44-0	39.6		5.56	2.78
Fluorene	86-73-7	41.4		5.56	2.78
Hexachlorobenzene	118-74-1	34.6		5.56	2.78
Hexachlorobutadiene	87-68-3	27.3		5.56	2.78
Hexachlorocyclopentadiene	77-47-4	21.8		5.56	2.78
Hexachloroethane	67-72-1	20.9		5.56	2.78
Indeno(1,2,3-cd)pyrene	193-39-5	33.0		5.56	2.78
Isophorone	78-59-1	39.7		5.56	2.78
Naphthalene	91-20-3	38.9		5.56	2.78
Nitrobenzene	98-95-3	45.1		5.56	2.78
N-Nitrosodiphenylamine	86-30-6	24.1		5.56	2.78
N-Nitrosodipropylamine	621-64-7	45.2		5.56	2.78
Pentachlorophenol	87-86-5	38.7		27.8	13.9
Phenanthrene	85-01-8	41.5		5.56	2.78

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-05	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4012-GW-102909-MS	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 18:02
Collect Date:	10/29/2009 09:50	Dilution:	1	File ID:	12M28038
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2	25.8		5.56	2.78
Pyrene	129-00-0	34.0		5.56	2.78

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	40.5	10	123	
2-Fluorobiphenyl	74.2	43	116	
2-Fluorophenol	43.7	21	110	
Nitrobenzene-d5	70.1	35	114	
p-Terphenyl-d14	29.8	33	141	*
Phenol-d5	46.0	10	110	

J The analyte was positively identified, but the quantitation was below the RL
***** Surrogate or spike compound out of range
U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-06**
Client ID: **4012-GW-102909-MSD**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/29/2009 09:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 18:34**
File ID: **12M28039**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1	28.3		11.1	5.56
2,4,5-Trichlorophenol	95-95-4	18.9		5.56	2.78
2,4,6-Trichlorophenol	88-06-2	9.58		5.56	2.78
2,4-Dichlorophenol	120-83-2	9.60		5.56	2.78
2,4-Dimethylphenol	105-67-9		U	5.56	2.78
2,4-Dinitrophenol	51-28-5	52.9		27.8	13.9
2,4-Dinitrotoluene	121-14-2	47.5		5.56	2.78
2,6-Dinitrotoluene	606-20-2	45.7		5.56	2.78
2-Chloronaphthalene	91-58-7	36.0		5.56	2.78
2-Chlorophenol	95-57-8	8.98		5.56	2.78
2-Methylnaphthalene	91-57-6	34.7		5.56	2.78
2-Methylphenol	95-48-7	3.33	J	5.56	2.78
2-Nitroaniline	88-74-4	31.3		27.8	13.9
2-Nitrophenol	88-75-5	42.9		5.56	2.78
3,3'-Dichlorobenzidine	91-94-1		U	5.56	2.78
3-,4-Methylphenol	106-44-5	3.77	J	11.1	2.78
3-Nitroaniline	99-09-2		U	27.8	13.9
4,6-Dinitro-2-methylphenol	534-52-1	54.6		27.8	13.9
4-Bromophenyl phenyl ether	101-55-3	42.5		5.56	2.78
4-Chloro-3-methylphenol	59-50-7	7.07		5.56	2.78
4-Chloroaniline	106-47-8		U	22.2	2.78
4-Chlorophenyl phenyl ether	7005-72-3	40.9		5.56	2.78
4-Nitroaniline	100-01-6	18.2	J	27.8	13.9
4-Nitrophenol	100-02-7	41.7		27.8	13.9
Acenaphthene	83-32-9	24.0		5.56	2.78
Acenaphthylene	208-96-8	22.4		5.56	2.78
Anthracene	120-12-7	27.3		5.56	2.78
Benzo(a)anthracene	56-55-3	33.8		5.56	2.78
Benzo(a)pyrene	50-32-8	32.4		5.56	2.78
Benzo(b)fluoranthene	205-99-2	33.3		5.56	2.78
Benzo(g,h,i)Perylene	191-24-2	30.9		5.56	2.78
Benzo(k)fluoranthene	207-08-9	33.7		5.56	2.78
Bis(2-Chloroethoxy)Methane	111-91-1	32.6		5.56	2.78
Bis(2-Chloroethyl)ether	111-44-4	36.4		5.56	2.78
bis(2-Chloroisopropyl)ether	108-60-1	34.3		5.56	2.78
bis(2-Ethylhexyl)phthalate	117-81-7	78.4		5.56	2.78
Butyl benzyl phthalate	85-68-7	41.7		5.56	2.78
Carbazole	86-74-8	14.5	J	22.2	2.78
Chrysene	218-01-9	34.9		5.56	2.78
Dibenz(a,h)anthracene	53-70-3	32.1		5.56	2.78
Dibenzofuran	132-64-9	38.4		5.56	2.78
Diethyl phthalate	84-66-2	53.2		5.56	2.78
Dimethyl phthalate	131-11-3	53.3		5.56	2.78
Di-N-Butylphthalate	84-74-2	45.1		5.56	2.78
Di-n-octyl phthalate	117-84-0	41.2		5.56	2.78
Fluoranthene	206-44-0	36.3		5.56	2.78
Fluorene	86-73-7	35.8		5.56	2.78
Hexachlorobenzene	118-74-1	32.0		5.56	2.78
Hexachlorobutadiene	87-68-3	23.6		5.56	2.78
Hexachlorocyclopentadiene	77-47-4	22.4		5.56	2.78
Hexachloroethane	67-72-1	18.9		5.56	2.78
Indeno(1,2,3-cd)pyrene	193-39-5	31.7		5.56	2.78
Isophorone	78-59-1	37.4		5.56	2.78
Naphthalene	91-20-3	36.2		5.56	2.78
Nitrobenzene	98-95-3	42.3		5.56	2.78
N-Nitrosodiphenylamine	86-30-6	19.6		5.56	2.78
N-Nitrosodipropylamine	621-64-7	41.4		5.56	2.78
Pentachlorophenol	87-86-5	26.8	J	27.8	13.9
Phenanthrene	85-01-8	38.7		5.56	2.78

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-06	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4012-GW-102909-MSD	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 18:34
Collect Date:	10/29/2009 09:50	Dilution:	1	File ID:	12M28039
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2	6.16		5.56	2.78
Pyrene	129-00-0	31.1		5.56	2.78

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	14.7	10	123	
2-Fluorobiphenyl	69.6	43	116	
2-Fluorophenol	9.50	21	110	*
Nitrobenzene-d5	66.5	35	114	
p-Terphenyl-d14	24.4	33	141	*
Phenol-d5	11.2	10	110	

J The analyte was positively identified, but the quantitation was below the RL
***** Surrogate or spike compound out of range
U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-07**
Client ID: **4015-S001-102909**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/29/2009 11:10**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS12**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/08/2009 23:08**
Run Date: **11/14/2009 14:47**
File ID: **12M28051**
Percent Solid: **82.5**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	191	95.6
2,4,5-Trichlorophenol	95-95-4		U	191	95.6
2,4,6-Trichlorophenol	88-06-2		U	191	95.6
2,4-Dichlorophenol	120-83-2		U	191	95.6
2,4-Dimethylphenol	105-67-9		U	191	95.6
2,4-Dinitrophenol	51-28-5		U	956	477
2,4-Dinitrotoluene	121-14-2		U	191	95.6
2,6-Dinitrotoluene	606-20-2		U	191	95.6
2-Chloronaphthalene	91-58-7		U	191	95.6
2-Chlorophenol	95-57-8		U	191	95.6
2-Methylnaphthalene	91-57-6		U	191	95.6
2-Methylphenol	95-48-7		U	191	95.6
2-Nitroaniline	88-74-4		U	956	477
2-Nitrophenol	88-75-5		U	191	95.6
3,3'-Dichlorobenzidine	91-94-1		U	382	191
3-,4-Methylphenol	106-44-5		U	191	95.6
3-Nitroaniline	99-09-2		U	956	477
4,6-Dinitro-2-methylphenol	534-52-1		U	956	477
4-Bromophenyl phenyl ether	101-55-3		U	191	95.6
4-Chloro-3-methylphenol	59-50-7		U	191	95.6
4-Chloroaniline	106-47-8		U	191	95.6
4-Chlorophenyl phenyl ether	7005-72-3		U	191	95.6
4-Nitroaniline	100-01-6		U	956	477
4-Nitrophenol	100-02-7		U	956	477
Acenaphthene	83-32-9		U	191	95.6
Acenaphthylene	208-96-8		U	191	95.6
Anthracene	120-12-7		U	191	95.6
Benzo(a)anthracene	56-55-3		U	191	95.6
Benzo(a)pyrene	50-32-8		U	191	95.6
Benzo(b)fluoranthene	205-99-2		U	191	95.6
Benzo(g,h,i)Perylene	191-24-2		U	191	95.6
Benzo(k)fluoranthene	207-08-9		U	191	95.6
Bis(2-Chloroethoxy)Methane	111-91-1		U	191	95.6
Bis(2-Chloroethyl)ether	111-44-4		U	191	95.6
bis(2-Chloroisopropyl)ether	108-60-1		U	191	95.6
bis(2-Ethylhexyl)phthalate	117-81-7		U	191	95.6
Butyl benzyl phthalate	85-68-7		U	191	95.6
Carbazole	86-74-8		U	191	95.6
Chrysene	218-01-9		U	191	95.6
Dibenz(a,h)anthracene	53-70-3		U	191	95.6
Dibenzofuran	132-64-9		U	191	95.6
Diethyl phthalate	84-66-2		U	191	95.6
Dimethyl phthalate	131-11-3		U	191	95.6
Di-N-Butylphthalate	84-74-2		U	191	95.6
Di-n-octyl phthalate	117-84-0		U	191	95.6
Fluoranthene	206-44-0		U	191	95.6
Fluorene	86-73-7		U	191	95.6
Hexachlorobenzene	118-74-1		U	191	95.6
Hexachlorobutadiene	87-68-3		U	191	95.6
Hexachlorocyclopentadiene	77-47-4		U	191	95.6
Hexachloroethane	67-72-1		U	191	95.6
Indeno(1,2,3-cd)pyrene	193-39-5		U	191	95.6
Isophorone	78-59-1		U	191	95.6
Naphthalene	91-20-3		U	191	95.6
Nitrobenzene	98-95-3		U	191	95.6
N-Nitrosodiphenylamine	86-30-6		U	191	95.6
N-Nitrosodipropylamine	621-64-7		U	191	95.6
Pentachlorophenol	87-86-5		U	956	477
Phenanthrene	85-01-8		U	191	95.6

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-07	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4015-S001-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316572	Analyst:	MDC	Run Date:	11/14/2009 14:47
Collect Date:	10/29/2009 11:10	Dilution:	1	File ID:	12M28051
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	191	95.6
Pyrene	129-00-0		U	191	95.6

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	49.7	19	122	
2-Fluorobiphenyl	46.0	30	115	
2-Fluorophenol	54.4	25	121	
Nitrobenzene-d5	36.8	23	120	
p-Terphenyl-d14	90.4	18	137	
Phenol-d5	49.9	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-08**
Client ID: **4015-S002-102909**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/29/2009 11:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 17:33**
File ID: **4M49039**
Percent Solid: **91.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	199	99.7
2,4,5-Trichlorophenol	95-95-4		U	199	99.7
2,4,6-Trichlorophenol	88-06-2		U	199	99.7
2,4-Dichlorophenol	120-83-2		U	199	99.7
2,4-Dimethylphenol	105-67-9		U	199	99.7
2,4-Dinitrophenol	51-28-5		U	997	498
2,4-Dinitrotoluene	121-14-2		U	199	99.7
2,6-Dinitrotoluene	606-20-2		U	199	99.7
2-Chloronaphthalene	91-58-7		U	199	99.7
2-Chlorophenol	95-57-8		U	199	99.7
2-Methylnaphthalene	91-57-6		U	199	99.7
2-Methylphenol	95-48-7		U	199	99.7
2-Nitroaniline	88-74-4		U	997	498
2-Nitrophenol	88-75-5		U	199	99.7
3,3'-Dichlorobenzidine	91-94-1		U	399	199
3-,4-Methylphenol	106-44-5		U	199	99.7
3-Nitroaniline	99-09-2		U	997	498
4,6-Dinitro-2-methylphenol	534-52-1		U	997	498
4-Bromophenyl phenyl ether	101-55-3		U	199	99.7
4-Chloro-3-methylphenol	59-50-7		U	199	99.7
4-Chloroaniline	106-47-8		U	199	99.7
4-Chlorophenyl phenyl ether	7005-72-3		U	199	99.7
4-Nitroaniline	100-01-6		U	997	498
4-Nitrophenol	100-02-7		U	997	498
Acenaphthene	83-32-9		U	199	99.7
Acenaphthylene	208-96-8		U	199	99.7
Anthracene	120-12-7		U	199	99.7
Benzo(a)anthracene	56-55-3		U	199	99.7
Benzo(a)pyrene	50-32-8		U	199	99.7
Benzo(b)fluoranthene	205-99-2		U	199	99.7
Benzo(g,h,i)Perylene	191-24-2		U	199	99.7
Benzo(k)fluoranthene	207-08-9		U	199	99.7
Bis(2-Chloroethoxy)Methane	111-91-1		U	199	99.7
Bis(2-Chloroethyl)ether	111-44-4		U	199	99.7
bis(2-Chloroisopropyl)ether	108-60-1		U	199	99.7
bis(2-Ethylhexyl)phthalate	117-81-7		U	199	99.7
Butyl benzyl phthalate	85-68-7		U	199	99.7
Carbazole	86-74-8		U	199	99.7
Chrysene	218-01-9		U	199	99.7
Dibenz(a,h)anthracene	53-70-3		U	199	99.7
Dibenzofuran	132-64-9		U	199	99.7
Diethyl phthalate	84-66-2		U	199	99.7
Dimethyl phthalate	131-11-3		U	199	99.7
Di-N-Butylphthalate	84-74-2		U	199	99.7
Di-n-octyl phthalate	117-84-0		U	199	99.7
Fluoranthene	206-44-0		U	199	99.7
Fluorene	86-73-7		U	199	99.7
Hexachlorobenzene	118-74-1		U	199	99.7
Hexachlorobutadiene	87-68-3		U	199	99.7
Hexachlorocyclopentadiene	77-47-4		U	199	99.7
Hexachloroethane	67-72-1		U	199	99.7
Indeno(1,2,3-cd)pyrene	193-39-5		U	199	99.7
Isophorone	78-59-1		U	199	99.7
Naphthalene	91-20-3		U	199	99.7
Nitrobenzene	98-95-3		U	199	99.7
N-Nitrosodiphenylamine	86-30-6		U	199	99.7
N-Nitrosodipropylamine	621-64-7		U	199	99.7
Pentachlorophenol	87-86-5		U	997	498
Phenanthrene	85-01-8		U	199	99.7

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-08	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4015-S002-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 17:33
Collect Date:	10/29/2009 11:30	Dilution:	1	File ID:	4M49039
Sample Tag:	01	Units:	ug/kg	Percent Solid:	91.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	199	99.7
Pyrene	129-00-0		U	199	99.7

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	64.9	19	122	
2-Fluorobiphenyl	42.3	30	115	
2-Fluorophenol	54.3	25	121	
Nitrobenzene-d5	50.2	23	120	
p-Terphenyl-d14	75.4	18	137	
Phenol-d5	55.4	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-09**
Client ID: **4015-GW-102909**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/29/2009 12:50**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 19:07**
File ID: **12M28040**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	10.9	5.43
2,4,5-Trichlorophenol	95-95-4		U	5.43	2.72
2,4,6-Trichlorophenol	88-06-2		U	5.43	2.72
2,4-Dichlorophenol	120-83-2		U	5.43	2.72
2,4-Dimethylphenol	105-67-9		U	5.43	2.72
2,4-Dinitrophenol	51-28-5		U	27.2	13.6
2,4-Dinitrotoluene	121-14-2		U	5.43	2.72
2,6-Dinitrotoluene	606-20-2		U	5.43	2.72
2-Chloronaphthalene	91-58-7		U	5.43	2.72
2-Chlorophenol	95-57-8		U	5.43	2.72
2-Methylnaphthalene	91-57-6		U	5.43	2.72
2-Methylphenol	95-48-7		U	5.43	2.72
2-Nitroaniline	88-74-4		U	27.2	13.6
2-Nitrophenol	88-75-5		U	5.43	2.72
3,3'-Dichlorobenzidine	91-94-1		U	5.43	2.72
3-,4-Methylphenol	106-44-5		U	10.9	2.72
3-Nitroaniline	99-09-2		U	27.2	13.6
4,6-Dinitro-2-methylphenol	534-52-1		U	27.2	13.6
4-Bromophenyl phenyl ether	101-55-3		U	5.43	2.72
4-Chloro-3-methylphenol	59-50-7		U	5.43	2.72
4-Chloroaniline	106-47-8		U	21.7	2.72
4-Chlorophenyl phenyl ether	7005-72-3		U	5.43	2.72
4-Nitroaniline	100-01-6		U	27.2	13.6
4-Nitrophenol	100-02-7		U	27.2	13.6
Acenaphthene	83-32-9		U	5.43	2.72
Acenaphthylene	208-96-8		U	5.43	2.72
Anthracene	120-12-7		U	5.43	2.72
Benzo(a)anthracene	56-55-3		U	5.43	2.72
Benzo(a)pyrene	50-32-8		U	5.43	2.72
Benzo(b)fluoranthene	205-99-2		U	5.43	2.72
Benzo(g,h,i)Perylene	191-24-2		U	5.43	2.72
Benzo(k)fluoranthene	207-08-9		U	5.43	2.72
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.43	2.72
Bis(2-Chloroethyl)ether	111-44-4		U	5.43	2.72
bis(2-Chloroisopropyl)ether	108-60-1		U	5.43	2.72
bis(2-Ethylhexyl)phthalate	117-81-7		U	5.43	2.72
Butyl benzyl phthalate	85-68-7		U	5.43	2.72
Carbazole	86-74-8		U	21.7	2.72
Chrysene	218-01-9		U	5.43	2.72
Dibenz(a,h)anthracene	53-70-3		U	5.43	2.72
Dibenzofuran	132-64-9		U	5.43	2.72
Diethyl phthalate	84-66-2		U	5.43	2.72
Dimethyl phthalate	131-11-3		U	5.43	2.72
Di-N-Butylphthalate	84-74-2		U	5.43	2.72
Di-n-octyl phthalate	117-84-0		U	5.43	2.72
Fluoranthene	206-44-0		U	5.43	2.72
Fluorene	86-73-7		U	5.43	2.72
Hexachlorobenzene	118-74-1		U	5.43	2.72
Hexachlorobutadiene	87-68-3		U	5.43	2.72
Hexachlorocyclopentadiene	77-47-4		U	5.43	2.72
Hexachloroethane	67-72-1		U	5.43	2.72
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.43	2.72
Isophorone	78-59-1		U	5.43	2.72
Naphthalene	91-20-3		U	5.43	2.72
Nitrobenzene	98-95-3		U	5.43	2.72
N-Nitrosodiphenylamine	86-30-6		U	5.43	2.72
N-Nitrosodipropylamine	621-64-7		U	5.43	2.72
Pentachlorophenol	87-86-5		U	27.2	13.6
Phenanthrene	85-01-8		U	5.43	2.72

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-09	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4015-GW-102909	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 19:07
Collect Date:	10/29/2009 12:50	Dilution:	1	File ID:	12M28040
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	5.43	2.72
Pyrene	129-00-0		U	5.43	2.72

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	78.8	10	123	
2-Fluorobiphenyl	46.8	43	116	
2-Fluorophenol	43.8	21	110	
Nitrobenzene-d5	41.6	35	114	
p-Terphenyl-d14	53.1	33	141	
Phenol-d5	45.9	10	110	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-10**
Client ID: **4010-S001-102909**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/29/2009 14:10**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MES**
Dilution: **2**
Units: **ug/kg**

Instrument: **HPMS4**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/09/2009 16:01**
Run Date: **11/13/2009 19:52**
File ID: **4M49043**
Percent Solid: **80.7**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	437	218
2,4,5-Trichlorophenol	95-95-4		U	437	218
2,4,6-Trichlorophenol	88-06-2		U	437	218
2,4-Dichlorophenol	120-83-2		U	437	218
2,4-Dimethylphenol	105-67-9		U	437	218
2,4-Dinitrophenol	51-28-5		U	2180	1090
2,4-Dinitrotoluene	121-14-2		U	437	218
2,6-Dinitrotoluene	606-20-2		U	437	218
2-Chloronaphthalene	91-58-7		U	437	218
2-Chlorophenol	95-57-8		U	437	218
2-Methylnaphthalene	91-57-6		U	437	218
2-Methylphenol	95-48-7		U	437	218
2-Nitroaniline	88-74-4		U	2180	1090
2-Nitrophenol	88-75-5		U	437	218
3,3'-Dichlorobenzidine	91-94-1		U	874	437
3-,4-Methylphenol	106-44-5		U	437	218
3-Nitroaniline	99-09-2		U	2180	1090
4,6-Dinitro-2-methylphenol	534-52-1		U	2180	1090
4-Bromophenyl phenyl ether	101-55-3		U	437	218
4-Chloro-3-methylphenol	59-50-7		U	437	218
4-Chloroaniline	106-47-8		U	437	218
4-Chlorophenyl phenyl ether	7005-72-3		U	437	218
4-Nitroaniline	100-01-6		U	2180	1090
4-Nitrophenol	100-02-7		U	2180	1090
Acenaphthene	83-32-9	459		437	218
Acenaphthylene	208-96-8		U	437	218
Anthracene	120-12-7		U	437	218
Benzo(a)anthracene	56-55-3		U	437	218
Benzo(a)pyrene	50-32-8		U	437	218
Benzo(b)fluoranthene	205-99-2		U	437	218
Benzo(g,h,i)Perylene	191-24-2		U	437	218
Benzo(k)fluoranthene	207-08-9		U	437	218
Bis(2-Chloroethoxy)Methane	111-91-1		U	437	218
Bis(2-Chloroethyl)ether	111-44-4		U	437	218
bis(2-Chloroisopropyl)ether	108-60-1		U	437	218
bis(2-Ethylhexyl)phthalate	117-81-7		U	437	218
Butyl benzyl phthalate	85-68-7		U	437	218
Carbazole	86-74-8		U	437	218
Chrysene	218-01-9	443		437	218
Dibenz(a,h)anthracene	53-70-3		U	437	218
Dibenzofuran	132-64-9		U	437	218
Diethyl phthalate	84-66-2		U	437	218
Dimethyl phthalate	131-11-3		U	437	218
Di-N-Butylphthalate	84-74-2		U	437	218
Di-n-octyl phthalate	117-84-0		U	437	218
Fluoranthene	206-44-0	1520		437	218
Fluorene	86-73-7		U	437	218
Hexachlorobenzene	118-74-1		U	437	218
Hexachlorobutadiene	87-68-3		U	437	218
Hexachlorocyclopentadiene	77-47-4		U	437	218
Hexachloroethane	67-72-1		U	437	218
Indeno(1,2,3-cd)pyrene	193-39-5		U	437	218
Isophorone	78-59-1		U	437	218
Naphthalene	91-20-3		U	437	218
Nitrobenzene	98-95-3		U	437	218
N-Nitrosodiphenylamine	86-30-6		U	437	218
N-Nitrosodipropylamine	621-64-7		U	437	218
Pentachlorophenol	87-86-5		U	2180	1090
Phenanthrene	85-01-8	1500		437	218

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-10	PrePrep Method:	NONE	Instrument:	HPMS4
Client ID:	4010-S001-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/09/2009 16:01
Workgroup Number:	WG316572	Analyst:	MES	Run Date:	11/13/2009 19:52
Collect Date:	10/29/2009 14:10	Dilution:	2	File ID:	4M49043
Sample Tag:	DL01	Units:	ug/kg	Percent Solid:	80.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	437	218
Pyrene	129-00-0	1080		437	218

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	55.5	19	122	
2-Fluorobiphenyl	29.5	30	115	*
2-Fluorophenol	43.4	25	121	
Nitrobenzene-d5	38.6	23	120	
p-Terphenyl-d14	82.8	18	137	
Phenol-d5	44.2	24	113	

* Surrogate or spike compound out of range
U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-11**
Client ID: **4010-S002-102909**
Matrix: **Soil**
Workgroup Number: **WG316572**
Collect Date: **10/29/2009 14:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3545**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/kg**

Instrument: **HPMS12**
Prep Date: **11/04/2009 08:11**
Cal Date: **11/08/2009 23:08**
Run Date: **11/14/2009 15:20**
File ID: **12M28052**
Percent Solid: **87.6**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	210	105
2,4,5-Trichlorophenol	95-95-4		U	210	105
2,4,6-Trichlorophenol	88-06-2		U	210	105
2,4-Dichlorophenol	120-83-2		U	210	105
2,4-Dimethylphenol	105-67-9		U	210	105
2,4-Dinitrophenol	51-28-5		U	1050	525
2,4-Dinitrotoluene	121-14-2		U	210	105
2,6-Dinitrotoluene	606-20-2		U	210	105
2-Chloronaphthalene	91-58-7		U	210	105
2-Chlorophenol	95-57-8		U	210	105
2-Methylnaphthalene	91-57-6		U	210	105
2-Methylphenol	95-48-7		U	210	105
2-Nitroaniline	88-74-4		U	1050	525
2-Nitrophenol	88-75-5		U	210	105
3,3'-Dichlorobenzidine	91-94-1		U	421	210
3-,4-Methylphenol	106-44-5		U	210	105
3-Nitroaniline	99-09-2		U	1050	525
4,6-Dinitro-2-methylphenol	534-52-1		U	1050	525
4-Bromophenyl phenyl ether	101-55-3		U	210	105
4-Chloro-3-methylphenol	59-50-7		U	210	105
4-Chloroaniline	106-47-8		U	210	105
4-Chlorophenyl phenyl ether	7005-72-3		U	210	105
4-Nitroaniline	100-01-6		U	1050	525
4-Nitrophenol	100-02-7		U	1050	525
Acenaphthene	83-32-9		U	210	105
Acenaphthylene	208-96-8		U	210	105
Anthracene	120-12-7		U	210	105
Benzo(a)anthracene	56-55-3		U	210	105
Benzo(a)pyrene	50-32-8		U	210	105
Benzo(b)fluoranthene	205-99-2		U	210	105
Benzo(g,h,i)Perylene	191-24-2		U	210	105
Benzo(k)fluoranthene	207-08-9		U	210	105
Bis(2-Chloroethoxy)Methane	111-91-1		U	210	105
Bis(2-Chloroethyl)ether	111-44-4		U	210	105
bis(2-Chloroisopropyl)ether	108-60-1		U	210	105
bis(2-Ethylhexyl)phthalate	117-81-7		U	210	105
Butyl benzyl phthalate	85-68-7		U	210	105
Carbazole	86-74-8		U	210	105
Chrysene	218-01-9		U	210	105
Dibenz(a,h)anthracene	53-70-3		U	210	105
Dibenzofuran	132-64-9		U	210	105
Diethyl phthalate	84-66-2		U	210	105
Dimethyl phthalate	131-11-3		U	210	105
Di-N-Butylphthalate	84-74-2		U	210	105
Di-n-octyl phthalate	117-84-0		U	210	105
Fluoranthene	206-44-0		U	210	105
Fluorene	86-73-7		U	210	105
Hexachlorobenzene	118-74-1		U	210	105
Hexachlorobutadiene	87-68-3		U	210	105
Hexachlorocyclopentadiene	77-47-4		U	210	105
Hexachloroethane	67-72-1		U	210	105
Indeno(1,2,3-cd)pyrene	193-39-5		U	210	105
Isophorone	78-59-1		U	210	105
Naphthalene	91-20-3		U	210	105
Nitrobenzene	98-95-3		U	210	105
N-Nitrosodiphenylamine	86-30-6		U	210	105
N-Nitrosodipropylamine	621-64-7		U	210	105
Pentachlorophenol	87-86-5		U	1050	525
Phenanthrene	85-01-8		U	210	105

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-11	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4010-S002-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:11
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316572	Analyst:	MDC	Run Date:	11/14/2009 15:20
Collect Date:	10/29/2009 14:30	Dilution:	1	File ID:	12M28052
Sample Tag:	01	Units:	ug/kg	Percent Solid:	87.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	210	105
Pyrene	129-00-0		U	210	105

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	56.1	19	122	
2-Fluorobiphenyl	47.2	30	115	
2-Fluorophenol	56.1	25	121	
Nitrobenzene-d5	47.4	23	120	
p-Terphenyl-d14	86.5	18	137	
Phenol-d5	53.8	24	113	

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number: **L09100771-12**
Client ID: **4010-GW-102909**
Matrix: **Water**
Workgroup Number: **WG316580**
Collect Date: **10/29/2009 14:55**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **3520C**
Analytical Method: **8270C**
Analyst: **MDC**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS12**
Prep Date: **11/02/2009 10:30**
Cal Date: **11/08/2009 23:08**
Run Date: **11/13/2009 19:40**
File ID: **12M28041**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	12.0	6.02
2,4,5-Trichlorophenol	95-95-4		U	6.02	3.01
2,4,6-Trichlorophenol	88-06-2		U	6.02	3.01
2,4-Dichlorophenol	120-83-2		U	6.02	3.01
2,4-Dimethylphenol	105-67-9		U	6.02	3.01
2,4-Dinitrophenol	51-28-5		U	30.1	15.1
2,4-Dinitrotoluene	121-14-2		U	6.02	3.01
2,6-Dinitrotoluene	606-20-2		U	6.02	3.01
2-Chloronaphthalene	91-58-7		U	6.02	3.01
2-Chlorophenol	95-57-8		U	6.02	3.01
2-Methylnaphthalene	91-57-6		U	6.02	3.01
2-Methylphenol	95-48-7		U	6.02	3.01
2-Nitroaniline	88-74-4		U	30.1	15.1
2-Nitrophenol	88-75-5		U	6.02	3.01
3,3'-Dichlorobenzidine	91-94-1		U	6.02	3.01
3-,4-Methylphenol	106-44-5		U	12.0	3.01
3-Nitroaniline	99-09-2		U	30.1	15.1
4,6-Dinitro-2-methylphenol	534-52-1		U	30.1	15.1
4-Bromophenyl phenyl ether	101-55-3		U	6.02	3.01
4-Chloro-3-methylphenol	59-50-7		U	6.02	3.01
4-Chloroaniline	106-47-8		U	24.1	3.01
4-Chlorophenyl phenyl ether	7005-72-3		U	6.02	3.01
4-Nitroaniline	100-01-6		U	30.1	15.1
4-Nitrophenol	100-02-7		U	30.1	15.1
Acenaphthene	83-32-9		U	6.02	3.01
Acenaphthylene	208-96-8		U	6.02	3.01
Anthracene	120-12-7		U	6.02	3.01
Benzo(a)anthracene	56-55-3		U	6.02	3.01
Benzo(a)pyrene	50-32-8		U	6.02	3.01
Benzo(b)fluoranthene	205-99-2		U	6.02	3.01
Benzo(g,h,i)Perylene	191-24-2		U	6.02	3.01
Benzo(k)fluoranthene	207-08-9		U	6.02	3.01
Bis(2-Chloroethoxy)Methane	111-91-1		U	6.02	3.01
Bis(2-Chloroethyl)ether	111-44-4		U	6.02	3.01
bis(2-Chloroisopropyl)ether	108-60-1		U	6.02	3.01
bis(2-Ethylhexyl)phthalate	117-81-7		U	6.02	3.01
Butyl benzyl phthalate	85-68-7		U	6.02	3.01
Carbazole	86-74-8		U	24.1	3.01
Chrysene	218-01-9		U	6.02	3.01
Dibenz(a,h)anthracene	53-70-3		U	6.02	3.01
Dibenzofuran	132-64-9		U	6.02	3.01
Diethyl phthalate	84-66-2		U	6.02	3.01
Dimethyl phthalate	131-11-3		U	6.02	3.01
Di-N-Butylphthalate	84-74-2		U	6.02	3.01
Di-n-octyl phthalate	117-84-0		U	6.02	3.01
Fluoranthene	206-44-0		U	6.02	3.01
Fluorene	86-73-7		U	6.02	3.01
Hexachlorobenzene	118-74-1		U	6.02	3.01
Hexachlorobutadiene	87-68-3		U	6.02	3.01
Hexachlorocyclopentadiene	77-47-4		U	6.02	3.01
Hexachloroethane	67-72-1		U	6.02	3.01
Indeno(1,2,3-cd)pyrene	193-39-5		U	6.02	3.01
Isophorone	78-59-1		U	6.02	3.01
Naphthalene	91-20-3		U	6.02	3.01
Nitrobenzene	98-95-3		U	6.02	3.01
N-Nitrosodiphenylamine	86-30-6		U	6.02	3.01
N-Nitrosodipropylamine	621-64-7		U	6.02	3.01
Pentachlorophenol	87-86-5		U	30.1	15.1
Phenanthrene	85-01-8		U	6.02	3.01

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-12	PrePrep Method:	NONE	Instrument:	HPMS12
Client ID:	4010-GW-102909	Prep Method:	3520C	Prep Date:	11/02/2009 10:30
Matrix:	Water	Analytical Method:	8270C	Cal Date:	11/08/2009 23:08
Workgroup Number:	WG316580	Analyst:	MDC	Run Date:	11/13/2009 19:40
Collect Date:	10/29/2009 14:55	Dilution:	1	File ID:	12M28041
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenol	108-95-2		U	6.02	3.01
Pyrene	129-00-0		U	6.02	3.01

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	103	10	123	
2-Fluorobiphenyl	73.3	43	116	
2-Fluorophenol	71.0	21	110	
Nitrobenzene-d5	65.5	35	114	
p-Terphenyl-d14	60.8	33	141	
Phenol-d5	72.6	10	110	

U Not detected at or above the reporting limit (RL).

2.2.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG316113
Analyst: RAH
Spike Analyst: RAH
Method: 3520C
Run Date: 11/02/2009 10:30
SOP: EXB01 Revison 15
Spike Witness: CAF
Surr Solution: STD35890

Methylene Chloride Lot #: COA14222
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1:1 H2SO4 Lot #: RGT14328
10N NaOH Lot #: RGT14307

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100714-01	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Colored
2	L09100714-02	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Colored
3	L09100714-03	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Transparent
4	L09100714-04	SAMP		827-SPE-DIO	980 mL	.5 mL			1 mL	Colored
5	L09100714-05	SAMP		827-SPE-DIO	850 mL	.5 mL			1 mL	Colored
6	L09100717-05	SAMP		827-SPE-DIO	980 mL	.5 mL			1 mL	Colored
7	L09100717-09	SAMP		827-SPE-DIO	930 mL	.5 mL			1 mL	Colored
8	L09100717-10	SAMP		827-SPE-DIO	930 mL	.5 mL			1 mL	Colored
9	L09100717-13	SAMP		827-SPE-DIO	900 mL	.5 mL			1 mL	Colored
10	L09100754-01	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Colored
11	L09100754-02	SAMP		827-SPE-DIO	910 mL	.5 mL			1 mL	Colored
12	L09100770-05	SAMP		827-SPE	900 mL	.5 mL			1 mL	Transparent
13	L09100771-04	RS01		827-SPE-DIO	900 mL	.5 mL			1 mL	Colored
14	L09100771-05	MS01	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
15	L09100771-06	SD01	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
16	L09100771-09	SAMP		827-SPE-DIO	920 mL	.5 mL			1 mL	Colored
17	L09100771-12	SAMP		827-SPE-DIO	830 mL	.5 mL			1 mL	Colored
18	L09100775-33	SAMP		827-SPE-DIO	1000 mL	.5 mL			1 mL	Transparent
19	L09100775-34	SAMP		827-SPE-DIO	900 mL	.5 mL			1 mL	Transparent
20	WG316113-01	REF	L09100771-04	827-SPE-DIO	900 mL	.5 mL			1 mL	Colored
21	WG316113-02	BLANK		827-SPE-DIO	1000 mL	.5 mL			1 mL	Transparent
22	WG316113-03	LCS		827-SPE-DIO	1000 mL	.5 mL	1 mL	STD35870	1 mL	Colored
23	WG316113-04	MS	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
24	WG316113-05	MSD	L09100771-04	827-SPE-DIO	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored

Analyst: [signature]

Reviewer: Cheryl A. Flowers

EXTRACT - Modified 10/22/2008
PDF ID: 1530974
Report generated: 11/16/2009 09:10

Microbac Laboratories Inc.
Sample Extract Log

Workgroup:	WG316397	**Methylene Chloride Lot #:**	COA14222
Analyst:	CPD	**Purified Lab Sand Lot #:**	COA13873
Spike Analyst:	CPD	**Diatomaceous Earth Lot #:**	COA13977
Method:	3545	**Sodium Sulfate,Anhydrous,Granular (Lot #:**	COA14145
Run Date:	11/04/2009 08:11	**1% Acetic Acid Lot #:**	RGT14192
SOP:	ASE01 Revison 7		
Spike Witness:	CAF		
Surr Solution:	STD35890		

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100552-03	SAMP		827-SPE	19.44 g	.5 mL			4 mL	Colored
2	L09100717-01	RS01		827-SPE-DIO	17.19 g	.5 mL			1 mL	Colored
3	L09100717-02	MS01	L09100717-01	827-SPE-DIO	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
4	L09100717-03	SD01	L09100717-01	827-SPE-DIO	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored
5	L09100717-04	SAMP		827-SPE-DIO	17.31 g	.5 mL			1 mL	Colored
6	L09100717-06	SAMP		827-SPE-DIO	19.71 g	.5 mL			1 mL	Colored
7	L09100717-07	SAMP		827-SPE-DIO	18.57 g	.5 mL			1 mL	Colored
8	L09100717-08	SAMP		827-SPE-DIO	18.06 g	.5 mL			1 mL	Colored
9	L09100717-11	SAMP		827-SPE-DIO	17.5 g	.5 mL			1 mL	Transparent
10	L09100717-12	SAMP		827-SPE-DIO	17.32 g	.5 mL			1 mL	Colored
11	L09100760-01	SAMP		8270	18.55 g	.5 mL			1 mL	Opaque
12	L09100767-01	SAMP		8270	17.72 g	.5 mL			1 mL	Opaque
13	L09100771-02	SAMP		827-SPE-DIO	19.72 g	.5 mL			1 mL	Colored
14	L09100771-03	SAMP		827-SPE-DIO	18.64 g	.5 mL			1 mL	Transparent
15	L09100771-07	SAMP		827-SPE-DIO	20.93 g	.5 mL			1 mL	Transparent
16	L09100771-08	SAMP		827-SPE-DIO	18.04 g	.5 mL			1 mL	Colored
17	L09100771-10	SAMP		827-SPE-DIO	18.72 g	.5 mL			1 mL	Colored
18	L09100771-11	SAMP		827-SPE-DIO	17.92 g	.5 mL			1 mL	Colored
19	WG316397-01	REF	L09100717-01	827-SPE-DIO	17.19 g	.5 mL			1 mL	Colored
20	WG316397-02	BLANK		8270	20 g	.5 mL			1 mL	Transparent
21	WG316397-03	LCS		8270	20 g	.5 mL	.5 mL	STD35739	1 mL	Colored
22	WG316397-04	MS	L09100717-01	827-SPE-DIO	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
23	WG316397-05	MSD	L09100717-01	827-SPE-DIO	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored

L09100552-03	REEXT OUT OF HOLD LEFT RESIDUE ON INSIDE OF ZYMARK TUBE

Analyst: _____ **Reviewer:** _____

EXTRACT - Modified 10/22/2008
PDF ID: 1531003
Report generated: 11/16/2009 14:36

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 103109
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30744

Column 1 ID: RXI-5MS Column 2 ID: NA

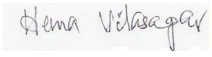
Workgroups:

Internal STD: STD22692 Surrogate STD: NA Calibration STD

Comments: Daylight savings time ended between 12M27685 and 12M27686.
12M27658-12M27663: see maintenance log.
ICAL: #24, 77, 97, 130, 131 calibrated to 100ppm. #64, 110 calibrated to 80ppm.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27658	BAKEOUT	1	1	STD36018	10/31/09 09:36
2	12M27659	PRIMER	1	1	STD36018	10/31/09 09:54
3	12M27660	WG315933-01 50PPM DFTPP	1	1	STD35357	10/31/09 10:53
4	12M27661	WG315933-02 50PPM BNA STD	1	1	STD36018	10/31/09 11:12
5	12M27662	50PPM TCL STD	1	1	STD34192	10/31/09 11:44
6	12M27663	WG315933-05 15PPM BNA STD	1	1	STD36018	10/31/09 12:13
7	12M27664	WG315933-01 50PPM DFTPP	1	1	STD35357	10/31/09 14:21
8	12M27665	WG315933-01 50PPM DFTPP	1	1	STD35357	10/31/09 14:39
9	12M27666	WG315933-02 50PPM BNA STD	1	1	STD36018	10/31/09 14:58
10	12M27667	WG315933-03 3PPM BNA STD	1	1	STD36018	10/31/09 15:32
11	12M27668	WG315933-04 10PPM BNA STD	1	1	STD36018	10/31/09 16:06
12	12M27669	WG315933-05 15PPM BNA STD	1	1	STD36018	10/31/09 16:40
13	12M27670	WG315933-06 25PPM BNA STD	1	1	STD36018	10/31/09 17:15
14	12M27671	WG315933-07 80PPM BNA STD	1	1	STD36018	10/31/09 17:49
15	12M27672	WG315933-08 100PPM BNA STD	1	1	STD36018	10/31/09 18:24
16	12M27673	WG315933-09 120PPM BNA STD	1	1	STD36018	10/31/09 18:58
17	12M27674	WG315933-10 50PPM BNA Alt source	1	1	STD34085	10/31/09 19:32
18	12M27675	WG315933-11 50PPM A9 Alt source	1	1	STD34874	10/31/09 20:06
19	12M27676	WG315933-12 50PPM 1,4-dioxane Alt source	1	1	STD34874	10/31/09 20:40
20	12M27677	WG316004-01 50ppm TCL std	1	1	STD34192	10/31/09 21:15
21	12M27678	WG316004-02 3ppm TCL std	1	1	STD34192	10/31/09 21:49
22	12M27679	WG316004-03 10ppm TCL std	1	1	STD34192	10/31/09 22:22
23	12M27680	WG316004-04 25ppm TCL std	1	1	STD34192	10/31/09 22:56
24	12M27681	WG316004-05 80ppm TCL std	1	1	STD34192	10/31/09 23:31
25	12M27682	WG316004-06 100ppm TCL std	1	1	STD34192	11/01/09 00:05
26	12M27683	WG316004-07 50ppm TCL Alt source std	1	1	STD34903	11/01/09 00:39
27	12M27684	WG316005-01 50PPM DFTPP	1	1	STD35357	11/01/09 01:12
28	12M27685	WG316005-02 50PPM BNA STD	1	1	STD36018	11/01/09 01:31
29	12M27686	WG316006-01 50ppm TCL std	1	1	STD34192	11/01/09 01:05
30	12M27687	WG315223-02 BLK 10/23	1	1		11/01/09 01:39
31	12M27688	WG315223-03 LCS 10/23	1	1		11/01/09 02:13
32	12M27689	L09100586-23 RR	1	1		11/01/09 02:47
33	12M27690	L09100418-01	1	1		11/01/09 03:20
34	12M27691	L09100418-03	1	1		11/01/09 03:55

Page: 1 Approved: 02-NOV-09



Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 103109
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30744

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD22692 Surrogate STD: NA

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
35	12M27692	L09100418-05	1	1		11/01/09 04:29
36	12M27693	L09100418-07	1	1		11/01/09 05:03
37	12M27694	L09100418-09	1	1		11/01/09 05:37
38	12M27695	L09100418-11	1	1		11/01/09 06:11
39	12M27696	L09100418-13	1	1		11/01/09 06:45
51	12M27697	L09100418-15 RS	1	1		11/01/09 07:19
49	12M27698	WG315223-04 L09100418-17 MS	1	1		11/01/09 07:53
50	12M27699	WG315223-05 L09100418-19 MSD	1	1		11/01/09 08:27
43	12M27700	L09100418-21	1	1		11/01/09 09:01
44	12M27701	L09100478-01	1	1		11/01/09 09:35
45	12M27702	L09100478-02	1	1		11/01/09 10:10
46	12M27703	L09100478-03	1	1		11/01/09 10:44
47	12M27704	L09100478-04	1	1		11/01/09 11:18

Comments

Seq.	Rerun	Dil.	Reason	Analytes
7	X			
	Mass 68 high due to background noise.			
17				
	#38, 114, 125 >30%D.			
18				
	#7, 49, 78, 109, 110, 122, 130 >30%D.			
28				
	#39 >20%D.			
44	X		Internal standard failure	
	All ISTD ~2x high. Need RR, insufficient extract for remix.			

 Approved: 02-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110309
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30786

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG315641, WG315785, WG316249
Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M48780	WG316255-01 50ppm DFTPP	1	1	STD31842	11/03/09 08:46
2	4M48781	WG316255-01 50ppm DFTPP	1	1	STD31842	11/03/09 09:03
3	4M48782	WG316255-01 50ppm DFTPP	1	1	STD31842	11/03/09 09:29
4	4M48783	WG316255-02 50ppm MEGAMIX STD	1	1	STD34003	11/03/09 09:49
5	4M48784	WG316255-03 3ppm MEGAMIX STD	1	1	STD36018	11/03/09 10:28
6	4M48785	WG316255-04 10ppm MEGAMIX STD	1	1	STD36018	11/03/09 11:06
7	4M48786	WG316255-05 15ppm MEGAMIX STD	1	1	STD36018	11/03/09 11:45
8	4M48787	WG316255-06 25ppm MEGAMIX STD	1	1	STD36018	11/03/09 12:24
9	4M48788	WG316255-07 80ppm MEGAMIX STD	1	1	STD36018	11/03/09 13:02
10	4M48789	WG316255-08 100ppm MEGAMIX STD	1	1	STD36018	11/03/09 13:41
11	4M48790	WG316255-09 120ppm MEGAMIX STD	1	1	STD36018	11/03/09 14:19
12	4M48791	WG316351-01 50ppm DFTPP	1	1	STD31842	11/03/09 14:52
13	4M48792	WG316351-02 50ppm MEGAMIX STD	1	1	STD36018	11/03/09 15:13
14	4M48793	WG316255-10 50ppm BNA Alt Src STD	1	1	STD34085	11/03/09 15:50
15	4M48794	WG316255-11 50ppm A9 Alt Src STD	1	1	STD34874	11/03/09 16:28
16	4M48795	WG316255-12 50ppm 1,4-Dioxane Alt Src ST	1	1	STD34360	11/03/09 17:06
17	4M48796	WG316353-01 50ppm TCL STD	1	1	STD34192	11/03/09 17:42
18	4M48797	WG316353-02 3ppm TCL STD	1	1	STD34192	11/03/09 18:20
19	4M48798	WG316353-03 10ppm TCL STD	1	1	STD34192	11/03/09 18:56
20	4M48799	WG316353-04 25ppm TCL STD	1	1	STD34192	11/03/09 19:33
21	4M48800	WG316353-05 80ppm TCL STD	1	1	STD34192	11/03/09 20:10
22	4M48801	WG316353-06 100ppm TCL STD	1	1	STD34192	11/03/09 20:47
23	4M48802	WG316353-07 50ppm TCL Alt Src STD	1	1	STD34903	11/03/09 21:23
24	4M48803	WG316249-02 BLK 11/3	7	1	SOIL	11/03/09 22:00
25	4M48804	WG316249-03 LCS 11/3	7	1	SOIL	11/03/09 22:37
26	4M48805	L09100552-14 1000X	1	1000		11/03/09 23:13
27	4M48806	L09100584-04	1	1		11/03/09 23:50
28	4M48807	L09100584-01 2X	1	2		11/04/09 00:26
29	4M48808	L09100584-02 2X	1	2		11/04/09 01:03
30	4M48809	L09100584-03 20X	1	20		11/04/09 01:40
31	4M48810	L09110010-01 5X	7	5	SOIL	11/04/09 02:16

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			

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Instrument Run Log

Instrument: HPMS4 Dataset: 110309

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30786

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG315641, WG315785, WG316249

Internal STD: COA14210 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	WG316255-01 50ppm DFTPP - Tune failed.			
2	X			
	WG316255-01 50ppm DFTPP - Tune failed.			
14				
	WG316255-10 50ppm BNA Alt Src STD - Pentachlorophenol >25% but <30% biased high.			
28				
	L09100584-01 2X - Sample was analyzed at a dilution due to extract apperance.			
29				
	L09100584-02 2X - SS 2FP ND - SMI; Sample was analyzed at a dilution due to extract apperance.			
30	X	40	Over Calibration Range	#18
	L09100584-03 20X - Sample was analyzed at a dilution due to extract apperance, viscosity, and elevated final volume.			
31				
	L09110010-01 5X - Sample was analyzed at a dilution due to the extract's dark color and viscosity.			

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110509
Analyst1: CAA Analyst2: NA
Method: 82670C SOP: MSS01 Rev: 14

Maintenance Log ID: 30827

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG315857,WG316572,WG316363
Internal STD: COA13404 Surrogate STD: NA Calibration STD

Comments: Files 4M48853 to 4M48857 are not running more conc. due to dark, viscous matrices.
Files 4M48845 to 4M48853 need to run straight-5X run is not being reported.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M48834	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 08:14
2	4M48835	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 08:30
3	4M48836	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 08:47
4	4M48837	WG316533-01 50ppm DFTPP	1	1	STD31842	11/05/09 09:15
5	4M48838	WG316533-02 50ppm MEGAMIX STD	1	1	STD36018	11/05/09 09:36
6	4M48839	WG316534-01 50ppm TCL STD	1	1	STD34192	11/05/09 10:13
7	4M48840	50ppm 2-Ethoxyethanol STD	1	1	STD35229	11/05/09 10:47
8	4M48841	WG316397-02 BLK 11/4	7	1	SOIL	11/05/09 11:25
9	4M48842	WG316397-03 LCS 11/4	7	1	SOIL	11/05/09 12:02
10	4M48843	WG315658-02 BLK 10/28	7	1	SOIL	11/05/09 12:40
11	4M48844	WG315658-03 LCS 10/28	7	1	SOIL	11/05/09 13:17
12	4M48845	L09100616-30 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 13:54
13	4M48846	L09100616-31 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 14:31
14	4M48847	L09100616-24 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 15:09
15	4M48848	L09100616-26 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 15:46
16	4M48849	L09100616-27 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 16:23
17	4M48850	L09100616-25 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 17:01
18	4M48851	L09100616-29 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 17:38
19	4M48852	L09100616-28 5X 827-SPE-DIOX	7	5	SOIL	11/05/09 18:15
20	4M48853	L09100636-01 20X	10	20	SOIL	11/05/09 18:52
21	4M48854	L09100760-01 20X	7	20	SOIL	11/05/09 19:29
22	4M48855	L09100767-01 20X	7	20	SOIL	11/05/09 20:06
23	4M48856	L09100616-34 10X 827-SPE-DIOX	7	10	SOIL	11/05/09 20:42
24	4M48857	L09100616-36 10X 827-SPE-DIOX	7	10	SOIL	11/05/09 21:19

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1				
	RR, DFTPP failed.			
2				
	RR, DFTPP failed. Quicktune			
3				
	RR, DFTPP failed-retuned.			
23				
	FBP is low.			

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Instrument Run Log

Instrument: HPMS4 Dataset: 110509

Analyst1: CAA Analyst2: NA

Method: 82670C SOP: MSS01 Rev: 14

Maintenance Log ID: 30827

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG315857,WG316572,WG316363

Internal STD: COA13404 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
24				
	FBP is low.			

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Instrument Run Log

Instrument: HPMS12 Dataset: 110609
Analyst1: CAA Analyst2: MES
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID:

Column 1 ID: Column 2 ID: NA

Workgroups: WG316754, WG316580

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments: L09110114 needs re-extracted due to low LCS/LCS DUP.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27849	WG316683-01 50PPM DFTPP	1	1	STD35357	11/06/09 08:21
25	12M27850	WG316683-02 50PPM BNA STD	1	1	STD36018	11/06/09 08:41
2	12M27851	WG316683-01 50PPM DFTPP	1	1	STD35357	11/06/09 10:19
3	12M27852	WG316683-02 50PPM BNA STD	1	1	STD36018	11/06/09 10:38
4	12M27853	WG316684-01 50PPM TCL STD	1	1	STD34192	11/06/09 11:11
5	12M27854	WG316580-01 3PPM QCMRL CHECK	1	1	STD36018	11/06/09 11:44
6	12M27855	WG316580-02 15PPM QCMRL CHECK	1	1	STD36018	11/06/09 12:18
7	12M27856	WG316113-02 BLANK	1	1		11/06/09 12:51
8	12M27857	WG316113-03 LCS	1	1		11/06/09 13:24
9	12M27858	WG316671-01 BLANK	7	1	SOIL	11/06/09 13:58
10	12M27859	WG316671-02 LCS	7	1	SOIL	11/06/09 14:32
11	12M27860	WG316671-03 LCSDUP	7	1	SOIL	11/06/09 15:06
12	12M27861	L09100770-05	1	1		11/06/09 15:39
13	12M27862	WG316580-03 3PPM QCMRL CHECK	1	1	STD36018	11/06/09 16:13
14	12M27863	WG316580-04 15PPM QCMRL CHECK	1	1	STD36018	11/06/09 16:46
15	12M27864	L09110114-01	7	1	SOIL	11/06/09 17:20
16	12M27865	L09110114-02	7	1	SOIL	11/06/09 17:53
17	12M27866	L09110114-04	7	1	SOIL	11/06/09 18:26
18	12M27867	L09110114-06	7	1	SOIL	11/06/09 18:59
19	12M27868	L09110114-03 2X	7	2	SOIL	11/06/09 19:32
20	12M27869	L09110114-05 2X	7	2	SOIL	11/06/09 20:05
21	12M27870	L09100714-01	1	1		11/06/09 20:38
22	12M27871	L09100714-02	1	1		11/06/09 21:11
23	12M27872	BAKEOUT	1	1		11/06/09 21:44
24	12M27873	BAKEOUT	1	1		11/06/09 22:17

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG316683-01 50PPM DFTPP			
25	X			
	WG316683-02 50PPM BNA STD - PCP low.			
8				
	WG316113-03 LCS - SS FBP low.			
19				

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Instrument Run Log

Instrument: HPMS12 Dataset: 110609

Analyst1: CAA Analyst2: MES

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID:

Column 1 ID: Column 2 ID: NA

Workgroups: WG316754, WG316580

Internal STD: COA14210 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	L09110114-03 2X - SS TBP, FBP low; Sample was analyzed at a dilution due to extract apperance.			
20				
	L09110114-05 2X - SS FBP low; Sample was analyzed at a dilution due to extract apperance.			
22				
	L09100714-02 - Istd 2 low - SMI; SS NBZ high.			

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Instrument Run Log

Instrument: HPMS12 Dataset: 110809

Analyst1: MDC Analyst2: CAA

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30864

Column 1 ID: Column 2 ID: NA

Workgroups:

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments: Alt Src: bis(2-chloroethoxy)methane >25% biased low.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27901	BAKEOUT	1	1		11/08/09 15:58
2	12M27902	WG316819-01 50PPM DFTPP	1	1	STD35357	11/08/09 16:30
3	12M27903	WG316819-02 50PPM BNA STD	1	1	STD36018	11/08/09 16:49
4	12M27904	WG316819-03 120PPM BNA STD	1	1	STD36018	11/08/09 17:22
5	12M27905	WG316819-04 100PPM BNA STD	1	1	STD36018	11/08/09 17:55
6	12M27906	WG316819-05 80PPM BNA STD	1	1	STD36018	11/08/09 18:28
7	12M27907	WG316819-06 25PPM BNA STD	1	1	STD36018	11/08/09 19:01
8	12M27908	WG316819-07 15PPM BNA STD	1	1	STD36018	11/08/09 22:03
9	12M27909	WG316819-08 10PPM BNA STD	1	1	STD36018	11/08/09 22:35
10	12M27910	WG316819-09 3PPM BNA STD	1	1	STD36018	11/08/09 23:08
11	12M27911	WG316819-10 50PPM BNA Alt Src STD	1	1	STD34085	11/08/09 23:40
12	12M27912	WG316819-11 50PPM A9 Alt Src STD	1	1	STD34874	11/09/09 00:13
13	12M27913	WG316819-12 50PPM 1,4-Dioxane Alt Src ST	1	1	STD34360	11/09/09 00:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Approved: 11-NOV-09

Hema Vilasagar

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Instrument Run Log

Instrument: HPMS12 Dataset: 110909
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30880

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316868, WG316193, WG315383, WG316046

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M27914	WG316884-01 50PPM DFTPP	1	1	STD35357	11/09/09 09:24
2	12M27915	WG316884-02 50PPM BNA STD	1	1	STD36018	11/09/09 09:43
3	12M27916	WG316885-01 50PPM TCL STD	1	1	STD34192	11/09/09 10:17
4	12M27917	WG316885-02 3PPM TCL STD	1	1	STD34192	11/09/09 10:51
5	12M27918	WG316885-03 10PPM TCL STD	1	1	STD34192	11/09/09 11:24
6	12M27919	WG316885-04 25PPM TCL STD	1	1	STD34192	11/09/09 11:58
7	12M27920	WG316885-05 80PPM TCL STD	1	1	STD34192	11/09/09 12:31
8	12M27921	WG316885-06 100PPM TCL STD	1	1	STD34192	11/09/09 13:05
9	12M27922	WG316885-07 50PPM TCL Alt Src STD	1	1	STD34903	11/09/09 13:40
10	12M27923	WG316009-02 BLK 10/30	7	1	SOIL	11/09/09 14:14
11	12M27924	WG316009-03 LCS 10/30	7	1	SOIL	11/09/09 14:48
12	12M27925	WG316925-01 50PPM DFTPP	1	1	STD35357	11/09/09 15:20
13	12M27926	WG316925-02 50PPM BNA STD	1	1	STD36018	11/09/09 15:40
14	12M27927	WG316932-01 50PPM TCL STD	1	1	STD34192	11/09/09 16:14
15	12M27928	WG316674-01 BLK 11/6	10	1	SOIL	11/09/09 16:45
16	12M27929	WG316674-02 LCS 11/6	10	1	SOIL	11/09/09 17:18
17	12M27930	WG316674-03 LCS DUP 11/6	10	1	SOIL	11/09/09 17:51
18	12M27931	L09100610-03 RR	1	1		11/09/09 18:24
19	12M27932	L09100610-05 RR	1	1		11/09/09 18:57
20	12M27933	L09100524-01 10X RR	7	10		11/09/09 19:30
21	12M27934	L09100524-07 RR	7	1		11/09/09 20:02
22	12M27935	L09100524-08 10X RR	7	10		11/09/09 20:35
23	12M27936	L09100524-12 10X RR	7	10		11/09/09 21:08
24	12M27937	L09110098-01 10X	10	10		11/09/09 21:41
25	12M27938	L09110123-01 10X	10	10		11/09/09 22:14
26	12M27939	L09100733-02 2X	7	2		11/09/09 22:46
27	12M27940	L09100733-05 2X	7	2		11/09/09 23:19
28	12M27941	L09100733-08 2X	7	2		11/09/09 23:52
29	12M27942	L09100733-09	7	1		11/10/09 00:25
30	12M27943	L09100733-11 2X	7	2		11/10/09 00:58
31	12M27944	L09100733-12 2X	7	2		11/10/09 01:30
32	12M27945	L09100733-13 2X	7	2		11/10/09 02:03
33	12M27946	L09100733-14 2X	7	2		11/10/09 02:36
34	12M27947	BAKEOUT	7	2		11/10/09 03:08
35	12M27948	BAKEOUT	7	2		11/10/09 03:41

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Instrument Run Log

Instrument: HPMS12 Dataset: 110909
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30880

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316868, WG316193, WG315383, WG316046

Internal STD: COA14210 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
10	X	1	Internal standard failure	Istd 3, 4, 5, 6 low.
	WG316009-02 BLK 10/30			
11				
	WG316009-03 LCS 10/30 - Istd 5 low.			
15	X	1	Internal standard failure	Istd 3, 4, 5, 6 low.
	WG316674-01 BLK 11/6			
18	X	1	Internal standard failure	Istd 6 low.
	L09100610-03 RR			
20	X	10	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100524-01 10X RR			
22	X	10	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100524-08 10X RR			
23	X	10	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100524-12 10X RR			
24	X	1	Analyzed too dilute	
	L09110098-01 10X - Analyzed at a dilution due to extract apperance.			
25				
	L09110123-01 10X - Sample was analyzed at a dilution due to extract apperance, viscosity and elevated final volume.			
26	X	2	Internal standard failure	Istd 4, 5, 6 low.
	L09100733-02 2X			
27	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-05 2X			
28	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-08 2X			
29	X	1	Internal standard failure	Istd 4, 5, 6 low.
	L09100733-09			
30	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-11 2X			
31	X	2	Internal standard failure	Istd 5, 6 low.
	L09100733-12 2X			
32				
	L09100733-13 2X - Sample was analyzed at a dilution due to extract apperance.			
33	X	2	Internal standard failure	Istd 3, 4, 5, 6 low.
	L09100733-14 2X			

 Approved: 10-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 110909

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30889

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: COA14210 Surrogate STD: NA Calibration STD

Comments: ICAL: p-phenylendiamine, 2-naphthylamine, methapyrilene, benzidine fails.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M48933	3ppm MEGAMIX STD CHECK	1	1	STD36018	11/09/09 11:03
2	4M48934	WG316839-01 50ppm DFTPP STD	1	1	STD35357	11/09/09 11:33
3	4M48935	WG316839-02 50ppm MEGAMIX STD	1	1	STD36018	11/09/09 11:53
4	4M48936	WG316839-03 3ppm MEGAMIX STD	1	1	STD36018	11/09/09 12:28
5	4M48937	WG316839-04 10ppm MEGAMIX STD	1	1	STD36018	11/09/09 13:03
6	4M48938	WG316839-05 15ppm MEGAMIX STD	1	1	STD36018	11/09/09 13:39
7	4M48939	WG316839-06 25ppm MEGAMIX STD	1	1	STD36018	11/09/09 14:15
8	4M48940	WG316839-07 80ppm MEGAMIX STD	1	1	STD36018	11/09/09 14:50
9	4M48941	WG316839-08 100ppm MEGAMIX STD	1	1	STD36018	11/09/09 15:26
10	4M48942	WG316839-09 120ppm MEGAMIX STD	1	1	STD36018	11/09/09 16:01
11	4M48943	WG316839-10 50ppm BNA STD	1	1	STD34085	11/09/09 16:37
12	4M48944	WG316839-11 50ppm A9 STD	1	1	STD34874	11/09/09 17:12
13	4M48945	WG316839-12 50ppm 1,4-Dioxane STD	1	1	STD34360	11/09/09 17:46
14	4M48946	WG316935-01 50ppm TCL STD	1	1	STD34192	11/09/09 18:21
15	4M48947	WG316935-02 3ppm TCL STD	1	1	STD34192	11/09/09 18:56
16	4M48948	WG316935-03 10ppm TCL STD	1	1	STD34192	11/09/09 19:31
17	4M48949	WG316935-04 25ppm TCL STD	1	1	STD34192	11/09/09 20:05
18	4M48950	WG316935-05 80ppm TCL STD	1	1	STD34192	11/09/09 20:40
19	4M48951	WG316935-06 100ppm TCL STD	1	1	STD34192	11/09/09 21:15
20	4M48952	WG316935-07 50ppm TCL Alt Src STD	1	1	STD34903	11/09/09 21:50

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 11-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 111309
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30939

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups:
Internal STD: STD22692 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M28022	WG317340-01 50PPM DFTPP	1	1	STD35357	11/13/09 09:05
2	12M28023	WG317340-02 50PPM BNA STD	1	1	STD36018	11/13/09 09:24
9	12M28024	WG317445-01 50PPM TCL STD	1	1	STD34903	11/13/09 10:12
10	12M28025	L09100754-01	1	1		11/13/09 10:45
11	12M28026	L09100754-02	1	1		11/13/09 11:18
4	12M28027	WG317324-02 BLK 11/13	1	1		11/13/09 11:52
5	12M28028	WG317324-03 LCS 11/13	1	1		11/13/09 12:25
6	12M28029	WG317303-01 FBLK	17	1		11/13/09 12:59
7	12M28030	L09110259-01 TCLP	17	1		11/13/09 13:33
8	12M28031	L09110260-01 TCLP	17	1		11/13/09 14:07
12	12M28032	L09100733-18 2X RR	7	1	SOIL	11/13/09 14:41
13	12M28033	L09100717-05 2X	1	2		11/13/09 15:15
14	12M28034	L09100717-09 2X	1	2		11/13/09 15:49
15	12M28035	L09100717-10 2X	1	2		11/13/09 16:23
16	12M28036	L09100717-13 2X	1	2		11/13/09 16:56
24	12M28037	L09100771-04	1	1		11/13/09 17:29
25	12M28038	WG316113-04 L09100771-05 MS	1	1		11/13/09 18:02
26	12M28039	WG316113-05 L09100771-06 MSD	1	1		11/13/09 18:34
20	12M28040	L09100771-09	1	1		11/13/09 19:07
21	12M28041	L09100771-12	1	1		11/13/09 19:40
22	12M28042	L09100775-33	1	1		11/13/09 20:13
23	12M28043	L09100775-34	1	1		11/13/09 20:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes
12				
	L09100733-18: surr. FBP <LCL.			
13				
	L09100717-05: surr. TPH <LCL.			
24				
	L09100771-04: surr. 2FP <LCL.			
25				
	L09100771-05: surr. TPH <LCL.			
26				
	L09100771-06: surr. TPH, 2FP <LCL.			

Page: 1 Approved: 16-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 111309
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30950

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316572, WG316358
Internal STD: STD20900 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M49025	WG317340-01 50ppm DFTPP STD	1	1	STD35357	11/13/09 09:30
2	4M49026	WG317340-02 50ppm MEGAMIX STD	1	1	STD36018	11/13/09 09:48
3	4M49027	WG317345-01 50ppm TCL STD	1	1	STD34192	11/13/09 10:30
4	4M49028	L09100734-12 5X	7	5	SOIL	11/13/09 11:05
5	4M49029	L09100717-01	7	1	SOIL	11/13/09 11:40
6	4M49030	WG316397-04 L09100717-02 MS	7	1	SOIL	11/13/09 12:15
7	4M49031	WG316397-05 L09110717-03 MSD	7	1	SOIL	11/13/09 12:51
8	4M49032	L09100717-04	7	1	SOIL	11/13/09 13:26
9	4M49033	L09100717-08	7	1	SOIL	11/13/09 14:01
10	4M49034	L09100717-11	7	1	SOIL	11/13/09 14:36
11	4M49035	L09100717-12	7	1	SOIL	11/13/09 15:12
12	4M49036	L09100771-02	7	1	SOIL	11/13/09 15:47
13	4M49037	L09100771-03	7	1	SOIL	11/13/09 16:23
14	4M49038	L09100771-07	7	1	SOIL	11/13/09 16:58
15	4M49039	L09100771-08	7	1	SOIL	11/13/09 17:33
16	4M49040	L09100771-11	7	1	SOIL	11/13/09 18:07
17	4M49041	L09100717-06 2X	7	2	SOIL	11/13/09 18:43
18	4M49042	L09100717-07 2X	7	2	SOIL	11/13/09 19:17
19	4M49043	L09100771-10 2X	7	2	SOIL	11/13/09 19:52
20	4M49044	BAKEOUT	1	1		11/13/09 20:26
21	4M49045	BAKEOUT	1	1		11/13/09 21:01

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	CCV: #49, 109 >20% D.			
4				
	L09100734-12: surr. FBP < LCL.			
6	X		Internal standard failure	
14	X		Internal standard failure	
16	X		Internal standard failure	
19				

Page: 1 Approved: 16-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 111309

Analyst1: MDC Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30950

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316572, WG316358

Internal STD: STD20900 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
			L09100771-10: surr. FBP <LCL.	

Approved: 16-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 111409
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14
Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30946

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316702, WG316572
Internal STD: STD22692 Surrogate STD: NA Calibration STD

Comments: All L09100775 & L09110007 samples need RE due to LCS failures.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	12M28044	WG317444-01 50PPM DFTPP	1	1	STD35357	11/14/09 11:11
2	12M28045	WG317444-02 50PPM BNA STD	1	1	STD36018	11/14/09 11:30
3	12M28046	WG317511-01 50PPM TCL STD	1	1	STD34903	11/14/09 12:02
4	12M28047	WG316397-02 BLK 11/4 RR	7	1	SOIL	11/14/09 12:35
5	12M28048	WG316361-01 BLK 11/3	7	1	SOIL	11/14/09 13:08
6	12M28049	WG316491-02 LCS 11/3	7	1	SOIL	11/14/09 13:41
7	12M28050	WG316491-03 LCS DUP 11/3	7	1	SOIL	11/14/09 14:14
8	12M28051	L09100771-07 RR	7	1	SOIL	11/14/09 14:47
9	12M28052	L09100771-11 RR	7	1	SOIL	11/14/09 15:20
10	12M28053	L09100775-22 2X	7	2	SOIL	11/14/09 15:53
11	12M28054	L09110007-21	7	1	SOIL	11/14/09 16:26
12	12M28055	L09100775-29 2X	7	2	SOIL	11/14/09 16:59
13	12M28056	L09100775-21 2X	7	2	SOIL	11/14/09 17:31
14	12M28057	L09100775-23 2X	7	2	SOIL	11/14/09 18:04
15	12M28058	L09100775-31 2X	7	2	SOIL	11/14/09 18:37
16	12M28059	L09100775-27 5X	7	5	SOIL	11/14/09 19:10
17	12M28060	L09100775-30 5X	7	5	SOIL	11/14/09 19:43
18	12M28061	L09100775-32 5X	7	5	SOIL	11/14/09 20:16
19	12M28062	L09100775-36 2X	7	2	SOIL	11/14/09 20:49
20	12M28063	L09100775-24 2X	7	2	SOIL	11/14/09 21:22
21	12M28064	L09100775-25 5X	7	5	SOIL	11/14/09 21:54
22	12M28065	L09100775-26 10X	7	10	SOIL	11/14/09 22:27
23	12M28066	BAKEOUT	7	10	SOIL	11/14/09 23:00
24	12M28067	BAKEOUT	7	10	SOIL	11/14/09 23:33
25	12M28068	BAKEOUT	7	10	SOIL	11/15/09 00:05

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	#22, 39, 72, 109 >20%D.			
6				
	LCS WG316491-02: 51 compounds & 4 surr. <LCL.			
7				
	LCS DUP WG316491-03: 30 compounds <LCL.			
10				

 Approved: 16-NOV-09

Hema Vilasagar

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS12 Dataset: 111409

Analyst1: MDC Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Method: 625 SOP: MSS02 Rev: 8

Maintenance Log ID: 30946

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316702, WG316572

Internal STD: STD22692 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
			L09100775-22: Surr. FBP <LCL.	
12				
			L09100775-29: Surr. FBP, NBZ <LCL.	
14				
			L09100775-23: Surr. FBP <LCL.	
15				
			L09100775-31: Surr. FBP <LCL.	
17				
			L09100775-30: Surr. NBZ, FBP <LCL.	
18				
			L09100775-23: Surr. TBP, FBP <LCL.	
19				
			L09100775-36: Surr. FBP <LCL.	
20				
			L09100775-24: Surr. FBP <LCL.	
21				
			L09100775-23: Surr.NBZ, FBP <LCL.	

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Hema Vilasagar

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Instrument Run Log

Instrument: HPMS4 Dataset: 111409
Analyst1: MDC Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30954

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD20900 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	4M49046	WG317446-01 50ppm DFTPP STD	1	1	STD35357	11/14/09 11:55
2	4M49047	WG317446-02 50ppm MEGAMIX STD	1	1	STD36018	11/14/09 12:14
3	4M49048	WG317559-01 50ppm TCL STD	1	1	STD34192	11/14/09 12:49
4	4M49049	WG316361-01 BLK 11/3	7	1	SOIL	11/14/09 13:24
5	4M49050	WG316361-02 LCS 11/3	7	1	SOIL	11/14/09 13:59
6	4M49051	WG316361-03 LCS DUP 11/3	7	1	SOIL	11/14/09 14:34
7	4M49052	WG316397-04 L09100717-02 MS RR	7	1	SOIL	11/14/09 15:09
8	4M49053	L09100775-08	7	1	SOIL	11/14/09 15:44
9	4M49054	L09100775-09	7	1	SOIL	11/14/09 16:18
10	4M49055	L09100775-17	7	1	SOIL	11/14/09 16:53
11	4M49056	L09100775-06 2X	7	2	SOIL	11/14/09 17:28
12	4M49057	L09100775-07 2X	7	2	SOIL	11/14/09 18:03
13	4M49058	L09100775-03 2X	7	2	SOIL	11/14/09 18:37
14	4M49059	L09100775-04 2X	7	2	SOIL	11/14/09 19:12
15	4M49060	L09100775-05 2X	7	2	SOIL	11/14/09 19:46
16	4M49061	L09100775-12 2X	7	2	SOIL	11/14/09 20:21
17	4M49062	L09100775-14 5X	7	5	SOIL	11/14/09 20:56
18	4M49063	L09100775-16 5X	7	5	SOIL	11/14/09 21:30
19	4M49064	L09100775-10 5X	7	5	SOIL	11/14/09 22:05
20	4M49065	L09100775-13 5X	7	5	SOIL	11/14/09 22:40
21	4M49066	L09100775-11 5X	7	5	SOIL	11/14/09 23:14
22	4M49067	L09100775-20 5X	7	5	SOIL	11/14/09 23:48
23	4M49068	BAKEOUT	7	5	SOIL	11/15/09 00:23
24	4M49069	BAKEOUT	7	5	SOIL	11/15/09 00:58
25	4M49070	BAKEOUT	7	5	SOIL	11/15/09 01:32

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
	CCV: #39, 109 >20% D.			
16				
	L09100775-12: surr. FBP <LCL.			
18				
	L09100775-12: surr. FBP <LCL.			
19				

Page: 1 Approved: 16-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS4 Dataset: 111409

Analyst1: MDC Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 14

Maintenance Log ID: 30954

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups:

Internal STD: STD20900 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
	L09100775-12: surr. FBP <LCL.			
20				
	L09100775-13: surr. FBP <LCL.			
21				
	L09100775-11: surr. FBP <LCL.			
22				
	L09100775-20: surr. FBP <LCL.			

Approved: 16-NOV-09

Microbac Laboratories Inc.

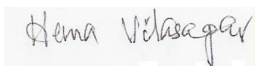
Data Checklist

Date: 31-OCT-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 30952
Analytical Workgroups: L09100418 (11/2), L09100478 (11/4), L09100586 (10/30)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
02-NOV-2009

Secondary Reviewer:
02-NOV-2009



CHECKLIST1 - Modified 03/05/2008
Generated: NOV-02-2009 10:29:44

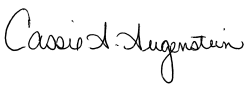
Microbac Laboratories Inc.

Data Checklist

Date: 03-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31007
Analytical Workgroups: L09100552, L09100584, L09110010

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
04-NOV-2009



Secondary Reviewer:
04-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-04-2009 12:13:06

Microbac Laboratories Inc.

Data Checklist

Date: 05-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31067
Analytical Workgroups: L09100616,L09100760,L09100767,L09100636

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	MES
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
06-NOV-2009

Secondary Reviewer:
06-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-06-2009 15:18:09

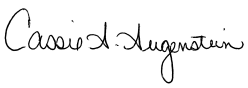
Microbac Laboratories Inc.

Data Checklist

Date: 06-NOV-2009
Analyst: CAA
Analyst: MES
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31082
Analytical Workgroups: L09100770, L09110114, L09100714

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
07-NOV-2009



Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 08:29:27

Microbac Laboratories Inc.

Data Checklist

Date: 08-NOV-2009
Analyst: CAA
Analyst: MDC
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31116
Analytical Workgroups: ICAL ONLY

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
09-NOV-2009

Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 14:42:18

Microbac Laboratories Inc.

Data Checklist

Date: 09-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31142
Analytical Workgroups: L09100610, L09100524, L09110098, L09110123, L09100733

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
10-NOV-2009

Secondary Reviewer:
10-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-10-2009 15:17:24

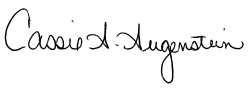
Microbac Laboratories Inc.

Data Checklist

Date: 09-NOV-2009
Analyst: CAA
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31156
Analytical Workgroups: ICAL ONLY

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	NA
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
11-NOV-2009



Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 13:59:52

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31220
Analytical Workgroups: L09100754, 100733, 100717, 100771, 100775, L09110259, 0260

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 11:39:53

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31251
Analytical Workgroups: L09100734, L09100717, L09100771

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 13:54:41

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS12
Curve Workgroup: NA
Runlog ID: 31246
Analytical Workgroups: L09100771, L09100775

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	HAV

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 14:06:44

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2009
Analyst: MDC
Analyst: NA
Method: 8270
Instrument: HPMS4
Curve Workgroup: NA
Runlog ID: 31256
Analytical Workgroups: L09100717, L09100775

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	X
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	X
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	MDC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
16-NOV-2009

Secondary Reviewer:
16-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-16-2009 15:03:50

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316572

Login Number: L09100771

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4012-S001-102909	02	10/29/09					11/04/09	6	14		11/13/09	9.3	40	
4012-S002-102909	03	10/29/09					11/04/09	6	14		11/13/09	9.3	40	
4015-S001-102909	07	10/29/09					11/04/09	5.9	14		11/14/09	10.3	40	
4015-S002-102909	08	10/29/09					11/04/09	5.9	14		11/13/09	9.4	40	
4010-S001-102909	10	10/29/09					11/04/09	5.8	14		11/13/09	9.5	40	
4010-S002-102909	11	10/29/09					11/04/09	5.7	14		11/14/09	10.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1542127
Report generated 11/17/2009 08:52

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316580

Login Number: L09100771

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4012-GW-102909	04	10/29/09					11/02/09	4	7		11/13/09	11.3	40	
4012-GW-102909-MS	05	10/29/09					11/02/09	4	7		11/13/09	11.3	40	
4012-GW-102909-MSD	06	10/29/09					11/02/09	4	7		11/13/09	11.3	40	
4015-GW-102909	09	10/29/09					11/02/09	3.9	7		11/13/09	11.4	40	
4010-GW-102909	12	10/29/09					11/02/09	3.8	7		11/13/09	11.4	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1542127
Report generated 11/17/2009 08:52

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS12
Workgroup (AAB#): WG316580

Method: 8270
CAL ID: HPMS12-31-OCT-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
WG316113-02	1.00	01	49.4	42.9	48.5	48.4	101	49.6
WG316113-03	1.00	01	75.1	72.4	82.6	74.5	91.8	84.5
WG316580-01	1.00	01	2.20	2.78	2.94	2.94	2.68	2.94
WG316580-02	1.00	01	11.1	13.9	14.5	14.9	13.8	14.1
WG316580-03	1.00	01	1.93	2.90	2.98	2.90	2.83	2.93
WG316580-04	1.00	01	11.8	13.9	14.4	15.2	13.9	13.6

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	10	-	123
2 - 2-Fluorobiphenyl	43	-	116
3 - 2-Fluorophenol	21	-	110
4 - Nitrobenzene-d5	35	-	114
5 - p-Terphenyl-d14	33	-	141
6 - Phenol-d5	10	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540809
Report generated: 11/17/2009 09:00

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS12
Workgroup (AAB#): WG316580

Method: 8270
CAL ID: HPMS12-08-NOV-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4	5	6
L09100771-04	1.00	01	13.2	63.8	15.0	58.1	45.8	16.1
L09100771-05	1.00	01	40.5	74.2	43.7	70.1	29.8	46.0
L09100771-06	1.00	01	14.7	69.6	9.50	66.5	24.4	11.2
L09100771-09	1.00	01	78.8	46.8	43.8	41.6	53.1	45.9
L09100771-12	1.00	01	103	73.3	71.0	65.5	60.8	72.6

Surrogates	Surrogate Limits
1 - 2,4,6-Tribromophenol	10 - 123
2 - 2-Fluorobiphenyl	43 - 116
3 - 2-Fluorophenol	21 - 110
4 - Nitrobenzene-d5	35 - 114
5 - p-Terphenyl-d14	33 - 141
6 - Phenol-d5	10 - 110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540809
Report generated: 11/17/2009 09:00

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS4
Workgroup (AAB#): WG316572

Method: 8270
CAL ID: HPMS4-03-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
WG316397-02	1.00	01	72.1	61.5	69.6	63.2	91.4	68.8
WG316397-03	1.00	01	80.3	58.1	60.0	55.7	82.7	60.7

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540809
Report generated: 11/17/2009 09:00

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS12
Workgroup (AAB#): WG316572

Method: 8270
CAL ID: HPMS12-08-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L09100771-07	1.00	01	49.7	46.0	54.4	36.8	90.4	49.9
L09100771-11	1.00	01	56.1	47.2	56.1	47.4	86.5	53.8
WG316397-02	1.00	02	82.0	63.6	67.8	57.6	104	65.0

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540809
Report generated: 11/17/2009 09:00

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L09100771
Instrument Id: HPMS4
Workgroup (AAB#): WG316572

Method: 8270
CAL ID: HPMS4-09-NOV-09
Matrix: Soil

Sample Number	Dilution	Tag	1	2	3	4	5	6
L09100771-02	1.00	01	46.8	44.4	45.7	47.5	90.5	49.2
L09100771-03	1.00	01	75.1	60.3	65.3	62.6	77.8	65.7
L09100771-08	1.00	01	64.9	42.3	54.3	50.2	75.4	55.4
L09100771-10	2.00	DL01	55.5	29.5	43.4	38.6	82.8	44.2

Surrogates	Surrogate Limits		
1 - 2,4,6-Tribromophenol	19	-	122
2 - 2-Fluorobiphenyl	30	-	115
3 - 2-Fluorophenol	25	-	121
4 - Nitrobenzene-d5	23	-	120
5 - p-Terphenyl-d14	18	-	137
6 - Phenol-d5	24	-	113

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1540809
Report generated: 11/17/2009 09:00

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100771	Work Group:	WG316580
Blank File ID:	12M27856	Blank Sample ID:	WG316113-02
Prep Date:	11/02/09 10:30	Instrument ID:	HPMS12
Analyzed Date:	11/06/09 12:51	Method:	8270C
Analyst:	CAA/MES		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316113-03	12M27857	11/06/09 13:24	01
4012-GW-102909	L09100771-04	12M28037	11/13/09 17:29	01
4012-GW-102909-MS	L09100771-05	12M28038	11/13/09 18:02	01
4012-GW-102909-MSD	L09100771-06	12M28039	11/13/09 18:34	01
4015-GW-102909	L09100771-09	12M28040	11/13/09 19:07	01
4010-GW-102909	L09100771-12	12M28041	11/13/09 19:40	01

Report Name: BLANK_SUMMARY
PDF File ID: 1542128
Report generated 11/17/2009 08:52

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100771	Work Group:	WG316572
Blank File ID:	12M28047	Blank Sample ID:	WG316397-02
Prep Date:	11/04/09 08:11	Instrument ID:	HPMS12
Analyzed Date:	11/14/09 12:35	Method:	8270C
Analyst:	MDC		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
4015-S001-102909	L09100771-07	12M28051	11/14/09 14:47	01
4010-S002-102909	L09100771-11	12M28052	11/14/09 15:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1542128
Report generated 11/17/2009 08:52

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100771	Work Group:	WG316572
Blank File ID:	4M48841	Blank Sample ID:	WG316397-02
Prep Date:	11/04/09 08:11	Instrument ID:	HPMS4
Analyzed Date:	11/05/09 11:25	Method:	8270C
Analyst:	CAA		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316397-03	4M48842	11/05/09 12:02	01
4012-S001-102909	L09100771-02	4M49036	11/13/09 15:47	01
4012-S002-102909	L09100771-03	4M49037	11/13/09 16:23	01
4015-S002-102909	L09100771-08	4M49039	11/13/09 17:33	01
4010-S001-102909	L09100771-10	4M49043	11/13/09 19:52	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1542128
Report generated 11/17/2009 08:52

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS4 Run Date:11/05/09 11:25 Prep Method:3545
File ID:4M48841 Analyst:CAA Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-03-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	82.5	165	165	1	U
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS4 Run Date:11/05/09 11:25 Prep Method:3545
File ID:4M48841 Analyst:CAA Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID: HPMS4-03-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dimethyl phthalate	82.5	165	165	1	U
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	72.1	19 - 122	PASS
2-Fluorobiphenyl	61.5	30 - 115	PASS
2-Fluorophenol	69.6	25 - 121	PASS
Nitrobenzene-d5	63.2	23 - 120	PASS
p-Terphenyl-d14	91.4	18 - 137	PASS
Phenol-d5	68.8	24 - 113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/02/09 10:30 Sample ID:WG316113-02
Instrument ID:HPMS12 Run Date:11/06/09 12:51 Prep Method:3520C
File ID:12M27856 Analyst:CAA/MES Method:8270C
Workgroup (AAB#):WG316580 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS12-31-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	5.00	10.0	10.0	1	U
2,4,5-Trichlorophenol	2.50	5.00	5.00	1	U
2,4,6-Trichlorophenol	2.50	5.00	5.00	1	U
2,4-Dichlorophenol	2.50	5.00	5.00	1	U
2,4-Dimethylphenol	2.50	5.00	5.00	1	U
2,4-Dinitrophenol	12.5	25.0	25.0	1	U
2,4-Dinitrotoluene	2.50	5.00	5.00	1	U
2,6-Dinitrotoluene	2.50	5.00	5.00	1	U
2-Chloronaphthalene	2.50	5.00	5.00	1	U
2-Chlorophenol	2.50	5.00	5.00	1	U
2-Methylnaphthalene	2.50	5.00	5.00	1	U
2-Methylphenol	2.50	5.00	5.00	1	U
2-Nitroaniline	12.5	25.0	25.0	1	U
2-Nitrophenol	2.50	5.00	5.00	1	U
3,3'-Dichlorobenzidine	2.50	5.00	5.00	1	U
3-,4-Methylphenol	2.50	10.0	10.0	1	U
3-Nitroaniline	12.5	25.0	25.0	1	U
4,6-Dinitro-2-methylphenol	12.5	25.0	25.0	1	U
4-Bromophenyl phenyl ether	2.50	5.00	5.00	1	U
4-Chloro-3-methylphenol	2.50	5.00	5.00	1	U
4-Chloroaniline	2.50	20.0	20.0	1	U
4-Chlorophenyl phenyl ether	2.50	5.00	5.00	1	U
4-Nitroaniline	12.5	25.0	25.0	1	U
4-Nitrophenol	12.5	25.0	25.0	1	U
Acenaphthene	2.50	5.00	5.00	1	U
Acenaphthylene	2.50	5.00	5.00	1	U
Anthracene	2.50	5.00	5.00	1	U
Benzo(a)anthracene	2.50	5.00	5.00	1	U
Benzo(a)pyrene	2.50	5.00	5.00	1	U
Benzo(b)fluoranthene	2.50	5.00	5.00	1	U
Benzo(g,h,i)Perylene	2.50	5.00	5.00	1	U
Benzo(k)fluoranthene	2.50	5.00	5.00	1	U
Bis(2-Chloroethoxy)Methane	2.50	5.00	5.00	1	U
Bis(2-Chloroethyl)ether	2.50	5.00	5.00	1	U
bis(2-Chloroisopropyl)ether	2.50	5.00	5.00	1	U
bis(2-Ethylhexyl)phthalate	2.50	5.00	5.00	1	U
Butyl benzyl phthalate	2.50	5.00	5.00	1	U
Carbazole	2.50	20.0	20.0	1	U
Chrysene	2.50	5.00	5.00	1	U
Dibenz(a,h)anthracene	2.50	5.00	5.00	1	U
Dibenzofuran	2.50	5.00	5.00	1	U
Diethyl phthalate	2.50	5.00	5.00	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/02/09 10:30 Sample ID:WG316113-02
Instrument ID:HPMS12 Run Date:11/06/09 12:51 Prep Method:3520C
File ID:12M27856 Analyst:CAA/MES Method:8270C
Workgroup (AAB#):WG316580 Matrix:Water Units:ug/L
Contract #: Cal ID:HPMS12-31-OCT-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dimethyl phthalate	2.50	5.00	5.00	1	U
Di-N-Butylphthalate	2.50	5.00	5.00	1	U
Di-n-octyl phthalate	2.50	5.00	5.00	1	U
Fluoranthene	2.50	5.00	5.00	1	U
Fluorene	2.50	5.00	5.00	1	U
Hexachlorobenzene	2.50	5.00	5.00	1	U
Hexachlorobutadiene	2.50	5.00	5.00	1	U
Hexachlorocyclopentadiene	2.50	5.00	5.00	1	U
Hexachloroethane	2.50	5.00	5.00	1	U
Indeno(1,2,3-cd)pyrene	2.50	5.00	5.00	1	U
Isophorone	2.50	5.00	5.00	1	U
Naphthalene	2.50	5.00	5.00	1	U
Nitrobenzene	2.50	5.00	5.00	1	U
N-Nitrosodiphenylamine	2.50	5.00	5.00	1	U
N-Nitrosodipropylamine	2.50	5.00	5.00	1	U
Pentachlorophenol	12.5	25.0	25.0	1	U
Phenanthrene	2.50	5.00	5.00	1	U
Phenol	2.50	5.00	5.00	1	U
Pyrene	2.50	5.00	5.00	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
2,4,6-Tribromophenol	49.4	10	-	123	PASS
2-Fluorobiphenyl	42.9	43	-	116	FAIL
2-Fluorophenol	48.5	21	-	110	PASS
Nitrobenzene-d5	48.4	35	-	114	PASS
p-Terphenyl-d14	101	33	-	141	PASS
Phenol-d5	49.6	10	-	110	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS12 Run Date:11/14/09 12:35 Prep Method:3545
File ID:12M28047 Analyst:MDC Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID:HPMS12-08-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	82.5	165	165	1	U
2,4,5-Trichlorophenol	82.5	165	165	1	U
2,4,6-Trichlorophenol	82.5	165	165	1	U
2,4-Dichlorophenol	82.5	165	165	1	U
2,4-Dimethylphenol	82.5	165	165	1	U
2,4-Dinitrophenol	412	825	825	1	U
2,4-Dinitrotoluene	82.5	165	165	1	U
2,6-Dinitrotoluene	82.5	165	165	1	U
2-Chloronaphthalene	82.5	165	165	1	U
2-Chlorophenol	82.5	165	165	1	U
2-Methylnaphthalene	82.5	165	165	1	U
2-Methylphenol	82.5	165	165	1	U
2-Nitroaniline	412	825	825	1	U
2-Nitrophenol	82.5	165	165	1	U
3,3'-Dichlorobenzidine	165	330	330	1	U
3-,4-Methylphenol	82.5	165	165	1	U
3-Nitroaniline	412	825	825	1	U
4,6-Dinitro-2-methylphenol	412	825	825	1	U
4-Bromophenyl phenyl ether	82.5	165	165	1	U
4-Chloro-3-methylphenol	82.5	165	165	1	U
4-Chloroaniline	82.5	165	165	1	U
4-Chlorophenyl phenyl ether	82.5	165	165	1	U
4-Nitroaniline	412	825	825	1	U
4-Nitrophenol	412	825	825	1	U
Acenaphthene	82.5	165	165	1	U
Acenaphthylene	82.5	165	165	1	U
Anthracene	82.5	165	165	1	U
Benzo(a)anthracene	82.5	165	165	1	U
Benzo(a)pyrene	82.5	165	165	1	U
Benzo(b)fluoranthene	82.5	165	165	1	U
Benzo(g,h,i)Perylene	82.5	165	165	1	U
Benzo(k)fluoranthene	82.5	165	165	1	U
Bis(2-Chloroethoxy)Methane	82.5	165	165	1	U
Bis(2-Chloroethyl)ether	82.5	165	165	1	U
bis(2-Chloroisopropyl)ether	82.5	165	165	1	U
bis(2-Ethylhexyl)phthalate	82.5	165	165	1	U
Butyl benzyl phthalate	82.5	165	165	1	U
Carbazole	82.5	165	165	1	U
Chrysene	82.5	165	165	1	U
Dibenz(a,h)anthracene	82.5	165	165	1	U
Dibenzofuran	82.5	165	165	1	U
Diethyl phthalate	82.5	165	165	1	U

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L09100771 Prep Date:11/04/09 08:11 Sample ID:WG316397-02
Instrument ID:HPMS12 Run Date:11/14/09 12:35 Prep Method:3545
File ID:12M28047 Analyst:MDC Method:8270C
Workgroup (AAB#):WG316572 Matrix:Soil Units:ug/kg
Contract #: Cal ID:HPMS12-08-NOV-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Dimethyl phthalate	82.5	165	165	1	U
Di-N-Butylphthalate	82.5	165	165	1	U
Di-n-octyl phthalate	82.5	165	165	1	U
Fluoranthene	82.5	165	165	1	U
Fluorene	82.5	165	165	1	U
Hexachlorobenzene	82.5	165	165	1	U
Hexachlorobutadiene	82.5	165	165	1	U
Hexachlorocyclopentadiene	82.5	165	165	1	U
Hexachloroethane	82.5	165	165	1	U
Indeno(1,2,3-cd)pyrene	82.5	165	165	1	U
Isophorone	82.5	165	165	1	U
Naphthalene	82.5	165	165	1	U
Nitrobenzene	82.5	165	165	1	U
N-Nitrosodiphenylamine	82.5	165	165	1	U
N-Nitrosodipropylamine	82.5	165	165	1	U
Pentachlorophenol	412	825	825	1	U
Phenanthrene	82.5	165	165	1	U
Phenol	82.5	165	165	1	U
Pyrene	82.5	165	165	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	82.0	19 - 122	PASS
2-Fluorobiphenyl	63.6	30 - 115	PASS
2-Fluorophenol	67.8	25 - 121	PASS
Nitrobenzene-d5	57.6	23 - 120	PASS
p-Terphenyl-d14	104	18 - 137	PASS
Phenol-d5	65.0	24 - 113	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/05/2009 Sample ID: WG316397-03
Instrument ID: HPMS4 Run Time: 12:02 Prep Method: 3545
File ID: 4M48842 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316572 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD35739 Cal ID: HPMS4-03-NOV-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	2500	1230	49.3	40 - 140	
2,4,5-Trichlorophenol	2500	1850	74.0	49 - 125	
2,4,6-Trichlorophenol	2500	1670	66.8	43 - 125	
2,4-Dichlorophenol	2500	1540	61.8	45 - 125	
2,4-Dimethylphenol	2500	1640	65.7	32 - 125	
2,4-Dinitrophenol	2500	2000	79.9	25 - 132	
2,4-Dinitrotoluene	2500	2240	89.6	48 - 125	
2,6-Dinitrotoluene	2500	1960	78.3	48 - 125	
2-Chloronaphthalene	2500	1390	55.7	45 - 125	
2-Chlorophenol	2500	1430	57.1	44 - 125	
2-Methylnaphthalene	2500	1520	60.8	47 - 125	
2-Methylphenol	2500	1590	63.4	40 - 125	
2-Nitroaniline	2500	1970	78.8	44 - 125	
2-Nitrophenol	2500	1580	63.2	42 - 125	
3,3'-Dichlorobenzidine	2500	2420	97.0	20 - 128	
3-,4-Methylphenol	2500	1560	62.5	50 - 120	
3-Nitroaniline	2500	2120	84.8	27 - 125	
4,6-Dinitro-2-methylphenol	2500	2080	83.2	29 - 137	
4-Bromophenyl phenyl ether	2500	1840	73.8	46 - 125	
4-Chloro-3-methylphenol	2500	1710	68.3	46 - 125	
4-Chloroaniline	2500	1470	58.9	20 - 120	
4-Chlorophenyl phenyl ether	2500	1750	69.8	47 - 125	
4-Nitroaniline	2500	2220	88.7	34 - 125	
4-Nitrophenol	2500	2470	98.8	25 - 138	
Acenaphthene	2500	1630	65.4	46 - 125	
Acenaphthylene	2500	1590	63.7	44 - 125	
Anthracene	2500	2130	85.2	53 - 125	
Benzo(a)anthracene	2500	2200	88.1	52 - 125	
Benzo(a)pyrene	2500	2160	86.4	50 - 125	
Benzo(b)fluoranthene	2500	2190	87.6	45 - 125	
Benzo(g,h,i)Perylene	2500	2160	86.4	38 - 126	
Benzo(k)fluoranthene	2500	2190	87.7	45 - 125	
Bis(2-Chloroethoxy)Methane	2500	1230	49.3	43 - 125	
Bis(2-Chloroethyl)ether	2500	1490	59.4	38 - 125	
bis(2-Chloroisopropyl)ether	2500	1520	60.9	25 - 125	
bis(2-Ethylhexyl)phthalate	2500	2320	92.8	47 - 127	
Butyl benzyl phthalate	2500	2660	107	49 - 125	
Carbazole	2500	2100	84.1	40 - 135	
Chrysene	2500	2240	89.6	53 - 125	
Dibenz(a,h)anthracene	2500	2170	86.8	41 - 125	
Dibenzofuran	2500	1690	67.5	51 - 125	

LCS - Modified 03/06/2008
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/05/2009 Sample ID: WG316397-03
Instrument ID: HPMS4 Run Time: 12:02 Prep Method: 3545
File ID: 4M48842 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316572 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD35739 Cal ID: HPMS4-03-NOV-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Diethyl phthalate	2500	2110	84.4	50 - 125	
Dimethyl phthalate	2500	1880	75.4	49 - 125	
Di-N-Butylphthalate	2500	2210	88.6	56 - 125	
Di-n-octyl phthalate	2500	2440	97.4	41 - 132	
Fluoranthene	2500	2180	87.0	54 - 125	
Fluorene	2500	1800	72.2	49 - 125	
Hexachlorobenzene	2500	1970	78.8	47 - 125	
Hexachlorobutadiene	2500	1480	59.3	40 - 125	
Hexachlorocyclopentadiene	2500	849	34.0	10 - 150	
Hexachloroethane	2500	1360	54.5	34 - 125	
Indeno(1,2,3-cd)pyrene	2500	2160	86.5	38 - 125	
Isophorone	2500	1400	55.9	43 - 125	
Naphthalene	2500	1480	59.4	40 - 125	
Nitrobenzene	2500	1460	58.4	41 - 125	
N-Nitrosodiphenylamine	2500	2040	81.6	49 - 125	
N-Nitrosodipropylamine	2500	1600	64.0	40 - 125	
Pentachlorophenol	2500	2740	109	25 - 125	
Phenanthrene	2500	2070	82.9	50 - 125	
Phenol	2500	1530	61.2	39 - 125	
Pyrene	2500	2170	86.7	46 - 125	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	80.3	19 - 122	PASS
2-Fluorobiphenyl	58.1	30 - 115	PASS
2-Fluorophenol	60.0	25 - 121	PASS
Nitrobenzene-d5	55.7	23 - 120	PASS
p-Terphenyl-d14	82.7	18 - 137	PASS
Phenol-d5	60.7	24 - 113	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1540812
Report generated: 11/17/2009 08:52

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/06/2009 Sample ID: WG316113-03
Instrument ID: HPMS12 Run Time: 13:24 Prep Method: 3520C
File ID: 12M27857 Analyst: CAA/MES Method: 8270C
Workgroup (AAB#): WG316580 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35870 Cal ID: HPMS12-31-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	50.0	28.4	56.7	50 - 150	
2,4,5-Trichlorophenol	50.0	41.4	82.8	49 - 120	
2,4,6-Trichlorophenol	50.0	39.7	79.3	49 - 126	
2,4-Dichlorophenol	50.0	39.2	78.3	48 - 120	
2,4-Dimethylphenol	50.0	37.8	75.6	28 - 120	
2,4-Dinitrophenol	50.0	42.2	84.4	25 - 130	
2,4-Dinitrotoluene	50.0	40.8	81.6	51 - 120	
2,6-Dinitrotoluene	50.0	40.1	80.2	49 - 120	
2-Chloronaphthalene	50.0	36.9	73.7	49 - 120	
2-Chlorophenol	50.0	37.7	75.5	37 - 120	
2-Methylnaphthalene	50.0	34.8	69.6	46 - 120	
2-Methylphenol	50.0	38.1	76.2	38 - 120	
2-Nitroaniline	50.0	42.8	85.7	48 - 120	
2-Nitrophenol	50.0	39.1	78.2	39 - 123	
3,3'-Dichlorobenzidine	50.0	32.9	65.7	30 - 120	
3-,4-Methylphenol	50.0	44.4	88.9	50 - 120	
3-Nitroaniline	50.0	40.5	80.9	20 - 126	
4,6-Dinitro-2-methylphenol	50.0	45.3	90.5	40 - 130	
4-Bromophenyl phenyl ether	50.0	44.1	88.2	52 - 120	
4-Chloro-3-methylphenol	50.0	41.3	82.7	47 - 120	
4-Chloroaniline	50.0	33.4	66.9	30 - 120	
4-Chlorophenyl phenyl ether	50.0	37.5	75.1	50 - 120	
4-Nitroaniline	50.0	40.8	81.5	36 - 120	
4-Nitrophenol	50.0	39.7	79.4	20 - 120	
Acenaphthene	50.0	36.9	73.8	47 - 120	
Acenaphthylene	50.0	39.6	79.3	50 - 120	
Anthracene	50.0	43.2	86.4	54 - 120	
Benzo(a)anthracene	50.0	43.4	86.8	56 - 100	
Benzo(a)pyrene	50.0	42.5	85.1	53 - 120	
Benzo(b)fluoranthene	50.0	44.2	88.4	45 - 124	
Benzo(g,h,i)Perylene	50.0	41.6	83.3	38 - 123	
Benzo(k)fluoranthene	50.0	43.9	87.8	45 - 124	
Bis(2-Chloroethoxy)Methane	50.0	29.7	59.4	46 - 120	
Bis(2-Chloroethyl)ether	50.0	43.0	86.0	37 - 120	
bis(2-Chloroisopropyl)ether	50.0	46.9	93.7	26 - 131	
bis(2-Ethylhexyl)phthalate	50.0	48.7	97.5	42 - 126	
Butyl benzyl phthalate	50.0	46.9	93.7	46 - 120	
Carbazole	50.0	43.0	86.0	50 - 120	
Chrysene	50.0	44.7	89.3	55 - 120	
Dibenz(a,h)anthracene	50.0	42.2	84.5	42 - 127	
Dibenzofuran	50.0	40.7	81.4	54 - 120	

LCS - Modified 03/06/2008
PDF File ID: 1540812
Report generated: 11/17/2009 08:52

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/06/2009 Sample ID: WG316113-03
Instrument ID: HPMS12 Run Time: 13:24 Prep Method: 3520C
File ID: 12M27857 Analyst: CAA/MES Method: 8270C
Workgroup (AAB#): WG316580 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD35870 Cal ID: HPMS12-31-OCT-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Diethyl phthalate	50.0	48.5	96.9	41 - 120	
Dimethyl phthalate	50.0	47.0	94.0	25 - 127	
Di-N-Butylphthalate	50.0	46.5	93.1	54 - 120	
Di-n-octyl phthalate	50.0	51.3	103	37 - 137	
Fluoranthene	50.0	44.3	88.6	54 - 120	
Fluorene	50.0	43.5	87.0	50 - 120	
Hexachlorobenzene	50.0	37.5	74.9	52 - 120	
Hexachlorobutadiene	50.0	28.7	57.5	27 - 120	
Hexachlorocyclopentadiene	50.0	23.5	47.0	20 - 120	
Hexachloroethane	50.0	20.7	41.5	28 - 120	
Indeno(1,2,3-cd)pyrene	50.0	42.0	83.9	43 - 125	
Isophorone	50.0	37.5	74.9	50 - 120	
Naphthalene	50.0	35.6	71.1	39 - 120	
Nitrobenzene	50.0	37.5	75.1	44 - 120	
N-Nitrosodiphenylamine	100	92.6	92.6	48 - 120	
N-Nitrosodipropylamine	50.0	50.1	100	34 - 128	
Pentachlorophenol	50.0	34.8	69.7	38 - 120	
Phenanthrene	50.0	41.9	83.8	51 - 120	
Phenol	50.0	40.3	80.6	20 - 120	
Pyrene	50.0	42.3	84.5	49 - 128	

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	75.1	10 - 123	PASS
2-Fluorobiphenyl	72.4	43 - 116	PASS
2-Fluorophenol	82.6	21 - 110	PASS
Nitrobenzene-d5	74.5	35 - 114	PASS
p-Terphenyl-d14	91.8	33 - 141	PASS
Phenol-d5	84.5	10 - 110	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1540812
Report generated: 11/17/2009 08:52

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L09100771 Cal ID:HPMS12- 08-NOV-09 Worknum:WG316580

Instrument ID:HPMS12 Contract #: Prep Method:3520C

Parent ID:L09100771-04 File ID:12M28037 Dil:1 Method:8270C

Sample ID:L09100771-05 MS File ID:12M28038 Dil:1 Matrix:Water

Sample ID:L09100771-06 MSD File ID:12M28039 Dil:1 Units:ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
1,4-Dioxane	U	55.6	29.8	53.6	55.6	28.3	50.9	5.31	50 - 150	30	
2,4,5-Trichlorophenol	U	55.6	38.4	69.1	55.6	18.9	34.1	67.9	49 - 120	20	*#
2,4,6-Trichlorophenol	U	55.6	24.9	44.8	55.6	9.58	17.2	88.8	49 - 126	20	*#
2,4-Dichlorophenol	U	55.6	27.9	50.3	55.6	9.60	17.3	97.7	48 - 120	20	*#
2,4-Dimethylphenol	U	55.6	3.05	5.49	55.6	0	0	200	28 - 120	20	*#
2,4-Dinitrophenol	U	55.6	51.0	91.8	55.6	52.9	95.1	3.54	25 - 130	20	
2,4-Dinitrotoluene	U	55.6	48.0	86.3	55.6	47.5	85.6	0.895	51 - 120	20	
2,6-Dinitrotoluene	U	55.6	46.0	82.7	55.6	45.7	82.3	0.542	49 - 120	20	
2-Chloronaphthalene	U	55.6	37.8	68	55.6	36.0	64.9	4.72	49 - 120	20	
2-Chlorophenol	U	55.6	27.0	48.6	55.6	8.98	16.2	100	37 - 120	20	*#
2-Methylnaphthalene	U	55.6	37.3	67.2	55.6	34.7	62.5	7.29	46 - 120	20	
2-Methylphenol	U	55.6	11.0	19.8	55.6	3.33	5.99	107	38 - 120	20	*#
2-Nitroaniline	U	55.6	35.9	64.6	55.6	31.3	56.4	13.5	48 - 120	20	
2-Nitrophenol	U	55.6	46.3	83.3	55.6	42.9	77.3	7.49	39 - 123	20	
3,3'-Dichlorobenzidine	U	55.6	0	0	55.6	0	0	NA	30 - 120	20	*#
3-,4-Methylphenol	U	55.6	10.4	18.8	55.6	3.77	6.78	93.8	50 - 120	20	*#
3-Nitroaniline	U	55.6	31.3	56.3	55.6	0	0	200	20 - 126	20	*#
4,6-Dinitro-2-methylphenol	U	55.6	51.4	92.5	55.6	54.6	98.3	6.05	40 - 130	20	
4-Bromophenyl phenyl ether	U	55.6	43.9	79.1	55.6	42.5	76.4	3.39	52 - 120	20	
4-Chloro-3-methylphenol	U	55.6	23.0	41.4	55.6	7.07	12.7	106	47 - 120	20	*#
4-Chloroaniline	U	55.6	0	0	55.6	0	0	NA	30 - 120	20	*#
4-Chlorophenyl phenyl ether	U	55.6	41.8	75.3	55.6	40.9	73.6	2.35	50 - 120	20	
4-Nitroaniline	U	55.6	32.5	58.6	55.6	18.2	32.8	56.4	36 - 120	20	*#
4-Nitrophenol	U	55.6	39.2	70.5	55.6	41.7	75.1	6.31	20 - 120	20	
Acenaphthene	U	55.6	33.4	60.2	55.6	24.0	43.2	32.9	47 - 120	20	*#
Acenaphthylene	U	55.6	34.0	61.2	55.6	22.4	40.3	41.3	50 - 120	20	*#
Anthracene	U	55.6	29.6	53.3	55.6	27.3	49.2	8.02	54 - 120	20	*
Benzo(a)anthracene	U	55.6	35.1	63.3	55.6	33.8	60.9	3.81	56 - 100	20	
Benzo(a)pyrene	U	55.6	34.0	61.3	55.6	32.4	58.3	4.91	53 - 120	20	
Benzo(b)fluoranthene	U	55.6	36.3	65.4	55.6	33.3	60	8.68	45 - 124	20	
Benzo(g,h,i)Perylene	U	55.6	32.2	57.9	55.6	30.9	55.5	4.11	38 - 123	20	
Benzo(k)fluoranthene	U	55.6	37.1	66.8	55.6	33.7	60.7	9.52	45 - 124	20	
Bis(2-Chloroethoxy)Methane	U	55.6	34.6	62.3	55.6	32.6	58.7	5.88	46 - 120	20	
Bis(2-Chloroethyl)ether	U	55.6	39.6	71.3	55.6	36.4	65.5	8.47	37 - 120	20	
bis(2-Chloroisopropyl)ether	U	55.6	36.8	66.2	55.6	34.3	61.8	6.90	26 - 131	20	
bis(2-Ethylhexyl)phthalate	U	55.6	40.7	73.3	55.6	78.4	141	63.3	42 - 126	20	*#
Butyl benzyl phthalate	U	55.6	41.8	75.3	55.6	41.7	75	0.315	46 - 120	20	
Carbazole	U	55.6	23.5	42.2	55.6	14.5	26.1	47.2	50 - 120	20	*#
Chrysene	U	55.6	36.6	65.8	55.6	34.9	62.8	4.62	55 - 120	20	
Dibenz(a,h)anthracene	U	55.6	33.8	60.8	55.6	32.1	57.8	5.08	42 - 127	20	
Dibenzofuran	U	55.6	40.1	72.1	55.6	38.4	69.1	4.26	54 - 120	20	

MS_MSD - Modified 09/13/2009

PDF File ID: 1540808

Report generated 11/17/2009 08:52

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L09100771 Cal ID: HPMS12 08-NOV-09 Worknum:WG316580

Instrument ID:HPMS12 Contract #: Prep Method:3520C

Parent ID:L09100771-04 File ID:12M28037 Dil:1 Method:8270C

Sample ID:L09100771-05 MS File ID:12M28038 Dil:1 Matrix:Water

Sample ID:L09100771-06 MSD File ID:12M28039 Dil:1 Units:ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Diethyl phthalate	U	55.6	53.5	96.3	55.6	53.2	95.8	0.517	41 - 120	20	
Dimethyl phthalate	U	55.6	53.7	96.7	55.6	53.3	96	0.721	25 - 127	20	
Di-N-Butylphthalate	U	55.6	45.0	81	55.6	45.1	81.1	0.0923	54 - 120	20	
Di-n-octyl phthalate	U	55.6	42.4	76.4	55.6	41.2	74.1	2.98	37 - 137	20	
Fluoranthene	U	55.6	39.6	71.2	55.6	36.3	65.4	8.50	54 - 120	20	
Fluorene	U	55.6	41.4	74.6	55.6	35.8	64.5	14.4	50 - 120	20	
Hexachlorobenzene	U	55.6	34.6	62.2	55.6	32.0	57.6	7.71	52 - 120	20	
Hexachlorobutadiene	U	55.6	27.3	49.1	55.6	23.6	42.5	14.5	27 - 120	20	
Hexachlorocyclopentadiene	U	55.6	21.8	39.3	55.6	22.4	40.3	2.61	20 - 120	20	
Hexachloroethane	U	55.6	20.9	37.6	55.6	18.9	34	10.0	28 - 120	20	
Indeno(1,2,3-cd)pyrene	U	55.6	33.0	59.4	55.6	31.7	57	4.15	43 - 125	20	
Isophorone	U	55.6	39.7	71.4	55.6	37.4	67.3	6.01	50 - 120	20	
Naphthalene	U	55.6	38.9	70.1	55.6	36.2	65.1	7.34	39 - 120	20	
Nitrobenzene	U	55.6	45.1	81.1	55.6	42.3	76.2	6.24	44 - 120	20	
N-Nitrosodiphenylamine	U	111	24.1	21.7	111	19.6	17.7	20.6	48 - 120	20	*#
N-Nitrosodipropylamine	U	55.6	45.2	81.4	55.6	41.4	74.6	8.80	34 - 128	20	
Pentachlorophenol	U	55.6	38.7	69.7	55.6	26.8	48.3	36.4	38 - 120	20	#
Phenanthrene	U	55.6	41.5	74.7	55.6	38.7	69.6	7.03	51 - 120	20	
Phenol	U	55.6	25.8	46.4	55.6	6.16	11.1	123	20 - 120	20	*#
Pyrene	U	55.6	34.0	61.3	55.6	31.1	56	9.02	49 - 128	20	

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

MS_MSD - Modified 09/13/2009

PDF File ID: 1540808

Report generated 11/17/2009 08:52

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS12
Analyst: MDC
Workgroup: WG315933

Tune ID: WG315933-01
Run Date: 10/31/2009
Run Time: 14:39
File ID: 12M27665
Cal ID: HPMS12 - 28-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	46.2	77005	PASS
68.0	69.0	0	2.00	0.495	345	PASS
69.0	198	0	100	41.8	69634	PASS
70.0	69.0	0	2.00	0.584	407	PASS
127	198	40.0	60.0	49.2	81989	PASS
197	198	0	1.00	0.242	403	PASS
198	198	100	100	100	166637	PASS
199	198	5.00	9.00	6.88	11467	PASS
275	198	10.0	30.0	28.7	47826	PASS
365	198	1.00	100	3.88	6462	PASS
441	443	0.0100	100	73.2	21749	PASS
442	198	40.0	100	92.7	154517	PASS
443	442	17.0	23.0	19.2	29709	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG315933-02	STD-CCV	01	10/31/2009 14:58	
WG315933-03	STD	01	10/31/2009 15:32	
WG315933-04	STD	01	10/31/2009 16:06	
WG315933-05	STD	01	10/31/2009 16:40	
WG315933-06	STD	01	10/31/2009 17:15	
WG315933-07	STD	01	10/31/2009 17:49	
WG315933-08	STD	01	10/31/2009 18:24	
WG315933-09	STD	01	10/31/2009 18:58	
WG315933-10	SSCV	01	10/31/2009 19:32	
WG315933-11	SSCV	01	10/31/2009 20:06	
WG315933-12	SSCV	01	10/31/2009 20:40	
WG316004-01	STD-CCV	01	10/31/2009 21:15	
WG316004-02	STD	01	10/31/2009 21:49	
WG316004-03	STD	01	10/31/2009 22:22	
WG316004-04	STD	01	10/31/2009 22:56	
WG316004-05	STD	01	10/31/2009 23:31	
WG316004-06	STD	01	11/01/2009 00:05	
WG316004-07	SSCV	01	11/01/2009 00:39	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS12
Analyst: CAA/MES
Workgroup: WG316683

Tune ID: WG316683-01
Run Date: 11/06/2009
Run Time: 10:19
File ID: 12M27851
Cal ID: HPMS12 - 31-OCT-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	56.0	122250	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	46.6	101677	PASS
70.0	69.0	0	2.00	0.634	645	PASS
127	198	40.0	60.0	51.4	112109	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	218154	PASS
199	198	5.00	9.00	6.78	14785	PASS
275	198	10.0	30.0	27.1	59056	PASS
365	198	1.00	100	3.55	7755	PASS
441	443	0.0100	100	74.9	23816	PASS
442	198	40.0	100	75.1	163861	PASS
443	442	17.0	23.0	19.4	31789	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316683-02	CCV	01	11/06/2009 10:38	
WG316580-01	QCMRL	01	11/06/2009 11:44	
WG316580-02	QCMRL	01	11/06/2009 12:18	
WG316113-02	BLANK	01	11/06/2009 12:51	
WG316113-02	BLANK	01	11/06/2009 12:51	
WG316113-03	LCS	01	11/06/2009 13:24	
WG316580-03	QCMRL	01	11/06/2009 16:13	
WG316580-04	QCMRL	01	11/06/2009 16:46	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS12
Analyst: MDC
Workgroup: WG316819

Tune ID: WG316819-01
Run Date: 11/08/2009
Run Time: 16:30
File ID: 12M27902
Cal ID: HPMS12-08-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	52.8	82808	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.5	65106	PASS
70.0	69.0	0	2.00	0.789	514	PASS
127	198	40.0	60.0	48.0	75226	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	156698	PASS
199	198	5.00	9.00	6.79	10636	PASS
275	198	10.0	30.0	26.2	41026	PASS
365	198	1.00	100	2.82	4417	PASS
441	443	0.0100	100	76.1	15037	PASS
442	198	40.0	100	65.4	102429	PASS
443	442	17.0	23.0	19.3	19749	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316819-02	STD-CCV	01	11/08/2009 16:49	
WG316819-03	STD	01	11/08/2009 17:22	
WG316819-04	STD	01	11/08/2009 17:55	
WG316819-05	STD	01	11/08/2009 18:28	
WG316819-06	STD	01	11/08/2009 19:01	
WG316819-07	STD	01	11/08/2009 22:03	
WG316819-08	STD	01	11/08/2009 22:35	
WG316819-09	STD	01	11/08/2009 23:08	
WG316819-10	SSCV	01	11/08/2009 23:40	
WG316819-11	SSCV	01	11/09/2009 00:13	
WG316819-12	SSCV	01	11/09/2009 00:46	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS12
Analyst: MDC
Workgroup: WG317340

Tune ID: WG317340-01
Run Date: 11/13/2009
Run Time: 09:05
File ID: 12M28022
Cal ID: HPMS12-08-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	49.4	67122	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.1	55784	PASS
70.0	69.0	0	2.00	0.418	233	PASS
127	198	40.0	60.0	45.8	62280	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	135864	PASS
199	198	5.00	9.00	7.22	9812	PASS
275	198	10.0	30.0	26.0	35320	PASS
365	198	1.00	100	2.83	3846	PASS
441	443	0.0100	100	84.0	13195	PASS
442	198	40.0	100	62.5	84960	PASS
443	442	17.0	23.0	18.5	15699	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317340-02	CCV	01	11/13/2009 09:24	
L09100771-04	4012-GW-102909	01	11/13/2009 17:29	
WG316113-01	REF	01	11/13/2009 17:29	
L09100771-05	4012-GW-102909-MS	01	11/13/2009 18:02	
WG316113-04	MS	01	11/13/2009 18:02	
L09100771-06	4012-GW-102909-MSD	01	11/13/2009 18:34	
WG316113-05	MSD	01	11/13/2009 18:34	
L09100771-09	4015-GW-102909	01	11/13/2009 19:07	
L09100771-12	4010-GW-102909	01	11/13/2009 19:40	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS12
Analyst: MDC
Workgroup: WG317444

Tune ID: WG317444-01
Run Date: 11/14/2009
Run Time: 11:11
File ID: 12M28044
Cal ID: HPMS12-08-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	50.8	102896	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.9	85040	PASS
70.0	69.0	0	2.00	0.636	541	PASS
127	198	40.0	60.0	47.9	97034	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	202730	PASS
199	198	5.00	9.00	7.25	14701	PASS
275	198	10.0	30.0	25.2	51152	PASS
365	198	1.00	100	2.55	5166	PASS
441	443	0.0100	100	76.6	17489	PASS
442	198	40.0	100	56.4	114394	PASS
443	442	17.0	23.0	19.9	22817	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317444-02	CCV	01	11/14/2009 11:30	
WG316397-02	BLANK	02	11/14/2009 12:35	
L09100771-07	4015-S001-102909	01	11/14/2009 14:47	
L09100771-11	4010-S002-102909	01	11/14/2009 15:20	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316255

Tune ID: WG316255-01
Run Date: 11/03/2009
Run Time: 09:29
File ID: 4M48782
Cal ID: HPMS4-03-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	41.0	278954	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	43.8	298283	PASS
70.0	69.0	0	2.00	0.683	2036	PASS
127	198	40.0	60.0	53.7	365226	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	680576	PASS
199	198	5.00	9.00	6.70	45624	PASS
275	198	10.0	30.0	21.8	148197	PASS
365	198	1.00	100	2.24	15232	PASS
441	443	0.0100	100	83.0	81704	PASS
442	198	40.0	100	72.1	490730	PASS
443	442	17.0	23.0	20.1	98405	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316255-02	STD-CCV	01	11/03/2009 09:49	
WG316255-03	STD	01	11/03/2009 10:28	
WG316255-04	STD	01	11/03/2009 11:06	
WG316255-05	STD	01	11/03/2009 11:45	
WG316255-06	STD	01	11/03/2009 12:24	
WG316255-07	STD	01	11/03/2009 13:02	
WG316255-08	STD	01	11/03/2009 13:41	
WG316255-09	STD	01	11/03/2009 14:19	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316351

Tune ID: WG316351-01
Run Date: 11/03/2009
Run Time: 14:52
File ID: 4M48791
Cal ID: HPMS4-03-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	40.3	256085	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	43.7	277888	PASS
70.0	69.0	0	2.00	0.343	954	PASS
127	198	40.0	60.0	53.1	337237	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	635477	PASS
199	198	5.00	9.00	6.50	41290	PASS
275	198	10.0	30.0	21.8	138309	PASS
365	198	1.00	100	2.42	15352	PASS
441	443	0.0100	100	69.9	66722	PASS
442	198	40.0	100	76.6	487082	PASS
443	442	17.0	23.0	19.6	95512	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316255-10	SSCV	01	11/03/2009 15:50	
WG316255-11	SSCV	01	11/03/2009 16:28	
WG316255-12	SSCV	01	11/03/2009 17:06	
WG316353-01	STD-CCV	01	11/03/2009 17:42	
WG316353-02	STD	01	11/03/2009 18:20	
WG316353-03	STD	01	11/03/2009 18:56	
WG316353-04	STD	01	11/03/2009 19:33	
WG316353-05	STD	01	11/03/2009 20:10	
WG316353-06	STD	01	11/03/2009 20:47	
WG316353-07	SSCV	01	11/03/2009 21:23	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316533

Tune ID: WG316533-01
Run Date: 11/05/2009
Run Time: 09:15
File ID: 4M48837
Cal ID: HPMS4-03-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	45.7	263317	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	46.7	269035	PASS
70.0	69.0	0	2.00	0.509	1369	PASS
127	198	40.0	60.0	55.7	320874	PASS
197	198	0	1.00	0.291	1680	PASS
198	198	100	100	100	576554	PASS
199	198	5.00	9.00	7.05	40634	PASS
275	198	10.0	30.0	21.0	121202	PASS
365	198	1.00	100	2.28	13138	PASS
441	443	0.0100	100	82.6	65226	PASS
442	198	40.0	100	69.0	397952	PASS
443	442	17.0	23.0	19.8	78941	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316533-02	CCV	01	11/05/2009 09:36	
WG316397-02	BLANK	01	11/05/2009 11:25	
WG316397-03	LCS	01	11/05/2009 12:02	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1542132
Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS4
Analyst: CAA
Workgroup: WG316839

Tune ID: WG316839-01
Run Date: 11/09/2009
Run Time: 11:33
File ID: 4M48934
Cal ID: HPMS4-09-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	38.4	167330	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	39.9	173717	PASS
70.0	69.0	0	2.00	0.539	936	PASS
127	198	40.0	60.0	56.0	243968	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	435754	PASS
199	198	5.00	9.00	6.72	29282	PASS
275	198	10.0	30.0	23.3	101442	PASS
365	198	1.00	100	2.79	12177	PASS
441	443	0.0100	100	85.9	48813	PASS
442	198	40.0	100	68.6	298837	PASS
443	442	17.0	23.0	19.0	56842	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316839-02	STD-CCV	01	11/09/2009 11:53	
WG316839-03	STD	01	11/09/2009 12:28	
WG316839-04	STD	01	11/09/2009 13:03	
WG316839-05	STD	01	11/09/2009 13:39	
WG316839-06	STD	01	11/09/2009 14:15	
WG316839-07	STD	01	11/09/2009 14:50	
WG316839-08	STD	01	11/09/2009 15:26	
WG316839-09	STD	01	11/09/2009 16:01	
WG316839-10	SSCV	01	11/09/2009 16:37	
WG316839-11	SSCV	01	11/09/2009 17:12	
WG316839-12	SSCV	01	11/09/2009 17:46	
WG316935-01	STD-CCV	01	11/09/2009 18:21	
WG316935-02	STD	01	11/09/2009 18:56	
WG316935-03	STD	01	11/09/2009 19:31	
WG316935-04	STD	01	11/09/2009 20:05	
WG316935-05	STD	01	11/09/2009 20:40	
WG316935-06	STD	01	11/09/2009 21:15	
WG316935-07	SSCV	01	11/09/2009 21:50	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS4
Analyst: MES
Workgroup: WG317340

Tune ID: WG317340-01
Run Date: 11/13/2009
Run Time: 09:30
File ID: 4M49025
Cal ID: HPMS4-09-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	40.9	172437	PASS
68.0	69.0	0	2.00	0	0	PASS
69.0	198	0	100	41.8	176320	PASS
70.0	69.0	0	2.00	0.306	539	PASS
127	198	40.0	60.0	58.8	248085	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	421802	PASS
199	198	5.00	9.00	6.96	29349	PASS
275	198	10.0	30.0	23.5	99234	PASS
365	198	1.00	100	2.74	11547	PASS
441	443	0.0100	100	86.7	44696	PASS
442	198	40.0	100	63.4	267242	PASS
443	442	17.0	23.0	19.3	51578	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317340-02	CCV	02	11/13/2009 09:48	
WG316397-01	REF	01	11/13/2009 11:40	
WG316397-05	MSD	01	11/13/2009 12:51	
L09100771-02	4012-S001-102909	01	11/13/2009 15:47	
L09100771-03	4012-S002-102909	01	11/13/2009 16:23	
L09100771-08	4015-S002-102909	01	11/13/2009 17:33	
L09100771-10	4010-S001-102909	DL01	11/13/2009 19:52	

* Sample past 12 hour tune limit

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Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS4
Analyst: MDC
Workgroup: WG317446

Tune ID: WG317446-01
Run Date: 11/14/2009
Run Time: 11:55
File ID: 4M49046
Cal ID: HPMS4-09-NOV-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	39.3	164360	PASS
68.0	69.0	0	2.00	0.375	639	PASS
69.0	198	0	100	40.7	170192	PASS
70.0	69.0	0	2.00	0.573	975	PASS
127	198	40.0	60.0	58.7	245269	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	417728	PASS
199	198	5.00	9.00	6.85	28634	PASS
275	198	10.0	30.0	23.5	98344	PASS
365	198	1.00	100	3.07	12831	PASS
441	443	0.0100	100	87.4	47845	PASS
442	198	40.0	100	68.1	284501	PASS
443	442	17.0	23.0	19.2	54744	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG317446-02	CCV	01	11/14/2009 12:14	
WG316397-04	MS	01	11/14/2009 15:09	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
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Report generated 11/17/2009 08:57

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58
ICAL Workgroup: WG315933 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4972	9.19		
2,4-Dichlorophenol	CCC	0.3290	7.81		
2-Nitrophenol	CCC	0.1988	8.85		
4-Chloro-3-Methylphenol	CCC	0.4146	5.80		
Acenaphthene	CCC	1.584	16.3	0.99700	
Benzo[a]pyrene	CCC	1.144	8.45		
Di-n-Octyl Phthalate	CCC	1.654	5.37		
Fluoranthene	CCC	1.459	8.71		
Hexachlorobutadiene	CCC	0.2874	4.72		
Pentachlorophenol	CCC	0.1686	18.3		
Phenol	CCC	1.753	5.97		
2,4-Dinitrophenol	SPCC	0.2230	43.7		0.99800
4-Nitrophenol	SPCC	0.5104	7.66		
Hexachlorocyclopentadiene	SPCC	0.4615	13.5		
n-Nitrosodipropylamine	SPCC	1.298	6.56		
1,4-Dioxane		0.5792	6.75		
2,4,5-Trichlorophenol		0.5209	10.1		
2,4-Dimethylphenol		0.3592	9.11		
2,4-Dinitrotoluene		0.5479	17.6	0.99300	
2,6-Dinitrotoluene		0.3727	7.86		
2-Chloronaphthalene		1.643	11.0		
2-Chlorophenol		1.372	4.09		
2-Methylnaphthalene		0.7947	10.9		
2-Methylphenol		1.239	6.55		
2-Nitroaniline		0.6415	3.05		
3,3'-Dichlorobenzidine		0.3548	8.23		
3-Nitroaniline		0.3486	11.5		
4,6-Dinitro-2-Methylphenol		0.1328	23.0		1.00000
4-Bromophenyl Phenyl Ether		0.2886	9.40		
4-Chloroaniline		0.4795	9.14		
4-Chlorophenyl Phenyl Ether		1.076	17.0	0.99400	
4-Nitroaniline		0.4356	13.1		
Acenaphthylene		2.311	10.0		
Anthracene		1.249	10.3		
Benzo[a]anthracene		1.135	6.10		
Benzo[b]fluoranthene		1.449	15.0		
Benzo[ghi]perylene		1.023	4.42		
Benzo[k]fluoranthene		1.134	8.70		
Butyl Benzyl Phthalate		0.6255	5.15		
Carbazole		1.131	12.3		
Chrysene		1.079	6.55		
Di-n-Butyl Phthalate		1.587	4.24		
Dibenz[ah]anthracene		1.135	12.4		
Dibenzofuran		2.252	12.5		
Diethylphthalate		1.950	5.90		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58
ICAL Workgroup: WG315933 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.731	6.74		
Fluorene		1.935	13.3		
Hexachlorobenzene		0.2787	10.2		
Hexachloroethane		0.7035	3.00		
Indeno[1,2,3-cd]pyrene		1.349	10.2		
Isophorone		0.9290	2.29		
Naphthalene		1.170	7.05		
Nitrobenzene		0.5189	1.57		
Phenanthrene		1.253	8.41		
Pyrene		1.233	5.91		
bis(2-Chloroethoxy)methane		0.7049	11.4		
bis(2-Chloroethyl)ether		1.435	2.00		
bis(2-Chloroisopropyl)ether		2.936	8.63		
bis(2-Ethylhexyl)phthalate		0.8215	3.25		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19
ICAL Workgroup: WG316255 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4107	5.90		
2,4-Dichlorophenol	CCC	0.3059	5.61		
2-Nitrophenol	CCC	0.2073	3.82		
4-Chloro-3-Methylphenol	CCC	0.3147	5.40		
Acenaphthene	CCC	1.395	12.7		
Benzo[a]pyrene	CCC	1.111	6.10		
Di-n-Octyl Phthalate	CCC	1.723	11.3		
Fluoranthene	CCC	1.312	11.5		
Hexachlorobutadiene	CCC	0.1619	8.32		
Pentachlorophenol	CCC	0.1280	9.93		
Phenol	CCC	1.681	3.99		
2,4-Dinitrophenol	SPCC	0.1108	33.4	0.99200	
4-Nitrophenol	SPCC	0.2259	7.81		
Hexachlorocyclopentadiene	SPCC	0.2165	13.8		
n-Nitrosodipropylamine	SPCC	0.9450	12.9		
1,4-Dioxane		0.5356	7.36		
2,4,5-Trichlorophenol		0.4206	7.42		
2,4-Dimethylphenol		0.3586	7.36		
2,4-Dinitrotoluene		0.4697	6.72		
2,6-Dinitrotoluene		0.3800	6.29		
2-Chloronaphthalene		1.510	12.7		
2-Chlorophenol		1.514	4.13		
2-Methylnaphthalene		0.7685	12.3		
2-Methylphenol		1.136	5.48		
2-Nitroaniline		0.3623	3.63		
3,3'-Dichlorobenzidine		0.3043	7.62		
3-Nitroaniline		0.3618	6.22		
4,6-Dinitro-2-Methylphenol		0.1113	17.7	0.99600	
4-Bromophenyl Phenyl Ether		0.2078	10.6		
4-Chloroaniline		0.6076	7.02		
4-Chlorophenyl Phenyl Ether		0.7293	11.1		
4-Nitroaniline		0.3527	4.44		
Acenaphthylene		2.200	13.9		
Anthracene		1.291	12.8		
Benzo[a]anthracene		1.139	10.1		
Benzo[b]fluoranthene		1.200	12.1		
Benzo[ghi]perylene		0.9493	4.06		
Benzo[k]fluoranthene		1.108	10.8		
Butyl Benzyl Phthalate		0.6456	18.8		0.99900
Carbazole		1.187	8.82		
Chrysene		1.102	11.2		
Di-n-Butyl Phthalate		1.528	14.5		
Dibenz[ah]anthracene		0.9443	4.25		
Dibenzofuran		1.925	12.3		
Diethylphthalate		1.525	14.5		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19
ICAL Workgroup: WG316255 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.544	11.2		
Fluorene		1.603	14.6		
Hexachlorobenzene		0.2076	10.3		
Hexachloroethane		0.5892	5.20		
Indeno[1,2,3-cd]pyrene		1.128	4.03		
Isophorone		0.7207	8.35		
Naphthalene		1.156	12.9		
Nitrobenzene		0.3685	6.33		
Phenanthrene		1.283	13.9		
Pyrene		1.382	14.0		
bis(2-Chloroethoxy)methane		0.5174	14.4		
bis(2-Chloroethyl)ether		1.004	4.34		
bis(2-Chloroisopropyl)ether		1.609	2.33		
bis(2-Ethylhexyl)phthalate		0.9440	13.9		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771
Analytical Method: 8270C
ICAL Workgroup: WG316819
Instrument ID: HPMS12
Initial Calibration Date: 08-NOV-09 23:08
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4749	6.69		
2,4-Dichlorophenol	CCC	0.3203	4.66		
2-Nitrophenol	CCC	0.2038	5.56		
4-Chloro-3-Methylphenol	CCC	0.3809	2.55		
Acenaphthene	CCC	1.476	7.23		
Benzo[a]pyrene	CCC	1.192	3.40		
Di-n-Octyl Phthalate	CCC	1.669	3.33		
Fluoranthene	CCC	1.414	3.74		
Hexachlorobutadiene	CCC	0.2509	1.20		
Pentachlorophenol	CCC	0.1509	13.8		
Phenol	CCC	1.797	3.19		
2,4-Dinitrophenol	SPCC	0.1737	31.0		0.99000
4-Nitrophenol	SPCC	0.4115	6.48		
Hexachlorocyclopentadiene	SPCC	0.3388	19.1	0.99700	
n-Nitrosodipropylamine	SPCC	1.160	3.48		
1,4-Dioxane		0.5596	6.09		
2,4,5-Trichlorophenol		0.5035	6.74		
2,4-Dimethylphenol		0.3728	3.84		
2,4-Dinitrotoluene		0.5171	8.75		
2,6-Dinitrotoluene		0.3793	3.96		
2-Chloronaphthalene		1.588	3.71		
2-Chlorophenol		1.435	2.25		
2-Methylnaphthalene		0.7775	4.37		
2-Methylphenol		1.255	3.78		
2-Nitroaniline		0.5263	2.10		
3,3'-Dichlorobenzidine		0.3526	5.65		
3-Nitroaniline		0.3678	8.14		
4,6-Dinitro-2-Methylphenol		0.1287	16.2	0.99100	
4-Bromophenyl Phenyl Ether		0.2620	3.80		
4-Chloroaniline		0.4770	4.67		
4-Chlorophenyl Phenyl Ether		0.9690	5.72		
4-Nitroaniline		0.4308	7.10		
Acenaphthylene		2.292	3.61		
Anthracene		1.231	2.80		
Benzo[a]anthracene		1.204	2.19		
Benzo[b]fluoranthene		1.464	7.08		
Benzo[ghi]perylene		1.010	2.73		
Benzo[k]fluoranthene		1.196	4.01		
Butyl Benzyl Phthalate		0.6094	2.93		
Carbazole		1.141	4.53		
Chrysene		1.141	2.39		
Di-n-Butyl Phthalate		1.492	3.36		
Dibenz[ah]anthracene		1.090	6.20		
Dibenzofuran		2.113	3.78		
Diethylphthalate		1.769	2.27		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS12
Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08
ICAL Workgroup: WG316819 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.661	2.18		
Fluorene		1.795	4.97		
Hexachlorobenzene		0.2348	3.09		
Hexachloroethane		0.6586	1.97		
Indeno[1,2,3-cd]pyrene		1.280	5.18		
Isophorone		0.8285	2.18		
Naphthalene		1.167	2.32		
Nitrobenzene		0.4505	2.55		
Phenanthrene		1.219	2.68		
Pyrene		1.278	5.93		
bis(2-Chloroethoxy)methane		0.6381	5.87		
bis(2-Chloroethyl)ether		1.255	3.20		
bis(2-Chloroisopropyl)ether		2.477	6.50		
bis(2-Ethylhexyl)phthalate		0.8165	2.01		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Report generated 11/17/2009 08:52

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771 **Instrument ID:** HPMS4
Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01
ICAL Workgroup: WG316839 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
2,4,6-Trichlorophenol	CCC	0.4044	3.79		
2,4-Dichlorophenol	CCC	0.3043	4.87		
2-Nitrophenol	CCC	0.2135	4.83		
4-Chloro-3-Methylphenol	CCC	0.3141	4.74		
Acenaphthene	CCC	1.314	11.0		
Benzo[a]pyrene	CCC	1.101	3.26		
Di-n-Octyl Phthalate	CCC	1.674	9.87		
Fluoranthene	CCC	1.229	10.3		
Hexachlorobutadiene	CCC	0.1701	7.04		
Pentachlorophenol	CCC	0.1315	18.5	0.99800	
Phenol	CCC	1.629	4.21		
2,4-Dinitrophenol	SPCC	0.1115	32.6		0.99000
4-Nitrophenol	SPCC	0.2301	13.6		
Hexachlorocyclopentadiene	SPCC	0.1463	37.3		0.99400
n-Nitrosodipropylamine	SPCC	0.9004	12.0		
1,4-Dioxane		0.5828	5.83		
2,4,5-Trichlorophenol		0.4175	5.84		
2,4-Dimethylphenol		0.3739	5.68		
2,4-Dinitrotoluene		0.4434	9.64		
2,6-Dinitrotoluene		0.3693	3.81		
2-Chloronaphthalene		1.462	11.9		
2-Chlorophenol		1.477	3.17		
2-Methylnaphthalene		0.7521	12.6		
2-Methylphenol		1.117	5.85		
2-Nitroaniline		0.3545	4.68		
3,3'-Dichlorobenzidine		0.3400	3.73		
3-Nitroaniline		0.3596	6.85		
4,6-Dinitro-2-Methylphenol		0.1116	13.6		
4-Bromophenyl Phenyl Ether		0.2236	6.35		
4-Chloroaniline		0.4679	5.70		
4-Chlorophenyl Phenyl Ether		0.6802	12.3		
4-Nitroaniline		0.3674	3.40		
Acenaphthylene		2.114	15.0		
Anthracene		1.218	13.2		
Benzo[a]anthracene		1.117	7.48		
Benzo[b]fluoranthene		1.277	7.35		
Benzo[ghi]perylene		0.8888	2.55		
Benzo[k]fluoranthene		1.140	3.81		
Butyl Benzyl Phthalate		0.6646	13.8		
Carbazole		1.163	9.61		
Chrysene		1.064	8.07		
Di-n-Butyl Phthalate		1.576	13.1		
Dibenz[ah]anthracene		0.9396	4.16		
Dibenzofuran		1.809	14.4		
Diethylphthalate		1.503	13.4		

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Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771
Analytical Method: 8270C
ICAL Workgroup: WG316839

Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
Dimethylphthalate		1.469	11.2		
Fluorene		1.548	12.3		
Hexachlorobenzene		0.2328	5.63		
Hexachloroethane		0.5896	4.06		
Indeno[1,2,3-cd]pyrene		1.105	2.91		
Isophorone		0.7036	8.98		
Naphthalene		1.199	13.5		
Nitrobenzene		0.3720	6.82		
Phenanthrene		1.223	13.7		
Pyrene		1.253	13.3		
bis(2-Chloroethoxy)methane		0.5503	12.9		
bis(2-Chloroethyl)ether		0.9972	8.06		
bis(2-Chloroisopropyl)ether		1.867	9.64		
bis(2-Ethylhexyl)phthalate		0.9649	8.88		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C

Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-02			WG315933-03			WG315933-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	179523.000	0.5067	3.00	11219.0000	0.4556	10.0	36755.0000	0.4581
2,4-Dichlorophenol	50.0	218267.000	0.3417	3.00	13979.0000	0.3151	10.0	43166.0000	0.2974
2-Nitrophenol	50.0	131335.000	0.2056	3.00	7815.00000	0.1762	10.0	26473.0000	0.1824
4-Chloro-3-Methylphenol	50.0	264013.000	0.4133	3.00	17508.0000	0.3947	10.0	56746.0000	0.3909
Acenaphthene	50.0	577857.000	1.631	3.00	31918.0000	1.296	10.0	106641.000	1.329
Benzo[a]pyrene	50.0	917929.000	1.134	3.00	55132.0000	1.076	10.0	189062.000	1.055
Di-n-Octyl Phthalate	50.0	1380141.00	1.705	3.00	82174.0000	1.604	10.0	278511.000	1.555
Fluoranthene	50.0	1154947.00	1.523	3.00	67281.0000	1.345	10.0	225690.000	1.329
Hexachlorobutadiene	50.0	185157.000	0.2898	3.00	12350.0000	0.2784	10.0	38944.0000	0.2683
Pentachlorophenol	50.0	132614.000	0.1748	NA	NA	NA	10.0	21571.0000	0.1270
Phenol	50.0	302779.000	1.798	3.00	19619.0000	1.657	10.0	63272.0000	1.664
2,4-Dinitrophenol	50.0	64520.0000	0.1821	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	171591.000	0.4844	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	50.0	172683.000	0.4874	3.00	8718.00000	0.3540	10.0	32699.0000	0.4075
n-Nitrosodipropylamine	50.0	222582.000	1.322	3.00	14270.0000	1.205	10.0	46052.0000	1.211
1,4-Dioxane	50.0	102506.000	0.6089	NA	NA	NA	10.0	23943.0000	0.6297
2,4,5-Trichlorophenol	50.0	186937.000	0.5277	3.00	11118.0000	0.4515	10.0	38997.0000	0.4860
2,4-Dimethylphenol	50.0	230546.000	0.3609	3.00	14661.0000	0.3305	10.0	48134.0000	0.3316
2,4-Dinitrotoluene	50.0	194948.000	0.5503	3.00	10681.0000	0.4337	10.0	37493.0000	0.4673
2,6-Dinitrotoluene	50.0	135496.000	0.3825	3.00	8435.00000	0.3425	10.0	27623.0000	0.3443
2-Chloronaphthalene	50.0	591910.000	1.671	3.00	36289.0000	1.474	10.0	118150.000	1.473
2-Chlorophenol	50.0	242501.000	1.440	3.00	16248.0000	1.372	10.0	50385.0000	1.325
2-Methylnaphthalene	50.0	510297.000	0.7988	3.00	32847.0000	0.7405	10.0	102219.000	0.7042
2-Methylphenol	50.0	219624.000	1.305	3.00	13659.0000	1.154	10.0	43900.0000	1.155
2-Nitroaniline	50.0	221555.000	0.6254	NA	NA	NA	10.0	49874.0000	0.6216
3,3'-Dichlorobenzidine	50.0	355005.000	0.3652	3.00	20606.0000	0.3380	10.0	67087.0000	0.3174
3-Nitroaniline	50.0	122580.000	0.3460	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	50.0	91733.0000	0.1209	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	220139.000	0.2902	3.00	13370.0000	0.2673	10.0	44946.0000	0.2647
4-Chloroaniline	50.0	311469.000	0.4876	3.00	19971.0000	0.4502	10.0	62649.0000	0.4316
4-Chlorophenyl Phenyl Ether	50.0	376187.000	1.062	3.00	22523.0000	0.9146	10.0	73252.0000	0.9129
4-Nitroaniline	50.0	154372.000	0.4358	NA	NA	NA	NA	NA	NA
Acenaphthylene	50.0	847813.000	2.393	3.00	51457.0000	2.089	10.0	167292.000	2.085
Anthracene	50.0	978931.000	1.291	3.00	56308.0000	1.126	10.0	188467.000	1.110
Benzo[a]anthracene	50.0	1134208.00	1.167	3.00	66718.0000	1.094	10.0	224371.000	1.062
Benzo[b]fluoranthene	50.0	1222937.00	1.511	3.00	68124.0000	1.330	10.0	219042.000	1.223
Benzo[ghi]perylene	50.0	840037.000	1.038	3.00	49511.0000	0.9663	10.0	175668.000	0.9806
Benzo[k]fluoranthene	50.0	958235.000	1.184	3.00	52583.0000	1.026	10.0	187767.000	1.048
Butyl Benzyl Phthalate	50.0	631481.000	0.6497	3.00	36967.0000	0.6063	10.0	123226.000	0.5831
Carbazole	50.0	888421.000	1.171	3.00	49725.0000	0.9940	10.0	166680.000	0.9815
Chrysene	50.0	1074588.00	1.106	3.00	62099.0000	1.019	10.0	211210.000	0.9994
Di-n-Butyl Phthalate	50.0	1254684.00	1.654	3.00	76850.0000	1.536	10.0	258949.000	1.525

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-02			WG315933-03			WG315933-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	918679.000	1.135	3.00	50767.0000	0.9908	10.0	177163.000	0.9889
Dibenzofuran	50.0	804267.000	2.270	3.00	49502.0000	2.010	10.0	161092.000	2.008
Diethylphthalate	50.0	707797.000	1.998	3.00	44892.0000	1.823	10.0	146901.000	1.831
Dimethylphthalate	50.0	626705.000	1.769	3.00	40169.0000	1.631	10.0	130629.000	1.628
Fluorene	50.0	708371.000	2.000	3.00	39804.0000	1.616	10.0	136126.000	1.697
Hexachlorobenzene	50.0	212245.000	0.2798	3.00	13271.0000	0.2653	10.0	43068.0000	0.2536
Hexachloroethane	50.0	119194.000	0.7080	3.00	8135.00000	0.6871	10.0	26465.0000	0.6960
Indeno[1,2,3-cd]pyrene	50.0	1095660.00	1.354	3.00	62432.0000	1.218	10.0	215944.000	1.205
Isophorone	50.0	601651.000	0.9418	3.00	40919.0000	0.9224	10.0	131677.000	0.9071
Naphthalene	50.0	752780.000	1.178	3.00	50397.0000	1.136	10.0	156788.000	1.080
Nitrobenzene	50.0	325327.000	0.5093	3.00	22917.0000	0.5166	10.0	74431.0000	0.5128
Phenanthrene	50.0	967074.000	1.275	3.00	58752.0000	1.175	10.0	194606.000	1.146
Pyrene	50.0	1295600.00	1.333	3.00	71984.0000	1.181	10.0	244748.000	1.158
bis(2-Chloroethoxy)methane	50.0	459029.000	0.7185	3.00	26988.0000	0.6084	10.0	91638.0000	0.6313
bis(2-Chloroethyl)ether	50.0	235393.000	1.398	3.00	17152.0000	1.449	10.0	55754.0000	1.466
bis(2-Chloroisopropyl)ether	50.0	456733.000	2.713	3.00	38213.0000	3.228	10.0	119833.000	3.151
bis(2-Ethylhexyl)phthalate	50.0	826929.000	0.8508	3.00	50787.0000	0.8330	10.0	169345.000	0.8013

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58

Column ID: F

Analyte	WG315933-05			WG315933-06			WG315933-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	58014.0000	0.4562	25.0	96928.0000	0.4642	80.0	347908.000	0.5201
2,4-Dichlorophenol	15.0	68093.0000	0.3003	25.0	116642.000	0.3135	80.0	410689.000	0.3471
2-Nitrophenol	15.0	42208.0000	0.1861	25.0	71172.0000	0.1913	80.0	245492.000	0.2075
4-Chloro-3-Methylphenol	15.0	90560.0000	0.3994	25.0	146804.000	0.3946	80.0	510920.000	0.4318
Acenaphthene	15.0	173811.000	1.367	25.0	300751.000	1.441	80.0	1229272.00	1.838
Benzo[a]pyrene	15.0	300553.000	1.049	25.0	514340.000	1.081	80.0	1933706.00	1.208
Di-n-Octyl Phthalate	15.0	445267.000	1.554	25.0	752086.000	1.581	80.0	2780158.00	1.737
Fluoranthene	15.0	356681.000	1.331	25.0	607964.000	1.368	80.0	2324161.00	1.604
Hexachlorobutadiene	15.0	62947.0000	0.2776	25.0	104051.000	0.2797	80.0	351283.000	0.2969
Pentachlorophenol	15.0	36676.0000	0.1368	25.0	67097.0000	0.1509	80.0	271082.000	0.1871
Phenol	15.0	101155.000	1.663	25.0	165542.000	1.677	80.0	564508.000	1.797
2,4-Dinitrophenol	15.0	12348.0000	0.09710	25.0	29146.0000	0.1396	80.0	180850.000	0.2704
4-Nitrophenol	15.0	57743.0000	0.4541	25.0	103412.000	0.4953	80.0	364755.000	0.5453
Hexachlorocyclopentadiene	15.0	54128.0000	0.4257	25.0	95273.0000	0.4563	80.0	354307.000	0.5297
n-Nitrosodipropylamine	15.0	74066.0000	1.218	25.0	124037.000	1.256	80.0	440645.000	1.403
1,4-Dioxane	15.0	36476.0000	0.5996	25.0	58929.0000	0.5969	80.0	174201.000	0.5545
2,4,5-Trichlorophenol	15.0	61133.0000	0.4808	25.0	103041.000	0.4935	80.0	370353.000	0.5537
2,4-Dimethylphenol	15.0	75520.0000	0.3331	25.0	123377.000	0.3316	80.0	449786.000	0.3801
2,4-Dinitrotoluene	15.0	60706.0000	0.4774	25.0	102498.000	0.4909	80.0	413001.000	0.6174
2,6-Dinitrotoluene	15.0	44351.0000	0.3488	25.0	73878.0000	0.3538	80.0	262857.000	0.3930
2-Chloronaphthalene	15.0	187563.000	1.475	25.0	318845.000	1.527	80.0	1194240.00	1.785
2-Chlorophenol	15.0	78938.0000	1.298	25.0	130830.000	1.325	80.0	434632.000	1.384
2-Methylnaphthalene	15.0	160710.000	0.7088	25.0	273069.000	0.7340	80.0	1008467.00	0.8523
2-Methylphenol	15.0	70916.0000	1.166	25.0	118271.000	1.198	80.0	409296.000	1.303
2-Nitroaniline	15.0	79919.0000	0.6285	25.0	134453.000	0.6440	80.0	443394.000	0.6629
3,3'-Dichlorobenzidine	15.0	111582.000	0.3311	25.0	189698.000	0.3298	80.0	760923.000	0.3803
3-Nitroaniline	15.0	38142.0000	0.3000	25.0	63737.0000	0.3053	80.0	242238.000	0.3621
4,6-Dinitro-2-Methylphenol	15.0	24867.0000	0.09280	25.0	47984.0000	0.1079	80.0	210009.000	0.1450
4-Bromophenyl Phenyl Ether	15.0	70259.0000	0.2621	25.0	119300.000	0.2684	80.0	445134.000	0.3072
4-Chloroaniline	15.0	99216.0000	0.4376	25.0	167906.000	0.4513	80.0	593832.000	0.5019
4-Chlorophenyl Phenyl Ether	15.0	116561.000	0.9167	25.0	197605.000	0.9464	80.0	825582.000	1.234
4-Nitroaniline	15.0	44748.0000	0.3519	25.0	80696.0000	0.3865	80.0	310619.000	0.4644
Acenaphthylene	15.0	264942.000	2.084	25.0	450623.000	2.158	80.0	1686509.00	2.521
Anthracene	15.0	302619.000	1.129	25.0	519794.000	1.169	80.0	2022962.00	1.396
Benzo[a]anthracene	15.0	359332.000	1.066	25.0	614158.000	1.068	80.0	2419476.00	1.209
Benzo[b]fluoranthene	15.0	359905.000	1.256	25.0	645729.000	1.357	80.0	2663118.00	1.664
Benzo[ghi]perylene	15.0	284414.000	0.9928	25.0	474183.000	0.9966	80.0	1707988.00	1.067
Benzo[k]fluoranthene	15.0	289985.000	1.012	25.0	536057.000	1.127	80.0	1928324.00	1.205
Butyl Benzyl Phthalate	15.0	201894.000	0.5990	25.0	344853.000	0.5996	80.0	1345420.00	0.6723
Carbazole	15.0	271431.000	1.013	25.0	462583.000	1.041	80.0	1828895.00	1.262
Chrysene	15.0	343322.000	1.019	25.0	590051.000	1.026	80.0	2326412.00	1.163
Di-n-Butyl Phthalate	15.0	407420.000	1.520	25.0	684813.000	1.541	80.0	2463676.00	1.701

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-05			WG315933-06			WG315933-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	15.0	293715.000	1.025	25.0	504051.000	1.059	80.0	2023634.00	1.264
Dibenzofuran	15.0	251325.000	1.977	25.0	425715.000	2.039	80.0	1672262.00	2.500
Diethylphthalate	15.0	236043.000	1.856	25.0	392944.000	1.882	80.0	1374581.00	2.055
Dimethylphthalate	15.0	205559.000	1.617	25.0	342283.000	1.639	80.0	1217422.00	1.820
Fluorene	15.0	217515.000	1.711	25.0	379223.000	1.816	80.0	1468585.00	2.196
Hexachlorobenzene	15.0	66765.0000	0.2491	25.0	112218.000	0.2524	80.0	435009.000	0.3002
Hexachloroethane	15.0	41207.0000	0.6774	25.0	67699.0000	0.6857	80.0	225902.000	0.7191
Indeno[1,2,3-cd]pyrene	15.0	351005.000	1.225	25.0	607452.000	1.277	80.0	2353494.00	1.471
Isophorone	15.0	205256.000	0.9052	25.0	338147.000	0.9089	80.0	1129054.00	0.9542
Naphthalene	15.0	246722.000	1.088	25.0	407833.000	1.096	80.0	1463410.00	1.237
Nitrobenzene	15.0	117055.000	0.5162	25.0	191601.000	0.5150	80.0	628250.000	0.5310
Phenanthrene	15.0	307520.000	1.147	25.0	521321.000	1.173	80.0	1981931.00	1.368
Pyrene	15.0	395944.000	1.175	25.0	686910.000	1.194	80.0	2695841.00	1.347
bis(2-Chloroethoxy)methane	15.0	144424.000	0.6369	25.0	246265.000	0.6619	80.0	926679.000	0.7832
bis(2-Chloroethyl)ether	15.0	87364.0000	1.436	25.0	145178.000	1.471	80.0	452089.000	1.439
bis(2-Chloroisopropyl)ether	15.0	190350.000	3.129	25.0	311281.000	3.153	80.0	888040.000	2.827
bis(2-Ethylhexyl)phthalate	15.0	268160.000	0.7957	25.0	448887.000	0.7805	80.0	1712144.00	0.8556

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 31-OCT-09 18:58

Column ID: F

Analyte	WG315933-08			WG315933-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	534125.000	0.5418	120	657516.000	0.5746
2,4-Dichlorophenol	100	606905.000	0.3494	120	751514.000	0.3671
2-Nitrophenol	100	372431.000	0.2144	120	464945.000	0.2271
4-Chloro-3-Methylphenol	100	757139.000	0.4359	120	933302.000	0.4559
Acenaphthene	100	1824316.00	1.851	120	2200421.00	1.923
Benzo[a]pyrene	100	2855602.00	1.240	120	3592051.00	1.307
Di-n-Octyl Phthalate	100	3995404.00	1.734	120	4842107.00	1.762
Fluoranthene	100	3378334.00	1.578	120	4027958.00	1.597
Hexachlorobutadiene	100	521009.000	0.3000	120	630881.000	0.3082
Pentachlorophenol	100	415672.000	0.1942	120	527352.000	0.2091
Phenol	100	854906.000	1.830	120	1051632.00	1.942
2,4-Dinitrophenol	100	309228.000	0.3137	120	383703.000	0.3353
4-Nitrophenol	100	520225.000	0.5277	120	635954.000	0.5557
Hexachlorocyclopentadiene	100	508439.000	0.5157	120	590253.000	0.5158
n-Nitrosodipropylamine	100	639684.000	1.369	120	756523.000	1.397
1,4-Dioxane	100	248090.000	0.5311	120	288953.000	0.5335
2,4,5-Trichlorophenol	100	556875.000	0.5649	120	696960.000	0.6090
2,4-Dimethylphenol	100	680606.000	0.3919	120	846531.000	0.4136
2,4-Dinitrotoluene	100	639450.000	0.6486	120	798074.000	0.6974
2,6-Dinitrotoluene	100	389996.000	0.3956	120	481715.000	0.4209
2-Chloronaphthalene	100	1800378.00	1.826	120	2193164.00	1.916
2-Chlorophenol	100	642378.000	1.375	120	789463.000	1.458
2-Methylnaphthalene	100	1546870.00	0.8907	120	1899826.00	0.9281
2-Methylphenol	100	595550.000	1.275	120	737413.000	1.362
2-Nitroaniline	100	626315.000	0.6353	120	769815.000	0.6727
3,3'-Dichlorobenzidine	100	1136358.00	0.3810	120	1430194.00	0.3955
3-Nitroaniline	100	370570.000	0.3759	120	460363.000	0.4023
4,6-Dinitro-2-Methylphenol	100	341524.000	0.1595	120	430697.000	0.1708
4-Bromophenyl Phenyl Ether	100	677856.000	0.3166	120	836956.000	0.3319
4-Chloroaniline	100	911304.000	0.5247	120	1127947.00	0.5510
4-Chlorophenyl Phenyl Ether	100	1256678.00	1.275	120	1545347.00	1.350
4-Nitroaniline	100	463608.000	0.4703	120	577732.000	0.5048
Acenaphthylene	100	2488859.00	2.525	120	3010085.00	2.630
Anthracene	100	2939489.00	1.373	120	3520313.00	1.396
Benzo[a]anthracene	100	3554209.00	1.192	120	4419516.00	1.222
Benzo[b]fluoranthene	100	4147762.00	1.801	NA	NA	NA
Benzo[ghi]perylene	100	2436053.00	1.058	120	2992590.00	1.089
Benzo[k]fluoranthene	100	2971855.00	1.290	120	3250352.00	1.183
Butyl Benzyl Phthalate	100	1939359.00	0.6502	120	2329285.00	0.6441
Carbazole	100	2714388.00	1.268	120	3314155.00	1.314
Chrysene	100	3409148.00	1.143	120	4199956.00	1.161
Di-n-Butyl Phthalate	100	3458842.00	1.616	120	4050767.00	1.606

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 31-OCT-09 18:58
Column ID: F

Analyte	WG315933-08			WG315933-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	100	2947846.00	1.280	120	3679610.00	1.339
Dibenzofuran	100	2517056.00	2.553	120	3042245.00	2.658
Diethylphthalate	100	2008025.00	2.037	120	2422833.00	2.117
Dimethylphthalate	100	1799509.00	1.825	120	2194421.00	1.918
Fluorene	100	2151813.00	2.183	120	2592930.00	2.266
Hexachlorobenzene	100	653138.000	0.3051	120	817548.000	0.3242
Hexachloroethane	100	333199.000	0.7132	120	401597.000	0.7415
Indeno[1,2,3-cd]pyrene	100	3425916.00	1.487	120	4265574.00	1.552
Isophorone	100	1621452.00	0.9336	120	1961755.00	0.9584
Naphthalene	100	2171142.00	1.250	120	2647668.00	1.294
Nitrobenzene	100	900986.000	0.5188	120	1088139.00	0.5316
Phenanthrene	100	2901257.00	1.355	120	3501891.00	1.389
Pyrene	100	3753713.00	1.258	120	4406205.00	1.218
bis(2-Chloroethoxy)methane	100	1376694.00	0.7927	120	1650279.00	0.8062
bis(2-Chloroethyl)ether	100	649591.000	1.391	120	776794.000	1.434
bis(2-Chloroisopropyl)ether	100	1228187.00	2.629	120	1439662.00	2.658
bis(2-Ethylhexyl)phthalate	100	2460936.00	0.8250	120	3002128.00	0.8301

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-02			WG316255-03			WG316255-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	219900.000	0.4286	3.00	11202.0000	0.4119	10.0	38679.0000	0.4319
2,4-Dichlorophenol	50.0	303513.000	0.3076	3.00	16947.0000	0.3288	10.0	54202.0000	0.3201
2-Nitrophenol	50.0	213718.000	0.2166	3.00	10082.0000	0.1956	10.0	35689.0000	0.2108
4-Chloro-3-Methylphenol	50.0	317972.000	0.3223	3.00	16883.0000	0.3276	10.0	55723.0000	0.3291
Acenaphthene	50.0	708190.000	1.380	3.00	43010.0000	1.582	10.0	135500.000	1.513
Benzo[a]pyrene	50.0	954842.000	1.128	3.00	48429.0000	1.194	10.0	164121.000	1.162
Di-n-Octyl Phthalate	50.0	1477346.00	1.745	3.00	78613.0000	1.938	10.0	267784.000	1.896
Fluoranthene	50.0	1216907.00	1.303	3.00	70530.0000	1.500	10.0	230242.000	1.457
Hexachlorobutadiene	50.0	160292.000	0.1625	3.00	9180.00000	0.1781	10.0	29261.0000	0.1728
Pentachlorophenol	50.0	129305.000	0.1385	NA	NA	NA	10.0	16695.0000	0.1057
Phenol	50.0	439350.000	1.716	3.00	23973.0000	1.758	10.0	77488.0000	1.737
2,4-Dinitrophenol	50.0	48910.0000	0.09530	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	128155.000	0.2498	NA	NA	NA	10.0	17775.0000	0.1985
Hexachlorocyclopentadiene	50.0	129305.000	0.2520	3.00	4534.00000	0.1667	10.0	20150.0000	0.2250
n-Nitrosodipropylamine	50.0	244991.000	0.9566	3.00	15096.0000	1.107	10.0	45806.0000	1.027
1,4-Dioxane	50.0	144799.000	0.5654	3.00	6062.00000	0.4445	10.0	23372.0000	0.5239
2,4,5-Trichlorophenol	50.0	227527.000	0.4435	3.00	11721.0000	0.4310	10.0	39857.0000	0.4451
2,4-Dimethylphenol	50.0	361065.000	0.3660	3.00	19845.0000	0.3850	10.0	62806.0000	0.3709
2,4-Dinitrotoluene	50.0	256230.000	0.4994	3.00	12714.0000	0.4675	10.0	43516.0000	0.4859
2,6-Dinitrotoluene	50.0	202175.000	0.3941	3.00	10687.0000	0.3930	10.0	35325.0000	0.3945
2-Chloronaphthalene	50.0	777085.000	1.515	3.00	47563.0000	1.749	10.0	149997.000	1.675
2-Chlorophenol	50.0	392405.000	1.532	3.00	22014.0000	1.614	10.0	68625.0000	1.538
2-Methylnaphthalene	50.0	756392.000	0.7667	3.00	45880.0000	0.8901	10.0	144108.000	0.8511
2-Methylphenol	50.0	295889.000	1.155	3.00	16393.0000	1.202	10.0	52899.0000	1.186
2-Nitroaniline	50.0	195966.000	0.3820	3.00	9832.00000	0.3615	10.0	32584.0000	0.3639
3,3'-Dichlorobenzidine	50.0	300809.000	0.3190	3.00	15773.0000	0.3445	10.0	47800.0000	0.3063
3-Nitroaniline	50.0	202518.000	0.3947	3.00	9703.00000	0.3568	10.0	29500.0000	0.3294
4,6-Dinitro-2-Methylphenol	50.0	95586.0000	0.1024	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	193956.000	0.2077	3.00	11261.0000	0.2395	10.0	35721.0000	0.2261
4-Chloroaniline	50.0	610007.000	0.6183	3.00	34245.0000	0.6644	10.0	107673.000	0.6359
4-Chlorophenyl Phenyl Ether	50.0	379177.000	0.7390	3.00	22237.0000	0.8177	10.0	71313.0000	0.7963
4-Nitroaniline	50.0	186324.000	0.3632	NA	NA	NA	10.0	31853.0000	0.3557
Acenaphthylene	50.0	1089162.00	2.123	3.00	68169.0000	2.507	10.0	219321.000	2.449
Anthracene	50.0	1201456.00	1.287	3.00	70458.0000	1.498	10.0	226033.000	1.431
Benzo[a]anthracene	50.0	1072765.00	1.138	3.00	59366.0000	1.297	10.0	194696.000	1.248
Benzo[b]fluoranthene	50.0	1010565.00	1.194	3.00	58146.0000	1.434	10.0	188896.000	1.338
Benzo[ghi]perylene	50.0	830922.000	0.9815	3.00	39902.0000	0.9839	10.0	137684.000	0.9749
Benzo[k]fluoranthene	50.0	975610.000	1.152	3.00	50545.0000	1.246	10.0	169301.000	1.199
Butyl Benzyl Phthalate	50.0	592402.000	0.6282	3.00	36558.0000	0.7985	10.0	119346.000	0.7648
Carbazole	50.0	1133265.00	1.214	3.00	61477.0000	1.307	10.0	198341.000	1.255
Chrysene	50.0	1036862.00	1.100	3.00	57743.0000	1.261	10.0	190311.000	1.220
Di-n-Butyl Phthalate	50.0	1405080.00	1.505	3.00	85081.0000	1.809	10.0	273556.000	1.731

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INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 03-NOV-09 14:19
Column ID: F

Analyte	WG316255-02			WG316255-03			WG316255-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	826356.000	0.9761	3.00	38917.0000	0.9596	10.0	138232.000	0.9787
Dibenzofuran	50.0	967892.000	1.887	3.00	59346.0000	2.182	10.0	188208.000	2.102
Diethylphthalate	50.0	790752.000	1.541	3.00	48910.0000	1.799	10.0	153006.000	1.709
Dimethylphthalate	50.0	800969.000	1.561	3.00	47894.0000	1.761	10.0	150072.000	1.676
Fluorene	50.0	776897.000	1.514	3.00	50971.0000	1.874	10.0	160173.000	1.789
Hexachlorobenzene	50.0	192967.000	0.2067	3.00	11258.0000	0.2394	10.0	35282.0000	0.2233
Hexachloroethane	50.0	153733.000	0.6003	3.00	8610.00000	0.6314	10.0	26830.0000	0.6014
Indeno[1,2,3-cd]pyrene	50.0	978591.000	1.156	3.00	46881.0000	1.156	10.0	164095.000	1.162
Isophorone	50.0	718426.000	0.7282	3.00	41771.0000	0.8104	10.0	130310.000	0.7696
Naphthalene	50.0	1134537.00	1.150	3.00	70087.0000	1.360	10.0	218394.000	1.290
Nitrobenzene	50.0	372600.000	0.3777	3.00	20437.0000	0.3965	10.0	66100.0000	0.3904
Phenanthrene	50.0	1177463.00	1.261	3.00	71796.0000	1.527	10.0	227318.000	1.439
Pyrene	50.0	1284071.00	1.362	3.00	75652.0000	1.652	10.0	244174.000	1.565
bis(2-Chloroethoxy)methane	50.0	512398.000	0.5194	3.00	31429.0000	0.6098	10.0	98264.0000	0.5803
bis(2-Chloroethyl)ether	50.0	261905.000	1.023	3.00	14619.0000	1.072	10.0	45854.0000	1.028
bis(2-Chloroisopropyl)ether	50.0	421985.000	1.648	3.00	22885.0000	1.678	10.0	72151.0000	1.617
bis(2-Ethylhexyl)phthalate	50.0	857378.000	0.9091	3.00	49574.0000	1.083	10.0	165185.000	1.059

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 03-NOV-09 14:19
Column ID: F

Analyte	WG316255-05			WG316255-06			WG316255-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	60646.0000	0.4316	25.0	96657.0000	0.4310	80.0	283499.000	0.3955
2,4-Dichlorophenol	15.0	85100.0000	0.3175	25.0	133527.000	0.3130	80.0	398726.000	0.2923
2-Nitrophenol	15.0	56469.0000	0.2107	25.0	92850.0000	0.2177	80.0	280084.000	0.2053
4-Chloro-3-Methylphenol	15.0	88036.0000	0.3285	25.0	138391.000	0.3244	80.0	416165.000	0.3051
Acenaphthene	15.0	211866.000	1.508	25.0	327837.000	1.462	80.0	882922.000	1.232
Benzo[a]pyrene	15.0	257465.000	1.161	25.0	414857.000	1.137	80.0	1296735.00	1.073
Di-n-Octyl Phthalate	15.0	415425.000	1.873	25.0	663301.000	1.818	80.0	1922526.00	1.590
Fluoranthene	15.0	354576.000	1.415	25.0	553205.000	1.383	80.0	1572944.00	1.210
Hexachlorobutadiene	15.0	45942.0000	0.1714	25.0	72262.0000	0.1694	80.0	208727.000	0.1530
Pentachlorophenol	15.0	28947.0000	0.1155	25.0	51155.0000	0.1278	80.0	179965.000	0.1384
Phenol	15.0	120339.000	1.716	25.0	188848.000	1.707	80.0	566565.000	1.636
2,4-Dinitrophenol	15.0	7890.00000	0.05610	25.0	19313.0000	0.08610	80.0	99698.0000	0.1391
4-Nitrophenol	15.0	29353.0000	0.2089	25.0	51210.0000	0.2284	80.0	172589.000	0.2408
Hexachlorocyclopentadiene	15.0	33971.0000	0.2417	25.0	53462.0000	0.2384	80.0	161012.000	0.2246
n-Nitrosodipropylamine	15.0	72070.0000	1.027	25.0	111648.000	1.009	80.0	301080.000	0.8695
1,4-Dioxane	15.0	39682.0000	0.5657	25.0	59776.0000	0.5403	80.0	188240.000	0.5436
2,4,5-Trichlorophenol	15.0	62329.0000	0.4436	25.0	99287.0000	0.4428	80.0	294626.000	0.4110
2,4-Dimethylphenol	15.0	98187.0000	0.3664	25.0	167075.000	0.3917	80.0	467176.000	0.3425
2,4-Dinitrotoluene	15.0	69856.0000	0.4971	25.0	110899.000	0.4946	80.0	334278.000	0.4663
2,6-Dinitrotoluene	15.0	56650.0000	0.4031	25.0	88877.0000	0.3963	80.0	264336.000	0.3688
2-Chloronaphthalene	15.0	231833.000	1.650	25.0	358902.000	1.601	80.0	986604.000	1.376
2-Chlorophenol	15.0	108234.000	1.543	25.0	170655.000	1.543	80.0	510805.000	1.475
2-Methylnaphthalene	15.0	223602.000	0.8343	25.0	346542.000	0.8124	80.0	956936.000	0.7016
2-Methylphenol	15.0	82621.0000	1.178	25.0	129957.000	1.175	80.0	380264.000	1.098
2-Nitroaniline	15.0	52147.0000	0.3711	25.0	83012.0000	0.3702	80.0	259358.000	0.3618
3,3'-Dichlorobenzidine	15.0	76103.0000	0.3051	25.0	127136.000	0.3132	80.0	398815.000	0.2972
3-Nitroaniline	15.0	47715.0000	0.3396	25.0	77888.0000	0.3473	80.0	275445.000	0.3843
4,6-Dinitro-2-Methylphenol	15.0	20351.0000	0.08120	25.0	40213.0000	0.1005	80.0	167711.000	0.1290
4-Bromophenyl Phenyl Ether	15.0	55342.0000	0.2209	25.0	86426.0000	0.2160	80.0	250957.000	0.1930
4-Chloroaniline	15.0	170090.000	0.6346	25.0	267988.000	0.6283	80.0	788835.000	0.5783
4-Chlorophenyl Phenyl Ether	15.0	111323.000	0.7922	25.0	173343.000	0.7730	80.0	489345.000	0.6827
4-Nitroaniline	15.0	52450.0000	0.3733	25.0	81826.0000	0.3649	80.0	246884.000	0.3444
Acenaphthylene	15.0	338715.000	2.410	25.0	519225.000	2.316	80.0	1355087.00	1.890
Anthracene	15.0	352218.000	1.406	25.0	551148.000	1.377	80.0	1537314.00	1.182
Benzo[a]anthracene	15.0	303243.000	1.216	25.0	475459.000	1.171	80.0	1420765.00	1.059
Benzo[b]fluoranthene	15.0	280731.000	1.266	25.0	443878.000	1.217	80.0	1304934.00	1.079
Benzo[ghi]perylene	15.0	215055.000	0.9698	25.0	351049.000	0.9621	80.0	1136407.00	0.9399
Benzo[k]fluoranthene	15.0	263282.000	1.187	25.0	417097.000	1.143	80.0	1256661.00	1.039
Butyl Benzyl Phthalate	15.0	183119.000	0.7342	25.0	282080.000	0.6949	80.0	750879.000	0.5596
Carbazole	15.0	315776.000	1.261	25.0	501466.000	1.253	80.0	1467232.00	1.128
Chrysene	15.0	295810.000	1.186	25.0	465255.000	1.146	80.0	1360679.00	1.014
Di-n-Butyl Phthalate	15.0	421887.000	1.684	25.0	651878.000	1.629	80.0	1787523.00	1.375

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 03-NOV-09 14:19
Column ID: F

Analyte	WG316255-05			WG316255-06			WG316255-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	15.0	216681.000	0.9772	25.0	352387.000	0.9657	80.0	1120338.00	0.9266
Dibenzofuran	15.0	291520.000	2.075	25.0	450452.000	2.009	80.0	1215915.00	1.696
Diethylphthalate	15.0	236394.000	1.682	25.0	364312.000	1.625	80.0	996740.000	1.391
Dimethylphthalate	15.0	236400.000	1.682	25.0	362008.000	1.614	80.0	1022924.00	1.427
Fluorene	15.0	247016.000	1.758	25.0	375182.000	1.673	80.0	977576.000	1.364
Hexachlorobenzene	15.0	55590.0000	0.2219	25.0	86011.0000	0.2150	80.0	251113.000	0.1931
Hexachloroethane	15.0	42554.0000	0.6067	25.0	67275.0000	0.6081	80.0	197746.000	0.5711
Indeno[1,2,3-cd]pyrene	15.0	259203.000	1.169	25.0	420503.000	1.152	80.0	1340200.00	1.109
Isophorone	15.0	201446.000	0.7516	25.0	315797.000	0.7404	80.0	919991.000	0.6745
Naphthalene	15.0	335458.000	1.252	25.0	518233.000	1.215	80.0	1430357.00	1.049
Nitrobenzene	15.0	102222.000	0.3814	25.0	160342.000	0.3759	80.0	479189.000	0.3513
Phenanthrene	15.0	350431.000	1.399	25.0	544787.000	1.362	80.0	1510992.00	1.162
Pyrene	15.0	374905.000	1.503	25.0	586695.000	1.445	80.0	1675727.00	1.249
bis(2-Chloroethoxy)methane	15.0	153622.000	0.5732	25.0	234899.000	0.5507	80.0	639568.000	0.4689
bis(2-Chloroethyl)ether	15.0	71632.0000	1.021	25.0	112174.000	1.014	80.0	338860.000	0.9786
bis(2-Chloroisopropyl)ether	15.0	113018.000	1.611	25.0	175575.000	1.587	80.0	547413.000	1.581
bis(2-Ethylhexyl)phthalate	15.0	255331.000	1.024	25.0	400758.000	0.9872	80.0	1092589.00	0.8142

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-08			WG316255-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	364148.000	0.3834	120	418266.000	0.3719
2,4-Dichlorophenol	100	506705.000	0.2849	120	590722.000	0.2830
2-Nitrophenol	100	358123.000	0.2014	120	418686.000	0.2006
4-Chloro-3-Methylphenol	100	518622.000	0.2916	120	602336.000	0.2886
Acenaphthene	100	1032149.00	1.087	NA	NA	NA
Benzo[a]pyrene	100	1637096.00	1.021	120	1924868.00	1.013
Di-n-Octyl Phthalate	100	2378547.00	1.483	120	2730431.00	1.438
Fluoranthene	100	1935589.00	1.128	120	2213051.00	1.102
Hexachlorobutadiene	100	257973.000	0.1451	120	297417.000	0.1425
Pentachlorophenol	100	231028.000	0.1347	120	271576.000	0.1352
Phenol	100	715584.000	1.591	120	835299.000	1.585
2,4-Dinitrophenol	100	136261.000	0.1435	120	162537.000	0.1445
4-Nitrophenol	100	219338.000	0.2309	120	252231.000	0.2243
Hexachlorocyclopentadiene	100	186737.000	0.1966	120	210695.000	0.1873
n-Nitrosodipropylamine	100	360854.000	0.8023	120	401213.000	0.7613
1,4-Dioxane	100	244634.000	0.5439	120	293891.000	0.5577
2,4,5-Trichlorophenol	100	362636.000	0.3818	120	411667.000	0.3661
2,4-Dimethylphenol	100	580297.000	0.3263	120	667418.000	0.3197
2,4-Dinitrotoluene	100	411136.000	0.4329	120	465764.000	0.4142
2,6-Dinitrotoluene	100	331045.000	0.3485	120	383787.000	0.3413
2-Chloronaphthalene	100	1209732.00	1.274	120	1396817.00	1.242
2-Chlorophenol	100	644988.000	1.434	120	754556.000	1.432
2-Methylnaphthalene	100	1166075.00	0.6557	120	1327452.00	0.6359
2-Methylphenol	100	474214.000	1.054	120	549869.000	1.043
2-Nitroaniline	100	327985.000	0.3453	120	385105.000	0.3424
3,3'-Dichlorobenzidine	100	493347.000	0.2772	120	566942.000	0.2717
3-Nitroaniline	100	352261.000	0.3709	120	417703.000	0.3714
4,6-Dinitro-2-Methylphenol	100	217448.000	0.1267	120	257193.000	0.1281
4-Bromophenyl Phenyl Ether	100	310577.000	0.1810	120	357379.000	0.1780
4-Chloroaniline	100	986361.000	0.5546	120	1140247.00	0.5463
4-Chlorophenyl Phenyl Ether	100	597596.000	0.6292	120	679223.000	0.6040
4-Nitroaniline	100	316319.000	0.3330	120	376344.000	0.3346
Acenaphthylene	100	1617054.00	1.703	NA	NA	NA
Anthracene	100	1871796.00	1.091	120	2117799.00	1.055
Benzo[a]anthracene	100	1778267.00	0.9991	120	2061158.00	0.9879
Benzo[b]fluoranthene	100	1674651.00	1.044	120	1948784.00	1.026
Benzo[ghi]perylene	100	1438516.00	0.8967	120	1682102.00	0.8856
Benzo[k]fluoranthene	100	1414431.00	0.8817	120	1932386.00	1.017
Butyl Benzyl Phthalate	100	895790.000	0.5033	120	1004330.00	0.4814
Carbazole	100	1804553.00	1.052	120	2064161.00	1.028
Chrysene	100	1694630.00	0.9521	120	1953631.00	0.9364
Di-n-Butyl Phthalate	100	2172311.00	1.266	120	2452386.00	1.221

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 03-NOV-09 14:19

Column ID: F

Analyte	WG316255-08			WG316255-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	100	1424662.00	0.8880	120	1675781.00	0.8823
Dibenzofuran	100	1451482.00	1.528	NA	NA	NA
Diethylphthalate	100	1198171.00	1.262	120	1337349.00	1.189
Dimethylphthalate	100	1262463.00	1.329	120	1459496.00	1.298
Fluorene	100	1183160.00	1.246	NA	NA	NA
Hexachlorobenzene	100	312552.000	0.1822	120	360258.000	0.1794
Hexachloroethane	100	245890.000	0.5467	120	288640.000	0.5477
Indeno[1,2,3-cd]pyrene	100	1708231.00	1.065	120	2007037.00	1.057
Isophorone	100	1153437.00	0.6486	120	1340373.00	0.6421
Naphthalene	100	1735776.00	0.9760	120	1995333.00	0.9559
Nitrobenzene	100	601469.000	0.3382	120	702336.000	0.3365
Phenanthrene	100	1839511.00	1.072	120	2090007.00	1.041
Pyrene	100	2054621.00	1.154	120	2343935.00	1.124
bis(2-Chloroethoxy)methane	100	768437.000	0.4321	120	845509.000	0.4051
bis(2-Chloroethyl)ether	100	426551.000	0.9484	120	497511.000	0.9440
bis(2-Chloroisopropyl)ether	100	706319.000	1.570	120	833715.000	1.582
bis(2-Ethylhexyl)phthalate	100	1303489.00	0.7324	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-02			WG316819-03			WG316819-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	228642.000	0.4943	120	718588.000	0.5201	100	404935.000	0.4919
2,4-Dichlorophenol	50.0	279713.000	0.3312	120	850058.000	0.3407	100	488613.000	0.3287
2-Nitrophenol	50.0	176840.000	0.2094	120	552886.000	0.2216	100	308052.000	0.2072
4-Chloro-3-Methylphenol	50.0	329780.000	0.3904	120	984268.000	0.3945	100	565196.000	0.3802
Acenaphthene	50.0	731459.000	1.582	120	2150429.00	1.557	100	1287440.00	1.564
Benzo[a]pyrene	50.0	1146896.00	1.217	120	3572181.00	1.242	100	1985655.00	1.219
Di-n-Octyl Phthalate	50.0	1651224.00	1.752	120	4783285.00	1.663	100	2771040.00	1.701
Fluoranthene	50.0	1442939.00	1.503	120	3816381.00	1.330	100	2381228.00	1.408
Hexachlorobutadiene	50.0	212189.000	0.2512	120	637907.000	0.2557	100	369177.000	0.2484
Pentachlorophenol	50.0	153007.000	0.1593	120	504932.000	0.1759	100	275559.000	0.1630
Phenol	50.0	403140.000	1.858	120	1205078.00	1.888	100	687305.000	1.807
2,4-Dinitrophenol	50.0	77839.0000	0.1683	120	310673.000	0.2249	100	164077.000	0.1993
4-Nitrophenol	50.0	202372.000	0.4375	120	597111.000	0.4322	100	339057.000	0.4119
Hexachlorocyclopentadiene	50.0	192309.000	0.4158	120	526639.000	0.3812	100	304951.000	0.3704
n-Nitrosodipropylamine	50.0	264892.000	1.221	120	750690.000	1.176	100	449584.000	1.182
1,4-Dioxane	50.0	124458.000	0.5737	120	331928.000	0.5201	100	202407.000	0.5322
2,4,5-Trichlorophenol	50.0	245584.000	0.5310	120	763019.000	0.5523	100	426052.000	0.5175
2,4-Dimethylphenol	50.0	309732.000	0.3667	120	992756.000	0.3979	100	560445.000	0.3770
2,4-Dinitrotoluene	50.0	249592.000	0.5396	120	797712.000	0.5774	100	448727.000	0.5451
2,6-Dinitrotoluene	50.0	179102.000	0.3872	120	559348.000	0.4049	100	315497.000	0.3832
2-Chloronaphthalene	50.0	757075.000	1.637	120	2306767.00	1.670	100	1330414.00	1.616
2-Chlorophenol	50.0	317530.000	1.464	120	944156.000	1.479	100	548902.000	1.443
2-Methylnaphthalene	50.0	674476.000	0.7985	120	2052831.00	0.8228	100	1180524.00	0.7942
2-Methylphenol	50.0	283899.000	1.309	120	832088.000	1.304	100	487110.000	1.281
2-Nitroaniline	50.0	252883.000	0.5468	120	716147.000	0.5184	100	423087.000	0.5139
3,3'-Dichlorobenzidine	50.0	425571.000	0.3681	120	1355695.00	0.3740	100	734679.000	0.3593
3-Nitroaniline	50.0	172417.000	0.3728	120	557628.000	0.4036	100	312378.000	0.3794
4,6-Dinitro-2-Methylphenol	50.0	122459.000	0.1275	120	432586.000	0.1507	100	225433.000	0.1333
4-Bromophenyl Phenyl Ether	50.0	255990.000	0.2666	120	794490.000	0.2768	100	450739.000	0.2666
4-Chloroaniline	50.0	407985.000	0.4830	120	1290031.00	0.5171	100	722557.000	0.4861
4-Chlorophenyl Phenyl Ether	50.0	470050.000	1.016	120	1410711.00	1.021	100	833188.000	1.012
4-Nitroaniline	50.0	205632.000	0.4446	120	643885.000	0.4661	100	358608.000	0.4356
Acenaphthylene	50.0	1116195.00	2.413	120	3205535.00	2.320	100	1929601.00	2.344
Anthracene	50.0	1229927.00	1.281	120	3443974.00	1.200	100	2112249.00	1.249
Benzo[a]anthracene	50.0	1426502.00	1.234	120	4252201.00	1.173	100	2459658.00	1.203
Benzo[b]fluoranthene	50.0	1453850.00	1.542	NA	NA	NA	100	2600740.00	1.597
Benzo[ghi]perylene	50.0	997756.000	1.059	120	2965479.00	1.031	100	1651319.00	1.014
Benzo[k]fluoranthene	50.0	1144748.00	1.214	120	3514443.00	1.222	100	1919358.00	1.178
Butyl Benzyl Phthalate	50.0	733582.000	0.6345	120	2069873.00	0.5711	100	1256320.00	0.6143
Carbazole	50.0	1152848.00	1.201	120	3324916.00	1.159	100	1987484.00	1.175
Chrysene	50.0	1361428.00	1.178	120	3983309.00	1.099	100	2342048.00	1.145
Di-n-Butyl Phthalate	50.0	1502041.00	1.564	120	3988657.00	1.390	100	2501365.00	1.479

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-02			WG316819-03			WG316819-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	1083936.00	1.150	120	3340290.00	1.162	100	1846383.00	1.134
Dibenzofuran	50.0	1017194.00	2.199	120	2990128.00	2.164	100	1786217.00	2.170
Diethylphthalate	50.0	844864.000	1.827	120	2448495.00	1.772	100	1433260.00	1.741
Dimethylphthalate	50.0	791203.000	1.711	120	2327495.00	1.685	100	1367958.00	1.662
Fluorene	50.0	894136.000	1.933	120	2512876.00	1.819	100	1519473.00	1.846
Hexachlorobenzene	50.0	229854.000	0.2394	120	704891.000	0.2456	100	398725.000	0.2358
Hexachloroethane	50.0	145362.000	0.6701	120	432862.000	0.6782	100	248680.000	0.6539
Indeno[1,2,3-cd]pyrene	50.0	1267646.00	1.345	120	3893166.00	1.354	100	2144497.00	1.317
Isophorone	50.0	716160.000	0.8479	120	2037252.00	0.8166	100	1210098.00	0.8141
Naphthalene	50.0	1005509.00	1.190	120	2966268.00	1.189	100	1733420.00	1.166
Nitrobenzene	50.0	387315.000	0.4585	120	1099468.00	0.4407	100	647632.000	0.4357
Phenanthrene	50.0	1218455.00	1.269	120	3426132.00	1.194	100	2076201.00	1.228
Pyrene	50.0	1560374.00	1.350	120	4026735.00	1.111	100	2585983.00	1.265
bis(2-Chloroethoxy)methane	50.0	561660.000	0.6650	120	1712010.00	0.6862	100	983900.000	0.6619
bis(2-Chloroethyl)ether	50.0	279725.000	1.290	120	788982.000	1.236	100	457488.000	1.203
bis(2-Chloroisopropyl)ether	50.0	546134.000	2.518	120	1444237.00	2.263	100	880767.000	2.316
bis(2-Ethylhexyl)phthalate	50.0	981930.000	0.8493	120	2881317.00	0.7950	100	1670481.00	0.8169

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-05			WG316819-06			WG316819-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	80.0	432022.000	0.4977	25.0	124480.000	0.4699	15.0	54569.0000	0.4578
2,4-Dichlorophenol	80.0	518357.000	0.3331	25.0	152094.000	0.3155	15.0	67312.0000	0.3078
2-Nitrophenol	80.0	329617.000	0.2118	25.0	97719.0000	0.2027	15.0	43391.0000	0.1984
4-Chloro-3-Methylphenol	80.0	603081.000	0.3875	25.0	180187.000	0.3738	15.0	80800.0000	0.3695
Acenaphthene	80.0	1374688.00	1.584	25.0	383261.000	1.447	15.0	162518.000	1.364
Benzo[a]pyrene	80.0	2155822.00	1.233	25.0	611178.000	1.167	15.0	270185.000	1.174
Di-n-Octyl Phthalate	80.0	2996309.00	1.714	25.0	866491.000	1.654	15.0	385960.000	1.678
Fluoranthene	80.0	2560145.00	1.438	25.0	762065.000	1.429	15.0	338242.000	1.403
Hexachlorobutadiene	80.0	392632.000	0.2523	25.0	118864.000	0.2466	15.0	54739.0000	0.2503
Pentachlorophenol	80.0	294958.000	0.1657	25.0	77044.0000	0.1445	15.0	30918.0000	0.1283
Phenol	80.0	726224.000	1.826	25.0	216442.000	1.733	15.0	100998.000	1.771
2,4-Dinitrophenol	80.0	193311.000	0.2227	25.0	37449.0000	0.1414	15.0	10197.0000	0.08560
4-Nitrophenol	80.0	369817.000	0.4260	25.0	104302.000	0.3938	15.0	43820.0000	0.3677
Hexachlorocyclopentadiene	80.0	332560.000	0.3831	25.0	89650.0000	0.3384	15.0	35936.0000	0.3015
n-Nitrosodipropylamine	80.0	473079.000	1.189	25.0	139127.000	1.114	15.0	64716.0000	1.135
1,4-Dioxane	80.0	213931.000	0.5378	25.0	69512.0000	0.5564	15.0	35359.0000	0.6201
2,4,5-Trichlorophenol	80.0	458283.000	0.5279	25.0	130243.000	0.4917	15.0	57365.0000	0.4813
2,4-Dimethylphenol	80.0	603817.000	0.3880	25.0	171659.000	0.3561	15.0	79975.0000	0.3658
2,4-Dinitrotoluene	80.0	486219.000	0.5601	25.0	132625.000	0.5007	15.0	58035.0000	0.4869
2,6-Dinitrotoluene	80.0	338956.000	0.3905	25.0	98502.0000	0.3719	15.0	42971.0000	0.3605
2-Chloronaphthalene	80.0	1421282.00	1.637	25.0	404726.000	1.528	15.0	181998.000	1.527
2-Chlorophenol	80.0	579505.000	1.457	25.0	176005.000	1.409	15.0	80440.0000	1.411
2-Methylnaphthalene	80.0	1269382.00	0.8157	25.0	363118.000	0.7532	15.0	161310.000	0.7377
2-Methylphenol	80.0	516325.000	1.298	25.0	153763.000	1.231	15.0	68447.0000	1.200
2-Nitroaniline	80.0	450063.000	0.5185	25.0	139413.000	0.5263	15.0	62956.0000	0.5282
3,3'-Dichlorobenzidine	80.0	810464.000	0.3733	25.0	225934.000	0.3563	15.0	91043.0000	0.3253
3-Nitroaniline	80.0	333206.000	0.3839	25.0	92310.0000	0.3485	15.0	37983.0000	0.3187
4,6-Dinitro-2-Methylphenol	80.0	262562.000	0.1475	25.0	63773.0000	0.1196	15.0	22586.0000	0.09370
4-Bromophenyl Phenyl Ether	80.0	485118.000	0.2725	25.0	135614.000	0.2543	15.0	60806.0000	0.2522
4-Chloroaniline	80.0	770840.000	0.4953	25.0	223280.000	0.4631	15.0	99262.0000	0.4540
4-Chlorophenyl Phenyl Ether	80.0	895112.000	1.031	25.0	243449.000	0.9191	15.0	109386.000	0.9178
4-Nitroaniline	80.0	385991.000	0.4447	25.0	110140.000	0.4158	15.0	45038.0000	0.3779
Acenaphthylene	80.0	2061066.00	2.374	25.0	598075.000	2.258	15.0	263724.000	2.213
Anthracene	80.0	2253760.00	1.266	25.0	665075.000	1.247	15.0	290623.000	1.206
Benzo[a]anthracene	80.0	2662226.00	1.226	25.0	751708.000	1.185	15.0	332148.000	1.187
Benzo[b]fluoranthene	80.0	2723962.00	1.558	25.0	764268.000	1.459	15.0	318992.000	1.387
Benzo[ghi]perylene	80.0	1790250.00	1.024	25.0	518452.000	0.9898	15.0	230712.000	1.003
Benzo[k]fluoranthene	80.0	2174751.00	1.244	25.0	609508.000	1.164	15.0	277719.000	1.207
Butyl Benzyl Phthalate	80.0	1343204.00	0.6187	25.0	386620.000	0.6096	15.0	171241.000	0.6119
Carbazole	80.0	2134803.00	1.199	25.0	608942.000	1.142	15.0	263809.000	1.094
Chrysene	80.0	2535081.00	1.168	25.0	720518.000	1.136	15.0	313213.000	1.119
Di-n-Butyl Phthalate	80.0	2668953.00	1.499	25.0	803401.000	1.507	15.0	361410.000	1.499

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS12
Initial Calibration Date: 08-NOV-09 23:08
Column ID: F

Analyte	WG316819-05			WG316819-06			WG316819-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	80.0	2005646.00	1.147	25.0	557595.000	1.065	15.0	239749.000	1.042
Dibenzofuran	80.0	1910646.00	2.201	25.0	540304.000	2.040	15.0	242558.000	2.035
Diethylphthalate	80.0	1536709.00	1.770	25.0	461140.000	1.741	15.0	207134.000	1.738
Dimethylphthalate	80.0	1459835.00	1.682	25.0	430945.000	1.627	15.0	192576.000	1.616
Fluorene	80.0	1623502.00	1.870	25.0	475071.000	1.794	15.0	205696.000	1.726
Hexachlorobenzene	80.0	425528.000	0.2390	25.0	119969.000	0.2250	15.0	54739.0000	0.2271
Hexachloroethane	80.0	267722.000	0.6730	25.0	80731.0000	0.6462	15.0	36912.0000	0.6473
Indeno[1,2,3-cd]pyrene	80.0	2329310.00	1.332	25.0	651736.000	1.244	15.0	286404.000	1.245
Isophorone	80.0	1284573.00	0.8255	25.0	391287.000	0.8116	15.0	181928.000	0.8320
Naphthalene	80.0	1848316.00	1.188	25.0	551156.000	1.143	15.0	248939.000	1.139
Nitrobenzene	80.0	684854.000	0.4401	25.0	215817.000	0.4477	15.0	99717.0000	0.4560
Phenanthrene	80.0	2223118.00	1.249	25.0	648713.000	1.217	15.0	285349.000	1.184
Pyrene	80.0	2748149.00	1.266	25.0	823384.000	1.298	15.0	362829.000	1.297
bis(2-Chloroethoxy)methane	80.0	1051172.00	0.6755	25.0	294576.000	0.6110	15.0	133539.000	0.6107
bis(2-Chloroethyl)ether	80.0	489334.000	1.230	25.0	153100.000	1.226	15.0	73281.0000	1.285
bis(2-Chloroisopropyl)ether	80.0	931206.000	2.341	25.0	308311.000	2.468	15.0	149251.000	2.617
bis(2-Ethylhexyl)phthalate	80.0	1796551.00	0.8276	25.0	510292.000	0.8046	15.0	228070.000	0.8150

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-08			WG316819-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	10.0	47325.0000	0.4425	3.00	8768.00000	0.4251
2,4-Dichlorophenol	10.0	59588.0000	0.3039	3.00	11486.0000	0.3018
2-Nitrophenol	10.0	38215.0000	0.1949	3.00	7029.00000	0.1847
4-Chloro-3-Methylphenol	10.0	72252.0000	0.3685	3.00	14577.0000	0.3830
Acenaphthene	10.0	145602.000	1.362	3.00	27823.0000	1.349
Benzo[a]pyrene	10.0	237439.000	1.143	3.00	44674.0000	1.142
Di-n-Octyl Phthalate	10.0	333533.000	1.605	3.00	61971.0000	1.584
Fluoranthene	10.0	295907.000	1.359	3.00	59598.0000	1.438
Hexachlorobutadiene	10.0	48800.0000	0.2489	3.00	9658.00000	0.2538
Pentachlorophenol	10.0	26051.0000	0.1196	NA	NA	NA
Phenol	10.0	88731.0000	1.745	3.00	17561.0000	1.747
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	10.0	32992.0000	0.3085	3.00	4354.00000	0.2111
n-Nitrosodipropylamine	10.0	56069.0000	1.103	3.00	11633.0000	1.157
1,4-Dioxane	10.0	29334.0000	0.5770	NA	NA	NA
2,4,5-Trichlorophenol	10.0	50710.0000	0.4742	3.00	9325.00000	0.4521
2,4-Dimethylphenol	10.0	70440.0000	0.3593	3.00	14130.0000	0.3713
2,4-Dinitrotoluene	10.0	51402.0000	0.4807	3.00	9202.00000	0.4462
2,6-Dinitrotoluene	10.0	38786.0000	0.3627	3.00	7697.00000	0.3732
2-Chloronaphthalene	10.0	162752.000	1.522	3.00	32370.0000	1.570
2-Chlorophenol	10.0	70343.0000	1.384	3.00	14387.0000	1.431
2-Methylnaphthalene	10.0	145876.000	0.7440	3.00	28685.0000	0.7538
2-Methylphenol	10.0	61150.0000	1.203	3.00	12208.0000	1.215
2-Nitroaniline	10.0	56890.0000	0.5320	NA	NA	NA
3,3'-Dichlorobenzidine	10.0	83274.0000	0.3309	3.00	15676.0000	0.3333
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	10.0	54462.0000	0.2501	3.00	10639.0000	0.2568
4-Chloroaniline	10.0	89351.0000	0.4557	3.00	17569.0000	0.4617
4-Chlorophenyl Phenyl Ether	10.0	96734.0000	0.9046	3.00	19180.0000	0.9300
4-Nitroaniline	NA	NA	NA	NA	NA	NA
Acenaphthylene	10.0	233192.000	2.181	3.00	46109.0000	2.236
Anthracene	10.0	257849.000	1.184	3.00	50359.0000	1.215
Benzo[a]anthracene	10.0	297168.000	1.181	3.00	58352.0000	1.241
Benzo[b]fluoranthene	10.0	279040.000	1.343	3.00	53175.0000	1.359
Benzo[ghi]perylene	10.0	205410.000	0.9884	3.00	38054.0000	0.9726
Benzo[k]fluoranthene	10.0	228276.000	1.098	3.00	48426.0000	1.238
Butyl Benzyl Phthalate	10.0	152763.000	0.6069	3.00	28618.0000	0.6085
Carbazole	10.0	233649.000	1.073	3.00	44815.0000	1.082
Chrysene	10.0	281825.000	1.120	3.00	54614.0000	1.161
Di-n-Butyl Phthalate	10.0	320243.000	1.471	3.00	63144.0000	1.524

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS12

Analytical Method: 8270C **Initial Calibration Date:** 08-NOV-09 23:08

Column ID: F

Analyte	WG316819-08			WG316819-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	10.0	216895.000	1.044	3.00	38189.0000	0.9761
Dibenzofuran	10.0	214419.000	2.005	3.00	43077.0000	2.089
Diethylphthalate	10.0	185333.000	1.733	3.00	37807.0000	1.833
Dimethylphthalate	10.0	173031.000	1.618	3.00	34774.0000	1.686
Fluorene	10.0	181537.000	1.698	3.00	34624.0000	1.679
Hexachlorobenzene	10.0	49674.0000	0.2281	3.00	9874.00000	0.2383
Hexachloroethane	10.0	32962.0000	0.6483	3.00	6554.00000	0.6521
Indeno[1,2,3-cd]pyrene	10.0	255863.000	1.231	3.00	45773.0000	1.170
Isophorone	10.0	160365.000	0.8179	3.00	32816.0000	0.8623
Naphthalene	10.0	221236.000	1.128	3.00	45496.0000	1.196
Nitrobenzene	10.0	89393.0000	0.4559	3.00	17875.0000	0.4697
Phenanthrene	10.0	256364.000	1.177	3.00	51342.0000	1.239
Pyrene	10.0	322281.000	1.281	3.00	63751.0000	1.356
bis(2-Chloroethoxy)methane	10.0	116703.000	0.5952	3.00	22813.0000	0.5995
bis(2-Chloroethyl)ether	10.0	63547.0000	1.250	3.00	13295.0000	1.323
bis(2-Chloroisopropyl)ether	10.0	130880.000	2.574	3.00	27360.0000	2.722
bis(2-Ethylhexyl)phthalate	10.0	203402.000	0.8081	3.00	38342.0000	0.8153

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01

Column ID: F

Analyte	WG316839-02			WG316839-03			WG316839-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	50.0	555683.000	0.4312	3.00	18227.0000	0.3897	10.0	64073.0000	0.4008
2,4-Dichlorophenol	50.0	780235.000	0.3254	3.00	27190.0000	0.3033	10.0	92416.0000	0.3025
2-Nitrophenol	50.0	551203.000	0.2299	3.00	17752.0000	0.1980	10.0	62206.0000	0.2036
4-Chloro-3-Methylphenol	50.0	788878.000	0.3290	3.00	28687.0000	0.3200	10.0	98482.0000	0.3223
Acenaphthene	50.0	1623889.00	1.260	3.00	69461.0000	1.485	10.0	225076.000	1.408
Benzo[a]pyrene	50.0	2335941.00	1.114	3.00	79023.0000	1.156	10.0	270640.000	1.127
Di-n-Octyl Phthalate	50.0	3488211.00	1.664	3.00	120565.000	1.764	10.0	443707.000	1.848
Fluoranthene	50.0	2656594.00	1.224	3.00	106696.000	1.363	10.0	354815.000	1.328
Hexachlorobutadiene	50.0	428277.000	0.1786	3.00	15991.0000	0.1784	10.0	53723.0000	0.1758
Pentachlorophenol	50.0	335227.000	0.1544	NA	NA	NA	10.0	22939.0000	0.08590
Phenol	50.0	1136610.00	1.673	3.00	41314.0000	1.677	10.0	140084.000	1.659
2,4-Dinitrophenol	50.0	164843.000	0.1279	NA	NA	NA	NA	NA	NA
4-Nitrophenol	50.0	307139.000	0.2383	NA	NA	NA	10.0	28995.0000	0.1814
Hexachlorocyclopentadiene	50.0	275542.000	0.2138	3.00	1709.00000	0.03650	10.0	16353.0000	0.1023
n-Nitrosodipropylamine	50.0	581366.000	0.8559	3.00	24718.0000	1.004	10.0	81437.0000	0.9646
1,4-Dioxane	50.0	395534.000	0.5823	NA	NA	NA	10.0	54474.0000	0.6452
2,4,5-Trichlorophenol	50.0	575017.000	0.4462	3.00	18756.0000	0.4010	10.0	67777.0000	0.4240
2,4-Dimethylphenol	50.0	916140.000	0.3821	3.00	35029.0000	0.3908	10.0	115563.000	0.3782
2,4-Dinitrotoluene	50.0	616534.000	0.4784	3.00	19519.0000	0.4173	10.0	72873.0000	0.4559
2,6-Dinitrotoluene	50.0	493815.000	0.3832	3.00	17361.0000	0.3712	10.0	60246.0000	0.3769
2-Chloronaphthalene	50.0	1877804.00	1.457	3.00	78589.0000	1.680	10.0	252973.000	1.583
2-Chlorophenol	50.0	1022076.00	1.505	3.00	37816.0000	1.535	10.0	126108.000	1.494
2-Methylnaphthalene	50.0	1824044.00	0.7607	3.00	76674.0000	0.8553	10.0	249574.000	0.8168
2-Methylphenol	50.0	760340.000	1.119	3.00	29607.0000	1.202	10.0	98486.0000	1.167
2-Nitroaniline	50.0	483419.000	0.3751	3.00	15074.0000	0.3223	10.0	56586.0000	0.3540
3,3'-Dichlorobenzidine	50.0	826893.000	0.3556	3.00	27997.0000	0.3639	10.0	90206.0000	0.3330
3-Nitroaniline	50.0	508256.000	0.3944	3.00	15400.0000	0.3292	10.0	53992.0000	0.3378
4,6-Dinitro-2-Methylphenol	50.0	281398.000	0.1296	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	50.0	497388.000	0.2291	3.00	18503.0000	0.2364	10.0	61949.0000	0.2319
4-Chloroaniline	50.0	1165949.00	0.4862	3.00	42354.0000	0.4725	10.0	144418.000	0.4726
4-Chlorophenyl Phenyl Ether	50.0	904057.000	0.7016	3.00	35250.0000	0.7536	10.0	118442.000	0.7410
4-Nitroaniline	50.0	501246.000	0.3890	NA	NA	NA	10.0	56127.0000	0.3511
Acenaphthylene	50.0	2529340.00	1.963	3.00	114420.000	2.446	10.0	373909.000	2.339
Anthracene	50.0	2618322.00	1.206	3.00	107880.000	1.378	10.0	362514.000	1.357
Benzo[a]anthracene	50.0	2611358.00	1.123	3.00	95123.0000	1.236	10.0	321007.000	1.185
Benzo[b]fluoranthene	50.0	2574743.00	1.228	3.00	98177.0000	1.436	10.0	305892.000	1.274
Benzo[ghi]perylene	50.0	1952468.00	0.9314	3.00	60160.0000	0.8801	10.0	215112.000	0.8957
Benzo[k]fluoranthene	50.0	2304407.00	1.099	3.00	82233.0000	1.203	10.0	270111.000	1.125
Butyl Benzyl Phthalate	50.0	1524440.00	0.6555	3.00	58316.0000	0.7580	10.0	203090.000	0.7497
Carbazole	50.0	2560213.00	1.179	3.00	99306.0000	1.269	10.0	328792.000	1.231
Chrysene	50.0	2503622.00	1.077	3.00	90948.0000	1.182	10.0	307416.000	1.135
Di-n-Butyl Phthalate	50.0	3215185.00	1.481	3.00	136685.000	1.746	10.0	464466.000	1.739

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Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte	WG316839-02			WG316839-03			WG316839-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	50.0	2105350.00	1.004	3.00	59384.0000	0.8688	10.0	220905.000	0.9199
Dibenzofuran	50.0	2205318.00	1.711	3.00	96113.0000	2.055	10.0	320012.000	2.002
Diethylphthalate	50.0	1914055.00	1.485	3.00	81194.0000	1.736	10.0	265625.000	1.662
Dimethylphthalate	50.0	1872643.00	1.453	3.00	78481.0000	1.678	10.0	255081.000	1.596
Fluorene	50.0	1885890.00	1.464	3.00	81575.0000	1.744	10.0	270373.000	1.691
Hexachlorobenzene	50.0	518463.000	0.2388	3.00	19579.0000	0.2501	10.0	64339.0000	0.2409
Hexachloroethane	50.0	406539.000	0.5985	3.00	15234.0000	0.6185	10.0	50427.0000	0.5973
Indeno[1,2,3-cd]pyrene	50.0	2450603.00	1.169	3.00	72209.0000	1.056	10.0	261307.000	1.088
Isophorone	50.0	1707701.00	0.7122	3.00	68522.0000	0.7644	10.0	228943.000	0.7493
Naphthalene	50.0	2722946.00	1.136	3.00	123513.000	1.378	10.0	399540.000	1.308
Nitrobenzene	50.0	919006.000	0.3833	3.00	35184.0000	0.3925	10.0	118446.000	0.3876
Phenanthrene	50.0	2596224.00	1.196	3.00	112240.000	1.434	10.0	364056.000	1.363
Pyrene	50.0	2810324.00	1.209	3.00	114636.000	1.490	10.0	380027.000	1.403
bis(2-Chloroethoxy)methane	50.0	1290665.00	0.5382	3.00	55358.0000	0.6175	10.0	181911.000	0.5953
bis(2-Chloroethyl)ether	50.0	683108.000	1.006	3.00	26967.0000	1.095	10.0	87925.0000	1.042
bis(2-Chloroisopropyl)ether	50.0	1248185.00	1.838	3.00	51941.0000	2.109	10.0	169902.000	2.012
bis(2-Ethylhexyl)phthalate	50.0	2169229.00	0.9328	3.00	81035.0000	1.053	10.0	280516.000	1.036

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INITIAL CALIBRATION DATA

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Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte	WG316839-05			WG316839-06			WG316839-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	15.0	151975.000	0.4187	25.0	154731.000	0.4079	80.0	476347.000	0.4081
2,4-Dichlorophenol	15.0	217110.000	0.3232	25.0	222285.000	0.3086	80.0	667022.000	0.2997
2-Nitrophenol	15.0	151027.000	0.2248	25.0	151852.000	0.2108	80.0	477991.000	0.2147
4-Chloro-3-Methylphenol	15.0	222913.000	0.3319	25.0	227006.000	0.3151	80.0	685529.000	0.3080
Acenaphthene	15.0	506896.000	1.397	25.0	516556.000	1.362	80.0	1442292.00	1.236
Benzo[a]pyrene	15.0	639198.000	1.109	25.0	652147.000	1.109	80.0	2019249.00	1.094
Di-n-Octyl Phthalate	15.0	1027972.00	1.783	25.0	1056859.00	1.797	80.0	3118870.00	1.689
Fluoranthene	15.0	820344.000	1.345	25.0	828069.000	1.288	80.0	2363724.00	1.192
Hexachlorobutadiene	15.0	122666.000	0.1826	25.0	125272.000	0.1739	80.0	372205.000	0.1672
Pentachlorophenol	15.0	73065.0000	0.1198	25.0	77779.0000	0.1210	80.0	283607.000	0.1430
Phenol	15.0	323255.000	1.706	25.0	324126.000	1.655	80.0	975655.000	1.606
2,4-Dinitrophenol	15.0	24021.0000	0.06620	25.0	26032.0000	0.06860	80.0	135215.000	0.1158
4-Nitrophenol	15.0	80871.0000	0.2228	25.0	76866.0000	0.2026	80.0	271895.000	0.2329
Hexachlorocyclopentadiene	15.0	58217.0000	0.1604	25.0	56038.0000	0.1477	80.0	216488.000	0.1855
n-Nitrosodipropylamine	15.0	185480.000	0.9789	25.0	186041.000	0.9497	80.0	519694.000	0.8553
1,4-Dioxane	15.0	115245.000	0.6082	25.0	113305.000	0.5784	80.0	337009.000	0.5546
2,4,5-Trichlorophenol	15.0	161025.000	0.4436	25.0	163457.000	0.4309	80.0	493318.000	0.4226
2,4-Dimethylphenol	15.0	270508.000	0.4027	25.0	279041.000	0.3873	80.0	791064.000	0.3554
2,4-Dinitrotoluene	15.0	178554.000	0.4919	25.0	179050.000	0.4720	80.0	540358.000	0.4629
2,6-Dinitrotoluene	15.0	140368.000	0.3867	25.0	141351.000	0.3726	80.0	426403.000	0.3653
2-Chloronaphthalene	15.0	583558.000	1.608	25.0	580189.000	1.530	80.0	1642273.00	1.407
2-Chlorophenol	15.0	288857.000	1.525	25.0	289569.000	1.478	80.0	880255.000	1.449
2-Methylnaphthalene	15.0	563789.000	0.8393	25.0	570836.000	0.7924	80.0	1604286.00	0.7207
2-Methylphenol	15.0	220200.000	1.162	25.0	224816.000	1.148	80.0	659293.000	1.085
2-Nitroaniline	15.0	134602.000	0.3708	25.0	136890.000	0.3609	80.0	420131.000	0.3599
3,3'-Dichlorobenzidine	15.0	213906.000	0.3361	25.0	218703.000	0.3288	80.0	706730.000	0.3361
3-Nitroaniline	15.0	127558.000	0.3514	25.0	126772.000	0.3342	80.0	432587.000	0.3706
4,6-Dinitro-2-Methylphenol	15.0	57824.0000	0.09480	25.0	58897.0000	0.09160	80.0	226472.000	0.1142
4-Bromophenyl Phenyl Ether	15.0	145496.000	0.2385	25.0	147503.000	0.2295	80.0	431915.000	0.2178
4-Chloroaniline	15.0	344560.000	0.5129	25.0	341230.000	0.4737	80.0	1017156.00	0.4570
4-Chlorophenyl Phenyl Ether	15.0	269664.000	0.7430	25.0	272993.000	0.7197	80.0	792561.000	0.6790
4-Nitroaniline	15.0	137141.000	0.3778	25.0	137160.000	0.3616	80.0	430036.000	0.3684
Acenaphthylene	15.0	843985.000	2.325	25.0	852935.000	2.249	80.0	2248146.00	1.926
Anthracene	15.0	825122.000	1.353	25.0	838652.000	1.305	80.0	2326785.00	1.173
Benzo[a]anthracene	15.0	745067.000	1.171	25.0	751601.000	1.130	80.0	2273026.00	1.081
Benzo[b]fluoranthene	15.0	743485.000	1.290	25.0	790003.000	1.343	80.0	2253309.00	1.221
Benzo[ghi]perylene	15.0	521891.000	0.9054	25.0	519166.000	0.8826	80.0	1642173.00	0.8895
Benzo[k]fluoranthene	15.0	685977.000	1.190	25.0	657709.000	1.118	80.0	2016021.00	1.092
Butyl Benzyl Phthalate	15.0	464217.000	0.7295	25.0	472895.000	0.7110	80.0	1370313.00	0.6517
Carbazole	15.0	775400.000	1.271	25.0	782959.000	1.218	80.0	2273465.00	1.146
Chrysene	15.0	707452.000	1.112	25.0	719260.000	1.081	80.0	2175417.00	1.035
Di-n-Butyl Phthalate	15.0	1053590.00	1.727	25.0	1078586.00	1.678	80.0	2916750.00	1.471

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS4
Initial Calibration Date: 09-NOV-09 16:01
Column ID: F

Analyte	WG316839-05			WG316839-06			WG316839-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	15.0	543507.000	0.9429	25.0	542135.000	0.9216	80.0	1781331.00	0.9649
Dibenzofuran	15.0	718963.000	1.981	25.0	726359.000	1.915	80.0	1966089.00	1.684
Diethylphthalate	15.0	599679.000	1.652	25.0	609666.000	1.607	80.0	1693511.00	1.451
Dimethylphthalate	15.0	575393.000	1.585	25.0	585934.000	1.545	80.0	1650851.00	1.414
Fluorene	15.0	609121.000	1.678	25.0	614366.000	1.620	80.0	1664390.00	1.426
Hexachlorobenzene	15.0	148016.000	0.2427	25.0	150632.000	0.2343	80.0	447986.000	0.2259
Hexachloroethane	15.0	115453.000	0.6093	25.0	118063.000	0.6027	80.0	352999.000	0.5809
Indeno[1,2,3-cd]pyrene	15.0	639023.000	1.109	25.0	644408.000	1.096	80.0	2074664.00	1.124
Isophorone	15.0	517852.000	0.7709	25.0	523930.000	0.7273	80.0	1508819.00	0.6779
Naphthalene	15.0	888617.000	1.323	25.0	896204.000	1.244	80.0	2417913.00	1.086
Nitrobenzene	15.0	270516.000	0.4027	25.0	272497.000	0.3783	80.0	799157.000	0.3590
Phenanthrene	15.0	824086.000	1.351	25.0	831046.000	1.293	80.0	2309214.00	1.165
Pyrene	15.0	862955.000	1.356	25.0	872339.000	1.312	80.0	2506163.00	1.192
bis(2-Chloroethoxy)methane	15.0	405970.000	0.6044	25.0	410010.000	0.5691	80.0	1147467.00	0.5155
bis(2-Chloroethyl)ether	15.0	200515.000	1.058	25.0	202933.000	1.036	80.0	597408.000	0.9832
bis(2-Chloroisopropyl)ether	15.0	376186.000	1.985	25.0	381979.000	1.950	80.0	1095375.00	1.803
bis(2-Ethylhexyl)phthalate	15.0	641162.000	1.008	25.0	663034.000	0.9968	80.0	1941758.00	0.9235

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01

Column ID: F

Analyte	WG316839-08			WG316839-09		
	CONC	RESP	RF	CONC	RESP	RF
2,4,6-Trichlorophenol	100	876032.000	0.3908	120	981421.000	0.3876
2,4-Dichlorophenol	100	1217368.00	0.2883	120	1357089.00	0.2834
2-Nitrophenol	100	898246.000	0.2127	120	1021417.00	0.2133
4-Chloro-3-Methylphenol	100	1248070.00	0.2956	120	1393570.00	0.2911
Acenaphthene	100	2360714.00	1.053	NA	NA	NA
Benzo[a]pyrene	100	3784902.00	1.052	120	4271578.00	1.050
Di-n-Octyl Phthalate	100	5180828.00	1.441	120	5726567.00	1.408
Fluoranthene	100	3970892.00	1.053	120	4367462.00	1.042
Hexachlorobutadiene	100	653704.000	0.1548	120	716671.000	0.1497
Pentachlorophenol	100	551868.000	0.1464	120	627620.000	0.1497
Phenol	100	1791367.00	1.533	120	2002100.00	1.522
2,4-Dinitrophenol	100	304619.000	0.1359	120	390791.000	0.1544
4-Nitrophenol	100	586044.000	0.2615	120	686113.000	0.2710
Hexachlorocyclopentadiene	100	378163.000	0.1687	120	393009.000	0.1552
n-Nitrosodipropylamine	100	811622.000	0.6946	NA	NA	NA
1,4-Dioxane	100	642049.000	0.5495	120	738512.000	0.5616
2,4,5-Trichlorophenol	100	882194.000	0.3936	120	957088.000	0.3780
2,4-Dimethylphenol	100	1480022.00	0.3505	120	1647766.00	0.3441
2,4-Dinitrotoluene	100	884701.000	0.3947	120	947266.000	0.3742
2,6-Dinitrotoluene	100	787047.000	0.3511	120	879937.000	0.3476
2-Chloronaphthalene	100	2793552.00	1.246	120	3010243.00	1.189
2-Chlorophenol	100	1651467.00	1.413	120	1861922.00	1.416
2-Methylnaphthalene	100	2661770.00	0.6304	120	2877504.00	0.6010
2-Methylphenol	100	1200345.00	1.027	120	1350460.00	1.027
2-Nitroaniline	100	779627.000	0.3478	120	874811.000	0.3455
3,3'-Dichlorobenzidine	100	1336184.00	0.3311	120	1522593.00	0.3350
3-Nitroaniline	100	844916.000	0.3770	120	967375.000	0.3821
4,6-Dinitro-2-Methylphenol	100	441301.000	0.1171	120	512809.000	0.1223
4-Bromophenyl Phenyl Ether	100	766558.000	0.2034	120	848758.000	0.2024
4-Chloroaniline	100	1869789.00	0.4428	120	2037572.00	0.4256
4-Chlorophenyl Phenyl Ether	100	1284746.00	0.5732	120	1343383.00	0.5306
4-Nitroaniline	100	812454.000	0.3625	120	914584.000	0.3612
Acenaphthylene	100	3475211.00	1.550	NA	NA	NA
Anthracene	100	3772927.00	1.001	120	4074898.00	0.9717
Benzo[a]anthracene	100	4076526.00	1.010	120	4537296.00	0.9981
Benzo[b]fluoranthene	100	4117913.00	1.145	NA	NA	NA
Benzo[ghi]perylene	100	3111026.00	0.8650	120	3501913.00	0.8607
Benzo[k]fluoranthene	100	4146906.00	1.153	NA	NA	NA
Butyl Benzyl Phthalate	100	2187923.00	0.5422	120	2359776.00	0.5191
Carbazole	100	3779412.00	1.003	120	4142922.00	0.9879
Chrysene	100	3834073.00	0.9502	120	4261243.00	0.9374
Di-n-Butyl Phthalate	100	4487323.00	1.190	NA	NA	NA

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Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771 **Instrument ID:** HPMS4

Analytical Method: 8270C **Initial Calibration Date:** 09-NOV-09 16:01

Column ID: F

Analyte	WG316839-08			WG316839-09		
	CONC	RESP	RF	CONC	RESP	RF
Dibenz[ah]anthracene	100	3416419.00	0.9499	120	3843735.00	0.9447
Dibenzofuran	100	2948227.00	1.315	NA	NA	NA
Diethylphthalate	100	2766240.00	1.234	120	3023787.00	1.194
Dimethylphthalate	100	2807132.00	1.252	120	3101577.00	1.225
Fluorene	100	2711934.00	1.210	NA	NA	NA
Hexachlorobenzene	100	810759.000	0.2151	120	898946.000	0.2144
Hexachloroethane	100	648112.000	0.5547	120	730030.000	0.5551
Indeno[1,2,3-cd]pyrene	100	3960956.00	1.101	120	4473542.00	1.100
Isophorone	100	2612712.00	0.6188	120	2910556.00	0.6079
Naphthalene	100	3867729.00	0.9160	NA	NA	NA
Nitrobenzene	100	1436653.00	0.3402	120	1592324.00	0.3326
Phenanthrene	100	3778438.00	1.002	120	4118600.00	0.9821
Pyrene	100	4226664.00	1.048	120	4634086.00	1.019
bis(2-Chloroethoxy)methane	100	1740590.00	0.4122	NA	NA	NA
bis(2-Chloroethyl)ether	100	1039977.00	0.8901	120	1141384.00	0.8679
bis(2-Chloroisopropyl)ether	100	1900811.00	1.627	120	2123443.00	1.615
bis(2-Ethylhexyl)phthalate	100	3246820.00	0.8046	NA	NA	NA

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 10/31/2009 Sample ID: WG315933-10
Instrument ID: HPMS12 Run Time: 19:32 Method: 8270C
File ID: 12M27674 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	44400	ug/L	0.442	11.2	25	
2,4-Dichlorophenol	CCC	50000	44000	ug/L	0.290	11.9	25	
2-Nitrophenol	CCC	50000	50500	ug/L	0.201	1.00	25	
4-Chloro-3-Methylphenol	CCC	50000	45300	ug/L	0.375	9.50	25	
Acenaphthene	CCC	50000	45400	ug/L	1.60	9.30	25	
Benzo[a]pyrene	CCC	50000	47800	ug/L	1.09	4.40	25	
Di-n-Octyl Phthalate	CCC	50000	48400	ug/L	1.60	3.20	25	
Fluoranthene	CCC	50000	50200	ug/L	1.47	0.400	25	
Hexachlorobutadiene	CCC	50000	49100	ug/L	0.282	1.80	25	
n-Nitrosodiphenylamine	CCC	50000	47900	ug/L	0.727	4.20	25	
Pentachlorophenol	CCC	50000	52500	ug/L	0.196	5.00	25	
Phenol	CCC	50000	42100	ug/L	1.48	15.8	25	
2,4-Dinitrophenol	SPCC	50000	56100	ug/L	0.244	12.1	25	
4-Nitrophenol	SPCC	50000	45400	ug/L	0.464	9.10	25	
Hexachlorocyclopentadiene	SPCC	50000	45400	ug/L	0.419	9.10	25	
n-Nitrosodipropylamine	SPCC	50000	37900	ug/L	0.983	24.3	25	
2,4,5-Trichlorophenol		50000	45900	ug/L	0.478	8.20	25	
2,4-Dimethylphenol		50000	46900	ug/L	0.337	6.30	25	
2,4-Dinitrotoluene		50000	43700	ug/L	0.535	12.5	25	
2,6-Dinitrotoluene		50000	45000	ug/L	0.336	9.90	25	
2-Chloronaphthalene		50000	39300	ug/L	1.29	21.4	25	
2-Chlorophenol		50000	42900	ug/L	1.18	14.2	25	
2-Methylnaphthalene		50000	48700	ug/L	0.775	2.50	25	
2-Methylphenol		50000	50900	ug/L	1.26	1.90	25	
2-Nitroaniline		50000	44700	ug/L	0.574	10.6	25	
3,3'-Dichlorobenzidine		50000	30900	ug/L	0.219	38.2	25	*
3-,4-Methylphenol		50000	43900	ug/L	1.35	12.3	25	
3-Nitroaniline		50000	43100	ug/L	0.300	13.9	25	
4,6-Dinitro-2-Methylphenol		50000	53100	ug/L	0.134	6.20	25	
4-Chloroaniline		50000	43200	ug/L	0.414	13.7	25	
4-Chlorophenyl Phenyl Ether		50000	36600	ug/L	0.854	26.7	25	*
4-Nitroaniline		50000	36700	ug/L	0.320	26.6	25	*
Acenaphthylene		50000	47500	ug/L	2.20	5.00	25	
Anthracene		50000	50200	ug/L	1.25	0.400	25	
Benzo[a]anthracene		50000	48100	ug/L	1.09	3.80	25	
Benzo[b]fluoranthene		50000	40600	ug/L	1.18	18.8	25	
Benzo[ghi]perylene		50000	46500	ug/L	0.951	7.10	25	
Benzo[k]fluoranthene		50000	49800	ug/L	1.13	0.300	25	
bis(2-Chloroethoxy)methane		50000	30300	ug/L	0.427	39.5	25	*
bis(2-Chloroethyl)ether		50000	41300	ug/L	1.19	17.4	25	
bis(2-Chloroisopropyl)ether		50000	42700	ug/L	2.51	14.6	25	
bis(2-Ethylhexyl)phthalate		50000	47200	ug/L	0.776	5.50	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 10/31/2009 Sample ID: WG315933-10
Instrument ID: HPMS12 Run Time: 19:32 Method: 8270C
File ID: 12M27674 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	48500	ug/L	0.607	3.00	25	
Carbazole		50000	43900	ug/L	0.993	12.1	25	
Chrysene		50000	49100	ug/L	1.06	1.80	25	
Dibenz[ah]anthracene		50000	48300	ug/L	1.10	3.40	25	
Dibenzofuran		50000	47900	ug/L	2.16	4.10	25	
Diethylphthalate		50000	42200	ug/L	1.65	15.6	25	
Dimethylphthalate		50000	42400	ug/L	1.47	15.2	25	
Di-n-Butyl Phthalate		50000	44600	ug/L	1.42	10.9	25	
Fluorene		50000	45700	ug/L	1.77	8.60	25	
Hexachlorobenzene		50000	47100	ug/L	0.262	5.90	25	
Hexachloroethane		50000	44200	ug/L	0.622	11.6	25	
Indeno[1,2,3-cd]pyrene		50000	47400	ug/L	1.28	5.30	25	
Isophorone		50000	44600	ug/L	0.828	10.8	25	
Naphthalene		50000	47200	ug/L	1.10	5.60	25	
Nitrobenzene		50000	43300	ug/L	0.449	13.5	25	
Phenanthrene		50000	48300	ug/L	1.21	3.40	25	
Pyrene		50000	46000	ug/L	1.13	8.10	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 10/31/2009 Sample ID: WG315933-11
Instrument ID: HPMS12 Run Time: 20:06 Method: 8270C
File ID: 12M27675 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	48800	ug/L	0.346	2.50	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1542131
Report generated 11/17/2009 08:55

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 10/31/2009 Sample ID: WG315933-12
Instrument ID: HPMS12 Run Time: 20:40 Method: 8270C
File ID: 12M27676 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG315933 Cal ID: HPMS12 - 31-OCT-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	46200	ug/L	0.535	7.70	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1542131
Report generated 11/17/2009 08:55

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/03/2009 Sample ID: WG316255-10
Instrument ID: HPMS4 Run Time: 15:50 Method: 8270C
File ID: 4M48793 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	49600	ug/L	0.407	0.800	25	
2,4-Dichlorophenol	CCC	50000	48000	ug/L	0.294	4.00	25	
2-Nitrophenol	CCC	50000	57200	ug/L	0.237	14.4	25	
4-Chloro-3-Methylphenol	CCC	50000	48500	ug/L	0.305	3.00	25	
Acenaphthene	CCC	50000	46700	ug/L	1.30	6.60	25	
Benzo[a]pyrene	CCC	50000	47400	ug/L	1.05	5.20	25	
Di-n-Octyl Phthalate	CCC	50000	47000	ug/L	1.62	6.00	25	
Fluoranthene	CCC	50000	48000	ug/L	1.26	4.00	25	
Hexachlorobutadiene	CCC	50000	49500	ug/L	0.160	1.10	25	
n-Nitrosodiphenylamine	CCC	50000	45800	ug/L	0.698	8.50	25	
Pentachlorophenol	CCC	50000	62800	ug/L	0.161	25.6	25	*
Phenol	CCC	50000	47800	ug/L	1.61	4.40	25	
2,4-Dinitrophenol	SPCC	50000	61100	ug/L	0.156	22.1	25	
4-Nitrophenol	SPCC	50000	50000	ug/L	0.226	0.100	25	
Hexachlorocyclopentadiene	SPCC	50000	62100	ug/L	0.269	24.3	25	
n-Nitrosodipropylamine	SPCC	50000	49000	ug/L	0.926	2.00	25	
2,4,5-Trichlorophenol		50000	50900	ug/L	0.428	1.80	25	
2,4-Dimethylphenol		50000	47200	ug/L	0.339	5.60	25	
2,4-Dinitrotoluene		50000	52200	ug/L	0.491	4.50	25	
2,6-Dinitrotoluene		50000	50000	ug/L	0.380	0	25	
2-Chloronaphthalene		50000	41300	ug/L	1.25	17.4	25	
2-Chlorophenol		50000	45500	ug/L	1.38	9.10	25	
2-Methylnaphthalene		50000	46700	ug/L	0.718	6.50	25	
2-Methylphenol		50000	48200	ug/L	1.10	3.60	25	
2-Nitroaniline		50000	54100	ug/L	0.392	8.10	25	
3,3'-Dichlorobenzidine		50000	27100	ug/L	0.165	45.9	25	*
3-,4-Methylphenol		50000	46300	ug/L	1.38	7.30	25	
3-Nitroaniline		50000	47000	ug/L	0.340	6.00	25	
4,6-Dinitro-2-Methylphenol		50000	57600	ug/L	0.137	15.3	25	
4-Chloroaniline		50000	45300	ug/L	0.550	9.40	25	
4-Chlorophenyl Phenyl Ether		50000	45200	ug/L	0.660	9.50	25	
4-Nitroaniline		50000	45800	ug/L	0.323	8.50	25	
Acenaphthylene		50000	44600	ug/L	1.96	10.8	25	
Anthracene		50000	47600	ug/L	1.23	4.70	25	
Benzo[a]anthracene		50000	47200	ug/L	1.08	5.60	25	
Benzo[b]fluoranthene		50000	45500	ug/L	1.09	9.10	25	
Benzo[ghi]perylene		50000	47800	ug/L	0.908	4.40	25	
Benzo[k]fluoranthene		50000	45000	ug/L	0.998	9.90	25	
bis(2-Chloroethoxy)methane		50000	39300	ug/L	0.407	21.4	25	
bis(2-Chloroethyl)ether		50000	46000	ug/L	0.922	8.10	25	
bis(2-Chloroisopropyl)ether		50000	47700	ug/L	1.53	4.70	25	
bis(2-Ethylhexyl)phthalate		50000	45100	ug/L	0.852	9.70	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/03/2009 Sample ID: WG316255-10
Instrument ID: HPMS4 Run Time: 15:50 Method: 8270C
File ID: 4M48793 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	51600	ug/L	0.638	3.20	25	
Carbazole		50000	44600	ug/L	1.06	10.9	25	
Chrysene		50000	46800	ug/L	1.03	6.50	25	
Dibenz[ah]anthracene		50000	46800	ug/L	0.884	6.40	25	
Dibenzofuran		50000	46300	ug/L	1.78	7.40	25	
Diethylphthalate		50000	45200	ug/L	1.38	9.50	25	
Dimethylphthalate		50000	45800	ug/L	1.41	8.50	25	
Di-n-Butyl Phthalate		50000	44700	ug/L	1.37	10.6	25	
Fluorene		50000	46500	ug/L	1.49	6.90	25	
Hexachlorobenzene		50000	48300	ug/L	0.201	3.30	25	
Hexachloroethane		50000	46200	ug/L	0.544	7.60	25	
Indeno[1,2,3-cd]pyrene		50000	47000	ug/L	1.06	6.00	25	
Isophorone		50000	47400	ug/L	0.683	5.20	25	
Naphthalene		50000	45200	ug/L	1.04	9.70	25	
Nitrobenzene		50000	48800	ug/L	0.360	2.40	25	
Phenanthrene		50000	46000	ug/L	1.18	8.10	25	
Pyrene		50000	45500	ug/L	1.26	8.90	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/03/2009 Sample ID: WG316255-11
Instrument ID: HPMS4 Run Time: 16:28 Method: 8270C
File ID: 4M48794 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	56200	ug/L	0.342	12.4	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/03/2009 Sample ID: WG316255-12
Instrument ID: HPMS4 Run Time: 17:06 Method: 8270C
File ID: 4M48795 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316255 Cal ID: HPMS4 - 03-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	44700	ug/L	0.479	10.6	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/08/2009 Sample ID: WG316819-10
Instrument ID: HPMS12 Run Time: 23:40 Method: 8270C
File ID: 12M27911 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	47000	ug/L	0.447	5.90	25	
2,4-Dichlorophenol	CCC	50000	45500	ug/L	0.292	9.00	25	
2-Nitrophenol	CCC	50000	47900	ug/L	0.195	4.30	25	
4-Chloro-3-Methylphenol	CCC	50000	46100	ug/L	0.351	7.80	25	
Acenaphthene	CCC	50000	48400	ug/L	1.43	3.20	25	
Benzo[a]pyrene	CCC	50000	48100	ug/L	1.15	3.80	25	
Di-n-Octyl Phthalate	CCC	50000	48200	ug/L	1.61	3.70	25	
Fluoranthene	CCC	50000	48400	ug/L	1.37	3.20	25	
Hexachlorobutadiene	CCC	50000	49900	ug/L	0.250	0.200	25	
n-Nitrosodiphenylamine	CCC	50000	47800	ug/L	0.714	4.40	25	
Pentachlorophenol	CCC	50000	59600	ug/L	0.180	19.3	25	
Phenol	CCC	50000	43100	ug/L	1.55	13.9	25	
2,4-Dinitrophenol	SPCC	50000	55000	ug/L	0.205	10.0	25	
4-Nitrophenol	SPCC	50000	43000	ug/L	0.354	14.0	25	
Hexachlorocyclopentadiene	SPCC	50000	49800	ug/L	0.373	0.400	25	
n-Nitrosodipropylamine	SPCC	50000	39400	ug/L	0.915	21.1	25	
2,4,5-Trichlorophenol		50000	47100	ug/L	0.474	5.90	25	
2,4-Dimethylphenol		50000	47300	ug/L	0.353	5.30	25	
2,4-Dinitrotoluene		50000	49000	ug/L	0.507	2.00	25	
2,6-Dinitrotoluene		50000	45400	ug/L	0.345	9.10	25	
2-Chloronaphthalene		50000	40100	ug/L	1.27	19.8	25	
2-Chlorophenol		50000	43600	ug/L	1.25	12.7	25	
2-Methylnaphthalene		50000	48400	ug/L	0.753	3.20	25	
2-Methylphenol		50000	50100	ug/L	1.26	0.200	25	
2-Nitroaniline		50000	45700	ug/L	0.481	8.60	25	
3,3'-Dichlorobenzidine		50000	26200	ug/L	0.185	47.5	25	*
3-,4-Methylphenol		50000	43700	ug/L	1.38	12.6	25	
3-Nitroaniline		50000	45700	ug/L	0.336	8.60	25	
4,6-Dinitro-2-Methylphenol		50000	52000	ug/L	0.140	4.00	25	
4-Chloroaniline		50000	46600	ug/L	0.445	6.80	25	
4-Chlorophenyl Phenyl Ether		50000	42800	ug/L	0.830	14.3	25	
4-Nitroaniline		50000	43700	ug/L	0.376	12.7	25	
Acenaphthylene		50000	47000	ug/L	2.16	5.90	25	
Anthracene		50000	48700	ug/L	1.20	2.60	25	
Benzo[a]anthracene		50000	47500	ug/L	1.14	4.90	25	
Benzo[b]fluoranthene		50000	43800	ug/L	1.28	12.4	25	
Benzo[ghi]perylene		50000	47300	ug/L	0.955	5.40	25	
Benzo[k]fluoranthene		50000	48400	ug/L	1.16	3.20	25	
bis(2-Chloroethoxy)methane		50000	31700	ug/L	0.405	36.6	25	*
bis(2-Chloroethyl)ether		50000	39300	ug/L	0.988	21.3	25	
bis(2-Chloroisopropyl)ether		50000	40500	ug/L	2.00	19.1	25	
bis(2-Ethylhexyl)phthalate		50000	46900	ug/L	0.767	6.10	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/08/2009 Sample ID: WG316819-10
Instrument ID: HPMS12 Run Time: 23:40 Method: 8270C
File ID: 12M27911 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	48100	ug/L	0.587	3.80	25	
Carbazole		50000	42700	ug/L	0.975	14.6	25	
Chrysene		50000	48100	ug/L	1.10	3.90	25	
Dibenz[ah]anthracene		50000	48400	ug/L	1.06	3.20	25	
Dibenzofuran		50000	47100	ug/L	1.99	5.90	25	
Diethylphthalate		50000	42100	ug/L	1.49	15.8	25	
Dimethylphthalate		50000	42800	ug/L	1.42	14.5	25	
Di-n-Butyl Phthalate		50000	44300	ug/L	1.32	11.4	25	
Fluorene		50000	46000	ug/L	1.65	8.10	25	
Hexachlorobenzene		50000	48100	ug/L	0.226	3.80	25	
Hexachloroethane		50000	45100	ug/L	0.595	9.70	25	
Indeno[1,2,3-cd]pyrene		50000	47700	ug/L	1.22	4.50	25	
Isophorone		50000	44600	ug/L	0.739	10.9	25	
Naphthalene		50000	46600	ug/L	1.09	6.90	25	
Nitrobenzene		50000	43900	ug/L	0.395	12.3	25	
Phenanthrene		50000	47400	ug/L	1.16	5.10	25	
Pyrene		50000	45600	ug/L	1.17	8.70	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316819-11
Instrument ID: HPMS12 Run Time: 00:13 Method: 8270C
File ID: 12M27912 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	51600	ug/L	0.364	3.30	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316819-12
Instrument ID: HPMS12 Run Time: 00:46 Method: 8270C
File ID: 12M27913 Analyst: MDC QC Key: DOWWV2006
ICal Workgroup: WG316819 Cal ID: HPMS12 - 08-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	44200	ug/L	0.495	11.6	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316839-10
Instrument ID: HPMS4 Run Time: 16:37 Method: 8270C
File ID: 4M48943 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	47600	ug/L	0.385	4.70	25	
2,4-Dichlorophenol	CCC	50000	48900	ug/L	0.298	2.20	25	
2-Nitrophenol	CCC	50000	54200	ug/L	0.232	8.40	25	
4-Chloro-3-Methylphenol	CCC	50000	50200	ug/L	0.315	0.400	25	
Acenaphthene	CCC	50000	41100	ug/L	1.08	17.8	25	
Benzo[a]pyrene	CCC	50000	47800	ug/L	1.05	4.40	25	
Di-n-Octyl Phthalate	CCC	50000	46300	ug/L	1.55	7.30	25	
Fluoranthene	CCC	50000	48200	ug/L	1.18	3.70	25	
Hexachlorobutadiene	CCC	50000	50300	ug/L	0.171	0.700	25	
n-Nitrosodiphenylamine	CCC	50000	46000	ug/L	0.708	8.00	25	
Pentachlorophenol	CCC	50000	58700	ug/L	0.169	17.5	25	
Phenol	CCC	50000	47200	ug/L	1.54	5.60	25	
2,4-Dinitrophenol	SPCC	50000	63200	ug/L	0.144	26.4	25	*
4-Nitrophenol	SPCC	50000	42600	ug/L	0.196	14.8	25	
Hexachlorocyclopentadiene	SPCC	50000	51800	ug/L	0.206	3.70	25	
n-Nitrosodipropylamine	SPCC	50000	47700	ug/L	0.859	4.50	25	
2,4,5-Trichlorophenol		50000	49500	ug/L	0.413	1.00	25	
2,4-Dimethylphenol		50000	47900	ug/L	0.358	4.30	25	
2,4-Dinitrotoluene		50000	49900	ug/L	0.442	0.200	25	
2,6-Dinitrotoluene		50000	48400	ug/L	0.358	3.10	25	
2-Chloronaphthalene		50000	39400	ug/L	1.15	21.2	25	
2-Chlorophenol		50000	46200	ug/L	1.36	7.60	25	
2-Methylnaphthalene		50000	47300	ug/L	0.711	5.40	25	
2-Methylphenol		50000	44900	ug/L	1.00	10.2	25	
2-Nitroaniline		50000	51900	ug/L	0.368	3.70	25	
3,3'-Dichlorobenzidine		50000	33800	ug/L	0.230	32.5	25	*
3-,4-Methylphenol		50000	46500	ug/L	1.33	7.00	25	
3-Nitroaniline		50000	48100	ug/L	0.346	3.90	25	
4,6-Dinitro-2-Methylphenol		50000	63500	ug/L	0.142	27.1	25	*
4-Chloroaniline		50000	49500	ug/L	0.464	0.900	25	
4-Chlorophenyl Phenyl Ether		50000	43300	ug/L	0.589	13.4	25	
4-Nitroaniline		50000	44500	ug/L	0.327	11.1	25	
Acenaphthylene		50000	41300	ug/L	1.74	17.5	25	
Anthracene		50000	47200	ug/L	1.15	5.70	25	
Benzo[a]anthracene		50000	47600	ug/L	1.06	4.80	25	
Benzo[b]fluoranthene		50000	43300	ug/L	1.11	13.4	25	
Benzo[ghi]perylene		50000	47900	ug/L	0.851	4.20	25	
Benzo[k]fluoranthene		50000	44200	ug/L	1.01	11.6	25	
bis(2-Chloroethoxy)methane		50000	38400	ug/L	0.422	23.3	25	
bis(2-Chloroethyl)ether		50000	46400	ug/L	0.926	7.10	25	
bis(2-Chloroisopropyl)ether		50000	44000	ug/L	1.64	12.1	25	
bis(2-Ethylhexyl)phthalate		50000	44800	ug/L	0.864	10.5	25	

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316839-10
Instrument ID: HPMS4 Run Time: 16:37 Method: 8270C
File ID: 4M48943 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Butyl Benzyl Phthalate		50000	49400	ug/L	0.657	1.20	25	
Carbazole		50000	48400	ug/L	1.13	3.10	25	
Chrysene		50000	48000	ug/L	1.02	4.00	25	
Dibenz[ah]anthracene		50000	48800	ug/L	0.917	2.40	25	
Dibenzofuran		50000	41600	ug/L	1.50	16.9	25	
Diethylphthalate		50000	41900	ug/L	1.26	16.2	25	
Dimethylphthalate		50000	42600	ug/L	1.25	14.7	25	
Di-n-Butyl Phthalate		50000	41900	ug/L	1.32	16.2	25	
Fluorene		50000	43100	ug/L	1.33	13.9	25	
Hexachlorobenzene		50000	48800	ug/L	0.227	2.50	25	
Hexachloroethane		50000	47000	ug/L	0.554	6.00	25	
Indeno[1,2,3-cd]pyrene		50000	48200	ug/L	1.07	3.50	25	
Isophorone		50000	47700	ug/L	0.671	4.70	25	
Naphthalene		50000	42500	ug/L	1.02	15.0	25	
Nitrobenzene		50000	49500	ug/L	0.368	1.00	25	
Phenanthrene		50000	45500	ug/L	1.11	9.00	25	
Pyrene		50000	44900	ug/L	1.12	10.3	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316839-11
Instrument ID: HPMS4 Run Time: 17:12 Method: 8270C
File ID: 4M48944 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
3,3'-Dichlorobenzidine		50000	54900	ug/L	0.373	9.80	25	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Version 1.5 PDF File ID: 1542131
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 11/09/2009 Sample ID: WG316839-12
Instrument ID: HPMS4 Run Time: 17:46 Method: 8270C
File ID: 4M48945 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG316839 Cal ID: HPMS4 - 09-NOV-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		50000	42200	ug/L	0.492	15.6	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/05/2009 Sample ID: WG316533-02
Instrument ID: HPMS4 Run Time: 09:36 Method: 8270C
File ID: 4M48838 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 03-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	51900	ug/L	0.426	3.74	20	
2,4-Dichlorophenol	CCC	50000	50900	ug/L	0.312	1.86	20	
2-Nitrophenol	CCC	50000	53200	ug/L	0.221	6.43	20	
4-Chloro-3-Methylphenol	CCC	50000	51700	ug/L	0.326	3.49	20	
Acenaphthene	CCC	50000	47800	ug/L	1.33	4.44	20	
Benzo[a]pyrene	CCC	50000	50800	ug/L	1.13	1.63	20	
Di-n-Octyl Phthalate	CCC	50000	54000	ug/L	1.86	8.08	20	
Fluoranthene	CCC	50000	48200	ug/L	1.27	3.60	20	
Hexachlorobutadiene	CCC	50000	49300	ug/L	0.160	1.48	20	
n-Nitrosodiphenylamine	CCC	50000	49000	ug/L	0.747	2.05	20	
Pentachlorophenol	CCC	50000	55900	ug/L	0.143	11.7	20	
Phenol	CCC	50000	52900	ug/L	1.78	5.79	20	
1,4-Dichlorobenzene	CCC	50000	51400	ug/L	1.72	2.86	25	
2,4-Dinitrophenol	SPCC	50000	48300	ug/L	0.115	3.43	25	
4-Nitrophenol	SPCC	50000	58800	ug/L	0.266	17.6	25	
Hexachlorocyclopentadiene	SPCC	50000	41100	ug/L	0.178	17.8	25	
n-Nitrosodipropylamine	SPCC	50000	51400	ug/L	0.971	2.77	25	
1,4-Dioxane		50000	54000	ug/L	0.579	8.05	40	
2,4,5-Trichlorophenol		50000	52300	ug/L	0.440	4.51	25	
2,4-Dimethylphenol		50000	50700	ug/L	0.364	1.45	25	
2,4-Dinitrotoluene		50000	52900	ug/L	0.497	5.77	25	
2,6-Dinitrotoluene		50000	51700	ug/L	0.393	3.35	25	
2-Chloronaphthalene		50000	50000	ug/L	1.51	0.0570	25	
2-Chlorophenol		50000	51600	ug/L	1.56	3.15	25	
2-Methylnaphthalene		50000	49100	ug/L	0.755	1.82	25	
2-Methylphenol		50000	52900	ug/L	1.20	5.77	25	
2-Nitroaniline		50000	55000	ug/L	0.399	10.0	25	
3,3'-Dichlorobenzidine		50000	52200	ug/L	0.317	4.31	25	
3-,4-Methylphenol		50000	52800	ug/L	1.57	5.56	25	
3-Nitroaniline		50000	54600	ug/L	0.395	9.21	25	
4,6-Dinitro-2-Methylphenol		50000	51700	ug/L	0.121	3.49	25	
4-Bromophenyl Phenyl Ether		50000	49200	ug/L	0.204	1.67	25	
4-Chloroaniline		50000	51200	ug/L	0.622	2.30	25	
4-Chlorophenyl Phenyl Ether		50000	50100	ug/L	0.731	0.262	25	
4-Nitroaniline		50000	50100	ug/L	0.354	0.274	25	
Acenaphthylene		50000	46700	ug/L	2.05	6.59	25	
Anthracene		50000	49000	ug/L	1.26	2.04	25	
Benzo[a]anthracene		50000	50500	ug/L	1.15	0.974	25	
Benzo[b]fluoranthene		50000	49500	ug/L	1.19	0.965	25	
Benzo[ghi]perylene		50000	49100	ug/L	0.932	1.88	25	
Benzo[k]fluoranthene		50000	51100	ug/L	1.13	2.17	25	
bis(2-Chloroethoxy)methane		50000	50300	ug/L	0.521	0.605	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/05/2009 Sample ID: WG316533-02
Instrument ID: HPMS4 Run Time: 09:36 Method: 8270C
File ID: 4M48838 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 03-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	55700	ug/L	1.12	11.4	25	
bis(2-Chloroisopropyl)ether		50000	58200	ug/L	1.87	16.4	25	
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.954	1.05	25	
Butyl Benzyl Phthalate		50000	54300	ug/L	0.665	8.64	25	
Carbazole		50000	50100	ug/L	1.19	0.174	25	
Chrysene		50000	50100	ug/L	1.10	0.167	25	
Dibenz[ah]anthracene		50000	50700	ug/L	0.957	1.39	25	
Dibenzofuran		50000	47700	ug/L	1.84	4.66	25	
Diethylphthalate		50000	49900	ug/L	1.52	0.113	25	
Dimethylphthalate		50000	49900	ug/L	1.54	0.191	25	
Di-n-Butyl Phthalate		50000	50100	ug/L	1.53	0.196	25	
Fluorene		50000	45300	ug/L	1.45	9.35	25	
Hexachlorobenzene		50000	50100	ug/L	0.208	0.153	25	
Hexachloroethane		50000	52000	ug/L	0.613	3.99	25	
Indeno[1,2,3-cd]pyrene		50000	50000	ug/L	1.13	0.0368	25	
Isophorone		50000	50400	ug/L	0.726	0.773	25	
Naphthalene		50000	49500	ug/L	1.14	1.04	25	
Nitrobenzene		50000	51100	ug/L	0.376	2.14	25	
Phenanthrene		50000	48400	ug/L	1.24	3.24	25	
Pyrene		50000	49700	ug/L	1.37	0.584	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/06/2009 Sample ID: WG316683-02
Instrument ID: HPMS12 Run Time: 10:38 Method: 8270C
File ID: 12M27852 Analyst: CAA/MES QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 31-OCT-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50500	ug/L	0.503	1.08	20	
2,4-Dichlorophenol	CCC	50000	51100	ug/L	0.336	2.13	25	
2-Nitrophenol	CCC	50000	52600	ug/L	0.209	5.11	20	
4-Chloro-3-Methylphenol	CCC	50000	51300	ug/L	0.426	2.64	20	
Acenaphthene	CCC	50000	48000	ug/L	1.70	4.06	20	
Benzo[a]pyrene	CCC	50000	51500	ug/L	1.18	3.01	20	
Di-n-Octyl Phthalate	CCC	50000	53100	ug/L	1.76	6.17	20	
Fluoranthene	CCC	50000	55000	ug/L	1.61	10.1	25	
Hexachlorobutadiene	CCC	50000	51500	ug/L	0.296	2.93	20	
n-Nitrosodiphenylamine	CCC	50000	54600	ug/L	0.828	9.13	20	
Pentachlorophenol	CCC	50000	40800	ug/L	0.146	18.4	20	
Phenol	CCC	50000	50500	ug/L	1.77	1.07	20	
1,4-Dichlorobenzene	CCC	50000	50900	ug/L	1.65	1.82	20	
2,4-Dinitrophenol	SPCC	50000	52300	ug/L	0.219	4.54	25	
4-Nitrophenol	SPCC	50000	49700	ug/L	0.508	0.543	25	
Hexachlorocyclopentadiene	SPCC	50000	47000	ug/L	0.434	5.94	25	
n-Nitrosodipropylamine	SPCC	50000	55000	ug/L	1.43	10.0	25	
1,4-Dioxane		50000	48700	ug/L	0.564	2.64	40	
2,4,5-Trichlorophenol		50000	50300	ug/L	0.524	0.614	25	
2,4-Dimethylphenol		50000	51300	ug/L	0.368	2.56	25	
2,4-Dinitrotoluene		50000	50200	ug/L	0.625	0.456	25	
2,6-Dinitrotoluene		50000	49800	ug/L	0.371	0.482	25	
2-Chloronaphthalene		50000	52600	ug/L	1.73	5.17	25	
2-Chlorophenol		50000	49500	ug/L	1.36	1.09	25	
2-Methylnaphthalene		50000	53000	ug/L	0.842	5.94	25	
2-Methylphenol		50000	50500	ug/L	1.25	0.913	25	
2-Nitroaniline		50000	51100	ug/L	0.655	2.15	25	
3,3'-Dichlorobenzidine		50000	49400	ug/L	0.351	1.18	25	
3-,4-Methylphenol		50000	50500	ug/L	1.56	0.944	25	
3-Nitroaniline		50000	49100	ug/L	0.342	1.85	25	
4,6-Dinitro-2-Methylphenol		50000	53800	ug/L	0.136	7.51	25	
4-Bromophenyl Phenyl Ether		50000	51600	ug/L	0.298	3.26	25	
4-Chloroaniline		50000	51600	ug/L	0.495	3.26	25	
4-Chlorophenyl Phenyl Ether		50000	49200	ug/L	1.19	1.62	25	
4-Nitroaniline		50000	48400	ug/L	0.422	3.11	25	
Acenaphthylene		50000	51600	ug/L	2.39	3.26	25	
Anthracene		50000	54200	ug/L	1.35	8.41	25	
Benzo[a]anthracene		50000	51100	ug/L	1.16	2.20	25	
Benzo[b]fluoranthene		50000	58500	ug/L	1.70	17.1	25	
Benzo[ghi]perylene		50000	48500	ug/L	0.992	3.08	25	
Benzo[k]fluoranthene		50000	56700	ug/L	1.29	13.5	25	
bis(2-Chloroethoxy)methane		50000	55500	ug/L	0.782	11.0	25	

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/06/2009 Sample ID: WG316683-02
Instrument ID: HPMS12 Run Time: 10:38 Method: 8270C
File ID: 12M27852 Analyst: CAA/MES QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 31-OCT-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	52000	ug/L	1.49	3.96	25	
bis(2-Chloroisopropyl)ether		50000	52500	ug/L	3.08	4.91	25	
bis(2-Ethylhexyl)phthalate		50000	50100	ug/L	0.824	0.251	25	
Butyl Benzyl Phthalate		50000	54500	ug/L	0.682	9.07	25	
Carbazole		50000	54300	ug/L	1.23	8.55	25	
Chrysene		50000	52500	ug/L	1.13	4.91	25	
Dibenz[ah]anthracene		50000	51400	ug/L	1.17	2.77	25	
Dibenzofuran		50000	55000	ug/L	2.48	10.1	25	
Diethylphthalate		50000	51100	ug/L	1.99	2.12	25	
Dimethylphthalate		50000	50500	ug/L	1.75	0.952	25	
Di-n-Butyl Phthalate		50000	52600	ug/L	1.67	5.21	25	
Fluorene		50000	53000	ug/L	2.05	6.04	20	
Hexachlorobenzene		50000	50500	ug/L	0.282	1.00	25	
Hexachloroethane		50000	51900	ug/L	0.730	3.71	25	
Indeno[1,2,3-cd]pyrene		50000	50900	ug/L	1.37	1.78	25	
Isophorone		50000	51200	ug/L	0.952	2.48	25	
Naphthalene		50000	52200	ug/L	1.22	4.35	25	
Nitrobenzene		50000	50900	ug/L	0.528	1.73	25	
Phenanthrene		50000	54100	ug/L	1.36	8.29	25	
Pyrene		50000	53200	ug/L	1.31	6.43	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS4 Run Time: 09:48 Method: 8270C
File ID: 4M49026 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50100	ug/L	0.406	0.292	20	
2,4-Dichlorophenol	CCC	50000	50700	ug/L	0.309	1.40	20	
2-Nitrophenol	CCC	50000	50200	ug/L	0.215	0.459	20	
4-Chloro-3-Methylphenol	CCC	50000	50000	ug/L	0.314	0.0760	20	
Acenaphthene	CCC	50000	50000	ug/L	1.31	0.0452	20	
Benzo[a]pyrene	CCC	50000	50100	ug/L	1.10	0.121	20	
Di-n-Octyl Phthalate	CCC	50000	52700	ug/L	1.76	5.33	20	
Fluoranthene	CCC	50000	50000	ug/L	1.23	0.0470	20	
Hexachlorobutadiene	CCC	50000	51100	ug/L	0.174	2.12	20	
n-Nitrosodiphenylamine	CCC	50000	51500	ug/L	0.793	2.99	20	
Pentachlorophenol	CCC	50000	46400	ug/L	0.131	7.28	20	
Phenol	CCC	50000	49100	ug/L	1.60	1.71	20	
1,4-Dichlorobenzene	CCC	50000	49800	ug/L	1.66	0.350	25	
2,4-Dinitrophenol	SPCC	50000	52200	ug/L	0.111	4.32	25	
4-Nitrophenol	SPCC	50000	48300	ug/L	0.222	3.48	25	
Hexachlorocyclopentadiene	SPCC	50000	52300	ug/L	0.207	4.59	25	
n-Nitrosodipropylamine	SPCC	50000	50600	ug/L	0.912	1.24	25	
1,4-Dioxane		50000	44500	ug/L	0.518	11.1	40	
2,4,5-Trichlorophenol		50000	51100	ug/L	0.426	2.11	25	
2,4-Dimethylphenol		50000	48300	ug/L	0.361	3.49	25	
2,4-Dinitrotoluene		50000	53900	ug/L	0.478	7.72	25	
2,6-Dinitrotoluene		50000	50000	ug/L	0.370	0.0324	25	
2-Chloronaphthalene		50000	50600	ug/L	1.48	1.15	25	
2-Chlorophenol		50000	48600	ug/L	1.44	2.71	25	
2-Methylnaphthalene		50000	50400	ug/L	0.759	0.869	25	
2-Methylphenol		50000	49800	ug/L	1.11	0.412	25	
2-Nitroaniline		50000	50800	ug/L	0.360	1.64	25	
3,3'-Dichlorobenzidine		50000	49200	ug/L	0.334	1.65	25	
3-,4-Methylphenol		50000	49200	ug/L	1.41	1.51	25	
3-Nitroaniline		50000	49500	ug/L	0.356	1.05	25	
4,6-Dinitro-2-Methylphenol		50000	54000	ug/L	0.121	7.97	25	
4-Bromophenyl Phenyl Ether		50000	50300	ug/L	0.225	0.563	25	
4-Chloroaniline		50000	51300	ug/L	0.480	2.51	25	
4-Chlorophenyl Phenyl Ether		50000	52400	ug/L	0.713	4.84	25	
4-Nitroaniline		50000	50300	ug/L	0.369	0.549	25	
Acenaphthylene		50000	49200	ug/L	2.08	1.68	25	
Anthracene		50000	50500	ug/L	1.23	1.08	25	
Benzo[a]anthracene		50000	50300	ug/L	1.12	0.589	25	
Benzo[b]fluoranthene		50000	49700	ug/L	1.27	0.675	25	
Benzo[ghi]perylene		50000	52100	ug/L	0.927	4.25	25	
Benzo[k]fluoranthene		50000	49100	ug/L	1.12	1.89	25	
bis(2-Chloroethoxy)methane		50000	49500	ug/L	0.545	0.915	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS4 Run Time: 09:48 Method: 8270C
File ID: 4M49026 Analyst: MES QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	49500	ug/L	0.987	1.01	25	
bis(2-Chloroisopropyl)ether		50000	47400	ug/L	1.77	5.19	25	
bis(2-Ethylhexyl)phthalate		50000	49900	ug/L	0.963	0.153	25	
Butyl Benzyl Phthalate		50000	52000	ug/L	0.692	4.08	25	
Carbazole		50000	51000	ug/L	1.19	2.09	25	
Chrysene		50000	49800	ug/L	1.06	0.349	25	
Dibenz[ah]anthracene		50000	54300	ug/L	1.02	8.54	25	
Dibenzofuran		50000	50400	ug/L	1.82	0.745	25	
Diethylphthalate		50000	51200	ug/L	1.54	2.47	25	
Dimethylphthalate		50000	50100	ug/L	1.47	0.286	25	
Di-n-Butyl Phthalate		50000	49200	ug/L	1.55	1.67	25	
Fluorene		50000	49500	ug/L	1.53	0.978	25	
Hexachlorobenzene		50000	49400	ug/L	0.230	1.10	25	
Hexachloroethane		50000	50100	ug/L	0.591	0.288	25	
Indeno[1,2,3-cd]pyrene		50000	53700	ug/L	1.19	7.37	25	
Isophorone		50000	49300	ug/L	0.694	1.38	25	
Naphthalene		50000	48100	ug/L	1.15	3.74	25	
Nitrobenzene		50000	50200	ug/L	0.373	0.338	25	
Phenanthrene		50000	49800	ug/L	1.22	0.445	25	
Pyrene		50000	49100	ug/L	1.23	1.71	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS12 Run Time: 09:24 Method: 8270C
File ID: 12M28023 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 08-NOV-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	49600	ug/L	0.471	0.793	20	
2,4-Dichlorophenol	CCC	50000	50200	ug/L	0.322	0.353	25	
2-Nitrophenol	CCC	50000	48900	ug/L	0.199	2.21	20	
4-Chloro-3-Methylphenol	CCC	50000	47000	ug/L	0.358	5.91	20	
Acenaphthene	CCC	50000	49400	ug/L	1.46	1.22	20	
Benzo[a]pyrene	CCC	50000	50100	ug/L	1.19	0.115	20	
Di-n-Octyl Phthalate	CCC	50000	49000	ug/L	1.64	1.95	20	
Fluoranthene	CCC	50000	51900	ug/L	1.47	3.80	25	
Hexachlorobutadiene	CCC	50000	51100	ug/L	0.257	2.30	20	
n-Nitrosodiphenylamine	CCC	50000	48900	ug/L	0.730	2.17	20	
Pentachlorophenol	CCC	50000	44500	ug/L	0.134	11.1	20	
Phenol	CCC	50000	46200	ug/L	1.66	7.56	20	
1,4-Dichlorobenzene	CCC	50000	48800	ug/L	1.61	2.46	20	
2,4-Dinitrophenol	SPCC	50000	42200	ug/L	0.146	15.5	25	
4-Nitrophenol	SPCC	50000	38600	ug/L	0.317	22.9	25	
Hexachlorocyclopentadiene	SPCC	50000	48600	ug/L	0.364	2.77	25	
n-Nitrosodipropylamine	SPCC	50000	43500	ug/L	1.01	13.0	25	
1,4-Dioxane		50000	47500	ug/L	0.532	4.91	40	
2,4,5-Trichlorophenol		50000	49600	ug/L	0.499	0.871	25	
2,4-Dimethylphenol		50000	49400	ug/L	0.368	1.21	25	
2,4-Dinitrotoluene		50000	48500	ug/L	0.502	2.99	25	
2,6-Dinitrotoluene		50000	49000	ug/L	0.372	2.00	25	
2-Chloronaphthalene		50000	49300	ug/L	1.57	1.40	25	
2-Chlorophenol		50000	48100	ug/L	1.38	3.82	25	
2-Methylnaphthalene		50000	49200	ug/L	0.765	1.63	25	
2-Methylphenol		50000	47000	ug/L	1.18	6.00	25	
2-Nitroaniline		50000	42300	ug/L	0.445	15.5	25	
3,3'-Dichlorobenzidine		50000	49900	ug/L	0.352	0.239	25	
3-,4-Methylphenol		50000	46300	ug/L	1.46	7.42	25	
3-Nitroaniline		50000	46300	ug/L	0.341	7.31	25	
4,6-Dinitro-2-Methylphenol		50000	46800	ug/L	0.124	6.37	25	
4-Bromophenyl Phenyl Ether		50000	51300	ug/L	0.269	2.58	25	
4-Chloroaniline		50000	48300	ug/L	0.461	3.42	25	
4-Chlorophenyl Phenyl Ether		50000	50000	ug/L	0.968	0.0928	25	
4-Nitroaniline		50000	44300	ug/L	0.381	11.5	25	
Acenaphthylene		50000	50200	ug/L	2.30	0.409	25	
Anthracene		50000	49900	ug/L	1.23	0.123	25	
Benzo[a]anthracene		50000	50200	ug/L	1.21	0.402	25	
Benzo[b]fluoranthene		50000	49900	ug/L	1.46	0.180	25	
Benzo[ghi]perylene		50000	49100	ug/L	0.993	1.72	25	
Benzo[k]fluoranthene		50000	51200	ug/L	1.22	2.40	25	
bis(2-Chloroethoxy)methane		50000	47100	ug/L	0.601	5.80	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/13/2009 Sample ID: WG317340-02
Instrument ID: HPMS12 Run Time: 09:24 Method: 8270C
File ID: 12M28023 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316580 Cal ID: HPMS12 - 08-NOV-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	42400	ug/L	1.06	15.3	25	
bis(2-Chloroisopropyl)ether		50000	39600	ug/L	1.96	20.9	25	
bis(2-Ethylhexyl)phthalate		50000	49200	ug/L	0.804	1.55	25	
Butyl Benzyl Phthalate		50000	48600	ug/L	0.593	2.74	25	
Carbazole		50000	49700	ug/L	1.13	0.635	25	
Chrysene		50000	50500	ug/L	1.15	0.923	25	
Dibenz[ah]anthracene		50000	49600	ug/L	1.08	0.829	25	
Dibenzofuran		50000	49800	ug/L	2.10	0.461	25	
Diethylphthalate		50000	49600	ug/L	1.76	0.776	25	
Dimethylphthalate		50000	49900	ug/L	1.66	0.112	25	
Di-n-Butyl Phthalate		50000	50200	ug/L	1.50	0.365	25	
Fluorene		50000	50400	ug/L	1.81	0.811	20	
Hexachlorobenzene		50000	49800	ug/L	0.234	0.325	25	
Hexachloroethane		50000	46900	ug/L	0.618	6.18	25	
Indeno[1,2,3-cd]pyrene		50000	49300	ug/L	1.26	1.45	25	
Isophorone		50000	46200	ug/L	0.766	7.55	25	
Naphthalene		50000	49100	ug/L	1.15	1.74	25	
Nitrobenzene		50000	45300	ug/L	0.408	9.44	25	
Phenanthrene		50000	49800	ug/L	1.21	0.378	25	
Pyrene		50000	51800	ug/L	1.32	3.54	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/14/2009 Sample ID: WG317446-02
Instrument ID: HPMS4 Run Time: 12:14 Method: 8270C
File ID: 4M49047 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	49800	ug/L	0.403	0.337	20	
2,4-Dichlorophenol	CCC	50000	50800	ug/L	0.309	1.57	20	
2-Nitrophenol	CCC	50000	50400	ug/L	0.215	0.714	20	
4-Chloro-3-Methylphenol	CCC	50000	49900	ug/L	0.313	0.213	20	
Acenaphthene	CCC	50000	49600	ug/L	1.30	0.850	20	
Benzo[a]pyrene	CCC	50000	49700	ug/L	1.09	0.694	20	
Di-n-Octyl Phthalate	CCC	50000	54500	ug/L	1.83	9.07	20	
Fluoranthene	CCC	50000	50100	ug/L	1.23	0.233	20	
Hexachlorobutadiene	CCC	50000	52300	ug/L	0.178	4.61	20	
n-Nitrosodiphenylamine	CCC	50000	52100	ug/L	0.802	4.19	20	
Pentachlorophenol	CCC	50000	43500	ug/L	0.122	13.0	20	
Phenol	CCC	50000	48500	ug/L	1.58	3.07	20	
1,4-Dichlorobenzene	CCC	50000	50100	ug/L	1.67	0.196	25	
2,4-Dinitrophenol	SPCC	50000	44700	ug/L	0.0903	10.6	25	
4-Nitrophenol	SPCC	50000	45800	ug/L	0.211	8.49	25	
Hexachlorocyclopentadiene	SPCC	50000	45700	ug/L	0.183	8.60	25	
n-Nitrosodipropylamine	SPCC	50000	50900	ug/L	0.917	1.87	25	
1,4-Dioxane		50000	46100	ug/L	0.537	7.90	40	
2,4,5-Trichlorophenol		50000	50100	ug/L	0.418	0.137	25	
2,4-Dimethylphenol		50000	49100	ug/L	0.367	1.77	25	
2,4-Dinitrotoluene		50000	53200	ug/L	0.472	6.42	25	
2,6-Dinitrotoluene		50000	48900	ug/L	0.361	2.16	25	
2-Chloronaphthalene		50000	50400	ug/L	1.47	0.776	25	
2-Chlorophenol		50000	48700	ug/L	1.44	2.61	25	
2-Methylnaphthalene		50000	51000	ug/L	0.768	2.06	25	
2-Methylphenol		50000	49700	ug/L	1.11	0.526	25	
2-Nitroaniline		50000	49800	ug/L	0.353	0.459	25	
3,3'-Dichlorobenzidine		50000	47800	ug/L	0.325	4.30	25	
3-,4-Methylphenol		50000	48500	ug/L	1.38	3.03	25	
3-Nitroaniline		50000	47700	ug/L	0.343	4.56	25	
4,6-Dinitro-2-Methylphenol		50000	49200	ug/L	0.110	1.52	25	
4-Bromophenyl Phenyl Ether		50000	51300	ug/L	0.230	2.62	25	
4-Chloroaniline		50000	50700	ug/L	0.475	1.46	25	
4-Chlorophenyl Phenyl Ether		50000	52300	ug/L	0.711	4.59	25	
4-Nitroaniline		50000	49000	ug/L	0.360	2.00	25	
Acenaphthylene		50000	48400	ug/L	2.05	3.22	25	
Anthracene		50000	50500	ug/L	1.23	0.943	25	
Benzo[a]anthracene		50000	50000	ug/L	1.12	0.00440	25	
Benzo[b]fluoranthene		50000	50500	ug/L	1.29	1.07	25	
Benzo[ghi]perylene		50000	46100	ug/L	0.819	7.85	25	
Benzo[k]fluoranthene		50000	49000	ug/L	1.12	2.07	25	
bis(2-Chloroethoxy)methane		50000	50100	ug/L	0.552	0.252	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/14/2009 Sample ID: WG317446-02
Instrument ID: HPMS4 Run Time: 12:14 Method: 8270C
File ID: 4M49047 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS4 - 09-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	49400	ug/L	0.985	1.26	25	
bis(2-Chloroisopropyl)ether		50000	47300	ug/L	1.77	5.32	25	
bis(2-Ethylhexyl)phthalate		50000	50500	ug/L	0.975	1.03	25	
Butyl Benzyl Phthalate		50000	53400	ug/L	0.710	6.82	25	
Carbazole		50000	51100	ug/L	1.19	2.15	25	
Chrysene		50000	49400	ug/L	1.05	1.12	25	
Dibenz[ah]anthracene		50000	49600	ug/L	0.932	0.766	25	
Dibenzofuran		50000	49600	ug/L	1.80	0.740	25	
Diethylphthalate		50000	50800	ug/L	1.53	1.66	25	
Dimethylphthalate		50000	49700	ug/L	1.46	0.627	25	
Di-n-Butyl Phthalate		50000	49500	ug/L	1.56	1.06	25	
Fluorene		50000	49200	ug/L	1.52	1.52	25	
Hexachlorobenzene		50000	50400	ug/L	0.235	0.850	25	
Hexachloroethane		50000	50500	ug/L	0.595	0.959	25	
Indeno[1,2,3-cd]pyrene		50000	49000	ug/L	1.08	2.08	25	
Isophorone		50000	49600	ug/L	0.699	0.727	25	
Naphthalene		50000	48400	ug/L	1.16	3.28	25	
Nitrobenzene		50000	50300	ug/L	0.375	0.682	25	
Phenanthrene		50000	50200	ug/L	1.23	0.334	25	
Pyrene		50000	49200	ug/L	1.23	1.65	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/14/2009 Sample ID: WG317444-02
Instrument ID: HPMS12 Run Time: 11:30 Method: 8270C
File ID: 12M28045 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS12 - 08-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
2,4,6-Trichlorophenol	CCC	50000	50600	ug/L	0.481	1.16	20	
2,4-Dichlorophenol	CCC	50000	50800	ug/L	0.325	1.59	20	
2-Nitrophenol	CCC	50000	50500	ug/L	0.206	0.919	20	
4-Chloro-3-Methylphenol	CCC	50000	47400	ug/L	0.361	5.13	20	
Acenaphthene	CCC	50000	50100	ug/L	1.48	0.165	20	
Benzo[a]pyrene	CCC	50000	50500	ug/L	1.20	0.905	20	
Di-n-Octyl Phthalate	CCC	50000	50000	ug/L	1.67	0.0458	20	
Fluoranthene	CCC	50000	51700	ug/L	1.46	3.42	20	
Hexachlorobutadiene	CCC	50000	50800	ug/L	0.255	1.58	20	
n-Nitrosodiphenylamine	CCC	50000	48600	ug/L	0.726	2.71	20	
Pentachlorophenol	CCC	50000	48000	ug/L	0.145	4.08	20	
Phenol	CCC	50000	46100	ug/L	1.66	7.86	20	
1,4-Dichlorobenzene	CCC	50000	48500	ug/L	1.61	2.95	25	
2,4-Dinitrophenol	SPCC	50000	49100	ug/L	0.178	1.84	25	
4-Nitrophenol	SPCC	50000	39900	ug/L	0.329	20.2	25	
Hexachlorocyclopentadiene	SPCC	50000	49800	ug/L	0.373	0.406	25	
n-Nitrosodipropylamine	SPCC	50000	43800	ug/L	1.02	12.5	25	
1,4-Dioxane		50000	48200	ug/L	0.540	3.51	40	
2,4,5-Trichlorophenol		50000	50500	ug/L	0.508	0.981	25	
2,4-Dimethylphenol		50000	47600	ug/L	0.355	4.87	25	
2,4-Dinitrotoluene		50000	49500	ug/L	0.512	0.906	25	
2,6-Dinitrotoluene		50000	49800	ug/L	0.378	0.375	25	
2-Chloronaphthalene		50000	49400	ug/L	1.57	1.21	25	
2-Chlorophenol		50000	47400	ug/L	1.36	5.26	25	
2-Methylnaphthalene		50000	49500	ug/L	0.770	1.01	25	
2-Methylphenol		50000	46300	ug/L	1.16	7.47	25	
2-Nitroaniline		50000	42300	ug/L	0.445	15.5	25	
3,3'-Dichlorobenzidine		50000	50400	ug/L	0.355	0.742	25	
3-,4-Methylphenol		50000	46300	ug/L	1.46	7.31	25	
3-Nitroaniline		50000	47200	ug/L	0.347	5.62	25	
4,6-Dinitro-2-Methylphenol		50000	50900	ug/L	0.137	1.88	25	
4-Bromophenyl Phenyl Ether		50000	51100	ug/L	0.268	2.25	25	
4-Chloroaniline		50000	48000	ug/L	0.458	4.03	25	
4-Chlorophenyl Phenyl Ether		50000	50600	ug/L	0.980	1.10	25	
4-Nitroaniline		50000	45100	ug/L	0.389	9.75	25	
Acenaphthylene		50000	50300	ug/L	2.31	0.558	25	
Anthracene		50000	50000	ug/L	1.23	0.0130	25	
Benzo[a]anthracene		50000	50100	ug/L	1.21	0.153	25	
Benzo[b]fluoranthene		50000	49300	ug/L	1.44	1.30	25	
Benzo[ghi]perylene		50000	47400	ug/L	0.958	5.18	25	
Benzo[k]fluoranthene		50000	48300	ug/L	1.16	3.31	25	
bis(2-Chloroethoxy)methane		50000	47100	ug/L	0.602	5.74	25	

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/14/2009 Sample ID: WG317444-02
Instrument ID: HPMS12 Run Time: 11:30 Method: 8270C
File ID: 12M28045 Analyst: MDC QC Key: DOWWV2006
Workgroup (AAB#): WG316572 Cal ID: HPMS12 - 08-NOV-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
bis(2-Chloroethyl)ether		50000	42400	ug/L	1.07	15.1	25	
bis(2-Chloroisopropyl)ether		50000	38500	ug/L	1.91	23.0	25	
bis(2-Ethylhexyl)phthalate		50000	48600	ug/L	0.794	2.77	25	
Butyl Benzyl Phthalate		50000	47500	ug/L	0.580	4.90	25	
Carbazole		50000	50100	ug/L	1.14	0.194	25	
Chrysene		50000	50100	ug/L	1.14	0.273	25	
Dibenz[ah]anthracene		50000	48600	ug/L	1.06	2.86	25	
Dibenzofuran		50000	50400	ug/L	2.13	0.874	25	
Diethylphthalate		50000	48700	ug/L	1.72	2.64	25	
Dimethylphthalate		50000	49700	ug/L	1.65	0.612	25	
Di-n-Butyl Phthalate		50000	49800	ug/L	1.48	0.452	25	
Fluorene		50000	50500	ug/L	1.81	1.07	25	
Hexachlorobenzene		50000	49900	ug/L	0.234	0.297	25	
Hexachloroethane		50000	47000	ug/L	0.619	6.04	25	
Indeno[1,2,3-cd]pyrene		50000	48100	ug/L	1.23	3.83	25	
Isophorone		50000	45900	ug/L	0.761	8.18	25	
Naphthalene		50000	49000	ug/L	1.14	2.09	25	
Nitrobenzene		50000	44800	ug/L	0.404	10.3	25	
Phenanthrene		50000	49800	ug/L	1.21	0.385	25	
Pyrene		50000	51100	ug/L	1.31	2.27	25	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

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Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS12
Workgroup (AAB#): WG316580

ICAL CCV Number: WG315933-02
CAL ID: HPMS12-31-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG315933-02	NA	NA	134688	283413	777591	511063	647425	606815
Upper Limit	NA	NA	269376	566826	1555182	1022126	1294850	1213630
Lower Limit	NA	NA	67344	141707	388796	255532	323713	303408
WG316113-02	1.00	01	129787	275636	692821	485862	572963	572886
WG316113-03	1.00	01	142203	313320	881884	549210	692644	691244

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
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Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316255-02
CAL ID: HPMS4-03-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316255-02	NA	NA	204883	410453	754445	789246	677254	746952
Upper Limit	NA	NA	409766	820906	1508890	1578492	1354508	1493904
Lower Limit	NA	NA	102442	205227	377223	394623	338627	373476
WG316397-02	1.00	01	149359	307970	504055	587236	446981	523307
WG316397-03	1.00	01	146893	299060	534667	581938	486961	537198

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542134
Report generated 11/17/2009 08:59

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS12
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316819-02
CAL ID: HPMS12-08-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	173541	370011	924891	675723	754103	768236
Upper Limit	NA	NA	347082	740022	1849782	1351446	1508206	1536472
Lower Limit	NA	NA	86771	185006	462446	337862	377052	384118
L09100771-07	1.00	01	125668	259028	575686	467622	449782	515802
L09100771-11	1.00	01	163045	332435	777796	603479	612770	666028
WG316397-02	1.00	02	171667	351020	826052	630033	654087	712568

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
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Report generated 11/17/2009 08:59

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771 ICAL CCV Number: WG316819-02

Instrument ID: HPMS12 CAL ID: HPMS12-08-NOV-09

Workgroup (AAB#): WG316580 Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	173541	370011	924891	675723	754103	768236
Upper Limit	NA	NA	347082	740022	1849782	1351446	1508206	1536472
Lower Limit	NA	NA	86771	185006	462446	337862	377052	384118
L09100771-04	1.00	01	169613	352761	840935	637263	664585	713294
L09100771-05	1.00	01	164806	351111	872192	622013	695856	724232
L09100771-06	1.00	01	164069	344336	845409	612206	673814	706872
L09100771-09	1.00	01	167744	342171	806017	623740	632747	695050
L09100771-12	1.00	01	161048	329195	789929	601675	628168	672333

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 1542134
Report generated 11/17/2009 08:59

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316839-02
CAL ID: HPMS4-09-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316839-02	NA	NA	543395	1030901	1860433	1918342	1677030	1736644
Upper Limit	NA	NA	1086790	2061802	3720866	3836684	3354060	3473288
Lower Limit	NA	NA	271698	515451	930217	959171	838515	868322
L09100771-02	1.00	01	371319	734122	1202405	1372275	1080552	1207367
L09100771-03	1.00	01	362661	712673	1164674	1329555	1049927	1167994
L09100771-08	1.00	01	367598	726359	1199780	1359224	1072480	1196012
L09100771-10	2.00	DL01	359151	710170	1176762	1333369	1061574	1160785

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
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Report generated 11/17/2009 08:59

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS12
Workgroup (AAB#): WG316580

ICAL CCV Number: WG315933-02
CAL ID: HPMS12-31-OCT-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG315933-02	NA	NA	8.52	12.21	16.78	10.11	19.47	13.82
Upper Limit	NA	NA	9.02	12.71	17.28	10.61	19.97	14.32
Lower Limit	NA	NA	8.02	11.71	16.28	9.61	18.97	13.32
WG316113-02	1.00	01	8.37	12.04	16.53	9.94	19.05	13.65
WG316113-03	1.00	01	8.367	12.048	16.536	9.949	19.052	13.656

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542135
Report generated: 11/17/2009 09:01

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316255-02
CAL ID: HPMS4-03-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316255-02	NA	NA	8.1	11.24	17.8	9.41	21.27	13.01
Upper Limit	NA	NA	8.6	11.74	18.3	9.91	21.77	13.51
Lower Limit	NA	NA	7.6	10.74	17.3	8.91	20.77	12.51
WG316397-02	1.00	01	8.1	11.23	17.77	9.4	21.25	13
WG316397-03	1.00	01	8.1	11.24	17.78	9.4	21.25	13

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542135
Report generated: 11/17/2009 09:01

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771 — ICAL CCV Number: WG316819-02
Instrument ID: HPMS12 — CAL ID: HPMS12-08-NOV-09
Workgroup (AAB#): WG316572 — Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	8.54	12.23	16.78	10.14	19.47	13.84
Upper Limit	NA	NA	9.04	12.73	17.28	10.64	19.97	14.34
Lower Limit	NA	NA	8.04	11.73	16.28	9.64	18.97	13.34
L09100771-07	1.00	01	8.538	12.219	16.76	10.125	19.447	13.827
L09100771-11	1.00	01	8.538	12.219	16.76	10.125	19.452	13.827
WG316397-02	1.00	02	8.538	12.219	16.76	10.125	19.452	13.827

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542135
Report generated: 11/17/2009 09:01

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS12
Workgroup (AAB#): WG316580

ICAL CCV Number: WG316819-02
CAL ID: HPMS12-08-NOV-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316819-02	NA	NA	8.54	12.23	16.78	10.14	19.47	13.84
Upper Limit	NA	NA	9.04	12.73	17.28	10.64	19.97	14.34
Lower Limit	NA	NA	8.04	11.73	16.28	9.64	18.97	13.34
L09100771-04	1.00	01	8.538	12.219	16.76	10.125	19.453	13.827
L09100771-05	1.00	01	8.538	12.219	16.765	10.125	19.458	13.832
L09100771-06	1.00	01	8.538	12.219	16.766	10.125	19.453	13.833
L09100771-09	1.00	01	8.538	12.219	16.76	10.125	19.453	13.827
L09100771-12	1.00	01	8.538	12.219	16.76	10.125	19.452	13.827

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542135
Report generated: 11/17/2009 09:01

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L09100771
Instrument ID: HPMS4
Workgroup (AAB#): WG316572

ICAL CCV Number: WG316839-02
CAL ID: HPMS4-09-NOV-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
WG316839-02	NA	NA	7.69	10.79	16.97	8.99	20.07	12.44
Upper Limit	NA	NA	8.19	11.29	17.47	9.49	20.57	12.94
Lower Limit	NA	NA	7.19	10.29	16.47	8.49	19.57	11.94
L09100771-02	1.00	01	7.69	10.79	16.95	8.97	20.05	12.43
L09100771-03	1.00	01	7.69	10.79	16.95	8.98	20.05	12.43
L09100771-08	1.00	01	7.69	10.79	16.95	8.98	20.05	12.43
L09100771-10	2.00	DL01	7.69	10.79	16.95	8.98	20.05	12.43

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Acenaphthene-d10
IS-3 - Chrysene-d12
IS-4 - Naphthalene-d8
IS-5 - Perylene-d12
IS-6 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 1542135
Report generated: 11/17/2009 09:01

2.2.2 GC/MS Semivolatiles Data (827 Dioxane)

2.2.2.1 Summary Data

Loginnum: L09100771

Department: Semivolatiles

Analyst: Cassie A. Augenstein

METHOD

Preparation 3520C/3545

Analysis SW-846 8270C SIM

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: There were no MS/MSD results associated with the SIM 1,4-dioxane analysis of this sample delivery group.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: Not applicable.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

LABORATORY REPORT

L09100771

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4012-S001-102909	L09100771-02	8270C	1	30-OCT-09
4012-S002-102909	L09100771-03	8270C	1	30-OCT-09
4012-GW-102909	L09100771-04	8270C	1	30-OCT-09
4015-S001-102909	L09100771-07	8270C	1	30-OCT-09
4015-S002-102909	L09100771-08	8270C	1	30-OCT-09
4015-GW-102909	L09100771-09	8270C	1	30-OCT-09
4010-S001-102909	L09100771-10	8270C	1	30-OCT-09
4010-S002-102909	L09100771-11	8270C	1	30-OCT-09
4010-GW-102909	L09100771-12	8270C	1	30-OCT-09

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-02	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4012-S001-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/08/2009 13:21
Collect Date:	10/29/2009 08:45	Dilution:	1	File ID:	15M01340
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.8

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	123	61.3

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-03	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4012-S002-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/08/2009 13:48
Collect Date:	10/29/2009 09:10	Dilution:	1	File ID:	15M01341
Sample Tag:	01	Units:	ug/kg	Percent Solid:	91.7

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	117	58.5

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-04	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4012-GW-102909	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/08/2009 18:43
Collect Date:	10/29/2009 09:50	Dilution:	1	File ID:	15M01352
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	1.11	0.556

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-07	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4015-S001-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/08/2009 14:15
Collect Date:	10/29/2009 11:10	Dilution:	1	File ID:	15M01342
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.5

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	116	57.9

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-08	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4015-S002-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/08/2009 14:42
Collect Date:	10/29/2009 11:30	Dilution:	1	File ID:	15M01343
Sample Tag:	01	Units:	ug/kg	Percent Solid:	91.7

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	121	60.4

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-09	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4015-GW-102909	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/08/2009 16:03
Collect Date:	10/29/2009 12:50	Dilution:	1	File ID:	15M01346
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	1.09	0.543

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-10	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4010-S001-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/08/2009 21:49
Collect Date:	10/29/2009 14:10	Dilution:	1	File ID:	15M01359
Sample Tag:	01	Units:	ug/kg	Percent Solid:	80.7

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	132	66.2

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-11	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4010-S002-102909	Prep Method:	3545	Prep Date:	11/04/2009 08:12
Matrix:	Soil	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316575	Analyst:	CAA	Run Date:	11/08/2009 15:09
Collect Date:	10/29/2009 14:30	Dilution:	1	File ID:	15M01344
Sample Tag:	01	Units:	ug/kg	Percent Solid:	87.6

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	127	63.7

U Not detected at or above the reporting limit (RL).

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-12	PrePrep Method:	NONE	Instrument:	HPMS15
Client ID:	4010-GW-102909	Prep Method:	3520C	Prep Date:	11/02/2009 10:31
Matrix:	Water	Analytical Method:	8270C	Cal Date:	07/01/2009 09:43
Workgroup Number:	WG316582	Analyst:	CAA	Run Date:	11/08/2009 18:16
Collect Date:	10/29/2009 14:55	Dilution:	1	File ID:	15M01351
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dioxane	123-91-1		U	1.20	0.602

U Not detected at or above the reporting limit (RL).

2.2.2.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG316398
Analyst: CPD
Spike Analyst: CPD
Method: 3545
Run Date: 11/04/2009 08:12
SOP: ASE01 Revison 7
Spike Witness: CAF
Surr Solution: STD35890

Methylene Chloride Lot #: COA14222
Purified Lab Sand Lot #: COA13873
Diatomaceous Earth Lot #: COA13977
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1% Acetic Acid Lot #: RGT14192

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100717-01	RS01		827-DIOX	17.19 g	.5 mL			1 mL	Colored
2	L09100717-02	MS01	L09100717-01	827-DIOX	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
3	L09100717-03	SD01	L09100717-01	827-DIOX	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored
4	L09100717-04	SAMP		827-DIOX	17.31 g	.5 mL			1 mL	Colored
5	L09100717-06	SAMP		827-DIOX	19.71 g	.5 mL			1 mL	Colored
6	L09100717-07	SAMP		827-DIOX	18.57 g	.5 mL			1 mL	Colored
7	L09100717-08	SAMP		827-DIOX	18.06 g	.5 mL			1 mL	Colored
8	L09100717-11	SAMP		827-DIOX	17.5 g	.5 mL			1 mL	Colored
9	L09100717-12	SAMP		827-DIOX	17.32 g	.5 mL			1 mL	Colored
10	L09100771-02	SAMP		827-DIOX	19.72 g	.5 mL			1 mL	Colored
11	L09100771-03	SAMP		827-DIOX	18.64 g	.5 mL			1 mL	Colored
12	L09100771-07	SAMP		827-DIOX	20.93 g	.5 mL			1 mL	Colored
13	L09100771-08	SAMP		827-DIOX	18.04 g	.5 mL			1 mL	Colored
14	L09100771-10	SAMP		827-DIOX	18.72 g	.5 mL			1 mL	Colored
15	L09100771-11	SAMP		827-DIOX	17.92 g	.5 mL			1 mL	Colored
16	WG316398-01	REF	L09100717-01	827-DIOX	17.19 g	.5 mL			1 mL	Colored
17	WG316398-02	BLANK		827-DIOX	20 g	.5 mL			1 mL	Transparent
18	WG316398-03	LCS		827-DIOX	20 g	.5 mL	.05 mL	STD35738	1 mL	Transparent
19	WG316398-04	MS	L09100717-01	827-DIOX	17.63 g	.5 mL	.5 mL	STD35739	1 mL	Colored
20	WG316398-05	MSD	L09100717-01	827-DIOX	17.34 g	.5 mL	.5 mL	STD35739	1 mL	Colored

Analyst:

Reviewer:

EXTRACT - Modified 10/22/2008
PDF ID: 1531006
Report generated: 11/04/2009 20:04

Microbac Laboratories Inc.
Continuous Sample Extract Log

Workgroup: WG316114
Analyst: RAH
Spike Analyst: RAH
Method: 3520C
Run Date: 11/02/2009 10:31
SOP: EXB01 Revison 15
Spike Witness: CAF
Surr Solution: STD35890

TIME ON: 12:45 OFF: 08:00 ON: 10:30 OFF: 08:00
Methylene Chloride Lot #: COA14222
Sodium Sulfate,Anhydrous,Granular (Lot #: COA14145
1:1 H2SO4 Lot #: RGT14328
10N NaOH Lot #: RGT14307

	SAMPLE #	Type	Reference	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L09100714-01	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Colored
2	L09100714-02	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Colored
3	L09100714-03	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Transparent
4	L09100714-04	SAMP		827-DIOX	980 mL	.5 mL			1 mL	Colored
5	L09100714-05	SAMP		827-DIOX	950 mL	.5 mL			1 mL	Colored
6	L09100717-05	SAMP		827-DIOX	980 mL	.5 mL			1 mL	Colored
7	L09100717-09	SAMP		827-DIOX	930 mL	.5 mL			1 mL	Colored
8	L09100717-10	SAMP		827-DIOX	930 mL	.5 mL			1 mL	Colored
9	L09100717-13	SAMP		827-DIOX	900 mL	.5 mL			1 mL	Colored
10	L09100754-01	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Colored
11	L09100754-02	SAMP		827-DIOX	910 mL	.5 mL			1 mL	Colored
12	L09100771-04	RS01		827-DIOX	900 mL	.5 mL			1 mL	Colored
13	L09100771-05	MS01	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
14	L09100771-06	SD01	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
15	L09100771-09	SAMP		827-DIOX	920 mL	.5 mL			1 mL	Colored
16	L09100771-12	SAMP		827-DIOX	830 mL	.5 mL			1 mL	Colored
17	L09100775-33	SAMP		827-DIOX	1000 mL	.5 mL			1 mL	Transparent
18	L09100775-34	SAMP		827-DIOX	900 mL	.5 mL			1 mL	Transparent
19	WG316114-01	REF	L09100771-04	827-DIOX	900 mL	.5 mL			1 mL	Colored
20	WG316114-02	BLANK		827-DIOX	1000 mL	.5 mL			1 mL	Transparent
21	WG316114-03	LCS		827-DIOX	1000 mL	.5 mL	.1 mL	STD31462	1 mL	Transparent
22	WG316114-04	MS	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored
23	WG316114-05	MSD	L09100771-04	827-DIOX	900 mL	.5 mL	1 mL	STD35870	1 mL	Colored

Analyst: [signature]

Reviewer: Cheryl A. Flowers

EXTRACT - Modified 01/23/2009
PDF ID: 1530983
Report generated: 11/04/2009 18:51

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 070109
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 29319

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG306245, WG306246, WG603247
Internal STD: COA13229 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	15M00379	WG306031-01 5ppm DFTPP STD	1	1	STD31842	07/01/09 07:40
2	15M00380	WG306031-02 5ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 07:58
3	15M00381	WG306031-03 10ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 08:24
4	15M00382	WG306031-04 7.5ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 08:51
5	15M00383	WG306031-05 2.5ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 09:17
6	15M00384	WG306031-06 1ppm 1,4-Dioxane STD	1	1	STD31337	07/01/09 09:43
7	15M00385	WG306031-07 5ppm 1,4-Dioxane Alt Src STD	1	1	STD31350	07/01/09 10:09
8	15M00386	WG305528-02 BLK 6/24	1	1		07/01/09 10:35
9	15M00387	WG305528-03 LCS 6/24	1	1		07/01/09 11:01
10	15M00388	WG305732-01 BLK 6/26	7	1	SOIL	07/01/09 11:27
11	15M00389	WG305732-02 LCS 6/27	7	1	SOIL	07/01/09 11:53
12	15M00390	WG305950-02 BLK 6/30	7	1	SOIL	07/01/09 12:19
13	15M00391	WG305950-03 LCS 6/30	7	1	SOIL	07/01/09 12:45
14	15M00392	L09060622-01 REF 827-DIOXANE	1	1		07/01/09 13:11
15	15M00393	L09060622-03 MS 827-DIOXANE	1	1		07/01/09 13:37
16	15M00394	L09060622-05 MSD 827-DIOXANE	1	1		07/01/09 14:03
17	15M00395	L09060622-07 827-DIOXANE	1	1		07/01/09 14:29
18	15M00396	L09060710-01 827-DIOX	7	1	SOIL	07/01/09 14:55
19	15M00397	L09060622-07 2X 827-DIOXANE	1	2		07/01/09 15:22
20	15M00398	L09060667-02 20X 827-DIOX	7	20	SOIL	07/01/09 15:48
21	15M00399	L09060710-02 10X 827-DIOX	7	10	SOIL	07/01/09 16:14
22	15M00400	L09060710-04 10X 827-DIOX	7	10	SOIL	07/01/09 16:40
23	15M00401	L09060710-03 10X 827-DIOX	7	10	SOIL	07/01/09 17:06
24	15M00402	L09060739-01 5X 827-DIOX	7	5	SOIL	07/01/09 17:32
25	15M00403	L09060709-01 10X 827-DIOX	7	10	SOIL	07/01/09 17:58
26	15M00404	L09060667-01 20X 827-DIOX	7	20	SOIL	07/01/09 18:24

Comments

Seq.	Rerun	Dil.	Reason	Analytes
17	X	2	Over Calibration Range	1,4-Dioxane
	L09060622-07 827-DIOXANE - SS NBZ high.			

Page: 1 Approved: 02-JUL-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110709
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30842

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316359, WG316582, WG316575
Internal STD: COA13229 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	15M01306	WG316813-01 5ppm DFTPP STD	1	1	STD35357	11/07/09 11:00
2	15M01307	WG316813-01 5ppm DFTPP STD	1	1	STD35357	11/07/09 11:23
3	15M01308	WG316813-02 5ppm 1,4-Dioxane STD	1	1	STD34711	11/07/09 11:43
4	15M01309	WG316398-02 BLK 11/4	7	1	SOIL	11/07/09 12:10
5	15M01310	WG316398-03 LCS 11/4	7	1	SOIL	11/07/09 12:36
6	15M01311	WG316114-02 BLK 11/2	1	1		11/07/09 13:03
7	15M01312	WG316114-03 LCS 11/2	1	1		11/07/09 13:30
8	15M01313	L09100717-01 827-DIOX	7	1	SOIL	11/07/09 13:57
9	15M01314	L09100717-08 827-DIOX	7	1	SOIL	11/07/09 14:24
10	15M01315	L09100717-11 827-DIOX	7	1	SOIL	11/07/09 14:52
11	15M01316	L09100717-12 827-DIOX	7	1	SOIL	11/07/09 15:18
12	15M01317	L09100717-04 827-DIOX	7	1	SOIL	11/07/09 15:45
13	15M01318	L09100714-01 827-DIOX	1	1		11/07/09 16:11
14	15M01319	L09100714-03 827-DIOX	1	1		11/07/09 16:38
15	15M01320	L09100714-02 827-DIOX	1	1		11/07/09 17:05
16	15M01321	L09100734-20 827-DIOX	7	1	SOIL	11/07/09 17:32
17	15M01322	L09100717-10 2X 827-DIOX	1	2		11/07/09 17:58
18	15M01323	L09100714-05 2X 827-DIOX	1	2		11/07/09 18:25
19	15M01324	L09100717-09 2X 827-DIOX	1	2		11/07/09 18:52
20	15M01325	L09100714-04 2X 827-DIOX	1	2		11/07/09 19:18
21	15M01326	L09100717-05 2X 827-DIOX	1	2		11/07/09 19:44
22	15M01327	L09100717-06 827-DIOX	7	1	SOIL	11/07/09 20:11
23	15M01328	L09100734-15 827-DIOX	7	1	SOIL	11/07/09 20:37
24	15M01329	L09100734-19 5X 827-DIOX	7	5	SOIL	11/07/09 21:04
25	15M01330	L09100734-16 827-DIOX	7	1	SOIL	11/07/09 21:30
26	15M01331	L09100717-07 827-DIOX	7	1	SOIL	11/07/09 21:56
27	15M01332	L09100734-17 827-DIOX	7	1	SOIL	11/07/09 22:23
28	15M01333	L09100734-18 5X 827-DIOX	7	5	SOIL	11/07/09 22:49

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG316813-01 5ppm DFTPP STD - Tune failed.			
17				
	L09100717-10 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			

Page: 1 Approved: 11-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110709

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30842

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316359, WG316582, WG316575

Internal STD: COA13229 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
18				
	L09100714-05 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
19				
	L09100717-09 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
20				
	L09100714-04 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
21				
	L09100717-05 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
24				
	L09100734-19 5X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
28				
	L09100734-18 5X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			

 Approved: 11-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110809
Analyst1: CAA Analyst2: NA
Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30861

Column 1 ID: RXI-5MS Column 2 ID: NA
Workgroups: WG316582, WG316575, WG316578
Internal STD: COA13229 Surrogate STD: NA Calibration STD

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	15M01334	WG316841-01 5ppm DFTPP STD	1	1	STD35357	11/08/09 10:52
2	15M01335	WG316841-01 5ppm DFTPP STD	1	1	STD35357	11/08/09 11:07
3	15M01336	WG316841-02 5ppm 1,4-Dioxane STD	1	1	STD34711	11/08/09 11:32
4	15M01337	WG316362-01 BLK 11/3	7	1	SOIL	11/08/09 11:59
5	15M01338	WG316362-02 LCS 11/3	7	1	SOIL	11/08/09 12:27
6	15M01339	L09100775-08 827-DIOX	7	1	SOIL	11/08/09 12:53
7	15M01340	L09100771-02 827-DIOX	7	1	SOIL	11/08/09 13:21
8	15M01341	L09100771-03 827-DIOX	7	1	SOIL	11/08/09 13:48
9	15M01342	L09100771-07 827-DIOX	7	1	SOIL	11/08/09 14:15
10	15M01343	L09100771-08 827-DIOX	7	1	SOIL	11/08/09 14:42
11	15M01344	L09100771-11 827-DIOX	7	1	SOIL	11/08/09 15:09
12	15M01345	L09100754-01 827-DIOX	1	1		11/08/09 15:36
13	15M01346	L09100771-09 827-DIOX	1	1		11/08/09 16:03
14	15M01347	L09100775-33 827-DIOX	1	1		11/08/09 16:29
15	15M01348	L09100775-34 827-DIOX	1	1		11/08/09 16:56
16	15M01349	L09100754-02 827-DIOX	1	1		11/08/09 17:23
17	15M01350	L09100775-09 827-DIOX	7	1	SOIL	11/08/09 17:50
18	15M01351	L09100771-12 827-DIOX	1	1		11/08/09 18:16
19	15M01352	L09100771-04 827-DIOX	1	1		11/08/09 18:43
20	15M01353	L09100717-13 2X 827-DIOX	1	2		11/08/09 19:10
21	15M01354	L09100775-06 827-DIOX	7	1	SOIL	11/08/09 19:36
22	15M01355	L09100775-07 827-DIOX	7	1	SOIL	11/08/09 20:03
23	15M01356	L09100775-03 827-DIOX	7	1	SOIL	11/08/09 20:30
24	15M01357	L09100775-04 827-DIOX	7	1	SOIL	11/08/09 20:56
25	15M01358	L09100775-05 827-DIOX	7	1	SOIL	11/08/09 21:23
26	15M01359	L09100771-10 827-DIOX	7	1	SOIL	11/08/09 21:49
27	15M01360	L09100775-01 2X 827-DIOX	7	2	SOIL	11/08/09 22:16
28	15M01361	L09100775-02 20X 827-DIOX	7	20	SOIL	11/08/09 22:43

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X			
	WG316841-01 5ppm DFTPP STD - Tune failed.			
20				
	L09100717-13 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			

Page: 1 Approved: 11-NOV-09

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS15 Dataset: 110809

Analyst1: CAA Analyst2: NA

Method: 8270C SOP: MSS01 Rev: 16

Maintenance Log ID: 30861

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG316582, WG316575, WG316578

Internal STD: COA13229 Surrogate STD: NA

Comments

Seq.	Rerun	Dil.	Reason	Analytes
27				
	L09100775-01 2X 827-DIOX - Sample was analyzed at a dilution due to extract apperance.			
28				
	L09100775-02 20X 827-DIOX - Sample was analyzed at a dilution due to extract apperance and viscosity.			

Approved: 11-NOV-09

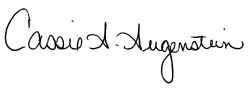
Microbac Laboratories Inc.

Data Checklist

Date: 01-JUL-2009
Analyst: CAA
Analyst: NA
Method: 827-DIOX
Instrument: HPMS15
Curve Workgroup: NA
Runlog ID: 28923
Analytical Workgroups: L09060622, L09060710, L09060667, L09060739, L09060709

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
02-JUL-2009



Secondary Reviewer:
02-JUL-2009

CHECKLIST1 - Modified 03/05/2008
Generated: JUL-02-2009 10:36:24

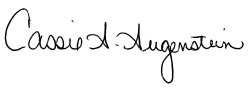
Microbac Laboratories Inc.

Data Checklist

Date: 07-NOV-2009
Analyst: CAA
Analyst: NA
Method: 827-DIOX
Instrument: HPMS15
Curve Workgroup: NA
Runlog ID: 31090
Analytical Workgroups: L09100717, L09100714, L09100734

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
08-NOV-2009



Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 11:18:23

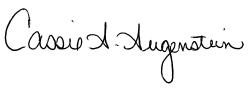
Microbac Laboratories Inc.

Data Checklist

Date: 08-NOV-2009
Analyst: CAA
Analyst: NA
Method: 827-DIOX
Instrument: HPMS15
Curve Workgroup: NA
Runlog ID: 31111
Analytical Workgroups: L09100775, L09100771, L09100754

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
09-NOV-2009



Secondary Reviewer:
11-NOV-2009

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2009 11:57:24

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316575

Login Number: L09100771

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4012-S001-102909	02	10/29/09					11/04/09	6	14		11/08/09	4.2	40	
4012-S002-102909	03	10/29/09					11/04/09	6	14		11/08/09	4.2	40	
4015-S001-102909	07	10/29/09					11/04/09	5.9	14		11/08/09	4.3	40	
4015-S002-102909	08	10/29/09					11/04/09	5.9	14		11/08/09	4.3	40	
4010-S001-102909	10	10/29/09					11/04/09	5.8	14		11/08/09	4.6	40	
4010-S002-102909	11	10/29/09					11/04/09	5.7	14		11/08/09	4.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538318
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C AAB#: WG316582

Login Number: L09100771

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
4012-GW-102909	04	10/29/09					11/02/09	4	7		11/08/09	6.3	40	
4015-GW-102909	09	10/29/09					11/02/09	3.9	7		11/08/09	6.2	40	
4010-GW-102909	12	10/29/09					11/02/09	3.8	7		11/08/09	6.3	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1538318
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L09100771
Work Group: WG316575
Blank File ID: 15M01309
Blank Sample ID: WG316398-02
Prep Date: 11/04/09 08:12
Instrument ID: HPMS15
Analyzed Date: 11/07/09 12:10
Method: 8270C
Analyst: CAA

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316398-03	15M01310	11/07/09 12:36	01
4012-S001-102909	L09100771-02	15M01340	11/08/09 13:21	01
4012-S002-102909	L09100771-03	15M01341	11/08/09 13:48	01
4015-S001-102909	L09100771-07	15M01342	11/08/09 14:15	01
4015-S002-102909	L09100771-08	15M01343	11/08/09 14:42	01
4010-S002-102909	L09100771-11	15M01344	11/08/09 15:09	01
4010-S001-102909	L09100771-10	15M01359	11/08/09 21:49	01

Report Name: BLANK_SUMMARY
PDF File ID: 1538319
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L09100771	Work Group:	WG316582
Blank File ID:	15M01311	Blank Sample ID:	WG316114-02
Prep Date:	11/02/09 10:31	Instrument ID:	HPMS15
Analyzed Date:	11/07/09 13:03	Method:	8270C
Analyst:	CAA		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG316114-03	15M01312	11/07/09 13:30	01
4015-GW-102909	L09100771-09	15M01346	11/08/09 16:03	01
4010-GW-102909	L09100771-12	15M01351	11/08/09 18:16	01
4012-GW-102909	L09100771-04	15M01352	11/08/09 18:43	01

Report Name: BLANK_SUMMARY
PDF File ID: 1538319
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100771 Prep Date: 11/04/09 08:12 Sample ID: WG316398-02
Instrument ID: HPMS15 Run Date: 11/07/09 12:10 Prep Method: 3545
File ID: 15M01309 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316575 Matrix: Soil Units: ug/kg
Contract #: Cal ID: HPMS15-01-JUL-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	50.0	100	100	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1538320
12-NOV-2009 09:14

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L09100771 Prep Date: 11/02/09 10:31 Sample ID: WG316114-02
Instrument ID: HPMS15 Run Date: 11/07/09 13:03 Prep Method: 3520C
File ID: 15M01311 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316582 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS15-01-JUL-09

Analytes	MDL	RL	Concentration	Dilution	Qualifier
1,4-Dioxane	0.500	1.00	1.00	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1538320
12-NOV-2009 09:14

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/07/2009 Sample ID: WG316398-03
Instrument ID: HPMS15 Run Time: 12:36 Prep Method: 3545
File ID: 15M01310 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316575 Matrix: Soil Units: ug/kg
QC Key: DOWWV2006 Lot#: STD35738 Cal ID: HPMS15-01-JUL-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	250	141	56.4	40 - 140	

LCS - Modified 03/06/2008
PDF File ID: 1538321
Report generated: 11/12/2009 09:14

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L09100771 Run Date: 11/07/2009 Sample ID: WG316114-03
Instrument ID: HPMS15 Run Time: 13:30 Prep Method: 3520C
File ID: 15M01312 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG316582 Matrix: Water Units: ug/L
QC Key: DOWWV2006 Lot#: STD31462 Cal ID: HPMS15-01-JUL-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
1,4-Dioxane	5.00	3.43	68.6	30 - 104	

LCS - Modified 03/06/2008
PDF File ID: 1538321
Report generated: 11/12/2009 09:14

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS15
Analyst: CAA
Workgroup: WG306031

Tune ID: WG306031-01
Run Date: 07/01/2009
Run Time: 07:40
File ID: 15M00379
Cal ID: HPMS15-01-JUL-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	47.5	50433	PASS
68.0	69.0	0	2.00	1.75	870	PASS
69.0	198	0	100	46.9	49824	PASS
70.0	69.0	0	2.00	0.751	374	PASS
127	198	40.0	60.0	54.6	57969	PASS
197	198	0	1.00	0.996	1057	PASS
198	198	100	100	100	106168	PASS
199	198	5.00	9.00	6.43	6830	PASS
275	198	10.0	30.0	22.5	23848	PASS
365	198	1.00	100	3.29	3488	PASS
441	443	0.0100	100	75.1	10606	PASS
442	198	40.0	100	73.2	77725	PASS
443	442	17.0	23.0	18.2	14122	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG306031-02	STD-CCV	01	07/01/2009 07:58	
WG306031-03	STD	01	07/01/2009 08:24	
WG306031-04	STD	01	07/01/2009 08:51	
WG306031-05	STD	01	07/01/2009 09:17	
WG306031-06	STD	01	07/01/2009 09:43	
WG306031-07	SSCV	01	07/01/2009 10:09	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538324
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS15
Analyst: CAA
Workgroup: WG316813

Tune ID: WG316813-01
Run Date: 11/07/2009
Run Time: 11:23
File ID: 15M01307
Cal ID: HPMS15-01-JUL-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	41.4	139140	PASS
68.0	69.0	0	2.00	1.70	2582	PASS
69.0	198	0	100	45.3	152106	PASS
70.0	69.0	0	2.00	0.359	546	PASS
127	198	40.0	60.0	56.8	190898	PASS
197	198	0	1.00	0.610	2049	PASS
198	198	100	100	100	336078	PASS
199	198	5.00	9.00	6.48	21774	PASS
275	198	10.0	30.0	22.6	76011	PASS
365	198	1.00	100	3.22	10831	PASS
441	443	0.0100	100	74.5	29384	PASS
442	198	40.0	100	61.5	206752	PASS
443	442	17.0	23.0	19.1	39456	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316813-02	CCV	01	11/07/2009 11:43	
WG316398-02	BLANK	01	11/07/2009 12:10	
WG316398-03	LCS	01	11/07/2009 12:36	
WG316114-02	BLANK	01	11/07/2009 13:03	
WG316114-03	LCS	01	11/07/2009 13:30	
WG316398-01	REF	01	11/07/2009 13:57	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538324
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L09100771
Instrument: HPMS15
Analyst: CAA
Workgroup: WG316841

Tune ID: WG316841-01
Run Date: 11/08/2009
Run Time: 11:07
File ID: 15M01335
Cal ID: HPMS15-01-JUL-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	45.1	112519	PASS
68.0	69.0	0	2.00	1.81	2142	PASS
69.0	198	0	100	47.4	118260	PASS
70.0	69.0	0	2.00	0.609	720	PASS
127	198	40.0	60.0	58.9	146813	PASS
197	198	0	1.00	0.756	1886	PASS
198	198	100	100	100	249408	PASS
199	198	5.00	9.00	6.81	16997	PASS
275	198	10.0	30.0	23.1	57584	PASS
365	198	1.00	100	3.06	7643	PASS
441	443	0.0100	100	72.5	19888	PASS
442	198	40.0	100	56.7	141339	PASS
443	442	17.0	23.0	19.4	27421	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG316841-02	CCV	01	11/08/2009 11:32	
L09100771-02	4012-S001-102909	01	11/08/2009 13:21	
L09100771-03	4012-S002-102909	01	11/08/2009 13:48	
L09100771-07	4015-S001-102909	01	11/08/2009 14:15	
L09100771-08	4015-S002-102909	01	11/08/2009 14:42	
L09100771-11	4010-S002-102909	01	11/08/2009 15:09	
L09100771-09	4015-GW-102909	01	11/08/2009 16:03	
L09100771-12	4010-GW-102909	01	11/08/2009 18:16	
L09100771-04	4012-GW-102909	01	11/08/2009 18:43	
WG316114-01	REF	01	11/08/2009 18:43	
L09100771-10	4010-S001-102909	01	11/08/2009 21:49	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1538324
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

Login Number: L09100771
Analytical Method: 8270C
ICAL Workgroup: WG306031
Instrument ID: HPMS15
Initial Calibration Date: 01-JUL-09 09:43
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R^2)	QUAD(R^2)
1,4-Dioxane		0.5491	2.69		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 1538322
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS15
Initial Calibration Date: 01-JUL-09 09:43
Column ID: F

Analyte	WG306031-02			WG306031-03			WG306031-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,4-Dioxane	5.00	251879.000	0.5703	10.0	640820.000	0.5424	7.50	434735.000	0.5393

INT_CAL - Modified 03/06/2008
PDF File ID: 1538322
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L09100771
Analytical Method: 8270C
Instrument ID: HPMS15
Initial Calibration Date: 01-JUL-09 09:43
Column ID: F

Analyte	WG306031-05			WG306031-06		
	CONC	RESP	RF	CONC	RESP	RF
1,4-Dioxane	2.50	129227.000	0.5583	1.00	50207.0000	0.5351

INT_CAL - Modified 03/06/2008
PDF File ID: 1538322
Report generated 11/12/2009 09:14

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L09100771 Run Date: 07/01/2009 Sample ID: WG306031-07
Instrument ID: HPMS15 Run Time: 10:09 Method: 8270C
File ID: 15M00385 Analyst: CAA QC Key: DOWWV2006
ICal Workgroup: WG306031 Cal ID: HPMS15 - 01-JUL-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,4-Dioxane		5000	5010	ug/L	0.550	0.100	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1538323
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/07/2009 Sample ID: WG316813-02
Instrument ID: HPMS15 Run Time: 11:43 Method: 8270C
File ID: 15M01308 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316582 Cal ID: HPMS15 - 01-JUL-09
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dioxane		5000	5030	ug/L	0.552	0.576	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1538325
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L09100771 Run Date: 11/08/2009 Sample ID: WG316841-02
Instrument ID: HPMS15 Run Time: 11:32 Method: 8270C
File ID: 15M01336 Analyst: CAA QC Key: DOWWV2006
Workgroup (AAB#): WG316575 Cal ID: HPMS15 - 01-JUL-09
Matrix: SOIL

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,4-Dioxane		5000	5110	ug/L	0.561	2.20	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1538325
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L09100771
Instrument ID: HPMS15
Workgroup (AAB#): WG316582

CCV Number: WG316813-02
CAL ID: HPMS15-01-JUL-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1
WG316813-02	NA	NA	140787
Upper Limit	NA	NA	281574
Lower Limit	NA	NA	70394
WG316114-02	1.00	01	111920
WG316114-03	1.00	01	108891
WG316398-01	1.00	01	103158
WG316398-02	1.00	01	117984
WG316398-03	1.00	01	111887

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 1538326
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L09100771
Instrument ID: HPMS15
Workgroup (AAB#): WG316575

CCV Number: WG316841-02
CAL ID: HPMS15-01-JUL-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1
WG316841-02	NA	NA	105292
Upper Limit	NA	NA	210584
Lower Limit	NA	NA	52646
L09100771-02	1.00	01	82044
L09100771-03	1.00	01	79836
L09100771-04	1.00	01	67658
L09100771-07	1.00	01	79133
L09100771-08	1.00	01	77432
L09100771-09	1.00	01	84030
L09100771-10	1.00	01	67411
L09100771-11	1.00	01	75864
L09100771-12	1.00	01	64333
WG316114-01	1.00	01	67658

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 1538326
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L09100771
Instrument ID: HPMS15
Workgroup (AAB#): WG316582

CCV Number: WG316813-02
CAL ID: HPMS15-01-JUL-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1
WG316813-02	NA	NA	8.35
Upper Limit	NA	NA	8.85
Lower Limit	NA	NA	7.85
WG316114-02	1.00	01	8.353
WG316114-03	1.00	01	8.353
WG316398-01	1.00	01	8.353
WG316398-02	1.00	01	8.356
WG316398-03	1.00	01	8.353

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 1538327
Report generated 11/12/2009 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L09100771
Instrument ID: HPMS15
Workgroup (AAB#): WG316575

CCV Number: WG316841-02
CAL ID: HPMS15-01-JUL-09
Matrix: SOLID

Sample Number	Dilution	Tag	IS-1
WG316841-02	NA	NA	8.35
Upper Limit	NA	NA	8.85
Lower Limit	NA	NA	7.85
L09100771-02	1.00	01	8.353
L09100771-03	1.00	01	8.353
L09100771-04	1.00	01	8.352
L09100771-07	1.00	01	8.352
L09100771-08	1.00	01	8.353
L09100771-09	1.00	01	8.353
L09100771-10	1.00	01	8.353
L09100771-11	1.00	01	8.352
L09100771-12	1.00	01	8.353
WG316114-01	1.00	01	8.352

IS-1 - 1,4-Dichlorobenzene-d4

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 1538327
Report generated 11/12/2009 09:15

2.3 General Chemistry Data

2.3.1 Percent Solids Data

2.3.1.1 Raw Data

LABORATORY REPORT

L09100771

11/17/09 14:57

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd., Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.012
Project: CH2MHILL DOW SC
Site: DOW SOUTH CHARLESTON

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
4012-S001-102909	L09100771-02	D2216-90	1	30-OCT-09
4012-S002-102909	L09100771-03	D2216-90	1	30-OCT-09
4015-S001-102909	L09100771-07	D2216-90	1	30-OCT-09
4015-S002-102909	L09100771-08	D2216-90	1	30-OCT-09
4010-S001-102909	L09100771-10	D2216-90	1	30-OCT-09
4010-S002-102909	L09100771-11	D2216-90	1	30-OCT-09

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-02	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4012-S001-102909	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/29/2009 08:45	Dilution:	1	File ID:	B1.316597-0120
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.8		1.00	1.00

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-03	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4012-S002-102909	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/29/2009 09:10	Dilution:	1	File ID:	B1.316597-0121
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.7		1.00	1.00

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-07	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4015-S001-102909	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/29/2009 11:10	Dilution:	1	File ID:	B1.316597-0122
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.5		1.00	1.00

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-08	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4015-S002-102909	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/29/2009 11:30	Dilution:	1	File ID:	B1.316597-0123
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.7		1.00	1.00

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-10	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4010-S001-102909	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/29/2009 14:10	Dilution:	1	File ID:	B1.316597-0124
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.7		1.00	1.00

Report Number: **L09100771**
Report Date : **November 17, 2009**

Sample Number:	L09100771-11	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	4010-S002-102909	Prep Method:	D2216-90	Prep Date:	11/06/2009 09:23
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG316597	Analyst:	JDH	Run Date:	11/06/2009 09:23
Collect Date:	10/29/2009 14:30	Dilution:	1	File ID:	B1.316597-0125
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.6		1.00	1.00

Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:	
WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

% Moisture = 100 - % Solids from 1.0 calculation

Microbac Laboratories Inc.

PERCENT SOLIDS

Workgroup (AAB#): WG316597 Analyst: JDH ADT(on): 11/05/2009 10:50

Method: D2216-90 Instrument: BAL001 ADT(off): 11/06/2009 09:23

SOP: K0003 Rev: 9

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L09100717-01	1.31	33.94	28.09			82.07	
L09100717-02	1.31	33.94	28.09			82.07	
L09100717-03	1.31	33.94	28.09			82.07	
L09100717-04	1.3	29.53	27.79			93.84	
L09100717-06	1.3	28.71	23.57			81.25	
L09100717-07	1.31	43.68	33.78			76.63	
L09100717-08	1.31	31.65	28.8			90.61	
L09100717-11	1.32	26.59	22.42			83.50	
L09100717-12	1.33	26.95	25.86			95.75	
L09100771-02	1.32	25.51	21.34			82.76	
L09100771-03	1.3	23.88	22			91.67	
L09100771-07	1.29	28.26	23.54			82.50	
L09100771-08	1.32	29.59	27.25			91.72	
L09100771-10	1.31	24.57	20.08			80.70	
L09100771-11	1.31	30.1	26.52			87.57	
L09110027-01	1.32	28.61	28.55			99.78	
L09110027-02	1.33	25.72	25.67			99.79	
L09110027-03	1.31	29.54	29.46			99.72	
L09110027-04	1.31	26.6	26.5			99.60	
L09110027-05	1.32	15.65	15.61			99.72	
L09110027-06	1.32	25.58	25.45			99.46	
L09110027-07	1.32	28.44	28.27			99.37	
L09110028-01	1.31	25.16	22.09			87.13	
L09110028-02	1.33	16.61	14.11			83.64	
L09110028-03	1.34	18.84	15.9			83.20	
L09110037-01	1.3	18.5	16.16			86.40	
L09110037-02	1.3	34.19	28.95			84.07	
L09110085-02	1.33	30.52	26.2			85.20	
L09110086-01	1.31	22.35	20.66			91.97	
L09110086-02	1.31	26.11	22.13			83.95	
L09110086-03	1.29	27.83	23.06			82.03	
WG316597-01	1.32	30.1	26.52			87.56	12.44
WG316597-02	1.3	28.77	25.11			86.68	13.32

Analyst: Justin Hasson

PERCENT_SOLIDS - Modified 04/24/2008

PDF ID: 1531307

Report generated: 11/06/2009 09:29

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
November 17, 2009

ADC – ANTHONY D. CANTER	AJF – AMANDA J. FICKIESEN	AJM – ANTHONY J. MOSSBURG
ALB – ANNIE L. BROWN	AML – ANTHONY M. LONG	BLG – BRENDA L. GREENWALT
BRG – BRENDA R. GREGORY	CAA – CASSIE A. AUGENSTEIN	CAF – CHERYL A. FLOWERS
CAH – CHARLES A. HALL	CEB – CHAD E. BARNES	CLC – CHRYS L. CRAWFORD
CLW – CHARISSA L. WINTERS	CPD – CHAD P. DAVIS	CSH – CHRIS S. HILL
DDE – DEBRA D. ELLIOTT	DEL – DON E. LIGHTFRITZ	DEV – DAVID E. VANDENBERG
DGB – DOUGLAS G. BUTCHER	DIH – DEANNA I. HESSON	DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE	DLR – DIANNA L. RAUCH	DR – DEANNA ROBERTS
ECL – ERIC C. LAWSON	EDA – ERIN D. AGEE	ERP – ERIN R. PORTER
FJB – FRANCES J. BOLDEN	HAV – HEMA VILASAGAR	HJR – HOLLY J. REED
JBK – JEREMY B. KINNEY	JDH – JUSTIN D. HESSON	JKT – JANE K. THOMPSON
JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES	JYH – JI Y. HU
KEB – KATHRYN E. BARNES	KHR – KIM H. RHODES	KRA – KATHY R. ALBERTSON
LKN – LINDA K. NEDEFF	LSB – LESLIE S. BUCINA	MDA – MIKE D. ALBERTSON
MDC – MICHAEL D. COCHRAN	MES – MARY E. SCHILLING	MMB – MAREN M. BEERY
MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON	NPM – NATHANIEL P. MILLER
PDM – PIERCE D. MORRIS	RAH – ROY A. HALSTEAD	RB – ROBERT BUCHANAN
REK – ROBERT E. KYER	RLK – ROBIN L. KLINGER	RWC – RODNEY W. CAMPBELL
SDH – SHANA D. HINYARD	SLM – STEPHANIE L. MOSSBURG	SLP – SHERI L. PFALZGRAF
TIP – TAE I. PARRISH	TMB – TIFFANY M. BAILEY	TMM – TAMMY M. MORRIS
VC – VICKI COLLIER	WTD – WADE T. DELONG	

Microbac Laboratories Inc.
List of Valid Qualifiers
November 17, 2009

Qualkey: CLP

Qualifier	Description
E	Estimated concentration due to interference
E	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
U	Not detected at or above the reporting limit (RL).

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

COC No. A 13067

158 Starlite Drive
Marietta, OH 45750

Microbac

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: CH2M HILL

Project Contact: Paul Weber | Contact Phone #: (919)760-1778

Turn Around Requirements: Standard | Location: SCF

Project ID: Mainland Pre Design Investigation PN: 383505.B5.FI

Sampler (print): Brian Wachter | Signature: Brian Wachter

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	VOCs	SVOCs	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
TB01-102909		X	10/29/09	—	W	2		X			
4012-S001-102909		X	10/29/09	0845	S	4		X	X		14.5-15'
4012-S002-102909		X	10/29/09	0910	S	4		X	X		27.5-28'
4012-GW-102909		X	10/29/09	0950	W	5		X	X		36-40'
4012-GW-102909MS		X	10/29/09	0950	W	5		X	X		↓
4012-GW-102909MSD		X	10/29/09	0950	W	5		X	X		
4015-S001-102909		X	10/29/09	1110	S	4		X	X		13.5-14'
4015-S002-102909		X	10/29/09	1130	S	4		X	X		27-27.5'
4015-GW-102909		X	10/29/09	1250	W	5		X	X		36-40'
4010-S001-102909		X	10/29/09	1410	S	4		X	X		15.5-16'
4010-S002-102909		X	10/29/09	1430	S	4		X	X		25-25.5'
4010-GW-102909		X	10/29/09	1455	W	5		X	X		36-40'

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Brian Wachter	10/29/09	1815	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	10-30-09	1430	

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Microbac OVD
Received: 10/30/2009 14:37
By: DON LIGHTFRITZ

Don E Lightfritz

Date	Time	Received by: (Signature)
10-30-09	1240	

Remarks:

Page 322

1000002667

COOLER INSPECTION

Received: 10/30/2009 14:37
Delivery Method: Courier
Opened By: Don Lightfritz
Comments:

Login(s): L09100771

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0010238	H	3.0		COC13067	
0010236	H	2.0		COC13067	

1	NA	Were shipping coolers sealed?
2	NA	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	No	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were correct perservatives used? (water only)
9	NA	Were pH ranges acceptable? (voa's excluded)
10	Yes	Were VOA samples free of headspace (<6mm)?
11	Yes	Were samples received within EPA hold times?

Discrepancies:

6	Rec'd 1 broken VOA for TB01-102909.	

Look closer. Go further. Do more.

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-01	630069	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Samplenum	Container ID	Products
L09100771-02	630070	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Samplenum	Container ID	Products
L09100771-02	630071	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-02	630072	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:12	BLG	BLG

Sample extract/digestate

Samplenum	Container ID	Products
L09100771-03	630073	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Samplenum	Container ID	Products
L09100771-03	630074	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-03	630075	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:12	BLG	BLG

Sample extract/digestate

Samplenum	Container ID	Products
L09100771-04	630076	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-04	630077	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:34	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

***Sample extract/digestate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	STORE	W1	A1	02-NOV-2009 16:30	JKT	JKT

***Sample extract/digestate**

Samplenum	Container ID	Products
L09100771-05	630078	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-05	630079	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:36	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

***Sample extract/digestate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	STORE	W1	A1	02-NOV-2009 16:30	JKT	JKT

***Sample extract/digestate**

Samplenum	Container ID	Products
L09100771-06	630080	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-06	630081	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:36	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

***Sample extract/digestate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	STORE	W1	A1	02-NOV-2009 16:30	JKT	JKT

***Sample extract/digestate**

Samplenum	Container ID	Products
L09100771-07	630082	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Samplenum	Container ID	Products
L09100771-07	630083	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-07	630084	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:12	BLG	BLG

Sample extract/digestate

Samplenum	Container ID	Products
L09100771-08	630085	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Samplenum	Container ID	Products
L09100771-08	630086	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-08	630087	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:15	BLG	BLG

Sample extract/digestate

Samplenum	Container ID	Products
L09100771-09	630088	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-09	630089	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:34	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

***Sample extract/digestate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	STORE	W1	A1	02-NOV-2009 16:30	JKT	JKT

***Sample extract/digestate**

Samplenum	Container ID	Products
L09100771-10	630090	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Samplenum	Container ID	Products
L09100771-10	630091	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-10	630092	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:15	BLG	BLG

Sample extract/digestate

Samplenum	Container ID	Products
L09100771-11	630093	G-40-T2

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT
3	STORE	VOAY	A2	13-NOV-2009 09:25	JKT	MRT

Samplenum	Container ID	Products
L09100771-11	630094	ENCORE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	30-OCT-2009 15:54	JKT	
2	ANALYZ	L1	VOAY	30-OCT-2009 15:59	TMB	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-11	630095	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	04-NOV-2009 06:47	CEB	RLK
3	STORE	EXT	W1	04-NOV-2009 09:27	RLK	CEB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 08:56	CAA	CEB
5	ANALYZ	W1	WET	05-NOV-2009 09:54	JDH	RLK
6	STORE	WET	W1	06-NOV-2009 14:09	RLK	JDH
7	STORE	W1	A2	17-NOV-2009 08:11	BLG	BLG

Sample extract/digestate

Samplenum	Container ID	Products
L09100771-12	630096	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	30-OCT-2009 15:54	JKT	
2	ANALYZ	V1	ORG4	01-NOV-2009 15:10	MES	RLK
3	STORE	ORG4	A2	13-NOV-2009 09:28	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L09100771
Account: 2736
Project: 2736.012
Samples: 12
Due Date: 13-NOV-2009

Samplenum	Container ID	Products
L09100771-12	630097	827-SPE-DIOX

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	PREP	W1	EXT	02-NOV-2009 11:29	RAH	RLK
3	DISP	EXT	DISP	02-NOV-2009 17:34	RB	RB
4	ANALYZ*	EXT	SEMI	05-NOV-2009 09:01	CAA	RAH

Sample extract/digestate

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-OCT-2009 15:54	JKT	
2	STORE	W1	A1	02-NOV-2009 16:29	JKT	JKT

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Data Quality Evaluation for the Vapor Intrusion and the Mainland Predesign Investigations at the UCC South Charleston Facility, Dow West Virginia

PREPARED FOR: Narendra De/CH2M HILL

PREPARED BY: Shane Lowe/CH2M HILL

DATE: June 17, 2008

Introduction

The objective of this Data Quality Evaluation (DQE) report is to assess the data quality of analytical results for groundwater and soil vapor samples collected from the Dow West Virginia Operations (WVO) South Charleston Facility site for the Vapor Intrusion Investigation. CH2M HILL collected samples from April 9, 2008 through April 24, 2008. Guidance for this DQE report came from the *Dow WVO Quality Assurance Project Plan (QAPP) (September 2006), the U.S. Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines (NFG) for Organic Data Review, October 1999* and individual method requirements.

The analytical results were evaluated using the criteria of precision, accuracy, representativeness, comparability and completeness (PARCC) presented in the QAPP.

This report is intended as a general data quality assessment designed to summarize data issues.

Analytical Data

This DQE report covers 13 groundwaters, 37 soil vapor samples, one groundwater field duplicate (FD), 2 soil vapor FDs and 3 trip blanks (TB). The samples were reported as 7 sample delivery groups listed in Table 1. Samples were collected and delivered to Microbac Laboratories Inc. (Microbac) in Marietta, Ohio and Applied Sciences Laboratories (ASL) in Corvallis, Oregon. The samples were analyzed by one or more of the methods listed below in Table 2.

TABLE 1.
Sample Delivery Groups
Vapor Intrusion Investigation, UCC South Charleston Facility

L08040485
L08040614
L08040719
L08040820
H1709

TABLE 1.
Sample Delivery Groups
Vapor Intrusion Investigation, UCC South Charleston Facility

H1732
H1792

TABLE 2
Analytical Parameters
Vapor Intrusion Investigation, UCC South Charleston Facility

Parameter	Method	Laboratory
Volatile Organic Compounds (VOC)	SW8260B/TO-15	Microbac/ASL
Semivolatile Organic Compounds (SVOC)	SW8270C	Microbac
Fixed Gases	E3C	ASL

The sample delivery groups were assessed by reviewing the following: (1) the chain-of-custody documentation; (2) holding-time compliance; (3) initial and continuing calibration criteria; (4) method blanks and field blanks; (5) laboratory control sample/laboratory control sample duplicates (LCS/LCSD); (6) matrix spike/matrix spike duplicate (MS/MSD) recoveries; (7) surrogate spike recoveries; (8) internal standard recoveries; and (9) the required quality control (QC) samples at the specified frequencies.

Data flags were assigned according to the Dow WVO QAPP. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will only be one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

The data flags are those listed in the WVO QAPP and are defined below:

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R = The sample result was rejected due to serious deficiencies in the ability to analyze the sample and meet the QC criteria. The presence or absence of the analyte could not be verified.
- U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- B = The analyte was detected in the blank as well as the samples.

- K = The analyte was positively identified, but the associated numerical value may be biased high.
- L = The analyte was positively identified, but the associated numerical value may be biased low.
- UL = The analyte was analyzed for but was not detected. The quantitation limit may be higher.

Findings

The overall summaries of the data validation are contained in the following sections and Table 3.

Sample Quantitation

The recovery of n-hexane exceeded the calibration range in the analysis of samples 3055-SG01-042308, 3056-SG01-042808 and 3056-SG01-042808D for method TO-15. Due to laboratory oversight, the samples were not re-analyzed at a dilution. The associated results were qualified as estimated and flagged "J" in the samples.

Holding time and Preservation

The analytical hold-time criterion of 14 days was exceeded for sample 3046-GW-041008 for method SW8260B. The data were qualified as estimated detected and non-detected results and flagged "J" and "UJ" respectively in the sample.

Several samples exceeded the hold-time criteria of 30 days for method TO-15. The data were qualified as estimated detected and non-detected results and flagged "J" and "UJ" respectively in the samples.

Sample 3044-GW-040908 exceeded the extraction hold-time criterion of 7 days for method SW8270C. The data were qualified as an estimated non-detected result and flagged "UJ" in the sample.

Calibration

Initial and continuing calibration analyses were performed as required by the methods and generally met all acceptance criteria.

The relative response factor (RRF) for 1, 4-dioxane was significantly less than criteria in multiple VOC initial calibrations associated with method SW8260B. The RRF for 1, 4-dioxane was also less than criteria in the continuing calibration verifications (CCV) that were analyzed. This diminished response indicates a lack of sensitivity to accurately detect 1, 4-dioxane. With the exception of samples 3013-GW01-042308 and 3044-GW-040908 ("L" flagged), all of the 1, 4-dioxane results were rejected for project use and flagged "R" in the associated samples.

The RRF for acrylonitrile, acetone, 2-butanone, 2-hexanone and 4-methyl-2-pentanone were also less than criteria in several initial calibrations (ICAL) associated with method SW8260B as well as several CCVs that were analyzed. The data were qualified as estimated non-detected results and flagged "UL" in the associated samples.

The percent difference (%D) for vinyl acetate was less than method criteria in a few continuing calibration verification standards (CCVs). The data were qualified as estimated non-detected results and flagged "UJ" in the associated samples.

The relative standard deviation (%RSD) exceeded method criteria for 1, 2-dichloropropane, 2-methylnaphthalene and methylene chloride in several VOC ICALs associated with method TO-15. Detected results were qualified as estimated and flagged "J" in the associated samples. Non-detected results were not qualified.

The %RSD grossly exceeded method criteria for benzyl chloride in the ICAL analyzed on May 21, 2008 for method TO-15. The data were qualified as estimated detected and non-detected results and flagged "J" and "UJ" respectively in the associated samples.

The RRF for benzyl chloride was significantly less than method criteria in several CCVs associated with method TO-15. Detected results were qualified as estimated and flagged "L" in the associated samples. Non-detected results were rejected for project use and flagged "R".

The %D for acetone, 2-butanone and/or 2-methylnaphthalene exceeded method criteria in several CCVs associated with method TO-15. Detected results were qualified as estimated and flagged "J" in the associated samples. Non-detected results were not qualified.

The %D for hexachlorobutadiene, methylene chloride, styrene and/or trichlorofluoromethane was less than method criteria in several CCVs associated with method TO-15. The data were qualified as estimated detected and non-detected results and flagged "J" and "UJ" respectively.

Method Blanks

Method blanks were analyzed at the required frequency and were generally free of contamination.

Several analytes were detected at concentrations less than the reporting limit (RL) in multiple method blanks associated with method TO-15. The data were qualified as non-detected results and flagged "B" when the sample concentrations were less than five times (ten times for common laboratory contaminants) the concentration detected in the blanks.

Laboratory Control Samples

LCS/LCSDs were analyzed as required and generally all accuracy criteria were met.

The recoveries for vinyl acetate and 1, 4-dioxane was less than lower control limits in several VOC LCS/LCSDs associated with method SW8260B. The data were qualified as estimated non-detected results and flagged "UL" in the associated samples.

Multiple analytes were recovered less than the lower control limit in several VOC LCS/LCSDs associated with method TO-15. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL" respectively in the associated samples. In addition, there were several instances where benzyl chloride was recovered less than ten percent in the LCS. Detected results were qualified as estimated and flagged "L" in the associated samples. Non-detected results were rejected for project use and flagged "R".

Multiple analytes were recovered greater than control limits in several LCSs associated with method TO-15. Detected results were qualified as estimated and flagged "K" in the associated samples. Non-detected results were not qualified.

Matrix Spike

MS/MSDs were analyzed as required and generally all accuracy and precision criteria were met.

The recoveries for benzene and vinyl acetate were less than control limits in the MS/MSD for sample 3055-GW01-042308. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL", respectively, in the parent sample.

The recoveries for bis(2-chloroethoxy) methane were less than the lower control limits in the MS/MSDs associated with the SVOC analyses. The recovery of n-Nitrosodiphenylamine was also less than the lower control limit for one MS. The data were qualified as estimated non-detected results and flagged "UL" in the parent samples.

Internal Standards

The internal standard recoveries generally met acceptance criteria with the exception of a few instances in the TO-15 analysis where an internal standard was recovered less than method criteria. The associated analytes were qualified as estimated detected and non-detected results and flagged "J" and "UJ" respectively in the samples.

Surrogates

Surrogates were added to the methods requiring their use and generally all acceptance criteria were met.

The recovery of one surrogate was greater than control limits in several samples associated with methods SW8260B and/or TO-15. Detected results were qualified as estimated and flagged "J" in the samples. Non-detected results were not qualified.

There was one instance in the SVOC analysis where a base surrogate recovered less than ten percent. The associated non-detected data were rejected for project use and flagged "R"in the sample.

Field Duplicates

FDs were collected and analyzed as required and generally met all precision criteria.

The relative percent difference (RPD) exceeded control limits for 1, 2-dichloropropane, dichlorodifluoromethane and n-propylbenzene in FD pair 3056-SG01-042808/3056-SG01-042808D associated with the TO-15 analysis. The data were qualified as estimated detected results and flagged "J".

Field Blanks

TBs were collected at the required frequencies and were free of contamination.

Chain of Custody

Required procedures were followed and were free of errors.

Overall Assessment

The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected and the resulting analytical data can be used to support the decision making process. The following summary highlights the PARCC findings for the above-defined events:

Precision of the data was verified through the review of the field and laboratory data quality indicators that include FD, LCS/LCSD and MS/MSD RPDs. Precision was generally acceptable with the exception of a few analytes being qualified as estimated due to FD RPD issues. Data users should consider the impact to any result that is qualified as estimated as it may contain a bias which could affect the decision-making process.

Accuracy of the data was verified through the review of the calibration data, LCS/LCSDs, MS/MSDs, internal standards, surrogate standard recoveries and the evaluation of method/field blank data. Accuracy was generally acceptable with a few compounds being qualified as estimated due to calibration, LCS/LCSD, internal standard, surrogate and/or MS/MSD issues. In addition, there were several instances where analytes were rejected for project use due to calibration, LCS and/or surrogate issues. Several analytes were detected in the method blanks associated with method TO-15 resulting in data being qualified for blank contamination.

Representativeness of the data was verified through the sample's collection, storage and preservation procedures and the verification of holding-time compliance. No observations related to sample preservation or storage of the samples were noted by the laboratory. Several samples exceeded the analytical holding time criterion for methods SW8260B, SW8270C and/or TO-15, resulting in data being qualified as estimated. All other data were reported from analyses within the EPA recommended holding time.

Comparability of the data was ensured through the use of standard EPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.

Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as all data that are not rejected for project use. All data were considered valid with the exception of several analytes being rejected for project use in samples associated with

methods SW8260B, SW8270C and/or TO-15. The completeness goal of 90 percent was met for all compounds except 1, 4-dioxane (14 %) and benzyl chloride (85%).

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3012-GW01-041508	SW8260B	1,4-Dioxane	ug/L	10000	R	IC RRF, LCS<LCL (UL)
3012-GW01-041508	SW8260B	Acetone	ug/L	2500	UL	IC RRF
3012-GW01-041508	SW8260B	Vinyl acetate	ug/L	1000	UL	LCS<LCL, LCSD<LCL
3012-SG01-041508	TO-15	Methylene Chloride	PPBV	23.4	B	LB<RL
3012-SG01-041508	TO-15	Methylene Chloride	UG/M3	82.7	B	LB<RL
3012-SG02-041508	TO-15	Methylene Chloride	PPBV	13.8	B	LB<RL
3012-SG02-041508	TO-15	Methylene Chloride	UG/M3	48.8	B	LB<RL
3013-GW01-042308	SW8260B	1,4-Dioxane	ug/L	1760	L	IC RRF
3013-GW01-042308	SW8260B	2-Butanone	ug/L	100	UL	IC RRF
3013-GW01-042308	SW8260B	2-Hexanone	ug/L	50	UL	IC RRF
3013-GW01-042308	SW8260B	4-Methyl-2-pentatone	ug/L	50	UL	IC RRF
3013-GW01-042308	SW8260B	Acetone	ug/L	250	UL	IC RRF
3013-GW01-042308	SW8260B	Acrylonitrile	ug/L	100	UL	IC RRF
3013-GW01-042308	SW8260B	Vinyl acetate	ug/L	100	UL	LCS<LCL
3013-SG01-041408	TO-15	1,2-Dichloroethane	PPBV	11.8	B	LB<RL
3013-SG01-041408	TO-15	1,2-Dichloroethane	UG/M3	48.6	B	LB<RL
3013-SG01-041408	TO-15	1,2-Dichloropropane	PPBV	116	J	IC%RSD
3013-SG01-041408	TO-15	1,2-Dichloropropane	UG/M3	545	J	IC%RSD
3013-SG01-041408	TO-15	Methylene Chloride	UG/M3	21.4	B	LB<RL
3013-SG01-041408	TO-15	Methylene Chloride	PPBV	6.05	B	LB<RL
3013-SG01-041408	TO-15	n-Hexane	PPBV	11.2	B	LB<RL
3013-SG01-041408	TO-15	n-Hexane	UG/M3	40.2	B	LB<RL
3013-SG02-041408	TO-15	1,2-Dichloropropane	PPBV	15500000	J	IC%RSD
3013-SG02-041408	TO-15	1,2-Dichloropropane	UG/M3	72900000	J	IC%RSD
3013-SG02-041408	TO-15	Methylene Chloride	PPBV	313000	B	LB<RL
3013-SG02-041408	TO-15	Methylene Chloride	UG/M3	1110000	B	LB<RL
3013-SG02-041408	TO-15	n-Hexane	PPBV	238000	B	LB<RL
3013-SG02-041408	TO-15	n-Hexane	UG/M3	853000	B	LB<RL
3013-SG02-041408D	TO-15	1,2-Dichloropropane	PPBV	15800000	J	IC%RSD
3013-SG02-041408D	TO-15	1,2-Dichloropropane	UG/M3	74300000	J	IC%RSD
3013-SG02-041408D	TO-15	Methylene Chloride	PPBV	93800	B	LB<RL
3013-SG02-041408D	TO-15	Methylene Chloride	UG/M3	331000	B	LB<RL
3013-SG02-041408D	TO-15	n-Hexane	PPBV	68500	B	LB<RL
3013-SG02-041408D	TO-15	n-Hexane	UG/M3	246000	B	LB<RL
3019-GW-041108	SW8260B	1,1,2-Trichloroethane	ug/L	56.8	J	Sur>UCL
3019-GW-041108	SW8260B	1,1-Dichloroethane	ug/L	12.7	J	Sur>UCL
3019-GW-041108	SW8260B	1,1-Dichloroethene	ug/L	490	J	Sur>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3019-GW-041108	SW8260B	1,2-Dichloroethane	ug/L	919	J	Sur>UCL
3019-GW-041108	SW8260B	1,4-Dioxane	ug/L	1000	R	IC RRF
3019-GW-041108	SW8260B	Benzene	ug/L	79.3	J	Sur>UCL
3019-GW-041108	SW8260B	cis-1,2-Dichloroethylene	ug/L	911	J	Sur>UCL
3019-GW-041108	SW8260B	TCE	ug/L	604	J	Sur>UCL
3019-GW-041108	SW8260B	Tetrachloroethene	ug/L	29.9	J	Sur>UCL
3019-GW-041108	SW8260B	Trans-1,2-DCE	ug/L	66.8	J	Sur>UCL
3019-GW-041108	SW8260B	Vinyl acetate	ug/L	100	UJ	CCV<LCL
3019-GW-041108	SW8260B	Vinyl chloride	ug/L	1660	J	Sur>UCL
3019-SG02-041008	TO-15	1,2-Dichloropropane	PPBV	112000	J	IC%RSD
3019-SG02-041008	TO-15	1,2-Dichloropropane	UG/M3	526000	J	IC%RSD
3019-SG02-041008	TO-15	Methylene Chloride	PPBV	423	B	LB<RL
3019-SG02-041008	TO-15	Methylene Chloride	UG/M3	1490	B	LB<RL
3019-SG03-041008	TO-15	1,2-Dichloropropane	PPBV	120000	J	IC%RSD
3019-SG03-041008	TO-15	1,2-Dichloropropane	UG/M3	564000	J	IC%RSD
3019-SG03-041008	TO-15	Methylene Chloride	PPBV	409	B	LB<RL
3019-SG03-041008	TO-15	Methylene Chloride	UG/M3	1450	B	LB<RL
3024-SG01-041708	TO-15	2-Methylnaphthalene	UG/M3	11.4	K	LCS>UCL
3024-SG01-041708	TO-15	2-Methylnaphthalene	PPBV	1.92	K	LCS>UCL
3024-SG01-041708	TO-15	Methylene Chloride	UG/M3	9.3	B	LB<RL
3024-SG01-041708	TO-15	Methylene Chloride	PPBV	2.64	B	LB<RL
3024-SG02-041708	TO-15	Methylene Chloride	PPBV	22.3	B	LB<RL
3024-SG02-041708	TO-15	Methylene Chloride	UG/M3	78.8	B	LB<RL
3025-SG01-041708	TO-15	2-Methylnaphthalene	UG/M3	375	K	LCS>UCL
3025-SG01-041708	TO-15	2-Methylnaphthalene	PPBV	63.4	K	LCS>UCL
3025-SG01-041708	TO-15	Methylene Chloride	UG/M3	6.6	B	LB<RL
3025-SG01-041708	TO-15	Methylene Chloride	PPBV	1.87	B	LB<RL
3025-SG02-041708	TO-15	Methylene Chloride	UG/M3	187	B	LB<RL
3025-SG02-041708	TO-15	Methylene Chloride	PPBV	53	B	LB<RL
3039-GW01-042808	SW8260B	1,4-Dioxane	ug/L	1000	R	IC RRF
3039-GW01-042808	SW8260B	4-Methyl-2-pentatone	ug/L	50	UL	IC RRF
3039-GW01-042808	SW8260B	Acetone	ug/L	250	UL	IC RRF
3039-GW01-042808	SW8260B	Acrylonitrile	ug/L	100	UL	IC RRF
3039-GW01-042808	SW8260B	Vinyl acetate	ug/L	100	UL	LCS<LCL
3039-SG01-041608	TO-15	Methylene Chloride	PPBV	16.6	B	LB<RL
3039-SG01-041608	TO-15	Methylene Chloride	UG/M3	58.7	B	LB<RL
3039-SG02-041608	TO-15	2-Methylnaphthalene	UG/M3	260	J	CCV>UCL
3039-SG02-041608	TO-15	2-Methylnaphthalene	PPBV	43.9	J	CCV>UCL
3039-SG02-041608	TO-15	Methylene Chloride	PPBV	23.5	B	LB<RL
3039-SG02-041608	TO-15	Methylene Chloride	UG/M3	83	B	LB<RL
3040-SG01-041608	TO-15	2-Methylnaphthalene	PPBV	103	K	LCS>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3040-SG01-041608	TO-15	2-Methylnaphthalene	UG/M3	609	K	LCS>UCL
3040-SG01-041608	TO-15	Methylene Chloride	UG/M3	11.8	B	LB<RL
3040-SG01-041608	TO-15	Methylene Chloride	PPBV	3.33	B	LB<RL
3042-SG01-041408	TO-15	1,2-Dichloropropane	UG/M3	104	J	IC%RSD
3042-SG01-041408	TO-15	1,2-Dichloropropane	PPBV	22.1	J	IC%RSD
3042-SG01-041408	TO-15	Methylene Chloride	UG/M3	7.8	B	LB<RL
3042-SG01-041408	TO-15	Methylene Chloride	PPBV	2.22	B	LB<RL
3044-GW-040908	SW8260B	1,4-Dioxane	ug/L	453	L	IC RRF, LCS<LCL (UL)
3044-GW-040908	SW8260B	4-Methyl-2-pentatone	ug/L	5	UL	CCV RRF
3044-GW-040908	SW8260B	Acetone	ug/L	25	UL	IC RRF
3044-GW-040908	SW8270C	Naphthalene	ug/L	6.76	UJ	HTp>UCL
3044-GW-040908	SW8260B	Vinyl acetate	ug/L	10	UL	LCS<LCL, CCV<LCL
3044-SG01-041008	TO-15	1,2-Dichloroethane	UG/M3	5.2	B	LB<RL
3044-SG01-041008	TO-15	1,2-Dichloroethane	PPBV	1.27	B	LB<RL
3044-SG01-041008	TO-15	1,2-Dichloropropane	PPBV	13.8	J	IC%RSD
3044-SG01-041008	TO-15	1,2-Dichloropropane	UG/M3	64.9	J	IC%RSD
3044-SG01-041008	TO-15	2-Methylnaphthalene	UG/M3	9.2	J	IC%RSD
3044-SG01-041008	TO-15	2-Methylnaphthalene	PPBV	1.56	J	IC%RSD
3044-SG01-041008	TO-15	Methylene Chloride	UG/M3	8.9	B	LB<RL
3044-SG01-041008	TO-15	Methylene Chloride	PPBV	2.53	B	LB<RL
3044-SG02-040908	TO-15	1,2-Dichloropropane	PPBV	39400	J	IC%RSD
3044-SG02-040908	TO-15	1,2-Dichloropropane	UG/M3	185000	J	IC%RSD
3044-SG02-040908	TO-15	Methylene Chloride	PPBV	184	B	LB<RL
3044-SG02-040908	TO-15	Methylene Chloride	UG/M3	650	B	LB<RL
3044-SG02-040908	TO-15	n-Hexane	PPBV	236	B	LB<RL
3044-SG02-040908	TO-15	n-Hexane	UG/M3	846	B	LB<RL
3044-SG03-040908	TO-15	1,2-Dichloropropane	UG/M3	354	J	IC%RSD
3044-SG03-040908	TO-15	1,2-Dichloropropane	PPBV	75.3	J	IC%RSD
3044-SG03-040908	TO-15	n-Hexane	UG/M3	6.5	B	LB<RL
3044-SG03-040908	TO-15	n-Hexane	PPBV	1.82	B	LB<RL
3046-GW-041008	SW8260B	1,1,1-Trichloroethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,1,2,2-Tetrachloroethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,1,2-Trichloroethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,1-Dichloroethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,1-Dichloroethene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,2,4-Trichlorobenzene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,2-Dichlorobenzene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,2-Dichloroethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,2-Dichloropropane	ug/L	4.48	J	HTa>UCL
3046-GW-041008	SW8260B	1,3-Dichlorobenzene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	1,4-Dichlorobenzene	ug/L	2.5	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3046-GW-041008	SW8260B	1,4-Dioxane	ug/L	250	R	IC RRF, HTa>UCL (UJ)
3046-GW-041008	SW8260B	2-Butanone	ug/L	25	UJ	HTa>UCL
3046-GW-041008	SW8260B	2-Hexanone	ug/L	12.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	4-Methyl-2-pentatone	ug/L	12.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Acetone	ug/L	62.5	UL	IC RRF, HTa>UCL (UJ)
3046-GW-041008	SW8260B	Acrylonitrile	ug/L	25	UJ	HTa>UCL
3046-GW-041008	SW8260B	Benzene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Bromodichloromethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Bromoform	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Bromomethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Carbon disulfide	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Carbon tetrachloride	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Chlorobenzene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Chloroethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Chloroform	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Chloromethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	cis-1,2-Dichloroethylene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	cis-1,3-Dichloropropene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Dibromochloromethane	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Ethylbenzene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Methyl tert-Butyl Ether	ug/L	12.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Methylene chloride	ug/L	12.5	UJ	HTa>UCL
3046-GW-041008	SW8270C	Naphthalene	ug/L	6.85	R	Sur<LCL
3046-GW-041008	SW8270C	Naphthalene	ug/L	6.85	UL	Sur<LCL
3046-GW-041008	SW8260B	Styrene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	TCE	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Tetrachloroethene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Toluene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Trans-1,2-DCE	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	trans-1,3-Dichloropropene	ug/L	2.5	UJ	HTa>UCL
3046-GW-041008	SW8260B	Vinyl acetate	ug/L	25	UJ	CCV<LCL, HTa>UCL
3046-GW-041008	SW8260B	Vinyl chloride	ug/L	4.61	J	HTa>UCL
3046-GW-041008	SW8260B	Xylenes, Total	ug/L	12.5	UJ	HTa>UCL
3046-SG01-041108	TO-15	1,2-Dichloropropane	UG/M3	251	J	IC%RSD
3046-SG01-041108	TO-15	1,2-Dichloropropane	PPBV	53.4	J	IC%RSD
3046-SG01-041108	TO-15	Methylene Chloride	UG/M3	8.1	B	LB<RL
3046-SG01-041108	TO-15	Methylene Chloride	PPBV	2.29	B	LB<RL
3046-SG01-041108	TO-15	Naphthalene	UG/M3	4.6	B	LB<RL
3046-SG01-041108	TO-15	Naphthalene	PPBV	0.86	B	LB<RL
3046-SG02-041108	TO-15	1,2-Dichloroethane	PPBV	13.3	B	LB<RL
3046-SG02-041108	TO-15	1,2-Dichloroethane	UG/M3	54.8	B	LB<RL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3046-SG02-041108	TO-15	1,2-Dichloropropane	UG/M3	293	B	LB<RL, IC%RSD (J)
3046-SG02-041108	TO-15	1,2-Dichloropropane	PPBV	62.4	B	LB<RL, IC%RSD (J)
3046-SG02-041108	TO-15	Methylene Chloride	PPBV	16.4	B	LB<RL
3046-SG02-041108	TO-15	Methylene Chloride	UG/M3	58	B	LB<RL
3046-SG02-041108	TO-15	n-Hexane	PPBV	19.6	B	LB<RL
3046-SG02-041108	TO-15	n-Hexane	UG/M3	70.3	B	LB<RL
3046-SG03-041108	TO-15	1,2-Dichloroethane	PPBV	10.8	B	LB<RL
3046-SG03-041108	TO-15	1,2-Dichloroethane	UG/M3	44.5	B	LB<RL
3046-SG03-041108	TO-15	1,2-Dichloropropane	PPBV	115	J	IC%RSD
3046-SG03-041108	TO-15	1,2-Dichloropropane	UG/M3	541	J	IC%RSD
3046-SG03-041108	TO-15	Methylene Chloride	PPBV	17.1	B	LB<RL
3046-SG03-041108	TO-15	Methylene Chloride	UG/M3	60.4	B	LB<RL
3046-SG03-041108	TO-15	n-Hexane	PPBV	14.5	B	LB<RL
3046-SG03-041108	TO-15	n-Hexane	UG/M3	52	B	LB<RL
3047-GW01-041808	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF
3047-GW01-041808	SW8260B	2-Butanone	ug/L	10	UL	IC RRF
3047-GW01-041808	SW8260B	2-Hexanone	ug/L	5	UL	IC RRF
3047-GW01-041808	SW8260B	4-Methyl-2-pentatone	ug/L	5	UL	IC RRF
3047-GW01-041808	SW8260B	Acetone	ug/L	25	UL	IC RRF
3047-GW01-041808	SW8260B	Acrylonitrile	ug/L	10	UL	IC RRF
3047-GW01-041808	SW8260B	Vinyl acetate	ug/L	10	UL	LCS<LCL
3047-GW01-041808D	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF
3047-GW01-041808D	SW8260B	2-Butanone	ug/L	10	UL	IC RRF
3047-GW01-041808D	SW8260B	2-Hexanone	ug/L	5	UL	IC RRF
3047-GW01-041808D	SW8260B	4-Methyl-2-pentatone	ug/L	5	UL	IC RRF
3047-GW01-041808D	SW8260B	Acetone	ug/L	25	UL	IC RRF
3047-GW01-041808D	SW8260B	Acrylonitrile	ug/L	10	UL	IC RRF
3047-GW01-041808D	SW8260B	Vinyl acetate	ug/L	10	UL	LCS<LCL
3047-SG01-041708	TO-15	2-Methylnaphthalene	PPBV	849	K	LCS>UCL
3047-SG01-041708	TO-15	2-Methylnaphthalene	UG/M3	5020	K	LCS>UCL
3047-SG02-041708	TO-15	Methylene Chloride	PPBV	18.8	B	LB<RL
3047-SG02-041708	TO-15	Methylene Chloride	UG/M3	66.4	B	LB<RL
3048-GW01-041808	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF
3048-GW01-041808	SW8260B	2-Butanone	ug/L	10	UL	IC RRF
3048-GW01-041808	SW8260B	2-Hexanone	ug/L	5	UL	IC RRF
3048-GW01-041808	SW8260B	4-Methyl-2-pentatone	ug/L	5	UL	IC RRF
3048-GW01-041808	SW8260B	Acetone	ug/L	25	UL	IC RRF
3048-GW01-041808	SW8260B	Acrylonitrile	ug/L	10	UL	IC RRF
3048-GW01-041808	SW8260B	Vinyl acetate	ug/L	10	UL	LCS<LCL
3048-SG01-041808	TO-15	1,2,4-Trichlorobenzene	UG/M3	16	K	LCS>UCL
3048-SG01-041808	TO-15	1,2,4-Trichlorobenzene	PPBV	2.12	K	LCS>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3048-SG01-041808	TO-15	2-Methylnaphthalene	PPBV	145	K	LCS>UCL
3048-SG01-041808	TO-15	2-Methylnaphthalene	UG/M3	858	K	LCS>UCL
3048-SG02-041808	TO-15	2-Methylnaphthalene	UG/M3	385	K	LCS>UCL
3048-SG02-041808	TO-15	2-Methylnaphthalene	PPBV	65.1	K	LCS>UCL
3048-SG02-041808	TO-15	Hexachlorobutadiene	UG/M3	18.9	K	LCS>UCL
3048-SG02-041808	TO-15	Hexachlorobutadiene	PPBV	1.76	K	LCS>UCL
3048-SG02-041808	TO-15	Methylene Chloride	UG/M3	8.7	B	LB<RL
3048-SG02-041808	TO-15	Methylene Chloride	PPBV	2.45	B	LB<RL
3050-GW01-042208	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF
3050-GW01-042208	SW8260B	4-Methyl-2-pentatone	ug/L	5	UL	IC RRF
3050-GW01-042208	SW8260B	Acetone	ug/L	25	UL	IC RRF
3050-GW01-042208	SW8260B	Acrylonitrile	ug/L	10	UL	IC RRF
3050-GW01-042208	SW8260B	Vinyl acetate	ug/L	10	UL	LCS<LCL
3050-SG01-042208	TO-15	1,1,1-Trichloroethane	UG/M3	19.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1,1-Trichloroethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	24.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1,2,2-Tetrachloroethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1,2-Trichloroethane	UG/M3	19.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1,2-Trichloroethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1-Dichloroethane	UG/M3	2.1	J	HTa>UCL
3050-SG01-042208	TO-15	1,1-Dichloroethane	PPBV	0.52	J	HTa>UCL
3050-SG01-042208	TO-15	1,1-Dichloroethene	UG/M3	14.1	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,1-Dichloroethene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2,4-Trichlorobenzene	UG/M3	26.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2,4-Trichlorobenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2,4-Trimethylbenzene	UG/M3	2	J	HTa>UCL
3050-SG01-042208	TO-15	1,2,4-Trimethylbenzene	PPBV	0.4	J	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dibromoethane	UG/M3	27.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dibromoethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichlorobenzene	UG/M3	21.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichlorobenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichloroethane	UG/M3	4	J	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichloroethane	PPBV	0.96	J	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichloropropane	PPBV	18.8	J	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichloropropane	UG/M3	88.4	J	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichlorotetrafluoroethane	UG/M3	24.9	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,2-Dichlorotetrafluoroethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,3,5-Trimethylbenzene	UG/M3	17.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,3,5-Trimethylbenzene	PPBV	3.5	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3050-SG01-042208	TO-15	1,3-Dichlorobenzene	UG/M3	21.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,3-Dichlorobenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,4-Dichlorobenzene	UG/M3	21.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,4-Dichlorobenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,4-Dioxane	UG/M3	12.8	UJ	HTa>UCL
3050-SG01-042208	TO-15	1,4-Dioxane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	2-Butanone	PPBV	247	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3050-SG01-042208	TO-15	2-Butanone	UG/M3	741	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3050-SG01-042208	TO-15	4-Methyl-2-pentanone	UG/M3	15.4	J	HTa>UCL
3050-SG01-042208	TO-15	4-Methyl-2-pentanone	PPBV	3.69	J	HTa>UCL
3050-SG01-042208	TO-15	Acetone	UG/M3	107	J	HTa>UCL, CCV>UCL
3050-SG01-042208	TO-15	Acetone	PPBV	44.4	J	CCV>UCL, HTa>UCL
3050-SG01-042208	TO-15	Benzene	UG/M3	23.3	J	HTa>UCL
3050-SG01-042208	TO-15	Benzene	PPBV	7.17	J	HTa>UCL
3050-SG01-042208	TO-15	Benzyl chloride	UG/M3	17.7	R	LCS<LCL, CCV RRF (L), IC%RSD (J), HTa>UCL (J)
3050-SG01-042208	TO-15	Benzyl chloride	PPBV	3.37	L	LCS<LCL, CCV RRF, IC%RSD (J), HTa>UCL (J)
3050-SG01-042208	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	49.8	UJ	HTa>UCL
3050-SG01-042208	TO-15	bis(2-Chloroisopropyl)ether	PPBV	7	UJ	HTa>UCL
3050-SG01-042208	TO-15	Bromomethane	UG/M3	13.8	UJ	HTa>UCL
3050-SG01-042208	TO-15	Bromomethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Carbon Tetrachloride	UG/M3	22.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	Carbon Tetrachloride	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Chlorobenzene	UG/M3	16.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	Chlorobenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Chloroethane	UG/M3	9.4	UJ	HTa>UCL
3050-SG01-042208	TO-15	Chloroethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Chloroform	UG/M3	26.9	J	HTa>UCL
3050-SG01-042208	TO-15	Chloroform	PPBV	5.41	J	HTa>UCL
3050-SG01-042208	TO-15	Chloromethane	UG/M3	1.6	J	HTa>UCL
3050-SG01-042208	TO-15	Chloromethane	PPBV	0.76	J	HTa>UCL
3050-SG01-042208	TO-15	cis-1,2-Dichloroethylene	UG/M3	14.1	UJ	HTa>UCL
3050-SG01-042208	TO-15	cis-1,2-Dichloroethylene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	cis-1,3-Dichloropropene	UG/M3	16.2	UJ	HTa>UCL
3050-SG01-042208	TO-15	cis-1,3-Dichloropropene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Dichlorodifluoromethane	PPBV	14.2	L	LCS<LCL, HTa>UCL (J)
3050-SG01-042208	TO-15	Dichlorodifluoromethane	UG/M3	71.4	L	LCS<LCL, HTa>UCL (J)
3050-SG01-042208	TO-15	Ethylbenzene	UG/M3	3.5	J	HTa>UCL
3050-SG01-042208	TO-15	Ethylbenzene	PPBV	0.79	J	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3050-SG01-042208	TO-15	Hexachlorobutadiene	UG/M3	37.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Hexachlorobutadiene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	m,p-Xylene	UG/M3	6.4	J	HTa>UCL
3050-SG01-042208	TO-15	m,p-Xylene	PPBV	1.46	J	HTa>UCL
3050-SG01-042208	TO-15	Methyl tert-Butyl Ether	UG/M3	2.9	L	LCS<LCL, HTa>UCL (J)
3050-SG01-042208	TO-15	Methyl tert-Butyl Ether	PPBV	0.8	L	LCS<LCL, HTa>UCL (J)
3050-SG01-042208	TO-15	Methylene Chloride	UG/M3	27.4	B	LB<RL, LCS<LCL (L), IC%RSD (J), HTa>UCL (J)
3050-SG01-042208	TO-15	Methylene Chloride	PPBV	7.75	B	LB<RL, LCS<LCL (L), IC%RSD (J), HTa>UCL (J)
3050-SG01-042208	TO-15	Naphthalene	UG/M3	37.3	UJ	HTa>UCL
3050-SG01-042208	TO-15	Naphthalene	PPBV	7	UJ	HTa>UCL
3050-SG01-042208	TO-15	n-Butylbenzene	UG/M3	19.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	n-Butylbenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	n-Hexane	UG/M3	23.8	J	HTa>UCL
3050-SG01-042208	TO-15	n-Hexane	PPBV	6.63	J	HTa>UCL
3050-SG01-042208	TO-15	n-Propylbenzene	UG/M3	17.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	n-Propylbenzene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	o-Xylene	UG/M3	3.9	J	HTa>UCL
3050-SG01-042208	TO-15	o-Xylene	PPBV	0.88	J	HTa>UCL
3050-SG01-042208	TO-15	Styrene	UG/M3	15.2	UJ	HTa>UCL
3050-SG01-042208	TO-15	Styrene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	TCE	UG/M3	7.6	J	HTa>UCL
3050-SG01-042208	TO-15	TCE	PPBV	1.39	J	HTa>UCL
3050-SG01-042208	TO-15	Tetrachloroethylene	PPBV	348	J	HTa>UCL
3050-SG01-042208	TO-15	Tetrachloroethylene	UG/M3	2400	J	HTa>UCL
3050-SG01-042208	TO-15	Toluene	UG/M3	25.4	J	HTa>UCL
3050-SG01-042208	TO-15	Toluene	PPBV	6.63	J	HTa>UCL
3050-SG01-042208	TO-15	trans-1,2-DCE	UG/M3	14.1	UJ	HTa>UCL
3050-SG01-042208	TO-15	trans-1,2-DCE	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	trans-1,3-Dichloropropene	UG/M3	16.2	UJ	HTa>UCL
3050-SG01-042208	TO-15	trans-1,3-Dichloropropene	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Trichlorofluoromethane	UG/M3	8.5	L	LCS<LCL, CCV<LCL (J), HTa>UCL (J)
3050-SG01-042208	TO-15	Trichlorofluoromethane	PPBV	1.48	L	LCS<LCL, HTa>UCL (J), CCV<LCL (J)
3050-SG01-042208	TO-15	Trichlorotrifluoroethane	UG/M3	27.3	UJ	HTa>UCL
3050-SG01-042208	TO-15	Trichlorotrifluoroethane	PPBV	3.5	UJ	HTa>UCL
3050-SG01-042208	TO-15	Vinyl Chloride	UG/M3	9.1	UJ	HTa>UCL
3050-SG01-042208	TO-15	Vinyl Chloride	PPBV	3.5	UJ	HTa>UCL
3050-SG02-042208	TO-15	1,2,4-Trichlorobenzene	UG/M3	59.1	UL	LCS<LCL
3050-SG02-042208	TO-15	1,2,4-Trichlorobenzene	PPBV	7.83	UL	LCS<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3050-SG02-042208	TO-15	Benzene	UG/M3	11.9	B	LB<RL
3050-SG02-042208	TO-15	Benzene	PPBV	3.65	B	LB<RL
3050-SG02-042208	TO-15	Benzyl chloride	PPBV	15.7	UL	LCS<LCL, IC%RSD (J)
3050-SG02-042208	TO-15	Benzyl chloride	UG/M3	82.7	UL	LCS<LCL, IC%RSD (UJ)
3050-SG02-042208	TO-15	Bromomethane	UG/M3	5.8	B	LB<RL
3050-SG02-042208	TO-15	Bromomethane	PPBV	1.46	B	LB<RL
3050-SG02-042208	TO-15	Hexachlorobutadiene	UG/M3	84	UL	LCS<LCL
3050-SG02-042208	TO-15	Hexachlorobutadiene	PPBV	7.83	UL	LCS<LCL
3050-SG02-042208	TO-15	Methylene Chloride	UG/M3	16.5	B	LB<RL, IC%RSD (J)
3050-SG02-042208	TO-15	Methylene Chloride	PPBV	4.68	B	LB<RL, IC%RSD (J)
3051-GW01-042108	SW8260B	1,4-Dioxane	ug/L	1000	R	IC RRF
3051-GW01-042108	SW8260B	2-Butanone	ug/L	100	UL	IC RRF
3051-GW01-042108	SW8260B	2-Hexanone	ug/L	50	UL	IC RRF
3051-GW01-042108	SW8260B	4-Methyl-2-pentatone	ug/L	50	UL	IC RRF
3051-GW01-042108	SW8260B	Acetone	ug/L	250	UL	IC RRF
3051-GW01-042108	SW8260B	Acrylonitrile	ug/L	100	UL	IC RRF
3051-GW01-042108	SW8260B	Vinyl acetate	ug/L	100	UL	LCS<LCL
3051-SG01-042108	TO-15	1,1,1-Trichloroethane	UG/M3	179	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,1,1-Trichloroethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	503	J	HTa>UCL
3051-SG01-042108	TO-15	1,1,2,2-Tetrachloroethane	PPBV	72.1	J	HTa>UCL
3051-SG01-042108	TO-15	1,1,2-Trichloroethane	UG/M3	179	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,1,2-Trichloroethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,1-Dichloroethane	PPBV	16.6	J	HTa>UCL
3051-SG01-042108	TO-15	1,1-Dichloroethane	UG/M3	68.3	J	HTa>UCL
3051-SG01-042108	TO-15	1,1-Dichloroethene	UG/M3	130	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,1-Dichloroethene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2,4-Trichlorobenzene	UG/M3	244	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2,4-Trichlorobenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2,4-Trimethylbenzene	UG/M3	162	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2,4-Trimethylbenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dibromoethane	UG/M3	252	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dibromoethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichlorobenzene	UG/M3	198	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichlorobenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichloroethane	UG/M3	17.4	J	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichloroethane	PPBV	4.23	J	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichloropropane	UG/M3	180	J	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichloropropane	PPBV	38.4	J	HTa>UCL
3051-SG01-042108	TO-15	1,2-Dichlorotetrafluoroethane	UG/M3	230	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3051-SG01-042108	TO-15	1,2-Dichlorotetrafluoroethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,3,5-Trimethylbenzene	UG/M3	21.5	J	HTa>UCL
3051-SG01-042108	TO-15	1,3,5-Trimethylbenzene	PPBV	4.29	J	HTa>UCL
3051-SG01-042108	TO-15	1,3-Dichlorobenzene	UG/M3	198	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,3-Dichlorobenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,4-Dichlorobenzene	UG/M3	198	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,4-Dichlorobenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,4-Dioxane	UG/M3	118	UJ	HTa>UCL
3051-SG01-042108	TO-15	1,4-Dioxane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	2-Butanone	UG/M3	29.1	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3051-SG01-042108	TO-15	2-Butanone	PPBV	9.69	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3051-SG01-042108	TO-15	4-Methyl-2-pentanone	UG/M3	135	UJ	HTa>UCL
3051-SG01-042108	TO-15	4-Methyl-2-pentanone	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Acetone	PPBV	39.3	B	LB<RL, CCV>UCL (J), HTa>UCL (J)
3051-SG01-042108	TO-15	Acetone	UG/M3	95	B	LB<RL, CCV>UCL (J), HTa>UCL (J)
3051-SG01-042108	TO-15	Benzene	UG/M3	25.8	B	LB<RL, HTa>UCL (J)
3051-SG01-042108	TO-15	Benzene	PPBV	7.93	B	LB<RL, HTa>UCL (J)
3051-SG01-042108	TO-15	Benzyl chloride	PPBV	172	R	LCS<LCL, CCV RRF, IC%RSD (J), HTa>UCL (J)
3051-SG01-042108	TO-15	Benzyl chloride	UG/M3	906	L	LCS<LCL, CCV RRF, IC%RSD (J), HTa>UCL (J)
3051-SG01-042108	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	460	UJ	HTa>UCL
3051-SG01-042108	TO-15	bis(2-Chloroisopropyl)ether	PPBV	64.7	UJ	HTa>UCL
3051-SG01-042108	TO-15	Bromomethane	UG/M3	128	UJ	HTa>UCL
3051-SG01-042108	TO-15	Bromomethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Carbon Tetrachloride	UG/M3	207	UJ	HTa>UCL
3051-SG01-042108	TO-15	Carbon Tetrachloride	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Chlorobenzene	UG/M3	113	J	HTa>UCL
3051-SG01-042108	TO-15	Chlorobenzene	PPBV	24.1	J	HTa>UCL
3051-SG01-042108	TO-15	Chloroethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Chloroethane	UG/M3	86.7	UJ	HTa>UCL
3051-SG01-042108	TO-15	Chloroform	UG/M3	160	UJ	HTa>UCL
3051-SG01-042108	TO-15	Chloroform	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Chloromethane	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Chloromethane	UG/M3	67.8	UJ	HTa>UCL
3051-SG01-042108	TO-15	cis-1,2-Dichloroethylene	UG/M3	130	UJ	HTa>UCL
3051-SG01-042108	TO-15	cis-1,2-Dichloroethylene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	cis-1,3-Dichloropropene	UG/M3	149	UJ	HTa>UCL
3051-SG01-042108	TO-15	cis-1,3-Dichloropropene	PPBV	32.3	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3051-SG01-042108	TO-15	Dichlorodifluoromethane	UG/M3	162	UL	LCS<LCL, HTa>UCL (UJ)
3051-SG01-042108	TO-15	Dichlorodifluoromethane	PPBV	32.3	UL	LCS<LCL, HTa>UCL (UJ)
3051-SG01-042108	TO-15	Ethylbenzene	UG/M3	143	UJ	HTa>UCL
3051-SG01-042108	TO-15	Ethylbenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Hexachlorobutadiene	UG/M3	346	UJ	HTa>UCL
3051-SG01-042108	TO-15	Hexachlorobutadiene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	m,p-Xylene	UG/M3	286	UJ	HTa>UCL
3051-SG01-042108	TO-15	m,p-Xylene	PPBV	64.7	UJ	HTa>UCL
3051-SG01-042108	TO-15	Methyl tert-Butyl Ether	UG/M3	118	UL	LCS<LCL, HTa>UCL (UJ)
3051-SG01-042108	TO-15	Methyl tert-Butyl Ether	PPBV	32.3	UL	LCS<LCL, HTa>UCL (UJ)
3051-SG01-042108	TO-15	Methylene Chloride	PPBV	24.3	B	LB<RL, IC%RSD (J), HTa>UCL (J), LCS<LCL (L)
3051-SG01-042108	TO-15	Methylene Chloride	UG/M3	85.9	B	LB<RL, LCS<LCL (L), IC%RSD (J), HTa>UCL (J)
3051-SG01-042108	TO-15	Naphthalene	UG/M3	345	UJ	HTa>UCL
3051-SG01-042108	TO-15	Naphthalene	PPBV	64.7	UJ	HTa>UCL
3051-SG01-042108	TO-15	n-Butylbenzene	UG/M3	180	UJ	HTa>UCL
3051-SG01-042108	TO-15	n-Butylbenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	n-Hexane	PPBV	929	J	HTa>UCL
3051-SG01-042108	TO-15	n-Hexane	UG/M3	3330	J	HTa>UCL
3051-SG01-042108	TO-15	n-Propylbenzene	UG/M3	162	UJ	HTa>UCL
3051-SG01-042108	TO-15	n-Propylbenzene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	o-Xylene	UG/M3	247	J	HTa>UCL
3051-SG01-042108	TO-15	o-Xylene	PPBV	56	J	HTa>UCL
3051-SG01-042108	TO-15	Styrene	UG/M3	140	UJ	HTa>UCL
3051-SG01-042108	TO-15	Styrene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	TCE	UG/M3	176	UJ	HTa>UCL
3051-SG01-042108	TO-15	TCE	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Tetrachloroethylene	UG/M3	223	UJ	HTa>UCL
3051-SG01-042108	TO-15	Tetrachloroethylene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Toluene	PPBV	15.7	J	HTa>UCL
3051-SG01-042108	TO-15	Toluene	UG/M3	60.2	J	HTa>UCL
3051-SG01-042108	TO-15	trans-1,2-DCE	UG/M3	130	UJ	HTa>UCL
3051-SG01-042108	TO-15	trans-1,2-DCE	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	trans-1,3-Dichloropropene	UG/M3	149	UJ	HTa>UCL
3051-SG01-042108	TO-15	trans-1,3-Dichloropropene	PPBV	32.3	UJ	HTa>UCL
3051-SG01-042108	TO-15	Trichlorofluoromethane	UG/M3	185	UL	LCS<LCL, CCV<LCL (UJ), HTa>UCL (UJ)
3051-SG01-042108	TO-15	Trichlorofluoromethane	PPBV	32.3	UL	LCS<LCL, CCV<LCL (UJ), HTa>UCL (UJ)
3051-SG01-042108	TO-15	Trichlorotrifluoroethane	UG/M3	252	UJ	HTa>UCL
3051-SG01-042108	TO-15	Trichlorotrifluoroethane	PPBV	32.3	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3051-SG01-042108	TO-15	Vinyl Chloride	UG/M3	8.6	B	LB<RL, HTa>UCL (J)
3051-SG01-042108	TO-15	Vinyl Chloride	PPBV	3.32	B	LB<RL, HTa>UCL (J)
3051-SG02-042108	TO-15	1,1,1-Trichloroethane	UG/M3	213	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,1,1-Trichloroethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,1,2,2-Tetrachloroethane	PPBV	126	J	HTa>UCL
3051-SG02-042108	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	880	J	HTa>UCL
3051-SG02-042108	TO-15	1,1,2-Trichloroethane	UG/M3	213	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,1,2-Trichloroethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,1-Dichloroethane	UG/M3	105	J	HTa>UCL
3051-SG02-042108	TO-15	1,1-Dichloroethane	PPBV	25.4	J	HTa>UCL
3051-SG02-042108	TO-15	1,1-Dichloroethene	UG/M3	154	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,1-Dichloroethene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2,4-Trichlorobenzene	UG/M3	289	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2,4-Trichlorobenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2,4-Trimethylbenzene	UG/M3	192	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2,4-Trimethylbenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dibromoethane	UG/M3	299	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dibromoethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichlorobenzene	UG/M3	234	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichlorobenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichloroethane	UG/M3	158	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichloroethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichloropropane	PPBV	20.3	J	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichloropropane	UG/M3	95.4	J	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichlorotetrafluoroethane	UG/M3	272	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,2-Dichlorotetrafluoroethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,3,5-Trimethylbenzene	UG/M3	192	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,3,5-Trimethylbenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,3-Dichlorobenzene	UG/M3	234	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,3-Dichlorobenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,4-Dichlorobenzene	UG/M3	234	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,4-Dichlorobenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,4-Dioxane	UG/M3	140	UJ	HTa>UCL
3051-SG02-042108	TO-15	1,4-Dioxane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	2-Butanone	PPBV	13.1	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3051-SG02-042108	TO-15	2-Butanone	UG/M3	39.3	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3051-SG02-042108	TO-15	4-Methyl-2-pentanone	UG/M3	369	J	HTa>UCL
3051-SG02-042108	TO-15	4-Methyl-2-pentanone	PPBV	88.5	J	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3051-SG02-042108	TO-15	Acetone	UG/M3	123	B	LB<RL, CCV>UCL (J), HTa>UCL (J)
3051-SG02-042108	TO-15	Acetone	PPBV	50.7	B	LB<RL, CCV>UCL (J), HTa>UCL (J)
3051-SG02-042108	TO-15	Benzene	UG/M3	28.9	B	LB<RL, HTa>UCL (J)
3051-SG02-042108	TO-15	Benzene	PPBV	8.89	B	LB<RL, HTa>UCL (J)
3051-SG02-042108	TO-15	Benzyl chloride	UG/M3	403	R	LCS<LCL, CCV RRF, IC%RSD (UJ), HTa>UCL (UJ)
3051-SG02-042108	TO-15	Benzyl chloride	PPBV	76.5	R	LCS<LCL, CCV RRF, IC%RSD (UJ), HTa>UCL (UJ)
3051-SG02-042108	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	544	UJ	HTa>UCL
3051-SG02-042108	TO-15	bis(2-Chloroisopropyl)ether	PPBV	76.5	UJ	HTa>UCL
3051-SG02-042108	TO-15	Bromomethane	UG/M3	151	UJ	HTa>UCL
3051-SG02-042108	TO-15	Bromomethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Carbon Tetrachloride	UG/M3	245	UJ	HTa>UCL
3051-SG02-042108	TO-15	Carbon Tetrachloride	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Chlorobenzene	UG/M3	123	J	HTa>UCL
3051-SG02-042108	TO-15	Chlorobenzene	PPBV	26.3	J	HTa>UCL
3051-SG02-042108	TO-15	Chloroethane	UG/M3	103	UJ	HTa>UCL
3051-SG02-042108	TO-15	Chloroethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Chloroform	UG/M3	190	UJ	HTa>UCL
3051-SG02-042108	TO-15	Chloroform	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Chloromethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Chloromethane	UG/M3	80.4	UJ	HTa>UCL
3051-SG02-042108	TO-15	cis-1,2-Dichloroethylene	UG/M3	154	UJ	HTa>UCL
3051-SG02-042108	TO-15	cis-1,2-Dichloroethylene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	cis-1,3-Dichloropropene	UG/M3	177	UJ	HTa>UCL
3051-SG02-042108	TO-15	cis-1,3-Dichloropropene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Dichlorodifluoromethane	UG/M3	193	UL	LCS<LCL, HTa>UCL (UJ)
3051-SG02-042108	TO-15	Dichlorodifluoromethane	PPBV	38.3	UL	LCS<LCL, HTa>UCL (UJ)
3051-SG02-042108	TO-15	Ethylbenzene	UG/M3	169	UJ	HTa>UCL
3051-SG02-042108	TO-15	Ethylbenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Hexachlorobutadiene	UG/M3	411	UJ	HTa>UCL
3051-SG02-042108	TO-15	Hexachlorobutadiene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	m,p-Xylene	UG/M3	338	UJ	HTa>UCL
3051-SG02-042108	TO-15	m,p-Xylene	PPBV	76.5	UJ	HTa>UCL
3051-SG02-042108	TO-15	Methyl tert-Butyl Ether	UG/M3	24.5	L	LCS<LCL, HTa>UCL (J)
3051-SG02-042108	TO-15	Methyl tert-Butyl Ether	PPBV	6.68	L	LCS<LCL, HTa>UCL (J)
3051-SG02-042108	TO-15	Methylene Chloride	UG/M3	157	B	LB<RL, LCS<LCL (L), IC%RSD (J), HTa>UCL (J)
3051-SG02-042108	TO-15	Methylene Chloride	PPBV	44.4	B	LB<RL, IC%RSD (J), HTa>UCL (J), LCS<LCL (L)
3051-SG02-042108	TO-15	Naphthalene	UG/M3	408	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3051-SG02-042108	TO-15	Naphthalene	PPBV	76.5	UJ	HTa>UCL
3051-SG02-042108	TO-15	n-Butylbenzene	UG/M3	214	UJ	HTa>UCL
3051-SG02-042108	TO-15	n-Butylbenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	n-Hexane	PPBV	1180	J	HTa>UCL
3051-SG02-042108	TO-15	n-Hexane	UG/M3	4230	J	HTa>UCL
3051-SG02-042108	TO-15	n-Propylbenzene	UG/M3	192	UJ	HTa>UCL
3051-SG02-042108	TO-15	n-Propylbenzene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	o-Xylene	UG/M3	169	UJ	HTa>UCL
3051-SG02-042108	TO-15	o-Xylene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Styrene	UG/M3	166	UJ	HTa>UCL
3051-SG02-042108	TO-15	Styrene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	TCE	UG/M3	209	UJ	HTa>UCL
3051-SG02-042108	TO-15	TCE	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Tetrachloroethylene	UG/M3	68.5	J	HTa>UCL
3051-SG02-042108	TO-15	Tetrachloroethylene	PPBV	9.93	J	HTa>UCL
3051-SG02-042108	TO-15	Toluene	PPBV	19.6	J	HTa>UCL
3051-SG02-042108	TO-15	Toluene	UG/M3	75.1	J	HTa>UCL
3051-SG02-042108	TO-15	trans-1,2-DCE	UG/M3	154	UJ	HTa>UCL
3051-SG02-042108	TO-15	trans-1,2-DCE	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	trans-1,3-Dichloropropene	UG/M3	177	UJ	HTa>UCL
3051-SG02-042108	TO-15	trans-1,3-Dichloropropene	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Trichlorofluoromethane	UG/M3	219	UL	LCS<LCL, CCV<LCL (UJ), HTa>UCL (UJ)
3051-SG02-042108	TO-15	Trichlorofluoromethane	PPBV	38.3	UL	LCS<LCL, CCV<LCL (UJ), HTa>UCL (UJ)
3051-SG02-042108	TO-15	Trichlorotrifluoroethane	UG/M3	299	UJ	HTa>UCL
3051-SG02-042108	TO-15	Trichlorotrifluoroethane	PPBV	38.3	UJ	HTa>UCL
3051-SG02-042108	TO-15	Vinyl Chloride	UG/M3	8.2	B	LB<RL, HTa>UCL (J)
3051-SG02-042108	TO-15	Vinyl Chloride	PPBV	3.16	B	LB<RL, HTa>UCL (J)
3052-GW01-042108	SW8260B	1,4-Dioxane	ug/L	1000	R	CVES
3052-GW01-042108	SW8260B	Acetone	ug/L	250	UL	IC RRF
3052-GW01-042108	SW8260B	Vinyl acetate	ug/L	100	UJ	CCV<LCL
3052-SG01-042108	TO-15	1,1,1-Trichloroethane	UG/M3	10.6	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,1,1-Trichloroethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	13.3	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,1,2,2-Tetrachloroethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,1,2-Trichloroethane	UG/M3	10.6	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,1,2-Trichloroethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,1-Dichloroethane	UG/M3	24.7	J	HTa>UCL
3052-SG01-042108	TO-15	1,1-Dichloroethane	PPBV	5.99	J	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3052-SG01-042108	TO-15	1,1-Dichloroethene	UG/M3	1.7	J	HTa>UCL
3052-SG01-042108	TO-15	1,1-Dichloroethene	PPBV	0.41	J	HTa>UCL
3052-SG01-042108	TO-15	1,2,4-Trichlorobenzene	UG/M3	14.4	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,2,4-Trichlorobenzene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,2,4-Trimethylbenzene	UG/M3	3.1	J	HTa>UCL
3052-SG01-042108	TO-15	1,2,4-Trimethylbenzene	PPBV	0.61	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dibromoethane	UG/M3	14.9	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dibromoethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichlorobenzene	UG/M3	5.8	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichlorobenzene	PPBV	0.95	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichloroethane	UG/M3	17.1	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichloroethane	PPBV	4.16	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichloropropane	PPBV	132	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichloropropane	UG/M3	621	J	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichlorotetrafluoroethane	UG/M3	13.6	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,2-Dichlorotetrafluoroethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,3,5-Trimethylbenzene	UG/M3	1.4	J	HTa>UCL
3052-SG01-042108	TO-15	1,3,5-Trimethylbenzene	PPBV	0.27	J	HTa>UCL
3052-SG01-042108	TO-15	1,3-Dichlorobenzene	UG/M3	11.7	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,3-Dichlorobenzene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,4-Dichlorobenzene	UG/M3	23.3	J	HTa>UCL
3052-SG01-042108	TO-15	1,4-Dichlorobenzene	PPBV	3.81	J	HTa>UCL
3052-SG01-042108	TO-15	1,4-Dioxane	UG/M3	7	UJ	HTa>UCL
3052-SG01-042108	TO-15	1,4-Dioxane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	2-Butanone	PPBV	21.6	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3052-SG01-042108	TO-15	2-Butanone	UG/M3	64.8	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J)
3052-SG01-042108	TO-15	4-Methyl-2-pentanone	UG/M3	9	J	HTa>UCL
3052-SG01-042108	TO-15	4-Methyl-2-pentanone	PPBV	2.16	J	HTa>UCL
3052-SG01-042108	TO-15	Acetone	UG/M3	184	J	HTa>UCL, CCV>UCL
3052-SG01-042108	TO-15	Acetone	PPBV	76.2	J	CCV>UCL, HTa>UCL
3052-SG01-042108	TO-15	Benzene	UG/M3	19.3	J	HTa>UCL
3052-SG01-042108	TO-15	Benzene	PPBV	5.94	J	HTa>UCL
3052-SG01-042108	TO-15	Benzyl chloride	UG/M3	8.5	L	LCS<LCL, CCV RRF, IC%RSD (J), HTa>UCL (J)
3052-SG01-042108	TO-15	Benzyl chloride	PPBV	1.62	L	LCS<LCL, CCV RRF, IC%RDS (J), HTa>UCL (J)
3052-SG01-042108	TO-15	bis(2-Chloroisopropyl)ether	PPBV	10.8	J	HTa>UCL
3052-SG01-042108	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	76.9	J	HTa>UCL
3052-SG01-042108	TO-15	Bromomethane	UG/M3	4.6	J	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3052-SG01-042108	TO-15	Bromomethane	PPBV	1.17	J	HTa>UCL
3052-SG01-042108	TO-15	Carbon Tetrachloride	UG/M3	12.2	UJ	HTa>UCL
3052-SG01-042108	TO-15	Carbon Tetrachloride	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	Chlorobenzene	UG/M3	25.1	J	HTa>UCL
3052-SG01-042108	TO-15	Chlorobenzene	PPBV	5.36	J	HTa>UCL
3052-SG01-042108	TO-15	Chloroethane	UG/M3	5.1	UJ	HTa>UCL
3052-SG01-042108	TO-15	Chloroethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	Chloroform	UG/M3	15.9	J	HTa>UCL
3052-SG01-042108	TO-15	Chloroform	PPBV	3.21	J	HTa>UCL
3052-SG01-042108	TO-15	Chloromethane	UG/M3	1.4	J	HTa>UCL
3052-SG01-042108	TO-15	Chloromethane	PPBV	0.65	J	HTa>UCL
3052-SG01-042108	TO-15	cis-1,2-Dichloroethylene	UG/M3	3.3	J	HTa>UCL
3052-SG01-042108	TO-15	cis-1,2-Dichloroethylene	PPBV	0.81	J	HTa>UCL
3052-SG01-042108	TO-15	cis-1,3-Dichloropropene	UG/M3	8.8	UJ	HTa>UCL
3052-SG01-042108	TO-15	cis-1,3-Dichloropropene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	Dichlorodifluoromethane	UG/M3	3.2	L	LCS<LCL, HTa>UCL (J)
3052-SG01-042108	TO-15	Dichlorodifluoromethane	PPBV	0.64	L	LCS<LCL, HTa>UCL (J)
3052-SG01-042108	TO-15	Ethylbenzene	UG/M3	4.5	J	HTa>UCL
3052-SG01-042108	TO-15	Ethylbenzene	PPBV	1.02	J	HTa>UCL
3052-SG01-042108	TO-15	Hexachlorobutadiene	UG/M3	20.5	UJ	HTa>UCL
3052-SG01-042108	TO-15	Hexachlorobutadiene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	m,p-Xylene	UG/M3	10.4	J	HTa>UCL
3052-SG01-042108	TO-15	m,p-Xylene	PPBV	2.35	J	HTa>UCL
3052-SG01-042108	TO-15	Methyl tert-Butyl Ether	UG/M3	1.2	L	LCS<LCL, HTa>UCL (J)
3052-SG01-042108	TO-15	Methyl tert-Butyl Ether	PPBV	0.32	L	LCS<LCL, HTa>UCL (J)
3052-SG01-042108	TO-15	Methylene Chloride	UG/M3	8.4	B	LB<RL, LCS<LCL (L), IC%RSD (J), HTa>UCL (J)
3052-SG01-042108	TO-15	Methylene Chloride	PPBV	2.37	B	LB<RL, IC%RSD (J), HTa>UCL (J), LCS<LCL (L)
3052-SG01-042108	TO-15	Naphthalene	UG/M3	20.4	UJ	HTa>UCL
3052-SG01-042108	TO-15	Naphthalene	PPBV	3.82	UJ	HTa>UCL
3052-SG01-042108	TO-15	n-Butylbenzene	UG/M3	10.7	UJ	HTa>UCL
3052-SG01-042108	TO-15	n-Butylbenzene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	n-Hexane	UG/M3	12.4	J	HTa>UCL
3052-SG01-042108	TO-15	n-Hexane	PPBV	3.45	J	HTa>UCL
3052-SG01-042108	TO-15	n-Propylbenzene	UG/M3	1.5	J	HTa>UCL
3052-SG01-042108	TO-15	n-Propylbenzene	PPBV	0.3	J	HTa>UCL
3052-SG01-042108	TO-15	o-Xylene	UG/M3	5.8	J	HTa>UCL
3052-SG01-042108	TO-15	o-Xylene	PPBV	1.31	J	HTa>UCL
3052-SG01-042108	TO-15	Styrene	UG/M3	8.3	UJ	HTa>UCL
3052-SG01-042108	TO-15	Styrene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	TCE	UG/M3	15.1	J	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3052-SG01-042108	TO-15	TCE	PPBV	2.76	J	HTa>UCL
3052-SG01-042108	TO-15	Tetrachloroethylene	UG/M3	114	J	HTa>UCL
3052-SG01-042108	TO-15	Tetrachloroethylene	PPBV	16.5	J	HTa>UCL
3052-SG01-042108	TO-15	Toluene	UG/M3	23.8	J	HTa>UCL
3052-SG01-042108	TO-15	Toluene	PPBV	6.21	J	HTa>UCL
3052-SG01-042108	TO-15	trans-1,2-DCE	UG/M3	7.7	UJ	HTa>UCL
3052-SG01-042108	TO-15	trans-1,2-DCE	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	trans-1,3-Dichloropropene	UG/M3	8.8	UJ	HTa>UCL
3052-SG01-042108	TO-15	trans-1,3-Dichloropropene	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	Trichlorofluoromethane	UG/M3	1.7	L	LCS<LCL, CCV<LCL (J), HTa>UCL (J)
3052-SG01-042108	TO-15	Trichlorofluoromethane	PPBV	0.29	L	LCS<LCL, HTa>UCL (J), CCV<LCL (J)
3052-SG01-042108	TO-15	Trichlorotrifluoroethane	UG/M3	14.9	UJ	HTa>UCL
3052-SG01-042108	TO-15	Trichlorotrifluoroethane	PPBV	1.91	UJ	HTa>UCL
3052-SG01-042108	TO-15	Vinyl Chloride	UG/M3	0.7	B	LB<RL, HTa>UCL (J)
3052-SG01-042108	TO-15	Vinyl Chloride	PPBV	0.27	B	LB<RL, HTa>UCL (J)
3052-SG02-042108	TO-15	1,1,1-Trichloroethane	UG/M3	44.2	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,1,1-Trichloroethane	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	55.6	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	1,1,2,2-Tetrachloroethane	PPBV	7.96	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	1,1,2-Trichloroethane	UG/M3	44.2	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,1,2-Trichloroethane	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,1-Dichloroethane	PPBV	12.8	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,1-Dichloroethane	UG/M3	52.7	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	1,1-Dichloroethene	UG/M3	7.9	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	1,1-Dichloroethene	PPBV	1.96	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,2,4-Trichlorobenzene	UG/M3	60.1	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	1,2,4-Trichlorobenzene	PPBV	7.96	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	1,2,4-Trimethylbenzene	UG/M3	7.7	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,2,4-Trimethylbenzene	PPBV	1.53	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dibromoethane	UG/M3	62.2	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,2-Dibromoethane	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,2-Dichlorobenzene	UG/M3	255	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dichlorobenzene	PPBV	41.7	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dichloroethane	UG/M3	27.5	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dichloroethane	PPBV	6.68	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dichloropropane	UG/M3	419	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dichloropropane	PPBV	89.1	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,2-Dichlorotetrafluoroethane	UG/M3	56.6	UJ	HTa>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3052-SG02-042108	TO-15	1,2-Dichlorotetrafluoroethane	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,3,5-Trimethylbenzene	UG/M3	39.8	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	1,3,5-Trimethylbenzene	PPBV	7.96	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	1,3-Dichlorobenzene	UG/M3	10.2	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,3-Dichlorobenzene	PPBV	1.66	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,4-Dichlorobenzene	UG/M3	394	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,4-Dichlorobenzene	PPBV	64.4	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	1,4-Dioxane	UG/M3	29.2	UJ	HTa>UCL
3052-SG02-042108	TO-15	1,4-Dioxane	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	2-Butanone	PPBV	15.9	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J), Sur>UCL
3052-SG02-042108	TO-15	2-Butanone	UG/M3	47.7	K	LCS>UCL, CCV>UCL (J), HTa>UCL (J), Sur>UCL
3052-SG02-042108	TO-15	4-Methyl-2-pentanone	UG/M3	33.2	UJ	HTa>UCL
3052-SG02-042108	TO-15	4-Methyl-2-pentanone	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	Acetone	UG/M3	221	J	HTa>UCL, CCV>UCL, Sur>UCL
3052-SG02-042108	TO-15	Acetone	PPBV	91.6	J	CCV>UCL, HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	Benzene	PPBV	23.2	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	Benzene	UG/M3	75.4	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	Benzyl chloride	PPBV	15.9	R	LCS<LCL, CCV RRF, IC%RSD (UJ), HTa>UCL (UJ)
3052-SG02-042108	TO-15	Benzyl chloride	UG/M3	83.7	R	LCS<LCL, CCV RRF, IC%RSD (UJ), HTa>UCL (UJ), IS<LCL (UJ)
3052-SG02-042108	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	139	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	bis(2-Chloroisopropyl)ether	PPBV	19.5	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Bromomethane	UG/M3	12.1	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	Bromomethane	PPBV	3.06	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Carbon Tetrachloride	UG/M3	50.9	UJ	HTa>UCL
3052-SG02-042108	TO-15	Carbon Tetrachloride	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	Chlorobenzene	PPBV	749	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Chlorobenzene	UG/M3	3510	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Chloroethane	UG/M3	12.7	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	Chloroethane	PPBV	4.74	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Chloroform	UG/M3	39.5	UJ	HTa>UCL
3052-SG02-042108	TO-15	Chloroform	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	Chloromethane	UG/M3	16.7	UJ	HTa>UCL
3052-SG02-042108	TO-15	Chloromethane	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	cis-1,2-Dichloroethylene	PPBV	20.1	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	cis-1,2-Dichloroethylene	UG/M3	81.1	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	cis-1,3-Dichloropropene	UG/M3	36.7	UJ	HTa>UCL
3052-SG02-042108	TO-15	cis-1,3-Dichloropropene	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	Dichlorodifluoromethane	UG/M3	40	UL	LCS<LCL, HTa>UCL (UJ)

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3052-SG02-042108	TO-15	Dichlorodifluoromethane	PPBV	7.96	UL	LCS<LCL, HTa>UCL (UJ)
3052-SG02-042108	TO-15	Ethylbenzene	UG/M3	27.6	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Ethylbenzene	PPBV	6.24	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Hexachlorobutadiene	UG/M3	85.4	UJ	IS<LCL, HTa>UCL
3052-SG02-042108	TO-15	Hexachlorobutadiene	PPBV	7.96	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	m,p-Xylene	PPBV	17.1	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	m,p-Xylene	UG/M3	75.5	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Methyl tert-Butyl Ether	UG/M3	29.2	UL	LCS<LCL, HTa>UCL (UJ)
3052-SG02-042108	TO-15	Methyl tert-Butyl Ether	PPBV	7.96	UL	LCS<LCL, HTa>UCL (UJ)
3052-SG02-042108	TO-15	Methylene Chloride	UG/M3	18.8	B	LB<RL, LCS<LCL (L), IC%RSD (J), HTa>UCL (J), Sur>UCL (J)
3052-SG02-042108	TO-15	Methylene Chloride	PPBV	5.31	B	LB<RL, IC%RSD (J), HTa>UCL (J), LCS<LCL (L)
3052-SG02-042108	TO-15	Naphthalene	PPBV	15.9	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	Naphthalene	UG/M3	84.8	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	n-Butylbenzene	UG/M3	44.4	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	n-Butylbenzene	PPBV	7.96	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	n-Hexane	UG/M3	106	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	n-Hexane	PPBV	29.5	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	n-Propylbenzene	UG/M3	18.3	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	n-Propylbenzene	PPBV	3.65	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	o-Xylene	UG/M3	33.9	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	o-Xylene	PPBV	7.67	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Styrene	UG/M3	34.5	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	Styrene	PPBV	7.96	UJ	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	TCE	UG/M3	20.4	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	TCE	PPBV	3.73	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Tetrachloroethylene	UG/M3	50.2	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	Tetrachloroethylene	PPBV	7.27	J	HTa>UCL, IS<LCL, Sur>UCL
3052-SG02-042108	TO-15	Toluene	PPBV	24	J	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	Toluene	UG/M3	92	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	trans-1,2-DCE	UG/M3	26	J	HTa>UCL, Sur>UCL
3052-SG02-042108	TO-15	trans-1,2-DCE	PPBV	6.44	J	HTa>UCL, IS<LCL
3052-SG02-042108	TO-15	trans-1,3-Dichloropropene	UG/M3	36.7	UJ	HTa>UCL
3052-SG02-042108	TO-15	trans-1,3-Dichloropropene	PPBV	7.96	UJ	HTa>UCL
3052-SG02-042108	TO-15	Trichlorofluoromethane	UG/M3	45.5	UL	LCS<LCL, CCV<LCL (UJ), HTa>UCL (UJ)
3052-SG02-042108	TO-15	Trichlorofluoromethane	PPBV	7.96	UL	LCS<LCL, CCV<LCL (UJ), HTa>UCL (UJ)
3052-SG02-042108	TO-15	Trichlorotrifluoroethane	UG/M3	62	UJ	HTa>UCL
3052-SG02-042108	TO-15	Vinyl Chloride	UG/M3	125	B	LB<RL, HTa>UCL (J), Sur>UCL (J)
3052-SG02-042108	TO-15	Vinyl Chloride	PPBV	47.9	B	LB<RL, HTa>UCL (J), Sur>UCL (J)

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3054-SG01-042808	TO-15	1,2,4-Trichlorobenzene	UG/M3	34.9	UL	LCS<LCL
3054-SG01-042808	TO-15	1,2,4-Trichlorobenzene	PPBV	4.63	UL	LCS<LCL
3054-SG01-042808	TO-15	Benzyl chloride	UG/M3	48.8	UL	LCS<LCL, IC%RSD (UJ)
3054-SG01-042808	TO-15	Benzyl chloride	PPBV	9.26	UL	LCS<LCL, IC%RSD (UJ)
3054-SG01-042808	TO-15	Bromomethane	UG/M3	4.2	B	LB<RL
3054-SG01-042808	TO-15	Bromomethane	PPBV	1.06	B	LB<RL
3054-SG01-042808	TO-15	Hexachlorobutadiene	UG/M3	49.7	UL	LCS<LCL
3054-SG01-042808	TO-15	Hexachlorobutadiene	PPBV	4.63	UL	LCS<LCL
3054-SG01-042808	TO-15	Methylene Chloride	UG/M3	13.4	B	LB<RL, IC%RSD (J)
3054-SG01-042808	TO-15	Methylene Chloride	PPBV	3.8	B	LB<RL, IC%RSD (J)
3055-GW01-042308	SW8260B	1,4-Dioxane	ug/L	1000	R	IC RRF
3055-GW01-042308	SW8260B	2-Butanone	ug/L	100	UL	IC RRF
3055-GW01-042308	SW8260B	2-Hexanone	ug/L	50	UL	IC RRF
3055-GW01-042308	SW8260B	4-Methyl-2-pentatone	ug/L	50	UL	IC RRF
3055-GW01-042308	SW8260B	Acetone	ug/L	250	UL	IC RRF
3055-GW01-042308	SW8260B	Acrylonitrile	ug/L	100	UL	IC RRF
3055-GW01-042308	SW8260B	Benzene	ug/L	116	L	MS<LCL
3055-GW01-042308	SW8260B	Benzene	ug/L	116	L	SD<LCL
3055-GW01-042308	SW8260B	Vinyl acetate	ug/L	100	UL	LCS<LCL, MS<LCL, SD<LCL
3055-SG01-042308	TO-15	1,2,4-Trichlorobenzene	UG/M3	122	UL	LCS<LCL
3055-SG01-042308	TO-15	1,2,4-Trichlorobenzene	PPBV	16.1	UL	LCS<LCL
3055-SG01-042308	TO-15	Benzyl chloride	PPBV	322	L	LCS<LCL, IC%RSD (J)
3055-SG01-042308	TO-15	Benzyl chloride	UG/M3	1700	L	LCS<LCL, IC%RSD (J)
3055-SG01-042308	TO-15	Hexachlorobutadiene	UG/M3	173	UL	LCS<LCL
3055-SG01-042308	TO-15	Hexachlorobutadiene	PPBV	16.1	UL	LCS<LCL
3055-SG01-042308	TO-15	Methylene Chloride	UG/M3	142	B	LB<RL, IC%RSD (J)
3055-SG01-042308	TO-15	Methylene Chloride	PPBV	40.1	B	LB<RL, IC%RSD (J)
3055-SG01-042308	TO-15	n-Hexane	PPBV	1690	J	>ICLinearRange
3055-SG01-042308	TO-15	n-Hexane	UG/M3	6060	J	>ICLinearRange
3055-SG02-042308	TO-15	1,2,4-Trichlorobenzene	PPBV	465	UL	LCS<LCL
3055-SG02-042308	TO-15	1,2,4-Trichlorobenzene	UG/M3	3510	UL	LCS<LCL
3055-SG02-042308	TO-15	Benzyl chloride	PPBV	930	UL	LCS<LCL, IC%RSD (UJ)
3055-SG02-042308	TO-15	Benzyl chloride	UG/M3	4900	UL	LCS<LCL, IC%RSD (UJ)
3055-SG02-042308	TO-15	Hexachlorobutadiene	PPBV	465	UL	LCS<LCL
3055-SG02-042308	TO-15	Hexachlorobutadiene	UG/M3	4990	UL	LCS<LCL
3055-SG02-042308	TO-15	Methylene Chloride	PPBV	386	B	LB<RL, IC%RSD (J)
3055-SG02-042308	TO-15	Methylene Chloride	UG/M3	1360	B	LB<RL, IC%RSD (J)
3056-SG01-042808	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	16.1	UJ	IS<LCL
3056-SG01-042808	TO-15	1,1,2,2-Tetrachloroethane	PPBV	2.31	UJ	IS<LCL
3056-SG01-042808	TO-15	1,2,4-Trichlorobenzene	UG/M3	17.4	UJ	IS<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3056-SG01-042808	TO-15	1,2,4-Trichlorobenzene	PPBV	2.31	UJ	IS<LCL
3056-SG01-042808	TO-15	1,2,4-Trimethylbenzene	UG/M3	126	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	1,2,4-Trimethylbenzene	PPBV	25.1	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	1,2-Dichlorobenzene	UG/M3	14.1	UJ	IS<LCL
3056-SG01-042808	TO-15	1,2-Dichlorobenzene	PPBV	2.31	UJ	IS<LCL
3056-SG01-042808	TO-15	1,2-Dichloroethane	UG/M3	27.3	J	Sur>UCL
3056-SG01-042808	TO-15	1,2-Dichloroethane	PPBV	6.62	J	Sur>UCL
3056-SG01-042808	TO-15	1,2-Dichloropropane	UG/M3	140	J	FD>RPD, Sur>UCL
3056-SG01-042808	TO-15	1,2-Dichloropropane	PPBV	29.7	J	FD>RPD, Sur>UCL
3056-SG01-042808	TO-15	1,3,5-Trimethylbenzene	UG/M3	318	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	1,3,5-Trimethylbenzene	PPBV	63.6	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	1,3-Dichlorobenzene	UG/M3	14.1	UJ	IS<LCL
3056-SG01-042808	TO-15	1,3-Dichlorobenzene	PPBV	2.31	UJ	IS<LCL
3056-SG01-042808	TO-15	1,4-Dichlorobenzene	UG/M3	6.5	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	1,4-Dichlorobenzene	PPBV	1.06	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	2-Butanone	UG/M3	26.4	J	Sur>UCL
3056-SG01-042808	TO-15	2-Butanone	PPBV	8.8	J	Sur>UCL
3056-SG01-042808	TO-15	Acetone	UG/M3	124	J	Sur>UCL
3056-SG01-042808	TO-15	Acetone	PPBV	51.3	J	Sur>UCL
3056-SG01-042808	TO-15	Benzene	UG/M3	195	J	Sur>UCL
3056-SG01-042808	TO-15	Benzene	PPBV	59.9	J	Sur>UCL
3056-SG01-042808	TO-15	Benzyl chloride	UG/M3	24.3	R	CCV RRF, LCS<LCL (UL), IC%RSD (UJ), IS<LCL (UJ)
3056-SG01-042808	TO-15	Benzyl chloride	PPBV	4.62	R	CCV RRF, LCS<LCL (UL), IC%RSD (UJ), IS<LCL (UJ)
3056-SG01-042808	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	29.7	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	bis(2-Chloroisopropyl)ether	PPBV	4.17	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	Bromomethane	UG/M3	2.2	B	LB<RL, Sur>UCL (J)
3056-SG01-042808	TO-15	Bromomethane	PPBV	0.55	B	LB<RL, Sur>UCL (J)
3056-SG01-042808	TO-15	Chlorobenzene	UG/M3	10.8	UJ	IS<LCL
3056-SG01-042808	TO-15	Chlorobenzene	PPBV	2.31	UJ	IS<LCL
3056-SG01-042808	TO-15	cis-1,2-Dichloroethylene	UG/M3	5.8	J	Sur>UCL
3056-SG01-042808	TO-15	cis-1,2-Dichloroethylene	PPBV	1.45	J	Sur>UCL
3056-SG01-042808	TO-15	Dichlorodifluoromethane	PPBV	14.7	J	FD>RPD, Sur>UCL
3056-SG01-042808	TO-15	Dichlorodifluoromethane	UG/M3	73.9	J	FD>RPD, Sur>UCL
3056-SG01-042808	TO-15	Ethylbenzene	UG/M3	10.2	UJ	IS<LCL
3056-SG01-042808	TO-15	Ethylbenzene	PPBV	2.31	UJ	IS<LCL
3056-SG01-042808	TO-15	Hexachlorobutadiene	UG/M3	24.8	UJ	IS<LCL, CCV<LCL
3056-SG01-042808	TO-15	Hexachlorobutadiene	PPBV	2.31	UJ	IS<LCL, CCV<LCL
3056-SG01-042808	TO-15	m,p-Xylene	UG/M3	204	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	m,p-Xylene	PPBV	46.1	J	IS<LCL, Sur>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3056-SG01-042808	TO-15	Methyl tert-Butyl Ether	UG/M3	8.5	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808	TO-15	Methyl tert-Butyl Ether	PPBV	2.31	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808	TO-15	Methylene Chloride	UG/M3	8.2	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808	TO-15	Methylene Chloride	PPBV	2.31	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808	TO-15	Naphthalene	UG/M3	24.6	UJ	IS<LCL
3056-SG01-042808	TO-15	Naphthalene	PPBV	4.62	UJ	IS<LCL
3056-SG01-042808	TO-15	n-Butylbenzene	UG/M3	111	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	n-Butylbenzene	PPBV	19.9	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	n-Hexane	PPBV	2120	J	>ICLinearRange
3056-SG01-042808	TO-15	n-Hexane	UG/M3	7600	J	>ICLinearRange
3056-SG01-042808	TO-15	n-Propylbenzene	UG/M3	184	J	FD>RPD, Sur>UCL, IS<LCL
3056-SG01-042808	TO-15	n-Propylbenzene	PPBV	36.8	J	IS<LCL, Sur>UCL, FD>RPD
3056-SG01-042808	TO-15	o-Xylene	UG/M3	170	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	o-Xylene	PPBV	38.4	J	IS<LCL, Sur>UCL
3056-SG01-042808	TO-15	Styrene	UG/M3	10	UL	LCS<LCL, CCV<LCL (UJ), IS<LCL (UJ)
3056-SG01-042808	TO-15	Styrene	PPBV	2.31	UL	LCS<LCL, IS<LCL (UJ), CCV<LCL (UJ)
3056-SG01-042808	TO-15	TCE	UG/M3	4.4	J	Sur>UCL
3056-SG01-042808	TO-15	TCE	PPBV	0.81	J	Sur>UCL
3056-SG01-042808	TO-15	Tetrachloroethylene	UG/M3	12.6	J	Sur>UCL
3056-SG01-042808	TO-15	Tetrachloroethylene	PPBV	1.83	J	Sur>UCL
3056-SG01-042808	TO-15	Toluene	UG/M3	166	J	Sur>UCL
3056-SG01-042808	TO-15	Toluene	PPBV	43.2	J	Sur>UCL
3056-SG01-042808	TO-15	Trichlorofluoromethane	UG/M3	4.1	J	Sur>UCL
3056-SG01-042808	TO-15	Trichlorofluoromethane	PPBV	0.72	J	Sur>UCL
3056-SG01-042808D	TO-15	1,1,2,2-Tetrachloroethane	UG/M3	14.2	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,1,2,2-Tetrachloroethane	PPBV	2.03	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,1-Dichloroethane	UG/M3	11.7	J	Sur>UCL
3056-SG01-042808D	TO-15	1,1-Dichloroethane	PPBV	2.83	J	Sur>UCL
3056-SG01-042808D	TO-15	1,2,4-Trichlorobenzene	UG/M3	15.3	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,2,4-Trichlorobenzene	PPBV	2.03	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,2,4-Trimethylbenzene	UG/M3	128	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	1,2,4-Trimethylbenzene	PPBV	25.5	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	1,2-Dichlorobenzene	UG/M3	12.4	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,2-Dichlorobenzene	PPBV	2.03	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,2-Dichloroethane	UG/M3	29	J	Sur>UCL
3056-SG01-042808D	TO-15	1,2-Dichloroethane	PPBV	7.04	J	Sur>UCL
3056-SG01-042808D	TO-15	1,2-Dichloropropane	PPBV	12.6	J	FD>RPD, Sur>UCL
3056-SG01-042808D	TO-15	1,2-Dichloropropane	UG/M3	59.2	J	FD>RPD, Sur>UCL
3056-SG01-042808D	TO-15	1,3,5-Trimethylbenzene	UG/M3	357	J	IS<LCL, Sur>UCL

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3056-SG01-042808D	TO-15	1,3,5-Trimethylbenzene	PPBV	71.4	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	1,3-Dichlorobenzene	UG/M3	12.4	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,3-Dichlorobenzene	PPBV	2.03	UJ	IS<LCL
3056-SG01-042808D	TO-15	1,4-Dichlorobenzene	UG/M3	5.2	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	1,4-Dichlorobenzene	PPBV	0.85	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	2-Butanone	PPBV	31.1	J	Sur>UCL
3056-SG01-042808D	TO-15	2-Butanone	UG/M3	93.3	J	Sur>UCL
3056-SG01-042808D	TO-15	Acetone	UG/M3	106	J	Sur>UCL
3056-SG01-042808D	TO-15	Acetone	PPBV	43.7	J	Sur>UCL
3056-SG01-042808D	TO-15	Benzene	UG/M3	192	J	Sur>UCL
3056-SG01-042808D	TO-15	Benzene	PPBV	59	J	Sur>UCL
3056-SG01-042808D	TO-15	Benzyl chloride	UG/M3	21.4	R	CCV RRF, LCS<LCL (UL), IC%RSD (UJ), IS<LCL (UJ)
3056-SG01-042808D	TO-15	Benzyl chloride	PPBV	4.06	R	CCV RRF, LCS<LCL (UL), IC%RSD (UJ), IS<LCL (UJ)
3056-SG01-042808D	TO-15	bis(2-Chloroisopropyl)ether	UG/M3	28.9	UJ	IS<LCL
3056-SG01-042808D	TO-15	bis(2-Chloroisopropyl)ether	PPBV	4.06	UJ	IS<LCL
3056-SG01-042808D	TO-15	Chlorobenzene	UG/M3	9.5	UJ	IS<LCL
3056-SG01-042808D	TO-15	Chlorobenzene	PPBV	2.03	UJ	IS<LCL
3056-SG01-042808D	TO-15	cis-1,2-Dichloroethylene	UG/M3	4.7	J	Sur>UCL
3056-SG01-042808D	TO-15	cis-1,2-Dichloroethylene	PPBV	1.16	J	Sur>UCL
3056-SG01-042808D	TO-15	Dichlorodifluoromethane	PPBV	18.4	J	FD>RPD, Sur>UCL
3056-SG01-042808D	TO-15	Dichlorodifluoromethane	UG/M3	92.6	J	FD>RPD, Sur>UCL
3056-SG01-042808D	TO-15	Ethylbenzene	UG/M3	9	UJ	IS<LCL
3056-SG01-042808D	TO-15	Ethylbenzene	PPBV	2.03	UJ	IS<LCL
3056-SG01-042808D	TO-15	Hexachlorobutadiene	UG/M3	21.8	UJ	IS<LCL, CCV<LCL
3056-SG01-042808D	TO-15	Hexachlorobutadiene	PPBV	2.03	UJ	IS<LCL, CCV<LCL
3056-SG01-042808D	TO-15	m,p-Xylene	UG/M3	216	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	m,p-Xylene	PPBV	48.9	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	Methyl tert-Butyl Ether	UG/M3	7.4	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808D	TO-15	Methyl tert-Butyl Ether	PPBV	2.03	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808D	TO-15	Methylene Chloride	UG/M3	7.2	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808D	TO-15	Methylene Chloride	PPBV	2.03	UL	LCS<LCL, CCV<LCL (UJ)
3056-SG01-042808D	TO-15	Naphthalene	UG/M3	21.6	UJ	IS<LCL
3056-SG01-042808D	TO-15	Naphthalene	PPBV	4.06	UJ	IS<LCL
3056-SG01-042808D	TO-15	n-Butylbenzene	UG/M3	127	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	n-Butylbenzene	PPBV	22.8	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	n-Hexane	PPBV	2110	J	>ICLinearRange
3056-SG01-042808D	TO-15	n-Hexane	UG/M3	7560	J	>ICLinearRange
3056-SG01-042808D	TO-15	n-Propylbenzene	UG/M3	227	J	FD>RPD, IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	n-Propylbenzene	PPBV	45.4	J	IS<LCL, Sur>UCL, FD>RPD

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3056-SG01-042808D	TO-15	o-Xylene	UG/M3	166	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	o-Xylene	PPBV	37.6	J	IS<LCL, Sur>UCL
3056-SG01-042808D	TO-15	Styrene	UG/M3	8.8	UL	LCS<LCL, CCV<LCL (UJ), IS<LCL (UJ)
3056-SG01-042808D	TO-15	Styrene	PPBV	2.03	UL	LCS<LCL, IS<LCL (UJ), CCV<LCL (UJ)
3056-SG01-042808D	TO-15	TCE	UG/M3	4.3	J	Sur>UCL
3056-SG01-042808D	TO-15	TCE	PPBV	0.78	J	Sur>UCL
3056-SG01-042808D	TO-15	Tetrachloroethylene	UG/M3	13	J	Sur>UCL
3056-SG01-042808D	TO-15	Tetrachloroethylene	PPBV	1.88	J	Sur>UCL
3056-SG01-042808D	TO-15	Toluene	UG/M3	170	J	Sur>UCL
3056-SG01-042808D	TO-15	Toluene	PPBV	44.4	J	Sur>UCL
3056-SG01-042808D	TO-15	Vinyl Chloride	UG/M3	0.47	J	Sur>UCL
3056-SG01-042808D	TO-15	Vinyl Chloride	PPBV	0.18	J	Sur>UCL
3057-SG01-042408	TO-15	1,2,4-Trichlorobenzene	UG/M3	500	UL	LCS<LCL
3057-SG01-042408	TO-15	1,2,4-Trichlorobenzene	PPBV	66.3	UL	LCS<LCL
3057-SG01-042408	TO-15	Benzyl chloride	PPBV	133	UL	LCS<LCL, IC%RSD (UJ)
3057-SG01-042408	TO-15	Benzyl chloride	UG/M3	700	UL	LCS<LCL, IC%RSD (UJ)
3057-SG01-042408	TO-15	Bromomethane	UG/M3	28.2	B	LB<RL
3057-SG01-042408	TO-15	Bromomethane	PPBV	7.14	B	LB<RL
3057-SG01-042408	TO-15	Hexachlorobutadiene	UG/M3	711	UL	LCS<LCL
3057-SG01-042408	TO-15	Hexachlorobutadiene	PPBV	66.3	UL	LCS<LCL
3057-SG01-042408	TO-15	Methylene Chloride	UG/M3	232	B	LB<RL, IC%RSD (J)
3057-SG01-042408	TO-15	Methylene Chloride	PPBV	65.6	B	LB<RL, IC%RSD (J)
3059-GW01-042208	SW8260B	1,4-Dioxane	ug/L	1000	R	IC RRF
3059-GW01-042208	SW8260B	2-Butanone	ug/L	100	UL	IC RRF
3059-GW01-042208	SW8260B	2-Hexanone	ug/L	50	UL	IC RRF
3059-GW01-042208	SW8260B	4-Methyl-2-pentatone	ug/L	50	UL	IC RRF
3059-GW01-042208	SW8260B	Acetone	ug/L	250	UL	IC RRF
3059-GW01-042208	SW8260B	Acrylonitrile	ug/L	100	UL	IC RRF
3059-GW01-042208	SW8260B	Vinyl acetate	ug/L	100	UL	LCS<LCL
3059-SG01-042208	TO-15	Benzyl chloride	PPBV	1.31	L	LCS<LCL, CCV RRF, IC%RSD (J)
3059-SG01-042208	TO-15	Benzyl chloride	UG/M3	6.9	L	LCS<LCL, CCV RRF, IC%RSD (J)
3059-SG01-042208	TO-15	Bromomethane	PPBV	1.46	B	LB<RL
3059-SG01-042208	TO-15	Bromomethane	UG/M3	5.8	B	LB<RL
3059-SG01-042208	TO-15	Hexachlorobutadiene	UG/M3	22.4	UJ	CCV<LCL
3059-SG01-042208	TO-15	Hexachlorobutadiene	PPBV	2.09	UJ	CCV<LCL
3059-SG01-042208	TO-15	Methyl tert-Butyl Ether	PPBV	2.09	UL	LCS<LCL, CCV<LCL (UJ)
3059-SG01-042208	TO-15	Methyl tert-Butyl Ether	UG/M3	7.7	UL	LCS<LCL, CCV<LCL (UJ)
3059-SG01-042208	TO-15	Methylene Chloride	PPBV	3.81	B	LB<RL, CCV<LCL (J), LCS<LCL (L)
3059-SG01-042208	TO-15	Methylene Chloride	UG/M3	13.5	B	LB<RL, LCS<LCL (L), CCV<LCL (J)

TABLE 3.
DATA QUALIFICATION SUMMARY
VAPOR INTRUSION INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3059-SG01-042208	TO-15	Styrene	PPBV	0.34	L	LCS<LCL, CCV<LCL (J)
3059-SG01-042208	TO-15	Styrene	UG/M3	1.5	L	LCS<LCL, CCV<LCL (J)
3059-SG02-042208	TO-15	Benzyl chloride	PPBV	105000	R	CCV RRF, LCS<LCL (UL), IC%RSD (UJ)
3059-SG02-042208	TO-15	Benzyl chloride	UG/M3	553000	R	CCV RRF, LCS<LCL (UL), IC%RSD (J)
3059-SG02-042208	TO-15	Hexachlorobutadiene	PPBV	52400	UJ	CCV<LCL
3059-SG02-042208	TO-15	Hexachlorobutadiene	UG/M3	562000	UJ	CCV<LCL
3059-SG02-042208	TO-15	Methyl tert-Butyl Ether	PPBV	12600	L	LCS<LCL, CCV<LCL (J)
3059-SG02-042208	TO-15	Methyl tert-Butyl Ether	UG/M3	46200	L	LCS<LCL, CCV<LCL (J)
3059-SG02-042208	TO-15	Methylene Chloride	PPBV	61800	B	LB<RL, CCV<LCL (J), LCS<LCL (L)
3059-SG02-042208	TO-15	Methylene Chloride	UG/M3	218000	B	LB<RL, LCS<LCL (L), CCV<LCL (J)
3059-SG02-042208	TO-15	Styrene	PPBV	52400	UL	LCS<LCL, CCV<LCL (J)
3059-SG02-042208	TO-15	Styrene	UG/M3	227000	UJ	CCV<LCL
3059-SG02-042208	TO-15	Styrene	UG/M3	227000	UL	LCS<LCL

Validation Reasons:

CCV RRF	The continuing calibration verification relative response factor was less than method criteria.
CCV<LCL	The continuing calibration verification standard was recovered less than method criteria.
CCV>UCL	The continuing calibration verification standard was recovered greater than method criteria.
FD>RPD	Field duplicate exceeded RPD method control limits.
HTa>UCL	The analytical holding time exceeded criteria.
IC RRF	The initial calibration relative response factor was less than method criteria.
IC%RSD	The initial calibration relative standard deviation was exceeded.
IS<LCL	The internal standard was recovered less than method criteria.
>ICLinearRange	The analyte concentration was greater than calibration range.
LB<RL	Analyte detected in the method blank at a concentration less than the reporting limit.
LCS>UCL	The LCS was recovered greater than control limits.
LCS<LCL	The LCS was recovered less than control limits.
LCSD<LCL	The LCSD was recovered less than control limits.
MS<LCL	The matrix spike was recovered less than control limits.
SD<LCL	The matrix spike duplicate was recovered less than control limits.
Sur<LCL	The surrogate was recovered less than control limits.
Sur>UCL	The surrogate was recovered greater than control limits.

Data Quality Evaluation for the Predesign/Source Area Soil Investigation at the UCC South Charleston Facility, West Virginia

PREPARED FOR: Eric Kroger/CH2M HILL

PREPARED BY: Travis Gouveia/CH2M HILL

DATE: June 11, 2008

Introduction

The objective of this Data Quality Evaluation (DQE) report is to assess the data quality of analytical results for soil samples collected from the Union Carbide Corporation (UCC), A Wholly Owned Subsidiary of The Dow Chemical Company (Dow), at the South Charleston Facility site for the Predesign/Source Area Soil Investigation. CH2M HILL collected soil samples from April 9, 2008 through May 1, 2008. Guidance for this DQE report came from the *Dow WVO Quality Assurance Project Plan (QAPP) (September 2006), the U.S. Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines (NFG) for Organic Data Review, October 1999* and individual method requirements.

The analytical results were evaluated using the criteria of precision, accuracy, representativeness, comparability and completeness (PARCC) presented in the QAPP.

This report is intended as a general data quality assessment designed to summarize data issues.

Analytical Data

This DQE report covers 69 soil samples, 5 field duplicates (FD) and 12 trip blanks (TB). The samples were reported as 12 sample delivery groups listed in Table 1. Samples were collected and delivered to Microbac Laboratories Inc. (Microbac) in Marietta, Ohio. The samples were analyzed by one or more of the methods listed below in Table 2.

TABLE 1.
Sample Delivery Groups
Predesign/Source Area Soil Investigation, UCC South Charleston Facility

L08040299
L08040357
L08040377
L08040400
L08040430
L08040484
L08040508
L08040557

TABLE 1.
Sample Delivery Groups
Predesign/Source Area Soil Investigation, UCC South Charleston Facility

L08040655
L08040809
L08050025
L08050050

TABLE 2
Analytical Parameters
Predesign/Source Area Soil Investigation, UCC South Charleston Facility

Parameter	Method	Laboratory
Volatile Organic Compounds (plus 1,4-dioxane) (VOC)	SW8260B	Microbac
Semivolatile Organic Compounds (SVOC)	SW8270C	Microbac
Total Organic Carbon (TOC)	SW9060	Microbac

The sample delivery groups were assessed by reviewing the following: (1) the chain-of-custody documentation; (2) holding-time compliance; (3) initial and continuing calibration criteria; (4) method blanks and field blanks; (5) laboratory control sample/laboratory control sample duplicates (LCS/LCSD); (6) matrix spike/matrix spike duplicate (MS/MSD) recoveries; (7) surrogate spike recoveries; (8) internal standard recoveries; and (9) the required quality control (QC) samples at the specified frequencies.

Data flags were assigned according to the Dow WVO QAPP. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will only be one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

The data flags are those listed in the WVO QAPP and are defined below:

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R = The sample result was rejected due to serious deficiencies in the ability to analyze the sample and meet the QC criteria. The presence or absence of the analyte could not be verified.
- U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- B = The analyte was detected in the blank as well as the samples.
- K = The analyte was positively identified, but the associated numerical value may be biased high.
- L = The analyte was positively identified, but the associated numerical value may be biased low.
- UL = The analyte was analyzed for but was not detected. The quantitation limit may be higher.

Findings

The overall summaries of the data validation are contained in the following sections and Table 3.

Sample Quantitation

Sample 3021-SO02-041008 had a detect for 1,1,2-trichloroethane that exceeded the calibration range in the initial analysis of the sample and was not detected in the dilution. The associated result was qualified as estimated and flagged "J" in the sample.

Holding time and Preservation

All acceptance criteria were met.

Calibration

Initial and continuing calibration analyses were performed as required by the methods and generally met all acceptance criteria.

The relative response factor (RRF) for 1, 4-dioxane was significantly less than criteria in multiple initial calibrations associated with the VOC analyses. The RRF for 1, 4-dioxane was also less than criteria in the continuing calibration verifications (CCV) that were analyzed. This diminished response indicates a lack of sensitivity to accurately detect 1, 4-dioxane. With the exception of samples 3030-S003-043008 and 3034-S003-041708, all of the 1, 4-dioxane results were rejected for project use and "R" flagged in the associated samples.

The RRF for acrylonitrile was also less than criteria in several initial calibrations (ICAL) associated with the VOC analyses as well as several CCVs that were analyzed. The data were qualified as estimated non-detected results and flagged "UL" in the associated samples.

The relative standard deviation for ethylbenzene was greater than method criteria in an ICAL associated with the VOC analyses. The detected results were qualified as estimated and flagged "J" in the associated samples. Non-detected results were not qualified.

The percent differences (%D) for bromomethane and vinyl acetate were less than method criteria in several VOC initial calibration verifications (ICV) and/or CCVs. The data were qualified as estimated non-detected results and flagged "UJ" in the associated samples.

The %D was less than method criteria for bis(2-chloroethoxy)methane and 3, 3'-dichlorobenzidine in ICVs associated with the SVOC analyses. The data were qualified as estimated non-detected results and flagged "UJ" in the associated samples.

Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination.

Laboratory Control Samples

LCS/LCSDs were analyzed as required and all accuracy and precision criteria were met with the following exceptions:

The recoveries for vinyl acetate were less than the lower control limits in several VOC LCS/LCSDs. The data were qualified as estimated non-detected results and flagged "UL" in the associated samples.

Multiple analytes were recovered less than the lower control limit in several SVOC LCS/LCSDs. The data were qualified as estimated non-detected results and flagged "UL" in the associated samples.

The recovery of TOC was greater than the upper control limit in one LCS. One detected result was qualified as estimated and flagged "K" in the associated sample. Non-detected results were not qualified.

Matrix Spike

MS/MSDs were analyzed as required and met all accuracy and precision criteria with the following exceptions:

The recoveries for several analytes were less than control limits in the VOC MS/MSD samples. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL", respectively, in the parent samples.

The recoveries for bis(2-chloroethoxy) methane were less than the lower control limits in the MS/MSDs associated with the SVOC analyses. The recovery of n-Nitrosodiphenylamine was also less than the lower control limit for one MS. The data were qualified as estimated non-detected results and flagged "UL" in the parent samples.

Internal Standards

The internal standard recoveries met acceptance criteria with the following exceptions:

The recoveries of all three internal standards were less than the method criteria in the VOC analyses of samples 3007-SO02-041408 and 3021-SO02-041008. The associated analytes were qualified as estimated detected and non-detected results and flagged "J" and "UJ", respectively.

The recovery of one internal standard was less than the method criteria in the SVOC analyses of sample 3020-SO02-041108. The associated analytes were qualified as estimated non-detected results and flagged "UJ".

Surrogates

Surrogates were added to the methods requiring their use and met all acceptance criteria.

Field Duplicates

FDs were collected and analyzed as required and generally met all precision criteria.

The relative percent difference (RPD) exceeded control limits for 1,2-dichloropropane in FD pair 3012-SO02-041408/3012-SO02-041408D associated with the VOC analyses. The data were qualified as estimated detected results and flagged "J".

Field Blanks

TBs were collected at the required frequencies and were free of contamination.

Chain of Custody

Required procedures were followed and were free of errors.

Overall Assessment

The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected and the resulting analytical data can be used to support the decision making process. The following summary highlights the PARCC findings for the above-defined events:

Precision of the data was verified through the review of the field and laboratory data quality indicators that include FD, LCS/LCSD and MS/MSD RPDs. Precision was generally acceptable with the exception of 1,2-dichloropropane being qualified as estimated detected results due to FD RPD issues. Data users should consider the impact to any result that is qualified as estimated as it may contain a bias which could affect the decision-making process.

Accuracy of the data was verified through the review of the calibration data, LCS/LCSDs, MS/MSDs, internal standards, surrogate standard recoveries and the evaluation of method/field blank data. Accuracy was generally acceptable with a few compounds being qualified as estimated detected and non-detected results due to calibration, LCS/LCSD, internal standard, and/or MS/MSD issues. In addition, there were several instances where 1,4-dioxane was rejected for project use due to calibration issues.

Representativeness of the data was verified through the sample's collection, storage and preservation procedures and the verification of holding-time compliance. No observations related to sample preservation or storage of the samples were noted by the laboratory. All data were reported from analyses within the EPA recommended holding time.

Comparability of the data was ensured through the use of standard EPA analytical procedures and standard units for reporting. Results obtained are comparable to industry

standards in that the collection and analytical techniques followed approved, documented procedures.

Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as all data that are not rejected for project use. All data were considered valid with the exception of 1, 4-dioxane which was rejected for project use in most of the VOC samples. The completeness goal of 90 percent was met for all compounds except 1, 4-dioxane which was only three percent complete.

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3001-SO01-041608	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1850	R	IC RRF
3001-SO01-041608	SW8260B	VINYL ACETATE	ug/kg	10.9	UJ	CCV<LCL, ICVS<LCL
3001-SO01-041608	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	198	UL	LCS<LCL
3002-SO01-041508	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1680	R	IC RRF
3002-SO01-041508	SW8260B	VINYL ACETATE	ug/kg	9.91	UL	ICVS<LCL, LCS<LCL
3002-SO01-041508	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	198	UL	LCS<LCL
3002-SO02-041508	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	205	UL	LCS<LCL
3002-SO02-041508	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2000	R	IC RRF
3002-SO02-041508	SW8260B	VINYL ACETATE	ug/kg	11.8	UJ	CCV<LCL, ICVS<LCL
3003-SO01-041408	SW8270C	2-Chloronaphthalene	ug/kg	196	UL	LCS<LCL
3003-SO01-041408	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	196	UL	LCS<LCL
3003-SO01-041408	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	203000	R	IC RRF
3003-SO01-041408	SW8260B	ACRYLONITRILE	ug/kg	12000	UL	IC RRF
3003-SO01-041408	SW8260B	VINYL ACETATE	ug/kg	1200	UJ	CCV<LCL
3005-SO01-041508	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1720	R	IC RRF
3005-SO01-041508	SW8260B	VINYL ACETATE	ug/kg	10.1	UL	ICVS<LCL, LCS<LCL
3005-SO01-041508	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	185	UL	LCS<LCL
3005-SO01-041508D	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	193	UL	LCS<LCL
3005-SO01-041508D	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1710	R	IC RRF
3005-SO01-041508D	SW8260B	VINYL ACETATE	ug/kg	10.1	UL	ICVS<LCL, LCS<LCL
3005-SO02-041508	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	190	UL	LCS<LCL
3005-SO02-041508	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1780	R	IC RRF
3005-SO02-041508	SW8260B	VINYL ACETATE	ug/kg	10.4	UL	ICVS<LCL, LCS<LCL
3005-SO02-041508D	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	188	UL	LCS<LCL
3005-SO02-041508D	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1680	R	IC RRF

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NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3005-SO02-041508D	SW8260B	VINYL ACETATE	ug/kg	9.85	UJ	CCV<LCL, ICVS<LCL
3007-SO01-041408	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1660	R	IC RRF
3007-SO01-041408	SW8260B	VINYL ACETATE	ug/kg	9.79	UJ	CCV<LCL, ICVS<LCL
3007-SO01-041408	SW8270C	2-Chloronaphthalene	ug/kg	193	UL	LCS<LCL
3007-SO01-041408	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	193	UL	LCS<LCL
3007-SO02-041408	SW8270C	2-Chloronaphthalene	ug/kg	169	UL	LCS<LCL
3007-SO02-041408	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	169	UL	LCS<LCL
3007-SO02-041408	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1790	R	IC RRF, IS<LCL
3007-SO02-041408	SW8260B	ACETONE	ug/kg	105	UJ	IS<LCL
3007-SO02-041408	SW8260B	ACRYLONITRILE	ug/kg	105	UJ	IS<LCL
3007-SO02-041408	SW8260B	VINYL ACETATE	ug/kg	10.5	UL	ICVS<LCL, IS<LCL, LCS<LCL
3007-SO02-041408	SW8260B	Vinyl chloride	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	XYLENES, TOTAL	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	2-Butanone	ug/kg	26.3	UJ	IS<LCL
3007-SO02-041408	SW8260B	2-HEXANONE	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	4-METHYL-2-PENTANONE	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	Bromomethane	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	Chloroethane	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	Chloromethane	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	tert-Butyl Methyl Ether	ug/kg	10.5	UJ	IS<LCL
3007-SO02-041408	SW8260B	Toluene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Tetrachloroethene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	trans-1,3-Dichloropropene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	TCE	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,1,1-Trichloroethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,1,2,2-Tetrachloroethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,1,2-Trichloroethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,1-Dichloroethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,1-Dichloroethene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,2,4-Trichlorobenzene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,2-Dichlorobenzene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,2-Dichloroethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,2-Dichloropropane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,3-Dichlorobenzene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	1,4-Dichlorobenzene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Benzene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Bromodichloromethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Bromoform	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	CARBON DISULFIDE	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Carbon tetrachloride	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Chlorobenzene	ug/kg	5.26	UJ	IS<LCL

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NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3007-SO02-041408	SW8260B	Dibromochloromethane	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Chloroform	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	cis-1,2-Dichloroethylene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	cis-1,3-Dichloropropene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Ethylbenzene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Methylene chloride	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Styrene	ug/kg	5.26	UJ	IS<LCL
3007-SO02-041408	SW8260B	Trans-1,2-DCE	ug/kg	5.26	UJ	IS<LCL
3008-SO01-041308	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1750	R	IC RRF
3008-SO01-041308	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	192	UL	LCS<LCL
3008-SO02-041308	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	175	UL	LCS<LCL
3008-SO02-041308	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	183000	R	IC RRF
3008-SO02-041308	SW8260B	ACRYLONITRILE	ug/kg	10800	UL	CCV RRF
3008-SO02-041308	SW8260B	Bromomethane	ug/kg	1080	UJ	CCV<LCL
3009-SO01-041308	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1760	R	IC RRF
3009-SO01-041308	SW8260B	VINYL ACETATE	ug/kg	10.3	UL	LCS<LCL, LCSD<LCL
3009-SO01-041308	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	198	UL	LCS<LCL
3009-SO02-041308	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	193000	R	IC RRF
3009-SO02-041308	SW8260B	ACRYLONITRILE	ug/kg	11300	UL	CCV RRF
3009-SO02-041308	SW8260B	Bromomethane	ug/kg	1130	UJ	CCV<LCL
3009-SO02-041308	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	171	UL	LCS<LCL
3012-SO01-041408	SW8270C	2-Chloronaphthalene	ug/kg	199	UL	LCS<LCL
3012-SO01-041408	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	199	UL	LCS<LCL, MS<LCL, SD<LCL
3012-SO01-041408	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1750	R	IC RRF
3012-SO01-041408	SW8260B	Tetrachloroethene	ug/kg	14.5	L	SD<LCL
3012-SO01-041408	SW8260B	VINYL ACETATE	ug/kg	10.3	UL	ICVS<LCL, LCS<LCL, MS<LCL, SD<LCL
3012-SO01-041408	SW8260B	1,2,4-Trichlorobenzene	ug/kg	5.14	UL	SD<LCL
3012-SO02-041408	SW8260B	1,2-Dichloropropane	ug/kg	13000	J	FD>RPD
3012-SO02-041408	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	195000	R	IC RRF
3012-SO02-041408	SW8260B	ACRYLONITRILE	ug/kg	11500	UL	IC RRF
3012-SO02-041408	SW8260B	VINYL ACETATE	ug/kg	1150	UJ	CCV<LCL
3012-SO02-041408	SW8270C	2-Chloronaphthalene	ug/kg	183	UL	LCS<LCL
3012-SO02-041408	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	183	UL	LCS<LCL
3012-SO02-041408D	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	178	UL	LCS<LCL
3012-SO02-041408D	SW8260B	1,2-Dichloropropane	ug/kg	7690	J	FD>RPD
3012-SO02-041408D	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	188000	R	IC RRF
3012-SO02-041408D	SW8260B	ACRYLONITRILE	ug/kg	11000	UL	IC RRF
3012-SO02-041408D	SW8260B	VINYL ACETATE	ug/kg	1100	UJ	CCV<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3012-SO02-041408D	SW8270C	2-Chloronaphthalene	ug/kg	178	UL	LCS<LCL
3013-SO01-041308	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1930	R	IC RRF
3013-SO01-041308	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	209	UL	LCS<LCL
3013-SO02-041308	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	160000	R	IC RRF
3013-SO02-041308	SW8260B	ACRYLONITRILE	ug/kg	9420	UL	CCV RRF
3013-SO02-041308	SW8260B	Bromomethane	ug/kg	942	UJ	CCV<LCL
3013-SO02-041308	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	178	UL	LCS<LCL
3014-SO01-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1780	R	IC RRF
3014-SO01-050108	SW8260B	VINYL ACETATE	ug/kg	10.5	UL	ICVS<LCL, LCS<LCL, LCSD<LCL
3014-SO01-050108	SW8270C	2-Chloronaphthalene	ug/kg	201	UL	LCS<LCL
3014-SO01-050108	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	201	UL	LCS<LCL
3014-SO02-050108	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	181	UL	LCS<LCL
3014-SO02-050108	SW8270C	2-Chloronaphthalene	ug/kg	181	UL	LCS<LCL
3014-SO02-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1590	R	IC RRF
3014-SO02-050108	SW8260B	VINYL ACETATE	ug/kg	9.33	UL	ICVS<LCL, LCS<LCL, LCSD<LCL
3015-SO01-050108	SW8270C	n-Nitrosodiphenylamine	ug/kg	197	UL	LCS<LCL
3015-SO01-050108	SW8270C	3,3'-Dichlorobenzidine	ug/kg	393	UJ	ICVS<LCL
3015-SO01-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	165000	R	IC RRF
3015-SO01-050108	SW8260B	ACRYLONITRILE	ug/kg	9730	UL	IC RRF
3015-SO01-050108	SW8260B	VINYL ACETATE	ug/kg	973	UJ	CCV<LCL, ICVS<LCL
3015-SO02-050108	SW8270C	2-Chloronaphthalene	ug/kg	191	UL	LCS<LCL
3015-SO02-050108	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	191	UL	LCS<LCL
3015-SO02-050108	SW8260B	ACRYLONITRILE	ug/kg	10100	UL	IC RRF
3015-SO02-050108	SW8260B	VINYL ACETATE	ug/kg	1010	UJ	CCV<LCL, ICVS<LCL
3015-SO02-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	171000	R	IC RRF
3016-SO01-041008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	165000	R	IC RRF
3016-SO01-041008	SW8260B	ACRYLONITRILE	ug/kg	9710	UL	CCV RRF
3016-SO01-041008	SW8260B	Bromomethane	ug/kg	971	UJ	CCV<LCL
3016-SO02-041008	SW8260B	ACRYLONITRILE	ug/kg	10800	UL	IC RRF
3016-SO02-041008	SW8260B	VINYL ACETATE	ug/kg	1080	UL	CCV<LCL, ICVS<LCL, LCS<LCL, LCSD<LCL
3016-SO02-041008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	183000	R	IC RRF
3016-SO03-041008	SW9060	Total Organic Carbon	mg/kg	8770	K	LCS>UCL
3017-SO01-040908	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2030	R	IC RRF
3017-SO01-040908	SW8260B	VINYL ACETATE	ug/kg	11.9	UJ	ICVS<LCL
3018-SO01-041108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2310	R	IC RRF
3018-SO01-041108	SW8260B	VINYL ACETATE	ug/kg	13.6	UJ	ICVS<LCL
3019-SO01-040908	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1600	R	IC RRF
3019-SO01-040908	SW8260B	VINYL ACETATE	ug/kg	9.41	UJ	ICVS<LCL
3019-SO02-040908	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1910	R	IC RRF
3019-SO02-040908	SW8260B	VINYL ACETATE	ug/kg	11.2	UL	ICVS<LCL, LCS<LCL, LCSD<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3020-SO01-041108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1630	R	IC RRF
3020-SO01-041108	SW8260B	VINYL ACETATE	ug/kg	9.61	UJ	ICVS<LCL
3020-SO02-041108	SW8270C	Benzo (a) anthracene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Benzo (a) pyrene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Benzo (b) fluoranthene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Benzo (g,h,i) perylene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Benzo(k)fluoranthene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Bis (2-ethylhexyl) phthalate	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Butyl benzylphthalate	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Chrysene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Dibenzo (a,h) anthracene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Di-n-octylphthalate	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Phenanthrene	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8270C	Hexachloroethane	ug/kg	175	UJ	IS<LCL
3020-SO02-041108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	362000	R	IC RRF
3020-SO02-041108	SW8260B	ACRYLONITRILE	ug/kg	21300	UL	IC RRF
3020-SO02-041108	SW8260B	VINYL ACETATE	ug/kg	2130	UL	CCV<LCL, ICVS<LCL, LCS<LCL
3021-SO01-041008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1870	R	IC RRF
3021-SO01-041008	SW8260B	VINYL ACETATE	ug/kg	11	UJ	ICVS<LCL
3021-SO02-041008	SW8260B	1,1,2-Trichloroethane	ug/kg	160	J	>ICLinearRange, IS<LCL
3021-SO02-041008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1860	R	IC RRF, IS<LCL
3021-SO02-041008	SW8260B	ACETONE	ug/kg	109	UJ	IS<LCL
3021-SO02-041008	SW8260B	ACRYLONITRILE	ug/kg	109	UJ	IS<LCL
3021-SO02-041008	SW8260B	2-Butanone	ug/kg	27.4	UJ	IS<LCL
3021-SO02-041008	SW8260B	2-HEXANONE	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	4-METHYL-2-PENTANONE	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	Bromomethane	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	Chloroethane	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	Chloromethane	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	tert-Butyl Methyl Ether	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	TCE	ug/kg	30.5	J	IS<LCL
3021-SO02-041008	SW8260B	VINYL ACETATE	ug/kg	10.9	UJ	ICVS<LCL, IS<LCL
3021-SO02-041008	SW8260B	Vinyl chloride	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	XYLENES, TOTAL	ug/kg	10.9	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,1,1-Trichloroethane	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,1-Dichloroethane	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,1-Dichloroethene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,2,4-Trichlorobenzene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,2-Dichlorobenzene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,3-Dichlorobenzene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,4-Dichlorobenzene	ug/kg	5.47	UJ	IS<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3021-SO02-041008	SW8260B	Benzene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Bromodichloromethane	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Bromoform	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	CARBON DISULFIDE	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Carbon tetrachloride	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Chlorobenzene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Dibromochloromethane	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Chloroform	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	cis-1,2-Dichloroethylene	ug/kg	9.65	J	IS<LCL
3021-SO02-041008	SW8260B	cis-1,3-Dichloropropene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Ethylbenzene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Methylene chloride	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Styrene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Tetrachloroethene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Toluene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	Trans-1,2-DCE	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	trans-1,3-Dichloropropene	ug/kg	5.47	UJ	IS<LCL
3021-SO02-041008	SW8260B	1,1,2,2-Tetrachloroethane	ug/kg	5.47	UJ	IS<LCL
3022-SO01-041108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2060	R	IC RRF
3022-SO01-041108	SW8260B	VINYL ACETATE	ug/kg	12.1	UJ	ICVS<LCL
3023-SO01-050108	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	183	UL	LCS<LCL
3023-SO01-050108	SW8270C	2-Chloronaphthalene	ug/kg	183	UL	LCS<LCL
3023-SO01-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	175000	R	IC RRF
3023-SO01-050108	SW8260B	ACRYLONITRILE	ug/kg	10300	UL	IC RRF
3023-SO01-050108	SW8260B	VINYL ACETATE	ug/kg	1030	UJ	CCV<LCL, ICVS<LCL
3023-SO01-050108FD	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	167000	R	IC RRF
3023-SO01-050108FD	SW8260B	ACRYLONITRILE	ug/kg	9810	UL	IC RRF
3023-SO01-050108FD	SW8260B	VINYL ACETATE	ug/kg	981	UJ	CCV<LCL, ICVS<LCL
3023-SO01-050108FD	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	177	UL	LCS<LCL
3023-SO01-050108FD	SW8270C	2-Chloronaphthalene	ug/kg	177	UL	LCS<LCL
3024-SO01-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	170	UL	LCS<LCL
3024-SO01-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1670	R	IC RRF
3024-SO02-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1810	R	IC RRF
3024-SO02-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	198	UL	LCS<LCL
3025-SO01-050108	SW8270C	2-Chloronaphthalene	ug/kg	189	UL	LCS<LCL
3025-SO01-050108	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	189	UL	LCS<LCL, MS<LCL, SD<LCL
3025-SO01-050108	SW8270C	n-Nitrosodiphenylamine	ug/kg	189	UL	MS<LCL
3025-SO01-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1590	R	IC RRF
3025-SO01-050108	SW8260B	cis-1,2-Dichloroethylene	ug/kg	64.6	L	MS<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3025-SO01-050108	SW8260B	TCE	ug/kg	30.2	L	MS<LCL
3025-SO02-050108	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1780	R	IC RRF
3025-SO02-050108	SW8260B	VINYL ACETATE	ug/kg	10.5	UL	ICVS<LCL, LCS<LCL, LCSD<LCL
3025-SO02-050108	SW8270C	2-Chloronaphthalene	ug/kg	179	UL	LCS<LCL
3025-SO02-050108	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	179	UL	LCS<LCL
3026-SO01-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1750	R	IC RRF
3026-SO01-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	193	UL	LCS<LCL
3026-SO02-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	166	UL	LCS<LCL
3026-SO02-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	159000	R	IC RRF
3026-SO02-042808	SW8260B	ACRYLONITRILE	ug/kg	9350	UL	IC RRF
3026-SO02-042808	SW8260B	VINYL ACETATE	ug/kg	935	UJ	CCV<LCL, ICVS<LCL
3027-SO01-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	194	UL	LCS<LCL, LCSD<LCL
3027-SO01-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1730	R	IC RRF
3027-SO02-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	198	UL	LCS<LCL, LCSD<LCL
3027-SO02-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1710	R	IC RRF
3027-SO03-042808	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1610	R	IC RRF
3027-SO03-042808	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	172	UL	LCS<LCL, LCSD<LCL
3028-S001-043008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1920	R	IC RRF
3028-S001-043008	SW8260B	VINYL ACETATE	ug/kg	11.3	UL	LCS<LCL, LCSD<LCL
3028-S001-043008	SW8270C	2-Chloronaphthalene	ug/kg	202	UL	LCS<LCL
3028-S001-043008	SW8270C	2-Methylnaphthalene	ug/kg	202	UL	LCS<LCL
3028-S001-043008	SW8270C	4-Bromophenyl phenyl ether	ug/kg	202	UL	LCS<LCL
3028-S001-043008	SW8270C	Di-n-butylphthalate	ug/kg	202	UL	LCS<LCL
3028-S001-043008	SW8270C	n-Nitrosodiphenylamine	ug/kg	202	UL	LCS<LCL
3028-S002-043008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2150	R	IC RRF
3028-S002-043008	SW8260B	VINYL ACETATE	ug/kg	12.6	UL	LCS<LCL, LCSD<LCL
3028-S002-043008	SW8270C	2-Chloronaphthalene	ug/kg	188	UL	LCS<LCL
3028-S002-043008	SW8270C	2-Methylnaphthalene	ug/kg	188	UL	LCS<LCL
3028-S002-043008	SW8270C	4-Bromophenyl phenyl ether	ug/kg	188	UL	LCS<LCL
3028-S002-043008	SW8270C	Di-n-butylphthalate	ug/kg	188	UL	LCS<LCL
3028-S002-043008	SW8270C	n-Nitrosodiphenylamine	ug/kg	188	UL	LCS<LCL
3030-S001-043008	SW8270C	2-Chloronaphthalene	ug/kg	200	UL	LCS<LCL
3030-S001-043008	SW8270C	2-Methylnaphthalene	ug/kg	200	UL	LCS<LCL
3030-S001-043008	SW8270C	4-Bromophenyl phenyl ether	ug/kg	200	UL	LCS<LCL
3030-S001-043008	SW8270C	Di-n-butylphthalate	ug/kg	200	UL	LCS<LCL
3030-S001-043008	SW8270C	n-Nitrosodiphenylamine	ug/kg	200	UL	LCS<LCL
3030-S001-043008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1760	R	IC RRF
3030-S002-043008	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2150	R	IC RRF
3030-S002-043008	SW8260B	VINYL ACETATE	ug/kg	12.6	UL	LCS<LCL, LCSD<LCL
3030-S002-043008	SW8270C	2-Chloronaphthalene	ug/kg	182	UL	LCS<LCL
3030-S002-043008	SW8270C	2-Methylnaphthalene	ug/kg	182	UL	LCS<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3030-S002-043008	SW8270C	4-Bromophenyl phenyl ether	ug/kg	182	UL	LCS<LCL
3030-S002-043008	SW8270C	Di-n-butylphthalate	ug/kg	182	UL	LCS<LCL
3030-S002-043008	SW8270C	n-Nitrosodiphenylamine	ug/kg	182	UL	LCS<LCL
3030-S003-043008	SW8260B	ACRYLONITRILE	ug/kg	11000	UL	IC RRF
3030-S003-043008	SW8260B	VINYL ACETATE	ug/kg	1100	UJ	ICVS<LCL
3030-S003-043008	SW8270C	2-Chloronaphthalene	ug/kg	207	UL	LCS<LCL
3030-S003-043008	SW8270C	2-Methylnaphthalene	ug/kg	207	UL	LCS<LCL
3030-S003-043008	SW8270C	4-Bromophenyl phenyl ether	ug/kg	207	UL	LCS<LCL
3030-S003-043008	SW8270C	Di-n-butylphthalate	ug/kg	207	UL	LCS<LCL
3030-S003-043008	SW8270C	n-Nitrosodiphenylamine	ug/kg	207	UL	LCS<LCL
3033-SO01-041608	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	198	UL	LCS<LCL
3033-SO01-041608	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1780	R	IC RRF
3033-SO01-041608	SW8260B	VINYL ACETATE	ug/kg	10.5	UJ	ICVS<LCL
3033-SO03-041608	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1830	R	IC RRF
3033-SO03-041608	SW8260B	VINYL ACETATE	ug/kg	10.8	UJ	CCV<LCL, ICVS<LCL
3033-SO03-041608	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	184	UL	LCS<LCL
3033-SO05-041608	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	2040	R	IC RRF
3033-SO05-041608	SW8260B	VINYL ACETATE	ug/kg	12	UJ	CCV<LCL, ICVS<LCL
3033-SO05-041608	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	174	UL	LCS<LCL
3034-S001-041708	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1860	R	IC RRF
3034-S001-041708	SW8260B	VINYL ACETATE	ug/kg	11	UJ	ICVS<LCL
3034-S002-041708	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1770	R	IC RRF
3034-S002-041708	SW8260B	VINYL ACETATE	ug/kg	10.4	UJ	ICVS<LCL
3034-S002-041708D	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1910	R	IC RRF
3034-S002-041708D	SW8260B	VINYL ACETATE	ug/kg	11.3	UJ	ICVS<LCL
3034-S003-041708	SW8260B	VINYL ACETATE	ug/kg	1100	UJ	CCV<LCL
3034-S003-041708	SW8260B	ACRYLONITRILE	ug/kg	11000	UL	IC RRF
3035-S001-042208	SW8270C	2,4-Dichlorophenol	ug/kg	195	UL	LCS<LCL
3035-S001-042208	SW8270C	2-Chloronaphthalene	ug/kg	195	UL	LCS<LCL
3035-S001-042208	SW8270C	2-Methylnaphthalene	ug/kg	195	UL	LCS<LCL
3035-S001-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	195	UL	ICVS<LCL, LCS<LCL
3035-S001-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1700	R	IC RRF
3035-S002-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	193	UL	ICVS<LCL, LCS<LCL
3035-S002-042208	SW8270C	2,4-Dichlorophenol	ug/kg	193	UL	LCS<LCL
3035-S002-042208	SW8270C	2-Chloronaphthalene	ug/kg	193	UL	LCS<LCL
3035-S002-042208	SW8270C	2-Methylnaphthalene	ug/kg	193	UL	LCS<LCL
3035-S002-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1680	R	IC RRF
3036-S001-042208	SW8270C	2,4-Dichlorophenol	ug/kg	199	UL	LCS<LCL
3036-S001-042208	SW8270C	2-Chloronaphthalene	ug/kg	199	UL	LCS<LCL
3036-S001-042208	SW8270C	2-Methylnaphthalene	ug/kg	199	UL	LCS<LCL

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
3036-S001-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1870	R	IC RRF
3036-S001-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	199	UL	ICVS<LCL, LCS<LCL
3036-S002-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	1620	R	IC RRF
3036-S002-042208	SW8270C	2,4-Dichlorophenol	ug/kg	186	UL	LCS<LCL
3036-S002-042208	SW8270C	2-Chloronaphthalene	ug/kg	186	UL	LCS<LCL
3036-S002-042208	SW8270C	2-Methylnaphthalene	ug/kg	186	UL	LCS<LCL
3036-S002-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	186	UL	ICVS<LCL, LCS<LCL
3037-S001-042208	SW8270C	2,4-Dichlorophenol	ug/kg	195	UL	LCS<LCL
3037-S001-042208	SW8270C	2-Chloronaphthalene	ug/kg	195	UL	LCS<LCL
3037-S001-042208	SW8270C	2-Methylnaphthalene	ug/kg	195	UL	LCS<LCL
3037-S001-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	195	UL	ICVS<LCL, LCS<LCL
3037-S001-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	168000	R	IC RRF
3037-S001-042208	SW8260B	ACRYLONITRILE	ug/kg	9870	UL	IC RRF
3037-S001-042208	SW8260B	Ethylbenzene	ug/kg	2600	J	IC%RSD
3037-S001-042208	SW8260B	VINYL ACETATE	ug/kg	987	UJ	CCV<LCL, ICVS<LCL
3037-S002-042208	SW8260B	VINYL ACETATE	ug/kg	1040	UJ	CCV<LCL, ICVS<LCL
3037-S002-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	176000	R	IC RRF
3037-S002-042208	SW8260B	ACRYLONITRILE	ug/kg	10400	UL	IC RRF
3037-S002-042208	SW8260B	Ethylbenzene	ug/kg	3200	J	IC%RSD
3037-S002-042208	SW8270C	2,4-Dichlorophenol	ug/kg	195	UL	LCS<LCL
3037-S002-042208	SW8270C	2-Chloronaphthalene	ug/kg	195	UL	LCS<LCL
3037-S002-042208	SW8270C	2-Methylnaphthalene	ug/kg	195	UL	LCS<LCL
3037-S002-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	195	UL	ICVS<LCL, LCS<LCL
3037-S003-042208	SW8270C	2,4-Dichlorophenol	ug/kg	179	UL	LCS<LCL
3037-S003-042208	SW8270C	2-Chloronaphthalene	ug/kg	179	UL	LCS<LCL
3037-S003-042208	SW8270C	2-Methylnaphthalene	ug/kg	179	UL	LCS<LCL
3037-S003-042208	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	179	UL	ICVS<LCL, LCS<LCL
3037-S003-042208	SW8260B	1,4-DIOXANE (P-DIOXANE)	ug/kg	165000	R	IC RRF
3037-S003-042208	SW8260B	ACRYLONITRILE	ug/kg	9710	UL	IC RRF
3037-S003-042208	SW8260B	Ethylbenzene	ug/kg	2600	J	IC%RSD
3037-S003-042208	SW8260B	VINYL ACETATE	ug/kg	971	UJ	CCV<LCL, ICVS<LCL

Validation Reasons:

CCV RRF	The continuing calibration verification relative response factor was less than method criteria.
CCV<LCL	The continuing calibration verification standard was recovered less than method criteria.
FD>RPD	Field duplicate exceeded RPD method control limits.
IC RRF	The initial calibration relative response factor was less than method criteria.
IC%RSD	The initial calibration relative standard deviation was exceeded.
ICVS<LCL	The initial calibration verification recovery was less than method criteria.
IS<LCL	The internal standard was recovered less than method criteria.

TABLE 3.
DATA QUALIFICATION SUMMARY
PREDESIGN/SOURCE AREA SOIL INVESTIGATION, UCC SOUTH CHARLESTON FACILITY

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
>ICLinearRange	The analyte concentration was greater than calibration range.					
LCS>UCL	The LCS was recovered greater than control limits.					
LCS<LCL	The LCS was recovered less than control limits.					
LCSD<UCL	The LCSD was recovered less than control limits.					
MS<LCL	The matrix spike was recovered less than control limits.					
SD<LCL	The matrix spike duplicate was recovered less than control limits.					

Data Quality Evaluation for the 2009 Mainland Predesign Investigation, UCC South Charleston Facility, Dow West Virginia

PREPARED FOR: Union Carbide Corporation

PREPARED BY: CH2M HILL

DATE: February 1, 2010

Introduction

The objective of this Data Quality Evaluation (DQE) report is to assess the data quality of analytical results for soil and groundwater samples collected from Union Carbide Corporation (UCC) South Charleston Facility in South Charleston, West Virginia (UCC is a wholly owned subsidiary of The Dow Chemical Company). CH2M HILL collected the samples June 17 through September 23, 2009. Guidance for this DQE report came from the *Program Quality Assurance Project Plan (WVO QAPP), November 2006,* the *U.S. Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines (NFG) for Organic Data Review, October 1999* and individual method requirements.

The analytical results were evaluated using the criteria of precision, accuracy, representativeness, comparability and completeness (PARCC) presented in the WVO QAPP. This report is intended as a general data quality assessment designed to summarize data issues.

Analytical Data

This DQE report covers 58 soil samples, 15 groundwater samples, 4 soil field duplicates (FD), one groundwater FD, and 13 trip blanks (TB). The samples were reported in 15 sample delivery groups (SDG) listed in Table 1 below. Samples were collected and delivered to Microbac Laboratories Inc. (MCBM) in Marietta, Ohio. The samples were analyzed by the methods listed in Table 2.

TABLE 1

Sample Delivery Groups
2009 Mainland Predesign Investigation, UCC South Charleston Facility
L09060510
L09060550
L09080203
L09080258
L09080290
L09080331
L09080333

TABLE 1
Sample Delivery Groups
2009 Mainland Predesign Investigation, UCC South Charleston Facility
L09090193
L09090255
L09090586
L09100717
L09100771
L09110507
L09110534
L09110598

TABLE 2
Analytical Parameters
2009 Mainland Predesign Investigation, UCC South Charleston Facility

Parameter	Method	Laboratory
Volatile Organic Compounds (VOC)	SW8260B	MCBM
Semivolatile Organic Compounds (SVOC)	SW8270C/SW8270 Selected Ion Monitoring (SIM)	MCBM

The SDGs were assessed by reviewing the following: (1) the chain-of- custody documentation; (2) holding-time compliance; (3) initial and continuing calibration criteria; (4) method blanks; (4) laboratory control sample/laboratory control sample duplicates (LCS/LCSD); (5) surrogate spike recoveries; (6) internal standard recoveries; (7) matrix spike/matrix spike duplicates (MS/MSD); (8) FD precision; and, (9) the required quality control (QC) samples at the specified frequencies.

Data flags were assigned according to the WVO QAPP. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will only be one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

The data flags are those listed in the WVO QAPP and are defined below:

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R = The sample result was rejected due to serious deficiencies in the ability to analyze the sample and meet the QC criteria. The presence or absence of the analyte could not be verified.
- U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not

represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- B = The analyte was detected in the blank as well as the samples.
- K = The analyte was positively identified, but the associated numerical value may be biased high.
- L = The analyte was positively identified, but the associated numerical value may be biased low.
- UL = The analyte was analyzed for but was not detected. The quantitation limit may be higher.

Findings

The overall summaries of the data validation are contained in the following sections and Table 2.

Holding Time and Preservation

All acceptance criteria were met.

Calibration

Initial and continuing calibration analyses were performed as required by the methods and met acceptance criteria with the following exceptions:

The relative response factor (RRF) for 1,4-dioxane was significantly lower than the method criteria in multiple VOC initial calibrations, initial calibration verifications (ICV), and continuing calibration verifications (CCV), indicating a lack of sensitivity to accurately detect 1,4-dioxane by this method. Detected results were qualified as estimated and flagged "L" in the associated samples. Non-detected data were rejected for project use and flagged "R". Please note that usable 1,4-dioxane results were reported by methods SW8270C or SW8270SIM.

The percent difference (%D) for vinyl acetate was less than method criteria in several ICVs and CCVs associated with the VOC analysis, indicating a possible low bias. The data were qualified as estimated non-detects and flagged "UJ" in the associated samples.

The %Ds for several compounds were greater than method criteria in a few ICVs and CCVs associated with the VOC analyses, indicating a possible high bias. Detected results were qualified as estimated and flagged "J" in the associated samples. Non-detected results were not qualified. In addition, there were a few instances where the %D for vinyl acetate was significantly greater than the method criteria in several ICVs and/or CCVs. The associated sample concentrations were qualified as estimated non-detected results and flagged "UJ".

The %Ds for 3,3'-dichlorobenzidine and bis(2-chloroethoxy)methane were less than method criteria in several ICVs associated with the SVOC analysis, indicating a possible low bias. The data were qualified as estimated non-detects and flagged "UJ" in the associated samples. In addition, the %D for several compounds were greater than method criteria in a

few ICVs associated with the SVOC analyses. The data were not qualified because the associated samples did not contain reportable levels of these compounds.

The %D for hexachlorocyclopentadiene was less than method criteria in a few SVOC CCVs, indicating a possible low bias. The data were qualified as estimated non-detects and flagged "UJ" in the associated samples. In addition, the %D for 4-nitrophenol was greater than method criteria in a few CCVs, indicating a possible high bias. The data were not qualified because the associated samples did not contain reportable levels of these compounds.

The concentrations for acetone, styrene and vinyl chloride exceeded the VOC calibration range of the instrument for sample 4017-SO01-061809. The data were qualified as estimated and flagged "J" in the sample.

The concentration for 1,4-dioxane exceeded the VOC calibration range of the instrument for sample 4006-GW-081209. The data were qualified as estimated and flagged "J" in the sample.

The concentration for 4-chloroaniline exceeded the SVOC calibration range of the instrument for sample 4037-SO01-112009. The data were qualified as estimated and flagged "J" in the sample.

Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination.

Laboratory Control Samples

LCS/LCSDs were analyzed as required and all accuracy and precision criteria were met with the following exceptions:

A few compounds were recovered less than the lower control limits in a few LCS/LCSDs associated with the VOC analysis, indicating a possible low sample bias. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL" respectively, in the associated samples. In addition, vinyl acetate was recovered greater than the upper control limits in one LCS/LCSD, indicating a possible high bias. The result was not qualified because the associated sample did not contain reportable levels of vinyl acetate.

A few compounds were recovered less than the lower control limits in a few LCS/LCSDs associated with the SVOC analysis, indicating a possible low sample bias. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL" respectively, in the associated samples. In addition, pentachlorophenol was recovered greater than the upper control limits in a few LCSs, indicating a possible high bias. The data were not qualified because the associated samples did not contain reportable levels of pentachlorophenol.

The relative percent difference (RPD) did not meet control limits for chloroethane in one VOC LCS/LCSD. The result was not qualified because the associated sample did not contain reportable levels of chloroethane.

Field Blanks

TBs were analyzed at the required frequency and were free of contamination.

Internal Standards

Internal standards were added to the methods requiring there use and met acceptance with the following exceptions:

Two internal standards associated with the VOC analysis were recovered less than method criteria in sample 4017-SO01-061809, indicating a possible low bias. The associated analytes were qualified as estimated non-detected results and flagged "UJ" in the sample.

One internal standard associated with the SVOC analysis was recovered less than method criteria in sample 4004-SO02-081409, indicating a possible low bias. The associated analytes were qualified as estimated detected and non-detected results and flagged "J" and "UJ" respectively, in the sample.

One internal standard associated with the SVOC analysis was recovered greater than method criteria in sample 4037-SO02-112009, indicating a possible high bias. Detected results were qualified as estimated and flagged "J" in the sample. Non-detected results were not qualified.

Surrogates

Surrogates were added to the methods requiring their use and all acceptance criteria were met with the following exceptions:

One VOC surrogate was recovered greater than the upper control limits in several samples, indicating a possible high bias. The associated detected results were qualified as estimated and flagged "J". Non-detected results were not qualified.

Two VOC surrogates were recovered greater than the upper control limits in sample 4017-SO01-061809, indicating a possible high bias. The associated detected results were qualified as estimated and flagged "K". Non-detected results were not qualified.

Two surrogates associated with the base fraction of the SVOC analysis were recovered less than the lower control limits in sample 4006-GW-081209, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL" respectively, in the sample. In addition, there were a few instances where two surrogates were recovered greater than the upper control limits. The data were not qualified because the samples did not contain reportable levels of the associated analytes.

Data were not qualified when surrogates were not recovered due to sample dilution.

Matrix Spike Samples

MS/MSD samples were analyzed as required and met all acceptance criteria with the following exceptions:

Several analytes were recovered less than lower control limits in the VOC MS/MSD for samples 4016-SO01-061809, 4002-SO01-081109, 4012-GW-102909 and 4037-SO01-112009, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL", respectively, in the parent samples. In addition, several analytes were recovered greater than the upper control limits in the VOC MS/MSD for samples 4002-SO01-081109 and 4037-SO01-112009, indicating a possible high bias. Detected results were qualified as estimated and flagged "K" in the respective parent sample. Non-detected results were not qualified.

Several analytes were recovered less than the lower control limits in the SVOC MS /MSD for samples 4012-GW-102909 and 4037-SO01-112009, indicating a possible low bias. The data were qualified as estimated detected and non-detected results and flagged "L" and "UL", respectively, in the parent samples. In addition, a few analytes did not recover in the MS/MSDs. The data were rejected for project use and flagged "R" in the associated parent sample.

Several analytes were recovered greater than the upper control limits in the SVOC MS/MSDs for samples 4002-SO01-081109, 4012-GW-102909 and 4037-SO01-112009, indicating a possible high bias. Detected results were qualified as estimated and flagged "K" in the respective parent sample. Non-detected results were not qualified.

The relative percent difference (RPD) exceeded control limits for several analytes in the MS/MSDs for the VOC and SVOC analyses. Detected results were qualified as estimated and flagged "J" in the parent samples. Non-detected results were not qualified.

Field Duplicates

A FD was collected, analyzed and all precision criteria were met with the following exceptions:

The RPD between the FD pair 4016-SO02-061809 and 4016-SO02-061809D exceeded method criteria for multiple analytes in the VOC and SVOC analyses. The data were qualified as estimated detected and non-detected results and flagged "J" and "UJ", respectively, in the FD pair.

Chain of Custody

Required procedures were followed and were free of errors.

Overall Assessment

The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected and the resulting analytical data can be used to support the decision

making process. The following summary highlights the PARCC findings for the above-defined events:

Precision of the data was verified through the review of the field and laboratory data quality indicators that include LCS/LCSD, MS/MSD, and FD RPDs. Precision was generally acceptable with a few compounds being qualified as estimated due to MS/MSD and/or FD RPD issues. Data users should consider the impact to any result that is qualified as estimated as it may contain a bias which could affect the decision-making process.

Accuracy of the data was verified through the review of the calibration data, MS/MSD, LCS/LCSD, internal standard, and surrogate standard recoveries, as well as the evaluation of method/field blank data. Accuracy was generally acceptable with a few compounds being qualified as estimated detected and non-detected results due to calibration, LCS/LCSD, internal standard, MS/MSD and/or surrogate issues. In addition, several analytes were rejected for project use due to calibration and/or MS/MSD issues. No data were qualified due to blank contamination.

Representativeness of the data was verified through the sample's collection, storage and preservation procedures and the verification of holding-time compliance. No observations related to sample preservation or storage of the samples were noted by the laboratory. All data were reported from analyses within the EPA recommended holding time.

Comparability of the data was ensured through the use of standard EPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.

Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as all data that are not rejected for project use. There were several instances where analytes were rejected for project use in the VOC and SVOC analysis. In addition, most of the 1,4-dioxane results were rejected for project use in the VOC analyses; however, usable results were reported by methods SW8270C or SW8270 SIM. The completeness goal of 90 percent was met for all compounds.

Table 2

Data Qualification Summary

2009 Mainland Predesign Investigation, UCC South Charleston Facility

NativeID	Method	Analyte	Units	Final Result	Validation Flag	Validation Reason
4001-SO01-081009	SW8260B	1,4-Dioxane	ug/kg	148000	R	IC RRF, ICVS RRF, CCV RRF
4001-SO01-081009	SW8260B	Vinyl Acetate	ug/kg	871	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4001-SO01-081009	SW8260B	Vinyl chloride	ug/kg	871	UL	LCSD<LCL
4001-SO01-081009	SW8270C	Hexachlorocyclopentadiene	ug/kg	214	UL	CCV<LCL
4001-SO02-081009	SW8260B	1,4-Dioxane	ug/kg	182000	R	IC RRF, ICVS RRF, CCV RRF
4001-SO02-081009	SW8260B	Vinyl Acetate	ug/kg	1070	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4001-SO02-081009	SW8260B	Vinyl chloride	ug/kg	1070	UL	LCSD<LCL
4001-SO02-081009	SW8270C	Hexachlorocyclopentadiene	ug/kg	194	UL	CCV<LCL
4002-SO01-081109	SW8260B	1,1,2-Trichloroethane	ug/kg	103	J	MSRPD
4002-SO01-081109	SW8260B	1,4-Dioxane	ug/kg	1800	R	IC RRF, ICVS RRF, CCV RRF
4002-SO01-081109	SW8260B	1,2-Dichloroethane	ug/kg	172	J	MSRPD
4002-SO01-081109	SW8260B	1,2-Dichloropropane	ug/kg	122	J	MSRPD
4002-SO01-081109	SW8260B	1,2,4-Trichlorobenzene	ug/kg	5.3	UL	MS<LCL
4002-SO01-081109	SW8260B	1,2,4-Trichlorobenzene	ug/kg	5.3	UL	SD<LCL
4002-SO01-081109	SW8260B	Vinyl Acetate	ug/kg	10.6	UJ	ICVS<LCL, CCV<LCL
4002-SO01-081109	SW8260B	1,1,2,2-Tetrachloroethane	ug/kg	14.4	K	SD>UCL
4002-SO02-081109	SW8260B	1,4-Dioxane	ug/kg	206000	R	IC RRF, ICVS RRF, CCV RRF
4002-SO02-081109	SW8260B	Vinyl Acetate	ug/kg	1210	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4002-SO02-081109	SW8260B	Vinyl chloride	ug/kg	1210	UL	LCSD<LCL
4003-SO01-061809	SW8260B	1,4-Dioxane	ug/kg	1800	R	IC RRF, ICVS RRF, CCV RRF
4003-SO01-061809	SW8260B	Vinyl Acetate	ug/kg	10.6	UJ	CCV>UCL
4003-SO02-061809	SW8260B	1,4-Dioxane	ug/kg	2160	R	IC RRF, ICVS RRF, CCV RRF
4003-SO02-061809	SW8260B	Vinyl Acetate	ug/kg	12.7	UJ	CCV>UCL
4003-SO03-061809	SW8260B	1,4-Dioxane	ug/kg	1910000	R	IC RRF, ICVS RRF, CCV RRF
4004-SO01-081409	SW8260B	1,4-Dioxane	ug/kg	173000	R	IC RRF, ICVS RRF, CCV RRF
4004-SO01-081409	SW8260B	Vinyl Acetate	ug/kg	1020	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4004-SO01-081409	SW8260B	Vinyl chloride	ug/kg	1020	UL	LCSD<LCL
4004-SO02-081409	SW8260B	Vinyl Acetate	ug/kg	1110	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4004-SO02-081409	SW8260B	Vinyl chloride	ug/kg	1110	UL	LCSD<LCL
4004-SO02-081409	SW8270C	2-Chlorophenol	ug/kg	194	UJ	IS<LCL
4004-SO02-081409	SW8270C	2-Methylphenol	ug/kg	194	UJ	IS<LCL
4004-SO02-081409	SW8270C	3-,4-Methylphenol	ug/kg	194	UJ	IS<LCL
4004-SO02-081409	SW8270C	Hexachloroethane	ug/kg	3050	J	IS<LCL
4004-SO02-081409	SW8270C	n-Nitrosodi-n-propylamine	ug/kg	194	UJ	IS<LCL
4004-SO02-081409	SW8270C	Phenol	ug/kg	194	UJ	IS<LCL
4004-SO03-081409	SW8260B	Vinyl Acetate	ug/kg	1090	UJ	ICVS<LCL, CCV<LCL
4004-SO03-081409	SW8260B	Vinyl chloride	ug/kg	1090	UL	LCSD<LCL
4004-SO03-081409	SW8260B	Carbon Disulfide	ug/kg	545	UL	LCS<LCL
4004-SO03-081409	SW8260B	1,4-Dioxane	ug/kg	185000	R	IC RRF, ICVS RRF, CCV RRF

Table 2

Data Qualification Summary

2009 Mainland Predesign Investigation, UCC South Charleston Facility

4004-SO03-081409	SW8260B	Chloroethane	ug/kg	1090	UL	LCSD<LCL
4005-SO01-081309	SW8260B	Vinyl Acetate	ug/kg	1140	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4005-SO01-081309	SW8260B	1,4-Dioxane	ug/kg	194000	R	IC RRF, ICVS RRF, CCV RRF
4005-SO01-081309	SW8260B	Vinyl chloride	ug/kg	1140	UL	LCSD<LCL
4005-SO02-081309	SW8260B	1,4-Dioxane	ug/kg	208000	R	IC RRF, ICVS RRF, CCV RRF
4005-SO02-081309	SW8260B	Vinyl Acetate	ug/kg	1220	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4005-SO02-081309	SW8260B	Vinyl chloride	ug/kg	1220	UL	LCSD<LCL
4005-SO03-081309	SW8260B	1,4-Dioxane	ug/kg	198000	R	IC RRF, ICVS RRF, CCV RRF
4005-SO03-081309	SW8260B	Carbon Disulfide	ug/kg	583	UL	LCS<LCL
4005-SO03-081309	SW8260B	Chloroethane	ug/kg	1170	UL	LCSD<LCL
4005-SO03-081309	SW8260B	Vinyl Acetate	ug/kg	1170	UJ	ICVS<LCL, CCV<LCL
4005-SO03-081309	SW8260B	Vinyl chloride	ug/kg	1170	UL	LCSD<LCL
4006-GW-081209	SW8260B	1,4-Dioxane	ug/L	3240	L	IC RRF, ICVS RRF, CCV RRF, >ICLinearRange (J), CCV>UCL (J)
4006-GW-081209	SW8260B	1,1-Dichloroethane	ug/L	122	J	Sur>UCL
4006-GW-081209	SW8260B	Acetone	ug/L	62.7	J	Sur>UCL
4006-GW-081209	SW8260B	Methylene chloride	ug/L	18.2	J	Sur>UCL
4006-GW-081209	SW8260B	Carbon tetrachloride	ug/L	2.99	J	Sur>UCL
4006-GW-081209	SW8260B	Chlorobenzene	ug/L	5.78	J	Sur>UCL
4006-GW-081209	SW8260B	Chloroethane	ug/L	7.97	J	Sur>UCL
4006-GW-081209	SW8260B	Toluene	ug/L	9.58	J	Sur>UCL
4006-GW-081209	SW8270C	1,4-Dioxane	ug/L	3450	L	LCS<LCL
4006-GW-081209	SW8270C	2-Chloronaphthalene	ug/L	6.25	UL	LCS<LCL, LCSD<LCL
4006-GW-081209	SW8270C	2-Nitroaniline	ug/L	31.3	UL	Sur<LCL
4006-GW-081209	SW8270C	3,3'-Dichlorobenzidine	ug/L	6.25	UJ	ICVS<LCL
4006-GW-081209	SW8270C	3-Nitroaniline	ug/L	31.3	UL	Sur<LCL
4006-GW-081209	SW8270C	4-Nitroaniline	ug/L	31.3	UL	Sur<LCL
4006-GW-081209	SW8270C	Benzo (a) anthracene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Benzo (a) pyrene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Benzo (b) fluoranthene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Benzo (g,h,i) perylene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Bis (2-chloroethoxy) methane	ug/L	6.25	UL	LCS<LCL, LCSD<LCL, ICVS<LCL (UJ)
4006-GW-081209	SW8270C	Bis (2-ethylhexyl) phthalate	ug/L	51	L	Sur<LCL
4006-GW-081209	SW8270C	Butyl benzylphthalate	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Chrysene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Dibenzo (a,h) anthracene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Dibenzofuran	ug/L	6.25	UL	LCS<LCL
4006-GW-081209	SW8270C	Di-n-octylphthalate	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Fluorene	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Hexachlorocyclopentadiene	ug/L	6.25	UL	CCV<LCL
4006-GW-081209	SW8270C	Hexachloroethane	ug/L	6.25	UL	Sur<LCL
4006-GW-081209	SW8270C	Phenanthrene	ug/L	6.25	UL	Sur<LCL
4006-SO01-081209	SW8260B	Vinyl Acetate	ug/kg	2210	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ)
4006-SO01-081209	SW8260B	1,4-Dioxane	ug/kg	376000	R	IC RRF, ICVS RRF, CCV RRF

Table 2

Data Qualification Summary

2009 Mainland Predesign Investigation, UCC South Charleston Facility

4006-SO01-081209	SW8260B	Vinyl chloride	ug/kg	2210	UL	LCSD<LCL
4006-SO01-081209	SW8270C	3,3'-Dichlorobenzidine	ug/kg	410	UJ	ICVS<LCL
4006-SO01-081209	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	205	UJ	ICVS<LCL
4006-SO02-081209	SW8260B	Carbon Disulfide	ug/kg	5010	UL	LCSD<LCL
4006-SO02-081209	SW8260B	1,4-Dioxane	ug/kg	1700000	R	IC RRF, ICVS RRF, CCV RRF
4006-SO02-081209	SW8260B	Vinyl Acetate	ug/kg	10000	UJ	CCV<LCL
4006-SO02-081209	SW8270C	3,3'-Dichlorobenzidine	ug/kg	449	UJ	ICVS<LCL
4006-SO02-081209	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	225	UJ	ICVS<LCL
4007-SO01-081209	SW8260B	Carbon Disulfide	ug/kg	481	UL	LCSD<LCL
4007-SO01-081209	SW8260B	Chloromethane	ug/kg	962	UL	LCSD<LCL
4007-SO01-081209	SW8260B	Vinyl Acetate	ug/kg	962	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ)
4007-SO01-081209	SW8260B	Vinyl chloride	ug/kg	11000	L	LCSD<LCL
4007-SO01-081209	SW8260B	1,4-Dioxane	ug/kg	2670000	L	IC RRF, ICVS RRF, CCV RRF
4007-SO01-081209	SW8270C	3,3'-Dichlorobenzidine	ug/kg	464	UJ	ICVS<LCL
4007-SO01-081209	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	232	UJ	ICVS<LCL
4007-SO02-081209	SW8260B	1,4-Dioxane	ug/kg	183000000	R	IC RRF, ICVS RRF, CCV RRF
4007-SO02-081209	SW8260B	Vinyl Acetate	ug/kg	1080000	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ)
4007-SO02-081209	SW8260B	Vinyl chloride	ug/kg	1080000	UL	LCSD<LCL
4007-SO02-081209	SW8270C	3,3'-Dichlorobenzidine	ug/kg	438	UJ	ICVS<LCL
4007-SO02-081209	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	219	UJ	ICVS<LCL
4008-GW-081209	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF, ICVS RRF, CCV RRF
4008-SO01-081109	SW8260B	1,4-Dioxane	ug/kg	1510	R	IC RRF, ICVS RRF, CCV RRF
4008-SO01-081109	SW8260B	Vinyl Acetate	ug/kg	8.88	UJ	ICVS<LCL, CCV<LCL
4008-SO01-081109-D	SW8260B	1,4-Dioxane	ug/kg	1550	R	IC RRF, ICVS RRF, CCV RRF
4008-SO01-081109-D	SW8260B	Vinyl Acetate	ug/kg	9.14	UJ	ICVS<LCL, CCV<LCL
4008-SO02-081109	SW8260B	1,4-Dioxane	ug/kg	1700	R	IC RRF, ICVS RRF, CCV RRF
4008-SO02-081109	SW8260B	Vinyl Acetate	ug/kg	9.99	UJ	ICVS<LCL, CCV<LCL
4008-SO03-081109	SW8260B	1,4-Dioxane	ug/kg	2270	R	IC RRF, ICVS RRF, CCV RRF
4008-SO03-081109	SW8260B	1,2-Dichloroethane	ug/kg	13.8	J	Sur>UCL
4008-SO03-081109	SW8260B	1,2-Dichloropropane	ug/kg	14.3	J	Sur>UCL
4008-SO03-081109	SW8260B	Vinyl Acetate	ug/kg	13.3	UJ	ICVS<LCL, CCV<LCL
4008-SO03-081109	SW8260B	Toluene	ug/kg	9.55	J	Sur>UCL
4009-GW-081309	SW8270C	1,4-Dioxane	ug/L	43.3	L	LCS<LCL
4009-GW-081309	SW8270C	Hexachlorocyclopentadiene	ug/L	5.21	UL	LCS<LCL, CCV<LCL (UJ)
4009-GW-081309	SW8260B	1,4-Dioxane	ug/L	117	L	IC RRF, ICVS RRF, CCV RRF
4009-SO01-081309	SW8260B	1,4-Dioxane	ug/kg	174000	R	IC RRF, ICVS RRF, CCV RRF
4009-SO01-081309	SW8260B	Vinyl Acetate	ug/kg	1020	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4009-SO01-081309	SW8260B	Vinyl chloride	ug/kg	1020	UL	LCSD<LCL
4009-SO02-081309	SW8260B	1,4-Dioxane	ug/kg	177000	R	IC RRF, ICVS RRF, CCV RRF
4009-SO02-081309	SW8260B	Vinyl Acetate	ug/kg	1040	UL	LCS<LCL, LCSD<LCL, CCV<LCL (UJ), ICVS<LCL (UJ)
4009-SO02-081309	SW8260B	Vinyl chloride	ug/kg	1040	UL	LCSD<LCL
4010-GW-102909	SW8270C	Bis (2-chloroethoxy) methane	ug/L	6.02	UJ	ICVS<LCL
4010-SO01-102909	SW8260B	1,4-Dioxane	ug/kg	1800	R	IC RRF, ICVS RRF, CCV RRF

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Data Qualification Summary

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4010-SO01-102909	SW8260B	Vinyl Acetate	ug/kg	10.6	UJ	ICVS<LCL
4010-SO02-102909	SW8260B	1,4-Dioxane	ug/kg	1680	R	IC RRF, ICVS RRF, CCV RRF
4010-SO02-102909	SW8260B	Vinyl Acetate	ug/kg	9.88	UJ	ICVS<LCL
4010-SO02-102909	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	210	UJ	ICVS<LCL
4011-GW-102809	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF, ICVS RRF, CCV RRF
4011-GW-102809	SW8260B	Vinyl Acetate	ug/L	10	UJ	ICVS>UCL, CCV>UCL
4011-GW-102809	SW8270C	Bis (2-chloroethoxy) methane	ug/L	11.1	UJ	ICVS<LCL
4011-SO01-102809	SW8260B	1,4-Dioxane	ug/kg	1770	R	IC RRF, ICVS RRF, CCV RRF
4011-SO01-102809	SW8260B	Vinyl Acetate	ug/kg	10.4	UJ	ICVS<LCL
4011-SO02-102809	SW8260B	1,4-Dioxane	ug/kg	1860	R	IC RRF, ICVS RRF, CCV RRF
4011-SO02-102809	SW8260B	Vinyl Acetate	ug/kg	10.9	UJ	ICVS<LCL
4012-GW-102909	SW8260B	1,4-Dioxane	ug/L	100	UL	MS<LCL
4012-GW-102909	SW8270C	2,4,5-Trichlorophenol	ug/L	5.56	UL	SD<LCL
4012-GW-102909	SW8270C	2,4,6-Trichlorophenol	ug/L	5.56	UL	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	2,4-Dichlorophenol	ug/L	5.56	UL	SD<LCL
4012-GW-102909	SW8270C	2,4-Dimethylphenol	ug/L	5.56	R	SD<LCL, MS<LCL (UL)
4012-GW-102909	SW8270C	2-Chlorophenol	ug/L	5.56	UL	SD<LCL
4012-GW-102909	SW8270C	2-Methylphenol	ug/L	5.56	R	SD<LCL, MS<LCL (UL)
4012-GW-102909	SW8270C	3,3'-Dichlorobenzidine	ug/L	5.56	R	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	3-,4-Methylphenol	ug/L	11.1	R	SD<LCL, MS<LCL (UL)
4012-GW-102909	SW8270C	3-Nitroaniline	ug/L	27.8	R	SD<LCL
4012-GW-102909	SW8270C	4-Chloro-3-methylphenol	ug/L	5.56	UL	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	4-Chloroaniline	ug/L	22.2	R	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	4-Nitroaniline	ug/L	27.8	UL	SD<LCL
4012-GW-102909	SW8270C	Acenaphthene	ug/L	5.56	UL	SD<LCL
4012-GW-102909	SW8270C	Acenaphthylene	ug/L	5.56	UL	SD<LCL
4012-GW-102909	SW8270C	Anthracene	ug/L	5.56	UL	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	Bis (2-chloroethoxy) methane	ug/L	5.56	UJ	ICVS<LCL
4012-GW-102909	SW8270C	Carbazole	ug/L	22.2	UL	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	n-Nitrosodiphenylamine	ug/L	5.56	UL	MS<LCL, SD<LCL
4012-GW-102909	SW8270C	Phenol	ug/L	5.56	UL	SD<LCL
4012-SO01-102909	SW8260B	1,4-Dioxane	ug/kg	1630	R	IC RRF, ICVS RRF, CCV RRF
4012-SO01-102909	SW8260B	Vinyl Acetate	ug/kg	9.57	UJ	ICVS<LCL
4012-SO02-102909	SW8260B	1,4-Dioxane	ug/kg	2130	R	IC RRF, ICVS RRF, CCV RRF
4012-SO02-102909	SW8260B	Vinyl Acetate	ug/kg	12.5	UJ	ICVS<LCL
4013-GW-102809	SW8260B	Vinyl Acetate	ug/L	10	UJ	ICVS>UCL, CCV>UCL
4013-GW-102809	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF, ICVS RRF, CCV RRF
4013-GW-102809	SW8270C	Bis (2-chloroethoxy) methane	ug/L	10.2	UJ	ICVS<LCL
4013-SO01-102809	SW8260B	1,4-Dioxane	ug/kg	1790	R	IC RRF, ICVS RRF, CCV RRF
4013-SO01-102809	SW8260B	Vinyl Acetate	ug/kg	10.5	UJ	ICVS<LCL
4013-SO02-102809	SW8260B	1,4-Dioxane	ug/kg	1720	R	IC RRF, ICVS RRF, CCV RRF
4013-SO02-102809	SW8260B	Vinyl Acetate	ug/kg	10.1	UJ	ICVS<LCL
4014-GW-102809	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF, ICVS RRF, CCV RRF
4014-GW-102809	SW8260B	Vinyl Acetate	ug/L	10	UJ	ICVS>UCL, CCV>UCL
4014-GW-102809	SW8270C	Bis (2-chloroethoxy) methane	ug/L	10.8	UJ	ICVS<LCL
4014-GW-102809-D	SW8260B	Vinyl Acetate	ug/L	10	UJ	ICVS>UCL, CCV>UCL

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Data Qualification Summary

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4014-GW-102809-D	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF, ICVS RRF, CCV RRF
4014-GW-102809-D	SW8270C	Bis (2-chloroethoxy) methane	ug/L	10.8	UJ	ICVS<LCL
4014-SO01-102809	SW8260B	1,4-Dioxane	ug/kg	1830	R	IC RRF, ICVS RRF, CCV RRF
4014-SO01-102809	SW8260B	Vinyl Acetate	ug/kg	10.8	UJ	ICVS<LCL
4014-SO01-102809-D	SW8260B	1,4-Dioxane	ug/kg	1910	R	IC RRF, ICVS RRF, CCV RRF
4014-SO01-102809-D	SW8260B	Vinyl Acetate	ug/kg	11.2	UJ	ICVS<LCL
4014-SO02-102809	SW8260B	1,4-Dioxane	ug/kg	2080	R	IC RRF, ICVS RRF, CCV RRF
4014-SO02-102809	SW8260B	Vinyl Acetate	ug/kg	12.3	UJ	ICVS<LCL
4015-GW-102909	SW8270C	Bis (2-chloroethoxy) methane	ug/L	5.43	UJ	ICVS<LCL
4015-SO01-102909	SW8260B	1,4-Dioxane	ug/kg	1860	R	IC RRF, ICVS RRF, CCV RRF
4015-SO01-102909	SW8260B	1,4-Dioxane	ug/kg	1860	R	IC RRF, ICVS RRF, CCV RRF
4015-SO01-102909	SW8260B	Vinyl Acetate	ug/kg	10.9	UJ	ICVS<LCL
4015-SO01-102909	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	191	UJ	ICVS<LCL
4015-SO02-102909	SW8260B	1,4-Dioxane	ug/kg	1520	R	IC RRF, ICVS RRF, CCV RRF
4015-SO02-102909	SW8260B	Vinyl Acetate	ug/kg	8.97	UJ	ICVS<LCL
4016-SO01-061809	SW8260B	Toluene	ug/kg	170000	L	SD<LCL
4016-SO01-061809	SW8260B	1,4-Dioxane	ug/kg	44400000	R	IC RRF, ICVS RRF, CCV RRF, MS<LCL (UL)
4016-SO01-061809	SW8260B	Benzene	ug/kg	152000	L	SD<LCL
4016-SO01-061809	SW8260B	Ethylbenzene	ug/kg	1230000	J	MSRPD
4016-SO01-061809	SW8260B	Ethylbenzene	ug/kg	1230000	L	MS<LCL
4016-SO01-061809	SW8260B	Ethylbenzene	ug/kg	1230000	L	SD<LCL
4016-SO02-061809	SW8260B	1,4-Dioxane	ug/kg	366000	R	IC RRF, ICVS RRF, CCV RRF
4016-SO02-061809	SW8260B	Benzene	ug/kg	5460	J	FD>RPD
4016-SO02-061809	SW8260B	Ethylbenzene	ug/kg	13200	J	FD>RPD
4016-SO02-061809	SW8260B	Xylenes, Total	ug/kg	3310	J	FD>RPD
4016-SO02-061809	SW8270C	2-Methylnaphthalene	ug/kg	21100	J	FD>RPD
4016-SO02-061809	SW8270C	Acenaphthene	ug/kg	19400	UJ	FD>RPD
4016-SO02-061809	SW8270C	Acenaphthylene	ug/kg	19400	UJ	FD>RPD
4016-SO02-061809	SW8270C	Anthracene	ug/kg	19400	UJ	FD>RPD
4016-SO02-061809	SW8270C	Bis (2-ethylhexyl) phthalate	ug/kg	30400	J	FD>RPD
4016-SO02-061809	SW8270C	Fluoranthene	ug/kg	19400	UJ	FD>RPD
4016-SO02-061809	SW8270C	Fluorene	ug/kg	23600	J	FD>RPD
4016-SO02-061809	SW8270C	Naphthalene	ug/kg	93800	J	FD>RPD
4016-SO02-061809	SW8270C	Phenanthrene	ug/kg	42100	J	FD>RPD
4016-SO02-061809	SW8270C	Pyrene	ug/kg	19400	UJ	FD>RPD
4016-SO02-061809D	SW8260B	Benzene	ug/kg	20100	J	FD>RPD
4016-SO02-061809D	SW8260B	1,4-Dioxane	ug/kg	2570000	R	IC RRF, ICVS RRF, CCV RRF
4016-SO02-061809D	SW8260B	Ethylbenzene	ug/kg	79700	J	FD>RPD
4016-SO02-061809D	SW8260B	Xylenes, Total	ug/kg	16000	J	FD>RPD
4016-SO02-061809D	SW8270C	2-Methylnaphthalene	ug/kg	6710	J	FD>RPD
4016-SO02-061809D	SW8270C	Acenaphthene	ug/kg	8030	J	FD>RPD
4016-SO02-061809D	SW8270C	Acenaphthylene	ug/kg	4100	J	FD>RPD
4016-SO02-061809D	SW8270C	Anthracene	ug/kg	3600	J	FD>RPD
4016-SO02-061809D	SW8270C	Bis (2-ethylhexyl) phthalate	ug/kg	3950	J	FD>RPD
4016-SO02-061809D	SW8270C	Fluoranthene	ug/kg	2440	J	FD>RPD

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4016-SO02-061809D	SW8270C	Fluorene	ug/kg	8690	J	FD>RPD
4016-SO02-061809D	SW8270C	Naphthalene	ug/kg	43100	J	FD>RPD
4016-SO02-061809D	SW8270C	Phenanthrene	ug/kg	15000	J	FD>RPD
4016-SO02-061809D	SW8270C	Pyrene	ug/kg	3830	J	FD>RPD
4016-SO03-061809	SW8260B	1,4-Dioxane	ug/kg	446000	R	IC RRF, ICVS RRF, CCV RRF
4017-SO01-061809	SW8260B	1,4-Dioxane	ug/kg	3390	R	IC RRF, ICVS RRF, CCV RRF
4017-SO01-061809	SW8260B	Chloromethane	ug/kg	319	K	Sur>UCL
4017-SO01-061809	SW8260B	Chloromethane	ug/kg	319	K	Sur>UCL
4017-SO01-061809	SW8260B	Styrene	ug/kg	603	J	>ICLinearRange
4017-SO01-061809	SW8260B	Vinyl chloride	ug/kg	331	J	>ICLinearRange
4017-SO01-061809	SW8260B	Acetone	ug/kg	2320	J	>ICLinearRange
4017-SO01-061809	SW8260B	Carbon Disulfide	ug/kg	13.7	K	Sur>UCL
4017-SO01-061809	SW8260B	Vinyl Acetate	ug/kg	19.9	UJ	CCV>UCL
4017-SO01-061809	SW8260B	2-Hexanone	ug/kg	19.9	UJ	IS<LCL
4017-SO01-061809	SW8260B	4-Methyl-2-Pentanone	ug/kg	27.6	K	Sur>UCL
4017-SO01-061809	SW8260B	1,1,2-Trichloroethane	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	1,2,4-Trichlorobenzene	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	1,2-Dichlorobenzene	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	1,3-Dichlorobenzene	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	1,4-Dichlorobenzene	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	Bromoform	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	Dibromochloromethane	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	Tetrachloroethene	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	trans-1,3-Dichloropropene	ug/kg	9.96	UJ	IS<LCL
4017-SO01-061809	SW8260B	1,1,2,2-Tetrachloroethane	ug/kg	9.96	UJ	IS<LCL
4017-SO02-061809	SW8260B	1,4-Dioxane	ug/kg	2860	R	IC RRF, ICVS RRF, CCV RRF
4017-SO02-061809	SW8260B	Vinyl Acetate	ug/kg	16.8	UJ	CCV>UCL
4017-SO03-061809	SW8260B	1,4-Dioxane	ug/kg	2840000	R	IC RRF, ICVS RRF, CCV RRF
4018-SO01-061709	SW8260B	1,4-Dioxane	ug/kg	39300000	R	IC RRF, ICVS RRF, CCV RRF
4018-SO02-061709	SW8260B	1,4-Dioxane	ug/kg	43600000	R	IC RRF, ICVS RRF, CCV RRF
4018-SO03-061709	SW8260B	1,4-Dioxane	ug/kg	36700000	R	IC RRF, ICVS RRF, CCV RRF
4019-SO01-061709	SW8260B	1,4-Dioxane	ug/kg	33900000	R	IC RRF, ICVS RRF, CCV RRF
4019-SO02-061709	SW8260B	1,4-Dioxane	ug/kg	989000	R	IC RRF, ICVS RRF, CCV RRF
4019-SO03-061709	SW8260B	1,4-Dioxane	ug/kg	3950000	R	IC RRF, ICVS RRF, CCV RRF
4020-GW-091009	SW8260B	1,4-Dioxane	ug/L	100	R	IC RRF, ICVS RRF, CCV RRF
4029-GW01-091009	SW8260B	1,4-Dioxane	ug/L	500	R	IC RRF, ICVS RRF, CCV RRF
4029-GW02-091009	SW8260B	1,4-Dioxane	ug/L	500	R	IC RRF, ICVS RRF, CCV RRF
4030-GW-092509	SW8260B	Vinyl Acetate	ug/L	250	UJ	ICVS>UCL, CCV>UCL
4031-GW01-090409	SW8260B	1,4-Dioxane	ug/L	500	UL	LCSD<LCL
4031-GW02-090409	SW8260B	1,4-Dioxane	ug/L	500	UL	LCSD<LCL
4032-091009	SW8260B	1,3-Dichlorobenzene	ug/kg	1180	J	Sur>UCL
4032-091009	SW8260B	1,4-Dioxane	ug/kg	11000	R	IC RRF, ICVS RRF, CCV RRF
4032-091009	SW8260B	Benzene	ug/kg	316	J	Sur>UCL
4032-091009	SW8260B	Tetrachloroethene	ug/kg	773	J	Sur>UCL
4032-091009	SW8260B	Toluene	ug/kg	61.9	J	Sur>UCL
4032-091009	SW8260B	Vinyl Acetate	ug/kg	64.4	UJ	ICVS<LCL

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Data Qualification Summary

2009 Mainland Predesign Investigation, UCC South Charleston Facility

4035-SO01-112009	SW8260B	1,4-Dioxane	ug/kg	1490	R	IC RRF, ICVS RRF, CCV RRF
4035-SO01-112009	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	186	UL	LCS<LCL, ICVS<LCL (UJ)
4035-SO01-112009-D	SW8260B	1,4-Dioxane	ug/kg	1770	R	IC RRF, ICVS RRF, CCV RRF
4035-SO01-112009-D	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	189	UL	LCS<LCL, ICVS<LCL (UJ)
4035-SO02-112009	SW8260B	1,4-Dioxane	ug/kg	1640	R	IC RRF, ICVS RRF, CCV RRF
4035-SO02-112009	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	199	UL	LCS<LCL, ICVS<LCL (UJ)
4035-SO03-112009	SW8260B	1,4-Dioxane	ug/kg	1600	R	IC RRF, ICVS RRF, CCV RRF
4035-SO03-112009	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	200	UL	LCS<LCL, ICVS<LCL (UJ)
4036-SO01-112309	SW8260B	1,4-Dioxane	ug/kg	1540	R	IC RRF, ICVS RRF, CCV RRF
4036-SO02-112309	SW8260B	1,4-Dioxane	ug/kg	1470	R	IC RRF, ICVS RRF, CCV RRF
4036-SO03-112309	SW8260B	1,4-Dioxane	ug/kg	1610	R	IC RRF, ICVS RRF, CCV RRF
4037-SO01-112009	SW8270C	2,4-Dinitrophenol	ug/kg	1810	R	SD<LCL
4037-SO01-112009	SW8270C	2,4-Dinitrotoluene	ug/kg	849	L	SD<LCL, MSRPD (J)
4037-SO01-112009	SW8270C	3-,4-Methylphenol	ug/kg	370	L	MS<LCL
4037-SO01-112009	SW8260B	1,3-Dichlorobenzene	ug/kg	484	UL	MS<LCL
4037-SO01-112009	SW8260B	1,3-Dichlorobenzene	ug/kg	484	UL	SD<LCL
4037-SO01-112009	SW8260B	1,4-Dichlorobenzene	ug/kg	484	UL	SD<LCL
4037-SO01-112009	SW8260B	1,4-Dioxane	ug/kg	165000	R	IC RRF, ICVS RRF, CCV RRF
4037-SO01-112009	SW8260B	Chloroethane	ug/kg	969	UL	LCS<LCL
4037-SO01-112009	SW8270C	4,6-Dinitro-2-methylphenol	ug/kg	1810	R	SD<LCL
4037-SO01-112009	SW8270C	4-Chloroaniline	ug/kg	21100	J	>ICLinearRange
4037-SO01-112009	SW8270C	4-Nitroaniline	ug/kg	1810	R	SD<LCL
4037-SO01-112009	SW8270C	Acenaphthene	ug/kg	9890	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Acenaphthylene	ug/kg	7830	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Anthracene	ug/kg	7700	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Benzo (a) anthracene	ug/kg	2950	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Benzo (a) pyrene	ug/kg	1570	K	MS>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Benzo (b) fluoranthene	ug/kg	600	K	MS>UCL
4037-SO01-112009	SW8270C	Benzo(k)fluoranthene	ug/kg	959	K	MS>UCL
4037-SO01-112009	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	362	UL	MS<LCL, SD<LCL, LCS<LCL, ICVS<LCL (UJ)
4037-SO01-112009	SW8270C	Bis (2-ethylhexyl) phthalate	ug/kg	434	K	MS>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Chrysene	ug/kg	3010	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Fluoranthene	ug/kg	6420	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO01-112009	SW8270C	Fluorene	ug/kg	17200	K	MS>UCL, SD>UCL
4037-SO01-112009	SW8270C	Hexachlorocyclopentadiene	ug/kg	362	R	MS<LCL, SD<LCL
4037-SO01-112009	SW8270C	Hexachloroethane	ug/kg	3110	L	SD<LCL, MS>UCL (K), MSRPD (J)
4037-SO01-112009	SW8270C	Naphthalene	ug/kg	71700	K	MS>UCL
4037-SO01-112009	SW8270C	Nitrobenzene	ug/kg	362	R	SD<LCL
4037-SO01-112009	SW8270C	n-Nitrosodiphenylamine	ug/kg	362	R	SD<LCL
4037-SO01-112009	SW8270C	Phenanthrene	ug/kg	40900	K	MS>UCL
4037-SO01-112009	SW8270C	Pyrene	ug/kg	11700	K	MS>UCL, SD>UCL, MSRPD (J)
4037-SO02-112009	SW8260B	1,4-Dioxane	ug/kg	504000	R	IC RRF, ICVS RRF, CCV RRF
4037-SO02-112009	SW8260B	Chloroethane	ug/kg	2960	UL	LCS<LCL
4037-SO02-112009	SW8270C	Acenaphthene	ug/kg	39500	J	IS>UCL
4037-SO02-112009	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	1260	UL	LCS<LCL, ICVS<LCL (UJ)

Table 2

Data Qualification Summary

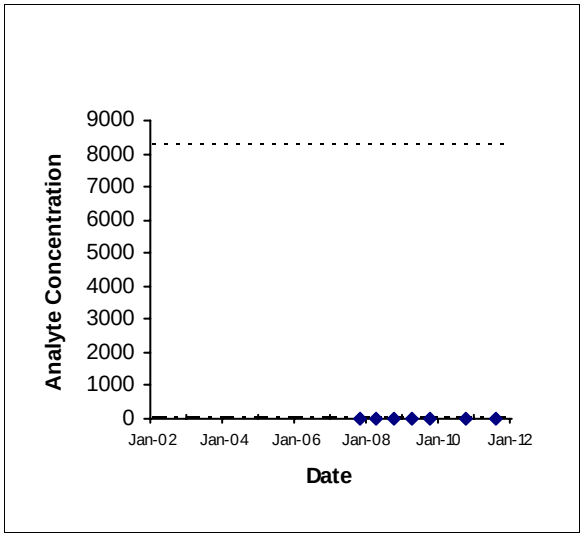
2009 Mainland Predesign Investigation, UCC South Charleston Facility

4037-SO03-112009	SW8260B	1,4-Dioxane	ug/kg	366000	R	IC RRF, ICVS RRF, CCV RRF
4037-SO03-112009	SW8260B	Chloroethane	ug/kg	2150	UL	LCS<LCL
4037-SO03-112009	SW8260B	Chloroethane	ug/kg	2150	UL	LCSD<LCL
4037-SO03-112009	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	22400	UL	LCS<LCL, ICVS<LCL (UJ)
4040-SO01-111909	SW8260B	1,4-Dioxane	ug/kg	463000	R	IC RRF, ICVS RRF, CCV RRF
4040-SO01-111909	SW8260B	Chloroethane	ug/kg	2720	UL	LCS<LCL
4040-SO01-111909	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	32100	UL	LCS<LCL, ICVS<LCL (UJ)
4040-SO02-111909	SW8260B	1,4-Dioxane	ug/kg	285000	R	IC RRF, ICVS RRF, CCV RRF
4040-SO02-111909	SW8260B	Chloroethane	ug/kg	1680	UL	LCS<LCL
4040-SO02-111909	SW8260B	Styrene	ug/kg	6670	J	Sur>UCL
4040-SO02-111909	SW8260B	Vinyl chloride	ug/kg	4230	J	Sur>UCL
4040-SO02-111909	SW8270C	Bis (2-chloroethoxy) methane	ug/kg	33100	UL	LCS<LCL, ICVS<LCL (UJ)

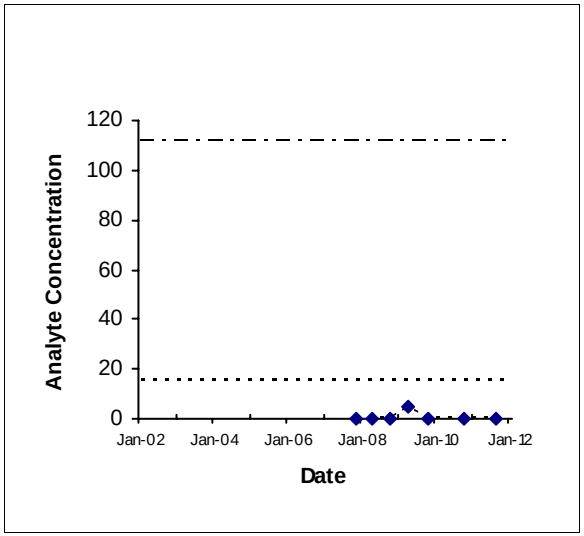
Validation Reasons:

CCV RRF	The continuing calibration verification standard relative response factor was less than method criteria.
CCV>UCL	The continuing calibration verification standard was greater than method criteria.
CCV<LCL	The continuing calibration verification standard was less than method criteria.
FD>RPD	The field duplicate relative percent difference exceeded acceptance criteria.
>ICLinearRange	The analyte concentration exceeded the calibration range of the instrument.
IC RRF	The initial calibration relative response factor was less than method criteria.
ICVS RRF	The initial calibration verification relative response factor was less than method criteria.
ICVS>UCL	The initial calibration verification standard was greater than method criteria.
ICVS<LCL	The initial calibration verification standard was less than method criteria.
IS<LCL	The internal standard was recovered less than the lower control limit.
IS>UCL	The internal standard was recovered greater than the upper control limit.
LCS<LCL	The laboratory control sample was recovered less than the lower control limits.
LCSD<LCL	The laboratory control sample duplicate was recovered less than the lower control limits.
MS>UCL	The matrix spike was recovered greater than the upper control limits.
MS<LCL	The matrix spike was recovered less than the lower control limit.
MSRPD	The matrix spike relative percent difference exceeded acceptance criteria.
SD>UCL	The matrix spike duplicate was recovered greater than the upper control limits.
SD<LCL	The matrix spike duplicate was recovered less than the lower control limit.
Sur>UCL	The surrogate was recovered greater than the upper control limit.
Sur<LCL	The surrogate was recovered less than the lower control limit.

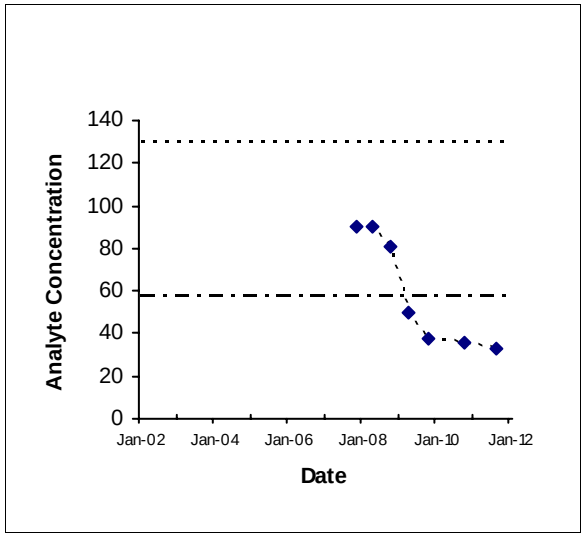
Appendix C
Groundwater Concentrations Time Series Graphs



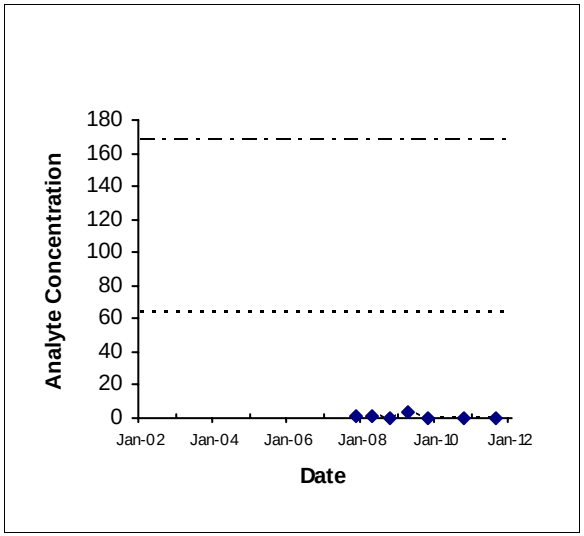
Analyte: 1,2-Dichloropropane Maximum 2.94



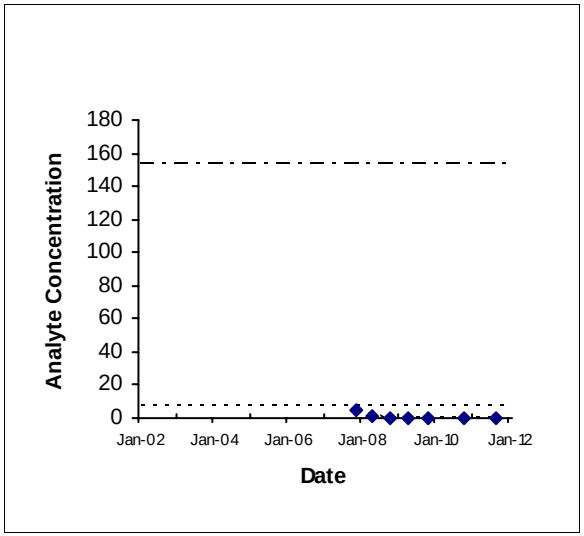
Analyte: 1,4-Dichlorobenzene Maximum 4.97



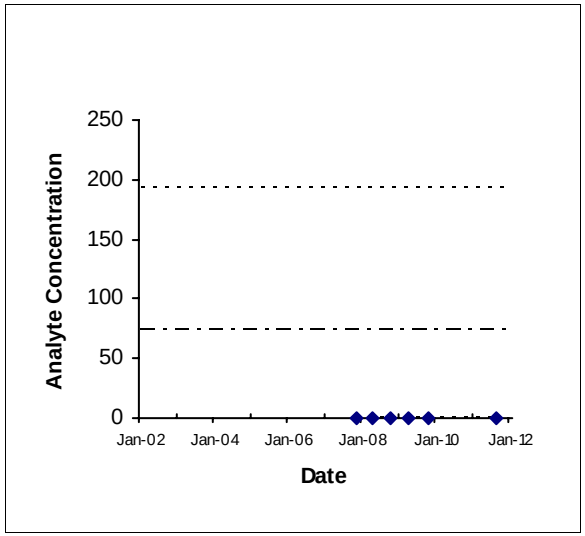
Analyte: Benzene Maximum 90.5



Analyte: Chlorobenzene Maximum 4.2



Analyte: Ethylbenzene Maximum 4.72



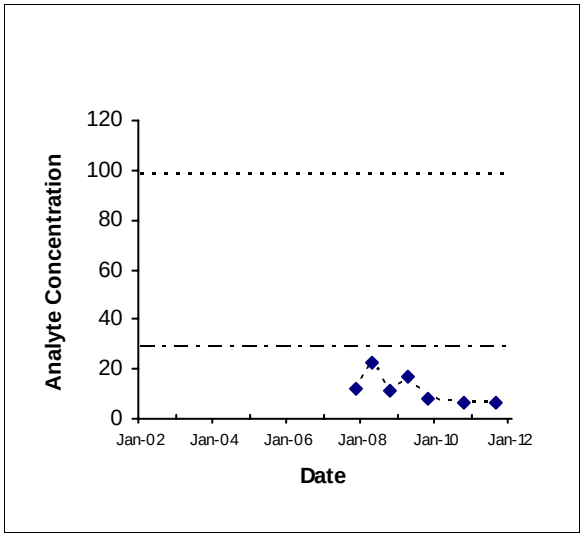
Analyte: Naphthalene Maximum 0

* Nondetects shown as 0

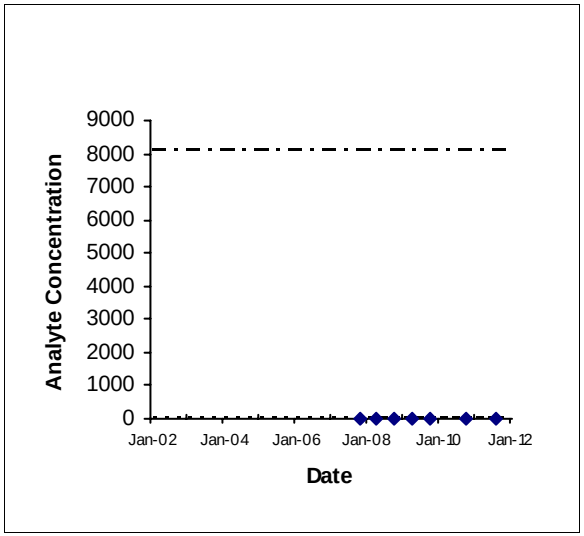
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

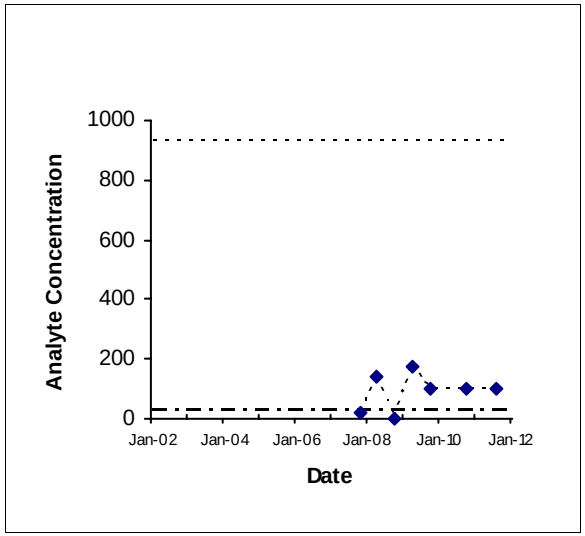
Figure 1
MW037
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 22.9



Analyte: Toluene Maximum 5.71



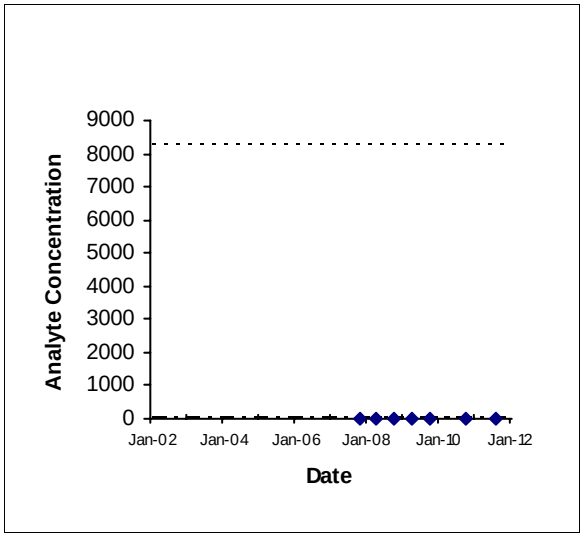
Analyte: Vinyl chloride Maximum 177

* Nondetects shown as 0

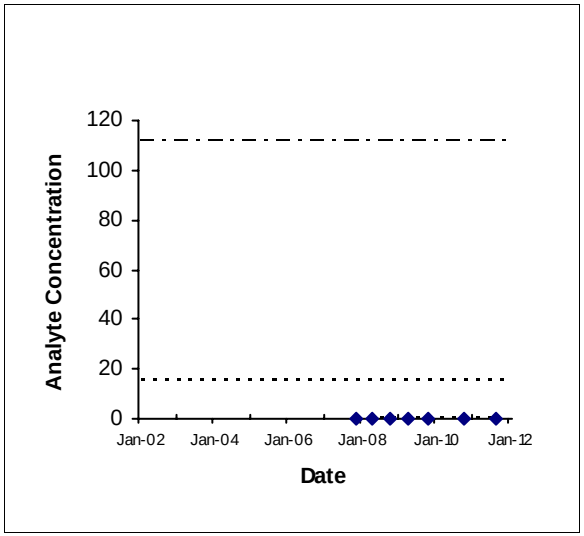
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

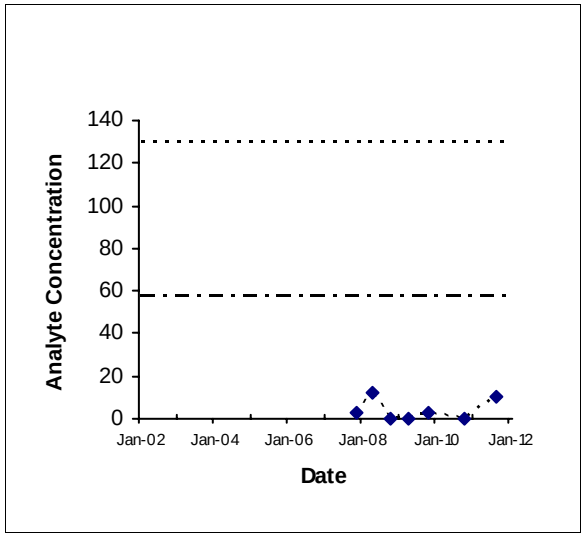
Figure 1
MW037
Chemical Time Series Plots
Zone: SCF



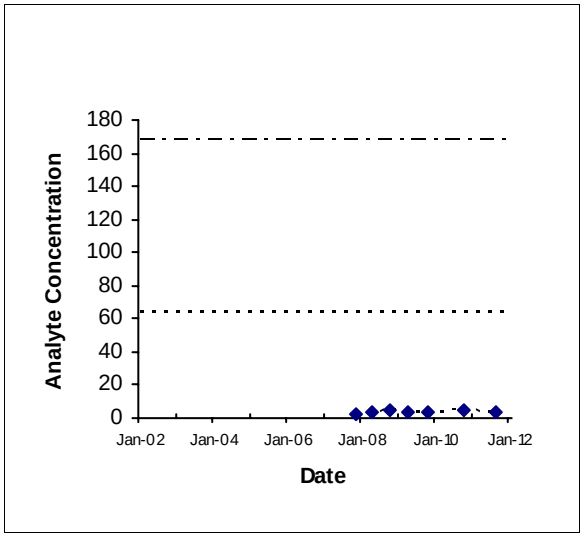
Analyte: 1,2-Dichloropropane Maximum 9.81



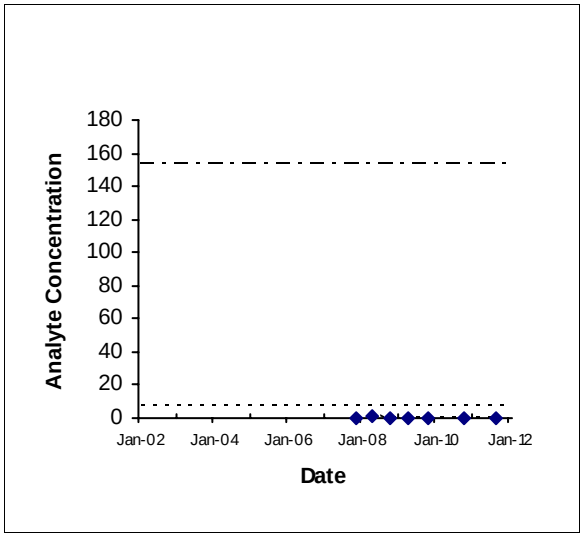
Analyte: 1,4-Dichlorobenzene Maximum 0



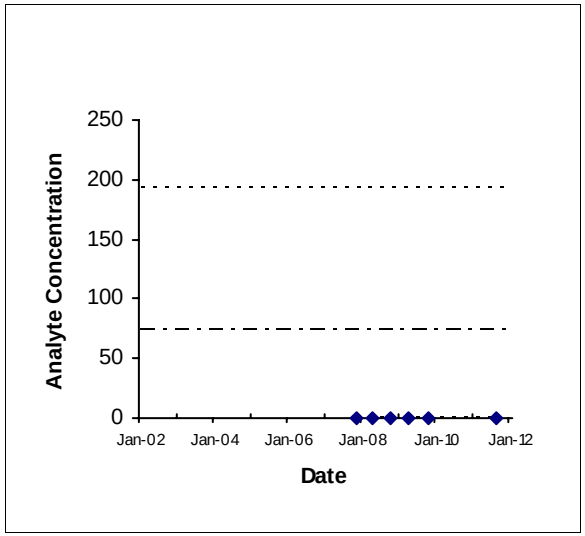
Analyte: Benzene Maximum 12.3



Analyte: Chlorobenzene Maximum 5.2



Analyte: Ethylbenzene Maximum 1.2



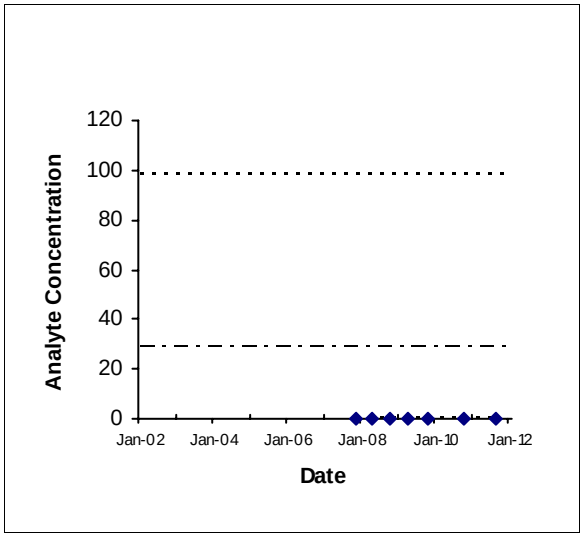
Analyte: Naphthalene Maximum 0

* Nondetects shown as 0

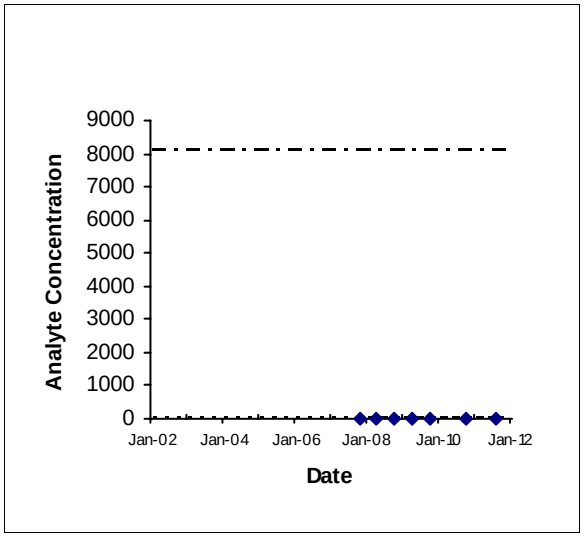
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

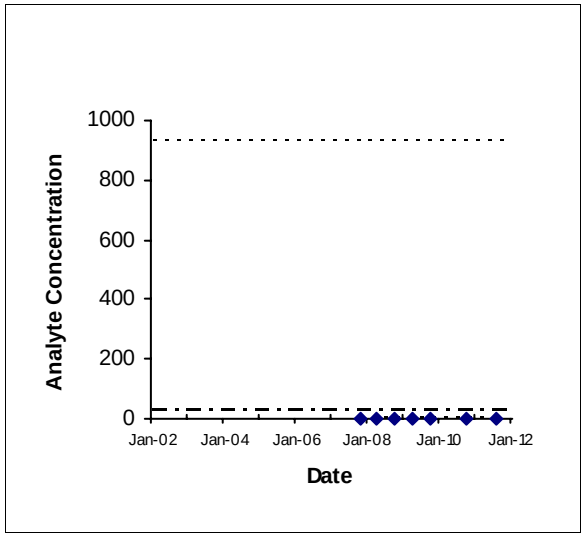
Figure 1
MW038
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 0



Analyte: Toluene Maximum 2.52



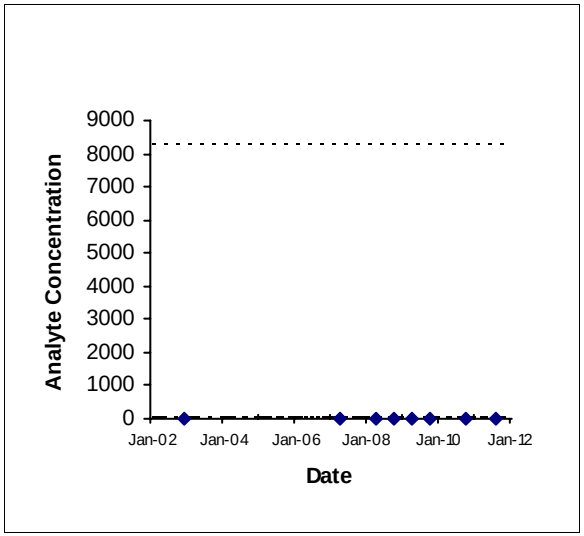
Analyte: Vinyl chloride Maximum 0

* Nondetects shown as 0

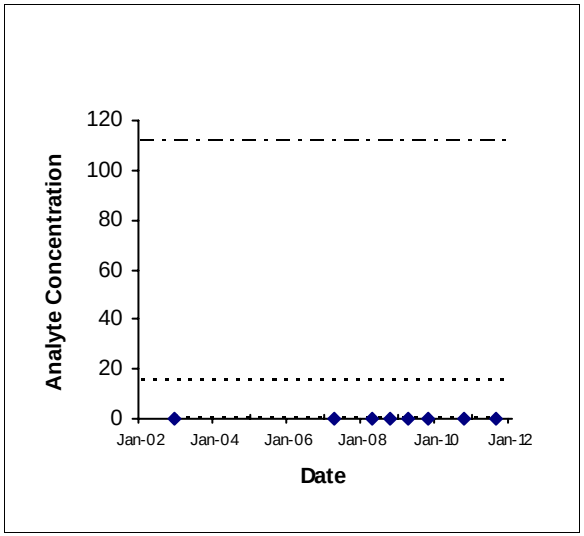
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

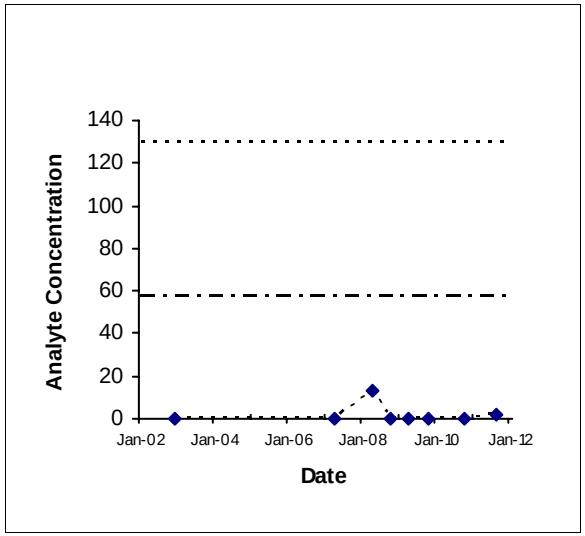
Figure 1
MW038
Chemical Time Series Plots
Zone: SCF



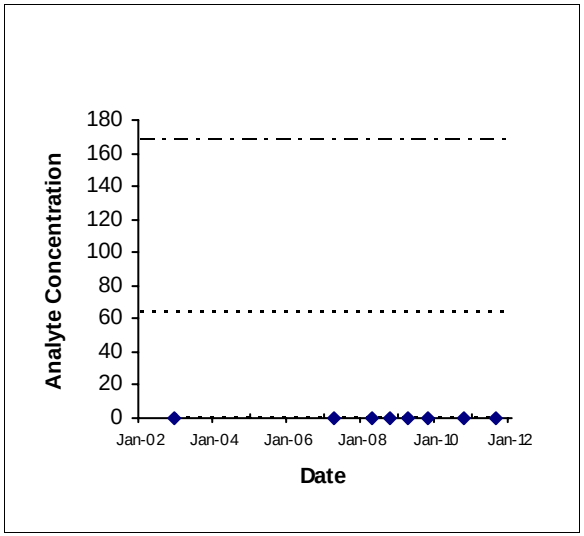
Analyte: 1,2-Dichloropropane Maximum 2.92



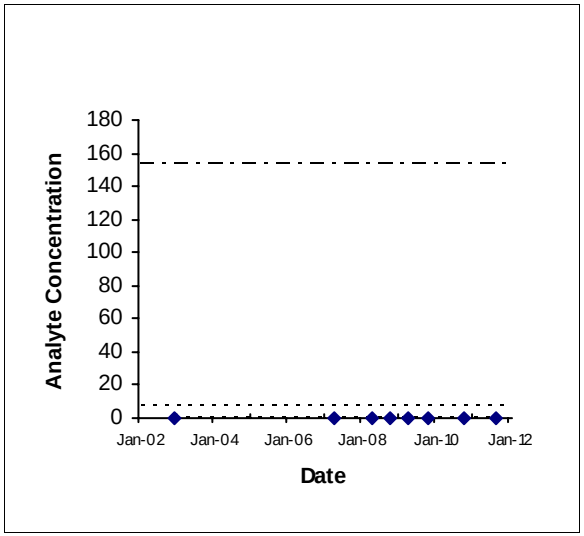
Analyte: 1,4-Dichlorobenzene Maximum 0



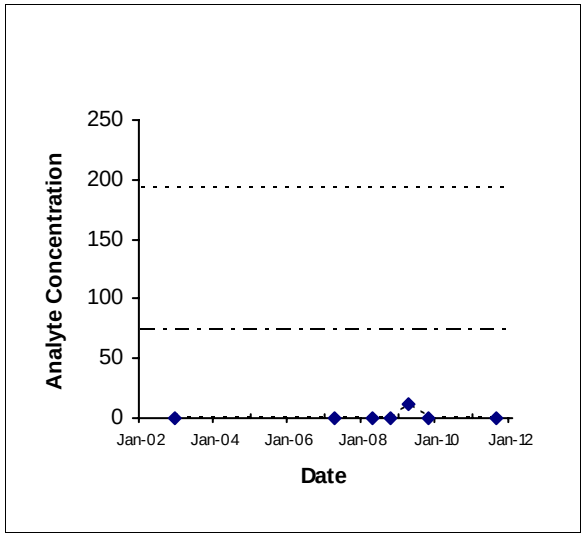
Analyte: Benzene Maximum 13.5



Analyte: Chlorobenzene Maximum 0



Analyte: Ethylbenzene Maximum 0



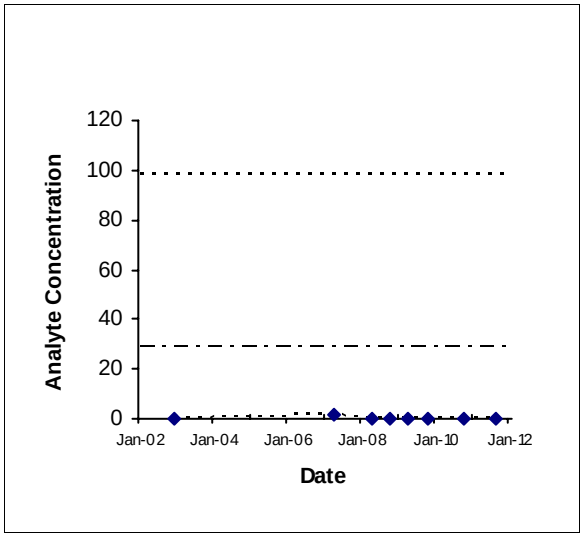
Analyte: Naphthalene Maximum 12.4

* Nondetects shown as 0

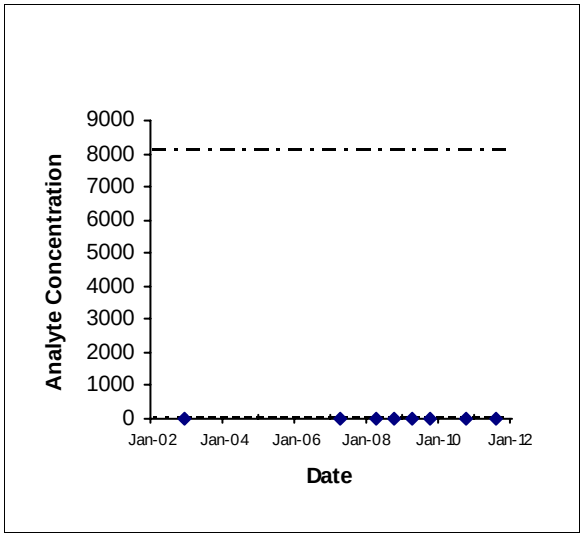
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

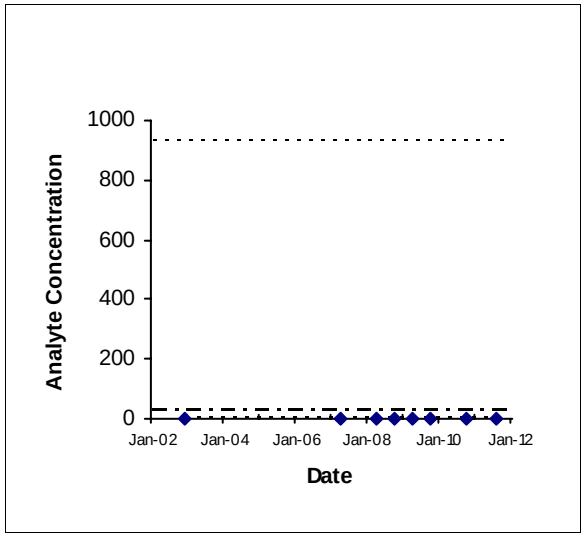
Figure 1
PZ030
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 1.34



Analyte: Toluene Maximum 2.69



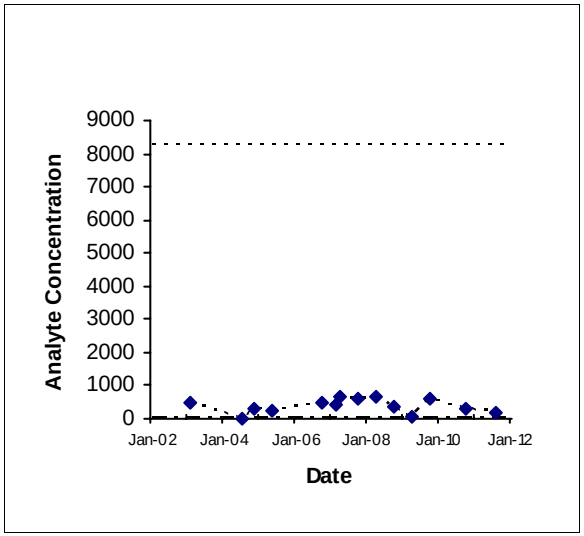
Analyte: Vinyl chloride Maximum 0

* Nondetects shown as 0

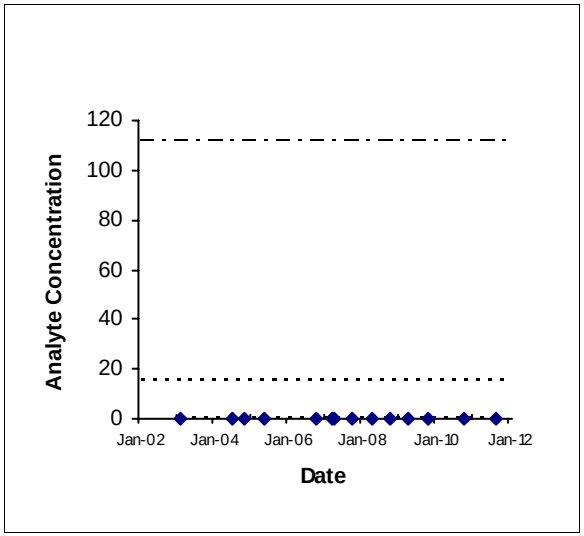
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

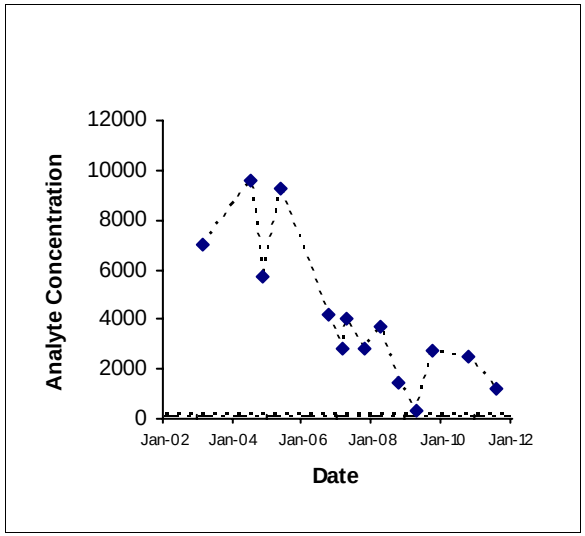
Figure 1
PZ030
Chemical Time Series Plots
Zone: SCF



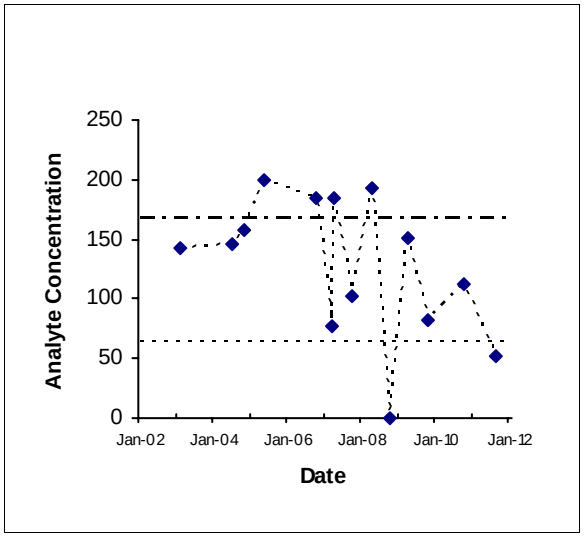
Analyte: 1,2-Dichloropropane Maximum 676



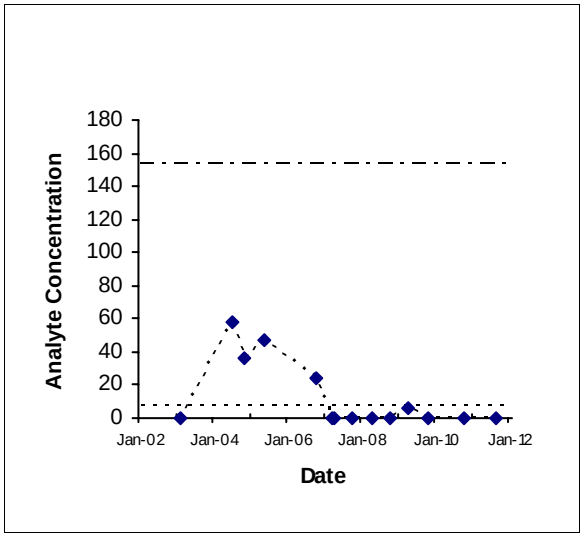
Analyte: 1,4-Dichlorobenzene Maximum 0



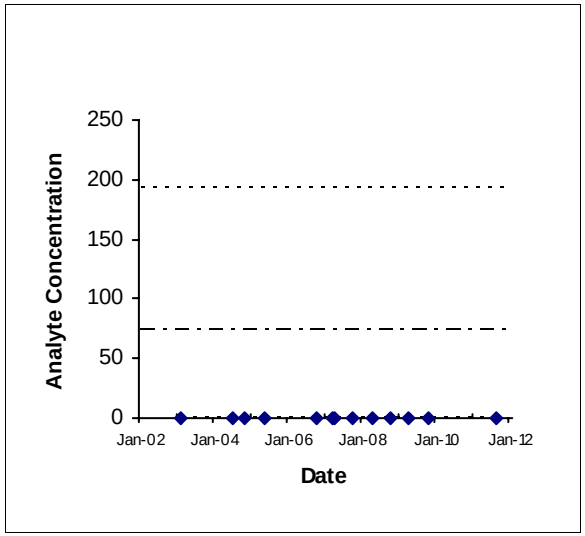
Analyte: Benzene Maximum 9550



Analyte: Chlorobenzene Maximum 200



Analyte: Ethylbenzene Maximum 57.7



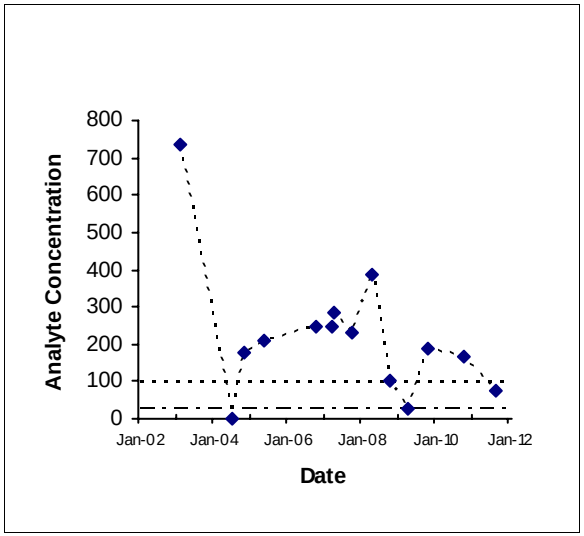
Analyte: Naphthalene Maximum 0

* Nondetects shown as 0

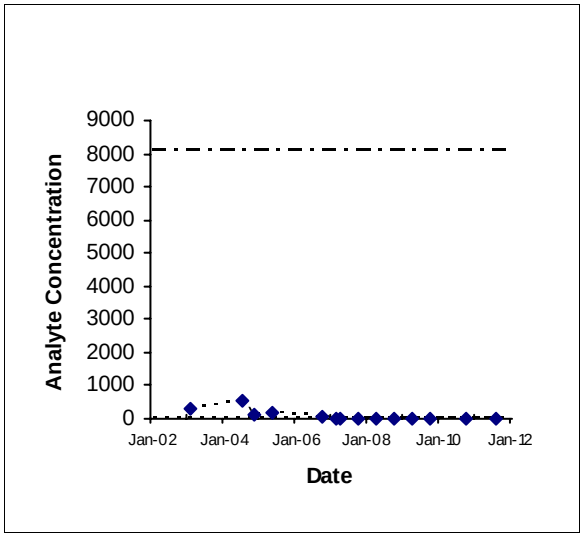
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

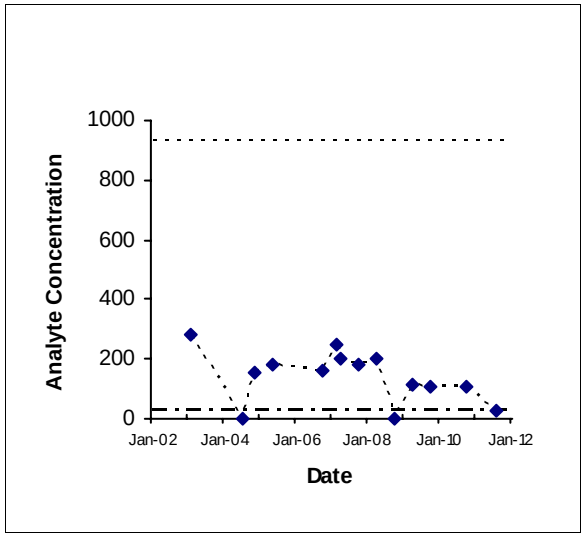
Figure 1
PZ031
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 734



Analyte: Toluene Maximum 554



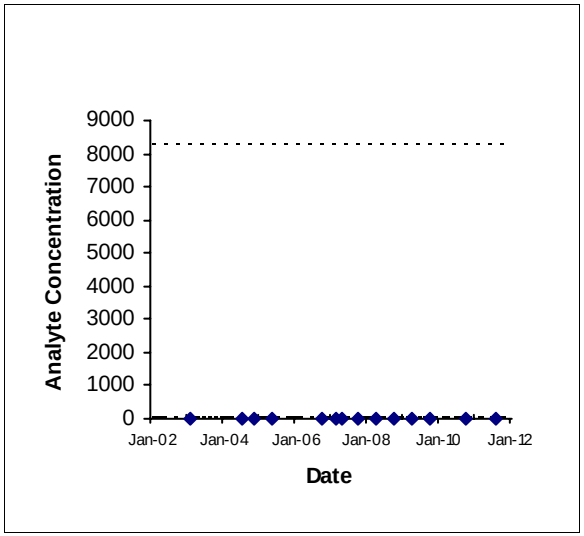
Analyte: Vinyl chloride Maximum 280

* Nondetects shown as 0

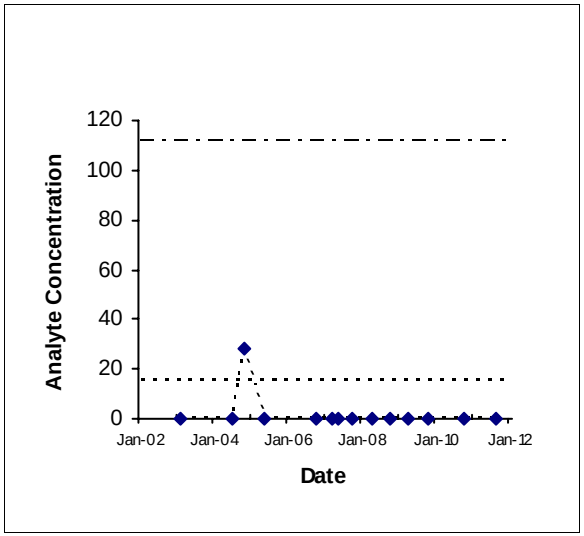
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

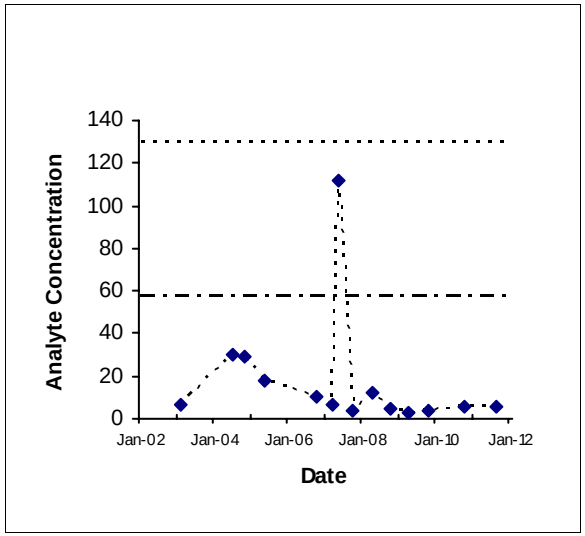
Figure 1
PZ031
Chemical Time Series Plots
Zone: SCF



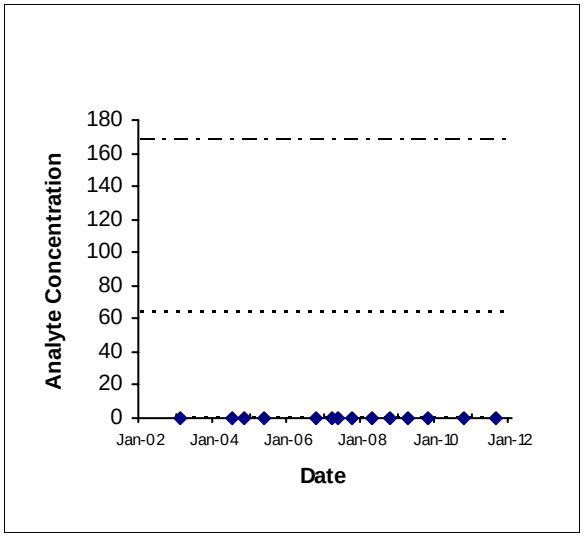
Analyte: 1,2-Dichloropropane Maximum 3.09



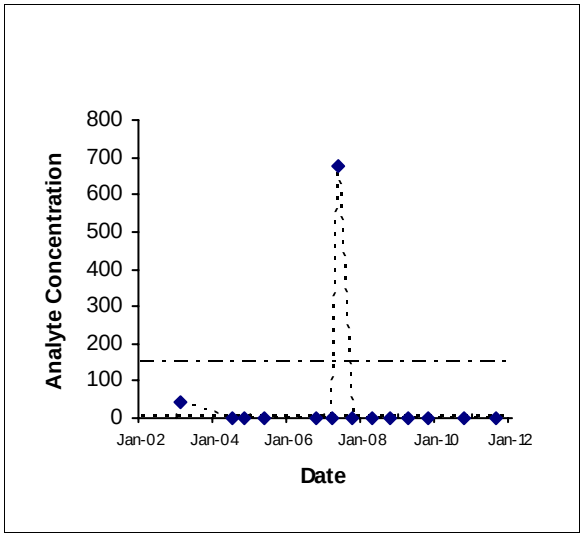
Analyte: 1,4-Dichlorobenzene Maximum 27.9



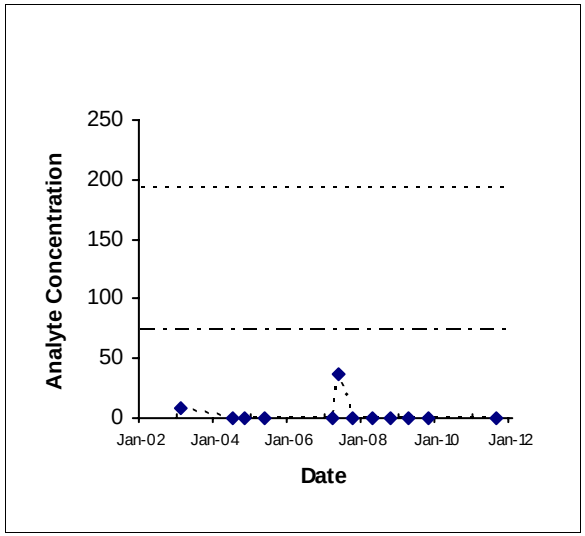
Analyte: Benzene Maximum 112



Analyte: Chlorobenzene Maximum 0



Analyte: Ethylbenzene Maximum 679



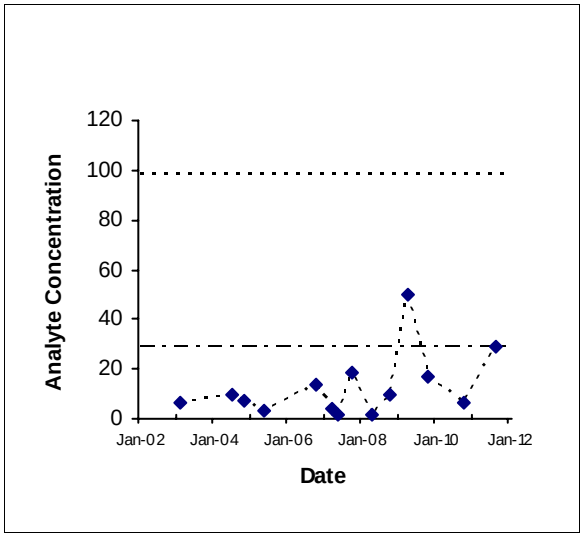
Analyte: Naphthalene Maximum 37

* Nondetects shown as 0

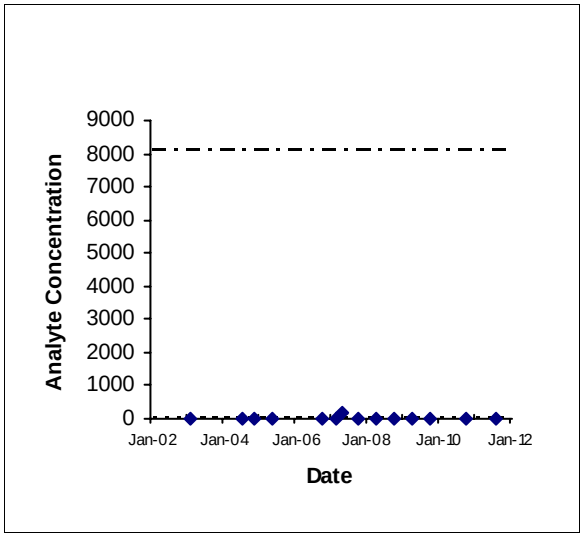
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

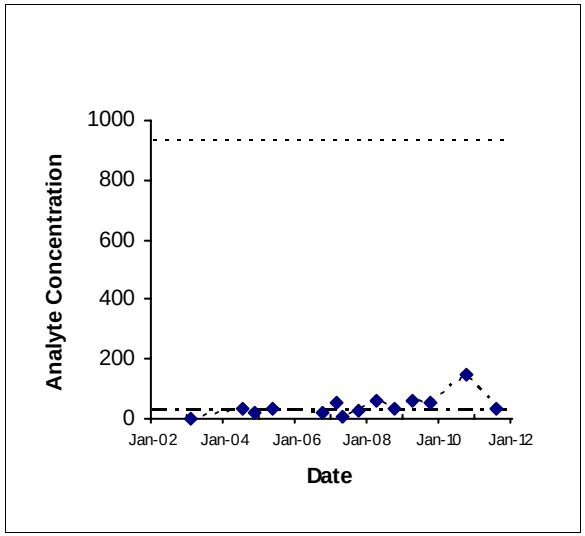
Figure 1
PZ032
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 49.7



Analyte: Toluene Maximum 152



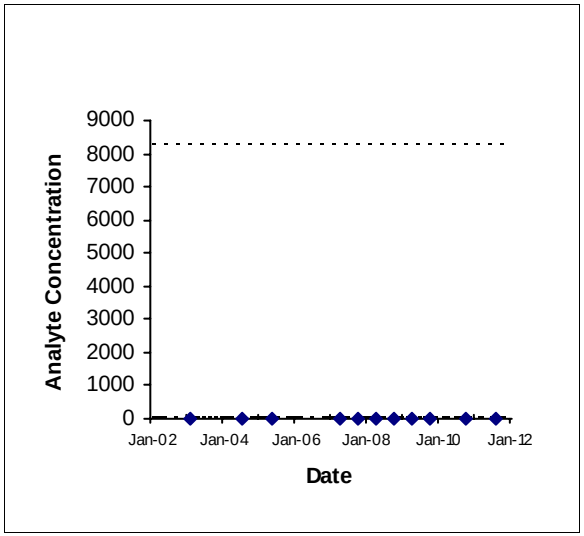
Analyte: Vinyl chloride Maximum 146

* Nondetects shown as 0

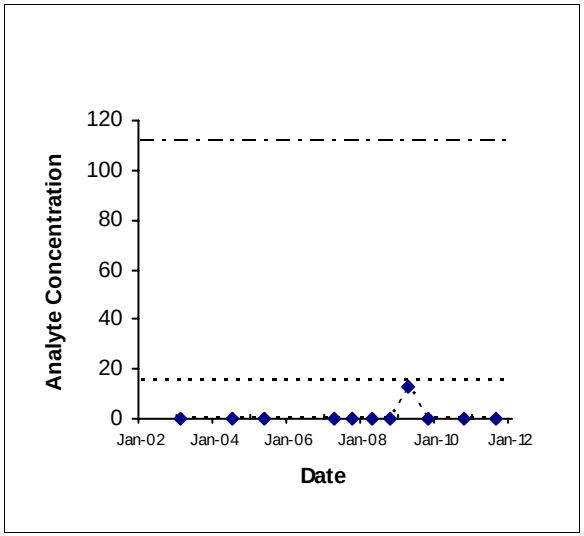
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

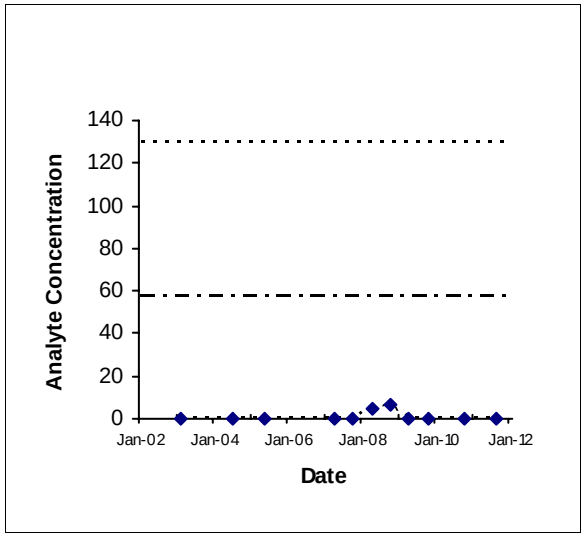
Figure 1
PZ032
Chemical Time Series Plots
Zone: SCF



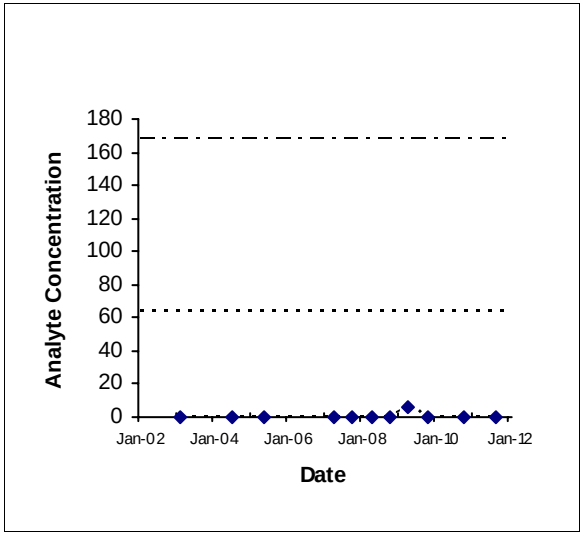
Analyte: 1,2-Dichloropropane Maximum 12.4



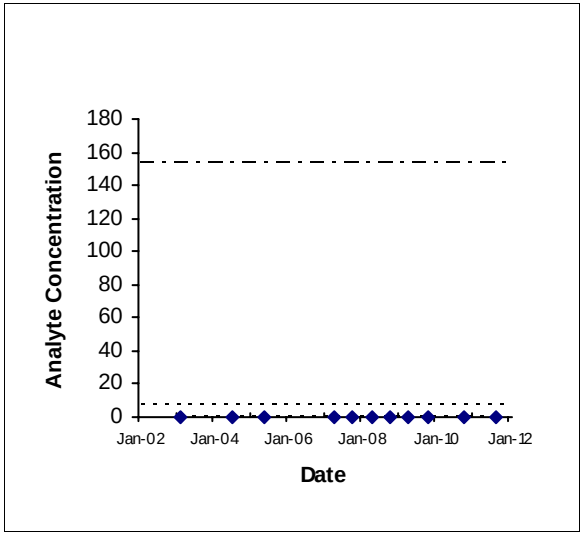
Analyte: 1,4-Dichlorobenzene Maximum 13



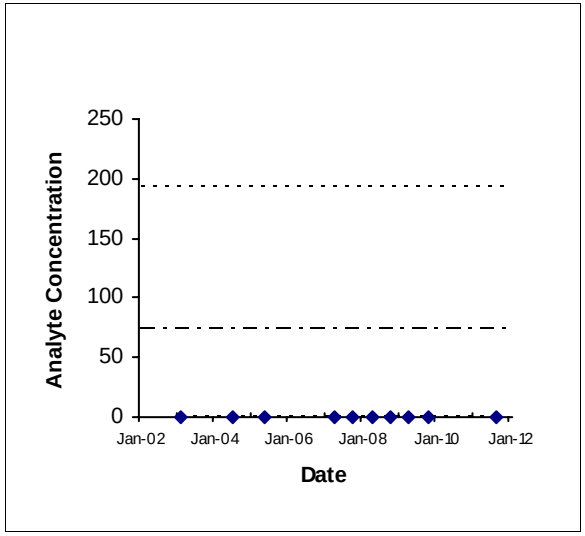
Analyte: Benzene Maximum 6.84



Analyte: Chlorobenzene Maximum 6.21



Analyte: Ethylbenzene Maximum 0



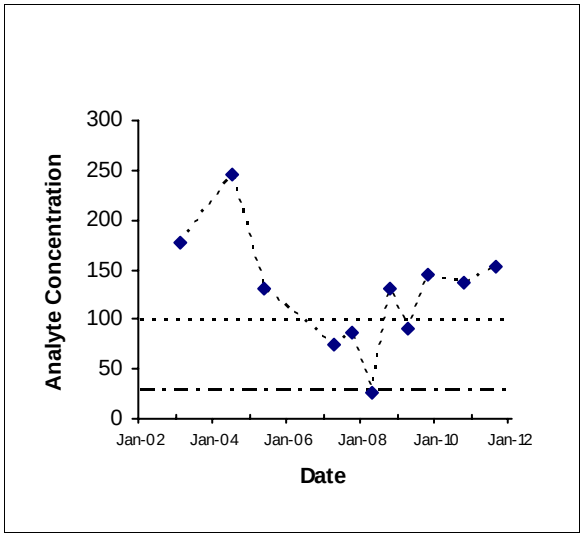
Analyte: Naphthalene Maximum 0

* Nondetects shown as 0

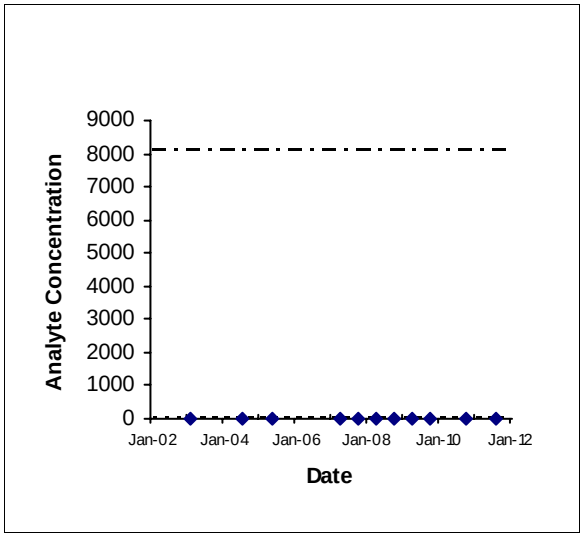
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

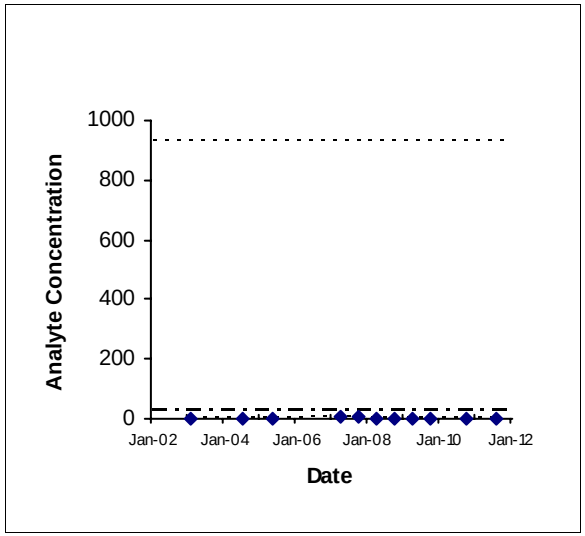
Figure 1
PZ033
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 246



Analyte: Toluene Maximum 1.33



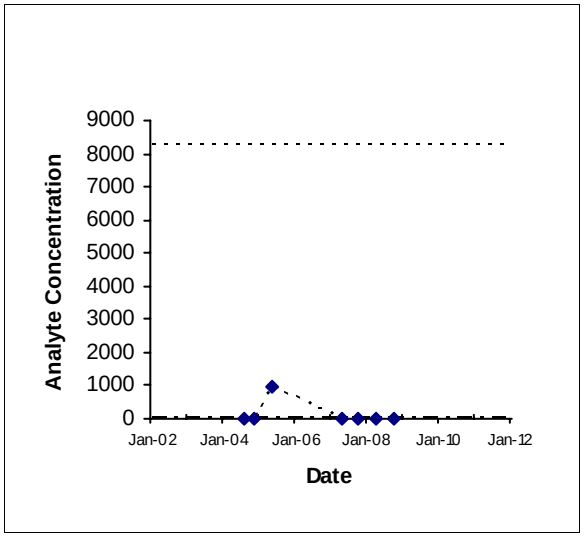
Analyte: Vinyl chloride Maximum 8.8

* Nondetects shown as 0

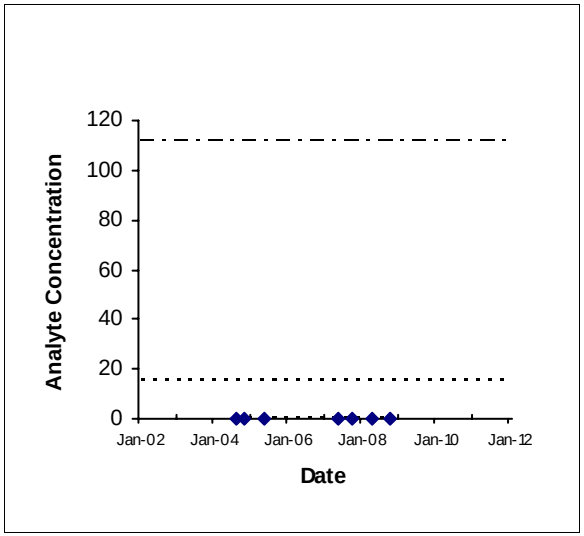
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

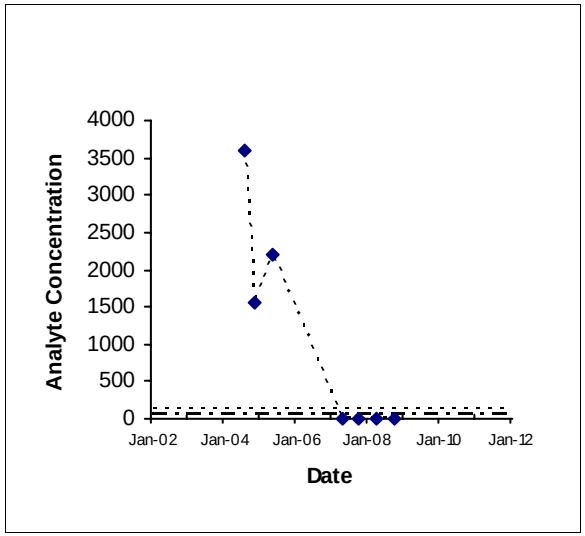
Figure 1
PZ033
Chemical Time Series Plots
Zone: SCF



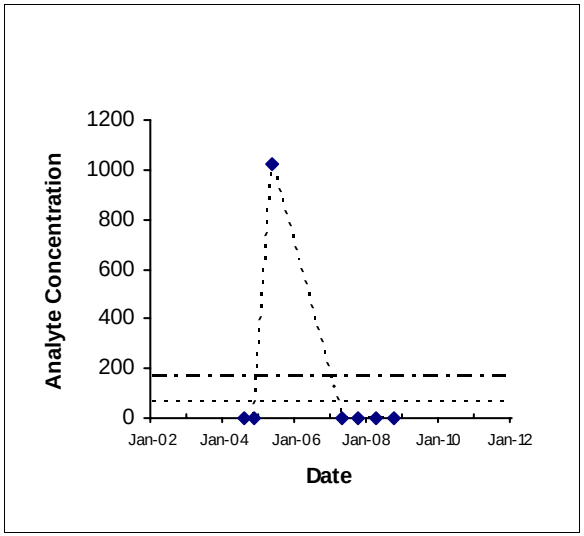
Analyte: 1,2-Dichloropropane Maximum 966



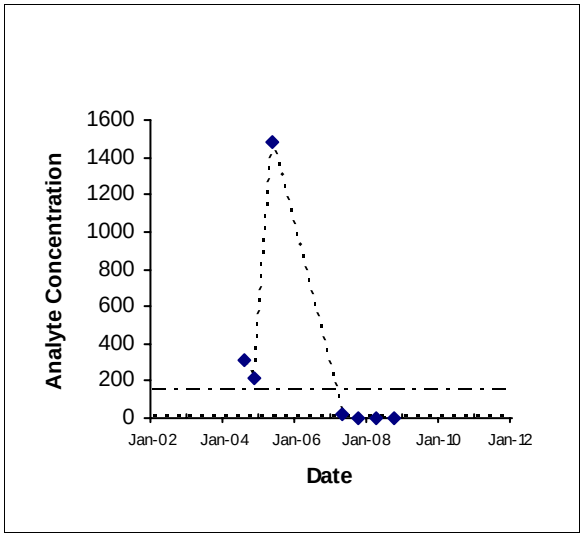
Analyte: 1,4-Dichlorobenzene Maximum 0



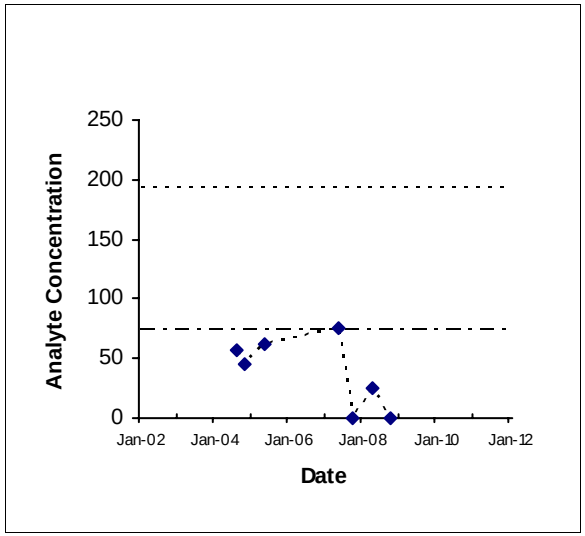
Analyte: Benzene Maximum 3590



Analyte: Chlorobenzene Maximum 1020



Analyte: Ethylbenzene Maximum 1480



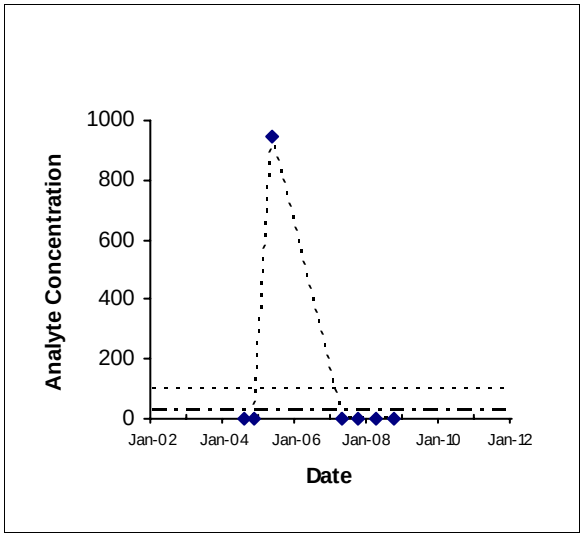
Analyte: Naphthalene Maximum 75.9

* Nondetects shown as 0

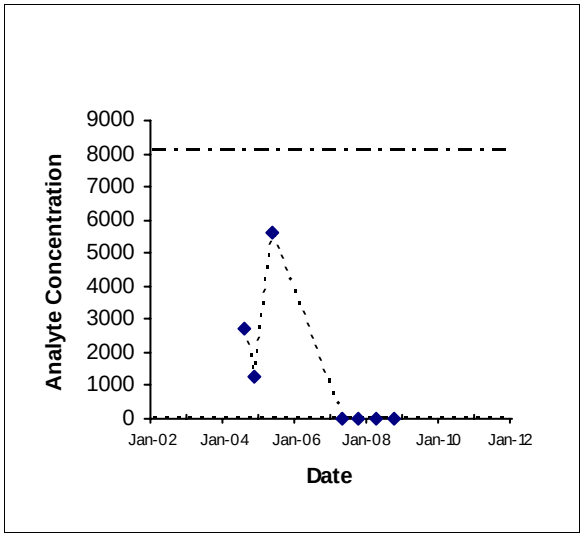
Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

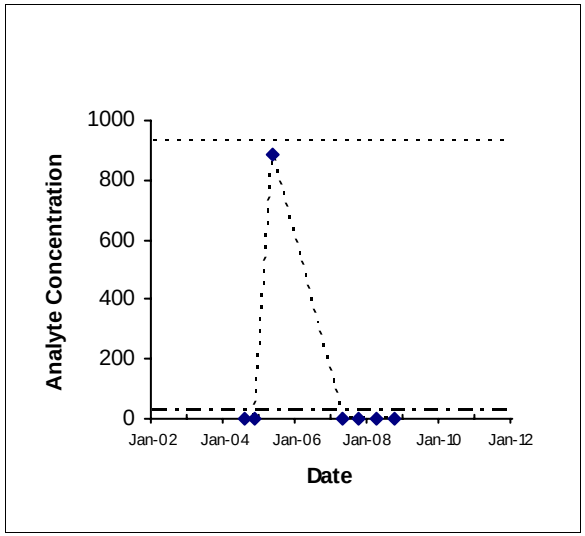
Figure 1
PZ044
Chemical Time Series Plots
Zone: SCF



Analyte: TCE Maximum 943



Analyte: Toluene Maximum 5620



Analyte: Vinyl chloride Maximum 886

* Nondetects shown as 0

Minimum Adjusted Groundwater RSL, Protective of Industrial Air shown as — - — - —

Pore Water Clean-Up Levels shown as - - - - - - - -

Figure 1
PZ044
Chemical Time Series Plots
Zone: SCF

Appendix D
Offsite Groundwater Screening

Table D-1
Offsite Soil Residential Screening Level Comparison
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location			2030		3023		4010		4011		4012	
Sample ID	Minimum Adjusted		2030-S002-081607	2030-S001-081607	3023-SO01-050108	3023-SO01-050108FD	4010-SO01-102909	4010-SO02-102909	4011-SO01-102809	4011-SO02-102808	4012-SO01-102909	4012-SO02-102909
Sample Depth (ft)	Residential Soil RSL		33 - 34	5 - 6	32 - 33	32 - 33	15.5 - 16	25 - 25.5	14 - 14.5	23.5 - 24	14.5 - 15	27.5 - 28
Sample Date			8/16/2007	8/16/2007	5/1/2008	5/1/2008	10/29/2009	10/29/2009	10/28/2009	10/28/2009	10/29/2009	10/29/2009
Analyte												
Metals (MG/KG)												
Arsenic	0.4	c	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Barium	1,500	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Cadmium	7	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Chromium*	12,000	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead	400	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Mercury	1	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Nickel	150	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Selenium	39	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Silver	39	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Organic Carbon by SW846-9060	--		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
PCBs (ug/kg)												
Aroclor-1260	220	c	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/kg)												
2,4-Dimethylphenol	120,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
2-Methylnaphthalene	23,000	n	**312 L**	197 UL	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
2-Methylphenol	310,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
3-Methylphenol & 4-Methylphenol*	3,700	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Acenaphthene	340,000	n	184 U	197 U	183 U	177 U	**459**	210 U	226 U	199 U	202 U	193 U
Acenaphthene	340,000	n	184 U	197 U	183 U	177 U	**459**	210 U	226 U	199 U	202 U	193 U
Acenaphthylene*	340,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Anthracene	1.70E+06	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Benzo (a) anthracene	150	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Benzo (a) pyrene	15	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Benzo (b) fluoranthene	150	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Benzo (g,h,i) perylene*	170,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Benzo(k)fluoranthene	1,500	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Bis (2-chloroethoxy) methane	18,000	n	184 UL	197 UL	183 UL	177 UL	437 U	210 UJ	226 U	199 U	202 U	193 U
Bis (2-chloroethyl) ether	210	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Bis (2-chloroisopropyl) ether*	4,600	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Bis (2-ethylhexyl) phthalate	35,000	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Chrysene	15,000	c	184 U	197 U	**196**	177 U	**443**	210 U	226 U	199 U	202 U	193 U
Di-n-butylphthalate	610,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Di-n-octylphthalate	73,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Dibenzo (a,h) anthracene	15	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Dibenzofuran	7,800	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Dimethyl phthalate*	4.90E+06	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Fluoranthene	230,000	n	184 U	197 U	**352**	177 U	**1520**	210 U	226 U	199 U	202 U	193 U
Fluorene	230,000	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Indeno (1,2,3-c,d) pyrene	150	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Isophorone	510,000	c	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Naphthalene	3,600	c	**515**	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Phenanthrene*	1.70E+06	n	184 U	197 U	**300**	177 U	**1500**	210 U	226 U	199 U	202 U	193 U
Phenol	1.80E+06	n	184 U	197 U	183 U	177 U	437 U	210 U	226 U	199 U	202 U	193 U
Pyrene	170,000	n	184 U	197 U	**335**	177 U	**1080**	210 U	226 U	199 U	202 U	193 U

Table D-1
Offsite Soil Residential Screening Level Comparison
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location			2030		3023		4010		4011		4012	
Sample ID	Minimum Adjusted		2030-S002-081607	2030-S001-081607	3023-SO01-050108	3023-SO01-050108FD	4010-SO01-102909	4010-SO02-102909	4011-SO01-102809	4011-SO02-102809	4012-SO01-102909	4012-SO02-102909
Sample Depth (ft)	Residential Soil RSL		33 - 34	5 - 6	32 - 33	32 - 33	15.5 - 16	25 - 25.5	14 - 14.5	23.5 - 24	14.5 - 15	27.5 - 28
Sample Date			8/16/2007	8/16/2007	5/1/2008	5/1/2008	10/29/2009	10/29/2009	10/28/2009	10/28/2009	10/29/2009	10/29/2009
Analyte												
VOCs (ug/kg)												
1,1,2-Trichloroethane	160	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
1,2-Dichlorobenzene	190,000	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
1,2-Dichloroethane	430	c	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
1,2-Dichloropropane	940	c	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
1,4-Dichlorobenzene	2,400	c	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
1,4-Dioxane (p-Dioxane)	4,900	c	**R**	**R**	**R**	**R**	132 U	127 U	137 U	121 U	123 U	117 U
2-Butanone	2.80E+06	n	25.1 U	26.2 U	2570 U	2450 U	26.5 U	24.7 U	26 U	27.4 U	23.9 U	31.3 U
2-Hexanone	21,000	n	10 U	10.5 U	1030 U	981 U	10.6 U	9.88 U	10.4 U	10.9 U	9.57 U	12.5 U
4-Methyl-2-pentanone	530,000	n	10 U	10.5 U	1030 U	981 U	10.6 U	9.88 U	10.4 U	10.9 U	9.57 U	12.5 U
Acetone	6.10E+06	n	100 U	105 U	10300 U	9810 U	106 U	98.8 U	104 U	109 U	95.7 U	125 U
Benzene	1,100	c	**27.5**	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Carbon disulfide	82,000	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Carbon tetrachloride	610	c	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Chlorobenzene	29,000	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Chloroform	290	c	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
cis-1,2-Dichloroethylene	16,000	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Cyclohexanone	3.10E+07	n	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	5,400	c	**432 J**	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Methylene chloride	36,000	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Tetrachloroethene	8,600	n	5.02 U	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Toluene	500,000	n	**136**	5.24 U	514 U	491 U	5.3 U	4.94 U	5.2 U	5.47 U	4.79 U	6.25 U
Trichloroethylene	440	n	5.02 U	5.24 U	**1150**	**890**	**12.5**	**111**	**17.3**	**28.3**	4.79 U	**9.71**
Vinyl chloride	60	c	10 U	10.5 U	1030 U	981 U	10.6 U	9.88 U	10.4 U	10.9 U	9.57 U	12.5 U
VOCs, Total	--		**1408.5**	0 U	**1150**	**890**	**12.5**	**111**	**17.3**	**28.3**	0 U	**9.71**
Xylenes, Total	63,000	n	**813 J**	10.5 U	1030 U	981 U	10.6 U	9.88 U	10.4 U	10.9 U	9.57 U	12.5 U

Notes:
RSL = USEPA Regional Screening Level (RSL) Table, November 2012. Residential values based on a target risk = 1E-06 and a target hazard index = 0.1. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
*Surrogate analyte used to assign screening levels. Surrogates are provided in Table D-3.
n = RSL is based on non-cancer toxicity data
c = RSL is based on carcinogenic toxicity data
-- = not available
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table D-1
Offsite Soil Residential Screening Level Comparison
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location			4013		4014			4015		EU6-SS02
Sample ID	Minimum Adjusted		4013-SO01-102809	4013-SO02-102809	4014-SO01-102809	4014-SO01-102809-D	4014-SO02-102809	4015-SO01-102909	4015-SO02-102909	EU6-SS02-062609
Sample Depth (ft)	Residential Soil RSL		12.5 - 13	27.5 - 28	11 - 11.5	11 - 11.5	26.5 - 27	13.5 - 14	27 - 27.5	0 - 2
Sample Date			10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009	10/29/2009	6/26/2009
Analyte										
Metals (MG/KG)										
Arsenic	0.4	c	- -	- -	- -	- -	- -	- -	- -	**30.7**
Barium	1,500	n	- -	- -	- -	- -	- -	- -	- -	**2390**
Cadmium	7	n	- -	- -	- -	- -	- -	- -	- -	**6.27**
Chromium*	12,000	n	- -	- -	- -	- -	- -	- -	- -	**11.9 K**
Lead	400	n	- -	- -	- -	- -	- -	- -	- -	**166**
Mercury	1	n	- -	- -	- -	- -	- -	- -	- -	0.283 U
Nickel	150	n	- -	- -	- -	- -	- -	- -	- -	**13.3 K**
Selenium	39	n	- -	- -	- -	- -	- -	- -	- -	**2.62**
Silver	39	n	- -	- -	- -	- -	- -	- -	- -	0.832 U
Total Organic Carbon by SW846-9060	--		- -	- -	- -	- -	- -	- -	- -	- -
PCBs (ug/kg)										
Aroclor-1260	220	c	- -	- -	- -	- -	- -	- -	- -	- -
SVOCs (ug/kg)										
2,4-Dimethylphenol	120,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
2-Methylnaphthalene	23,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1890**
2-Methylphenol	310,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
3-Methylphenol & 4-Methylphenol*	3,700	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Acenaphthene	340,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**51.5**
Acenaphthene	340,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**51.5**
Acenaphthylene*	340,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**538**
Anthracene	1.70E+06	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**340**
Benzo (a) anthracene	150	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1510**
Benzo (a) pyrene	15	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1740**
Benzo (b) fluoranthene	150	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**2060**
Benzo (g,h,i) perylene*	170,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1290**
Benzo(k)fluoranthene	1,500	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1900**
Bis (2-chloroethoxy) methane	18,000	n	234 U	203 U	412 U	464 U	202 U	191 UJ	199 U	1050 UL
Bis (2-chloroethyl) ether	210	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Bis (2-chloroisopropyl) ether*	4,600	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Bis (2-ethylhexyl) phthalate	35,000	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Chrysene	15,000	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**2140**
Di-n-butylphthalate	610,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Di-n-octylphthalate	73,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Dibenzo (a,h) anthracene	15	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**448**
Dibenzofuran	7,800	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Dimethyl phthalate*	4.90E+06	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Fluoranthene	230,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**2980**
Fluorene	230,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**117**
Indeno (1,2,3-c,d) pyrene	150	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1220**
Isophorone	510,000	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 UL
Naphthalene	3,600	c	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**1130**
Phenanthrene*	1.70E+06	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**2170**
Phenol	1.80E+06	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	1050 U
Pyrene	170,000	n	234 U	203 U	412 U	464 U	202 U	191 U	199 U	**2050**

Table D-1
Offsite Soil Residential Screening Level Comparison
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location			4013		4014			4015		EU6-SS02
Sample ID	**Minimum Adjusted**		4013-SO01-102809	4013-SO02-102809	4014-SO01-102809	4014-SO01-102809-D	4014-SO02-102809	4015-SO01-102909	4015-SO02-102909	EU6-SS02-062609
Sample Depth (ft)	**Residential Soil RSL**		12.5 - 13	27.5 - 28	11 - 11.5	11 - 11.5	26.5 - 27	13.5 - 14	27 - 27.5	0 - 2
Sample Date			10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009	10/29/2009	6/26/2009
Analyte										
VOCs (ug/kg)										
1,1,2-Trichloroethane	160	n	5.25 U	**8.33**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
1,2-Dichlorobenzene	190,000	n	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
1,2-Dichloroethane	430	c	5.25 U	**103**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
1,2-Dichloropropane	940	c	5.25 U	**22.5**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
1,4-Dichlorobenzene	2,400	c	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
1,4-Dioxane (p-Dioxane)	4,900	c	142 U	123 U	125 U	141 U	122 U	116 U	121 U	634 U
2-Butanone	2.80E+06	n	26.3 U	25.2 U	26.9 U	28.1 U	30.7 U	27.3 U	22.4 U	36.6 U
2-Hexanone	21,000	n	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	14.6 UJ
4-Methyl-2-pentanone	530,000	n	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	14.6 U
Acetone	6.10E+06	n	105 U	101 U	108 U	112 U	123 U	109 U	89.7 U	146 U
Benzene	1,100	c	5.25 U	**63.5**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
Carbon disulfide	82,000	n	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
Carbon tetrachloride	610	c	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
Chlorobenzene	29,000	n	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
Chloroform	290	c	5.25 U	**8.58**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
cis-1,2-Dichloroethylene	16,000	n	5.25 U	**24.2**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
Cyclohexanone	3.10E+07	n	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	5,400	c	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
Methylene chloride	36,000	n	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 U
Tetrachloroethene	8,600	n	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
Toluene	500,000	n	5.25 U	5.05 U	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	7.32 UJ
Trichloroethylene	440	n	5.25 U	**30.3**	5.38 U	5.62 U	6.13 U	5.47 U	4.48 U	**11.8 L**
Vinyl chloride	60	c	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	14.6 U
VOCs, Total	--		0 U	**260.41**	0 U	0 U	0 U	0 U	0 U	**11.8**
Xylenes, Total	63,000	n	10.5 U	10.1 U	10.8 U	11.2 U	12.3 U	10.9 U	8.97 U	14.6 UJ

Notes:
RSL = USEPA Regional Screening Level (RSL) Table, November 2012. Res
*Surrogate analyte used to assign screening levels. Surrogates are provided
n = RSL is based on non-cancer toxicity data
c = RSL is based on carcinogenic toxicity data
-- = not available
NA = Not analyzed
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
K = The analyte was positively identified, but the associated
L = The analyte was positively identified, but the associated numerical
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
mg/kg = Milligrams per Kilogram
ug/kg = Micrograms per Kilogram
Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Table D-2
Offsite Groundwater Screening Level Comparison
Middle Mainland Remediation Area Remedial Approach Report
South Charleston, West Virginia

Location		**Screening Levels**		4010	4011	4012	4013	4014		4015	PZ043	PZ044
Sample ID				4010-GW-102909	4011-GW-102809	4012-GW-102909	4013-GW-102809	4014-GW-102809	4014-GW-102809-D	4015-GW-102909	PZ043-GW-050207	PZ044-GW-101308
Sample Depth (ft)		Minimum Adjusted	Residential	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	25 - 35	N/A
Sample Date	MCL[a]	Tap water RSL[b]	VI SL[c]	10/29/2009	10/28/2009	10/29/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009	5/2/2007	10/13/2008
Analyte												
SVOCs (ug/l)												
2,4,5-Trichlorophenol		8.9E+01		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2,4,6-Trichlorophenol		9.0E-01		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2,4-Dichlorophenol		3.5E+00		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2,4-Dimethylphenol		2.7E+01		6.02 U	11.1 U	**R**	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2,4-Dinitrophenol		3.0E+00		30.1 U	55.6 U	27.8 U	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 UJ
2,4-Dinitrotoluene		2.0E-01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2,6-Dinitrotoluene		1.5E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2-Chloronaphthalene		5.5E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2-Chlorophenol		7.1E+00		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2-Methylnaphthalene		2.7E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2-Methylphenol		7.2E+01		6.02 U	11.1 U	**R**	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
2-Nitroaniline		1.5E+01		30.1 U	55.6 U	27.8 U	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 U
2-Nitrophenol*		3.0E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
3,3'-Dichlorobenzidine		1.1E-01		6.02 U	11.1 U	**R**	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 UJ
3-Methylphenol & 4-Methylphenol*		8.1E-01		12 U	22.2 U	**R**	20.4 U	21.5 U	21.5 U	10.9 U	6.25 U	10.2 U
3-Nitroaniline*		1.5E+01		30.1 U	55.6 U	**R**	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 U
4,6-Dinitro-2-methylphenol		1.2E-01		30.1 U	55.6 U	27.8 U	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 U
4-Bromophenyl phenyl ether*		3.1E-01	1.2E+02	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
4-Chloro-3-methylphenol		1.1E+02		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
4-Chloroaniline		3.2E-01		24.1 U	44.4 U	**R**	40.8 U	43 U	43 U	21.7 U	6.25 UL	20.4 U
4-Chlorophenyl phenyl ether*		3.1E-01	1.2E+02	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
4-Nitroaniline		3.3E+00		30.1 U	55.6 U	27.8 UL	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 U
4-Nitrophenol*		1.2E-01	9.6E+01	30.1 U	55.6 U	27.8 U	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 U
Acenaphthene		4.0E+01		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Acenaphthylene*		4.0E+01		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Anthracene		1.3E+02		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Benzo (a) anthracene		2.9E-02		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Benzo (a) pyrene	2.0E-01	2.9E-03		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Benzo (b) fluoranthene		2.9E-02		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Benzo (g,h,i) perylene*		8.7E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Benzo(k)fluoranthene		2.9E-01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Bis (2-chloroethoxy) methane		4.6E+00		6.02 UJ	11.1 UJ	5.56 UJ	10.2 UJ	10.8 UJ	10.8 UJ	5.43 UJ	6.25 U	5.1 U
Bis (2-chloroethyl) ether		1.2E-02	1.7E+01	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Bis (2-chloroisopropyl) ether*		3.1E-01	1.2E+02	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Bis (2-ethylhexyl) phthalate	6.0E+00	4.8E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Butyl benzylphthalate		1.4E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Carbazole				24.1 U	44.4 U	22.2 UL	40.8 U	43 U	43 U	21.7 U	25 U	20.4 U
Chrysene		2.9E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Di-n-butylphthalate		6.7E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Di-n-octylphthalate		1.9E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Dibenzo (a,h) anthracene		2.9E-03		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Dibenzofuran		5.8E-01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Diethyl phthalate		1.1E+03		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Dimethyl phthalate*		1.1E+03		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Fluoranthene		6.3E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Fluorene		2.2E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Hexachlorobenzene	1.0E+00	4.2E-02		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Hexachlorobutadiene		2.6E-01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Hexachlorocyclopentadiene	5.0E+01	2.2E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Hexachloroethane		5.1E-01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Indeno (1,2,3-c,d) pyrene		2.9E-02		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Isophorone		6.7E+01		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
n-Nitrosodi-n-propylamine		9.3E-03		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
n-Nitrosodiphenylamine		1.0E+01		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Naphthalene		1.4E-01	6.1E+00	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Nitrobenzene		1.2E-01	9.6E+01	6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Pentachlorophenol	1.0E+00	3.5E-02		30.1 U	55.6 U	27.8 U	51 U	53.8 U	53.8 U	27.2 U	31.3 U	25.5 U
Phenanthrene*		1.3E+02		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Phenol		4.5E+02		6.02 U	11.1 U	5.56 UL	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U
Pyrene		8.7E+00		6.02 U	11.1 U	5.56 U	10.2 U	10.8 U	10.8 U	5.43 U	6.25 U	5.1 U

Table D-2
Offsite Groundwater Screening Level Comparison
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Location		Screening Levels		4010	4011	4012	4013	4014		4015	PZ043	PZ044
Sample ID				4010-GW-102909	4011-GW-102809	4012-GW-102909	4013-GW-102809	4014-GW-102809	4014-GW-102809-D	4015-GW-102909	PZ043-GW-050207	PZ044-GW-101308
Sample Depth (ft)		Minimum Adjusted	Residential	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	36 - 40	25 - 35	N/A
Sample Date	MCL[a]	Tap water RSL[b]	VI SL[c]	10/29/2009	10/28/2009	10/29/2009	10/28/2009	10/28/2009	10/28/2009	10/29/2009	5/2/2007	10/13/2008
Analyte												
VOCs (ug/l)												
1,1,1-Trichloroethane	2.0E+02	7.5E+02	9.6E+02	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		6.6E-02	4.0E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5.0E+00	4.1E-02	8.5E-01	1 U	1 U	1 U	***17.1***	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane		2.4E+00	8.5E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7.0E+00	2.6E+01	2.4E+01	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	7.0E+01	3.9E-01	5.6E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	6.0E+02	2.8E+01	3.9E+02	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5.0E+00	1.5E-01	2.6E+00	1 U	1 U	1 U	***1280***	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5.0E+00	3.8E-01	2.8E+00	1 U	1 U	1 U	***290***	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene*	7.5E+01	4.2E-01	3.3E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	7.5E+01	4.2E-01	3.3E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane (p-Dioxane)		6.7E-01		1.2 U	2.22 U	1.11 U	***2.33***	2.15 U	2.15 U	1.09 U	**R**	1.02 U
2-Butanone		4.9E+02	3.0E+05	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone		3.4E+00	1.2E+03	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		1.0E+02	7.7E+04	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone		1.2E+03	2.9E+06	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Acrylonitrile		4.5E-02	8.5E+00	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ
Benzene	5.0E+00	3.9E-01	1.8E+00	1 U	1 U	1 U	***195***	1 U	1 U	1 U	1 U	***2.8 J***
Bromodichloromethane		1.2E-01	1.0E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform		7.9E+00		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane		7.0E-01	2.1E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide		7.2E+01	1.5E+02	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5.0E+00	3.9E-01	4.7E-01	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1.0E+02	7.2E+00	5.7E+01	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		2.1E+03	2.8E+03	1 U	1 U	1 U	**1.59**	1 U	1 U	1 U	1 U	1 U
Chloroform		1.9E-01	9.0E-01	1 U	1 U	1 U	***200***	1 U	1 U	1 U	1 U	1 U
Chloromethane		1.9E+01	3.0E+01	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethylene	7.0E+01	2.8E+00		1 U	1 U	1 U	***431***	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene*		4.1E-01	5.7E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		1.5E-01	3.5E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	7.0E+02	1.3E+00	4.2E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5.0E+00	8.4E+00	5.9E+02	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	1.0E+02	1.1E+02	1.3E+03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butyl Methyl Ether		1.2E+01	5.0E+02	5 U	5 U	5 U	***33.2***	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5.0E+00	3.5E+00	7.9E+00	1 U	1 U	1 U	**1.22**	1 U	1 U	1 U	1 U	1 U
Toluene	1.0E+03	8.6E+01	2.6E+03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethylene	1.0E+02	8.6E+00	4.8E+01	1 U	1 U	1 U	**1.26**	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene*		4.1E-01	5.7E+00	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethylene	5.0E+00	2.6E-01	6.9E-01	***1.29***	1 U	1 U	***124***	1 U	1 U	1 U	1 U	1 U
Vinyl acetate		4.1E+01	1.3E+03	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 U	10 UL	10 U
Vinyl chloride	2.0E+00	1.5E-02	2.3E-01	1 U	1 U	1 U	***41.4***	1 U	1 U	1 U	1 U	1 U
VOCs, Total				**1.29**	0 U	0 U	**2618.1**	0 U	0 U	0 U	0 U	**2.8**
Xylenes, Total	1.0E+04	1.9E+01	6.9E+01	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes:
[a]MCL = Maximum Contaminant Level. USEPA Regional Screening Level (RSL) Table, November 2012. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
[b]Tap Water RSL = Tap Water screening criteria based on November 2012 USEPA Tap Water RSLs, target risk = 1E-06, and target hazard index = 0.1.
[c]VI SL = Vapor Intrusion Screening Level. Based on USEPA Calculator Version 2.0, November 2012 RSLs, a residential receptor, target risk = 1E-06, target hazard index = 0.1, and a regional-specific groundwater temperature of 19 degrees Celsius.
*Surrogate analyte used to assign screening levels. Surrogates are provided in Table D-3.
NA = Not available
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
L = The analyte was positively identified, but the associated numerical value may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
ug/l = Micrograms per Liter
Bold indicates the analyte was detected
Shading indicates the result is greater than the MCL[a]
Italices indicate that the result is greater than the Tap Water RSL[b]
Underlining indicates the result is greater than the VI SL[c]

Table D-3
Surrogates Used For Screening Levels
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Database Constituent CAS	Database Constituent Name	Surrogate CAS	Surrogate Constituent
541-73-1	1,3-Dichlorobenzene	106-46-7	Dichlorobenzene, 1,4-
110-43-0	2-Heptanone	108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)
101-55-3	4-Bromophenyl phenyl ether	108-60-1	bis(2-Chloro-1-methylethyl) ether
7005-72-3	4-Chlorophenyl phenyl ether	108-60-1	bis(2-Chloro-1-methylethyl) ether
110-75-8	2-Chloroethylvinyl ether	111-44-4	bis(2-Chloroethyl)ether
959-98-8	Endosulfan I	115-29-7	Endosulfan
33213-65-9	Endosulfan II	115-29-7	Endosulfan
1031-07-8	Endosulfan sulfate	115-29-7	Endosulfan
85-01-8	Phenanthrene	120-12-7	Anthracene
5103-71-9	alpha-Chlordane	12789-03-6	Chlordane
5103-74-2	gamma-Chlordane	12789-03-6	Chlordane
191-24-2	Benzo (g,h,i) perylene	129-00-0	Pyrene
88-75-5	2-Nitrophenol	51-28-5	Dinitrophenol, 2,4-
10061-01-5	cis-1,3-Dichloropropene	542-75-6	Dichloropropene, 1,3-
10061-02-6	trans-1,3-Dichloropropene	542-75-6	Dichloropropene, 1,3-
108-39-4_106	3- and 4-Methylphenol	576-26-1	Dimethylphenol, 2,6-
319-86-8	Delta-BHC	608-73-1	Hexachlorocyclohexane, Technical
7421-93-4	Endrin aldehyde	72-20-8	Endrin
53494-70-5	Endrin Ketone	72-20-8	Endrin
7439-89-6_FS	Ferrous Iron	7439-89-6	Iron
563-58-6	1,1-Dichloropropene	75-35-4	Dichloroethylene, 1,1-
594-20-7	2,2-Dichloropropane	78-87-5	Dichloropropane, 1,2-
208-96-8	Acenaphthylene	83-32-9	Acenaphthene
131-11-3	Dimethyl phthalate	84-66-2	Diethyl Phthalate
86-30-6/	N-Nitrosodiphenylamine and DIPHENYLAMINE	86-30-6	Nitrosodiphenylamine, N-
612-17-9	1,4-Dihydronaphthalene	91-20-3	Naphthalene
99-87-6	p-Isopropyltoluene	98-82-8	Cumene
135-98-8	sec-Butylbenzene	98-82-8	Cumene
104-51-8	n-Butylbenzene	98-82-8	Cumene
100-02-7	4-Nitrophenol	98-95-3	Nitrobenzene
99-09-2	Nitroaniline, 3-	88-74-4	2-Nitroaniline
74-88-4	Methyl iodide	74-83-9	Bromomethane
101-84-8	diphenyl ether	60-29-7	ethyl ether
87-65-0	2,6-dichlorophenol	120-83-2	2,4-dichlorophenol
109-06-8	2-picoline	110-86-1	pyridine
95-53-4	o-toluidine	100-61-8	monomethylamine
76-14-2	Freon 114	76-13-1	Freon 113
108-38-3/1	m,p-Xylene	1330-20-7	xylenes, mix
39638-32-9	bis(2-chloroisopropyl)ether	108-60-1	bis(2-Chloro-1-methylethyl) ether
7440-47-3	Chromium, Total	16065-83-1	Chromium III